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Evidence from M&A Advisor Banks

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I hereby declare that this PhD dissertation is my original work

and it has been written by me in its entirety.

I have duly acknowledged all the sources of information

which have been used in this dissertation.

This PhD dissertation has also not been submitted for any degree

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Abstract

M&A advisor banks are privy to valuable and sensitive information through their service. I examine whether M&A advisor banks exploit such private information to trade in peers of M&A firms. I provide evidence that M&A advisor banks gain higher profits through their trading in peers of M&A firms, compared with non-advisor banks. Such informed trading is more intensive for M&A deals with larger impacts on peer firms (i.e., when the deal value is more significant for peer firms; when the M&A firms have larger market share in the industry; and when the stock price reactions of peer firms are stronger). Further analysis reveals that prior business relationships with peer firms enable M&A advisor banks to engage in such informed trading. In addition, M&A advisor banks' performance pressure incentivizes them to utilize private M&A information for trading, while reputation concern deters such informed trading in peer firms.

Keywords: *M&A; advisor bank; informed trading; peer firm; private information.*

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1. Introduction

Financial institutions often obtain material private information when providing services to firms. Such information is valuable for them to make trading decisions. The issue of financial institutions potentially trading on private information obtained from their business activities with firms has drawn significant attention from academia, practitioners, and regulators (e.g., Acharya and Johnson, 2007; Massa and Rehman, 2008; Bushman, Smith, and Wittenberg-Moerman, 2010; Ivashina and Sun, 2011; Massoud, Nandy, Saunders, and Song, 2011; Haselmann, Leuz, and Schreiber, 2023). In particular, M&A advisor banks are privy to valuable information about the upcoming M&A deal, which provides trading opportunities for them. Prior literature mainly explores whether M&A advisor banks exploit private information to trade in acquirer firms and target firms (Bodnaruk, Massa, and Simonov, 2009; Griffin, Shu, and Topaloglu, 2012; Kedia and Zhou, 2014; Lowry, Rossi, and Zhu, 2019). However, given the potential litigation risk of exploiting such private information, M&A advisor banks may try to gain profits in a more subtle way: trade in peers of M&A firms. In this paper, I examine whether M&A advisor banks gain profits by using private M&A information to trade in peers of M&A firms.

Informed trading in peer firms has drawn regulatory attention recently. In August 2021, the Securities and Exchange Commission (SEC) filed a landmark complaint against a corporate insider for trading in the peer firm before his own firm was acquired.[1] The SEC's stand was further supported by

[1] https://www.sec.gov/litigation/litreleases/lr-25170

the district court in January 2022.[2] As the first charge of this kind, it implies the SEC's regulatory intent to expand the scope of insider trading liability to further consider informed trading in peer firms. In addition, in a risk alert on investment advisers' compliance issues with material non-public information (MNPI) in April 2022, the Division of Examinations notes investment advisers' deficiencies in "reviewing relevant trading activity of supervised persons in the securities of publicly traded companies *that are in similar industries* as those discussed during calls (with expert network consultants)".[3] Therefore, examining informed trading in peer firms echoes the regulatory attention, and helps to enhance the understanding of factors that exacerbate or mitigate such informed trading.

In particular, M&A advisor banks have private information about the upcoming M&A deal, whose public announcement could generate significant stock market reactions of peer firms in the industry (e.g., Song and Walkling, 2000; Fee and Thomas, 2004; Shahrur, 2005; Akdoğu, 2009; Fathollahi, Harford, and Klasa, 2022). The asset management division of M&A advisor banks could access this valuable information from the investment banking division as the two divisions are often geographically proximate and share social connections (Lowry, Rossi, and Zhu, 2019). Such information sharing within M&A advisor banks could occur for informed trading purposes, as part of routine collaborations to enhance service capability, or through the top executives overseeing both divisions. Considering the peer effects of M&A, M&A advisor banks could conduct informed trading in peers of M&A firms

[2] https://www.reuters.com/legal/government/secs-shadow-trading-case-can-move-forward-judge-rules-2022-01-18/

[3] https://www.sec.gov/files/code-ethics-risk-alert.pdf

before the M&A deal is publicly announced. Therefore, I predict that M&A advisor banks gain higher profits through their trading in peers of M&A firms, compared with non-advisor banks.

There are at least three reasons why M&A advisor banks may not make informed trading in peers of M&A firms. First, regulators require strict Chinese Walls to prevent inappropriate information flow between different divisions within advisor banks. To the extent that the Chinese walls take effect in practice, the asset management division may not obtain private information about M&A deals, and thus cannot conduct informed trading in peer firms. Second, even if asset management divisions obtain private information about the M&A, they may be reluctant to use it to gain profits. This is because once such behavior is exposed, they will face litigation issues and reputation damage (Griffin, Shu, and Topaloglu, 2012; Heitzman and Klasa, 2021). Third, M&A could affect various aspects of peer firms, and thus its overall effect on peer firms needs to be estimated in each M&A deal (Fee and Thomas, 2004; Shahrur, 2005; Fathollahi, Harford, and Klasa, 2022). Such estimation complexity may deter M&A advisor banks from making informed trading in peer firms. Therefore, whether M&A advisor banks gain profits by trading in peers of M&A firms is an empirical question.

To examine this research question, I identify 3,511 M&A events during the period from 2000 to 2021 from the Securities Data Company (SDC) database. I define peer firms in each M&A event as those sharing similar products with the acquirer firm or the target firm based on the industry classification of Hoberg and Phillips (2016). Then, for every M&A advisor bank that appears in the M&A sample, I obtain its stock trading based on the

Thomson Reuters 13f filings. To construct the sample, I match all advisor banks to peer firms in each M&A deal, with advisor banks leading the M&A deal as treated and those not involved in the M&A deal as the control. I then compare the trading profits between M&A advisor banks and non-advisor banks. The trading profits are captured by the product of trading value and return (Kumar, Mullally, Ray, and Tang, 2020). Specifically, I measure it as the product of the advisor bank's trading value and the peer firm's abnormal return. Advisor bank's trading value is based on its holding value change in the peer firm in the quarter before the M&A announcement, which ensures the trading is not affected by the public information about the M&A. Peer firm's abnormal return is its market reaction to the M&A announcement, which is measured as the cumulated abnormal return in the three-day window centered at the M&A announcement date.

I conduct the empirical analyses at the M&A deal-peer firm-advisor bank level, which allows the inclusion of various fixed effects. I include M&A deal fixed effects to control for different deal characteristics and firm-year-quarter fixed effects to control for time-variant firm characteristics that could affect the trading by advisor banks (e.g., firm size, book-to-market ratio, and past return pattern). I also include advisor bank-year-quarter fixed effects to control for time-variant advisor bank characteristics that could affect their trading, such as investment skills, management style, and portfolio liquidity. Using the stringent fixed effects, I find that M&A advisor banks gain higher profits by trading in peers of M&A firms, compared with non-advisor banks. The economic magnitude is significant: one M&A advisor bank on average earns higher profits of $986,325 in one M&A deal. Given there are an average

of 1.473 M&A advisor banks in one M&A deal, the estimate suggests that additional profits of $1,452,857 are earned by M&A advisor banks in one M&A deal.

Next, I conduct several cross-sectional analyses. If M&A advisor banks trade in peer firms in the expectation that peer firms would be affected by the upcoming M&A deal, they are more likely to do so when the M&A has greater effects on peer firms. To test this prediction, I use three measures to proxy for the magnitude of M&A peer effects: the deal value relative to the market value of peer firms, the market share of the M&A firms in the peer firm's industry, and the absolute market reaction of peer firms to the M&A announcement. I find consistent evidence that M&A advisor banks gain more profits by trading in peers of M&A firms when the M&A has greater peer effects.

I also explore the cross-sectional variation in the characteristics of M&A advisor banks. First, I find that informed trading in peers of M&A firms is more intensive when the M&A advisor banks have prior business relationships with the peer firms. This finding suggests that prior business relationships enable M&A advisor banks to assess the potential peer effects and exploit this trading opportunity. Second, I find that when M&A advisor banks face performance pressure in their stock portfolios, they are more likely to conduct informed trading in peer firms, which implies that performance pressure incentivizes M&A advisor banks to utilize risky private information. Third, I find weaker evidence of informed trading in peer firms when the M&A advisor bank is ranked among the top ten advisor banks, consistent with the argument that reputation concerns deter M&A advisor banks from exploiting private

information about the M&A deal (Griffin, Shu, and Topaloglu, 2012; Heitzman, and Klasa, 2021).

The selection of M&A advisor banks is not random. Prior literature finds that the industry expertise of investment banks increases their likelihood of being chosen as M&A advisors (Chang, Shekhar, Tam, and Yao, 2016; Lowry, Rossi, and Zhu, 2019). To the extent that the asset management division processes the same industry expertise as the investment banking division, the M&A advisor bank may obtain higher profits by trading in peers of M&A firms, without using private information about the upcoming M&A deal. The advisor bank-year-quarter fixed effects control for expertise at the advisor bank level, such as the advisor bank's overall investment skills, but they do not account for the advisor bank's industry-specific or firm-specific expertise. To mitigate this alternative explanation, I conduct a falsification test. The intuition is that if expertise explains the higher trading profits in peer firms, the higher profits should also exist at other times in the quarter. To implement this test, I randomly assign a pseudo-M&A announcement date in the same quarter as the real M&A announcement date for each M&A deal. I then calculate the pseudo-profit measure and compare it between M&A advisor banks and non-advisor banks. I conduct this procedure 5,000 times and find that, in most cases, M&A advisor banks do not obtain higher profits by trading in peer firms. This result suggests that the expertise of M&A advisor banks is unlikely to explain the higher profits that they earned by trading in peer firms.

Lastly, I explore trading based on other private information by M&A advisor banks. Besides information specific to the upcoming M&A deal, it is also possible that M&A advisor banks obtain other private information about

the general industry or even about certain peer firms during the M&A advising process. Some private information about the M&A firms is also value relevant to peer firms. Unlike information specific to M&A deals, other private information does not become public at a certain time but may generate long-term profits for the M&A advisor banks. To test whether M&A advisor banks trade on other private information, I replace return in the profits measure with quarterly abnormal returns from one to four quarters after the M&A announcement. The results show that trading by M&A advisor banks in peer firms is not associated with higher profits in quarters after the M&A announcement. This finding suggests that M&A advisor banks trade on information specific to the upcoming M&A deal, but not other private information about the general industry or specific peer firms. The possible explanation for this finding is that the uncertainty is too high for the M&A advisor banks to trade on other private information without a clear public release date.

The findings in this paper are relevant to the concerns of regulators. The SEC has increasingly paid its attention to informed trading in peer firms. Prior literature also documents increased firm-level informed trading in peer firms before the focal firms' news events (Tookes, 2008; Mudalige, Duong, Kalev, and Gupta, 2020; Mehta, Reeb, and Zhao, 2021; Clancey-Shang, 2022). Two concurrent papers examine the role of corporate insiders in informed trading in peer firms. Specifically, Deuskar, Khatri, and Sunder (2023) show that corporate insiders increase their trading in peer firms after insider trading regulations become stricter, and Kang, Kim, and Si (2023) find that corporate insiders use private information about peer firms' upcoming news to trade in

their own firms. The findings of my paper show that financial institutions also engage in informed trading in peer firms, which echoes the recent regulatory attention on informed trading in peer firms in particular by financial institutions.

Second, this paper contributes to how financial institutions exploit private information gathered from their business activities. Trading based on such private information is detrimental to the fairness and integrity of the capital market. Prior literature focuses on whether financial institutions trade on private information in firms directly involved in their business activities, such as M&A advising services (Bodnaruk, Massa, and Simonov, 2009; Haushalter and Lowry, 2011; Griffin, Shu, and Topaloglu, 2012; Kedia and Zhou, 2014; Lowry, Rossi, and Zhu, 2019), lending relationship (Acharya and Johnson, 2007; Massa and Rehman, 2008; Ivashina and Sun, 2011; Massoud, Nandy, Saunders, and Song, 2011; Carrizosa and Ryan, 2017; Haselmann, Leuz, and Schreiber, 2023), IPO underwriting process (Ritter and Zhang, 2007; Chiang, Lowry, and Qian, 2019), and trade brokerage services (Li, Mukherjee, and Sen, 2021). I complement this literature by documenting advisor banks' informed trading in peer firms, which establishes an underexplored and subtle channel through which financial institutions exploit their private information advantage.

Third, this paper adds to the literature on the peer effects. Prior literature mainly focuses on how investors react to peer firm events. For example, there are significant stock price changes when the peer firms make earnings announcements (Foster, 1981; Clinch and Sinclair, 1987; Han and Wild, 1990), provide management forecasts (Baginski, 1987; Pyo and Lustgarten, 1990),

restate accounting numbers (Gleason, Jenkins, and Johnson, 2008; Kravet and Shevlin, 2010), and announce M&A decisions (Shahrur, 2005; Akdoğu, 2009; Fathollahi, Harford, and Klasa, 2022). Little attention is paid to how informed investors take action before the release of corporate events in anticipating other investors' reactions to the peer effects. This paper adds to the literature by showing that M&A advisor banks take advantage of the peer effects of M&A to earn trading profits.

2. Literature Review and Hypothesis Development

2.1. Information Sharing within Financial Institutions

Financial institutions often receive material private information regarding their client firms as part of their business operations, such as M&A advisory services, financial lending, and security underwriting. Under Section 15(g) of the Securities Exchange Act of 1934, financial institutions should establish, maintain, and enforce written policies and procedures to prevent the misuse of material private information obtained from their business operations. Such policies and procedures to block information sharing are commonly referred to as Chinese Walls.

Although Chinese Walls are designed to prevent information sharing within financial institutions, it is not clear how effective they are in practice. In a report in 2012, the SEC noted that the Chinese Walls are often inadequate: there is a significant interaction between groups with material private information and groups engaged in trading; senior executives above the wall receive material private information without monitoring or restrictions; review

is missing for the trading that occurred after traders are provided with material private information; gaps exist in the oversight coverage.[4]

Prior literature documents that M&A information is shared within the M&A advisor bank. Bodnaruk, Massa, and Simonov (2009) find that M&A advisor banks increase their stock holdings in target firms before M&A announcements. Lowry, Rossi, and Zhu (2019) find that M&A advisor banks gain profits by trading in M&A firms' options ahead of the M&A announcements. Besides stocks and options, Kedia and Zhou (2014) explore corporate bonds and find evidence that dealers affiliated with M&A advisor banks conduct informed trading in the target firms' bonds before M&A announcements. Further, Haushalter and Lowry (2011) find that the trading by M&A advisor banks is positively associated with the change in stock recommendations by their analysts after the M&A, which suggests that the information from the investment banking division flows to the asset management division of M&A advisor banks.

In addition, prior literature shows the existence of informed trading based on financial lending.[5] During the issuance and subsequent monitoring of the debt, financial institutions collect private information about the firm, and such valuable information could be shared with other divisions for trading purposes. Prior literature finds that lenders use their private information about the borrowers to trade in the debt market and stock market (Acharya and

[4] https://www.sec.gov/about/offices/ocie/informationbarriers.pdf

[5] Besides trading purposes, the privation information collected from lending relationships is found useful for analysts to make forecasts and for institutions to underwrite new equity issuance (Drucker and Puri, 2005; Chen and Martin, 2011; Duarte-Silva, 2010). In addition, there are papers exploring the consequences of informed trading by lenders on price discovery and managers' earnings disclosure (Bushman, Smith, and Wittenberg-Moerman, 2010; Peyravan and Wittenberg-Moerman, 2022).

Johnson, 2007; Massa and Rehman, 2008; Ivashina and Sun, 2011; Massoud, Nandy, Saunders, and Song, 2011; Carrizosa and Ryan, 2017; Haselmann, Leuz, and Schreiber, 2023). Further, some papers find that financial institutions are more likely to provide loans to opaque firms because they can make more profits by trading in these firms subsequently (Peyravan, 2020; Kang, 2023).

There are also other settings of potential information sharing within financial institutions explored by prior literature. For example, investment banks gain higher profits by trading in the securities that they underwrite (Ritter and Zhang, 2007; Chiang, Lowry, and Qian, 2019). Li, Mukherjee, and Sen (2021) find that mutual funds trade on private information that their affiliated brokers obtained from the execution of corporate insiders' trading orders.

Overall, the literature documents that there exists information sharing within financial institutions, and private information is transferred for informed trading purposes. However, the literature focuses on financial institutions exploiting their private information in firms directly involved in their business activities. By focusing on the M&A setting[6], I complement this literature by documenting advisor banks' informed trading in peer firms, which establishes an underexplored and subtle channel through which financial institutions exploit their private information advantage.

2.2. Informed Trading Based on Anticipated Peer Effects

[6] The M&A setting has the following advantages over others to test informed trading in peer firms. First, the M&A has a clear announcement date to track M&A advisor banks' prior trading and peer firms' abnormal returns. Second, the M&A announcement date is unexpected for outsiders, which protects the information advantage of M&A advisor banks. Third, prior literature documents that M&A could generate significant market reactions of peer firms, which provides the foundation for trading in peer firms.

It is common for an event of one firm to significantly affect the stock price of its peer firms. These peer effects provide opportunities for insiders with private information to trade in peer firms ahead of the event to gain profits.[7] Ayres and Bankman (2001) provide anecdotal evidence of such informed trading in peer firms and conclude that it is legal to conduct this kind of trading because it does not violate the fiduciary duty. Donald (2016), however, suggests that trading in peer firms based on private information is presumptively illegal under the misappropriation theory under Rule 10b-5. The SEC has paid attention to informed trading in peer firms recently. In the case *SEC v. Panuwat*, a corporate insider is charged for trading in the peer firm before his own firm is acquired. Shedding light on this issue, this paper tries to provide large sample empirical evidence on whether M&A advisor banks gain profits by trading in peer firms.

Using firm-level measures of informed trading, prior literature documents the existence of informed trading in peer firms before corporate events. For example, Tookes (2008) finds that peer firms' order flow and returns have information content for the focal firm's earnings announcements, which suggests that some traders conduct informed trading in peer firms before the focal firm's earnings announcements. Further, Mudalige, Duong, Kalev, and Gupta (2020) find that both individual and institutional investors conduct such informed trading in peer firms. Mehta, Reeb, and Zhao (2021) also document an increase in firm-level informed trading in peer firms before

[7] Another line of literature shows that corporate insiders or institutions could gain profits by trading in economically related firms based on *public* information about the focal firm, because such information diffuses gradually, and the market fails to promptly incorporate the focal firm's information into economically related firms' stock price. (Cohen and Frazzini, 2008; Menzly and Ozbas, 2010; Huang and Kale, 2013; Alldredge and Cicero, 2015; Ben-David, Birru, and Rossi, 2019; Ying, 2020; Dai, Ng, and Zaiats, 2022).

various news events. In addition, Clancey-Shang (2022) documents abnormal firm-level trading activities in peers of M&A firms before the M&A announcement.

Besides informed trading measured at the firm level, there are papers exploring informed trading conducted by corporate insiders in peer firms. For example, Deuskar, Khatri, and Sunder (2023) find that corporate insiders increase their trading in peer firms after insider trading regulations become stricter. Examining the information and trading in another flow, Kang, Kim, and Si (2023) find that corporate insiders gain profits by trading in their own firms before the disclosure of peer firms' cyberattack news.

Documenting who conducts informed trading in peer firms is important to understand how such informed trading happens and potential remedies. This paper reveals an important party beyond corporate insiders, i.e., financial institutions that offer services to firms, conducting informed trading in peer firms.

2.3. Materiality of M&A for Peer Firms

M&A is an influential event in the industry and prior literature documents significant market reactions of peer firms and provides various explanations. For example, peer firms could be left at a competitive disadvantage because M&A could generate a larger and more efficient competitor (Shahrur, 2005; Akdoğu, 2009; Becher, Mulherin, and Walkling, 2012; Bernile and Lyandres, 2019). However, on the other hand, peer firms could benefit from the increased industry concentration and collusion after M&A in the industry (Eckbo, 1983, 1985, 1992; Stillman, 1983; Kim and Singal, 1993; Anton, Azar, Gine, and Lin, 2022; Fathollahi, Harford, and Klasa,

2022; Stiebale and Szücs, 2022). In addition, M&A increases the probability that peer firms to be acquired in the future, which promotes peer firms to take more efficient corporate policies (Song and Walkling, 2000; Servaes and Tamayo, 2014).

Given the material effects of M&A on peer firms documented by prior literature, however, little attention is paid to how informed investors anticipate and take action before the M&A event is publicly announced. This paper contributes by finding M&A advisor banks take advantage of the peer effects of M&A to conduct informed trading.

2.4. Hypothesis Development

By providing advisory services, M&A advisor banks process material private information about the upcoming M&A deal. As documented by prior literature, such M&A information could be shared within the M&A advisor banks (Bodnaruk, Massa, and Simonov, 2009; Haushalter and Lowry, 2011; Kedia and Zhou, 2014; Lowry, Rossi, and Zhu, 2019). In particular, the asset management division of M&A advisor banks could obtain private information about the M&A deal from the investment banking division, since the two divisions are often geographically proximate and share social connections (Lowry, Rossi, and Zhu, 2019). Such information sharing could occur for informed trading purposes, as part of routine collaborations to enhance service capability, or through the top executives overseeing both divisions. After receiving the private M&A information, the asset management division of M&A advisor banks may consider conducting informed trading based on that private information.

M&A could generate profound effects on peer firms by reshaping industry structure, competitive landscape, market for corporate control, etc. Therefore, M&A could cause significant stock price changes of peer firms (e.g., Song and Walkling, 2000; Fee and Thomas, 2004; Shahrur, 2005; Akdoğu, 2009; Fathollahi, Harford, and Klasa, 2022). M&A advisor banks are likely to be aware of how peer firms will be affected by the upcoming M&A deal because they are deeply involved in the deal and provide professional advice. Considering these peer effects, M&A advisor banks could trade in peers of M&A firms before the M&A deal is publicly announced and benefit from peer firms' stock price reactions to the M&A announcement. In this sense, M&A advisor banks will gain profits through their trading in peers of M&A firms.

However, there are reasons why M&A advisor banks may not gain profits by trading in peers of M&A firms. First, sharing private M&A information with the asset management division for trading would breach the Chinese Walls. The investment banking division may follow the restrictions of Chinese Walls and thus the asset management division could not obtain the M&A information for trading. Second, even if asset management divisions obtain private information about the M&A, they may be reluctant to use it to gain profits because once such behavior is exposed, they will face litigation issues and reputation damage (Griffin, Shu, and Topaloglu, 2012; Heitzman and Klasa, 2021). Third, M&A could affect various aspects of the peer firms, such as industry structure, competitive landscape, and market for corporate control (Fee and Thomas, 2004; Shahrur, 2005; Fathollahi, Harford, and Klasa, 2022). Analyzing the overall effect of M&A on peer firms could be complex, which deters M&A advisor banks from trading in peer firms. Therefore,

whether M&A advisor banks gain profits by trading in peers of M&A firms is an empirical question, and I offer the hypothesis in the null form as follows:

Hypothesis: M&A advisor banks do not gain higher profits through their trading in peers of M&A firms, compared with non-advisor banks.

3. Sample Construction, Research Design, and Summary Statistics

3.1. Sample Construction

I begin by collecting M&A deals with announcement dates from January 2000 to December 2021 from the SDC Platinum's M&A dataset. Following prior literature, I adopt the following filters of M&A deals (Cai, Kim, Park, and White, 2016; Bates, Neyland, and Wang, 2018; Carnes, Christensen, and Lamoreaux, 2019; Blouin, Fich, Rice, and Tran, 2021; Heater, Nallareddy, and Venkatachalam, 2021): both the acquirer firm and the target firm are in the United States; the acquirer firm is public while the target firm could be public, private, or subsidiary; the acquirer firm owns less than 50% of the target firm before the M&A and seeks to own over 50% of the target firm after the M&A; the M&A deal is completed; the deal value is greater than $1 million and greater than 1% of the acquirer firm's market value at the year-end before the M&A announcement. I also require at least one M&A advisor bank to be involved in the M&A deal. Then, for each M&A deal, I match peer firms with similar products with either the acquirer firm or the target firm based on the industry classification of Hoberg and Phillips (2016). Note that only public target firms are considered in the matching of peer firms because the measure of product similarity peer firms (Hoberg and Phillips 2016) is only available for public firms.

Next, I obtain the stock holding data of every advisor bank from the Thomson Reuters 13f filings. I first clean the M&A advisor names in the SDC database to assign a unique brand name for different name variants. For example, the advisor bank brand "J.P. Mogan" covers advisor banks named "JP Morgan", "JP Morgan Chase & Co", "JP Morgan Securities Inc", etc. in the SDC database. Then, I carefully match every advisor bank brand to all relevant 13f filer names following prior literature using similar matching (Massa and Rehman, 2008; Bodnaruk, Massa, and Simonov, 2009; Lowry, Rossi, and Zhu, 2019; Li, Mukherjee, and Sen, 2021).[8] For example, the 13f filer names under the brand of "J.P. Morgan" could include "JPMORGAN CHASE & COMPANY", "J. P. MORGAN INVT MGMT", "J.P. MORGAN PRIV INVTS INC.", etc. I combine holdings by these different 13f filer name variants under the same advisor bank brand. I also account for the evolution of the advisor bank brand due to bank M&A. For example, for periods after Merrill Lynch is acquired by Bank of America, I retire the brand of Merrill Lynch and classify its stock holdings to be under the brand of Bank of America.

I construct the sample at the M&A deal-peer firm-advisor bank level. For each peer firm in the M&A deal, I match all advisor banks with trading in the firm in the quarter before the M&A announcement. Then I identify the lead advisor bank of either the acquirer firm or the target firm as the treated. Advisor

[8] I use various sources to ensure the matching quality: (1) the "Organization Affiliates" section of the BrokerCheck Report required by FINRA reports the investment advisory names with control relationships with the brokerage firm. I consider these affiliated investment advisory names to be matched with 13f filer names; (2) the "Item 7" section of Form ADV provided by investment advisers reports its financial industry affiliations. Also, the Form ADV reports the ownership information of investment advisers. I use it to check whether different 13f filers are under control of the same brand of advisor bank; (3) I use the SDC database to account for the M&A between advisor banks; (4) for any ambiguous or missing information, I use extensive web querying to check.

banks that are not involved in the M&A deal are classified as the control.[9] In the robustness test, I also match different numbers of control advisor banks based on their portfolio holding value and the results still hold. After requiring non-missing return data in the three-day window centered at the M&A announcement date from CRSP and requiring the peer firm in the M&A deal to have trading by both treated and control advisor banks, I obtain 7,962,327 observations at the M&A deal-peer firm-advisor bank level from 3,511 unique M&A deals.

Table 1 presents the sample distribution. Table 1 Panel A reports the sample distribution by year. The number of M&A deals in each year is generally lower after 2008 than before 2008. This yearly distribution pattern of M&A deals is consistent with prior literature (Carnes, Christensen, and Lamoreaux, 2019; Liu, 2020; Blouin, Fich, Rice, and Tran, 2021). Table 1 Panel B reports the sample distribution by the acquirer firm's Fama-French 12-industry classification. Similar to prior literature, the finance industry and the business equipment industry have the highest number of M&A deals (Carnes, Christensen, and Lamoreaux, 2019; Liu, 2020; Blouin, Fich, Rice, and Tran, 2021).

3.2. Research Design

To examine whether M&A advisor banks gain more profits by trading in peers of M&A firms, I estimate the following OLS regression model:

[9] It is possible that treated M&A advisor banks leak information about the upcoming M&A deal to some control advisor banks (Betzer, Gider, and Limbach, 2022; Bittner, Fecht, Pala, and Saidi, 2023), who may also conduct informed trading in peer firms. Nonetheless, it means that the estimated difference in trading profits between M&A advisor banks and non-advisor banks is the lower bound.

$$Profit_{i,j,k} = \beta_0 + \beta_1 \, M\&A \; Advisor_{i,j,k} + Deal \; Fixed \; Effects + Firm \times Year\text{-}Qtr \; Fixed \; Effects + Advisor \times Year\text{-}Qtr \; Fixed \; Effects + \varepsilon_{i,j,k}$$

The dependent variable uses the product of trading value and return to capture the profits gained in the trading (Kumar, Mullally, Ray, and Tang, 2020). Specifically, *Profit* is the product of the advisor bank's trading and the peer firm's abnormal return. Trading by advisor banks is measured as quarter-end holding shares minus quarter-begin holding shares in the peer firm, multiplied by the peer firm's stock price at the quarter-end.[10] Since large advisor banks are naturally more likely to have higher trading value than small advisor banks, I scale the trading value by the total holding values of the advisor bank's portfolio at the quarter-end. The trading measure is calculated based on the quarter before the M&A announcement, which ensures the trading is not affected by the public information about the M&A. Peer firm's abnormal return is its market reaction to the M&A announcement, which is measured as the cumulated abnormal return in the three-day window centered at the M&A announcement date. The abnormal return is calculated based on the market model, with the estimation window being [-250, -50] relative to the M&A announcement date. In the robustness tests, I also use different trading measures and different models to estimate abnormal returns and the results still hold.

The independent variable of interest, *M&A Advisor*, is an indicator variable equal to one if the advisor bank advises the M&A transaction, and

[10] Similar to other studies using the 13f data to calculate stock trading by institutional investors, the quarterly measure provides a lower bound on institutional trading since it could not capture intra-quarter roundtrip trades, short sales, or confidential filings (Bradley, Jame, and Williams, 2022; Crane, Crotty, and Umar, 2023).

zero otherwise. It reflects the difference in the trading profits by the M&A advisor banks relative to non-advisor banks. If M&A advisor banks exploit their private information about the upcoming M&A deal to gain higher profits by trading in peers of M&A firms, the coefficient on *M&A Advisor* should be positive and significant.

I include various fixed effects to control for time-invariant and time-variant factors that potentially affect the estimation. Specifically, I include M&A deal fixed effects to control for time-invariant deal characteristics that may affect the trading by advisor banks. I also include firm-year-quarter fixed effects to account for time-variant firm characteristics that may affect the trading by advisor banks. Such approach is efficient to control for both observable factors such as firm size, book-to-market ratio, and past return pattern, and unobservable factors such as management ability, corporate culture, and innovation capacity. In addition, I include advisor bank-year-quarter fixed effects to control for time-variant advisor bank characteristics that may affect their trading, such as investment skills, management style, and portfolio liquidity. All continuous variables are winsorized at the 1% and 99% levels. I cluster the standard errors at the M&A deal-advisor bank level as residuals could be correlated within one advisor bank in the M&A deal.

3.3. Summary Statistics

Table 2 presents the summary statistics. Table 2 Panel A reports the M&A deal characteristics. The mean (median) of the deal value is $1505.295 ($285.876) million, and the deal value relative to the acquirer's market value has a mean (median) of 0.465 (0.195). The type of public target firms consists of 48.6% of all M&A deals. For the payment method, 32.6 % and 22.8% of

M&A deals adopt the only cash method and only stock method, respectively. Most of the M&A deals are friendly (99.1%), and in rare cases, the acquirer firm has toe-hold ownership in the target firm before the M&A (2.2%). These M&A deal characteristics are consistent with prior literature (Liu, 2020; Blouin, Fich, Rice, and Tran, 2021).

Panel B and Panel C of Table 2 report the characteristics of acquirer firms and public target firms, respectively. The acquirer firms generally have higher market value and are more profitable than the public target firms, while the acquirer firms and the public target firms have similar market-to-book ratios and leverage ratios. On average, the cumulative abnormal return in the M&A announcement window is -0.1% and 24.6% for acquirer firms and public target firms, respectively. These patterns in firm characteristics are consistent with prior literature (Liu, 2020; Blouin, Fich, Rice, and Tran, 2021).

Table 2 Panel D reports the summary statistics of variables used in the regression. The average profits from trading in peers of M&A firms (*Profit*) is -0.110, which suggests that on average advisor banks do not earn profits by trading in peer firms. The mean value of *M&A Advisor* suggests that 4.9% of advisor banks in the sample are in the treatment group to advise the M&A deal.

4. Main Results

4.1. Baseline Results

Table 3 Panel A presents the main results. In column (1), I use the full sample in the regression, and the coefficient on *M&A Advisor* is positive and significant at the 1% level. This result suggests that M&A advisor banks gain more profits by trading in peers of M&A firms, compared with non-advisor

banks. Given that the average holding value of the advisor banks' portfolios in the sample is $118,475 million, the additional trading profits for an M&A advisor to trade in one peer firm (*M&A Advisor* = 1) is $13,151 (0.111×118,475) on average. Since one M&A advisor bank has trading in an average number of 75 peer firms in one M&A deal, this translates to additional profits of $986,325 (13,151×75) for one M&A advisor bank in each M&A deal. At the M&A deal level, the average number of M&A advisor banks is 1.473 in one deal. Therefore, this result suggests that on average M&A advisor banks gain additional profits of $1,452,857 (986,325×1.473) in one M&A deal.

Column (2) reports the sub-sample using peers of the acquirer firm in the M&A deal. The coefficient on *M&A Advisor* is still positive and significant at the 1% level. In column (3), I consider the sub-sample using peers of the public target firm in the M&A deal. Since the measure of product similarity peer firms is only available for public target firms (Hoberg and Phillips 2016), the estimation in column (3) is the lower bound for informed trading in peers of all target firms. The result shows that the coefficient on *M&A Advisor* is positive and significant at the 10% level. These results suggest that M&A advisor banks conduct informed trading in peers of both acquirer firms and target firms.[11]

In Table 3 Panel B, I further explore whether it is the acquirer advisors or the target advisors that conduct informed trading in peer firms. Prior literature shows that both acquirer advisors and target advisors exploit private information about the M&A deal in their trading (Lowry, Rossi, and Zhu,

[11] The summation of observations in columns (2) and (3) is greater than the observation in column (1) because some peer firms are peers of both the acquirer firm and the public target firm. These peer firms only appear once in column (1), but appear in both columns (2) and (3).

2019). Thus, I do not have an ex-ante prediction about whether the result is stronger for the acquirer advisors or target advisors. To implement this test, I decompose the independent variable *M&A Advisor* into two variables: *Acquirer Advisor* (*Target Advisor*) is an indicator variable equal to one if the advisor bank advises the acquirer (target) firm, and zero otherwise. In column (1), coefficients on both *Acquirer Advisor* and *Target Advisor* are positive and significant at the 5% level. The difference in magnitude between the two variables is not significant. This result suggests that advisor banks from both the acquirer firm and the target firm conduct informed trading in peers of M&A firms. Similarly, in the sub-sample for peers of acquirer firms in column (2), coefficients on *Acquirer Advisor* and *Target Advisor* are both positive and significant at the 5% level, with the difference being not significant. In the sub-sample for peers of public target firms in column (3), the coefficient on *Acquirer Advisor* is significantly positive, and the coefficient on *Target Advisor* is positive but not significant. The difference in magnitude for the two variables is not significant.

4.2. Cross-Sectional Results

4.2.1. Strength of M&A Peer Effects

I conduct several cross-sectional analyses to strengthen the argument that M&A advisor banks exploit private information about the upcoming M&A deal to trade in peers of M&A firms. First, if M&A advisor banks anticipate the peer effects of M&A and trade in peer firms in advance, they are more likely to do so when the M&A deal has greater effects on peer firms. To test this prediction, I use three proxies for the magnitude of M&A peer effects. The first proxy is the M&A deal value divided by the peer firm's market value

at the year-end before the M&A announcement. The underlying assumption here is that large M&A deals could bring great industry dynamics, and smaller peer firms are more vulnerable to such change (Leary and Roberts, 2014; Truong, 2023). As for the second proxy for the magnitude of peer effects, I use the market share of the M&A firms in the peer firm's industry. Specifically, I calculate the sales of the M&A firms divided by the sales of all firms in the peer firm's industry.[12] The logic behind this proxy is that the M&A of dominant industry players with high market share is more likely to reshape the industry structure and competitive landscape, which in turn affects peer firms (Durnev and Mangen, 2009; Li, 2016). Third, I use an ex-post measure to proxy for the magnitude of M&A peer effects: the absolute value of the peer firm's market reaction to the M&A announcement. Market reaction is measured as the cumulative abnormal return of the peer firm in the three-day window centered at the M&A announcement. To the extent that M&A advisor banks could anticipate the peer effects of M&A, this ex-post market reaction measure captures their expected return of trading in peer firms before the M&A announcement.

Next, I decompose the independent variable *M&A Advisor* into two variables based on the M&A advisor banks' trading in peer firms experiencing higher or lower peer effects relative to the median peer effect level in the M&A deal. Table 4 presents the results of using the two decomposed independent variables in the regression. In column (1), I use the first proxy for the

[12] Since I use the industry classification in Hoberg and Phillips (2016) to identify all firms in the peer firm's industry, the total sales in the industry could be different for each peer firm. In the case where only the acquirer (target) firm is in the peer firm's industry, only the sales of the acquirer (target) firm will be used in the calculation.

magnitude of the M&A peer effects, i.e., deal value relative to the market value of the peer firm. The coefficient on *M&A Advisor* $^{High\ Deal\ Value}$ is positive and significant at the 1% level, while the coefficient on *M&A Advisor* $^{Low\ Deal\ Value}$ is positive but not significant. The p-value of the difference in the two coefficients is 0.046. This result suggests more intensive informed trading in peer firms when the M&A peer effects are expected to be higher. In column (2), I use the second proxy for the M&A peer effects based on the market share. The coefficient on *M&A Advisor* $^{High\ Market\ Share}$ is significantly higher than that on *M&A Advisor* $^{Low\ Market\ Share}$ at the 5% level. I find similar results when I use the ex-post market reaction to proxy for M&A peer effects in column (3). The coefficient on *M&A Advisor* $^{High\ Market\ Reaction}$ is significantly positive and that on *M&A Advisor* $^{Low\ Market\ Reaction}$ is not significant, with the difference being significant at the 1% level. Overall, these results suggest that M&A advisor banks are more likely to conduct informed trading in peer firms when there are stronger M&A peer effects.

4.2.2. Characteristics of M&A Advisor Banks

Next, I explore the cross-sectional variations in the characteristics of M&A advisor banks. To exploit the trading opportunity in peers of M&A firms, the M&A advisor banks need to be aware of which firm is the peer of M&A firms and estimate how the peer firm will be affected by the M&A deal. I expect the prior business relationship with the peer firm to facilitate the above process, since M&A advisor banks know better about the firm during their business activities (Bodnaruk, Massa, and Simonov, 2009; Haushalter and Lowry, 2011; Lowry, Rossi, and Zhu, 2019). I test this prediction in column (1) of Table 5. I decompose the independent variable *M&A Advisor* into two

variables: *M&A Advisor* $^{High\ Prior\ Relationship}$ (*M&A Advisor* $^{Low\ Prior\ Relationship}$) is an indicator variable equal to one if the advisor bank advises the M&A transaction (*M&A Advisor* = 1) and its trading is in peer firms with (without) advising relationship within three years before the M&A transaction, and zero otherwise. The result shows that coefficients on both *M&A Advisor* $^{High\ Prior\ Relationship}$ and *M&A Advisor* $^{Low\ Prior\ Relationship}$ are positive and significant. However, the magnitude of the former is significantly larger than the latter, with the p-value being 0.087. This result suggests that prior business relationships with peer firms facilitate the use of private information about the upcoming M&A deal to trade in peers of M&A firms.

In addition, I explore incentives for M&A advisor banks to exploit private information about the M&A deal. On the one hand, M&A advisor banks may have stronger incentives to gain profits from trading when their stock portfolios face performance pressure. Prior literature finds that asset managers are likely to take more risks in the expectation of generating higher profits when they face performance pressure (Brown, Harlow, and Starks, 1996; Chen and Pennacchi, 2009). Therefore, I predict that when the stock portfolio performance of M&A advisor banks is worse, they are more likely to exploit private information about the M&A deal. On the other hand, reputation concerns may deter M&A advisor banks from conducting informed trading based on the M&A deal. Using private information from the investment banking division to trade breaches the Chinese Wall, which may generate litigation issues and damage their reputation. Since the future business of M&A advisor banks depends on their reputation (Griffin, Shu, and Topaloglu, 2012; Heitzman and Klasa, 2021), M&A advisor banks may choose not to use

private information about the upcoming M&A deal to trade if they have high reputation concerns.

In column (2) of Table 5, I test the cross-sectional prediction based on the performance pressure of the M&A advisor bank's stock portfolio. I measure the M&A advisor bank's portfolio performance as the weighted average of the stock return of its holdings, where the weight of each stock is the average holding value in the stock at quarter-begin and quarter-end, divided by the average total holding value of all portfolio stocks. Then I define $M\&A\ Advisor^{High\ Perform\ Pressure}$ ($M\&A\ Advisor^{Low\ Perform\ Pressure}$) as an indicator variable equal to one if the advisor bank advises the M&A transaction ($M\&A\ Advisor = 1$) and its portfolio performance is lower (higher) than the prior quarter. The identification of performance pressure is based on the quarter before the trading quarter to avoid trading itself affecting the performance measure. The regression result shows that the coefficient on $M\&A\ Advisor^{High\ Perform\ Pressure}$ is positive and significant at the 1% level. The coefficient on $M\&A\ Advisor^{Low\ Perform\ Pressure}$ is positive but not significant. The p-value of the difference between the two coefficients is 0.075. This result suggests that M&A advisor banks are more likely to use private information to trade in peers of M&A firms when their portfolios face performance pressure.

In column (3) of Table 5, I test the cross-sectional prediction based on the reputation concern of M&A advisor banks. The M&A advisor bank is considered to have high (low) reputation concerns if it is (not) among the top ten advisor banks in the year prior to the M&A announcement. The top ten advisor banks are identified based on the total deal value of M&A advised by the advisor bank each year. The coefficient on $M\&A\ Advisor^{Low\ Reputation\ Concern}$

is significantly positive, while that on $M\&A\ Advisor^{High\ Reputation\ Concern}$ is not significant. The difference in magnitude between these two coefficients is significant at the 5% level. This result suggests that M&A advisor banks with higher reputation concerns conduct less informed trading in peers of M&A firms. Overall, these results support the incentive predictions that performance pressure incentivizes, while reputation concern deters M&A advisor banks from trading on their private information about the upcoming M&A deal.

5. Alternative Explanation: Advisor Bank Expertise

So far, the results suggest that M&A advisor banks use their private information about the upcoming M&A deal to gain profits by trading in peers of M&A firms. However, the selection of the M&A advisor bank in the M&A deal is not random. There is a possibility that the same factor drives both the selection of M&A advisor banks and their higher trading profits in peers of M&A firms, which leaves the result to alternative explanations. For example, prior literature finds that the industry expertise of investment banks increases their likelihood of being chosen as M&A advisors (Chang, Shekhar, Tam, and Yao, 2016; Lowry, Rossi, and Zhu, 2019). This industry expertise could also manifest as expertise in some specific peer firms in the industry. To the extent the asset management division processes the same industry expertise or firm-specific expertise as the investment banking division, the M&A advisor banks may generate higher trading profits in peers of M&A firms because of their expertise, rather than private information about the upcoming M&A deal. In this sense, expertise may drive both the selection of M&A advisor banks and the higher trading profits in peers of M&A firms. Although I include advisor

bank-year-quarter fixed effects in the regression, they could only control for the time-variant expertise at the advisor bank level, such as the advisor bank's overall investment skills. Industry-level expertise or firm-specific expertise of M&A advisor banks could still affect the result.

If the expertise explanation dominates, the M&A advisor banks would obtain higher trading profits not only at the M&A announcement window, but *also* at other times in the quarter. However, if M&A advisor banks trade on private information about the M&A deal, i.e., anticipate the peer effects of M&A and trade in peer firms in advance, then higher trading profits in peer firms would only manifest at the M&A announcement window, but *not* at other times in the quarter. To distinguish these two explanations, I conduct the following falsification test. For each of the 3,511 M&A deals in the sample, I randomly assign a pseudo-M&A announcement date in the same quarter as the real M&A announcement date. During the assignment, I also require the three-day window centered at the pseudo-M&A announcement date to have no overlap with the three-day window centered at the real M&A announcement date. I calculate the peer firms' pseudo-market reactions based on the pseudo-M&A announcement date. Then, I replace the dependent variable with the product of trading by M&A advisor banks and the pseudo-market reactions of peer firms. Next, I use the same independent variable, fixed effects structure, and standard error clusters as in the main analysis of Table 3 to obtain the *t stats.* ^{pseudo} of the coefficient on the independent variable *M&A Advisor*. I conduct the above procedure 5,000 times to obtain 5,000 *t stats.* ^{pseudo}. If the alternative expertise explanation drives the higher trading profits of M&A advisor banks, there should be many *t stats.* ^{pseudo} among the 5,000 cases being

similar to the *t stats.* in my main result. Otherwise, trading on private information about the M&A deal would likely be the underlying reason for the higher profits.

Table 6 presents the results of the falsification test. Table 6 Panel A reports the value of *t stats.* ^{pseudo} at different percentiles of the distribution. The median value of *t stats.* ^{pseudo} is 0.172, which is just slightly on the right of zero. More importantly, the *t stats.* in my main result in column (1) of Table 3 Panel A (3.27) is greater than the value of *t stats.* ^{pseudo} at the 99 percentile (2.44). This result means that there are very few *t stats.* ^{pseudo} have similar magnitude with the *t stats.* in my main result. Table 6 Panel B reports the cases for different ranges of *t stats.* ^{pseudo}. There are 3.72% of all *t stats.* ^{pseudo} being positive and significant at the 5% level (*t stats.* $^{pseudo} > 1.96$). If I require the *t stats.* ^{pseudo} to be positive and significant at the 1% level (*t stats.* $^{pseudo} > 2.58$) as in my main result, only 30 out of the 5,000 cases (0.60%) survive. This result means that very few *t stats.* ^{pseudo} have a significance level similar to the *t stats.* in my main result. Figure 1 further shows the discretized probability density of the 5,000 *t stats.* ^{pseudo}. The *t stats.* ^{pseudo} largely follows a normal distribution. Compared with the line showing the *t stats.* of real M&A events in my main result, there is no evidence that many *t stats.* ^{pseudo} among the 5,000 cases falls around to be similar.

Overall, the results of the falsification test suggest that the alternative explanation based on the expertise of M&A advisor banks is unlikely to explain my result. The M&A advisor banks obtain higher trading profits only at the M&A announcement window, but not at other times in the quarter as

predicted by the alternative expertise explanation.[13] Therefore, it is more likely that M&A advisor banks exploit their private information specific to the upcoming M&A deal.[14]

6. Additional Analysis and Robustness Tests

6.1. Trading on Other Private Information

In this section, I explore whether M&A advisor banks exploit other private information to conduct informed trading in peers of M&A firms. Besides private information specific to the M&A deal, M&A advisor banks also gather a wide range of other private information during the process of providing advisory services. This other private information could also be value-relevant to peer firms. For example, private information about M&A firms' innovation and future product plans will be useful for evaluating the peer firms' stock prices. In addition, M&A advisor banks could collect private information about the general industry and certain peer firms from various sources. Industry and peer firm information is important in the M&A process to evaluate the market condition, estimate synergy effects, determine transaction value, etc. In the meanwhile, such information could be valuable to make trading decisions in the peer firms.

[13] This finding is not contradicted with prior literature that investment banks with industry expertise are more likely to be selected as M&A advisor. Rather, this finding suggests that the asset management division may not have the same industry expertise as the investment banking division of the M&A advisor banks, or the industry expertise could not generate significant profits in the three-day window.

[14] Since the M&A announcement date considers many factors specific to the M&A deal, it is unlikely that the asset management division of the M&A advisor banks could foresee the M&A announcement date only based on their expertise, but without private information about the M&A deal.

Unlike information specific to the M&A deal, other private information mentioned above does not come to the public at a certain time but could be valuable to gain profits in the long term. Therefore, I test whether trading in peer firms by M&A advisor banks is more profitable from one to four quarters after the M&A announcement, compared with non-advisor banks. Specifically, I replace the return in the *Profit* measure with the quarterly abnormal returns of peers of M&A firms. The dependent variable *Profit After M&A* $_{t+x}$ is the product of trading by advisor banks and the abnormal return of peer firms in the *x* quarter(s) after the M&A announcement. The trading by advisor banks is defined the same as in the main analysis, and the quarterly abnormal return is calculated based on the Fama-French-Carhart model, with factor loadings estimated based on the previous 36 monthly returns. Then I use the same independent variable, fixed effects structure, and standard error clusters as in the main analysis of Table 3 to conduct regression. A positive and significant coefficient on *M&A Advisor* would suggest that M&A advisor banks exploit other private information besides M&A deals to gain profits by trading in peers of M&A firms.

Table 7 presents the regression results. From columns (1) to (4), I explore the trading profits of M&A advisor banks in one to four quarters after the M&A announcement, respectively. The results show that the coefficients on *M&A Advisor* are not significant in all columns. This finding suggests that M&A advisor banks do not exploit other private information besides M&A deals to trade in peers of M&A firms. The possible explanation for this finding is that the uncertainty is too high for the M&A advisor banks to trade on other private information without a clear public release date.

6.2. Robustness Tests

In this section, I conduct various robustness checks. First, in the main analysis, I include all advisor banks that are not involved in the M&A deal as the control group. As shown in the summary statistics, the mean value of *M&A Advisor* is 0.049, which suggests that about 4.9% of observations belong to the treated group. As a robustness check, I match different numbers of control advisor banks. Table 8 Panel A presents the result. In columns (1), (2), and (3), I match one, three, and five advisor banks that are not involved in the M&A deal as the control group, respectively. The matching is based on the closeness of portfolio value, i.e., the absolute difference in the total holding values of the advisor bank's portfolio at the quarter-end before the M&A announcement. The coefficient on *M&A Advisor* is positive and significant at the 5% level in column (1), and significantly positive at the 1% level in columns (2) and (3), which means that my result is robust to the matching of control advisor banks.

Table 8 Panel B explores different models to estimate abnormal returns. In the main analysis, I use the market model to estimate abnormal returns of peer firms in the M&A announcement window. Alternatively, I use the market-adjusted model, Fama-French three-factor model, and Fama-French-Carhart four-factor model to estimate abnormal returns in columns (1), (2), and (3), respectively. My result is robust as coefficients on *M&A Advisor* are all positive and significant in three columns.

Table 8 Panel C explores different trading measures. In column (1), I use a different scale for the trading value of advisor banks. To mitigate the effect that large advisor banks naturally have higher trading values, I scale the trading value by the total holding values of the advisor bank's portfolio at the quarter-

end. As a robustness test, I scale the trading value by the total trading values of the advisor bank in the quarter. The coefficient on *M&A Advisor* is still positive and significant at the 1% level. In column (2), I measure the trading by advisor banks as the change in firm ownership. Specifically, I calculate the firm ownership by advisor banks as their shareholdings in the firm divided by the firm's shares outstanding. Then, trading by advisor banks is measured as changes in firm ownership from the quarter-begin to the quarter-end. The coefficient on *M&A Advisor* is still significantly positive. In column (3), I use the holding change percentage to measure the trading by advisor banks. The holding change percentage is the change in holding shares in the firm from quarter-begin to quarter-end, divided by the average holding shares in the firm, then multiplied by 100. My result is robust to this alternative measure of trading.

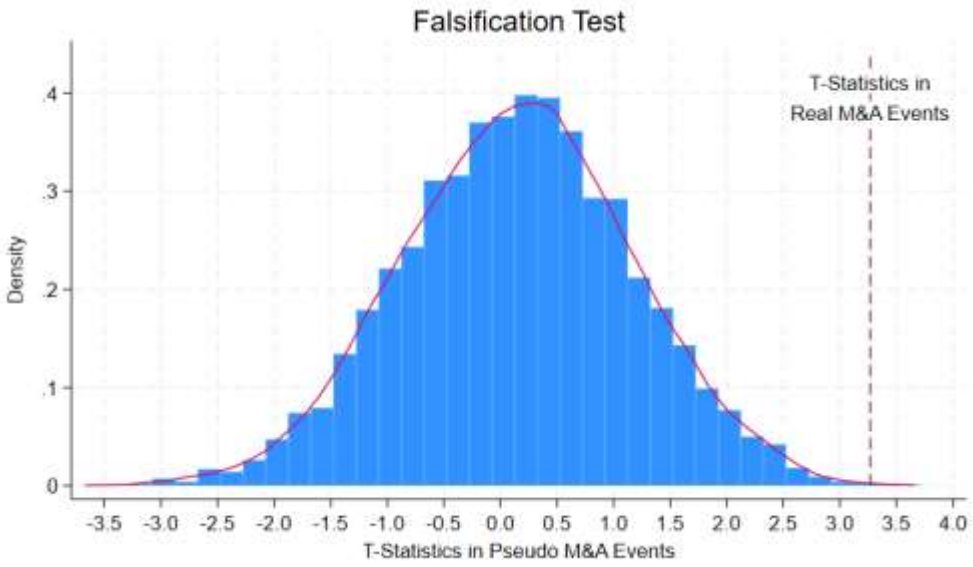
7. Conclusion

M&A advisor banks have access to material private information about the upcoming M&A deal. I provide evidence that M&A advisor banks exploit such information in their trading in peers of M&A firms. M&A advisor banks on average gain additional profits of $1,452,857 in their trading in peers of M&A firms in one M&A deal, compared with the non-advisor banks. This outperformance could not be explained by the expertise of M&A advisor banks. Cross-sectional analysis shows that such informed trading is more intensive when the M&A has larger effects on peer firms (i.e., when the deal value is more significant for peer firms; when the M&A firms have larger market share in the industry; and when the stock price reactions of peer firms are stronger).

The prior business relationship with peers of M&A firms facilitates M&A advisor banks to gain more profits from such informed trading. From the incentive side of M&A advisor banks, the performance pressure of their stock portfolio incentivizes, while the reputation concern deters their exploitation of the private M&A information to trade in peers of M&A firms. Additional analysis suggests that other private information besides M&A deals, if any, is not used by M&A advisor banks to trade in peers of M&A firms.

The findings in the paper echo the regulatory attention on informed trading in peer firms and highlight M&A advisor banks as a potential overlooked party. By extending the scope of informed trading to peer firms, this paper contributes to the literature on how financial institutions use private information collected from their business activities to gain trading profits. In addition, this paper is related to the literature on peer effects and suggests that institutional investors could gain profits based on the anticipated peer effects.

Figure 1: Falsification Test: Rule Out Expertise Explanation



This figure presents the result of the falsification test. For each of the 3,511 M&A deals in the sample, I randomly assign a pseudo-M&A announcement date in the same quarter as the real M&A announcement date. During the assignment, the three-day window centered at the pseudo-M&A announcement date is required to have no overlap with the three-day window centered at the real M&A announcement date. Then the pseudo-market reactions of peer firms are calculated based on the pseudo-M&A announcement date. The dependent variable $Profit^{pseudo}$ is calculated as the product of trading by advisor banks and the pseudo-market reaction of peers of M&A firms. The independent variable *M&A Advisor* is defined the same as in the main analysis. Next, I use the same regression model as in the main analysis to obtain the $t\ stats.^{pseudo}$ of the coefficient on *M&A Advisor*. I conduct the above procedure 5,000 times to obtain 5,000 $t\ stats.^{pseudo}$. This figure plots the discretized probability density of the 5,000 $t\ stats.^{pseudo}$.

Table 1: Sample Distribution

Panel A: Sample Distribution by Year

Year	#Unique Deal	%Unique Deal	#Obs.	%Obs.
2000	308	8.772	664,681	8.348
2001	214	6.095	484,435	6.084
2002	153	4.358	341,872	4.294
2003	198	5.639	450,758	5.661
2004	211	6.010	484,566	6.086
2005	189	5.383	420,757	5.284
2006	191	5.440	373,522	4.691
2007	184	5.241	370,589	4.654
2008	116	3.304	214,584	2.695
2009	109	3.105	156,906	1.971
2010	112	3.190	168,945	2.122
2011	109	3.105	195,697	2.458
2012	118	3.361	203,124	2.551
2013	135	3.845	306,147	3.845
2014	167	4.756	400,400	5.029
2015	171	4.870	433,506	5.444
2016	135	3.845	409,127	5.138
2017	137	3.902	392,930	4.935
2018	156	4.443	385,279	4.839
2019	127	3.617	427,386	5.368
2020	109	3.105	236,735	2.973
2021	162	4.614	440,381	5.531
Total	3,511	100%	7,962,327	100%

Panel B: Sample Distribution by Acquirer Industry

Fama-French Industry	#Unique Deal	%Unique Deal	#Obs.	%Obs.
Consumer nondurables	103	2.934	41,054	0.516
Consumer durables	25	0.712	7,105	0.089
Manufacturing	186	5.298	88,530	1.112
Oil, gas, and coal extraction	133	3.788	298,766	3.752
Chemicals and allied products	37	1.054	12,708	0.160
Business equipment	789	22.472	1,536,225	19.294
Telephone and television transmission	116	3.304	164,637	2.068
Utilities	61	1.737	163,271	2.051
Wholesale, retail, and some services	153	4.358	153,439	1.927
Healthcare, medical equipment, and drugs	371	10.567	1,150,520	14.450
Finance	1,239	35.289	4,082,724	51.276
Others	298	8.488	263,348	3.307
Total	3,511	100%	7,962,327	100%

This table presents the sample distribution. Panel A reports the sample distribution by year. Panel B reports the sample distribution by the acquirer industry.

Table 2: Summary Statistics

Panel A: M&A Deal Characteristics (N=3,511)					
	Mean	SD	p25	p50	p75
Deal Value ($ million)	1505.295	3712.759	83.806	285.876	1105.654
Relative Size	0.465	0.750	0.078	0.195	0.513
Public Target	0.486	0.500	0.000	0.000	1.000
Cash Only	0.326	0.469	0.000	0.000	1.000
Stock Only	0.228	0.419	0.000	0.000	0.000
Friendly	0.991	0.094	1.000	1.000	1.000
Toe Hold	0.022	0.147	0.000	0.000	0.000
Panel B: Acquirer Characteristics (N=3,511)					
	Mean	SD	p25	p50	p75
Market Value ($ million)	9575.755	25640.816	429.993	1475.285	5525.897
MTB	2.073	2.033	1.075	1.369	2.192
Leverage	0.195	0.182	0.048	0.152	0.293
ROA	0.044	0.123	0.018	0.041	0.106
CAR [-1, 1]	-0.001	0.084	-0.038	-0.003	0.029
Panel C: Public Target Characteristics (N=1,706)					
	Mean	SD	p25	p50	p75
Market Value ($ million)	1704.412	4030.006	101.695	353.832	1326.313
MTB	1.858	1.587	1.029	1.288	1.994
Leverage	0.194	0.203	0.022	0.134	0.299
ROA	-0.001	0.175	-0.002	0.027	0.087
CAR [-1, 1]	0.246	0.236	0.089	0.197	0.349
Panel D: Regression Variables (N=7,962,327)					
	Mean	SD	p25	p50	p75
Profit	-0.110	13.539	-0.175	0.000	0.164
M&A Advisor	0.049	0.215	0.000	0.000	0.000

This table presents the summary statistics. Panel A reports statistics of M&A deal characteristics. *Deal Value* is the transaction value of the M&A deal. *Relative Size* is the M&A deal value divided by the acquirer market value. *Public Target* is an indicator variable equal to one if the target firm is public, and zero otherwise. *Cash Only* is an indicator variable equal to one if the M&A transaction is based only on cash, and zero otherwise. *Stock Only* is an indicator variable equal to one if the M&A transaction is based only on stock, and zero otherwise. *Friendly* is an indicator variable equal to one if the attitude of M&A transaction is friendly, and zero otherwise. *Toe Hold* is an indicator variable equal to one if the acquirer has ownership in the target before M&A transaction, and zero otherwise. Panel B and Panel C report statistics of the acquirer and public target characteristics, respectively. *Market Value* is the market capitalization measured at the year-end before the M&A announcement date. *MTB* is the market-to-book ratio, measured as total assets plus market value of equity minus book value of equity, scaled by total assets. *Leverage* is the leverage ratio, measured as long-term debts plus debts in current liabilities, scaled by total assets. *ROA* is the return-on-assets ratio, measured as earnings before interest and taxes, scaled by total assets. *CAR [-1, 1]* is the market reaction to the M&A announcement, measured as the cumulated abnormal return in the three-day window centered at the M&A announcement date. Abnormal return is calculated based on the market model, with the estimation window being [-250, -50] relative to the M&A announcement date. Panel D reports statistics of regression variables. *Profit* is the profits for advisor banks to trade in peers of M&A

firms, which is the product of trading by advisor banks and the market reaction of peers of M&A firms to the M&A announcement. Trading by advisor banks is measured as quarter-end holding shares minus quarter-begin holding shares in the peer firm, multiplied by the peer firm's stock price at the quarter-end, then scaled by the total holding values of the advisor bank's portfolio at the quarter-end. The trading measure is calculated based on the quarter before the M&A announcement. *M&A Advisor* is an indicator variable equal to one if the advisor bank advises the M&A transaction, and zero otherwise.

Table 3: Main Results

Panel A: Main Results			
	(1)	(2)	(3)
Dep. Var. =	*Profit*	*Profit*	*Profit*
	Full Sample	Peers of Acquirer	Peers of Public Target
M&A Advisor	0.111***	0.111***	0.095*
	(3.27)	(3.05)	(1.89)
Deal Fixed Effects	Yes	Yes	Yes
Firm-Qtr Fixed Effects	Yes	Yes	Yes
Advisor-Qtr Fixed Effects	Yes	Yes	Yes
Observations	7,962,327	6,877,202	3,455,933
R-squared	0.031	0.033	0.051

Panel B: Acquirer Advisor and Target Advisor			
	(1)	(2)	(3)
Dep. Var. =	*Profit*	*Profit*	*Profit*
	Full Sample	Peers of Acquirer	Peers of Public Target
Acquirer Advisor	0.115**	0.102**	0.140**
	(2.51)	(2.16)	(2.04)
Target Advisor	0.103**	0.118**	0.041
	(2.08)	(2.09)	(0.59)
Deal Fixed Effects	Yes	Yes	Yes
Firm-Qtr Fixed Effects	Yes	Yes	Yes
Advisor-Qtr Fixed Effects	Yes	Yes	Yes
Observations	7,962,327	6,877,202	3,455,933
R-squared	0.031	0.033	0.051
P-value for *Acquirer Advisor = Target Advisor*:			
	0.856	0.836	0.304

This table presents the baseline analysis. Panel A reports the main results. The dependent variable *Profit* is the profits for advisor banks to trade in peers of M&A firms, which is the product of trading by advisor banks and the market reaction of peers of M&A firms to the M&A announcement. Trading by advisor banks is measured as quarter-end holding shares minus quarter-begin holding shares in the peer firm, multiplied by the peer firm's stock price at the quarter-end, then scaled by the total holding values of the advisor bank's portfolio at the quarter-end. The trading measure is calculated based on the quarter before the M&A announcement, which ensures the trading is not affected by the public information about the M&A. Market reaction to the M&A announcement is measured as the cumulated abnormal return in the three-day window centered at the M&A announcement date. The abnormal return is calculated based on the market model, with the estimation window being [-250, -50] relative to the M&A announcement date. The independent variable *M&A Advisor* is an indicator variable equal to one if the advisor bank advises the M&A transaction, and zero otherwise. Panel B reports the results of decomposing the *M&A Advisor* into acquirer advisor and target advisor. *Acquirer Advisor* (*Target Advisor*) is an indicator variable equal to one if the advisor bank advises the acquirer (target) firm, and zero otherwise. In both Panel A and Panel B, column (1) reports the results based on the full sample, and columns (2) and (3) report the results based on the sub-sample using peers of the acquirer firm and peers of the public target firm, respectively. The last row of each column in Panel B reports the p-value of testing the difference in coefficients between the *Acquirer Advisor* and *Target Advisor*. Constant and fixed effects are included but not reported in all tables. Standard errors are clustered at the M&A deal-advisor bank level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 4: Cross-Sectional Analysis: Strength of M&A Peer Effects

Dep. Var. =	(1) *Profit*	(2) *Profit*	(3) *Profit*
M&A Advisor $^{High\ Deal\ Value}$	0.184***		
	(4.54)		
M&A Advisor $^{Low\ Deal\ Value}$	0.052		
	(1.01)		
M&A Advisor $^{High\ Market\ Share}$		0.175***	
		(4.15)	
M&A Advisor $^{Low\ Market\ Share}$		0.051	
		(1.12)	
M&A Advisor $^{High\ Market\ Reaction}$			0.196***
			(3.56)
M&A Advisor $^{Low\ Market\ Reaction}$			0.028
			(0.78)
Deal Fixed Effects	Yes	Yes	Yes
Firm-Qtr Fixed Effects	Yes	Yes	Yes
Advisor-Qtr Fixed Effects	Yes	Yes	Yes
Observations	7,962,327	7,962,327	7,962,327
R-squared	0.031	0.031	0.031
P-value for *M&A Advisor* ^{High} = *M&A Advisor* ^{Low}:			
	0.046	0.029	0.008

This table presents the cross-sectional analysis based on the strength of M&A peer effects. The dependent variable *Profit* is defined the same as that in the main results. Column (1) considers the deal value relative to the peer firm. Deal-value-ratio is calculated as the deal value divided by the peer firm's market value at the prior year-end. *M&A Advisor* $^{High\ Deal\ Value}$ (*M&A Advisor* $^{Low\ Deal\ Value}$) is an indicator variable equal to one if the advisor bank advises the M&A transaction (*M&A Advisor* = 1) and its trading is in peer firms with the deal-value-ratio higher (lower) than the median level, and zero otherwise. Column (2) considers the market share of the M&A firms in the peer firm's industry. Market-share-ratio is calculated as the sales of the M&A firms divided by the sales of all firms in the peer firm's industry. I use the industry classification in Hoberg and Phillips (2016) to identify all firms in the peer firm's industry. *M&A Advisor* $^{High\ Market\ Share}$ (*M&A Advisor* $^{Low\ Market\ Share}$) is an indicator variable equal to one if the advisor bank advises the M&A transaction (*M&A Advisor* = 1) and its trading is in peer firms with the market-share-ratio higher (lower) than the median level, and zero otherwise. Column (3) considers the market reaction of peer firms to the M&A announcement. Market reaction is calculated as the absolute value of the cumulative abnormal return of the peer firm in the three-day window centered at the M&A announcement. *M&A Advisor* $^{High\ Market\ Reaction}$ (*M&A Advisor* $^{Low\ Market\ Reaction}$) is an indicator variable equal to one if the advisor bank advises the M&A transaction (*M&A Advisor* = 1) and its trading is in peer firms with the market reaction higher (lower) than the median level, and zero otherwise. The last row of each column reports the p-value of testing the difference in coefficients between the two decomposed *M&A Advisor* variables. Standard errors are clustered at the M&A deal-advisor bank level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 5: Cross-Sectional Analysis: Advisor Bank Prior Relationship, Performance Pressure, and Reputation Concern

Dep. Var. =	(1) *Profit*	(2) *Profit*	(3) *Profit*
M&A Advisor $^{High\ Prior\ Relationship}$	0.438**		
	(2.22)		
M&A Advisor $^{Low\ Prior\ Relationship}$	0.098***		
	(2.87)		
M&A Advisor $^{High\ Perform\ Pressure}$		0.167***	
		(3.36)	
M&A Advisor $^{Low\ Perform\ Pressure}$		0.048	
		(1.05)	
M&A Advisor $^{Low\ Reputation\ Concern}$			0.196***
			(3.01)
M&A Advisor $^{High\ Reputation\ Concern}$			0.036
			(1.26)
Deal Fixed Effects	Yes	Yes	Yes
Firm-Qtr Fixed Effects	Yes	Yes	Yes
Advisor-Qtr Fixed Effects	Yes	Yes	Yes
Observations	7,962,327	7,962,327	7,962,327
R-squared	0.031	0.031	0.031
P-value for *M&A Advisor* ^{High} = *M&A Advisor* ^{Low}:	0.087	0.075	0.026

This table presents the cross-sectional analysis based on the advisor bank prior relationship, performance pressure, and reputation concern. The dependent variable *Profit* is defined the same as that in the main results. Column (1) considers the advisor bank's prior relationship with the peer firms. *M&A Advisor* $^{High\ Prior\ Relationship}$ (*M&A Advisor* $^{Low\ Prior\ Relationship}$) is an indicator variable equal to one if the advisor bank advises the M&A transaction (*M&A Advisor* = 1) and its trading is in peer firms with (without) advising relationship within three years before the M&A transaction, and zero otherwise. Column (2) considers the advisor bank's performance pressure. The advisor bank's portfolio performance is measured as the weighted average of the stock return of its holdings, where the weight of each stock is the average holding value in the stock at quarter-begin and quarter-end, divided by the average total holding value of all portfolio stocks. *M&A Advisor* $^{High\ Perform\ Pressure}$ (*M&A Advisor* $^{Low\ Perform\ Pressure}$) is an indicator variable equal to one if the advisor bank advises the M&A transaction (*M&A Advisor* = 1) and its portfolio performance is lower (higher) than the prior quarter. The identification of performance pressure is based on the quarter before the trading quarter to avoid trading itself affecting the performance measure. Column (3) considers the advisor bank's reputation concern. Each year, the top ten advisor banks are identified based on the total deal value of M&A advised by the advisor bank. *M&A Advisor* $^{High\ Reputation\ Concern}$ (*M&A Advisor* $^{Low\ Reputation\ Concern}$) is an indicator variable equal to one if the advisor bank advises the M&A transaction (*M&A Advisor* = 1) and it is (not) among the top ten advisors in the year prior to the M&A announcement. The last row of each column reports the p-value of testing the difference in coefficients between the two decomposed *M&A Advisor* variables. Standard errors are clustered at the M&A deal-advisor bank level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 6: Falsification Test: Rule Out Expertise Explanation

Panel A: Distribution of Pseudo-T Statistics					
	N	p1	p5	p10	p25
t stats. ^{pseudo}	5000	-2.250	-1.526	-1.165	-0.546
	p50	p75	p90	p95	p99
t stats. ^{pseudo}	0.172	0.838	1.464	1.821	2.442

Panel B: Cases for Different Pseudo-T Statistics Range						
t stats. ^{pseudo}	< -2.58	< -1.96	< -1.64	> 1.64	> 1.96	> 2.58
# Cases	22	96	198	355	186	30
% Cases	0.44%	1.92%	3.96%	7.10%	3.72%	0.60%

This table presents the result of the falsification test. For each of the 3,511 M&A deals in the sample, I randomly assign a pseudo-M&A announcement date in the same quarter as the real M&A announcement date. During the assignment, the three-day window centered at the pseudo-M&A announcement date is required to have no overlap with the three-day window centered at the real M&A announcement date. Then the pseudo-market reactions of peer firms are calculated based on the pseudo-M&A announcement date. The dependent variable *Profit* ^{pseudo} is calculated as the product of trading by advisor banks and the pseudo-market reaction of peers of M&A firms. The independent variable *M&A Advisor* is defined the same as in the main analysis. Next, I use the same regression model as in the main analysis to obtain the *t stats.* ^{pseudo} of the coefficient on *M&A Advisor*. I conduct the above procedure 5,000 times to obtain 5,000 *t stats.* ^{pseudo}. Panel A reports the distribution of the 5,000 *t stats.* ^{pseudo} at different percentile ranks. Panel B reports the number and percentage of cases with different ranges of *t stats.* ^{pseudo} out of the 5,000 *t stats.* ^{pseudo}.

Table 7: Trading on Other Private Information

Dep. Var. =	(1) *Profit After M&A* $_{t+1}$	(2) *Profit After M&A* $_{t+2}$	(3) *Profit After M&A* $_{t+3}$	(4) *Profit After M&A* $_{t+4}$
M&A Advisor	-0.010	-0.046	0.002	-0.004
	(-0.09)	(-0.34)	(0.01)	(-0.03)
Deal Fixed Effects	Yes	Yes	Yes	Yes
Firm-Qtr Fixed Effects	Yes	Yes	Yes	Yes
Advisor-Qtr Fixed Effects	Yes	Yes	Yes	Yes
Observations	7,329,860	7,301,815	7,273,354	7,247,364
R-squared	0.087	0.095	0.088	0.095

This table presents the results of trading on other private information. The dependent variable *Profit After M&A* $_{t+x}$ in columns (1)-(4) is the profits for advisor banks to trade in peers of M&A firms in *x* quarter(s) after the M&A announcement, which is the product of trading by advisor banks and the quarterly abnormal return of peers of M&A firms. In the calculation of *Profit After M&A*$_{t+x}$, the trading measure is based on the quarter before the M&A announcement, and the abnormal return is based on *x* quarter(s) after the announcement quarter. The quarterly abnormal return is calculated based on the Fama-French-Carhart model, with factor loadings estimated based on the previous 36 monthly returns. Trading by advisor banks is measured as quarter-end holding shares minus quarter-begin holding shares in the peer firm, multiplied by the peer firm's stock price at the quarter-end, then scaled by the total holding values of the advisor bank's portfolio at the quarter-end. The independent variable *M&A Advisor* is an indicator variable equal to one if the advisor bank advises the M&A transaction, and zero otherwise. Standard errors are clustered at the M&A deal-advisor bank level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 8: Robustness Tests

Panel A: Match Control Advisor Banks			
	(1)	(2)	(3)
Dep. Var. =	*Profit*	*Profit*	*Profit*
	Match 1 Control	Match 3 Controls	Match 5 Controls
M&A Advisor	0.154**	0.135***	0.095***
	(2.28)	(3.71)	(3.10)
Deal Fixed Effects	Yes	Yes	Yes
Firm-Qtr Fixed Effects	Yes	Yes	Yes
Advisor-Qtr Fixed Effects	Yes	Yes	Yes
Observations	774,189	1,540,948	2,291,321
R-squared	0.132	0.082	0.066

Panel B: Different Models to Estimate Abnormal Return			
	(1)	(2)	(3)
Dep. Var. =	*Profit*	*Profit*	*Profit*
	Market Adjusted	Fama French	Fama French Carhart
M&A Advisor	0.086**	0.076**	0.089***
	(2.51)	(2.52)	(2.81)
Deal Fixed Effects	Yes	Yes	Yes
Firm-Qtr Fixed Effects	Yes	Yes	Yes
Advisor-Qtr Fixed Effects	Yes	Yes	Yes
Observations	7,962,327	7,962,327	7,962,327
R-squared	0.028	0.030	0.030

Panel C: Different Trading Measures			
	(1)	(2)	(3)
Dep. Var. =	*Profit*	*Profit*	*Profit*
	Scale by Total Trading Value	Change in Ownership	Holding Change Percentage
M&A Advisor	0.272***	0.569**	0.024*
	(2.87)	(2.06)	(1.82)
Deal Fixed Effects	Yes	Yes	Yes
Firm-Qtr Fixed Effects	Yes	Yes	Yes
Advisor-Qtr Fixed Effects	Yes	Yes	Yes
Observations	7,962,327	7,962,327	7,962,327
R-squared	0.032	0.038	0.061

This table presents the results of robustness tests. Panel A matches different numbers of control advisor banks (*M&A Advisor* = 0) for the advisor bank that advises the M&A transaction (*M&A Advisor* = 1). The matching is based on the closeness of portfolio value, i.e., the absolute difference in the total holding values of the advisor bank's portfolio at the quarter-end before the M&A announcement. Columns (1), (2), and (3) match one, three, and five control advisor banks with the closest portfolio value with the treated advisor bank, respectively. Panel B uses different models to estimate the abnormal return. Columns (1), (2), and (3) use the market-adjusted model, Fama-French three-factor model, and Fama-French-Carhart four-factor model, respectively. Panel C uses different trading measures in the calculation of *Profit*. Column (1) uses the scale by total trading value, rather than total holding value, of the advisor bank. Trading by advisor banks is measured as quarter-end holding shares minus quarter-begin holding shares in the peer firm, multiplied by the peer firm's stock price at the quarter-end, then scaled by the

total trading values of the advisor bank in the quarter. Column (2) uses the change in firm ownership. Firm ownership is calculated as the shares held by the advisor bank divided by the firm's shares outstanding. Then trading by advisor banks is measured as changes in firm ownership from the quarter-begin to the quarter-end. This trading measure is multiplied by 1,000,000 for readability. Column (3) uses the holding change percentage. Trading by advisor banks is measured as the change in holding shares in the firm from quarter-begin to quarter-end, divided by the average holding shares in the firm, then multiplied by 100 to reflect as percentage. Standard errors are clustered at the M&A deal-advisor bank level. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

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