Is it the Investment Bank or the Investment Banker? A Study of the Role of Investment Banker Human Capital in Acquisitions

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Abstract

Using a novel dataset that links individual investment bankers to acquisition deals that they advise, we address the following question: Does value creation by investment banks in acquisitions arise primarily from the reputation, culture, and other institutional strengths of a given investment bank or does it also arise from the human capital of the individual investment bankers employed by that bank? We find that individual investment bankers indeed have a significant impact on the performance of the deals that they advise, over and above the effect of the investment bank. First, we show that investment banker fixed effects are significantly associated with acquisition performance. Second, we find that investment bankers' prior deal experience is significantly and positively related to acquisition CAR and post-acquisition operating performance. Third, using graduation year stock market performance as an instrument for bankers' career prospects, we show that the positive relation between investment banker experience and acquisition CAR is causal. Finally, we find that, when more experienced investment bankers switch to a new bank, acquirers are more likely to move with them. Broadly, our results suggest that an important source of the value of the using an advisor is the skill and ability of the individual investment banker working on the deal.

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1 Introduction

The role of financial intermediaries such as investment banks in the financial markets has been widely debated both in the academic and the practitioner literature. In particular, the theoretical literature has viewed investment banks as information producing intermediaries in the context of financial market transactions such as new equity issues and acquisitions (see, e.g., Chemmanur and Fulghieri (1994) or Pichler and Wilhelm (2001)) or as information intermediaries who can facilitate or inhibit the transfer of information among investors (e.g., Welch (1992)). There has also been considerable empirical evidence suggesting a positive relation between the reputation of the investment banks involved and value gains by client firms in securities issues (see, e.g., Beatty and Welch (1996) and Chemmanur and Krishnan (2012)) and acquisitions (see, e.g., Golubov, Petmezas, and Travlos (2012) and Kale, Kini, and Ryan (2003)). A natural question that arises in the above context is regarding the precise source of value creation by investment banks: Is the information and knowledge that is needed to create value with the worker (banker) or with the organization that the individual is working for (the bank)? [1]

We address several interesting questions in this paper. First, do individual investment bankers contribute to value gains in acquisitions independent of the investment banks employing them, and if so, what are the relative proportions of value added by investment bankers versus the investment banks employing them? Second, what is the precise relation between investment banker deal experience and acquisition performance and is this relation causal? Finally, how does the presence of a particular investment banker at a given bank affect the propensity of an acquirer to choose that investment bank to advise them?[2]

Investment bankers with greater skill and experience will be able to select higher synergy deals for the acquirer.[3] We further assume that the true value of the synergy between the acquirer

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[1] The role played by culture of an investment bank in contributing to value creation for client firms has also been widely debated recently by practitioners. See, e.g., "Why I am Leaving Goldman Sachs," (New York Times, March 14, 2012) by a former Goldman Sachs investment banker.

[2] There are several anecdotes suggesting that the relationship between acquirers and individual investment bankers is of considerable importance in the acquirer's choice of investment banks to advise them: see, e.g., the article, "CSFB will share Reebok M&A fees after Taussig Defects to Lehman," Bloomberg, November 15, 2005.

[3] Media articles provide anecdotal evidence that acquirers hire investment bankers that they perceive as having skill and ability to add value. To quote Lee Shavel, the CFO of NASDAQ OMX Group Inc. and an ex-investment banker, "... a banker recently [approached us with something] we hadn't spent a lot of time thinking about, and the banker had a great ability to synthesize a complex situation, coherently articulate a rationale for the transaction and an execution strategy. ... We were impressed with this banker's ability to do that, and decided to hire him." See, "How to Pick a Banker," WSJ, April 3, 2012. The article goes on to indicate that successful deals may also benefit

and the target is private information to the investment banker. Finally, investment bankers use their reputation to credibly convey this private information to the financial market. In the above theoretical framework, investment banker human capital will be positively related to the short- and long-run performance of the acquirer. We discuss the underlying theory in more detail and develop our testable implications in section 2.

Data availability is an important constraint for any study analyzing the role of individual investment bankers. In particular, data linking bankers to specific acquisition deals is difficult to obtain. We overcome this difficulty by using a new dataset from Mergermarket Ltd. (a subsidiary of Financial Times) that provides data on all investment bankers that work on acquisition deals. To our knowledge, ours is the first study to use this data. We use this dataset to obtain data on particular investment bankers and the deals that they advise. We use this data to calculate the investment bankers' prior deal experience and the quality of the team members that they have worked with in the past. Prior deal experience of the investment banker (measured over a rolling three year window) is our main measure of investment banker quality. We also use the number of times a banker has interacted with high quality bankers in the past as another measure of investment banker quality. Thus, we are able to obtain specific human capital measures for investment bankers for the first time in the literature.

We use the market conditions at the time that an investment banker graduates from their undergraduate and graduate degree programs as instruments for the career prospects and thus experience. Recent studies (e.g., Oreopoulos, Till von Wachter, and Heisz (2012), Schoar and Zuo (2011), and Oyer (2008)) indicate that individuals that graduate in a poor economy will have worse career outcomes and such negative effects on their later experiences may persist for a long period after they graduate. Thus, worse market returns at the time of graduation of our investment bankers can have a negative effect on banker human capital. Given that market conditions at the time of the banker's graduation is plausibly exogenous, this provides us with a reasonable identification strategy. We use the (-3,+3) day cumulative abnormal returns (CAR) of the acquiring firm around the deal announcement period as our first measure of acquisition outcome. We also use the three year post-acquisition operating performance measured by abnormal ROA (Chen, Harford, and Li (2007)) as our measure of long-term performance.

the investment bank: "they have some incentive to see deals be successful, since it may lead to more deals."

We start by showing, in a fixed effects framework, that investment banker fixed effects are statistically significant determinants of acquisition outcomes. Using the methodology of Abowd, Kramarz, and Margolis (1999) to isolate manager fixed effects from firm fixed effects, we find that investment banker fixed effects explain a substantial proportion of acquisition outcomes. Moreover, investment bank fixed effects are also significant predictors of acquisition outcomes. While this analysis is meant as a preliminary test, it suggests that investment bankers do matter in determining acquisition outcomes.

We then test how our measures of investment banker human capital are related acquisition performance. We find a significant and positive relation between investment banker prior deal experience and acqiuistion CAR as well as post-acquisition abnormal ROA. Economically, a one inter-quartile increase in investment banker prior deal experience is associated with an increase of 1.5 percent in the acquisition announcement CAR. We also relate the number of high quality prior interactions as another measure of investment banker human capital to CAR and find an economically and statistically significant positive relation. Specifically, a one inter-quartile increase in prior high quality interaction is associated with a 0.96 percent increase in announcement CAR. We also find a positive relation between high quality prior interactions of the investment banker and abnormal ROA in the OLS setting.

Our instrumental variables analysis reveals that, even after controlling for potential endogenous selection of investment bankers, the positive relation between investment banker deal experience and CAR continues to hold. Further, abnormal ROA is also positively related to investment banker deal experience in the IV setting. We also conduct our analysis using the aggregate team level quality measure and find that higher quality investment banking teams are related to greater acquisition performance. Our team also hold in the IV setting.

Finally, we find that acquirers are more likely to change investment banks for acquisition advice when investment bankers with greater prior deal experience switch employers. This relation is important only for acquirers that are in the industry that the investment banker specializes in. Broadly, our results are consistent with the idea that investment bankers create value for acquirers over and above the effect of the investment bank and that this value addition is not driven by selection or endogenoues selection of the investment banker.

This paper is related to several strands in the existing literature. The first is the theoretical and

empirical literature on the role of the investment bank as intermediaries in the financial market: Chemmanur and Fulghieri (1994), Welch (1992), Pichler and Wilhelm (2001), and Morrison and Wilhelm (2004) are examples of the relevant theoretical literature; Beatty and Welch (1996) and Liu and Ritter (2011) are examples of the relevant empirical literature.[4] There is also a large on the role of investment banks and the performance of acquisitions: see, e.g., Bowers and Miller (1990), Servaes and Zenner (1996), Rau (2000), Kale, Kini, and Ryan (2003), Hunter and Jagtiani (2003), and Bao and Edmans (2011). For instance, Kale, Kini, and Ryan (2003) find that investment bank reputation affects the performance of acquisitions. Bao and Edmans (2011) use a fixed effects approach and find that investment banks play an important role in the performance of acquisitions.[5]

The second literature this paper is related to is that on CEO compensation and turnover and the effect of CEO and management quality on firm performance. Bertrand and Schoar (2003) study whether different CEOs have different financial and investment policy styles and whether CEOs can affect firm performance. Graham, Li, and Qiu (2011) find that management compensation fixed effects are related to corporate policy fixed effects. Chemmanur and Paeglis (2005) find that higher quality top management of firms going public is associated with lower IPO underpricing, more institutional investors and more reputable IPO underwriters, and with better post-IPO operating performance. Chemmanur, Paeglis, and Simonyan (2009) find that higher management quality can also reduce information asymmetry and allows the firm to use a larger fraction of equity (and less debt) to raise external financing.[6] Finally, our paper is related to the literature on the human capital of mutual fund managers. Chevalier and Ellison (1999) investigate how mutual fund manager quality is related to fund performance. They find that mutual fund managers who attend universities with high average test admission (SAT) scores manage better performing funds.

The rest of the paper is organized as follows. Section 2 outlines the relevant theory and develops testable hypotheses. Section 3 describes the data and the sample selection procedure. Section 4

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[4]Morrison and Wilhelm (2004) develop a model of partnerships in human capital intensive industries (such as investment banking) where it is difficult to contract upon the training effort of skilled agents, so that a socially suboptimal level of training may occur. They show how partnership organizations can overcome this problem by tying human and financial capital.

[5]This paper is also related to the broader literature on takeovers: see, e.g., Spiegel and Tookes (2013). It is also related to the broader literature on the role of investment banks in IPOs: see Ritter and Welch (2002) for a review.

[6]Our paper is also broadly related to the theoretical and empirical literature on the role of managerial human capital in capital structure decisions: see Titman (1984) and Berk, Stanton, and Zechner (2010) for examples of the theoretical literature and Chemmanur, Cheng, and Zhang (2012) for an example on the empirical literature. It is also related to the literature on the role of human capital in asset pricing: see, e.g., Fama and Schwert (1977).

provides a discussion of our empirical results. Section 5 concludes.

2 Theoretical Framework and Empirical Implications

We consider a theoretical framework in which the investment bank is hired to advise the acquirer on the acquisition. The investment banker works for the investment bank and is the agent that actually provides the advisory service. The goal of the investment banker (and the bank) is to maximize the value added from the deal[7]:

$$V = (1 - \rho)S \tag{1}$$

where, V is the value added to the acquirer through the acquisition, S is the total synergy that arises because of product market complementarities between the target and the acquirer firms, and ρ is the fraction of the synergy that accrues to the shareholders of the target firms (in the form of payment by the acquirer).[8]

Note that synergy is an increasing function of bank and banker reputation, i.e.,

$$S = f(\eta_{it}, \phi_{jt}) \tag{2}$$

where $f'(\eta_{it}) > 0$ and $f'(\phi_{jt}) > 0$. Here t indexes time, i indexes the investment banker, and j indexes the investment bank. In particular, the role of the financial advisor is to maximize the synergy of the deal to the acquirer by choosing the target and the deal that maximizes this value. How well the financial advisor chooses the target and the deal depends on their ability, which we now define.

η_{it} is the time-varying investment banker ability and is defined as the sum of an underlying intrinsic skill a_i and the past-experience of the investment banker $\varepsilon_{i,t-1}$. Thus,

$$\eta_{it} = a_i + \varepsilon_{i,t-1} \tag{3}$$

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[7]We do not model the advisory fees paid to the investment bank by the acquirer, assuming that the synergy is measured net of investment banking fees.

[8]To keep our theory simple, we will not explicitly model the determinants of the price paid by the acquirer to the target, though, in practice, the investment bank and the investment banker may influence this price through their negotiation skills. We assume throughout that the price paid to the target firm shareholders is such that the acquirer gets a fixed fraction of the synergy created by the acquisition.

Similarly, the bank's ability function depends on the bank's intrinsic institutional strengths (that may not vary over time or very slowly) a_j and its past experience $\varepsilon_{j,t-1}$.

$$\phi_{jt} = a_j + \varepsilon_{j,t-1} \tag{4}$$

The idea behind the skill functions above is that both investment bank and the investment banker reputation change over time as a function of their past experience. Thus, the market infers the future skill based on the history of the investment bank and investment banker.

Using this framework as our starting point, we observe that when an acquisition deal is announced the market will infer synergy of the deal based on the prior reputation of the investment bank and the investment banker. Since the synergy is increasing in both investment bank and investment banker ability, higher reputations of the invesment bank and the banker will predict higher synergies, and thus, higher market reactions to the announcement of a deal.

The announcement effect of the deal is increasing function of the forecasted synergy of the deal (conditional on the history of the investment bank and the investment banker). The higher is the experience (reputation) of the investment bank and the investment banker, higher is the announcement effect.

Implication 1: The market reaction to deal announcement of the deal advised by a particular investment banker and investment bank combination will be increasing in the reputation of the investment bank and that of the investment banker.

The market reaction to the deal announcement will thus be based on its assessment of deal synergy. To the extent that the market is rational, this synergy will be reflected (although gradually) in the long-run performance of the acquirer. The long run performance, will thus be an increasing function of investment bank and investment banker reputation, since synergy itself is increasing in these variables.

Implication 2: The operating performance of the deal advised by a particular investment banker and investment bank combination will be increasing in the reputation of the investment bank and that of the investment banker.

So far we have been discussing the context of a single takeover by the acquirer. Consider now the case of an acquirer doing multiple deals and further, let the investment banker switch from one

bank to another after the first deal but before the second deal. If the acquirer were to stay with the same investment bank for acquisition advice on the second deal, the investment bank would assign a new investment banker to work with him. However, talented investment bankers are in short supply, so that the new investment banker may be perceived by the acquirer to be of lower quality.

This means that, depending on the difference in reputation between the old bank and the new bank and the difference in reputation between the original investment banker and the new investment banker, the forecasted synergy of the deal to the acquirer may be lower or higher by switching to the new bank along with the banker. If the synergy forecasted by the acquirer is greater by switching, the acquirer will switch to the new bank (employing the original banker).

Implication 3: For a given difference in the reputation between the new and the original investment bank, the higher the reputation of the original investment banker, the more likely the acquirer is to switch with the investment banker for the next deal.

3 Data and Sample Selection

3.1 Sample Selection

3.1.1 Data on Investment Bankers and Acquisition Deals

Our primary datasource is the M&A data obtained from Mergermarket (US) Ltd. Mergermarket is a division of the Financial Times Group and gathers detailed data on acquisition deals and their advisors using a deals research team. The most important reason to use this database is that, unlike the SDC M&A database, Mergermarket reports the names of the individual investment bankers that work on acquisition deals. According to this company, some of the data on individual advisors are submitted by the investment bank advising the deal, while the Mergermarket team collects the rest through their network of contacts (for instance, through interviews with the acquirer).

We collect data on investment bankers and the deals they have advised from the Mergermarket Database. The database starts in 2001 and is updated regularly. The database includes transactions with a deal value greater than or equal to $5 million. It includes mergers, acquisitions in which part or whole of the company is acquired, and stake acquisitions in which the stake acquired is

greater than 30%.

We obtain investment banker name, the name of the investment bank advising the acquirer, the name of the acquirer, the name of the target, and acquisition announcement date. Note that while the Mergermarket database provides the individual investment banker's names, they may have duplicate observations with similar names (e.g., Jim Mabry vs. James Mabry). In some cases, Mergermarket provide us with aliases, whereas in some other cases we have to carefully hand clean bankers' names and consolidate duplicate observations. We do this by looking at the names of the bank that the banker has worked for; how unusual the name is (e.g., Bob Kafafian vs. Robert Kafafian); and obvious typographical mistakes (Brian Perrault vs. Bryan Perrault). While we had to clean the investment banker data on our own, the Mergermarket database fortunately does provide a unique identifier for each deal which it calls Deal_ID.

We start with the sample of investment bankers that have advised at least two deals between 2001 and 2010. This criterion allows us to only keep active investment bankers and provides us the starting set of 636 investment bankers. For this set of investment bankers, we compile the set of US acquisitions for which these bankers are financial advisors for acquirers in the Mergermarket database yielding 1269 deals. Note that this set can include deals where the acquirer may be private or public, whereas our focus is on public acquirers (in order to be able to calculate deal announcement returns). Thus, we further restrict the data as described below.

To obtain detailed deal level data, we obtain data on acquisitions from SDC Platinum database. We select deals based on the following filters: The transaction value is reported and is at least $10 million, the acquirer is a public firm, deals are between US acquirers and US targets, the deal is not a rumored deal, and there is at least one advisor to the acquirer on the deal. In addition, we impose the restriction that the acquirer owns less than 50% of the target prior to the transaction and owns more than 50% of the target subsequent to the transaction. We also remove exchange offers, repurchases, spinoffs, recapitalizations, and self-tender offers. Finally, we keep only the deals for which Compustat and CRSP data is available for the acquirer firm. We then match this dataset to the Mergermarket deals data on target name, acquirer name, and year of deal announcement.

We also hand match the name of the investment bank advising the deal from the Mergermarket data to the SDC data and determine the actual role of the investment bank. We only keep advisors that actually provide financial advice and exclude investment banks retained for other roles such

as providing fairness opinions. This leaves us with our final sample of 513 unique deals for 271 investment bankers for a total of 689 banker-deal observations.

3.1.2 Measures of Investment Banker Human Capital

Using this data we create our primary measure of investment banker quality which is *Prior deal experience*. This variable is defined as the log of one plus the number of acquisitions that the investment banker has advised over the past three years. Since this measure requires information on past three years' deal experience and deals in 2001 are sparse, we limit our sample to start in 2005 in our tests where we analyze the relation between investment banker human capital and acquisition performance.

An alternative measure of investment banker quality is *Prior high quality interaction.* This variable measures the extent of prior interaction with high quality investment bankers that a given banker has had in the past. The intuition for this test relies on the idea that working with better quality bankers will increase your ability and increase your overall skill. This variable is measured as the number of times the investment banker has advised on deals as a part of a team that includes another investment banker who has "high ability." "High ability" bankers at any point in time are those that have worked on at least three deals in the past three years relative to that point in time. Thus, a higher value this variable would indicate greater opportunities for a banker to interact with skilled bankers which in turn will have a positive spillover effect on the banker's own ability.

Another alternative measure of investment banker ability is the number of years of experience that the investment banker has and we term this *Prior years of experience.* We collect data on investment banker's work history using the Financial Industry Regulatory Authority's (FINRA) online BrokerCheck tool, which provides information about current and former FINRA-registered brokers. Since most investment bankers in our sample are registered with FINRA as brokers, we can obtain their past career information from this database, including the start dates with each financial firm that they have worked for. Using this information we calculate the number of years that the banker has worked in the banking industry.

We also use the Mergermarket data to create human capital measure for the team of investment banker advisors on a deal for a specific investment bank. We can do this because Mergermarket provides information about the team of investment bankers that have advised the deal for each

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investment bank. We measure *Team experience* as one plus the log of the average of the number of deals that each member of the investment banking team (that is working on the deal) has worked on over the past three years.

For our instrumental variables (IV) analysis, we also hand-collect data on the educational background of the investment bankers, including the graduation years, from web pages and LinkedIn.com profiles of individual investment bankers. For the IV analysis, we create the following variables: *Graduate degree,* which is a dummy variable that is one if the investment banker has a graduate degree, and zero otherwise; *MBA degree,* which is a dummy variable that is one if the investment banker has an MBA degree, and zero otherwise; *Fraction with grad degree*, which is the fraction of the investment banking team members that have a graduate degree; *Fraction with MBA*, which is the fraction of the investment banking team members that have an MBA degree; *Grad market return*, which is the log of the compounded monthly value-weighted return on all NYSE, AMEX, and NASDAQ stocks (from CRSP) over the two years ending in the June of the year in which the investment banker obtained his graduate degree (e.g., Oyer (2008)); *High undergrad market return*, which is a dummy variable that takes the value of one if the team average of *Undergrad market return* is greater than the 75th percentile; *High grad market return*, which is a dummy variable that takes the value of one if team average of *Grad market return* is greater than the 75th percentile.

3.1.3 Measures of Acquisition Outcomes

We use two measures of acquisition outcome. First, we use the short-run announcement period cumulative abnormal returns (CAR) of the acquirer. This is the announcement period abnormal stock return of the acquirer calculated as the cumulative returns of the acquirer over a (-3,+3) day period around the acquisition announcement (i.e., from one day prior to one day after the announcement of the deal) minus the predicted returns from a market model. Data on stock returns are obtained from CRSP.

Our second measure of acquisition performance is based on the long-run operating performance of the acquirer. Our measure of operating performance is *Abnormal ROA* and is similar to the one used by Chen, Harford, and Li (2007). This is calculated as the residual from the regression of the average three year post-acquisition industry-adjusted ROA (operating income to assets) on the average three year pre-acquisition industry-adjusted ROA. The industry-adjusted ROA for a given

fiscal year is the firm's ROA in a year minus the median Fama-French (1997) industry ROA of all the firms in the same Fama-French industry as the acquirer in that fiscal year.[9] We then winsorize *Abnormal ROA* at the 2.5 percent level and 97.5 level to account for outliers.

3.1.4   Investment Bank Reputation

Acquirer advisor reputation, which is the reputation of the investment bank advising the deal, is calculated as the log of one plus the market share of deals advised in the previous year. We measure market share as the total transaction value of deals advised by the bank relative to the total transaction value of all deals in the year prior to the sample deal. If more than one bank advised the acquirer, we take the average market share of investment banks that advise the deal. Each investment bank advising the firm gets equal credit for a deal. We account for merger activity among investment banks in calculating investment bank share. If a bank was created as result of a merger in particular year, we calculate the prior year market share of the bank as the sum of the markets share of all the entities that merge to create the new bank. For example, if Bank 1 in year t+1 was created by the merger of Banks 2 and 3 in year t, then the market share of Bank 1 in year t is the total market share of Banks 2 and 3 in year t.

3.1.5   Other Variables

In our analyses, we control for deal and acquirer characteristics. We control for the following deal-specific variables: *Log relative size*, where relative size is defined as the transaction value of the deal obtained from SDC Platinum divided by the market capitalization of the acquirer obtained from Compustat; *All cash deal*, which is a dummy variable for all-cash deal; *All stock deal*, which is a dummy variable for an all-stock deal (Fuller, Netter, and Stegemoller (2002)); *Friendly deal*, which is a dummy variable for whether or not the deal is friendly (Moeller, Schlingemann, and Stulz (2004)); *Tender offer deal*, a dummy variable for whether or not the deal is a tender offer; *Percentage of shares owned*, which is the percentage of shares owned by the acquirer immediately prior to the deal; *Diversifying deal*, which is a dummy variable for whether or not the deal is a diversifying deal (Morck, Shleifer, and Vishny (1990)), where a deal is diversifying if the primary

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[9]We also perform our analysis using the difference in the three year average post-acquisition industry-adjusted ROA and the three year average pre-acquisition industry-adjusted ROA. Our results with this alternative measure are qualitatively similar to those reported in this paper.

Fama-French industry of the acquirer is different from that of the target; a dummy variable for whether or not the deal has been challenged; *Private target*, which is a dummy variable for whether or not the target is a private firm; and, *Public target*, which is a dummy variable for whether or not the target is a public firm (subsidiary is the omitted dummy). We obtain these deal-specific variables from SDC Platinum database.

We also control for the following acquirer characteristics: *Acquirer log of assets* (Moeller, Schlingemann, and Stulz (2004)), *Acquirer market to book ratio* (Lang, Stulz, and Walkling (1991)), and *Acquirer ROA* (Morck, Shleifer, and Vishny (1990)). We calculate all accounting variables as of the fiscal year ending immediately before the deal announcement date. We obtain all accounting data from the COMPUSTAT database. We also control for *Prior 12 months stock return*, which is the prior 12-month compounded stock returns of the acquirer (Datta, Datta, and Raman (2001)). All dependent and control variables are defined in the Appendix.

3.2   Summary Statistics

We report the summary statistics of deal characteristics for our sample in Table 1. This sample includes all SDC-reported deals that investment bankers in our dataset were acquirers' advisors. In addition to sample statistics, we also report comparable statistics for the average deal in the same industry and year as the sample deal to check the representativeness of our sample. Overall, we find that the characteristics of our sample of acquisitions are similar to those of the industry-year peer group.

In Panel A of Table 2 we show the distribution of time-varying and time-invariant banker characteristics. The number of deals that an average investment banker has worked on in the past three years is 2.32. The number of high quality investment bankers that the banker has worked with in the past three years is on average 2.03. We define high quality investment bankers as those who have worked on at least three deals in the past three years. 69.8% of the investment bankers in our sample have a graduate degree, and 56.9% of the bankers have an MBA degree.

In Panel B of Table 2 we present the distribution of years of experience that the investment banker has in the banking industry. This table indicates that our sample includes both junior and senior bankers. The median years of experience in banking industry is around 11 years.

4 Empirical Results

4.1 Banker Human Capital and Deal Announcement CAR

4.1.1 Fixed Effects Regressions

We start by analyzing the relative importance of investment banker and investment bank fixed effects. Existing literature analyzing individual fixed effects includes Bertrand and Schoar (2003), who use a fixed effects model to identify senior managements' impact on firm strategy and performance. Their identification strategy requires a manager to work for at least two different firms within the sample period to be able to separately identify manager and firm fixed effects. More recently, Graham, Li, and Qiu (2011) use the methodology of Abowd, Kramarz, and Margolis (1999) to isolate manager fixed effects. The idea is that we can keep the set of managers who have worked at only one firm in the sample as long as another manager has either moved from or to that firm. This allows the researcher to conduct the analysis using a larger number of individuals and isolate individual fixed effects from firm fixed effects.

Thus, we start with a banker who works for a given bank, and then include all bankers who worked for that bank, then include all the banks that those bankers worked for, and then include all other bankers that worked for the latter group of employer banks. This gives us a connected group of banks and bankers. Banker fixed effects are identified within a group (although they can be compared across groups using certain assumptions).[10] Our fixed effects regression framework is thus:

$$y_{ij} = \beta x_{ij} + \delta_t + \alpha_j + \gamma_{banker} + \varepsilon_{ij} \tag{5}$$

where y_{ij} is the performance variable for the ith deal advised by the jth investment bank, x_{ij} are control variables that represent deal, acquirer, target, and time-varying bank characteristics, δ_t are time fixed effects, α_j are investment bank fixed effects, and γ_{banker} are investment banker fixed effects. Note that time subscripts are ignored in all the variables other than time fixed effects for simplicity of notation. Estimating the fixed effects for the investment bankers and investment banks allows us to test for their joint significance.

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[10] Please see Abowd, Kramarz, and Margolis (1999) and also Cornelissen (2008) for an overview of this methodology and its implementation.

We also examine the relative importance of banker fixed effects, bank fixed effects, and other control variables in explaining the variation in our acquisition outcome variables. In particular, we follow Graham, Li, and Qui (2011) and note that the model R-squared is calculated as

$$R^2 = \frac{cov(y_{ij}, \widehat{y}_{ij})}{var(y_{ij})} = \frac{cov(y_{ij}, \widehat{\beta}x_{ij} + \widehat{\delta}_t + \widehat{\alpha}_j + \widehat{\gamma}_{banker})}{var(y_{ij})} = \frac{cov(y_{ij}, \widehat{\beta}x_{ij} + \widehat{\delta}_t)}{var(y_{ij})} + \frac{cov(y_{ij}, \widehat{\alpha}_j)}{var(y_{ij})} + \frac{cov(y_{ij}, \widehat{\gamma}_{banker})}{var(y_{ij})}$$

Each normalized covariance term above may be interpreted as a decomposition of the model's R-squared, with the covariance values corresponding to the fraction of the model sum of squares attributable to particular factors. Thus, we can consider them as the relative importance of different covariates in explaining the dependent variable for a given regression model. We note that the fixed effects analysis meant to be a preliminary one and is intended to serve as a starting point of our analysis. We do not take any causal interpretation from these results, but as one test in a package which will include much more rigorous analysis (reported below).

The results of our fixed effects analysis are reported in Table 3. We cluster the standard errors at the deal level since one deal can appear more than once if multiple bankers provide advice on a deal. Panel A of Table 3 reports the results of this analysis for CAR(-3,+3). The empirical evidence indicates that both the investment banker and the investment bank fixed effects are significant predictors of CAR. In Panel A1 of Table 3, investment banker fixed effects are jointly significant at the 5 percent level and bank fixed effects are jointly significant at the 1 percent level. Thus, both investment bank and investment bankers are significant determinants of acquisition CAR. Panel A2 reports the relative importance of banker and bank fixed effects in explaining the variation in CAR. The results show that investment bank fixed effects have a higher explanatory power (0.44) than investment bank fixed effects (0.06). The control variables scaled covariance value is 0.18 and that for the residuals is 0.324. To obtain an intuitive understanding of these results, we calculate what fraction of the model R-squared is attributable to the investment banker and the investment banker fixed effects. We find that 65.09 percent (=0.44/(1-0.324)) of the model R-square is attributable to investment banker fixed effects whereas 8.88 percent of the model R-squared is attributable to investment bank fixed effects. This suggests that while both investment banker and investment bank fixed effects are important determinants of CAR, banker fixed effects explain more of the

variation in CAR than bank fixed effects.

In Panel A3, we report the incremental change in adjusted-R squared across three different model specifications: one where we include the control variables and bank reputation (Column (1)), one where we include the control variables, bank reputation, and bank fixed effects (Column (2)); and one where we include the control variables, bank reputation, bank fixed effects, and banker fixed effects. We use adjusted R-squared in this case since the number of explanatory variables is changing across models. The explanatory power of the regression (measured by the adjusted R-squared) is 21.3 percent when we include control variables, bank reputation, and bank fixed effects in the regressions. When we add investment banker fixed effects, adjusted R-squared increases by 8.4 percentage points to 29.7 percent. Including bank fixed effects increase the adjusted R-squared by another 5 percentage points compared to the regressions with control variables and bank fixed effects. These results show that bank and banker fixed effects are important determinants of CAR, and unlike the previous set of results, bank fixed effects increase the explanatory power of the regression a bit more than banker fixed effects. The difference between Panel A2 and A3 is that the relative explanatory powers of bank vs. banker fixed effects are measured based on one specification in Panel A2 whereas they are being measured across different model specifications in Panel A3.

Panel B reports the results of the fixed effects analysis for CAR(-3,0). The results are similar to the ones reported for CAR(-3,+3). In particular, both investment bank and banker fixed effects are statistically significant determinants of CAR. Further, 62.27 percent of the model R-squared is attributable to banker fixed effects, whereas 10.47 percent of the model R-squared is attributable to bank fixed effects. The changes in adjusted R-squared on adding bank and banker fixed effects model in Panel B3 are consistent with the results in Panel B2: the change in explanatory power is 6.3 percentage points on adding bank fixed effects, and 13.6 percentage points on adding banker fixed effects. Our results in this section suggest that investment bankers may have significant association with acquisition outcomes.

4.1.2   Investment Banker Experience and CAR

In this section, we relate our measures of investment banker quality with acquisition announcement returns. We regress announcement CARs on measures of investment banker experience. Table 4 presents the results of these OLS regressions. Note that we include bank, industry, and year

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of announcement fixed effects. The first column reports the results of these regressions for the CAR (-3,+3) window with *Prior deal experience* as the measure of investment banker's experience (defined earlier). The results indicate that investment banker's prior deal experience is significantly positively related to acquirer's announcement returns. We find that for every one inter-quartile increase in prior deal experience is associated with an increase of 1.5 percent in the CAR

The second column reports the results with *Prior high quality interaction* as the measure of investment banker quality. *Prior high quality interaction* is also positively related to announcement CARs. Economically, a one inter-quartile increase in *Prior high quality interaction* is associated with a 0.96 percent increase in announcement CAR.

We then conduct various tests to ensure that our results are robust. Table 5 reports the results of these tests. The Column (1) of Table 5 reports the results of the regressions with an alternative CAR window of (-3,0) around the deal announcement. The results indicate that *Prior deal experience* is positively related to deal announcement returns for the announcement CAR (-3, 0) window. The Column (2) of Table 5 reports the results with an alternative measure of investment banker experience, which is the *Prior years of experience* in the banking industry. The results indicate that this alternative measure of experience is also positively related to announcement returns.

One concern with our results may be that time varying bank characteristics may affect our results, especially if certain banks select bankers based on unobservable characteristics. Moreover, banker experience and quality measures may be related to time-varying bank characteristics which may bias our results. To alleviate this concern, we report the results of announcement return regressions with bank-year fixed effects in Column (3) of Table 5. We find that *Prior deal experience* continues to be significantly positively related to deal announcement returns even after controlling for bank-year fixed effects.[11] Yet another concern may be that our results may be driven by industry effects that change over time, for instance, due to merger waves. Column (4) of Table 5 thus reports the results with industry-year fixed effects, and we find that *Prior deal experience* continues to be significantly positively related to deal announcement returns in this specification. Columns (5) and (6) cluster the standard errors by investment banker and by investment bank and find similar

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[11] To further ensure that these CAR results are not biased by interactions between our measure of advisor quality and time-varying bank reputation, we run this regression by including an interaction term between *Prior deal experience* and *Acquirer advisor reputation*. The interaction term is not significant and *Prior deal experience* continues to be statistically significant and positive. Thus, it is unlikely that our results are driven by cross-effects between banker and bank reputation. The results of this test are available from the authors upon request.

results as in the previous table. In unreported tests (available from authors upon request) we run these CAR regressions by dual clustering at bank-year and banker-year levels, and find results qualitatively similar to those reported here.

4.1.3 Investment Banker Experience and CAR: IV Analysis

An important concern with the results above is that potential selection of bankers by high quality banks may drive our results. Further, acquirers could select higher quality bankers which also could bias our results. Since these concerns are primarily based on characteristics that are unobservable and that are correlated with both banker quality measures and deal performance, we address these issues in an instrumental variables (IV) framework. Thus, we need to find sources of exogenous variation for our investment banker quality measures that are unrelated to bank or acquirer quality.

The instruments we use in this analysis are motivated by the findings in the area of labor market for individuals (e.g., Oreopoulos, von Wachter, and Heisz (2012)), corporate officers (e.g., Schoar and Zuo (2011)), and investment bankers (e.g., Oyer (2008)). The results in these studies indicate that individuals that are unfortunate enough to graduate in a poor economy will have worse career outcomes and such effects may persist for a long period after they graduate. For instance, Oyer (2008) finds that MBA students graduating in a poor market are less likely to have early Wall Street opportunities, which in turn is a significant determinant of whether these individuals have later Wall Street experience. Schoar and Zuo (2011) find that economic conditions at the beginning of a manager's career have lasting effects on the career path and the ultimate outcome as a CEO. Specifically, CEOs who start in recessions end up as CEOs in smaller firms and receive lower compensation.

The logic behind these studies is straightforward: individuals starting out in a poor market will have worse initial career opportunities. Further, worse initial career opportunities will negatively affect bankers' opportunities for getting more experience and, as a result, the negative effect of a poor starting point will persist for a substantial time in their career. Given that market conditions at the time of graduation are exogenous, this provides us with reasonable IV candidates. We use two instruments to predict investment banker experience: *Undergrad market return*, and *Grad market return*Grad degree.* Note that we control our analysis for whether or not the investment banker has a Graduate degree as well as whether or not the banker has an MBA degree. Thus, our IVs do not

represent higher education obtained by the banker, but rather the market conditions at the time that they graduate. We expect that stronger market conditions at the time of bankers' graduation will have a positive effect on the starting point of their career, which in turn will provide them better opportunities and experiences. That is, we expect our instruments to be positively related to investment banker experience.

Table 6 reports the results of two stage least squares regression in which *Prior deal experience* is the endogenous variable. The first stage results are reported in Column (1) and suggest that both our instruments are positively related to the investment bankers as expected. The first-stage F-statistics is 16.97 and highly significant indicating that our instruments are strong predictors of *Prior deal experience*. Further, test statistics for Sargan-Hansen test of overidentifying restrictions is not statistically significant, supporting the validity of our instruments.

Column (2) of Table 6 indicates that, consistent with the OLS analysis previously reported, *Prior deal experience* of the investment banker is positively related to acquisition CAR. Thus, controlling for potential endogenous selection of investment bankers, we find that banker quality is positively related to acquisition performance. This supports the notion that our results are not driven by selection and endogeneity issues.

4.2 Banker Human Capital and Post-Acquisition Operating Performance

4.2.1 Investment Banker Fixed Effects Regressions

We also analyze the impact of investment banker advisers on post-acquisition operating performance of the acquirer, which we measure as *Abnormal ROA*. We present the results of our fixed effects analysis for *Abnormal ROA* in Table 7. Note that, in all our regressions with *Abnormal ROA*, we use effective year fixed effects, since *Abnormal ROA* is measured relative to effective year. Similar to the results of the fixed effects analysis with announcement returns, in Panel A of Table 7, we find that the joint F-statistics for both bank and banker fixed effects are statistically significant determinants of *Abnormal ROA*.

Panel B of Table 7 reports the extent of explanatory power of bank and banker fixed effects. In particular, the relative importance of the investment banker fixed effects is 0.407 whereas that for bank fixed effects is about 0.002. Thus, the proportion of model R-squared for *Abnormal ROA*

attributable to investment banker fixed effects is about 48 percent, whereas that for investment bank fixed effects is 0.2 percent. Panel C of Table 7 reports the adjusted R-squared for regressions with control variables and bank reputation as well as those for regressions after adding bank and banker fixed effects. We find that adjusted R-squared increases by 7 percent when we include bank fixed effects to be base model and by 9.7 percentage points when we include banker fixed effects. As in the previous set of fixed effects analysis, we interpret these results as suggestive of potentially important role played by investment bankers in adding value to acquiring firms.

4.2.2 Investment Banker Experience and Operating Performance

We examine the relationship between our measures of investment banker quality and post-acquisition operating performance. The results of this analysis are presented in Table 8. The OLS models do not find a significant relation between *Prior deal experience* and *Abnormal ROA*. However, *Prior high quality interaction* is positively related to the *Abnormal ROA* of the acquirer and this relation is statistically significant at the 10 percent level. Economically, this result indicates that a one inter-quartile change in the *Prior high quality interaction* variable is associated with a 0.3 percentage point change in *Abnormal ROA*. This is economically significant relative to the median value of 0.4 percent for *Abnormal ROA*. Thus, the OLS analysis indicates a weak but positive relation between investment banker quality and post-acquisition operating performance of the acquirer.

4.2.3 Investment Banker Experience and Operating Performance: IV Analysis

We also conduct our IV analysis with *Abnormal ROA* as the outcome variable. Table 9 presents the results of this analysis with *Prior deal experience* as the endogeneous variable. We use the same instruments as before. The results from first-stage regressions show that *Undergrad market return* is a significant predictor of prior deal experience. The first-stage F-statistics is around 16, indicating that our instruments are not weak. The results in the second column of Table 9 indicate that after we account for potential endogeneity between *Abnormal ROA* and *Prior deal experience*, we find that *Prior deal experience* is significantly positively related to post-acquisition acquisition performance. These results are consistent with those for the CAR and indicate that investment banker quality is indeed positively associated with acquisition performance.

4.3 Investment Banking Team Experience and Deal Performance

Since M&A advisory involves a team of bankers working on a deal, we explore how the quality of the team of individuals that work on a deal is associated with acquisition performance. In this section, we investigate the impact of team experience on deal announcement returns and the post-acquisition operating performance of the acquirer. In particular, we are interested in how *Team experience* affects acquisition performance. Thus, we aggregate the data to the deal level, where *Team experience* is the log of one plus the mean value of the experience of all investment bankers working on a deal (described earlier in the data section). In the analysis described in this section, we cluster the standard errors at the industry level.

Table 10 presents the results of this analysis for acquisition announcement CAR. Column (1) of this table shows the results of OLS regressions. The results indicate that investment banking *Team experience* is significantly and positively related to acquirer CAR. This result is consistent with the results in the prior section suggesting that individual banker experience is positively related to acquisition CAR.

In addition, we conduct our team level analysis in an IV framework. Based on our previous IV analyses, we create a dummy variable called *High undergrad market return*, which is one if the team average of the *Undergrad market return* is greater than the 75th percentile. Unlike the banker based IV analysis, we prefer to use a dummy variable for the higher end of the (average team) undergraduate year stock returns. This is because, by averaging the undergraduate year stock returns, we lose the variation among investment bankers. As s result, the aggregated mean undergraduate market return is not strongly correlated with the average team experience resulting in a weak instrument. Thus, we consider the higher end of the distribution of graduation stock returns to provide us with a stronger source of variation in the *Team experience* variable. We also similarly create a dummy variable called *High grad market return*, which is one if the team average of the *Grad market return* is greater than the 75th percentile. We also control these regressions for the fraction of the investment banking team members that have a graduate degree (*Fraction with grad degree*), as well as the fraction of the investment banking team members that have an MBA degree (*Fraction with MBA*).

Column (2) reports the results of the first stage regression. These results indicate that the

instruments are significant and positive predictors of *Team experience.* Column (3) of Table 10 reports the second-stage results for the IV analysis. The coefficient estimate for *Team experience* is positive and significant indicating that acquisitions advised by highly experienced team of bankers have higher announcement returns.

We conduct our team level analysis for *Abnormal ROA* as well. Table 11 reports the results of the analysis of the impact of investment banking team experience on the *Abnormal ROA* of the acquirer. We do not find any significant relation between *Team experience* and *Abnormal ROA* in the OLS regression in Column (1) of Table 11.

In Column (2) of Table 11, we report the first stage regression results for the IV analysis. Our results for the first stage are similar to those in the previous table, suggesting that our instruments are positively related to *Team experience.* Column (3) of Table 11 reports the results of the second stage of the IV analysis. We find that, after we account for endogeneity of investment banking team experience, acquirers advised by experienced investment banking teams have higher *Abnormal ROA.* Overall, the results in this section are consistent with those from previous sections. That is, investment banker team quality has a positive effect on acquisition performance.

4.4 Banker Human Capital and the Propensity of Acquirer to Switch Investment Bank

We also investigate how investment bankers' deal experience affects acquirer choice of the investment bank. In particular, we analyze whether acquirers follow experienced investment bankers when they switch jobs to a new bank. Since we need to restrict the sample to acquirers that conduct at least one acquisition before and at least one acquisition after the banker switch, our ability to use actual deals advised by bankers is limited due to the substantial reduction in the sample size. Instead, we take all acquirers that obtain advisory service from the investment banker's previous bank that acquire again after the banker switches to the new bank. We then classify those acquirers as being in the same industry as the investment banker's specialization or not.[12] Thus, *Banker industry* is a dummy variable that is one if the acquirer's industry is one in which the investment banker works. The investment banker's industries are defined as the Fama-French industries of all the acquirers that they have advised in the sample period. *Not banker industry* is a dummy variable that is

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[12]Investment bankers typically specialize in certain industries and work exclusively in advising in those industries.

defined as one minus *Banker industry.*

We analyze whether the choice of the acquirer advisor to use the investment banker's new bank as the advisor on the next deal depends on the switching investment banker's *Prior deal experience.* Further, we test whether the effect of *Prior deal experience* on the choice of the new bank varies depending on whether the acquirer's industry is one in which the investment banker works (i.e., *Banker industry*=1) or not (i.e., *Not banker industry*=1). Thus, firms in the same industry as the banker can be considered as a treatment group whereas those not in the banker's industry can be thought of as a control group. If acquirers indeed move with experienced bankers because they want to continue to work with them, then this effect should be more important for acquirers in industries that the investment bankers work in. In our analysis, we also control for the *Difference in bank reputation* which is defined as the *Acquirer advisor reputation* of the post-switch bank minus the *Acquirer advisor reputation* of the pre-switch bank. Further, we control for the year of the banker switch fixed effects.

The results of this test are reported in Table 12. Columns (1) and (2) of Table 12 report the result of poisson models where the dependent variable is the number of times that the acquirer uses the switching investment banker's new bank as a financial advisor on their deal. Columns (3) and (4) report the result of negative binomial regression models, and Columns (5) and (6) report the results of logit model where the dependent variable is one if the acquirer uses the banker's new bank as an advisor in a subsequent acquisition and zero otherwise. Our results are consistent across all models are indicate a positive relation between *Prior deal experience* and the number of times the acquirer hires the banker's new bank and the as well as the propensity of the acquirer to use the new employer of the banker as an advisor on a subsequent acquisition (Columns (1), (3), and (5)).

When we interact *Prior deal experience* with *Banker industry* and *Not banker industry* dummies, we find that the positive relation is primarily driven by acquirers that are in an industry that the banker works in (Columns (2), (4), and (6)). Specifically, the coefficient estimate on *Prior deal experience*Banker industry* is positive and statistically significant whereas that on *Prior deal experience*Not banker industry* is not. Moreover, the difference between the two coefficient estimates is statistically significant. We also find that higher increase in the post-bank reputation relative to the pre-bank reputation increases the likelihood of the acquirer switching, although this result

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is only weakly significant.

One concern with these results is that banker matching to the bank may explain some of the results in this section. However, if this is the case, then we would expect that acquirers in all industries will prefer to move with the banker if the post-switch bank is a higher quality bank. However, our empirical results indicate that only acquirers in the industry of the investment banker move with a high quality banker, mitigating this concern. Moreover, our IV analysis in previous sections account for potential unobservables including any matching effects that may drive the relation between investment banker experience and acquisition performance.

Broadly, the results in this section (and those from prior sections) suggest that more experienced bankers can add value to acquirers, over and above the effect of bank reputation. The acquirers recognize this value, and prefer to follow high value investment bankers to their new bank.

4.5   Potential Alternative Explanations

In this section, we consider various alternative explanations for our empirical results. One alternative explanation - that bankers may simply be good at joining higher quality acquisitions that has already been awarded to the bank - is not consistent with our results. Our IV analyses rule out such non-causal stories based on unobservable effects such as investment bankers "latching" on to good deals.

We also consider the possibility that investment banks with many bankers working in a particular industry may not be significantly affected by having another investment banker in that industry. Thus, it is possible that our results may be driven by banks that have a small extent of coverage in an industry. While we do not have data on the number of investment bankers that specialize in an industry at the investment bank level, we can proxy for this using the extent of advisory business done by the investment bank in the banker's industry. Thus, we control for the dollar value of advisory business done by the investment bank in the banker's industry over the last year as a fraction of the dollar value of all advisory business done by the investment bank in the prior year. In unreported tests, we find that our CAR results do not change as a result of adding this control variable to our regressions. Further, in our CAR regressions, we interact *Prior deal experience* with the bank's focus on the investment banker's industries (i.e., dollar value of advisory business done by the investment bank in the banker's industry over the last year as a fraction of the dollar value

of all advisory business done by the investment bank in the prior year). The interaction term is statistically insignficant whereas *Prior deal experience* continues to be statistically and economically significant. Thus, it is unlikely that our results are driven by investment banks with a small extent of advisory coverage in the investment bankers' industries.

5   Conclusion

Using a novel dataset that links individual investment bankers to acquisition deals that they advise, we address the following question: Does value creation by investment banks in acquisitions arise primarily from the reputation, culture, and other institutional strengths of a given investment bank or does it also arise from the human capital of the individual investment bankers employed by that bank? We find that individual investment bankers indeed have a significant impact on the performance of the deals that they advise, over and above the effect of the investment bank. First, we show that investment banker fixed effects are significantly associated with acquisition performance. Second, we find that investment bankers' prior deal experience is significantly and positively related to acquisition CAR and post-acquisition operating performance. Third, using graduation year stock market performance as an instrument for bankers' career prospects, we show that the positive relation between investment banker experience and acquisition CAR is causal. Finally, we find that, when more experienced investment bankers switch to a new bank, acquirers are more likely to move with them. Broadly, our results suggest that an important driver of the value of using an advisor is the skill and ability of the individual investment banker working on the deal.

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Table 1: Deal Characteristics

This table presents summary statistics for our sample of mergers from 2001 to 2010. It reports the summary statistics for our deal level variables and for the average values of the same variables for all acquisitions in the same industry and year as our sample acquisitions. All variables are defined in the Appendix.

	Main sample				Similar Industry-year sample		
	Mean	Median	SD	N	Mean	Median	SD
Log relative size	-2.61	-2.5	1.56	689	-2.86	-2.72	0.986
Percentage of shares owned prior to transaction	1.47	0	7.29	689	1.72	0	6.03
Prior 12 months stock return	0.234	0.145	0.472	689	0.233	0.195	0.448
Transaction value	2117	419	5655	689	757	473	1237
Acquirer log of assets	8.28	8.08	1.84	689	7.45	7.5	1.08
Acquirer market to book ratio	3.12	2.25	2.92	689	3.15	2.3	2.4
Acquirer advisor reputation	0.044	0.026	0.054	689	0.037	0.031	0.024
All cash deal (0/1)	0.341		0.474	689	0.337		0.225
All stock deal (0/1)	0.136		0.343	689	0.163		0.14
Friendly deal (0/1)	0.99		0.1	689	0.994		0.0451
Challenged deal (0/1)	0.023		0.151	689	0.015		0.059
Diversifying deal (0/1)	0.299		0.458	689	0.317		0.242

Table 2: Investment Banker Characteristics

Panel A of this table presents the summary statistics of time-varying and time-invariant banker characteristics measures. Panel B presents the distribution of the years of experience of the banker in the banking industry. *Prior deal experience* is the number of deals that the banker has worked on over the past three years. *Prior high quality interaction* is the number of high quality investment bankers that a specific banker has worked with in the past. High quality bankers are defined as those who have worked on at least three deals in the past three years. *MBA degree* is a dummy variable that takes the value of one if the banker has an MBA degree, and zero otherwise. *Graduate degree* is a dummy variable that takes the value of one of the banker has a graduate degree, and zero otherwise.

Panel A: Banker Characteristics

Banker-year characteristics (Time-varying)	Mean	1st pctile	25th pctile	Median	75th pctile	99th pctile	SD	N
Prior deal experience	2.32	0	0	2	4	11	2.58	551
Prior high quality interaction	2.03	0	0	1	3	10	2.42	551

Banker characteristics (Time-invariant)	Mean	SD						N
MBA degree (0/1)	0.569	0.496						225
Graduate degree (0/1)	0.698	0.46						225

Panel B: Banker Years of Experience in the Investment Banking Industry	
Percentiles	Years of investment banking experience
1%	1.588
5%	3.542
10%	4.712
25%	7.638
50%	11.170
75%	14.901
90%	19.266
95%	22.562
99%	28.548

Table 3: Fixed Effects Analysis for Deal Announcement Returns

This table presents the results of fixed effects regressions for deal announcement CARs. Panel A reports the results of this analysis for CAR (-3, +3) window. Panel B reports the results of this analysis for CAR (-3, 0) window. First we report the F-statistics for the joint significance of banker fixed effects, and bank fixed effects. We also report the number of bankers. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively. Second, we report the relative importance of investment banker fixed effects, investment bank fixed effects, all other control variables, and the residual term in explaining the variation in the deal announcement returns. In this panel, we report the percentage of model R-squared explained by each set of variables in parentheses Last, we report adjusted R^2s of three regressions with different set of independent variables. The first column reports the adjusted R^2 for the regression that includes control variables and bank reputation. The second column reports adjusted R^2 for the regression that includes control variables, bank reputation, and bank fixed effects. The third column reports adjusted R^2 for the regression that includes control variables, bank reputation, bank fixed effects, and banker fixed effects. All models are estimated with a constant term.

Panel A: CAR(-3,+3)

Panel A1: Statistical significance of banker and bank fixed effects

Banker fixed effects F-statistic	Bank fixed effects F-statistic	N	Number of bankers
1.21**	1.84***	689	271

Panel A2: Relative importance of bank and banker fixed effects

Banker fixed effects	Bank fixed effects	Other covariates	Residual
0.44 (65.09%)	0.06 (8.88 %)	0.18 (26.62%)	0.324

Panel A3: Adj. R^2 after the addition of bank and banker fixed effects

(1)	(2)	(3)
Control variables and bank reputation	Control variables, bank reputation, and bank fixed effects	Control variables, bank reputation, bank fixed effects, and banker fixed effects
0.213	0.297	0.347

Panel B: CAR(-3,0)

Panel B1: Statistical significance of banker and bank fixed effects

Banker fixed effects F-statistic	Bank fixed effects F-statistic	N	Number of bankers
1.42***	2.21***	689	271

Panel B2: Relative importance of bank and banker fixed effects

Banker fixed effects	Bank fixed effects	Other covariates	Residual
0.434 (62.27%)	0.073 (10.47%)	0.19 (27.26%)	0.303

Panel B3: Adj. R^2 after the addition of bank and banker fixed effects

(1)	(2)	(3)
Control variables and bank reputation	Control variables, bank reputation, and bank fixed effects	Control variables, bank reputation, bank fixed effects, and banker fixed effects
0.201	0.264	0.400

Table 4: Investment **Banker Quality and Deal Announcement Returns**

This table presents the results of OLS regressions where the dependent variable is deal announcement returns. The main variables of interest are *Prior deal experience* and *Prior high quality interaction*. *Prior deal experience* is the log of one plus the number of deals that the banker has worked on over the past three years. *Prior high quality interaction* is the number of high quality investment bankers that a specific banker has worked with in the past. High quality bankers are defined as those who have worked on at least three deals in the past three years. All other independent variables are defined in the Appendix. All specifications include a constant, industry, year, and bank fixed effects. We also report the number of bankers. Robust standard errors clustered at the acquisition level are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively.

	(1)	(2)
	CAR(-3,+3)	CAR(-3,+3)
Prior deal experience	0.016***	
	(0.005)	
Prior high quality interaction		0.003*
		(0.002)
Log relative size	-0.011**	-0.012**
	(0.005)	(0.005)
All cash deal	0.000	-0.005
	(0.011)	(0.011)
All stock deal	0.021	0.029
	(0.018)	(0.019)
Friendly deal	-0.047	-0.041
	(0.035)	(0.034)
Tender offer deal	-0.001	-0.001
	(0.018)	(0.018)
Percentage of shares owned	-0.001**	-0.002***
	(0.001)	(0.001)
Diversifying deal	-0.002	-0.003
	(0.011)	(0.013)
Challenged deal	0.023	0.014
	(0.028)	(0.028)
Public target	-0.039***	-0.045***
	(0.014)	(0.015)
Private target	0.007	0.012
	(0.016)	(0.017)
Prior 12 months stock return	0.032**	0.037**
	(0.015)	(0.017)
Acquirer log of assets	-0.004	-0.003
	(0.004)	(0.004)
Acquirer market to book ratio	-0.003	-0.002
	(0.002)	(0.002)
Acquirer ROA	0.031	0.098
	(0.075)	(0.082)
Acquirer advisor reputation	-0.047	-0.055
	(0.127)	(0.134)
Industry FE	Y	Y
Year FE	Y	Y
Bank FE	Y	Y
Observations	526	480
Number of bankers	251	233
Adj. R^2	0.351	0.380

Table 5: Investment Banker Quality and Deal Announcement Returns - Robustness Tests

This table presents the results of OLS regressions where the dependent variable is deal announcement returns. The first column shows the results of the tests with an alternative announcement return window, CAR(-3, 0). The second column reports the results of the tests with an alternative measure of investment human capital. *Prior years of experience* is the number of years that the banker has worked in the banking industry. We measure this as the difference between the date of the deal announcement and the date on which the banker joins the first investment bank of his or her career. All other independent variables are defined in the Appendix. The third and fourth columns report the results of regressions of *Prior deal experience* on announcement returns with bank-year fixed effects, and industry-year fixed effects, respectively. The fifth and sixth column reports the results of regressions, in which the standard errors are clustered by investment banker and investment bank, respectively. Specifications reported in first, second, third, fifth, and sixth columns include industry, year, and bank fixed effects. The specification reported in the fourth column has industry-year, and bank fixed effects. All models are estimated with a constant term. We also report the number of bankers. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	Alternate CAR window	Alternate investment banker human capital measure	Bank*year FE	Industry*year FE	Clustering by investment banker	Clustering by investment bank
	CAR(-3,0)	CAR(-3,+3)	CAR(-3,+3)	CAR(-3,+3)	CAR(-3,+3)	CAR(-3,+3)
Prior deal experience	0.007*		0.008*	0.013***	0.016***	0.016***
	(0.004)		(0.005)	(0.005)	(0.005)	(0.006)
Prior years of experience		0.007*				
		(0.004)				
Log relative size	-0.008*	-0.010**	-0.013***	-0.015***	-0.011***	-0.011**
	(0.004)	(0.005)	(0.005)	(0.005)	(0.004)	(0.005)
All cash deal	-0.001	0.000	-0.007	-0.015	0.000	0.000
	(0.009)	(0.011)	(0.012)	(0.013)	(0.008)	(0.013)
All stock deal	0.008	0.022	-0.002	0.028	0.021	0.021
	(0.015)	(0.019)	(0.023)	(0.021)	(0.014)	(0.017)
Friendly deal	0.028	-0.039	-0.072	-0.014	-0.047*	-0.047*
	(0.037)	(0.036)	(0.074)	(0.050)	(0.025)	(0.025)
Tender offer deal	-0.001	-0.003	0.026	-0.009	-0.001	-0.001
	(0.017)	(0.018)	(0.020)	(0.023)	(0.014)	(0.017)
Percentage of shares owned	-0.001**	-0.001**	-0.001**	-0.002**	-0.001**	-0.001**
	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Diversifying deal	-0.014*	0.003	-0.016	-0.006	-0.002	-0.002
	(0.008)	(0.012)	(0.012)	(0.013)	(0.009)	(0.014)
Challenged deal	0.006	0.023	0.011	0.018	0.023	0.023
	(0.018)	(0.029)	(0.034)	(0.034)	(0.024)	(0.015)
Public target	-0.031***	-0.041***	-0.055***	-0.028*	-0.039***	-0.039***
	(0.011)	(0.015)	(0.017)	(0.015)	(0.010)	(0.011)
Private target	0.002	0.005	-0.007	0.014	0.007	0.007
	(0.013)	(0.017)	(0.018)	(0.016)	(0.011)	(0.011)
Prior 12 months stock return	0.033**	0.029*	0.035**	0.062***	0.032***	0.032
	(0.014)	(0.016)	(0.015)	(0.014)	(0.012)	(0.019)
Acquirer log of assets	-0.004	-0.003	-0.006	-0.003	-0.004	-0.004
	(0.003)	(0.004)	(0.004)	(0.004)	(0.003)	(0.005)
Acquirer market to book ratio	-0.001	-0.003	-0.001	-0.000	-0.003*	-0.003
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)

Acquirer ROA	-0.140*	0.012	0.147	0.065	0.031	0.031
	(0.078)	(0.077)	(0.097)	(0.086)	(0.052)	(0.063)
Acquirer advisor reputation	-0.063	-0.034	-0.057	-0.150	-0.047	-0.047
	(0.109)	(0.130)	(0.233)	(0.208)	(0.101)	(0.119)
Industry FE	Y	Y	Y	N	Y	Y
Year FE	Y	Y	Y	N	Y	Y
Bank FE	Y	Y	Y	Y	Y	Y
Bank*Year FE	N	N	Y	N	N	N
Industry*Year FE	N	N	N	Y	N	N
Observations	526	506	526	526	526	526
Number of bankers	251	241	251	251	251	251
Adj. R^2	0.342	0.333	0.551	0.533	0.351	0.351

Table 6: Investment Banker Quality and Deal Announcement Returns – IV Analysis

This table reports the results of instrumental variable (IV) regressions in which *Prior deal experience* is the endogeneous variable. *Prior deal experience* is the log of one plus the number of deals that the banker has worked on over the past three years. *Undergrad stock return* is the log of one plus the two year compounded stock returns ending in June of the year in which the investment banker graduate from their undergraduate program. *Grad stock return* is log of one plus the two year compounded stock returns ending in June of the year in which the investment banker graduate from their graduate program. *Graduate degree* is a dummy variable that takes the value of one if the investment banker has a graduate degree, and zero otherwise. *Graduate degree*Grad stock return* is the interaction of *Graduate degree* dummy and *Grad stock return*. *MBA degree* is a dummy variable that takes the value of one if the banker has an MBA degree, and zero otherwise. All other variables are defined in the Appendix. All specifications include a constant, industry, year, and bank fixed effects. We also report the number of bankers. Robust standard errors clustered at the acquisition level are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively.

	(1)	(2)
	First Stage	Second stage
	Prior deal experience	CAR(-3,+3)
Prior deal experience		0.023*
		(0.013)
Undergrad market return	1.052***	
	(0.265)	
Graduate degree*Grad market return	0.648***	
	(0.235)	
Graduate degree	0.005	-0.017
	(0.181)	(0.012)
MBA degree	-0.090	0.029**
	(0.153)	(0.011)
Log relative size	0.143**	-0.005
	(0.059)	(0.005)
All cash deal	-0.012	0.012
	(0.130)	(0.010)
All stock deal	0.287	0.032*
	(0.180)	(0.018)
Friendly deal	0.756**	-0.045
	(0.347)	(0.040)
Tender offer deal	-0.143	0.021
	(0.215)	(0.018)
Percentage of shares owned	0.004	-0.001
	(0.006)	(0.001)
Diversifying deal	-0.021	-0.007
	(0.127)	(0.013)
Challenged deal	-0.071	0.050
	(0.299)	(0.045)
Public target	-0.094	-0.050***
	(0.145)	(0.015)
Private target	0.036	0.009
	(0.165)	(0.018)
Prior 12 months stock return	0.036	0.035***

	(0.125)	(0.014)
Acquirer log of assets	0.067	0.005
	(0.048)	(0.004)
Acquirer market to book ratio	-0.019	-0.004
	(0.034)	(0.003)
Acquirer ROA	-0.334	0.021
	(1.029)	(0.081)
Acquirer advisor reputation	0.695	-0.144
	(1.394)	(0.156)
Industry FE	Y	Y
Year FE	Y	Y
Bank FE	Y	Y
Observations	290	290
Number of bankers	136	136
Adj. R^2	0.373	0.381

Table 7: Fixed Effects Analysis for Abnormal ROA

This table presents the results of fixed effects regressions for the post-acquisition operating performance of the acquirer as measured by abnormal ROA. The calculation of abnormal ROA is explained in the Appendix.

First we report the F-statistics for the joint significance of banker fixed effects, and bank fixed effects. We also report the number of bankers. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively. Second, we report the relative importance of investment banker fixed effects, investment bank fixed effects, all other control variables, and the residual term in explaining the variation in the abnormal ROA. In this panel, we report the percentage of model R-squared explained by each set of variables in parentheses. Last, we report adjusted R^2s of three regressions with different set of independent variables. The first column reports the adjusted R^2 for the regression that includes control variables and bank reputation. The second column reports adjusted R^2 for the regression that includes control variables, bank reputation, and bank fixed effects. The third column reports adjusted R^2 for the regression that includes control variables, bank reputation, bank fixed effects, and banker fixed effects. All models are estimated with a constant term.

Panel A: Statistical significance of banker and bank fixed effects			
Banker fixed effects F-statistic	Bank fixed effects F-statistic	N	Number of bankers
1.63***	1.94***	620	266

Panel B: Relative importance of bank and banker fixed effects			
Banker fixed effects	Bank fixed effects	Other covariates	Residual
0.407 (48.6%)	0.002 (0.2%)	0.428 (51.07%)	0.162

Panel C: Adj. R^2 after the addition of bank and banker fixed effects		
(1)	(2)	(3)
Control variables and bank reputation	Control variables, bank reputation, and bank fixed effects	Control variables, bank reputation, bank fixed effects, and banker fixed effects
0.459	0.529	0.626

Table 8: Investment Banker Quality and Abnormal ROA

This table presents the results of OLS regressions where the dependent variable is the post-acquisition operating performance of the acquirer as measured by abnormal ROA. The calculation of abnormal ROA is explained in the Appendix. The main variables of interest are *Prior deal experience* and *Prior high quality interaction*. *Prior deal experience* is the log of one plus the number of deals that the banker has worked on over the past three years. *Prior high quality interaction* is the number of high quality investment bankers that a specific banker has worked with in the past. High quality bankers are defined as those who have worked on at least three deals in the past three years. All other independent variables are defined in the Appendix. All specifications include a constant, industry, year, and bank fixed effects. We also report the number of bankers. Robust standard errors clustered at the acquisition level are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively.

	(1)	(2)
	Abnormal ROA	Abnormal ROA
Prior deal experience	-0.001	
	(0.002)	
Prior high quality interaction		0.001*
		(0.001)
Log relative size	-0.002	-0.002
	(0.002)	(0.002)
All cash deal	-0.002	-0.002
	(0.005)	(0.006)
All stock deal	0.002	-0.002
	(0.006)	(0.006)
Tender offer deal	-0.002	0.001
	(0.008)	(0.008)
Percentage of shares owned	-0.001	0.001*
	(0.001)	(0.000)
Diversifying deal	0.001	-0.003
	(0.005)	(0.005)
Challenged deal	-0.014	-0.015
	(0.011)	(0.009)
Public target	-0.012	-0.017**
	(0.008)	(0.008)
Private target	-0.018**	-0.021**
	(0.009)	(0.009)
Prior 12 months stock return	0.003	0.005
	(0.005)	(0.006)
Acquirer log of assets	0.002	0.002
	(0.002)	(0.002)
Acquirer market to book ratio	0.001	0.001
	(0.001)	(0.001)
Acquirer ROA	0.021	0.009
	(0.040)	(0.042)
Acquirer advisor reputation	0.119*	0.136**
	(0.069)	(0.067)
Industry FE	Y	Y
Year FE	Y	Y
Bank FE	Y	Y
Observations	461	420
Number of bankers	242	225
Adj. R^2	0.419	0.495

Table 9: Investment Banker Quality and Abnormal ROA - IV Analysis

This table reports the results of instrumental variable (IV) regressions in which *Prior deal experience* is the endogenous variable. *Prior deal experience* is the log of one plus the number of deals that the banker has worked on over the past three years. *Undergrad stock return* is the log of one plus the two year compounded stock returns ending in June of the year in which the investment banker graduate from their undergraduate program. *Grad stock return* is log of one plus the two year compounded stock returns ending in June of the year in which the investment banker graduate from their graduate program. *Graduate degree* is a dummy variable that takes the value of one if the investment banker has a graduate degree, and zero otherwise. *Graduate degree*Grad stock return* is the interaction of *Graduate degree* dummy and *Grad stock return*. *MBA degree* is a dummy variable that takes the value of one if the banker has an MBA degree, and zero otherwise. All other variables are defined in the Appendix. All specifications include a constant, industry, year, and bank fixed effects. We also report the number of bankers. Robust standard errors clustered at the acquisition level are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively.

	(1)	(2)
	First stage	Second stage
	Prior deal experience	Abnormal ROA
Prior deal experience		0.009*
		(0.005)
Undergrad market return	1.296***	
	(0.281)	
Graduate degree*Grad market return	0.418	
	(0.263)	
Graduate degree	0.194	-0.002
	(0.196)	(0.007)
MBA degree	-0.129	0.002
	(0.178)	(0.006)
Log relative size	0.115	-0.003
	(0.075)	(0.003)
All cash deal	-0.114	-0.005
	(0.154)	(0.005)
All stock deal	0.270	-0.007
	(0.215)	(0.006)
Tender offer deal	0.002	0.015*
	(0.233)	(0.009)
Percentage of shares owned	0.001	-0.003***
	(0.006)	(0.001)
Diversifying deal	0.005	-0.006
	(0.160)	(0.005)
Challenged deal	0.002	-0.033**
	(0.394)	(0.015)
Public target	-0.164	-0.013**
	(0.156)	(0.006)
Private target	-0.043	-0.014**
	(0.169)	(0.006)
Prior 12 months stock return	0.002	0.005
	(0.149)	(0.006)
Acquirer log of assets	0.045	0.004*
	(0.063)	(0.002)

Acquirer market to book ratio	-0.087***	0.000
	(0.032)	(0.001)
Acquirer ROA	-0.007	0.015
	(0.991)	(0.037)
Acquirer advisor reputation	0.335	0.154***
	(1.570)	(0.059)
Industry FE	Y	Y
Year FE	Y	Y
Bank FE	Y	Y
Observations	248	248
Number of bankers	129	129
Adj. R^2	0.388	0.528

Table 10: Investment Banking Team Quality and Deal Announcement Returns

This table presents the results of OLS and instrumental variable (IV) regressions where the dependent variable is deal announcement returns. *Team experience* is the log of one plus the average number of deals the investment banker's team has worked on over the past three years. *Team experience* is the endogenous variable in the instrumental variable regressions. *High undergrad market return* is a dummy variable that takes the value of one if the team average of the log of one plus the two year compounded stock returns ending in June of the year in which the team members graduate from their undergraduate program is greater than the 75th percentile. *High grad market return* is a dummy variable that takes the value of one if the team average of the log of one plus the two year compounded stock returns ending in June of the year in which the team members graduate from their graduate program is greater than the 75th percentile. *Fraction with grad degree* is the fraction of the investment banking team members that have a graduate degree. *Fraction with MBA* is the fraction of investment banking team members that have an MBA degree. All other independent variables are defined in the Appendix. All specifications include a constant, industry, year, and bank fixed effects. We also report the number of bankers. Robust standard errors clustered at the acquisition level are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively.

	(1) OLS CAR(-3,+3)	(2) IV First Stage Team experience	(3) IV Second Stage CAR(-3,+3)
Team experience	0.028*		0.086**
	(0.015)		(0.039)
High undergrad market return		0.190**	
		(0.083)	
High grad market return		0.203**	
		(0.092)	
Fraction with grad degree		0.177	-0.051**
		(0.190)	(0.023)
Fraction with MBA		-0.112	0.053**
		(0.193)	(0.025)
Log relative size	-0.009*	0.031	-0.014**
	(0.005)	(0.044)	(0.006)
All cash deal	0.006	-0.022	0.011*
	(0.013)	(0.096)	(0.007)
All stock deal	0.021	0.144	0.009
	(0.020)	(0.131)	(0.022)
Friendly dummy	-0.032	-0.380	-0.032
	(0.042)	(0.237)	(0.042)
Tender offer deal	0.012	-0.343**	0.030
	(0.020)	(0.135)	(0.020)
Percentage of shares owned	-0.001	-0.003	-0.000
	(0.001)	(0.006)	(0.001)
Diversifying deal	0.008	-0.020	0.006
	(0.013)	(0.079)	(0.008)
Challenged deal	0.023	-0.208	0.052***
	(0.016)	(0.218)	(0.015)
Public target	-0.044***	-0.001	-0.034**
	(0.016)	(0.127)	(0.017)
Private target	0.004	0.021	0.001
	(0.016)	(0.130)	(0.018)
Prior 12 months stock return	0.012	0.092	0.018

	(0.020)	(0.095)	(0.013)
Acquirer log of assets	-0.004	0.031	-0.002
	(0.005)	(0.038)	(0.003)
Acquirer market to book ratio	-0.002	0.013	-0.004**
	(0.002)	(0.017)	(0.002)
Acquirer ROA	0.063	-0.672	0.016
	(0.069)	(0.670)	(0.084)
Acquirer advisor reputation	-0.088	-0.007	-0.191
	(0.175)	(0.805)	(0.133)
Industry FE	Y	Y	Y
Year FE	Y	Y	Y
Bank FE	Y	Y	Y
Observations	304	251	251
Adj. R^2	0.191	0.411	0.240

Table 11: Investment Banking Team Quality and Abnormal ROA

This table presents the results of OLS and instrumental variable regressions where the dependent variable is post-acquisition operating performance of the acquirer as measured by abnormal ROA. The calculation of abnormal ROA is explained in the Appendix. *Team experience* is the log of one plus the average number of deals the investment banker's team has worked on over the past three years. *Team experience* is the endogenous variable in the instrumental variable regressions. *High undergrad market return* is a dummy variable that takes the value of one if the team average of the log of one plus the two year compounded stock returns ending in June of the year in which the team members graduate from their undergraduate program is greater than the 75th percentile. *High grad market return* is a dummy variable that takes the value of one if the team average of the log of one plus the two year compounded stock returns ending in June of the year in which the team members graduate from their graduate program is greater than the 75th percentile. *Fraction with grad degree* is the fraction of the investment banking team members that have a graduate degree. *Fraction with MBA* is the fraction of investment banking team members that have an MBA degree. All other independent variables are defined in the Appendix. All specifications include a constant, industry, year, and bank fixed effects. We also report the number of bankers. Robust standard errors clustered at the acquisition level are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)
	OLS	IV First Stage	IV Second Stage
	Abnormal ROA	Team experience	Abnormal ROA
Team experience	0.001		0.061**
	(0.003)		(0.027)
High undergrad market return		0.239***	
		(0.089)	
High grad market return		0.164*	
		(0.098)	
Fraction with grad degree		0.307	-0.020*
		(0.223)	(0.012)
Fraction with MBA		-0.088	0.012
		(0.239)	(0.009)
Log relative size	-0.002	0.022	-0.003**
	(0.003)	(0.047)	(0.002)
All cash deal	0.002	-0.032	-0.001
	(0.006)	(0.110)	(0.007)
All stock deal	0.002	0.117	-0.014**
	(0.009)	(0.124)	(0.006)
Tender offer deal	-0.005	-0.219	0.007
	(0.011)	(0.151)	(0.009)
Percentage of shares owned	-0.001	-0.001	-0.003***
	(0.001)	(0.007)	(0.000)
Diversifying deal	0.003	-0.083	0.005
	(0.006)	(0.095)	(0.008)
Challenged deal	-0.019	-0.090	-0.008*
	(0.014)	(0.250)	(0.004)
Public target	-0.002	-0.029	-0.003
	(0.007)	(0.135)	(0.009)
Private target	-0.010	-0.029	-0.013
	(0.008)	(0.151)	(0.013)
Prior 12 months stock return	0.004	0.029	0.002
	(0.008)	(0.105)	(0.005)

Acquirer log of assets	0.001	0.007	0.002
	(0.002)	(0.040)	(0.002)
Acquirer market to book ratio	0.001	0.006	0.001
	(0.001)	(0.023)	(0.001)
Acquirer ROA	0.061	-0.751	0.094*
	(0.046)	(0.781)	(0.048)
Acquirer advisor reputation	0.049	0.252	0.070
	(0.069)	(0.867)	(0.061)
Industry FE	Y	Y	Y
Year FE	Y	Y	Y
Bank FE	Y	Y	Y
Observations	266	220	220
Adj. R^2	0.253	0.401	0.439

Table 12: Propensity of the Acquirer to Follow the Investment Banker to the New Investment Bank

This table presents the results of the analyses of the effect of prior deal experience on whether the acquirer used the banker's new bank subsequently for acquisition advising and the number of times they have used the acquirer's new bank in advising. *Prior deal experience* is the log of one plus the number of deals that the banker has worked on over the past three years. *Not banker industry* is a dummy variable that takes the value of one if the acquirer is not in the industry the banker specializes in, and zero otherwise. *Banker spec*. is a dummy variable that takes the value of one if the acquirer is in the industry the banker specializes in, and zero otherwise. *Prior deal experience*Not banker industry* is the interaction of *Prior deal experience* and *Not banker industry*. dummy. *Prior deal experience*Banker industry* is defined similarly. All regressions include a constant and year fixed effects for the year the banker switches its employer bank. The last row shows differences of the coefficient estimates of two interaction variables. Robust standard errors are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	Poisson	Poisson	Negative binomial	Negative binomial	Logit	Logit
	Number of times acquirer using banker's new bank	Number of times acquirer using banker's new bank	Number of times acquirer using banker's new bank	Number of times acquirer using banker's new bank	Acquirer uses banker's new bank (0/1)	Acquirer uses banker's new bank (0/1)
Prior deal experience	0.351**		0.409**		0.349*	
	(0.160)		(0.194)		(0.187)	
Prior deal experience*Not banker industry		0.244		0.298		0.255
		(0.182)		(0.205)		(0.201)
Prior deal experience*Banker industry		0.927***		0.935***		0.868**
		(0.307)		(0.298)		(0.338)
Difference in bank reputation (post-bank – pre-bank)	4.572*	4.098	4.835*	4.305	4.957*	4.569
	(2.569)	(2.568)	(2.811)	(2.804)	(2.894)	(2.874)
Banker year of switch FE	Y	Y	Y	Y	Y	Y
Observations	890	890	890	890	889	889
Pseudo R^2	0.024	0.037	0.020	0.028	0.028	0.035
Prior deal experience*Banker industry – Prior deal experience*Not banker industry		0.684**		0.637**		0.613*

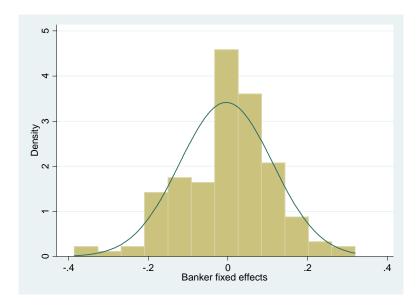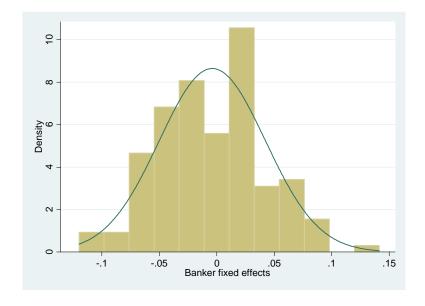**Figure 1: CAR Fixed Effects Distribution for the Largest Connected Group**

Figure 2: Abnormal ROA Fixed Effects Distribution for the Largest Connected Group

Appendix: Description of Dependent and Control Variables

Variable Name	Description
Dependent Variables	
CAR (-3, +3)	Cumulative returns of the acquirer over a seven day period around the acquisition announcement (i.e., from three days prior to three days after the announcement of the deal) minus the predicted returns from a market model over the same period.
CAR (-3, 0)	Cumulative returns of the acquirer over a four day period around the acquisition announcement (i.e., from three days prior to the day of the announcement of the deal) minus the predicted returns from a market model over the same period.
Abnormal ROA	The residual from the regression of the average three year post-acquisition industry-adjusted operating income to assets ratio (ROA) on the average three year pre-acquisition industry-adjusted ROA (winsorized).
Deal Characteristics	
Log relative size	Log of the transaction value of the deal divided by the market capitalization of the acquirer.
All cash deal	A dummy variable equal to 1 if the acquisition is all cash deal.
All stock deal	A dummy variable equal to 1 if the acquisition is all stock deal.
Friendly deal	A dummy variable equal to 1 if the deal is friendly.
Tender offer	A dummy variable equal to 1 if the deal is a tender offer.
Percentage of shares owned	The percentage of target's shares outstanding owned by the acquirer before the deal.
Diversifying deal	A dummy variable equal to 1 if the primary Fama-French (1997) industry of the acquirer is different from that of the target.
Challenged deal	A dummy variable equal to 1 if the deal is challenged.
Public target	A dummy variable equal to 1 if the target is public.
Private target	A dummy variable equal to 1 if the target is private.
Acquirer Characteristics	
Prior 12 months stock returns	Compounded monthly stock returns of the acquirer calculated over 12 months starting from one month before the acquisition announcement (winsorized).
Acquirer log of assets	Log of book value of total assets.
Acquirer market to book ratio	Market value of acquirer's total assets divided by book value of total assets (winsorized).
Acquirer ROA	Operating income divided by book value of total assets
Bank Characteristics	
Acquirer advisor reputation	The log of the total transaction value of deals advised by the bank divided by the total transaction value of all deals in the year prior to the sample deal.