IN-HOUSE DEALS: AGENCY AND INFORMATION ASYMMETRY PERSPECTIVES

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Abstract

Mergers and Acquisitions (M&A) advisors add value by overcoming the information asymmetries between acquirers and targets, but may also push bad deals through due to incentive misalignment stemming from contingent fees. In-house deals are those acquisitions with in-house advisors. We examine the wealth effect of M&A deals advised by in-house advisors versus outside advisors. About 15% of acquisitions are done via in-house advisors. In-house deals result in higher CARs to targets, insignificant wealth effects to acquirers, but lower cumulative abnormal combined returns. This finding is consistent with the view that the information asymmetry problem is more severe than the agency conflict in non-financial acquisitions. Thus, targets are more likely to extract wealth away from the acquirers, or the overall deal quality is lower. Also, consistent with the view that investment banks have an incentive to see deals completed, the completion rate is higher for deals with an outside advisor.

Keywords: In-house Deals, Mergers and Acquisitions (M&As) Advisors, Information Asymmetry, Incentive Misalignment

1. INTRODUCTION

Financial advisors are important participants in the merger and acquisition market. They are specialists in information gathering and processing; in addition, they provide negotiation advice and financing arrangement for their clients. Thus, they benefit the merging firms by reducing the information asymmetry between acquirers and targets. However, financial advisors also have an incentive to see deals come to completion since a significant portion of the advisory fee is contingent on the deal outcome (Du & Huang, 2015; Lowry, Rossi, & Zhu, 2019; McLaughlin, 1990, 1992; Rau, 2000; Servaes & Zenner, 1996). Since the two conflicting effects take place at the same time, previous studies have not successfully provided direct evidence of which of the two competing effects is more important or whether financial advisors are, overall, beneficial or costly.¹

¹ Servaes and Zenner (1996) directly study the role of investment banks in acquisitions during 1981 to 1992 and find acquirer returns for deals with investment banks are lower in the univariate tests. However, the difference can be explained by deal characteristics in the regression analysis. Other studies that analyze the conflict of interests mainly focus on the relative
In this study, we examine the similarities and differences in acquirer financial advisors that are retained in-house versus hired from outside. Consistent with Servaes and Zenner (1996), the regression results show that acquisitions with hired advisors do not result in higher acquirer cumulative abnormal returns. However, they are with higher combined cumulative abnormal returns and lower target gains. This is consistent with the view that the information asymmetry between targets and acquirers is the primary concern rather than the principle-agent problem in non-financial acquisitions.

In our analysis, we examine what types of deals are more likely to use in-house advisors. In-house deals are closely related to smaller deal sizes, as well as greater prior M&A experience. Interestingly, acquirers are more likely to hire professional advisors when the merging firms are out-of-state. The evidence is consistent with the view that non-financial firms depend more on investment banks when the information asymmetry between the target and the acquirer becomes severe when merging firms get farther from each other, and acquirers are willing to bear the cost imposed by the principle-agent problem.

Further, we examine the impact of in-house advisors versus hired advisors on the outcomes of deals, such as completion rate and merger gains. We find that hired advisors have significantly higher completion rates than in-house deals, and this finding is consistent with the view that financial advisors have a great incentive for deal completion. We control for the sample self-selection bias of financial advisors using the two-stage procedure of the treatment model. The coefficient of the in-house deals is 15.6% higher for the target return regressions but 6.4% lower for regression of combined merger gains.

Overall, this study shows that the impact of financial advisors yields an answer of more than one dimension. The key market imperfection that needs to be reduced is the information asymmetry between merging firms. Therefore, deals with hired advisors are beneficial because advisors help prevent targets from extracting values (wealth redistribution) as well as identify better matches (allocation efficiency).

The remainder of the paper proceeds as follows. Section 2 provides an overview of financial advisors and develops the hypotheses/predictions. Section 3 describes the sample selection process and presents univariate evidence on the impact of financial advisors. Section 4 presents the main empirical evidence and the interpretation of financial advisor choice, completion rate, and the merger gains. Section 5 concludes.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Information is a vital driver of the financial market, and financial institutions are believed to be efficient users and providers of public/private information and have superior ability to process information (Anderson & Huang, 2017; Chang, Shekhar, Tan, & Yao, 2016; Ma, Dewally, & Huang, 2017). Being intermediaries between merging firms, financial advisors provide unique expertise to smooth financial transactions. Acquirer financial advisors are information collectors and producers; their service includes analyzing potential merger plans for their clients, providing fairness opinions or helping suggest on the deal completion, and the offering negotiation strategies, and arranging financing for the acquirers. However, previous literature on the role of financial advisors seems non-conclusive, especially when comparing deals with and without financial advisors: on the one hand, advisors may possess skills and deliver value for certain types of deals when there are enough incentives (Golubov, Petmezas, & Travlos, 2012; Chang et al., 2016; Derrien & Dessaint, 2018); on the other hand, acquirers do not seem to benefit from the advisory service provided by investment banks after controlling for the deal characteristics (Servaes & Zenner, 1996).

One explanation of this puzzle might be the agency cost of hiring acquirer advisors caused by the potential conflict of interests between acquirers and their advisors. Since investment banks provide the special services in exchange for the monetary compensation, and more importantly, McLaughlin (1990, 1992) examines the advisory fee structure and finds that a large portion of the fee is contingent on the deal completion, and the fee amount is positively related to the transaction value. Hunter and Jagtiani (2003) report that the magnitude of the acquirer advisor fee is 2.4 million (or 0.84% of the transaction value) on average. Thus, the acquirer’s adviser has a great incentive to push the deal to completion but has less intention to negotiate a lower offer price for the acquirer. Since incentives are not aligned, the financial acquirer might be costly to the acquirer.

Prior studies also find that the reputation of an advisor might be a natural mechanism to mitigate the conflict of interests. Due to the competitiveness of the M&A advisory market, investment banks would not ruin their reputation by extracting much value from the acquirers. Supportive of this view, some studies find that top-tier financial advisors improve their clients’ shareholder wealth more than lower-tier investment banks (Kale, Kini, & Ryan, 2003; Chemmanur, Ergull, & Krishnan, 2019). Most of these studies use the market share of the advisory service as a proxy of advisory reputation. However, Rau (2000) shows that the market share of investment banks is positively related to the contingent fee payments charged by the bank and to the percentage of deals completed in the past by the bank, but is unrelated to the performance of the acquirers advised by the bank in the past. Bao and

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1. The competition and incentives available in the financial/product market may alter the behavior of financial institutions as well as high-level executives (Du, Huang, & Jian, 2019; Huang, Jian, & Shao, 2019).
2. Kale et al. (2003) find that the absolute shareholder wealth gain as well as the total wealth gain accruing to the bidder (target) increase (decrease) as the reputation of the bidder’s advisor increases relative to that of the target.
Edmans (2011) also find that using market share to measure advisory reputation might further drive investment banks to bid up offer prices to lock up a deal or even to promote value-destroying deals to their clients to build a higher market share. Other proxies might be problematic too. For example, the average announcement return of previous merger transactions advised by a financial advisor might indicate the average performance of M&A service over time. However, many of the financial advisors specialize in particular industries, such as hi-tech, telecommunication, or pharmaceutical. Comparing average merger gains of advisor performances may only tell the difference in their primary business focuses.

Overall, prior literature has not reached a consistent view of the value-increasing role of financial advisors. So, if a financial advisor is not beneficial to their clients on average, why do they involve them in the majority of the M&A deals? Does the role of financial advisors depend on more complicated circumstances or vary conditionally on the merger environment? In this study, we disentangle and examine how financial advisors affect M&A transactions.

To study the role of financial advisors, we need to identify whether the benefit brought by an advisor is greater than the agency costs, or vice versa. Presumably, acquisitions without hired advisors (in-house) are free of the principle-agent problem. However, the in-house deals on average suffer from the information asymmetry between targets and acquirers, because acquirers lack professional information or relevant experience compared to investment banks. Thus, by comparing the in-house or without a hired advisor, we can find the primary role of hired advisors. If transactions served by investment banks benefit acquirers more, then the information asymmetry between targets and acquirers dominates the principle-agent problem. However, if the in-house deals consist of better merger gains, then the principle-agent problem dominates the information asymmetry. Thus, the key hypothesis is that: the net impact of financial advisors should be aligned with the key market imperfection in the M&A market, either the information asymmetry or the principle-agent problem.

Acquirers, who are not in the financial industries, are “outsiders” of the M&A market as they usually do not have a standalone investment banking department. Thus, they highly depend on the information provided by financial advisors to better process and value targets, to negotiate with the counterparty on the proper offer price, or even ask for financial assistance. Therefore, although acquirers might be concerned about the potential conflict of interest, the synergy created by hiring financial advisors should overcome the drawbacks. Thus, the first prediction is:

**Prediction 1 (P1): In the M&A market, the magnitude of the information asymmetry between merging firms is larger than the agency cost, thus, deals with hired advisors should result in higher merger gains than in-house advised deals controlling the deal characteristics.**

Deal completion rate is another measure of the performance of financial advisors (Rau, 2000). Given the argument that financial advisors are driven by the deal completion incentive, a higher completion rate should be associated with deals with hired advisors. Thus, the deal completion prediction is:

**Prediction 2 (P2): The higher completion rate of mergers is associated with deals advised by professional advisors due to the deal completion incentive.**

This study adds to the literature by providing more comprehensive insight into the role of financial advisors rather than simply defining it as a good or bad choice. Similar to any type of agent, financial advisors can bring value to their clients as well as take advantage of them. As such, this study is not only connected to the financial advisor literature in the M&A market but also many studies in other areas, such as the real estate market and IPO market.

### 3. RESEARCH METHODOLOGY

#### 3.1. Data sources

The data collection process begins with the SDC M&A database. The initial sample includes all mergers and acquisitions by non-financial firms, announced from 1994 to 2008, with both merging firms publicly listed in the U.S. In addition, we impose these filters: 1) the acquirer must hold less than 50% toehold of the target shares before the takeover; 2) if the deal is completed, the transaction must result in the acquirer owning 100% of the target; 3) the transaction value and the offer price of the deal must be disclosed in the SDC database; 4) following the traditional M&A literature, we exclude deals of self-tender or repurchase, bankrupt target, or failed bank merger; 5) we also exclude tender offers without financial advisors' identity information disclosed by SDC; 6) both the target and the acquirer must have stock return information available from the CRSP database; and 7) deals with targets' stock prices of five dollars or less are not included, effectively excluding highly distressed target firms. The final sample contains 1,709 takeovers.

Next, we extract the following deal characteristics from the SDC: 1) the announcement, withdrawal, and completion dates of a takeover; 2) the names and CUSIP numbers of the target and the acquirer; 3) the outcome of the transaction; 4) names of the acquirer; 5) the method of payment; 6) the deal value and the offer price of the transaction; 7) the geographic locations (state and city) of the target and the acquirer; 8) the toehold portion held by the acquirer at the announcement; 9) the number of competing offers.

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1. Muscarella and Vetsugyan (1989) examine the IPO of 38 investment banks that went public in the period 1970-1987. The authors find that the self-marketed offerings experience significant underpricing comparable to that of other IPOs written by professional investment banks. Levitt and Syverson (2008) study the real estate market and find that real estate agents have an incentive to convince clients to sell their houses too cheaply and too quickly. Homes owned by real estate agents sell for 3.7% more than other homes and stay on the market 9.5 days longer.
2. The results also hold if the sample is truncated to prior to 2006 to avoid the global financial crisis (GFC) which financial crisis systematically affected mergers (DeYoung, Evanoff, & Molyneux, 2009; Reddy, Nangia, & Agrawal, 2014).
3. Tender offers are believed to have different information environment and process from mergers (Cain & Denis, 2013; Offenberg & Prusnky, 2015). For instance, Cain and Denis (2013) mention that the acquirer-side advisor information is sometimes unobservable in tender-offer deals even if an advisor is retained. Also see regulation M-A, Section 1012(b) for detailed requirements of information disclosure in tender offers.
bidders; and 10) the takeover-related transactions completed by the acquirer ten years prior to the current transaction. Finally, we collect stock price data from CRSP and firm-level accounting information from Compustat.

3.2. Financial advisors

The main explanatory variable is the identity of the acquirer advisor: whether the acquirer hires an outside M&A advisor or completes the transaction with an in-house resource. To identify in-house transactions, we manually compare the advisor’s name (or the advisor’s parent company’s name) with the client’s name (or the name of the parent of the client). When an acquirer retains outside M&A advisors, we include it in the hired advisor group. If one of the advisors’ names matches the name of the acquirer, the subsidiary of the acquirer, or the acquirer does not retain any financial advisor, the transaction belongs to the in-house group.

Table 1, Panel A presents the sample summary of the hired advisor group versus the in-house group. 254 out of 1,709 (14.86%) acquirers retain in-house advisors. This finding is not surprising in that acquirers are less likely to have experience or specialty in the M&A market. Thus they rely more on opinions from professional M&A advisors.

Table 1. In-house advisers vs. hired advisers

| Panel A: Frequency of acquisitions advised by in-house advisers vs. hired advisers |
|---------------------------------|-----------------|-----------------|-----------------|
| No. of deals | % deals |
| Hired advisor | 1,453 | 85.14% |
| In-house advisor | 254 | 14.86% |
| Total number | 1,709 | 100% |

| Panel B: Top 10 non-financial acquisitions advised by in-house advisers vs. hired advisers |
|---------------------------------|-----------------|-----------------|-----------------|
| Acquirer | Target | Year | Transaction value (mil) | Acquirer | Target | Year | Transaction value (mil) |
| Oracle Corp. | BEA Systems Inc. | 2007 | 8,056.05 | America Online Inc. | Time Warner | 2000 | 164,746.90 |
| USA Interactive | Expedia Inc. | 2002 | 3,636.37 | Pfizer Inc. | Warner-Lambert Co. | 1999 | 89,167.72 |
| Illinois Tool Works Inc. | Pernack International Inc. | 1999 | 3,619.59 | Exxon Corp. | Mobil Corp | 1998 | 78,945.79 |
| Lucent Technologies Inc. | International Network Services | 1999 | 3,284.04 | AT&T Inc. | BellSouth Corp. | 2006 | 72,671.00 |
| Lucent Technologies Inc. | Ortel Corp. | 2000 | 2,797.53 | SRC Communications | Ameritech Corp. | 1998 | 62,592.54 |
| L-3 Communications Holding | Titan Corp. | 2005 | 2,765.91 | Pfizer Inc. | Pharmacia Corp. | 2002 | 59,515.02 |
| WorldCom Inc. | Brooks Fiber Properties | 1997 | 2,532.63 | Qwest Commun Intl | US WEST Inc. | 1999 | 56,307.03 |
| Johnson & Johnson | Scios Inc. | 2003 | 2,323.21 | Procter & Gamble Co. | Gillette Co. | 2005 | 54,906.81 |
| Intel Corp. | Level One Communications Inc. | 1999 | 2,272.70 | Bell Atlantic Corp. | GTE Corp. | 1998 | 53,414.58 |
| General Dynamics Corp. | Anteon International Corp. | 2005 | 2,176.01 | AT&T Corp. | MediaOne Group Inc. | 1999 | 49,278.87 |

Note: * indicates the deal is a merger of equal. Dollar value is measured in millions. The sample includes all mergers and acquisitions from the SDC M&A database by non-financial firms, announced from 1994 to 2008, with both merging firms publicly listed in the U.S.

Table 1. Panel B provides the detailed information of the merging firms and deal values of the top 10 transactions in both the hired advisor sample (investment bank) and the in-house group, ranked by the size of the deal. Consistent with Servaes and Zenner (1996), the choice of either retaining an in-house advisor or hiring an investment bank advisor highly depends on the deal size and deal complexity. On average, the top 10 in-house mergers are much smaller in transaction value than the investment-bank served mergers. For example, the largest investment bank served deal (the merger of America Online and Time Warner) is about 20 times the largest in-house deal (the merger of Oracle and BEA System).

3.3. Deal completion rate

The deal outcome is the completion rate of merger transactions. The completion rate is significantly higher in the investment bank group (88.24%) than in the in-house group (77.5%).

3.4. Measures of merger gains

We measure merger gains based on short-term market reactions. The CARs for both targets (TCAR) and acquirers (ACAR) are cumulative abnormal returns around takeover announcements. The daily abnormal return is the difference between the firm’s daily raw return and the expected return. We use the market risk-adjusted model estimated over the [-250, -31] trading days before the announcement day to measure the expected returns. We then sum up the abnormal returns over multiple event-day windows to measure the cumulative market reaction. The combined cumulative abnormal return (CCAR) is a weighted sum of the target and the acquirer abnormal returns based on their equity value 31 days before the announcement day.

Figure 1 shows evidence of acquirer cumulative abnormal returns from 30 days before the merger announcement to 30 days after. Consistent with Schwert (1996), the market reaction to acquirers is non-positive on average. More importantly, the plot
of acquirer CARs shows that the market is quite skeptical about merger gains produced by investment bank-advised deals: a persistent 2.5% to 3% abnormal return difference between the in-house group and the investment bank group lasts from zero to 30 days after the announcement. This finding suggests that the agency cost due to the conflict of interests between financial advisors and their clients damages the value of mergers. However, to confirm the impact of a financial advisor, we need to control for other deal characteristics in the regression analysis. Also, there are continuous downward drifts (both in-house and investment bank groups) after the deal announcement. One explanation for the downward drift is that acquirers time takeovers during periods of high stock performance. Thus, stocks are likely to be overvalued during the estimation period. Therefore, the market corrects the overvaluation of the acquirer in the markup period.

**Figure 1.** Dynamic plots of acquirer cumulative abnormal returns

![Market risk adjusted acquirer CARs](image)

Note: Market model parameters used to define abnormal returns are estimated using the CRSP value-weighted portfolio for days -250 to -31.

We then plot the target cumulative abnormal returns in Figure 2. The average target CARs are 25% to 30%. Unlike acquirer abnormal returns, there is no persistent difference in target abnormal returns between the in-house sample and the investment bank sample. The target abnormal returns of the in-house group are almost overlapping with those of the investment bank group.

**Figure 2.** Dynamic plots of target cumulative abnormal returns

![Market risk adjusted target CARs](image)

Note: Market model parameters used to define abnormal returns are estimated using the CRSP value-weighted portfolio for days -250 to -31.

**3.5. Other control variables**

In the regression analysis, we control for the deal characteristics extracted from the SDC database and firm accounting information from the Compustat database. Table 2 reports the summary statistics of deal characteristics and firm accounting information based on the identity of financial advisors.
Deal complexity captures the difficulty of completing a transaction. Information asymmetry between merging firms is greater for complicated deals. Thus such a type of transactions should be associated with the higher possibility of hiring financial advisors (Servaes & Zenner, 1996). We use log transaction value as a proxy measure of deal size and deal complexity, since a bigger transaction usually involves a larger target, indicating that the merger requires more time and involves more resources. Multiple-bidders is perhaps another measure of deal complexity. Bradley, Desai, and Kim (1988) and Stulz, Walkerling, and Song (1990) find that the number of bidders determines the relative market power of the bidding firms in the negotiation process. Multiple-bidders increase the wealth gain for the target and decrease the return to the acquirer.

The payment method is an important determinant of the merger gain. Announcement returns to bidding firms that offer cash payments are higher than those with stock payments (Amihud, Lev, & Travalos, 1990; Travalos, 1987). Also, a stock deal increases the complexity of the deal, and the M&A advisor may also need to assist the finance arrangements in addition to the takeover advisory service. Serves and Zenner (1996) report that an investment bank is more likely to be hired if the payment of the deal involves stock. We include a dummy variable, stock payment, which equals one if the transaction is financed at least 50% by stock payment and zero otherwise.

We also control for the acquirer toehold position. The toehold ownership is the percentage of shares of the target firm owned by the acquirer before the takeover. A large toehold represents an advantageous bargaining position for the acquirer, increases the possibility of deal completion, and is associated with higher bidder wealth gain (Shleifer & Vishny, 1986; Stulz et al., 1990). We measure the prior merger experience based on the number of completed mergers of the acquirer during the past ten years. Serves and Zenner (1996) argue that acquirers are more experienced if they have more exposure to the M&A market. Thus, greater prior M&A experience may increase the possibility of using an in-house advisor rather than hiring an investment bank. Consistent with this argument, acquirers in the in-house groups are significantly more experienced.

Relative size explains the difference between the magnitudes of the acquirer and the target

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Table 2. Summary statistics of deal characteristics and financial information

| In-house sample | Hired adviser sample |
|-----------------|---------------------|
| Mean | Median | Min | Max | N | Mean | Median | Min | Max | N |
| % completed | 77.35% | 100% | 254 | 88.24% | 100% | 1,455 |
| Ln (transaction value) | 5.01 | 4.35 | 0.38 | 9.72 | 254 | 6.04 | 6.52 | 2.02 | 12.01 | 1,455 |
| Acquire Asset (Bil) | 7.766 | 1.116 | 0.005 | 272.40 | 222 | 8.125 | 1.843 | 0.00078 | 405.20 | 1,295 |
| Target Asset (Bil) | 0.020 | 0.073 | 0.005 | 2.39884 | 226 | 1.599 | 0.325 | 0.00064 | 65.50 | 1,369 |
| Relative asset size | 0.58 | 0.064 | 0.0006 | 41.40 | 202 | 0.52 | 0.26 | 0.00017 | 9.58 | 1,257 |
| Relative equity size | 0.21 | 0.068 | 0.0004 | 4.85 | 254 | 0.56 | 0.22 | 0.00034 | 136.14 | 1,455 |
| % stock offer | 56.69% | - | - | - | - | 58.0% | - | - | - | 1,455 |
| No. of prior M&As of acquirer | 1.38 | 0 | 0 | 17 | 254 | 0.95 | 0 | 0 | 18 | 1,455 |
| % same industry | 44.48% | - | - | - | - | 53.6% | - | - | - | 1,455 |
| % same state | 25.79% | - | - | - | - | 20.89% | - | - | - | 1,455 |
| No. of bidder | 1.13 | 1 | 1 | 4 | 254 | 1.11 | 1 | 1 | 4 | 1,455 |
| % of toehold | 0.58% | 0% | 0% | 46.3% | 254 | 11.44% | 0% | 0% | 49.8% | 1,455 |
| Acquirer M/B | 5.3 | 3.65 | -60.74 | 53.34 | 225 | 5.49 | 3.38 | -98.45 | 96.48 | 1,295 |
| Target M/B | 2.79 | 2.00 | -30.56 | 21.50 | 226 | 3.94 | 2.43 | -101.32 | 90.08 | 1,369 |
| Target ROE (%) | -8.47% | 7.23% | -1335.74% | 160.43% | 226 | -2.01% | 8.36% | -160.7% | 541% | 1,370 |
| Target ROA (%) | 1.60% | 5.38% | -114.26% | 28.85% | 226 | -0.76% | 6.12% | -311.3% | 93.3% | 1,369 |
| Target sales growth rate (t-1) | 55.8% | 16.53% | -89.11% | 1239.37% | 221 | 44.0% | 15.75% | -100% | 1174.54% | 1,339 |
| Target net income growth rate (t-1) | 42.63% | -0.1% | -2132.78% | 3796.77% | 223 | 19.65% | 7.48% | -2565.49% | 3674.03% | 1,346 |
| Target equity ratio | 55.64% | 58.3% | -15.32% | 95.52% | 226 | 50.3% | 15.05% | -319.2% | 97.86% | 1,369 |
| Acquirer CAR (+1) | -0.005 | -0.004 | -0.271 | 0.517 | 254 | -0.027 | -0.016 | -0.845 | 0.490 | 1,455 |
| Target CAR (+1) | 0.195 | 0.138 | -0.302 | 1.185 | 254 | 0.187 | 0.160 | -0.400 | 1.303 | 1,455 |

Note: Relative asset size is defined as the ratio of target asset over acquirer asset for the prior fiscal year, whereas relative equity size is the ratio of target market capitalization over the acquirer market capitalization 30 days before the merger announcement. Target (acquirer) M/B is defined as the ratio of the market value of equity relative to the book value of equity of the target (acquirer) for the prior fiscal year. A stock offer is defined as a deal in which at least 50% is paid by stock. Number of prior M&As is the number of mergers completed by the acquirer during the prior ten years. Deals occur in the same state if the acquirer and the target are headquartered in the same state, and deals occur in the same industry if the acquirer and the target have the same 3-digit SDC headers. Toehold is the percentage of target shares owned by the acquirer prior to the merger announcement. Target ROE (ROA) is the return on equity (asset) of the prior fiscal year from Compustat. Target sales (net income) growth rate equals to the difference between the sales (net income) of fiscal years (t-1) and (t-2) scaled by the sales (net income) of fiscal year (t-2).

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The distribution of transaction values is highly skewed. Therefore, we convert the transaction value into log format in the regressions to eliminate biases.
abnormal returns. Relatively small bidding firms receive larger abnormal returns, whereas relatively small targets gain less (Asquith, Bruner, & Mullins, 1983). Relative size is defined as the ratio of the target market capitalization over that of the acquirer’s, measured 31 days before the announcement. Because financial firms are highly leveraged, we construct a second measure of the relative size based on the total assets of the target over the total assets of the acquirer. The values of total assets are extracted from the annual SEC filings before the merger announcement from Compustat. Table 2 shows that the relative size is on average smaller of the in-house sample than that of the investment bank sample (35% smaller).

We use two variables to measure the geography and activity focus of the takeover. First, Berger and Ofek (1995) and Morck, Shleifer, and Vishny (1990) find that diversifying mergers are associated with lower synergy gains. Following Servaes and Zenner (1996), we set the variable, same industry, to one, if the first three-digit primary SIC codes of the target and the acquirer are the same, indicating that the merger is more likely to be activity-focusing. Otherwise, the takeover is activity diversifying, and the variable equals zero. Moreover, DeLong (2001) finds that the market favors activity/geography-focusing mergers over those with activity/geography-diversifying takeovers. Thus, we use geographic focus as a variable to control for the distance of the merging firms. If a target and an acquirer are headquartered in the same state, the takeover has a geographic focus; otherwise, it is a merger of geographic diversification. A geographic-diversifying merger indicates that the acquirer may obtain greater market share and increase the market power of existing business, however, as the distance gets farther, there could be greater information asymmetry between the target and the acquirer.

In addition to the deal characteristics, we control for the firm-level accounting information of the acquirer and the target obtained from Compustat. The target profitability, the target equity ratio, and the target growth rate are obtained from the annual reports before the merger announcement. On average, targets are highly leveraged with a mean equity ratio of 14%, whereas targets have an average equity ratio of over 50%. We also control for the acquirer and target market-to-book (M/B) values to relate the merger outcome to the likelihood of stock overvaluation. The market timing theory in the M&A market is explained in Shleifer and Vishny (2003), and Rhodes-Kropf, Robinson, and Viswanathan (2005). The acquirer uses its overvalued stock to purchase the target, driving poor long-run acquirer stock performance due to the correction of misvaluation. Target (acquirer) M/B is defined as the target (acquirer) market capitalization 30 days before the announcement over the book value of the target (acquirer). There is no significant difference between the in-house group and the investment bank group. Since this study’s sample period includes both the financial deregulation and the dot-com bubble periods, we include the year dummies in the regression to control the year fixed effects.

4. EMPIRICAL RESULTS
4.1. The choice of hiring financial advisors

In this section, we follow the approach of Servaes and Zenner (1996) to estimate the determinants of retaining an in-house advisor using probit models. We report both of the probit coefficients and the marginal effects in Table 3. The dependent variable equals one if the acquirer retains an in-house advisor and zero if the acquirer hires a professional financial advisor. In each panel, we report the estimation of the full sample without the accounting variables and the reduced sample but controlling the accounting information.

| Model 1 | Model 2 |
|---------|---------|
| Relative size (market cap.) | -0.015 | -0.501 |
| Ln (deal value) | -0.081 | -0.311 |
| Stock payment | 0.011 | 0.087 |
| Toehold | 0.000 | -0.007 |
| Prior M&As of acquirer | -0.020 | 0.120 |
| Same state | 0.034 | 0.220 |
| Acq. M/B | -0.022 | 0.136 |
| Target M/B | -0.008 | -0.001 |
| Target Equity ratio | -0.289 | -0.038 |
| Target ROE | -0.029 | -0.004 |
| Target sales growth | 0.028 | 0.004 |
| Target Net Income growth | 0.062 | -0.000 |
| Observations | 1,700 | 1,421 |
| Pseudo R-square | 22.35% | 22.77% |
| Chi-square | 324.1 | 260.5 |

Note: The dependent variable equals one if the acquirer retains an in-house advisor. In each panel, estimations are based on both models with and without firm-level financial information from Compustat. Year dummies are included in all regressions. Explanatory variables are defined in Table 2. Estimation coefficient, p-values, and the corresponding marginal effects are reported.

In-house advisors are more likely to be involved in smaller deals or relatively small size targets, indicating that the choice of in-house advisors is associated with less complicated deals and low transaction costs. Acquirers that have more acquisition experience are also associated with a higher possibility of advising themselves. In addition, a professional advisor is 3.3% more likely to be hired if the transaction is outside the acquirer’s state. There is greater information
asymmetry between distant firms than firms that are close to one another. Thus, an acquirer would benefit more from the professional advice provided by an advisor on a distant target’s performance, background, and merger strategies.

4.2. Financial advisors and deal completion

Prior literature shows that investment banks provide advisory fee driven service, and they have a great deal completion incentive (McLaughlin, 1990, 1992; Rau, 2000). Table 4 shows the results of the probit regressions with dependent variables that equal one if a deal is completed and zero otherwise. We control for the advisor identity using a dummy variable that equals one if an in-house advisor is retained. We find that hiring a professional advisor increases the likelihood of deal completion by 15.8%. This finding is consistent with P2 that hiring an acquirer advisor is associated with higher agency costs, where many deals get completed under the pressure of the financial advisors.

Table 4. Impacts of financial advisor on deal completion

| Dependent variable | Coefficient | Marginal effect | P-value |
|--------------------|-------------|----------------|---------|
| In-house acq. advisor | -0.048** | -0.158** | 0.00 |
| Relative size (market cap.) | -0.044 | -0.008 | 0.12 |
| Relative size (asset) | -0.068 | -0.012 | 0.07 |
| Ln (deal value) | -0.158 | -0.026 | 0.12 |
| Stock payment | 0.032 | 0.006 | 0.20 |
| Prior M&As of acquirer | 0.123 | 0.024 | 0.18 |
| Same industry | 0.124 | 0.021 | 0.28 |
| Same state | 0.932 | -0.177 | 0.00 |
| Toehold | 0.0002 | 0.0004 | 0.54 |
| Number of bidders | 0.120 | 0.022 | 0.33 |
| Acq. M/B | 0.003 | 0.001 | 0.96 |
| Target M/B | 0.006 | 0.006 | 0.40 |
| Target Equity ratio | 0.001 | 0.004 | 0.87 |
| Target ROE | 0.001 | 0.004 | 0.87 |
| Target sales growth | 0.001 | 0.004 | 0.87 |
| Target Net Income growth | 0.001 | 0.004 | 0.87 |
| Year fixed effects | Yes |
| Observations | 1,421 |
| Pseudo R square | 14.45% |
| Chi-square | 160.93** |

Note: Explanatory variables are defined in Table 2. Estimation coefficient, p-values, and the corresponding marginal effects are reported.

We also find that larger deals are less likely to be completed, as are the deals with more bidders. Neither the target performance nor the acquirer M/B plays a role in the likelihood of deal completion.

4.3. Do financial advisors add value to acquirers?

The examination of the merger gain is the key test to distinguish the benefit and the cost of financial advisors. Table 5, Panel A presents the regression results with the (-1, +1) cumulative abnormal returns of acquirers as the dependent variable. We employ the OLS regression as well as the two-stage treatment procedure to control for the potential self-selection bias of the merger sample. In the treatment procedure, the first-stage probit regression controls for the endogenous choice of retaining an in-house advisor, with the hazard ratio reported as an indicator of the significance of the self-selection bias. The second-stage regression reports the net impact of the advisor identity on the merger gain.

Table 5. The impact of advisor advisor on three-day announcement returns (Part 1)

| Panel A: Acquirer three-day (-1, +1) cumulative abnormal returns | Acquirer CAR | OLS | Treatment | P-value |
|---------------------------------------------------------------|-------------|-----|------------|---------|
| In-house acq. advisor | 0.006 | 0.43 | -0.016 | 0.55 |
| Relative size (asset) | -0.002 | 0.26 | -0.002 | 0.22 |
| Ln (deal value) | -0.006** | 0.01 | -0.008 | 0.00 |
| Stock payment | -0.038 | 0.00 | -0.038 | 0.00 |
| Prior M&As of acquirer | 0.002 | 0.21 | 0.002 | 0.12 |
| Same industry | -0.007 | 0.18 | -0.007 | 0.15 |
| Same state | 0.004 | 0.52 | 0.005 | 0.42 |
| Toehold | 0.002 | 0.00 | 0.002 | 0.00 |
| Number of bidders | -0.014 | 0.10 | -0.014 | 0.10 |
| Acq. M/B | 0.000 | 0.28 | 0.000 | 0.30 |
| Target M/B | 0.000 | 0.16 | 0.000 | 0.17 |
| Target Equity ratio | -0.027 | 0.00 | -0.028 | 0.00 |
| Target ROE | -0.006 | 0.04 | -0.007 | 0.03 |
| Target sales growth | -0.003 | 0.07 | -0.003 | 0.07 |
| Target net income growth | 0.000 | 0.67 | 0.000 | 0.67 |
| Hazard ratio | 0.013 | 0.38 |
| Observations | 1,232 | 1,232 |
| R-square | 12.86% | 22.85% |
| P-value of F-test | <0.000 | <0.000 |
| Year fixed effect | Yes | Yes |
Table 5. The impact of acquirer advisor on three-day announcement returns (Part 2)

| Panel B: Target three-day (-1, +1) cumulative abnormal returns | Target CAR |
|---------------------------------------------------------------|------------|
| Dependent variable                                           | OLS        | P-value  | Treatment | P-value  |
| In-house acq. advisor                                         | -0.0155    | 0.00     | -0.014    | 0.00     |
| Relative size (asset)                                         | -0.015      | 0.006    | -0.014    | 0.00     |
| Ln (deal value)                                               | 0.000       | 0.98     | 0.010     | 0.12     |
| Stock payment                                                 | -0.106      | 0.00     | -0.114    | 0.08     |
| Prior M&As of acquirer                                        | 0.001      | 0.85     | -0.003    | 0.34     |
| Same industry                                                 | -0.013      | 0.27     | -0.010    | 0.40     |
| Same state                                                    | 0.004       | 0.76     | -0.002    | 0.89     |
| Toehold                                                       | 0.000       | 0.87     | 0.000     | 0.86     |
| Number of bidders                                             | -0.044      | 0.03     | -0.044    | 0.03     |
| Acq. M/B                                                      | 0.000       | 0.60     | 0.000     | 0.51     |
| Target M/B                                                    | -0.002      | 0.01     | -0.001    | 0.02     |
| Target equity ratio                                           | 0.003       | 0.19     | 0.037     | 0.12     |
| Target ROE                                                    | -0.008      | 0.26     | -0.007    | 0.33     |
| Target sales growth                                           | -0.009      | 0.06     | -0.009    | 0.06     |
| Target net income growth                                      | 0.001       | 0.34     | 0.001     | 0.35     |
| Hazard ratio                                                  | -0.002      | 0.15     | -0.079    | 0.02     |
| Observations                                                  | 1232       | 1232     |           |          |
| R-square                                                      | 9.61%       | 22.85%   |           |          |
| P-value of F-test                                             | <0.000     | <0.000   |           |          |
| Year fixed effect                                             | Yes         | Yes      |           |          |

| Panel C: Combined three-day (-1, +1) cumulative abnormal returns | Combined CAR |
|------------------------------------------------------------------|--------------|
| Dependent variable                                              | OLS          | P-value  | Treatment | P-value  |
| In-house acq. advisor                                           | -0.004       | 0.064    | -0.064    | 0.01     |
| Relative size (asset)                                           | 0.0125       | 0.00     | 0.012     | 0.00     |
| Ln (deal value)                                                 | 0.000        | 0.90     | -0.005    | 0.07     |
| Stock payment                                                   | -0.044       | 0.00     | -0.042    | 0.00     |
| Prior M&As of acquirer                                          | -0.002       | 0.12     | 0.000     | 0.36     |
| Same industry                                                   | -0.003       | 0.58     | -0.004    | 0.41     |
| Same state                                                      | 0.005        | 0.38     | 0.008     | 0.18     |
| Toehold                                                         | 0.001        | 0.01     | 0.001     | 0.01     |
| Number of bidders                                               | -0.003       | 0.68     | -0.003    | 0.70     |
| Acq. M/B                                                        | 0.000        | 0.11     | 0.000     | 0.16     |
| Target M/B                                                      | 0.000        | 0.98     | 0.000     | 0.87     |
| Target equity ratio                                             | -0.026       | 0.00     | -0.026    | 0.00     |
| Target ROE                                                      | -0.004       | 0.11     | -0.005    | 0.16     |
| Target sales growth                                             | -0.004       | 0.01     | -0.004    | 0.02     |
| Target net income growth                                        | 0.000        | 0.45     | 0.000     | 0.45     |
| Hazard ratio                                                    | 0.036        | 0.01     |           |          |
| Observations                                                    | 1232        | 1232     |           |          |
| R-square                                                        | 15.01%       | 22.85%   |           |          |
| P-value of F-test                                               | <0.000      | <0.000   |           |          |
| Year fixed effect                                               | Yes          | Yes      |           |          |

Note: Explanatory variables are defined in Table 2.

In-house advisors do not consistently affect the acquirer merger gain. The impact of in-house advisors is economically negative (-1.6%) on the acquirer CARs using the treatment model, but the result is not statistically significant. Consistent with the merger and acquisition literature, small size deals or small targets have higher acquirer announcement returns. Deals financed by stocks are also associated with lower acquirer CARs. Notably, deals with acquirer toeholds or fewer bidders give more negotiation advantages to acquirers and lead to higher announcement returns. The market also reacts positively to targets with lower equity ratio, lower profitability, or lower sales growth rate during the year before the transaction.

Collectively, these results indicate that hiring an outside M&A advisor by the acquirer does not harm or benefit the merger gain. Although the conflict of interests between the advisor and the client might harm the acquirer merger gain, the advisor will benefit equally or more from the reduction of information asymmetry or better negotiation strategies suggested by the advisor.

4.4. Wealth redistribution and allocation efficiency

We further explore the role of an acquirer’s financial advisor on the combined merger gain and the target merger gain. There are two channels in which an advisor can affect the acquisition gain. First, the advisor provides deal suggestions or financing arrangements to his or her client, producing a shift of wealth from the target to the acquirer or vice versa (wealth redistribution). Under this circumstance, there is no change in the combined merger gain measured by the weighted sum of acquirer and target CARs. For example, if the acquirer’s advisor is driven by the incentive of obtaining greater market share, he or she will suggest a higher offer price, which will lead to a higher target merger gain. However, the total synergy produced by the newly merged entity is unchanged.

A second channel (allocation efficiency) is more commonly claimed by financial advisors. They argue that M&A advisory not only helps the client in the negotiation process but also brings better business combinations. That is, due to lack of information or prior experience, synergy without a financial advisor is lower in the combined entity than the match advised by a financial advisor. However, financial
advisors might suggest low-quality deals as well. Since they are fee driven and are ranked by the market share or the number of deals they have completed each year, they have great motivation to promote new business. This is especially true during the merger wave in the 1990s, where acquirers were often to conduct value-destroying, pre-emptive mergers before their competitors could make a move.\(^9\) If so, the combined merger gain will be lower when financial advisors are involved.

We perform regressions of target CARs and combined CARs, shown in Table 5, Panels B, and C, to decompose the two channels and also find the directions in which each channel affects the merger synergies. Panel B in Table 5 shows the regression results of the target cumulative abnormal returns. Acquisitions of in-house advisors yield significantly higher announcement returns, a 2.2% higher return in the OLS regression, and a 15.6% higher return in the two-stage procedure, significantly at the 5% level in the two-stage treatment model. Among the control variables, smaller targets, smaller deal sizes, lower target M/Bs, and multiple bidders lead to lower target announcement returns. Also, acquisitions bring more benefits to target shareholders when deals are financed by cash or with a lower target sales growth rate.

Panel C in Table 5 reports the regression estimation of the combined cumulative abnormal returns. In-house deals are associated with lower combined announcement returns. With the self-selection bias controlled for, the combined synergy drop is 6.64%, significant at the 5% level.

Collectively, we find significant evidence that in-house deals are associated with mergers of low quality. In addition, deals undertaken without an outside advisor allow targets to extract more value. In other words, even though the evidence on the acquirer side is vague, the overall effect shows that the benefit of hiring an acquirer advisor is greater than the benefit of reducing agency friction. Therefore, hiring an acquirer advisor does not harm the acquirer.

5. CONCLUSION

We differentiate deals served by in-house advisors and deals by hired advisors and estimate which effect, the benefit brought by the advisor, and the agency cost due to the principle-agent problem dominates the merger gain. The univariate analysis shows that acquirer loss with in-house advisors is significantly less. Employing probit models, we find that in-house advisors lower the average completion rate of mergers by 15.8%. This finding is consistent with P2 that self-interested financial advisors have high deal completion incentives.\(^10\)

Controlling for the self-selection bias of the advisor decision, we estimate the impact of financial advisors on acquirers’ three-day announcement returns. In-house deals are associated with relatively lower acquirer returns (-1.6%). Furthermore, we decompose the role of M&A advisors into a wealth redistribution channel and allocation efficiency channel by analyzing target and combined announcement returns and find that in-house deals among non-financial institutions seem to destroy value.

The evidence is consistent with PI that benefits brought by financial advisors dominate the advisor-client conflict of interest since the information asymmetry between acquirers and targets is greater. In-house deals are of higher target returns (15.6%) and lower combined returns (-6.4%), indicating that the net effect of advisor advisors takes place through both the wealth redistribution channel and the allocation efficiency channel.

We are aware of some potential limitations of the analysis provided. First, the identification of in-house deals might be imperfect. We rely on SDC’s database and the provided financial advisor names to identify if a deal uses an in-house advisor or a hired adviser. If the advisor’s name matches the acquirer or target or the advisor’s name is missing, we believe the deal is an in-house. Due to the possibility of the data collecting errors of SDC, the missing advisor name could be either a true in-house deal or an error of missing information. However, the characteristics regression of in-house vs. hired deals reveals that our results are similar to Servaes and Zenne (1996); the acquirer (targets) are more likely to use in-house resources when the deal size is small, and the transactions are less complicated. Thus, the potential error of the in-house identification should not change the main findings of the paper.

We also realize that the stock market reaction is not a perfect measure of the M&A synergy. Some studies have used long-term merger gains to measure the M&A synergy gain. However, we believe the short-term announcement returns are a direct market reaction immediately following the announced deal, while a long-term wealth gains measures multiple corporate events and it is not as clean as the announcement returns. Furthermore, using the announcement returns allow us to separately measure the target side reaction and the acquire side reaction and allows us to better understand the financial advisor’s role on the two sides of the M&A participants.

Finally, caveats exist for our study. Our sample is based on the U.S. context, questioning the generalization of the results to other regions around the world. Given this is a very relevant topic to both practitioners and scholars, this caveat calls for investigation on similar issues using data from economies of different development levels.

This study contributes to the financial advisor literature by showing that the total effect of M&A advisors is not a one-dimensional issue; instead, it is conditional on certain types of M&A environment. These findings have important implications for academics, market practitioners, and regulators. From a novel comparison between hired vs. in-house advisors, we confirm that the role of financial advisors could be beneficial. This could help the market evaluate more accurately the acquisition efficiency and monitor the performance of investment bankers closely.

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\(^9\) Hankir, Rauch, and Umbre (2009) explain why certain bank mergers have a value-decreasing market reaction. They argue that one possibility is the pre-emptive concern that acquirers intend to prevent competitors from acquiring their desired target and realizing competitive advantages.

\(^10\) Although the evidence is consistent with the view that non-financial in-house deals have a high proportion dominated by incompetent or over-confident managers, this is inconsistent with the finding of Kisgen, Qian, and Song (2009) that over-confident managers hire advisors to protect them from lawsuits or pressure from the shareholders.
REFERENCES

1. Allen, L., Jagtiani, J., Persiani, S., & Saunders, A. (2004). The role of bank advisors in mergers and acquisitions. *Journal of Money, Credit, and Banking, 36*(2), 197-224. https://doi.org/10.1353/mcb.2004.0008

2. Amihud, Y., Lev, B., & Travlos, N. G. (1990). Corporate control and the choice of investment financing: The case of corporate acquisitions. *The Journal of Finance, 45*(2), 603-616. https://doi.org/10.1111/j.1540-6261.1990.tb01706.x

3. Anderson, C. W., & Huang, J. (2017). Institutional investment in IPOs and post-IPO M&A activity. *Journal of Empirical Finance, 41*, 1-18. https://doi.org/10.1016/j.jempfin.2016.12.003

4. Asquith, P., Bruner, R. F., & Mullins, Jr, D. W. (1983). The gains to bidding firms from merger. *Journal of Financial Economics, 11*(1-4), 121-139. https://doi.org/10.1016/0304-405X(83)90007-7

5. Bao, J., & Edmans, A. (2011). Do investment banks matter for M&A returns? *The Review of Financial Studies, 24*(7), 2286-2315. https://doi.org/10.1093/rfs/hh1014

6. Baron, D. P. (1982). A model of the demand for investment banking advising and distribution services for new issues. *The Journal of Finance, 37*(4), 955-976. https://doi.org/10.1111/j.1540-6261.1982.tb0391.x

7. Berger P., & Ofek, E. (1995). Diversification’s effect on firm value. *Journal of Financial Economics, 37*(1), 39-65. https://doi.org/10.1016/0304-405X(94)00078-6

8. Bowers, H. M., & Miller, R. E. (1990). Choice of investment banker and shareholders’ wealth of firms involved in acquisitions. *Financial Management, 19*(4), 34-44. https://doi.org/10.2307/3665608

9. Bradley, M. D., Desai, A. S., & Kim, E. H. (1988). Synergistic gains from corporate acquisitions and their division between the stockholders of target and acquiring firms. *Journal of Financial Economics, 21*(1), 3-40. https://doi.org/10.1016/0304-405X(88)90030-X

10. Cai, M. D., & Denis, D. J. (2013). Information production by investment banks: Evidence from fairness opinions? *The Journal of Law and Economics, 56*(1), 245-280. https://doi.org/10.1086/666877

11. Chang, X., Shekhar, C., Tam, L. H. K., & Yao, J. (2016). The information role of advisors in mergers and acquisitions: Evidence from acquirers hiring targets’ ex-advisors. *Journal of Banking & Finance, 70*, 247-264. https://doi.org/10.1016/j.jbankfin.2016.05.006

12. Chemmanur, T. J., & Fulghieri, P. (1994). Investment bank reputation, information production, and financial intermediation. *The Journal of Finance, 49*(1), 57-79. https://doi.org/10.1111/j.1540-6261.1994.tb04420.x

13. Chemmanur, T. J., Ertugrul, M., & Krishnan, K. (2019). Is it the investment bank or the investment banker? A study of the role of investment banker human capital in acquisitions. *Journal of Financial and Quantitative Analysis, 54*(2), 587-627. https://doi.org/10.1017/S002210871800073X

14. Davidoff, S. M. (2006). Fairness opinions. *American University Law Review, 55*(6), 1537-1623. Retrieved from https://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=1085&context=aurl

15. Davidson III, W. (2009). Mergers and acquisitions of financial institutions: A review of the post-2000 literature. *Journal of Financial Services Research, 36*(2-3), 87-110. https://doi.org/10.1007/s10693-009-0066-7

16. Du, L., & Huang, J. (2015). What determines M&A advisory fees? *Southern Business & Economic Journal, 38*(2), 37-68. Retrieved from http://eds.ebscohost.com/cda/detail?sid=781a6356-4c26-48a3-8ea9-f250332d035c%40sdcdata%5Bvessmorg26%26data%5Bjnpd85 gastro2wulanx2wumpd1%2524encg9c%2c2LO%2c3%2c%3d%2ean%252526db%252526bth

17. Du, L., Huang, J., & Jain, B. A. (2019). Tournament incentives and firm credit risk: Evidence from credit default swap referenced financials. *Journal of Business Finance & Accounting, 46*(7-8), 913-943. https://doi.org/10.1111/jbfa.12395

18. DeLong, G. L. (2001). Stockholder gains from focusing versus diversifying bank mergers. *Journal of Financial Economics, 59*(2), 221-252. https://doi.org/10.1016/S0304-405X(00)00086-6

19. Derrien, F., & Dessaint, O. (2018). The effects of investment bank rankings: Evidence from M&A league tables. *Review of Finance, 22*(4), 1375-1411. https://doi.org/10.1093/rof/rfx056

20. DeYoung, R., Evansoff, D. D., & Molyneux, P. (2009). Mergers and acquisitions of financial institutions: A review of the 2000-2007 literature. *Journal of Financial Services Research, 36*(2-3), 87-110. https://doi.org/10.1007/s10693-009-0066-7

21. Hankir, Y., Rauch, C., & Umber, M. (2009). Do investors know better than regulators? Evidence from international bank M&A (Working Paper). Retrieved from https://efmaefm.org/0efinametings/efma%20annual%20meetings/2009-Milan/papers/Do%20Investors%20Know%20Better%20Than%20Regulators.pdf

22. Huang, J., Jain, B. A., & Shao, Y. (2019). CEO power, product market competition and the acquisition motive for going public. *Accounting, Finance, 59*(4), 2479-2507. https://doi.org/10.1111/acfi.12316

23. Hunter, W. C., & Jagtiani, J. (2003). An analysis of advisor choice, fees, and efforts in mergers and acquisitions. *Review of Financial Economics, 12*(1), 65-81. https://doi.org/10.1016/S1058-3300(03)00007-7

24. Hunter, W. C., & Walker, M. B. (1990). An empirical examination of investment banking merger fee contracts. *Southern Economic Journal, 56*(4), 1117-1130. https://doi.org/10.2307/1059896

25. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305-360. https://doi.org/10.1016/0304-405X(76)90026-6

26. Kale, J. R., Kini, O., & Ryan Jr., H. E. (2003). Financial advisors and shareholder wealth gains in corporate takeovers. *The Journal of Financial and Quantitative Analysis, 38*(3), 475-501. https://doi.org/10.1017/S00221087022479

27. Kisgen, D. J., Qian, J., & Song, W. (2009). Are fairness opinions fair? The case of mergers and acquisitions. *Journal of Financial Economics, 91*(2), 179-207. https://doi.org/10.1016/j.jfineco.2008.03.001

28. Kosnik, R. D., & Shapiro, D. L. (1997). Agency conflicts between investment banks and corporate clients in merger and acquisition transactions: Causes and remedies. *The Academy of Management Executive (1993-2005), 11*(1), 7-20. https://doi.org/10.25655/amc.1997.9707100656
30. Levitt, S. D., & Syverson, C. (2008). Market distortions when agents are better informed: The value of information in real estate transactions. Review of Economics and Statistics, 90(4), 599-611. https://doi.org/10.1162/rest.90.4.599
31. Lowry, M., Rossi, M., & Zhu, Z. (2019). Informed trading by advisor banks: Evidence from options holdings. The Review of Financial Studies, 32(2), 605-645. https://doi.org/10.1093/rfs/hhy072
32. Ma, M., Dewally, M., & Huang, J. (2017). Marketing strategy after meeting Wall Street: The role of information asymmetry. Journal of Financial Research, 40(3), 369-400. https://doi.org/10.1111/jifr.12128
33. McLaughlin, R. M. (1990). Investment-banking contracts in tender offers: An empirical analysis. Journal of Financial Economics, 28(1-2), 209-232. https://doi.org/10.3386/ht0053
34. McLaughlin, R. M. (1992). Does the form of compensation matter? Investment banker fee contracts in tender offers. Journal of Financial Economics, 32(2), 223-260. https://doi.org/10.1016/0304-405X(92)90019-T
35. Michel, A., Shahed, I., & Lee, Y.-T. (1991). An evaluation of investment banker acquisition advice: The shareholders' perspective. Financial Management, 20(2), 40-49. https://doi.org/10.2307/3665728
36. Morck, R., Shleifer, A., & Vishny, R. W. (1990). Do managerial objectives drive bad acquisitions? The Journal of Finance, 45(1), 31-48. https://doi.org/10.1142/9789812798650_0003
37. Muscarella, C. J., & Vetsuyens, M. R. (1989). A simple test of Baron's model of IPO underpricing. Journal of Financial Economics, 24(1), 125-135. https://doi.org/10.1016/0304-405X(89)90074-3
38. Offenberg, D., & Pirinsky, C. (2015). How do acquirers choose between mergers and tender offers? Journal of Financial Economics, 116(2), 331-348. https://doi.org/10.1016/j.jfineco.2015.02.006
39. Rau, P. R. (2000). Investment bank market share, contingent fee payments, and the performance of acquiring firms. Journal of Financial Economics, 56(2), 293-324. https://doi.org/10.1016/S0304-405X(00)00042-8
40. Reddy, K. S., Nangia, V. K., & Agrawal, R. (2014). The 2007-2008 global financial crisis, and cross-border mergers and acquisitions: A 26-nation exploratory study. Global Journal of Emerging Market Economies, 6(3), 257-281. https://doi.org/10.1177/0974910114540720
41. Rhodes-Kropf, M., Robinson, D. T., & Viswanathan, S. (2005). Valuation waves and merger activity: The empirical evidence. Journal of Financial Economics, 77(3), 561-603. https://doi.org/10.1016/j.jfineco.2004.06.015
42. Roll, R. (1986). The hubris hypothesis of corporate takeovers. Journal of Business, 59(2), 197-216. https://doi.org/10.1086/266325
43. Schwert, G. W. (1990). Markup pricing in mergers and acquisitions. Journal of Financial Economics, 24(1), 153-192. https://doi.org/10.1016/0304-405X(90)90085-C
44. Servaes, H., & Zennier, M. (1996). The role of investment banks in acquisitions. The Review of Financial Studies, 9(3), 787-815. https://doi.org/10.1093/rfs/9.3.787
45. Shleifer, A., & Vishny, R. W. (1986). Large shareholders and corporate control. The Journal of Political Economy, 94(3), 461-488. https://doi.org/10.1086/261385
46. Shleifer, A., & Vishny, R. W. (2003). Stock market driven acquisitions. Journal of Financial Economics, 70(3), 295-311. https://doi.org/10.1016/S0304-405X(03)00211-3
47. Stulz, R. M., Walkling, R. A., & Song, M. H. (1990). The distribution of target ownership and the division of gains in successful takeovers. The Journal of Finance, 45(3), 817-833. https://doi.org/10.1111/j.1540-6261.1990.tb05107.x
48. Travlos, N. G. (1987). Corporate takeover bids, methods of payment, and bidding firms' stock returns. The Journal of Finance, 42(4), 943-963. https://doi.org/10.1111/j.1540-6261.1987.tb03921.x
49. Wang, W., & Whyte, A. M. (2010). Managerial rights, use of investment banks, and the wealth effects for acquiring firms' shareholders. Journal of Banking and Finance, 34(1), 44-54. https://doi.org/10.1016/j.jbankfin.2009.07.002
50. Wasserstein, B. (2000). Big deal: Mergers and acquisitions in the digital age. UK: Hachette Book Group.