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CONFLICTS OF INTEREST AND THE ROLE OF FINANCIAL ADVISORS IN M&A TRANSACTIONS: EMPIRICAL EVIDENCE FROM THE PRIVATE EQUITY INDUSTRY

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Conflicts of Interest and the Role of Financial Advisors in M&A Transactions: Empirical Evidence from the Private Equity Industry

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Abstract

Financial advisors play an important role in M&A transactions. Private equity (PE) firms, in turn, are highly sought-after clients for financial advisors as they promise lucrative business due to their frequent engagements in acquisitions. We find that PE firms pay, on average, less for portfolio companies when their sell-side advisor has worked for the acquiring PE firm on the buy-side in past transactions. We refer to this as indirect relationships and argue that conflicts of interest between financial advisors and their clients are the main driver for our results. Strategic acquirers do not benefit from these previous indirect relationships altogether.

Keywords: Private Equity, Mergers and Acquisitions, Financial Advisors, Conflicts of Interest

JEL Codes: G15, G24, G32, G34

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1 Introduction

Recent studies have focused on the role of financial advisors in mergers and acquisitions (M&A) and have recognized that the choice of financial advisors matters for the success of a transaction and the post-transaction performance (see, e.g., Golubov *et al.* (2012)). The same strand of literature provides evidence on the conflicts of interest that these advisors often face when servicing their clients (see, e.g., Barber *et al.* (2007)). Other literature, which is relevant in this context, compares the M&A performance of private equity (PE) firms to that of strategic acquirers and concludes that PE firms achieve price discounts (see, e.g., Bargeron *et al.* (2008)).

Financial advisors support both acquirers and sellers throughout (friendly or hostile) transaction processes. If a buyer seeks to acquire a company (target), both sides are typically advised by financial advisors. The financial advisor serves in this context as an agent on behalf and in the best interest of the party he/she advises, and the advised party in turn acts as a principal. Sellers and buyers pay (substantial) fees for these services and expect unbiased advice from an independent third party. A question arising in this context is the value of such services and to what degree this classic principal-agent framework is prone to conflicts of interests. The financial literature offers empirical evidence on the performance of financial advisors in M&A transactions. However, thus far, the research has mainly centered on whether (high-quality) advisors lead to a better post-M&A performance of acquirers (see, e.g., Golubov *et al.* (2012)) and to what degree financial advisors indeed offer independent advice to their clients. Yet, we know very little with regard to the potential areas of conflicts of interest underlying the relationship between financial advisors and their clients in M&A advisory services.

In contrast to most strategic M&A players, PE firms are active acquirers that are usually involved in numerous deals every year. As a consequence, they acquire and maintain not only extensive deal-making expertise but also relevant relationships with their financial advisors. Financial advisors are important decision makers in the deal-making process and are highly interested in successful deal completion as they are remunerated based on a success fee-based model; that is, financial advisors only receive transaction fees if the transaction is completed. This creates a conflict of interest for buy-side financial advisors[1], as they only receive their fee if their clients (acquirers) win the bid, which is likely to be the case if their clients are willing to pay the highest price. Fruitful relationships with PE firms and strategic acquirers positively correlate with more

[1] In this paper, we will refer to buy-side and sell-side advisors depending on whether advisors receive their mandates from acquirers or targets/sellers. Buy-side advisors advise acquirers in a transaction, sell-side advisors advise targets/sellers.

fee income for financial advisors. However, such relationships also create a conflict of interest on the sell side as financial advisors have a strong interest in ensuring that the transaction takes place – independent of the transaction price. The banking literature has previously addressed conflicts of interest of financial advisors in a similar context: it discusses extensively the challenges that investment banks face in their dual roles as service providers of firms that raise capital and of institutional investors that buy these firms' securities (see, e.g., Barber *et al.* (2007), Michaely and Womack (1999), Kadan *et al.* (2009)). Stock recommendations are often more optimistic towards clients that investment banks feel more affiliated with. Building on this literature, we investigate whether strong relationships with financial advisors affect the prices firms are willing to pay for their targets.

The financial literature on the performance of financial advisors in M&A transactions focuses on the acquirer's and target's stock performance following an acquisition or the announcement of an acquisition and links it to the role of (reputable) financial advisors. Previous studies have investigated whether acquirers benefit from reputable advisors (known as the skilled-advice hypothesis) and most studies have found that this is not the case (see, e.g., McLaughlin (1990), Rau (2000)). In an earlier study, Bowers and Miller (1990) find that advisors are adept at identifying synergy potential but that they often fail to capture these synergies. In a recent study, Golubov *et al.* (2012) show that top-tier advisors[2] only deliver higher bidder returns than their non-top-tier competitors in public transactions where a larger skill set is required (see also Ismail (2010)). Song *et al.* (2013) compare the M&A performance of boutique advisors with full-service banks and find that investment boutiques are more likely to be hired in complex deal structures. In addition, they note that deal premiums are lower when boutique advisors are involved.

Using the reputation effect, Fang (2005) supports previous evidence indicating that the selection of an advisor is not purely random. Some acquirers will only hire reputable financial advisors (top-tier advisors), thus systematically ruling out a large base of financial advisors from their selection pool. Gompers *et al.* (2016) support Fang's premise that business partners are not chosen based purely on rational factors. They find that fund managers prefer to work together if they share either the same ability-based characteristics (e.g., university background) or the same affinity-based characteristics (e.g., ethnic background). Francis *et al.* (2014) find that existing banking relationships (e.g., through debt financing) do not influence the acquirers' choice of financial advisors. They also note that active acquirers are more likely to change their financial advisors following a poor deal outcome.

[2] Golubov *et al.* (2012) only include investment banks in their analysis of financial advisors.

Recent studies suggest that PE firms manage to buy portfolio companies cheap (with low enterprise value (EV)/EBITDA multiples[3]) and sell them for comparatively higher prices (see, e.g., Achleitner *et al.* (2011), Guo *et al.* (2011)). Bargeron *et al.* (2008) find evidence that PE firms pay lower prices than strategic acquirers for comparable targets. The literature suggests numerous reasons for this PE discount. According to Achleitner *et al.* (2011), deal pricing depends on the deal set-up and the fund characteristics. Axelson *et al.* (2013) argue that (the availability of) leverage drives buyout pricing levels up. Acharya *et al.* (2012) show that general partners (GPs) (the managers of PE funds) with a banking background are particularly successful in transactions that involve significant M&A acquisitions.

Building on the existing research, we investigate whether acquirers in M&A transactions benefit from strong relationships with their financial advisors and to what degree these relationships are truncated by conflicts of interest. For the purpose of this paper, we define acquirer benefits as lower transaction prices in comparison to similar transactions occurring at the same time. We use the enterprise value (EV)/EBITDA multiples paid by acquirers as a measure to define lower transaction prices and distinguish between PE acquirers and strategic acquirers. Acquisitions of portfolio companies are at the core of the PE business model, whereas strategic buyers (mainly) pursue transactions to optimize their product portfolio or to achieve inorganic growth. In our study, we analyze two types of acquirer-advisor relationships, direct and indirect relationships. A direct acquirer-advisor relationship exists between the acquirer and the financial advisor whom an acquirer hires for a particular transaction. The more often an acquirer hires the same financial advisor, the stronger the direct relationship. Indirect relationships occur between the acquirer and the financial advisor of the sell-side party. The more often an acquirer has hired the sell-side advisor as their own advisor in previous M&A transactions (i.e., as a buy-side advisor), the stronger the indirect relationship. In our empirical analysis, we link these direct and indirect relationships that PE firms and strategic acquirers maintain with financial advisors to their M&A performance. Based on the fee remuneration model of M&A advisory services (e.g. financial advisor is paid on a performance fee), both direct and indirect relationships create multiple conflicts of interest between the principal (buy- or sell-side client) on the one side and its agent (financial advisor) on the other side. Our paper aims to clarify to what extent the existing principal agent relationship in M&A advisory services is indeed truncated due to its performance-based remuneration model and sheds light on how clients should manage their relationships with their financial advisors.

[3] In this paper, the term *deal multiple* refers to the *EV/EBITDA multiple*.

Controlling for deal characteristics, we find that PE firms do not benefit from strong direct relationships with their own financial advisors in terms of transaction pricing. This finding is consistent with the existing research (Golubov *et al.* 2012). However, we show that PE firms benefit from strong indirect relationships with their financial advisors: transaction prices decrease when a PE firm buys a company that is advised by a financial advisor with whom the PE firm has previously worked on the buyer's side. This effect, which is mainly driven by PE firms with larger funds (top-tier PE firms), intensifies based on the strength of the relationship. We observe none of these effects for strategic buyers – even when taking only a subsample of large, very active strategic acquirers. The findings are based on acquirer-advisor relationship information for 53,552 M&A transactions with pricing information for 11,438 deals.

Our findings contribute to the literature on the role of financial advisors in M&A transactions and the prices paid by acquirers in takeover situations most notably by introducing indirect relationship networks between acquirers and financial advisors and by analyzing to what extent conflicts of interest drive the principal agent framework between financial advisors and their clients. We link acquirer-advisor relationships to transaction pricing and show that these relationship structures have an impact on the prices paid by PE firms. By doing so, we also contribute to existing literature on PE discounts in M&A transactions and explain it by conflicts of interest within the financial advisory business model. We further argue that the price discount over comparable strategic acquirers is (partially) the result of the way PE firms efficiently manage their relationships with financial advisors.

The remainder of this paper is organized as follows: Section 2 discusses the role and relationships of advisors in M&A transactions; Section 3 presents the data sample and explains the methodology; Section 4 displays the empirical results, which are discussed in Section 5; and Section 6 concludes.

2 Financial Advisors in M&A Transactions

2.1 Role of financial advisors

In M&A transactions, financial advisors usually guide the involved parties through the entire transaction process. The selling party, the target, as well as the acquirers involved in the deal, rely on their expertise and know-how. Financial advisors are typically investment banks, universal banks, investment boutiques, or consultancy firms whose principal tasks in transactions are (i) to offer recommendations on the targets' fair values and improve the quality of acquirer and target matches, (ii) to negotiate the terms of the deals (e.g., composition of board members, employment contracts) with the involved parties, and (iii), if the advisors are banks, to act as lenders to acquirers by offering financing packages (see, e.g., Mortensen (1982), Servaes and Zenner (1996), Chahine and Ismail (2009)). Transaction parties often employ more than one financial advisor depending on the advisors' expertise in each of the three tasks. Financial advisors add value for their clients by collecting valuable information on the target and the industry it operates in (see, e.g., Allen *et al.* (2002), Servaes and Zenner (1996)). As advisors can reuse data on a target (industry) obtained in previous deals, they often hold exclusive information. There is a relatively small group of (large) financial advisors who have developed a reputation as transaction experts and who dominate the M&A advisory service field, particularly with respect to large acquisitions. This group mainly consists of top-tier banks that offer their advisory services on a global scale. Their worldwide operations give them access to many industries and transaction structures. There is early evidence that this competitive information advantage over smaller financial advisors (e.g., domestic investment boutiques) does not translate into higher bidder returns (McLaughlin 1990). Rather, it appears that smaller advisors benefit from their local knowledge and networks. This finding is partially refuted by Golubov *et al.* (2012) who argue that larger advisors offer higher bidder returns; however, in public acquisitions only.

In the specific case of deals made by PE firms, fund managers are usually familiar with transaction processes given that it is their daily business and that many fund managers begin their professional careers working as M&A advisors. However, due to their lean organizational structures, PE firms still rely on financial advisors, as they lack the requisite internal resources (e.g., human resources) to work on the transactions independently. Accordingly, PE firms typically require financial advisors for industry insights, execution of due diligence, acquirer and target matching (especially when a PE firm does a first-time investment in a specific industry), and lending.

The remuneration of financial advisors (i) is, to a large extent, performance-based, (ii) usually depends on the transaction size, and, most importantly, (iii) is only paid if the transaction actually takes place (contingent fees). This is bad news for buy-side advisors, as in most M&A situations, more than one party bids for the target. Not all buy-side advisors involved in the transaction will be paid. Rather, only the advisor working for the winning bidder receives remuneration. Thus, it is evident that buy-side advisors are highly interested in closing the deal for their clients. On the other hand, sell-side advisors usually have the advantage of not facing such competition. Accordingly, the probability of sell-side advisors collecting their fees successfully tends to be higher (unless there is only one bidder) as they receive their fees regardless of whom the target is sold to.

The size of advisor fees varies significantly and seems to have increased in recent years. Hunter and Jagtiani (2003) assume an average of USD 2.3 million per deal for buy-side advisors (0.4% of the transaction value) and USD 4.4 million for sell-side advisors (0.8% of the transaction value) for the period 1995-2000. Chahine and Ismail (2009) claim that financial advisors received USD 31 billion in fees in 2005 out of a total M&A transaction volume of USD 2.7 trillion, which suggests advisor fees of 1.2%.

Understanding the remuneration policy of financial advisors is important when discussing the potential reasons for our results. Hunter and Jagtiani (2003) find that the payment of larger advisor fees does not play an important role in determining the likelihood of completing a deal. Golubov *et al.* (2012) find that top-tier advisors receive a fee premium of 0.25% in absolute terms, and Chahine and Ismail (2009) add that when bidders pay higher fees than target companies, the premiums they pay are lower.

2.2 Acquirer-advisor relationship frameworks

For our empirical analysis we differentiate between *direct* and *indirect* acquirer-advisor relationships. Herein, we refer to a relationship as a *direct* relationship when an advisor is directly hired as an agent by an acquirer (buy-side mandate). An *indirect* relationship, on the other hand, means that an advisor works on the sell side of a transaction (offering advice to the target/seller company) and is not hired by the acquiring PE or strategic buyer for that specific deal (no buy-side mandate); however, the advisor has been hired by the buyer as the buy-side agent at least once in the last five years. By introducing *indirect* relationships, we add to the literature focusing on financial advisors, which is largely limited to *direct* acquirer-advisor relationships. With respect to acquirers, we distinguish between PE buyers (financial sponsors) and strategic buyers as they

are two very different types of acquirers; both are driven by the motivation to complete the transaction – but for different purposes (investment vs. non-organic growth opportunities). Also, the level of financial leverage used is typically significantly higher in PE transactions.

Fang (2005) and Golubov *et al.* (2012) show that acquirer-advisor matching is not random and that due to the reputation effect, some acquirers prefer to hire reputable advisors or advisors with specific industry experience. Gompers *et al.* (2016) add that fund managers might choose their financial advisors due to mutual ability and/or affinity-based characteristics. This creates a potential bias due to self-selection. We cannot eliminate this endogeneity problem completely. However, we address the issue in robustness tests by running separate regressions for a sample of top-tier advisors[4] and a sample of non-top-tier advisors as well as by controlling for industry fixed effects and industry-related deal activity.

Based on the *direct* and *indirect* relationships described herein, we define two relationship frameworks that exist among (i) acquirers, (ii) target companies, and (iii) financial advisors for both PE and strategic buyers. With regard to the time period during which the intensity of the relationships between an acquirer and an advisor is measured, we assume that five years *before* a deal is reasonable. This approach is consistent with the literature (see, e.g., Francis *et al.* (2014)) that also focuses on five-year relationships. High-ranking employees – usually partners in the case of PE buyers and C-level executives (e.g., CFOs) in the case of strategic buyers – are the main contacts for the advisors. These partners or executives typically work for their employers for at least five years. In the case of financial sponsors, this also corresponds to the investment period of a typical PE fund, which is usually three to five years. As a significant portion of a GP's income is attributed to the carried interest of the underlying fund, it is also reasonable to assume that partners remain with one PE firm for at least one fund's lifetime (ten to twelve years). The more often an acquirer works together with the same financial advisor in the five year period, the stronger the acquirer-advisor relationship.

[Insert Figure 1 about here]

[4] We follow the definition of Golubov *et al.* (2012), who identify eight top-tier financial advisors based on the value of deals advised between 1996 and 2009 (see also Fang (2005)). These are in order of value of deals: (i) Goldman Sachs (USD 5.9 billion); (ii) Merrill Lynch (now Bank of America Merrill Lynch) (4.5); (iii) Morgan Stanley (4.3); (iv) JP Morgan (4.1); (v) Citi/Salomon Smith Barney (3.4); (vi) Credit Suisse First Boston (3.0); (vii) Lehman Brothers (now Barclays Capital) (2.4); and (viii) Lazard (1.4).

The first relationship variable (R1) we investigate is the *direct* acquirer-advisor relationship. It is defined as the acquirer's relationship with its financial advisor (buy-side mandate) in the five years before a deal D. Specifically, we want to know how many times an acquirer has hired the same financial advisor in the five years preceding the deal. Case example: KKR buys Unisteel on September 23, 2008 (date effective). Morgan Stanley advises KKR on the deal. How many times in the five years prior to September 23, 2008 did Morgan Stanley advise KKR? Do acquirers benefit from always having the same financial advisor? We investigate whether the direct relationships between financial advisors and their clients influence pricing in M&A transactions (measured by EV/EBITDA multiples paid by acquirers), thus allowing the acquiring party to benefit from always hiring the same buy-side advisor.

The second relationship variable (R2) represents an *indirect* relationship between the acquirer and the target's advisor. It is defined as the acquirer's relationship with its financial advisor (buy-side mandate) in the five years before a deal D if the advisor works with the acquirer's target (sell-side mandate) at the deal D (at t=0). As such, it focuses on how many times an acquirer was advised by a specific financial advisor when acquiring a company in the five years before a specific deal if, during the deal itself, this advisor has a sell-side mandate and advises the target/seller rather than the acquirer. Case example: KKR buys Unisteel on September 23, 2008. Macquarie Bank advises Unisteel on the deal (sell-side mandate). How many times in the five years prior to September 23, 2008 did Macquarie Bank advise KKR in an M&A transaction? Similar to the relationship 1 variable, we determine the number of times an advisor advised an acquirer in the five years prior to a deal. However, the set-up at the time of the deal t=0 is different. At t=0, the advisor is on the sell side and is therefore – at this point – not advising the acquirer, although due to prior *direct* advisory mandates, a relationship has been established between these two parties. The more often an acquirer has worked in a direct relationship together with the financial advisor of the sell-side party, the stronger the *indirect* acquirer-advisor relationship. This type of relationship framework sheds light on whether financial advisors have any incentive to push their clients (on the sell side) for discounts when acquirers with whom they have maintained (strong) direct relationships in the past are involved in the deal. This could occur due to a conflict of interest assuming that the financial advisor is relying on future business from the acquirer. Trust might also play a role. For instance, if financial advisors know that an acquirer is trustworthy and executes transactions quickly, they may advise the client to accept the acquirer's offer, as they expect a high likelihood that the deal will be successful.

2.3 Conflicts of interest between financial advisors and their clients in M&A transactions

The above-mentioned direct and indirect relationships give rise to ample conflicts of interest between financial advisors and their clients. Following a simple principal agent framework in which the client (principal) hires its financial advisors (agent) to perform either sell-side or buy-side related advisory services helps to explain potential conflicts of interest. In both situations (e.g. buy- and sell-side mandates), the principal expects (and pays for) independent advice in his or her best interest. A major factor impacting conflicts of interest between the client and its agent is the fee remuneration model of financial advisors (see section 2.1 for details).

In case of direct relationships R1 (see section 2.2), a financial advisor is hired to advise its client on the buy-side. In this context, the client of a financial advisor has to bid the highest price (e.g. outbid other bidders in an auction) in order to win the transaction, otherwise the financial advisor will not receive a fee. This might not always be in the best interest of the acquirer as he/she may simply be paying too much. The financial literature offers supporting empirical evidence of this hypothesis as it is observed that bidder returns following a M&A transaction are actually negative (see for example Ismail (2010)). This provides room for a potential conflict of interest between the financial advisor and his/her client: if the financial advisor thinks that the transaction price is too high, he/she still may by inclined to convince the client to pay a comparably high price in order to win the transaction and, subsequently, be paid by the client. Against this background, clients will not necessarily benefit from a close and intense relationship with their financial advisor (e.g. hiring always the same financial advisor) as the conflict of interest described above prevails in every new transaction. Additionally, the buy-side advisor is also in no position to directly impact the final decision of the price tag paid in a transaction as this process is controlled by the sell-side agent and his/her client. Following a reputation hypothesis, one may argue that financial advisors will lose future business: if it is known that a financial advisor always advise the client to pay the highest price – even if it would be beneficial for the client not to acquire the asset – acquirers will stop hiring the advisor in the future. However, following this line of argumentation, while transaction prices will not be too high, it is not explained why the transaction prices should actually be lower if an acquirer always hires the same financial advisor. We would rather expect that pricing levels are not impacted at all by the intensity of relationships between financial advisors and their clients. Thus, we propose the following:

> *Proposition 1:* Acquirers do not benefit from direct relationships in M&A situations in terms of lower transaction prices (e.g. hiring always the same financial advisor).

The second potential conflict of interest discussed in this paper arises from indirect relationships between financial advisors and acquirers and is more difficult to overcome. As introduced in section 2.2, indirect relationships reflect past interactions between sell-side financial advisors and potential acquirers. The financial advisor on the sell-side (the agent) is paid by his/her client (the principal) if the transaction successfully takes place. In contrast to the direct buy-side-related relationship, the financial advisor on the sell-side is in a position to directly impact the selling process as he/she can advise this or her client to sell to a particular party. Thus, the financial advisor is in a better position to exercise direct pricing power and broker a transaction in the direction of a specific buyer. This behavior reflects a potential conflict of interest as the sell-side financial advisor should always act in the best interest of its client (e.g. generate the highest price in a M&A transaction). We therefore propose the following:

> *Proposition 2:* Acquirers do benefit from indirect relationships in M&A situations in terms of lower transaction prices.

One potential explanation for such a preferential treatment of a specific acquirer could be that the financial advisor knows the acquirer due to past joint transactions very well and therefore speculates that – based on past experience – the likelihood that the transaction takes place will be very high and that the sell-side financial advisor will receive his/her fee for sure. A second explanation relates to the argument that the financial advisor exchanges a preferential treatment of a specific acquirer against future business opportunities with the same party. One may also argue that the fee the financial advisor receives is tied to the transaction price (e.g. the higher the sales price, the higher the fee).[5] It is correct that the higher the transaction price, the higher the remuneration of the financial advisor, which should overcome the incentive of a financial advisor to settle for a lower price. Yet, we still suggest that the incentive to settle for a lower transaction price may prevail, as the incremental fee increase is minor compared to the potential upside (e.g. high transaction certainty). Following this argument, we also assume that the discount will be the highest in the case of very active and frequent M&A participants.

[5] In some cases, the sell-side party even agrees with its financial advisor on different fee structures in case the transaction prices passes specific hurdle prices.

3 Data and Methodology

3.1 Data sample

For our empricial analysis we work with two separate databases that include information on transactions made between January 1, 1985 and July 31, 2013. The first database (*relationship database)* includes the 53,552 M&A transactions (both PE-backed and strategic deals) for which we have information on (i) the deal completion date, (ii) the acquirer name, (iii) the name of the acquisition/target advisor, and (iv) the advisor mandate (buy side or sell side). In a second step, we collect the deal, target, and pricing information of the transactions included in our relationship database from a *deal database*. This information is not available for all 53,552 M&A transactions of the relationship database. We find detailed information on the underlying transactions, and most importantly, the target EV/EBITDA multiples[6] for 11,438 M&A transactions (both PE-backed and strategic deals). In other words, for 21% of the 53,552 deals, we have deal, target, and pricing information. This raises the question whether this 21%-subsample is representative of the larger relationship database. We observe that six of the 10 most active PE firms according to our relationship database are also in the top 10 of the most active PE firms in the subsample, and 60% of the top 100 in the relationship database are also in the top 100 of the subsample. Similarly, seven of the 10 most active financial advisors according to our relationship database are also in the top 10 of the most active advisors in the subsample, while 85% of the top 100 in the relationship database are also in the top 100 of the subsample. This evidence suggests that the subsample is representative of the larger sample.

Relationship database

We obtain our information on acquirer-advisor relationships from Capital IQ and Thomson One. As we are primarily interested in information on investment dates, acquirer and advisor names, and advisor mandates (buy side or sell side), we use the broad range of deals that includes 11,478 PE and 42,074 strategic transactions (53,552 deals in all). Expounding on our acquirer-advisor relationships, we match acquirers with either buy-side and/or sell-side advisors for each deal. We then quantify the *intensity* of the advisor relationships by assessing the number of times an acquirer has worked with an advisor in the five years prior to each of these deals. In a next step, we link, wherever possible, these deals from the relationship database with the M&A transactions of our deal database, which results in 15,643 matches for the 11,438 deals (for some deals we find

[6] Other information includes target financial information (return on assets (ROA), leverage, net income, etc.), target characteristics (name, industry, region, public/private status, etc.), and deal characteristics (negotiation period, deal attitude, % of shares acquired, etc.).

both the acquisition and the target advisors). Specifically, with respect to the strategic deals, we match 7,356 deals for relationship 1 and 7,174 deals for relationship 2. With respect to the PE deals, we match 698 deals for relationship 1 and 415 deals for relationship 2. Table 1, which provides a detailed overview of our acquirer-advisor relationships, indicates that PE firms are involved in 6.8 deals, on average, while strategic firms are involved in an average of 3.1 deals. In the five years prior to a deal, a PE firm will have worked an average of 1.0 times with that same advisor on the buy side (*direct* relationship), while a strategic firm will have worked an average of 0.5 times with that advisor. When the advisor is on the sell side in a specific deal (*indirect* relationship), a PE/strategic firm will have hired that advisor 0.2/0.1 times in the five years prior to the deal. There are some acquirers that maintain exceptionally strong relationships with their advisors, that is, they have collaborated on up to 32 deals in a five-year time period (column E of Table 1).

[Insert Table 1 about here]

Table 2 adds practical evidence to our descriptive statistics, showing the league tables of top-tier PE acquirers. We create this list of top-tier PE acquirers based on their *total funds raised* (in USD) during the ten-year observation period (2003-2013).[7] These PE firms raised between USD 32 billion and USD 64 billion in capital. We define top-tier strategic acquirers by *deal activity* as the measure of total funds raised does not apply to this group of acquirers. We believe a league table based on transaction volume is not appropriate for our research purposes as we are interested in active acquirers with numerous advisor relationships rather than in acquirers who might have completed only one, albeit a very large, acquisition in the past. Table 2A indicates that The Carlyle Group (hereafter, "Carlyle") is the PE firm that raised the most capital between 2004 and 2013 and that it is also the most active, with 80 acquisitions between 1985 and 2013. In 14% of its deals, it issued its advisory mandate to Credit Suisse. JP Morgan Chase is the advisory firm that acted most often as the target advisor in acquisitions led by Carlyle (8% of all deals). Carlyle hired JP Morgen Chase as a buy-side advisor in only 3% of its deals. Goldman Sachs, an investment bank with PE operations, issued most of its advisory mandates (87%) to its own advisory division. Siemens AG, a German multinational, is ranked at the top of the league table among the strategic acquirers with 44 acquisitions. By comparison, Siemens AG conducted 18% of its acquisitions

[7] Most of the existing literature and practitioners define top-tier firms by total funds raised or transaction volumes (e.g., Leslie and Oyer (2008)).

with Credit Suisse and JP Morgan negotiated for the sell-side parties in 14% of all deals. Tables 2A and 2B emphasize that large acquirers rely on the services of large international investment banks, such as Morgan Stanley, Merrill Lynch, and Credit Suisse. There are only nine different names on the list of favored buy-side advisors of these 20 acquirers (PE and strategic). Likewise, there are only nine names on the list of sell-side advisors. These observations support the literature that finds high-quality advisors to be a fairly small group (Golubov *et al.* 2012). Smaller strategic acquirers, on the other hand, tend to diversify their advisor mandates much less frequently and they usually work with the same advisor for all their acquisitions.

[Insert Table 2 about here]

As previously mentioned, advisors who have exclusive knowledge of a specific industry are particularly useful to acquirers. As a result, deal activity league tables are different depending on the industry.[8] However, we observe that a selected group of financial advisors are active in all industries. Figure 2 indicates that there are even some top-tier advisors (e.g., Goldman Sachs and Morgan Stanley) who are at the very top of the deal activity league tables in almost all industries. The advisors who offer broader services usually serve larger acquirers (as seen in Table 2). Others, such as Deutsche Bank and KPMG, focus on specific industries or regions and might therefore be hired by smaller, more specialized acquirers.[9] For example, KPMG tends to focus mainly on consumer products and industrials while largely eschewing deals in energy and healthcare. This observation also holds when we control for geographic regions, as seen in an unreported analysis. While all top-tier advisors maintain a global footprint, some banks appear to be stronger than others in certain regions (e.g., Deutsche Bank in Europe). Furthermore, it appears that acquirers are aware of advisors' industry and regional expertise and do not randomly hire their advisors irrespective of the industry in which the deal is taking place; thus, for the purpose of our regressions, it is important to control for the target's industry/region when analyzing the acquirer-advisor relationships.

[Insert Figure 2 about here]

[8] Note that deal activity league tables of financial advisors do not necessarily only include top-tier financial advisors. Top-tier advisors are usually defined based on the sum of their transaction volumes (Golubov *et al.* 2012), while deal activity league tables can include less reputable advisors that are involved in numerous smaller deals (e.g., KPMG).

[9] In unreported deal descriptive statistics, we find that targets differ in terms of characteristics when top-tier advisors with broad service offerings are involved compared with when non-top-tier advisors are involved such that enterprise and transaction values are significantly higher, negotiation periods are longer (interestingly, Hunter and Jagtiani (2003) find the opposite), and leverage is higher.

Deal database

Of the 11,438 individual deals in the deal database, 1,004 are PE deals and 10,434 are strategic deals. With respect to PE deals, we focus on entry deals, that is, deals in which a PE firm buys a target from a strategic seller. PE deals are sourced from Capital IQ and Thomson One, while strategic deals are sourced from Thomson One only. We manually ensure that there are no redundant deals on the deal list. We follow the literature and remove deals with negative EV/EBITDA multiples (approximately 300 deals) to exclude pure restructuring cases from our data sample (see, e.g., Achleitner *et al.* (2011)). We also delete real estate firms, financial institutions, and targets from the public services sector (approximately 600 deals) due to deal peculiarities in these three industries. We further ensure that financial sponsors include only PE firms and exclude other financial sponsors, such as hedge funds and sovereign wealth funds (approximately 400 deals). Moreover, we remove all deals in which we cannot clearly identify the acquirer as a PE firm by matching them to the Preqin list of PE firms (approximately 350 deals). We only include completed deals by removing approximately 350 canceled and announced deals. Finally, we delete any kind of repurchases and self-tenders (approximately 100 deals). As a result, our deal sample ultimately consists of 11,438 deals.

Table 3 provides an overview of our sample. Consumer product deals make up the largest industry group both in PE (34% of deals) and strategic deals (22%). North America is by far the largest market with 43% and 47%, respectively, of all deals. To cover the full global deal spectrum, we collect deals from all over the world, including 14% of emerging market deals. Most of our M&A transactions are majority takeovers at 85% and 90%, respectively. Additionally, the deal attitude in most cases is friendly for both PE-backed and strategic deal (94% and 89%, respectively). The number of listed targets is only slightly lower among the PE targets than among the strategic targets (84% and 88%, respectively).

[Insert Table 3 about here]

The existing M&A literature argues that PE-backed and strategic deals differ significantly by transaction and financial characteristics. Target profitability (though often negative) and total assets are systematically significantly larger in PE deals, while transaction values are only slightly larger (see, e.g., Fidrmuc *et al.* (2012)). It also makes a substantial difference whether top-tier advisors or non-top-tier advisors are involved in a deal. Top-tier advisors tend to cover larger deals than their less reputable counterparts (see also Golubov *et al.* (2012)). Other characteristics such as target industry (see, e.g., Fidrmuc *et al.* (2012)) also differ according to the deal type. Therefore, in our regression analysis, we control for any deal and target characteristics that may affect the

pricing of the deals and may also be correlated with our main explanatory (relationship) variables. We select our deal control variables consistent with the M&A literature (see, e.g., Bargeron *et al.* (2008), Fidrmuc *et al.* (2012)). In addition to enterprise value, target industry, and profitability, we control for negotiation period – that is, the time from deal announcement to the deal effect date (see also Bargeron *et al.* (2008)) –, deal attitude (see also Flanagan and O'Shaughnessy (2003)), public/private target (see also Bargeron *et al.* (2008)), and the controlling stake (majority/minority takeover). Furthermore, we control for target region and investment year (see also Madura *et al.* (2012)). Appendix 2 indicates that all these characteristics differ significantly depending on the deal type.

3.2 Regression model

We use OLS regressions with various control variables to address the research question of our study.[10] All regressions use the same dependent variable (EV/EBITDA multiples) (see also Achleitner *et al.* (2011)), and the same main independent variables (relationships 1 and 2), but they vary in terms of data sample. As described above, in all regressions, we control for seven target and deal characteristics to avoid a selection bias of the deals and the overall composition of deal and relationship databases: enterprise value, ROA, leverage, negotiation period, deal attitude, listed target dummy, and majority takeovers. The vector of control variables CV refers to these seven target and deal control variables. We include fixed effects for target industry[11] (α_I), target region (α_R), and investment year (α_T). β_n represents the coefficients, and ε, which is normally distributed, is the standard error. We estimate standard errors using Huber-White sandwich estimators (Huber 1967). This estimation allows us to conduct OLS regressions with heteroscedasticity-consistent standard errors. To address the main research question of whether advisor relationships impact transaction prices in PE and/or strategic deals (Table 4), we use the following baseline regression:

$$\log(M) = \beta_0 + \beta_1 \cdot R + \beta_2 \cdot IE + \beta_2 \cdot CV + \alpha_I + \alpha_R + \alpha_T + \varepsilon_i, \qquad (3.1)$$

where *log(M)* is the log of the EV/EBITDA multiple. The two acquirer-advisor relationships (R1 and R2) serve as independent variables *R* (analyzed one at a time in separate regressions) as we are interested in the impact of these relationships on deal multiples. In an additional analysis, we include *IE*, the industry expertise of financial advisors (defined as *advisor industry deal activity*

[10] In this chapter, we only describe the regressions that are part of the main part of this paper.
[11] Target industries are grouped based on SIC codes, NAIC codes, and overall company business descriptions.

over total advisor deal activity), to control for advisor industry expertise. In a subsequent analysis, we determine whether our results apply to top-tier PE firms and/or non-top-tier PE firms (Table 5). In all analyses, we split the samples into PE deals and strategic deals to separately investigate the impact of the relationships on the two acquirer types.

4 Empirical Results

Our results indicate that neither PE nor strategic acquirers benefit from strong *direct* relationships (R1) with their financial advisors in price negotiations; all regressions on relationship 1 in Table 4 suggest that there is no significant impact of direct acquirer-advisor relationships on transaction pricing. These results hold when we control for the industry expertise of financial advisors (Columns 2, 4, and 6). In other words, in terms of low transaction prices, acquirers do not benefit from always hiring the same financial advisor. This finding may be due to a conflict of interest for financial advisors on the buy side given that they only receive their fees if a deal is executed. They have a strong interest in the completion of a deal. The lower the price, the more likely it is that the target will not agree to the deal, especially when more than one bidder is involved. Sell-side advisors get their fees regardless of who buys the target.

When examining *indirect* relationships (R2), we find that for our total deal sample, acquirers do not benefit from strong *indirect* relationships. However, a split-up of the deal types in PE and strategic reveals that PE firms benefit from relationships with target advisors, while strategic firms do not. Thus, the more often PE firms hire the sell-side advisors of a particular transaction in the five years prior to a deal, the lower the target purchasing price. Accordingly, for an increase of one *indirect* relationship variable, we expect to see an 11%[12] drop in the deal multiple. These results are significant at the 5% level. As previously discussed, industry expertise is one of the main decision criteria when hiring an advisor and might therefore bias our results. However, our results remain significant with almost the same economic magnitude even when controlling for industry expertise (Column 10). Thus, our results suggest that PE firms do not have to rely on their advisors' industry experience when looking for lower M&A pricing levels. While advisors with different degrees of industry focus can grant this discount, we find no such discounts for strategic deals or for the total sample of acquirers. As PE firms are a rather active subgroup of acquirers, we also control for overall deal activity in order to assess if more active strategic buyers do benefit from indirect relationships as well (please refer to Appendix 3B, columns (7) – (8)). Yet, we observe that only PE firms receive discounts, whereas active strategic buyers do not benefit equally.

[12] 1 - exp(-0.109) = 0.11.

One interpretation of these results is linked to potential future business with acquirers and the conjecture of conflicts of interest on the advisor side: target financial advisors might push for a lower target price to remain on good terms with the PE firm that is seeking to acquire the target. Advisors do not want to jeopardize these fragile relationships with their PE clients, especially with the larger ones with high deal flow. Empirical evidence suggests that advisors treat PE buyers favorably to liaise with them in the long term (see, e.g., Francis *et al.* (2014)). Financial advisors are becoming increasingly more aggressive in retaining existing clients and winning future ones. The banking literature has highlighted conflicts of interest that investment banks and other financial advisors face due to the different functions that these advisors hold in the financial services industry. It provides evidence that clients often enjoy preferential treatment the closer their relationships with their financial advisors (see, e.g., Michaely and Womack (1999), Kadan *et al.* (2009)). Stock recommendations of investment banks are often more optimistic than recommendations of independent research firms (Barber *et al.* (2007)).

An alternative explanation of our findings, also related to the discussion on conflicts of interest, is linked to the notion of certainty: if a sell-side advisor knows the acquirer is likely to complete the deal – there is usually a large chance that PE firms will close a deal, as the continuous acquisition of companies is part of their business model – the advisor might be more inclined to close the deal with this acquirer and receive his/ her fee for sure.

[Insert Table 4 about here]

If the results of Table 4 are driven by conflicts of interest, we would expect to find a particularly strong effect when top-tier PE firms with large potential future business for advisors and a high certainty to close a deal are involved. Hence, in Table 5, we focus only on our PE sample and only on indirect relationships. We find that top-tier PE firms do drive our results. Results are significant at the 1% significance level, and discounts are almost twice as strong as in Table 4 in terms of economic magnitude (Column 1). A principal reason for this finding is the attractiveness of top-tier PE firms to financial advisors, as they are usually involved in large and numerous deals that boost transaction fees and, thus, revenues for financial advisors. Mandates of non-top-tier PE firms are purportedly not as attractive, and therefore, advisors are not as eager to work with them in the future. Hence, our results are statistically insignificant for this sample group (Column 2). In unreported regressions, it appears to make no difference whether top-tier or non-top-tier financial advisors[13] participate as counterparties in *indirect* relationships. Thus, unlike in the study of

[13] As defined by Golubov *et al.* (2012).

Golubov *et al.* (2012), top-tier advisors play no more distinct role in our findings than do non-top-tier advisors.

[Insert Table 5 about here]

Future relationships

One potential explanation of the observed price discount relates to the argument that financial advisors are willing to trade short-term preferential treatment of acquirers against future business opportunities. Thus far our regressions have focused on whether previous relationships between acquirers and advisors impact transaction pricing. In Table 6, we test whether discounts have any impact on future business relationships, that is, whether acquirers reward the low price they paid for a target by subsequently hiring the target advisors. To do so, we switch the dependent and independent variables (independent variable: the EV/EBITDA multiple; dependent variable: the relationship variable) while keeping the deal samples separated into PE firms and strategic acquirers. If future relationships matter (as measured by future relationships during the 5 years following a transaction), any decrease in transaction prices should lead to an increase in future acquirer-advisor relationships. However, results of Table 6 indicate that it does not pay off for financial advisors to push for lower transaction prices to secure future business with PE firms or strategic acquirers.

[Insert Table 6 about here]

Robustness tests

We conduct several robustness tests to underline the credibility of our findings presented in Tables 4 and 5 and present these tests in Appendix tables.

In Appendix 3, we use alternative measures of deal activity: rather than defining top-tier acquirers by funds raised, we group them by deal activity, and for this purpose, we also include strategic acquirers in the analysis. We do the same for advisor deal activity. This robustness test yields three findings: (i) not only do PE acquirers with the highest capital raised drive our results but so too do those with the highest deal activity; (ii) regardless of whether or not strategic acquirers are involved in numerous deals, they do not benefit from indirect relationships with advisors; (iii) when defining top-tier advisors based not on transaction value (as Golubov *et al.* (2012) do) but on deal activity, we see that active top-tier advisors do in fact drive our results. As outlined

above, deal activity league tables of financial advisors do not necessarily only include top-tier financial advisors. Deal activity league tables can include less reputable advisors that are involved in many smaller deals (e.g., KPMG).

Our results show that the intensity of previous relationships has an impact on the prices paid by PE firms in M&A transactions. We examine whether it is only the intensity or also the sheer existence of indirect relationships that leads to our results. This analysis also serves as an additional robustness test for our results, as the impact on transaction prices should be nil for all deals in which there are no previous relationships between PE acquirers and target advisors; this is what we observe in the regression analysis of Appendix 4. We run binary regressions with a relationship variable of one if there have been previous relationships (at least two) between acquirers and advisors, and zero otherwise. The outcome reveals that our results are significant at the 1% level. The results appear to be driven by deals in which there have been at least two interactions between acquirers and advisors in the five years preceding the deal.[14]

Selection bias

Our sample is limited to 11,438 PE and strategic transactions, as the deal- and company-level characteristics, which we include as control variables to ensure that we do not simply capture size or deal-type effects, are not available for more transactions. The deal sample that we use is only a small sample of the larger total population of M&A transactions between 1985 and 2013. There is the possibility that the selected deals in our data sample are not representative of this total population. They might be upward- or downward-biased in terms of deal and company characteristics (e.g., only large deals are reported or only deals with high EV/EBITDA multiples).

To mitigate concerns of such a selection bias, we investigate whether the overall discount PE acquirers experience in M&A transactions also holds for a larger data sample of transactions (see Appendix); while we do not have the underlying acquirer-advisor relationship information for all these additional transactions, we do know their EV/EBITDA multiples and the deal- and company-level characteristics which we use as control variables. This makes it possible to incorporate a larger number of PE transactions than are used in our main analysis. Based on a data sample of 15,433 deals (35% larger than the original deal sample), which includes transactions undertaken by both PE and strategic acquirers, we find that the PE discount for the larger, more comprehensive deal sample (-0.229***/-0.185***) is comparable to the discount of the deal sample used in our main analysis (-0.225***/-0.173***) (compare Columns 1 and 3 with 2 and 4 in

[14] The results are insignificant when we define the dummy as one if there has been at least *one* relationship and zero otherwise.

Appendix 5). In an unreported comparison, we find that average target and deal characteristics of these two databases are only marginally different. Also, the median EV/EBITDA multiples are similar: 10.2 in the smaller database and 9.8 in the larger database.

5 Discussion of Results

We do not doubt that financial advisors strive to provide the best services for their clients, but conflicts of interest may arise, as financial advisors are highly interested both in maintaining long-lasting relationships with their clients and generate fee income out of their advisory services. Following our initial discussion on the principal-agent relationship between financial advisors and their clients, we find empirical support that advisory services in M&A transactions may be truncated by different conflicts of interest in case of indirect but not direct relationships. We observe that clients do not benefit from particularly close relationships with their own financial advisors (Proposition 1). There appears to be no direct pricing advantage from an acquirer's perspective by always hiring the same financial advisors. Arguably, it may be convenient to hire the same financial advisor for all transactions, but it does not translate into an economic/pricing advantage, as the fee-based business model between the agent and the client prevails.

The second area of (potential) conflicts of interest addresses the indirect relationships (R2) between financial advisors on the sell-side and potential acquirers on the buy side (Proposition 2). We observe that the pricing level is linked to the intensity of past engagements between the financial advisors and the acquiring party (e.g. the more often the financial advisor is hired, the lower the transaction price). This finding highlights potential conflicts of interest as the financial advisor on the sell-side should primarily cater to the needs of his/her client (which is mainly manifested via a very high sales price) and should not offer preferential treatment to a specific set of acquirers as it would negatively impact the existing principal-agent framework. Our discussion in section 2.3 proposed two potential explanations for such a conflict of interest: (i) a higher likelihood that a transaction takes place and (ii) that financial advisors aim to trade preferable/lower transaction prices for future business. Based on our analysis on future business relationships (see Table 6) we are able to rule out empirically explanation (ii). In case the likelihood a transaction materializes is very high, the sell-side financial advisor benefits from a high certainty receiving his/ her success-based fee. However, this might not be in the interest of the advisor's client as the price might not be the highest. Interestingly, we observe that only in case of (very active) PE firms acting as acquirers, intense past business relationships do support lower transaction prices, whereas strategic

acquirers do not benefit from such a relationship, even when controlling for the level of deal activity (see Appendix 3B). Why do PE firms and not strategic firms benefit from strong relationships with financial advisors and why is this pronounced among top-tier PE firms? This is not because PE firms pay higher fees than their strategic peers. On the contrary, PE firms are particularly adept at keeping fees low as they are involved in a large number of deals. Partners of PE firms used to work as M&A advisors themselves and are thus aware of competitive fee structures. A more likely reason is the notion of certainty attached to PE buyers in M&A transactions, which in turn increases the probability of deal completion. There are, in fact, strong reasons why the probability of deal completion should be higher when a PE firm is involved and why it might be even higher among top-tier PE firms. PE firms are constantly looking for new targets with, on average, one-third of their committed capital available as dry powder for potential takeovers. Most PE firms examine targets all around the year, and deal completion is often very likely, while most strategic acquirers buy only occasionally. PE funds can only recover their due diligence costs in case a transaction materializes, otherwise they have to cover the costs out of their management fees. Thus, PE funds will only engage in a due diligence process in case they are truly motivated to acquire the target. Furthermore, PE firms have better access to financing packages, again increasing the likelihood that a deal is successfully executed (see, e.g., Demiroglu and James (2010)). Another argument is the presence of antitrust regulations: PE firms are generally not seen as a regulatory threat as they acquire rather than merge operations, while strategic acquisitions are more strictly monitored by regulators (e.g., Anti-Monopoly Office (AMO) and other antitrust divisions and cartel offices). Target firms and advisors might hesitate to sell to a strategic acquirer if there is the possibility that the deal will be blocked by regulators. For example, KKR is unlikely to become a higher regulatory threat even after completing a large number of deals (in different industries), while large strategic acquirers (e.g. General Electric) might attract the interest of antitrust divisions as they complete more deals, especially if these deals all take place in one region or industry.

The more familiar target advisors are with buy-side PE firms, the more precise their knowledge about when a PE firm will push for deal completion. Anecdotal evidence suggests that advisors even systematically calculate the likelihood of deal completion based on previous deals they worked on with acquirers (e.g., Morgan Stanley knows that KKR completes around 90% of the deals for which the firm is bidding). This information is likely to be communicated to the target company, which will then be more inclined to sell to a PE firm rather than to a strategic buyer – even if doing so results in a price discount. This discussion relates to the issue of conflicts of

interest as target financial advisors have an incentive to encourage their clients to sell to the acquirer with the highest probability of deal completion as they earn fees only if the deal is completed. You may argue that also sellers have an interest in a constellation, which promises a high deal probability. Yet, there is always the trade-off with regard to a high transaction price. If sellers are voluntary willing to trade deal certainty against a lower transaction price, we would also expect to observe (at least some) discounts in terms of indirect relationships for very active strategic acquirers, who have documented in the past that they are willing to consummate a range of different deals, yet, it is not the case.

6 Conclusion

We build on the literature that discusses the role of advisors in the financial services industry and address conflicts of interest arising between financial advisors and their clients due to the fee-based remuneration model of M&A advisory services. Our data indicate that the intensity of indirect acquirer-advisor relationships drives down the prices paid by PE firms in M&A transactions. PE firms exploit value from their advisor relationships if a financial advisor, whom they have hired regularly in the past as a buy-side advisor, is on the opposite side of a transaction (i.e., advising the sell side). Top-tier PE firms benefit the most from these indirect relationships. Strategic buyers, in turn, even those who are as active as PE firms in the M&A market, are unable to benefit from these indirect relationships with financial advisors. Why do financial advisors grant a discount to PE acquirers with whom they have worked closely in the past? A major explanation relates to potential conflicts of interest of financial advisors in their relationships with their clients. Sell-side financial advisors depend on a high probability of deal execution, which PE firms are usually more likely to satisfy than strategic acquirers – even though price levels may be lower, which in turn negatively impacts the client of a sell-side financial advisor (e.g. the selling party in a M&A transaction).

We do not find that direct acquirer-advisor relationships (i.e., always hiring the same financial advisor for acquisitions) affect transaction prices. We believe this is due to the contingent fee system in which buy-side advisors are paid only when their clients win their bids, that is, when they are willing to pay the highest price.

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Tables and Figures

Figure 1: Acquirer-advisor relationship frameworks
Figure 1 illustrates the two relationship frameworks that are analyzed in this study. Relationship 1 (Figure 1A) considers the number of times an acquirer was advised by a specific financial advisor when acquiring a company in the five years prior to t=0 (*direct* relationship). Relationship 2 (Figure 1B) considers the number of times an acquirer was advised by a specific financial advisor when acquiring a company in the five years prior to t=0. At the time of the deal itself, however, this advisor advises the target (*indirect* relationship).

Figure 1A: Relationship 1 (R1) – DIRECT relationship

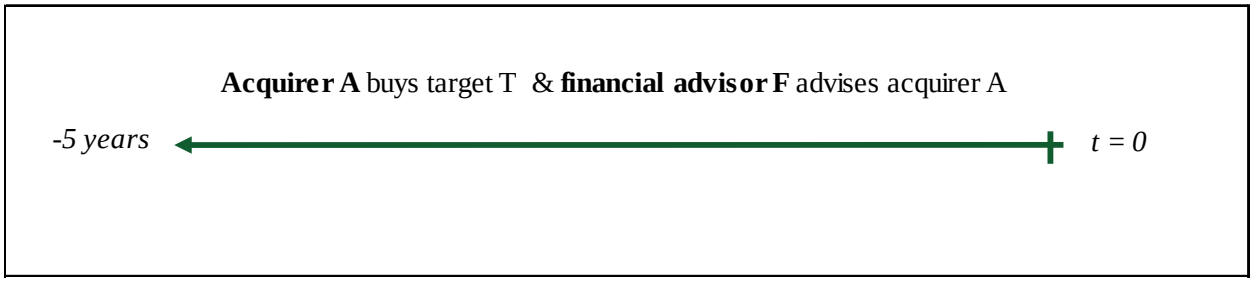


Figure 1B: Relationship 2 (R2) – INDIRECT relationship

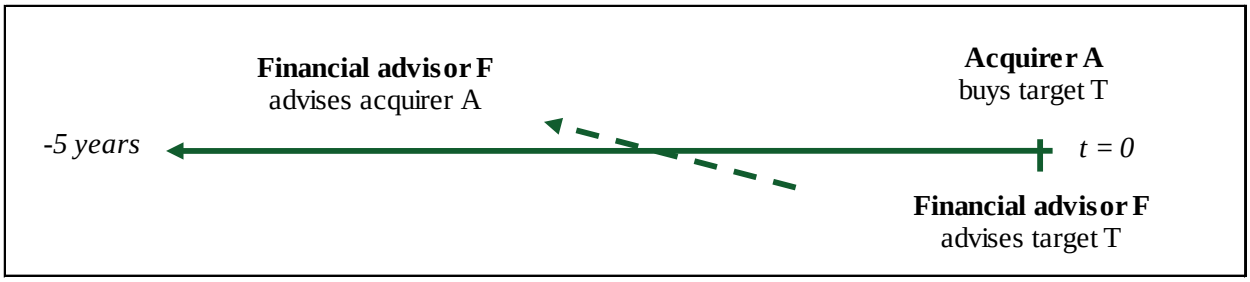


Table 1: Acquirer-advisor relationship statistics

Table 1 provides background figures on our acquirer-advisor relationships. Columns A-C display information on the number of deals, acquirers and acquirers-advisor relationships. Note that not all deals in the relationship database can be linked to our deal database; thus, we do not know the EV/EBITDA multiples of all these deals. Columns D-F present information on the number of deals per advisor with the same acquisition/target advisor in the five years prior to t=0 (average, maximum, 95th percentile). Column G shows how many of our *relationship database* deals could be linked to the *deal database*.

		A	B	C	D	E	F	G
Relationships	**Acquirer type**	**Deals (total relationship database)**	**Acquirers (total relationship database)**	**Average deals/ acquirer**	**Deals/acquirer with same advisor (average)**	**Deals/acquirer with same advisor (maximum)**	**Deals/acquirer with same advisor (95th percentile)**	**Deals (matches with deal database)**
R1: Relationships with buy-side financial advisors in the 5 years before a deal	**PE**	6,455	951	6.8	1.0	32	5	698
	Strategic	19,442	6,357	3.1	0.5	26	2	7,356
R2: Relationships with buy-side financial advisors (in the 5 years before a deal) that are on the target-side in	**PE**	5,023	953	5.3	0.2	9	1	415
	Strategic	22,632	6,386	3.5	0.1	28	1	7,174
	PE	11,478	1,904	6.0	na	na	na	1,113
Total	**STRATEGIC**	42,074	12,743	3.3	na	na	na	14,530
	GRAND TOTAL	53,552	14,647	3.7	na	na	na	15,643

Table 2: Most active acquirers and their financial advisors

Table 2 provides descriptive information – split into two tables – on the top acquirers in our relationship database and their advisors. Table 2A lists the top-tier PE firms and the advisors with whom they worked most closely. We define top-tier as total funds raised in USD from 2003 to 2013 according to our Preqin database. For example, we counted 80 acquisitions completed by The Carlyle Group. Credit Suisse advised The Carlyle Group in 14% of these acquisitions, while JP Morgan Chase advised 8% of the targets when The Carlyle Group was acquiring in these acquisitions. Table 2B follows the same methodology as Table 2A but lists the top strategic acquirers based on deal activity in our relationship database.

Table 2A: Advisor relationships of most top-tier PE firms

#	Private equity firm	Total funds raised last 10 yrs (USD bn)	Total acquisi-tions	Strongest acquisition advisor relationship	% of total acquisitions	Strongest target advisor relationship	% of total acquisitions
1	The Carlyle Group	64.2	80	Credit Suisse	14	JP Morgan Chase	8
2	KKR	60.7	68	Credit Suisse, Morgan Stanley	22	Citigroup, Credit Suisse, JP Morgan Chase	9
3	TPG Capital	53.8	49	Merrill Lynch, Pitt Capital Partners	14	Citigroup, JP Morgan Chase	12
4	Apollo Global Management	53.6	44	Credit Suisse	34	Goldman Sachs	9
5	Goldman Sachs	52.2	23	Goldman Sachs	87	JP Morgan Chase	13
6	CVC Capital Partners	48.5	63	UBS, Deutsche Bank	14	Goldman Sachs	10
7	The Blackstone Group	41.9	80	Deutsche Bank	21	Goldman Sachs	9
8	Bain Capital	37.2	37	Morgan Stanley	16	Goldman Sachs	18
9	Warburg Pincus	34.2	31	Credit Suisse	16	Morgan Stanley	16
10	Apax Partners	31.9	49	Merrill Lynch	16	UBS, JP Morgan Chase	8
AVERAGE		**47.8**	**52**		**25**		**11**

Table 2B: Advisor relationships of top-tier strategic acquirers

#	Strategic acquirer	Total acquisi-tions	Strongest acquisition advisor relationship	% of total acquisitions	Strongest target advisor relationship	% of total acquisitions
1	Siemens AG	44	Credit Suisse	18	JP Morgan Chase	14
2	Telefónica SA	38	Morgan Stanley	21	Citigroup	13
3	Vodafone Group	36	UBS	39	Merrill Lynch, Morgan Stanley	11
4	Coca-Cola HBC AG	35	UBS	14	JP Morgan Chase, Morgan Stanley	11
5	General Electric	35	Goldman Sachs	26	Goldman Sachs	23
6	NTT DOCOMO Inc	35	Nomura Holdings Inc	17	Mizuho Bank Ltd	9
7	Procter & Gamble Co	33	Goldman Sachs	64	Goldman Sachs	21
8	Tyco International	32	Merrill Lynch	16	Morgan Stanley	19
9	Itochu Corp	32	GCA Savvian Advisors LLC	25	Daiwa Securities Co Ltd, Mizuho Bank Ltd	13
10	Schneider Electric SA	30	Merrill Lynch	33	Credit Suisse	13
AVERAGE		**35**		**27**		**15**

Figure 2: League tables of the 10 most active advisors by industry

Figure 2 ranks the most active financial advisors for a) all industries and b) split by industry. We define deal activity based on the number of deals these acquirers were involved in with respect to buy-side or sell-side mandates according to our relationship database. The labels on the lines refer to the deal activity ranking of the financial advisors in the respective industries.

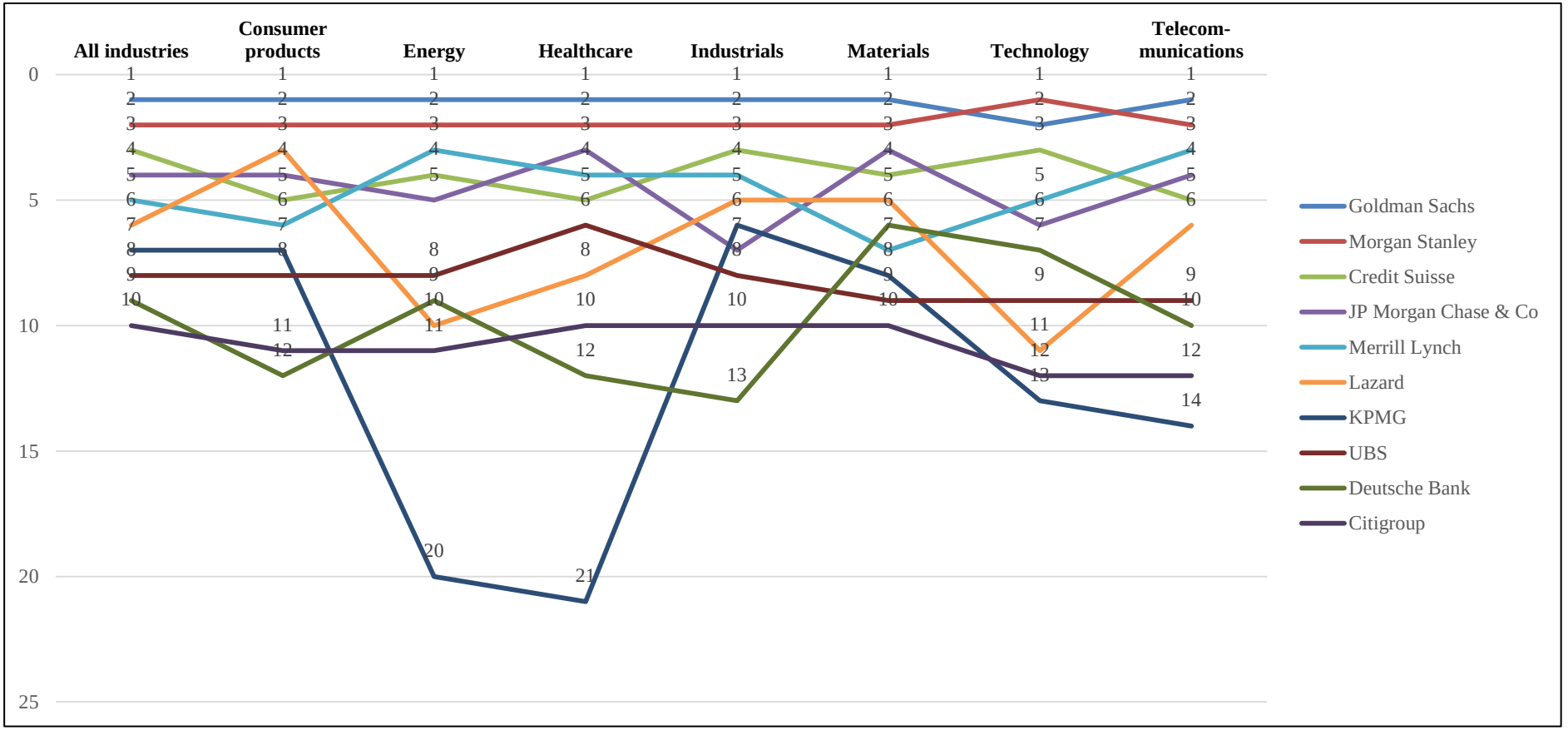


Table 3: Deal summary statistics

Table 3 includes summary statistics of all 11,438 PE-backed and strategic deals between January 1, 1985 and July 31, 2013 in our data sample. All deals listed in our deal databases have a direct link to our relationship database; i.e., we know the acquisition and/or target advisor of these deals. Only deals with positive EV/EBITDA multiples are included in the data sample. Deals by industry are deal target industries, which are a combination of SIC Codes, NAIC Codes, and overall company business descriptions (real estate firms, financial institutions, and targets from the public services sector are excluded). Developed markets include the USA, Canada, Western Europe, Japan, and Australia/New Zealand. Emerging markets include Asia (excluding Japan), Africa, Eastern Europe, Latin America, and the Middle East. We define developed/emerging markets according to the criteria of the FTSE (2015). Majority takeovers are deals in which the acquirer purchases at least 51% of the target. Friendly takeovers are deals in which the deal attitude is flagged as friendly. Listed targets are deals in which the target companies are publicly listed on one or more stock exchanges. Data for PE deals are consolidated from two sources, Capital IQ and Thomson One. Data for strategic deals are collected from Thomson One only. Redundant deals are excluded. See Appendix 1 for variable definitions.

	PRIVATE EQUITY (PE)		STRATEGIC		TOTAL (PE & STRATEGIC)	
	Acquisitions	(%)	Acquisitions	(%)	Acquisitions	(%)
DEALS	**1,004**		**10,434**		**11,438**	
DEALS BY INDUSTRY						
Consumer products	337	*(34%)*	2,286	*(22%)*	2,623	*(23%)*
Energy	54	*(5%)*	1,377	*(13%)*	1,431	*(13%)*
Healthcare	84	*(8%)*	803	*(8%)*	887	*(8%)*
Industrials	194	*(19%)*	1,599	*(15%)*	1,793	*(16%)*
Materials	91	*(9%)*	1,379	*(13%)*	1,470	*(13%)*
Technology	142	*(14%)*	1,614	*(15%)*	1,756	*(15%)*
Telecommunications	102	*(10%)*	1,376	*(13%)*	1,478	*(13%)*
DEALS BY REGION						
North America (NA)	434	*(43%)*	4,886	*(47%)*	5,320	*(47%)*
Western Europe (WE)	366	*(36%)*	2,598	*(25%)*	2,964	*(26%)*
Rest of world (RoW)	204	*(20%)*	2,950	*(28%)*	3,154	*(28%)*
DEVELOPED MARKETS VS. EMERGING MARKETS						
Developed markets (DM)	868	*(86%)*	9,040	*(87%)*	9,908	*(87%)*
Emerging markets (EM)	136	*(14%)*	1,394	*(13%)*	1,530	*(13%)*
MAJORITY TAKEOVERS						
Yes	852	*(85%)*	9,348	*(90%)*	10,200	*(89%)*
No	152	*(15%)*	1,086	*(10%)*	1,238	*(11%)*
FRIENDLY TAKEOVERS						
Yes	946	*(94%)*	9,318	*(89%)*	10,264	*(90%)*
No	56	*(6%)*	1,086	*(10%)*	1,142	*(10%)*
LISTED TARGETS						
Yes	841	*(84%)*	9,162	*(88%)*	10,003	*(87%)*
No	161	*(16%)*	1,232	*(12%)*	1,393	*(12%)*
TOP-TIER ADVISOR						
Yes	358	*(27%)*	4,619	*(27%)*	4,977	*(27%)*
No	977	*(73%)*	12,411	*(73%)*	13,388	*(73%)*
DEALS BY SOURCE						
Thomson One	622	*(62%)*	10,434	*(100%)*	11,056	*(97%)*
Capital IQ	382	*(38%)*	-	*(-)*	382	*(3%)*

Table 4: Impact of financial advisor relationships on deal multiples

Table 4 displays the impact of our two acquirer-advisor relationships on transaction pricing (dependent variable: EV/EBITDA multiples) based on pooled ordinary least squares (OLS) regressions. Independent variables are the two types of advisor relationships (R1 and R2) we are investigating. We run the regressions for a) PE deals only, b) strategic deals only, and c) for PE and strategic deals taken together. In addition, we run the regressions a) without the control variable *advisor deal activity / total advisor deal activity* and b) with this control variable. In all regressions we control for our key deal characteristics (winsorized at the 1% level). We take fixed effects for industry, investment region, and investment year into account. Numbers in the upper rows represent the regression coefficients; numbers in brackets in the lower row represent respective standard errors. *, **, and *** indicate p-values of 10%, 5%, and 1% significance level, respectively. See Appendix 1 for variable definitions.

	Dependent variable: log(deal multiples)											
Variables	**Total** **(1)**	**Total** **(2)**	**PE** **(3)**	**PE** **(4)**	**Stra-tegic** **(5)**	**Stra-tegic** **(6)**	**Total** **(7)**	**Total** **(8)**	**PE** **(9)**	**PE** **(10)**	**Stra-tegic** **(11)**	**Stra-tegic** **(12)**
R1: Relationships with buy-side financial advisors in the 5 years before a deal	**0.002**	**0.003**	**0.008**	**0.008**	**0.003**	**0.005**						
	(0.007)	**(0.007)**	**(0.014)**	**(0.014)**	**(0.008)**	**(0.008)**						
R2: Relationships with buy-side financial advisors (in the 5 years before a deal) that are on the target-side in t=0							**-0.000**	**0.002**	**-0.109****	**-0.106****	**0.023**	**0.025**
							(0.028)	**(0.028)**	**(0.050)**	**(0.050)**	**(0.031)**	**(0.031)**
Advisor deal activity by industry / total advisor deal activity	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Deal characteristics controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	1.780***	1.735***	1.703***	1.659***	1.756***	1.718***	1.878***	1.949***	1.973***	2.059***	1.871***	1.936***
	(0.114)	(0.121)	(0.240)	(0.256)	(0.125)	(0.130)	(0.140)	(0.152)	(0.383)	(0.404)	(0.150)	(0.162)
Observations	8,054	7,616	698	655	7,356	6,961	7,589	7,114	415	392	7,174	6,722
R-squared	0.202	0.207	0.279	0.299	0.206	0.211	0.186	0.191	0.327	0.326	0.187	0.193
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1												

Table 5: Impact of strong financial advisor relationships by top-tier PE firms

Table 5 builds on Table 4. We create subsamples for PE firms that we define as top-tier, i.e., the top 10 PE firms in terms of total funds raised from 2003 to 2013: (i) The Carlyle Group (USD 64.2 billion), (ii) KKR (60.7), (iii) TPG (53.8), (iv) Apollo Global Management (53.6), (v) Goldman Sachs (52.2), (vi) CVC Capital Partners (48.5), (vii) The Blackstone Group (41.9), (viii) Bain Capital (37.2), (ix) Warburg Pincus (34.2), and (x) Apax Partners (31.9) (see also Table 2). We compare this sample to non-top-tier PE firms. We control for our key deal characteristics (winsorized at the 1% level) and take fixed effects for industry, investment region, and investment year into account. Numbers in the upper rows represent the regression coefficients; numbers in brackets in the lower row represent respective standard errors. *, **, and *** indicate p-values of 10%, 5%, and 1% significance level, respectively. See Appendix 1 for variable definitions.

Dependent variable: log(deal multiples)		
Variables	**Top-tier PE firms (1)**	**Non-top-tier PE firms (2)**
R2: Relationships with buy-side financial advisors (5 years before a deal) that are on the target-side in t=0	**-0.201*** (0.075)**	**-0.012 (0.103)**
Deal characteristics controls	Yes	Yes
Fixed effects	Yes	Yes
Constant	2.589*** (0.554)	1.633*** (0.548)
Observations	189	224
R-squared	0.565	0.416
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1		

Table 6: Impact of EV/EBITDA multiples on future financial advisor relationships

Table 6 gives evidence whether transaction prices paid in a deal have any impact on future relationships between acquirers and advisors based on pooled ordinary least squares (OLS) regressions. Relationships 1 and 2 are the dependent variables. R1 is defined as the number of relationships with a specific buy-side financial advisor in the 5 years following a transaction (direct future relationships). R2 is defined as the number of relationships with a specific financial advisor that is on the target side at t=0 in the 5 years following a transaction (indirect future relationships). The EV/EBITDA multiple is the independent variable. We run the regressions separately for our two samples PE and strategic. We control for our key deal characteristics (winsorized at the 1% level). We take fixed effects for industry, investment region, and investment year into account. Numbers in the upper rows represent the regression coefficients; numbers in brackets in the lower row represent respective standard errors. *, **, and *** indicate p-values of 10%, 5%, and 1% significance, respectively. See Appendix 1 for variable definitions.

	Dependent variable: Relationships R1 and R2			
	R1		**R2**	
	PE	**Strategic**	**PE**	**Strategic**
Variables	**(1)**	**(2)**	**(3)**	**(4)**
EV/EBITDA multiple	**-0.050**	**-0.003**	**-0.055**	**0.003**
	(0.180)	**(0.013)**	**(0.045)**	**(0.004)**
Deal characteristics controls	Yes	Yes	Yes	Yes
Fixed effects	Yes	Yes	Yes	Yes
Constant	-1.743*	0.562**	-1.106***	-0.012
	(1.023)	(0.237)	(0.331)	(0.055)
Observations	698	7,356	415	7,174
R-squared	0.083	0.043	0.151	0.025
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1				

Appendix

Appendix 1: Variable definitions
Appendix 1 presents definitions for the variables used in this paper. When consolidating our databases, we paid great attention to ensuring that variable definitions are the same across all databases.

Variables	Descriptions
Deal specifications	
EV/EBITDA-multiple	Ratio of the target's enterprise value (see definition below) and its EBITDA (for the last 12 months ending on the date of the most current financial information prior to the transaction).
Private equity (PE) deal	A private equity firm is the acquirer and/or the seller of a target company. For our deal sample, we identified PE firms either through their primary NAIC description or their primary VEIC code and/or whether they were listed as PE firms in the Preqin database. Note that we excluded deals involving other financial sponsors, such as hedge funds, from our data sample. All PE deals are realized deals.
PE investment	A PE firm is the acquirer of the target, and there is no PE firm on the target/seller side.
Strategic deal	Any deal in our data sample in which no PE firm is involved, i.e., where the target is purchased for strategic reasons only. All strategic deals are realized deals.
Developed market deal	The target company is located in a developed market country. Our paper follows the developed market definition of the FTSE Country Classification.
Emerging market deal	The target company is located in an emerging market country. Our paper follows the emerging market definition of the FTSE Country Classification.
Transaction value	Total value of consideration paid by the acquirer, excluding fees and expenses in USD.
Industry	Industries are categorized based on SIC Codes, NAIC Codes and overall company business descriptions. Our deal sample includes consumer products, energy, healthcare, industrials, materials, technology, and telecommunications. Real estate industry and finance industry are excluded.
Region	Deals are grouped into 10 regions: Africa, Asia (excluding China and Japan), Australia and NZ, China, Eastern Europe, Japan, Latin America, Middle East, North America, Western Europe. In most cases we further aggregate this into three main groups (North America, Western Europe, Rest of World) as nearly 75% of our deals take place in North America or Western Europe.
Investment year	Effective year of our deal. We include deals between January 1, 1985 and July 31, 2013.
Target company statistics	
log Enterprise value	Log of the target company's enterprise value at deal announcement in USD; winsorized at the 1% level.
ROA	The target company's return on asset for the last 12 months ending on the date of the most current financial information prior to the announcement of the transaction (LTM) is dis-

	played as a percentage and winsorized at the 1% level. Return on assets is the ratio of net income (LTM) and total assets (LTM). Winsorized at the 1% level.
Leverage	Ratio of the target company's total debt for the last 12 months ending on the date of the most current financial information prior to the announcement of the transaction (LTM) and its enterprise value at announcement. Winsorized at the 1% level.
Majority takeover	The acquirer purchased at least 51% of the target.
Negotiation period	Time elapsed between the deal announcement date and the deal effective date. Winsorized at the 1% level.
Friendly takeover	Deal attitude is explicitly friendly (as opposed to hostile, friendly-to-hostile, neutral, etc.).
Target is listed	The target is publicly listed in one or more stock exchanges.
Advisor information	
Financial advisor	Advisor who advised one of the parties on the deal's financial matters.
Buy-side advisors	Financial advisor who advised the deal's acquiring party.
Sell-side advisors	Financial advisor who advised the deal's target/seller.
Acquirer-advisor relationships	
R1: Relationships with own financial advisors in previous 5 years	Number of times an acquirer was advised by a specific financial advisor when acquiring a company in the previous five years of t=0.
R2: Relationships with own financial advisors in previous and future five years who advise targets in t=0	Number of times an acquirer was advised by a specific financial advisor when acquiring a company within the previous five years of t=0. At the deal itself, this advisor advised the target.

Appendix 2: Target company statistics – PE vs. strategic acquirers

Appendix 2 compares deal and target characteristics by deal type: a) PE investments and b) strategic investments. All statistics are at deal announcement and are winsorized at the 1% level. The negotiation period is the time elapsed between the deal announcement date and the deal effective date. Return on assets (ROA) is the ratio of total income over total assets. Leverage is the ratio of total debt over enterprise value. Financial statement statistics are as of the last twelve-months. All variables include positive figures only (except ROA). We performed a t-test on the mean difference between private equity and peer group deals. In the 'Mean (t-test)' Column, *, **, and *** indicate p-values of 10%, 5%, and 1% significance, respectively. Statistics in Appendix 2 are not exhaustive – our data sample includes a substantial variety of additional data. See Appendix 1 for more detailed variable definitions.

ENTERPRISE VALUE (EV)/EBITDA MULTIPLE	**Obser-vations**	**Mean**	***Mean difference (t-test)***	**Median**	**Std. Dev.**	**5th percent.**	**95th percent.**
PE investment	1,004	15.2	***	8.7	31.7	3.6	36.4
Strategic investment	10,434	21.0		10.4	42.7	3.2	67.6
Total	11,438	20.5		10.2	41.9	3.2	65.1
ENTERPRISE VALUE (USD mn)	**Obser-vations**	**Mean**	***t-test***	**Median**	**Std. Dev.**	**5th percent.**	**95th percent.**
PE investment	1,004	1,012	***	297	2,696	22	3,608
Strategic investment	10,434	1,516		263	3,963	16	7,027
Total	11,438	1,472		268	3,871	16	6,670
TRANSACTION VALUE (USD mn)	**Obser-vations**	**Mean**	***t-test***	**Median**	**Std. Dev.**	**5th percent.**	**95th percent.**
PE investment	999	545	***	170	1,167	8	2,240
Strategic investment	10,433	765		131	1,948	6	3,703
Total	11,432	746		134	1,894	7	3,572
NEGOTIATION PERIOD (Days)	**Obser-vations**	**Mean**	***t-test***	**Median**	**Std. Dev.**	**5th percent.**	**95th percent.**
PE investment	1,004	80	***	68	67	0	203
Strategic investment	10,429	104		81	94	0	292
Total	11,433	102		80	92	0	285
EBITDA (USD mn)	**Obser-vations**	**Mean**	***t-test***	**Median**	**Std. Dev.**	**5th percent.**	**95th percent.**
PE investment	992	109	***	33	276	2	407
Strategic investment	10,434	146		23	407	1	649
Total	11,426	143		24	397	1	621
RETURN ON ASSETS (ROA) (%)	**Obser-vations**	**Mean**	***t-test***	**Median**	**Std. Dev.**	**5th percent.**	**95th percent.**
PE investment	926	4.0		4.2	10.1	-12.4	19.3
Strategic investment	10,331	4.1		4.0	9.2	-9.6	17.9
Total	11,257	4.1		4.0	9.3	-10.0	18.1
TOTAL ASSETS (USD mn)	**Obser-vations**	**Mean**	***t-test***	**Median**	**Std. Dev.**	**5th percent.**	**95th percent.**
PE investment	932	953	***	250	2,492	20	3,497
Strategic investment	10,359	1,187		203	3,158	13	5,584
Total	11,291	1,168		209	3,109	14	5,386
LEVERAGE (%)	**Obser-vations**	**Mean**	***t-test***	**Median**	**Std. Dev.**	**5th percent.**	**95th percent.**
PE investment	831	29.2	**	21.9	27.0	0.0	82.7
Strategic investment	8,938	27.0		19.8	25.6	0.4	80.3
Total	9,769	27.2		20.0	25.7	0.4	80.5

Appendix 3A: Impact of strong financial advisor relationships – by *acquirer* deal activity

Appendix 3A displays the impact of acquirer-advisor relationships on transaction pricing for our PE and our strategic deals sample based on pooled ordinary least squares (OLS) regressions. The table applies subsamples to investigate whether our results are robust in different levels of acquirer deal activity. It groups acquirer deal activity into (i) <= 5 deals and (ii) >5 deals. We control for our key deal characteristics (winsorized at the 1% level) and for industry, investment region, and investment year. Numbers in the upper rows represent the regression coefficients; numbers in brackets in the lower row represent respective standard errors. *, **, and *** indicate p-values of 10%, 5%, and 1% significance, respectively. See Appendix 1 for variable definitions.

Dependent variable: log(deal multiples)	**1a) Acquirer deal activity: 1-5 deals**				**1b) Acquirer deal activity: >5 deals**			
	PE	**Strategic**	**PE**	**Strategic**	**PE**	**Strategic**	**PE**	**Strategic**
Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
R1: Relationships with buy-side financial advisors (5 years before a deal)	**0.015**	**0.013**			**0.008**	**-0.009**		
	(0.059)	**(0.020)**			**(0.011)**	**(0.010)**		
R2: Relationships with buy-side financial advisors (5 years before a deal) that are on the target-side in t=0			**0.762**	**-0.029**			**-0.116*** **	**0.039**
			(0.715)	**(0.064)**			**(0.042)**	**(0.036)**
Deal characteristics controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	1.806***	1.713***	4.107***	1.815***	1.147**	2.554***	1.381***	2.637***
	(0.329)	(0.138)	(1.475)	(0.170)	(0.455)	(0.201)	(0.528)	(0.220)
Observations	363	6,089	234	5,946	335	1,267	181	1,228
R-squared	0.302	0.198	0.427	0.176	0.400	0.268	0.465	0.266
Robust standard errors in parentheses								
*** p<0.01, ** p<0.05, * p<0.1								

Appendix 3B: Impact of strong financial advisor relationships – by *advisor* deal activity

Appendix 3B displays the impact of acquirer-advisor relationships on transaction pricing for our PE and our strategic deals sample based on pooled ordinary least squares (OLS) regressions. The table applies subsamples to investigate whether our results are robust in different levels of advisor deal activity. It groups advisor deal activity into (i) <=15 deals and (ii) >15 deals. We control for our key deal characteristics (winsorized at the 1% level) and for fixed effects for industry, investment region, and investment year. Numbers in the upper rows represent the regression coefficients; numbers in brackets in the lower row represent respective standard errors. *, **, and *** indicate p-values of 10%, 5%, and 1% significance, respectively. See Appendix 1 for variable definitions.

Dependent variable: log(deal multiples)	**2a) Advisor deal activity: 1-50 deals**				**2b) Advisor deal activity: >50 deals**			
	PE	**Strategic**	**PE**	**Strategic**	**PE**	**Strategic**	**PE**	**Strategic**
Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
R1: Relationships with buy-side financial advisors (5 years before a deal)	**-0.002**	**0.022**			**0.011**	**-0.002**		
	(0.050)	**(0.017)**			**(0.016)**	**(0.009)**		
R2: Relationships with buy-side financial advisors (5 years before a deal) that are on the target-side in t=0			**1.725**	**0.282**			**-0.087****	**0.015**
			(1.185)	**(0.198)**			**(0.040)**	**(0.028)**
Deal characteristics controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	2.101***	1.546***	2.209***	1.525***	1.189***	2.157***	1.867***	2.189***
	(0.476)	(0.186)	(0.422)	(0.177)	(0.289)	(0.172)	(0.477)	(0.207)
Observations	241	2,819	178	3,179	457	4,537	237	3,995
R-squared	0.299	0.225	0.476	0.197	0.322	0.202	0.380	0.201
Robust standard errors in parentheses								
*** p<0.01, ** p<0.05, * p<0.1								

Appendix 4: Impact of two or more financial advisor relationships

Appendix 4 is closely related to Table 4 in the main section of this paper. It also displays the impact of our acquirer-advisor relationships on transaction pricing (dependent variable: EV/EBITDA multiples) based on pooled ordinary least squares (OLS) regressions. However, independent variables are modifications of our relationships: We do not count the *number of times* a PE firm was advised by a specific financial advisor when acquiring a company but only examine *whether* the PE firm was advised by the advisor before t=0. The relationship dummies are one if there have been at least two relationships prior to the deal and zero otherwise. We control for our key deal characteristics (winsorized at the 1% level). We take fixed effects for industry, investment region, and investment year into account. Numbers in the upper rows represent the regression coefficients; numbers in brackets in the lower row represent respective standard errors. *, **, and *** indicate p-values of 10%, 5%, and 1% significance, respectively. See Appendix 1 for variable definitions.

Dependent variable: log(deal multiples)		
	PE	
Variables	**(1)**	**(2)**
R1 dummy (1 if at least <u>two</u> previous interactions, 0 otherwise)	**-0.011**	
	(0.069)	
R2 dummy (1 if at least <u>two</u> previous interactions, 0 otherwise)		**-0.414*** **
		(0.120)
Deal characteristics controls	Yes	Yes
Fixed effects	Yes	Yes
Constant	1.688***	1.962***
	(0.239)	(0.382)
Observations	698	415
R-squared	0.278	0.330
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1		

Appendix 5: Regression results on EV/EBITDA multiples

Appendix 5 presents the results of pooled ordinary least squares (OLS) regressions on the log of EV/EBITDA multiples for PE and strategic investments for the period 1985 to 2013. We include two groups of samples in our regressions. Columns marked as 'Relationship sample' include the deals for which *we know the acquirer-advisor relationships*. Columns marked as 'Control sample' include deals for which *we do not (necessarily) know the advisor-acquirer relationships* but do know all other relevant information to conduct the regressions (EV/EBITDA multiple, deal characteristics, fixed effects). By showing that we yield the same significances for both sample groups, we demonstrate that our reduced relationship sample does not carry a selection bias. Regressions (1) and (2) show the effect of PE investments on the log(EV/EBITDA multiples) *without controlling for our deal characteristics* (winsorized at the 1% level). Regressions (3) and (4) show the effect of PE investments on the log(EV/EBITDA multiples) *controlling for our deal characteristics* (winsorized at the 1% level). We take fixed effects for industry, investment region, and investment year into account. Numbers in the upper rows represent the regression coefficients; numbers in brackets in the lower row represent respective standard errors. *, **, and *** indicate p-values of 10%, 5%, and 1% significance, respectively. See Appendix 1 for variable definitions.

	Dependent variable: log(deal multiples)			
	Relationship sample		**Control sample**	
Variables	**(1)**	**(2)**	**(3)**	**(4)**
PE Investments	**-0.225*** **	**-0.173*** **	**-0.229*** **	**-0.185*** **
	(0.026)	**(0.026)**	**(0.020)**	**(0.020)**
log(Enterprise value)		0.085***		0.088***
		(0.005)		(0.004)
Return on assets		-0.029***		-0.032***
		(0.001)		(0.001)
Leverage		-0.010***		-0.010***
		(0.000)		(0.000)
Majority takeover		0.011		0.029
		(0.027)		(0.021)
Negotiation period		-0.000**		-0.000**
		(0.000)		(0.000)
Friendly takeover		0.013		0.026
		(0.027)		(0.020)
Target is listed		-0.185***		-0.246***
		(0.031)		(0.024)
Fixed effects	Yes	Yes	Yes	Yes
Constant	1.637***	1.849***	1.547***	1.904***
	(0.112)	(0.117)	(0.103)	(0.101)
Observations	11,438	9,672	18,588	15,433
R-squared	0.076	0.198	0.054	0.215
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1				