### Law Firm Expertise and Merger and Acquisition Outcomes

#### C.N.V. Krishnan

Weatherhead School of Management, Case Western Reserve University Cleveland, OH 44106 216.368.2116 cnk2@case.edu

Ronald W. Masulis

Australian School of Business, University of New South Wales, 612-9385-5860 ron.masulis@unsw.edu.au

May 1, 2012

We thank the session participants of the 2009 Conference on Empirical Legal Studies at University of Southern California and 2010 Financial Management Association Meetings, John C. Coates IV, Andrew Kaufman, Paul Laux, Alexander Ljungqvist, Thomas Moeller, Randall Thomas, Dennis Carlton (the editor) and an anonymous referee for very useful comments and suggestions.

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ABSTRACT: Using a comprehensive sample of U.S. mergers and acquisitions (M&A) bids over 1990-2008, we document that top market share law firms are associated with a number of important bid outcomes and characteristics. Top bidder law firms are associated with significantly higher offer completion rates than other bidder law firms. In contrast, top target law firms are associated with significantly higher offer withdrawal rates than other target law firms. Top bidder and target law firms are both associated with significantly higher takeover premia than less prominent law firms. These associations are significant even after controlling for selection bias and major offer, bidder, and investment bank advisor characteristics. Our interpretation is that top bidder law firms have stronger incentives to facilitate deal completions, while top target law firms have stronger incentives to help realize higher takeover premia, consistent with their respective clients' objectives, than other law firms. Our findings suggest that law firm market share is an important omitted variable in current models of M&A deal outcomes.

*Keywords*: M&A legal advisor, Law firms, market shares, incentives, top 10 law firms, M&A, mergers, acquisitions, market shares, league table ranks, deal completion, takeover premium, selection bias.

JEL Classification Code: G34

#### 1. Introduction

Our primary objective is to investigate the associations of top tier law firms with mergers and acquisitions (M&A) offer characteristics and outcomes.¹ The extant M&A literature in finance examines the relation between M&A deal outcomes and financial advisors reputation and shows that top tier bidder investment banks are associated with higher deal completion rates [Rau (2000)]. Legal advisors to bidders and targets are another important class of M&A transactional service providers.² Yet, there is surprisingly little research on their influence or importance.³

We examine a comprehensive sample of M&A bids and completed offers over the 1990-2008 period and differentiate bidder legal advisor expertise from target legal advisor expertise. Although 1570 (1685) different law firms act as bidder (target) legal advisors in our sample, the M&A legal advisory business is highly concentrated, with top 10 law firms controlling almost half the M&A legal-advisory market over our sample period. This concentration suggests that top law firms provide superior legal expertise. Moreover, league table rankings of market share are widely followed in the financial press, and thus, are commonly available information, which companies commonly use as measures of expertise [see Bao and Edmans (2011)]. Consequently, we distinguish top 10 bidder and target law firms by M&A market share from other law firms to assess their differential effects on deals. We also assess the robustness of our results by replacing the top 10 league-table rank indicator with each law firm's prior 3-year average market share in completed M&A deals.4

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<sup>&</sup>lt;sup>1</sup> To our knowledge, this is the first study to do so. A few papers have alluded to the roles played by certain law firms in other contexts. Beatty and Welch (1996) investigate the role of the entire IPO coalition (including the legal counsel), and examine how IPO underpricing and its uncertainty are related to advisor reputation. Coates (2001) reports that companies advised by larger law firms with more takeover experience, are more apt to adopt takeover defenses prior to IPOs. Daines (2002) reports that IPO firms are more likely to incorporate in Delaware when advised by a national law firm than by a local law firm. Choudhary, Schloetzer and Sturgess (2010) provide evidence that top law firms can be influential advisors to a firm's directors in mandatory regulatory disclosure situations, such as M&A bids.

<sup>&</sup>lt;sup>2</sup> Legal advisory work supports an industry with thousands of law firms and tens of thousands of lawyers, according to a standard legal directory.

<sup>&</sup>lt;sup>3</sup> Subramanian's (2007) study of the effects of law firm experience in freeze-out mergers is the notable exception.

<sup>&</sup>lt;sup>4</sup> Beatty and Welch (1996) also use prior market shares to classify top law firms in IPOs.

We also take special care to distinguish between legal advisor effects and financial advisor effects on M&A outcomes, because law firms have a separate role in M&A transactions from investment bankers. Investment banks are primarily concerned with financing and valuation issues. Law firms advise client boards about their fiduciary responsibilities in making or responding to offers, and act as principal negotiators for all the M&A offer legal terms, which are especially important in complex M&A transactions. Law firms also execute legal due diligence, draft required legal contracts, ensure all relevant corporation, anti-trust, securities and tax laws and regulations are followed, and are in charge of M&A related litigation.

Consistent with these observations, we find top bidder investment banks are hired significantly more often for intra-industry offers (which generally involve larger premia, have greater strategic effects and require more careful valuation of synergies), multiple-bidder offers (which requires valuation of competing offers) and stock financed offers (where valuation issues arise because bidder stock prices are affected by the bid as well as by other economic news occurring prior to deal consummation), while top bidder law firms are hired significantly more frequently for large intra-industry offers in more concentrated industries (where serious antitrust challenges are more likely), offers where the bidder has no prior equity toehold (which raises the risk of a competing bid, especially for unsolicited and hostile offers) and tender offers (which trigger special bidder obligations, more severe insider trading liability under the Williams Act, and are more frequently used in unsolicited and hostile deals).

We find top target investment banks are often hired to defend firms against hostile bids and competing offers (which require greater expertise in valuation and financial defenses), while top target law firms tend to be hired for intra-industry offers, especially in large intra-industry offers, bids without toeholds, and stock bids (where shareholder lawsuits are more likely).<sup>5</sup>

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<sup>&</sup>lt;sup>5</sup> Certainly, the decisions to retain top investment banks and law firms can be positively correlated in certain types of M&A deals. For example, we find that both top investment banks and law firms are hired in large offers, which tend to be more complex.

We find industries that hired top 10 law firms, but not top 10 investment bankers tend to be industries in which mergers are more often challenged by anti-trust authorities, regulated industries where risk of deal failure is naturally high because of more demanding regulatory requirements, or industries which involve highly sensitive proprietary information. We find that these industries also frequently experience M&A related litigation, and hence these deals are more likely to require top legal advice, but not necessarily top financial advice.<sup>6</sup>

Examining deal outcomes, we find that top tier bidder law firms are associated with significantly higher deal completion rates and significantly greater takeover premia in completed deals than less prominent bidder law firms. In contrast, top tier target law firms are associated with significantly *lower* deal completion rates, but significantly higher takeover premia in competed deals, compared to less prominent target law firms, which raises an important question. Do target shareholders expect to realize wealth gains when top target legal advisors are retained? To answer this question, we estimate the expected takeover premium associated with a bid. We find top target law firms are associated with a 6.87% higher expected shareholder wealth gain from a bid, reflecting a lower probability of deal completion that is more than offset by a higher average takeover premium paid in completed offers.

The implication of these results is that top tier bidder law firms have greater ability and stronger incentives to facilitate successful completion of M&A bids for their clients, while top target legal advisors have greater ability and stronger incentives to maximize expected returns for their clients, than other less prominent law firms. Indeed, we show that (a) current top 10 league table rankings reflect past deal completions (withdrawals), which can be one measure of success for bidder (target) law firms, and (b) current top 10 league table rankings for target law firms reflect higher takeover premia in past offers, which can be another measure of success for target law firms.

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<sup>&</sup>lt;sup>6</sup> Also see Krishnan, Masulis, Thomas and Thompson (2011).

In examining top law firm associations with deal outcomes, we control for top bidder and target investment bank effects as well as offer and firm characteristics. We adjust for selection bias in the appointment of top tier legal advisors by bidder and target firms by using instrumental variables that predict the engagement of a top legal advisor (law firm), but do not predict the engagement of a top financial advisor (investment bank). We examine the associations of top law firms with offer outcomes using several different subsamples of our full M&A sample, distinguished by key offer characteristics. We also estimate top law firm associations with offer outcomes using a propensity score matching method that simultaneously controls for several bidder and offer characteristics. We consistently find that our key results concerning top law firm associations with M&A offer outcomes continue to hold. Moreover, a simple self-selection story (in which top tier law firms are associated with certain deal outcomes simply because they are hired more frequently in types of offers where the empirically observed outcomes occur more often) is refuted since top bidder and target law firms are associated with outcomes (in terms of offer completion rate or takeover premia) opposite to what one would expect if offers are sorted simply by offer size, bidder size, number of bidders, or bid hostility.

An important finding of our study is that top law firms have significantly *stronger* associations with major deal outcomes than top investment banks. More specifically, offer completion rate and takeover premia are both significantly higher when a bidder employs a top legal advisor and a non-top financial advisor, than when a bidder employs a top financial advisor and a non-top legal advisor. Further, the offer withdrawal rate and takeover premia are both significantly higher when a target employs a top legal advisor and a non-top financial advisor, than when a target employs a top financial advisor and a non-top legal advisor.

The remainder of this paper is organized as follows. The next section describes the data and presents descriptive statistics. Section 3 reports on the associations between top bidder and

target law firms and deal outcomes, Section 4 reports on several sensitivity checks and Section 5 concludes.

#### 2. Data and Descriptive Statistics

#### 2.1 Data Sample

We study M&A offers over the 1990-2008 period, using data from Thomson Financial's SDC "Mergers and Corporate Transactions" database. Our sample criteria excludes bids (i) for private targets, since we need to measure takeover premia, (ii) where both bidder and target are foreign to focus on the expertise of domestic investment banks and law firms, (iii) where both bidder and target have the same parent firm to exclude atypical transactions, and (iv) where SDC describes the bidder as "Shareholders", "Investor Group", "Investors", or "Creditors" following Moeller (2005), because we require an unaffiliated bidder firm. We also require that the interval between the announcement and deal completion/withdrawal dates is not more than one thousand calendar days, following Moeller, Schlingemann and Stulz (2004). We discard offers that do not contain valid data on bid value and outcomes (takeover premium, and completed or withdrawn offer status). After requiring additional data items for our analysis as detailed below, we are left with 9560 distinct offers, involving 1570 different bidder law firms and 1685 different target law firms.

#### 2.2 Offer Features

We examine (a) deal success or failure using an indicator variable, *Withdrawn Offer* that takes the value of 1 for withdrawn offers and is 0 otherwise, which is based on Thomson Financial's Mergers and Corporate Transactions database reporting a deal withdrawal date; and (b) takeover premia using *Takeover Premium in All Offers*, which is the bid price per target share relative to the target stock's pre offer-announcement price 1 week, or alternatively, 1 day or 4 weeks prior to the initial bid announcement date. Since target stock prices, on average, decline

on bid termination announcements [see, e.g., Safieddine and Titman (1999)] because offer purchase prices are not realized by these target shareholders, we also examine *Takeover Premium* in Completed Deals.

We control for offer characteristics that can influence M&A outcomes, namely: (a) *Intra-Industry Offer*, an indicator variable set equal to one when the bidder and target firms are from the same 2-digit SIC industry, (b) *Offer Size*, measured by the deal's transaction value (total bid value, excluding fees and expenses, in \$ millions), (c) *Hostile Offer*, an indicator variable set equal to one for hostile bids, (alternatively, we replace *Hostile Offer* indicator with *Unsolicited Offer*, which equals one if this is an unsolicited offer), (d) *Multi-Bidder Offer*, an indicator variable set equal to one for offers involving competing bidders, (e) *Bidder Toehold*, an indicator variable set equal to one for offers where the bidder owns target shares prior to the bid announcement, (f) *Stock Financing*, defined as the percentage of an offer's purchase price paid in bidder stock, (g) *Tender Offer*, an indicator variable set equal to one for cash tender offers, and (h) *Target Termination Fee*, an indicator variable set equal to one for offers involving a target paid termination fee provision. All indicators have default values of zero.

Intra-industry mergers are a growing portion of M&A transactions [see Andrade, Mitchell and Stafford (2001)], perhaps because they are easier to complete due to less severe information asymmetry problems and their greater likelihood of producing synergies than cross-industry mergers. However, these deals are more likely to face antitrust challenges as offer size and industry concentration rise. Deal complexity is often associated with offer size [Servaes and Zenner (1996)]. Hostile bids tend to be more difficult to complete than friendly bids: as friendly transactions involve at least a partially cooperative target and access to a target's books; whereas hostile bids face defensive actions by targets, lack of access to the target's books and a greater likelihood of a rival bidder. Offers with multiple bidders are more costly and less likely

<sup>&</sup>lt;sup>7</sup> However, since hostile offers represent target resistance and competition and may have radically different characteristics, we re-estimate our regression models after excluding hostile offers as well (see Section 4.6).

to be completed than single-bidder offers. Indeed, Bradley, Desai and Kim (1988) document that bidders are worse off when bidding contests occur. Bidders with toeholds may have a greater ability to obtain favorable deal outcomes, including substantial benefits of control, but acquiring toeholds are often viewed as aggressive moves that can antagonize target managers, making deal completion more difficult [Betton, Eckbo and Thorburn (2009)].

Stock financed deals are generally more complicated because stock prices are affected by market reactions to bid announcements and by subsequent economic news, and are more prone to allegations of market timing when bidder stock prices are overvalued [see Loughran and Vijh (1997)]. Tender offers trigger special bidder obligations and more severe insider trading liability under the Williams Act [see Klein and Coffee (2000)]. A bidder board also requires advice on setting the offer price and justifying its adequacy. Target shareholder gains and target management incentives to be acquired can differ significantly in cash tender offers relative to mergers [see, e.g., Martin and McConnell (1991) and Cotter, Shivdasani and Zenner, (1997)]. Finally, M&A advisors can increase the probability of deal success by negotiating a termination fee, which is paid by the target to the bidder in certain failed bids. Bates and Lemmon (2003) and Officer (2003) report that target termination fee provisions are associated with higher deal completion rates and takeover premia.

Table 1A reports mean offer characteristics and Table 1B reports mean offer outcomes for our M&A offer sample. Of the 9560 M&A offers, less than 12% are *Withdrawn Offers*, and the average takeover premium is around 30%, varying marginally depending on whether the prior share price is measured 1 day, 1 week or 4 weeks before the offer announcement and whether it is based on the full sample of bids or only completed offers. Since takeover premia are similar across the three prior share price benchmarks, hereafter we report premia based on share prices 1 week before the offer announcement [as in Moeller (2005), who reports an average takeover premium of about 30% based on target share prices 6 days before the offer announcement ].

#### 2.3 Firm Features

To control for prior bidder M&A experience, we include an indicator variable, *Repeat Bidder*, that takes the value of 1 if the firm made an earlier bid, and 0 if the bidder is making its first bid during the sample period 1987-2008 (to classify repeat bidders, we begin 3 years prior to the start of our sample period). We control for two bidder financial characteristics shown in the literature to influence deal outcomes: (a) *Bidder Size*, measured by equity market value at the quarter-end immediately before the bid announcement [see, e.g., Bates and Lemmon (2003) and Moeller, Schlingemann, and Stulz (2005)]<sup>8</sup>, which can be correlated with deal outcomes in terms of high takeover premia and low bidder announcement period returns [Moeller, Schlingemann, and Stulz (2004)]); and (b) *Bidder ROA*, return on assets in the quarter immediately before the offer announcement, which is a proxy for a bidder manager's ability to complete an acquisition successfully [see, e.g., Heron and Lie (2002) and Jensen (1986)]. We also control for *Bidder Market Share*, defined by a public bidder's market share of industry sales in its main business segment in the calendar year prior to the bid, and *Bidder (Target) Industry Concentration*, measured by the bidder (target) industry's Herfindahl index for the calendar year prior to the bid to capture the risk of antitrust problems.<sup>9</sup> All these variables are defined in the Appendix.

#### 2.4 Top-tier Law Firms

Bidder and target financial advisors (investment banks) and legal advisors (law firms) and annual league-table rankings are taken from Thomson Financial's Mergers and Corporate Transactions database. Annual league-table rankings of domestic financial and legal advisors are based on M&A transaction values that an investment bank or law firm participated in, relative to the transaction values of all M&A offers occurring in the same year. League tables are

<sup>&</sup>lt;sup>8</sup> Alternatively, we also consider the bidder's book value of total assets at the year end immediately prior to the offer announcement. The results are qualitatively similar.

<sup>&</sup>lt;sup>9</sup> The average *Bidder Market Share* for our full sample (top decile) of public bidders is 2% (39%), showing a skewed distribution with some large market share bidders.

separately calculated for bidder and target financial and legal advisors. As is the convention in this literature, each advisor is given full credit for each offer in which it provides advisory services to a bidder or target [see Rau (2000) and Bao and Edmans (2011)].

We create indicator variables for bidder and target law firms that appear in the top 10 annual league table rankings of the previous year (to avoid any look-ahead bias) as Top 10 Bidder Law Firm and Top 10 Target Law Firm. In sensitivity analysis, we replace these two variables by the "lead" bidder and target law firm's prior 3-year market share of M&A deals involving domestic law firms (including cross border deals), respectively labeled Bidder Law Firm Market Share and Target Law Firm Market Share. A lead law firm is defined as the one having the highest market share when multiple law firms advise a bidder (target). If there is a single legal advisor to the bidder (target), it is defined as the lead law firm. The vast majority of our M&A offer sample involves one bidder and one target legal advisor (73.2% and 74.9% respectively). Of the offers in our sample with multiple legal advisors, 17.2% involved two bidder law firms, 6.2% three, 2.8% four or five, and 0.6% more than five, while 16.2% of offers involved two target law firms, 5.4% three, 2.9% four or five, and 0.6% more than five. We are careful to exclude specialty Delaware litigation counsels from top legal advisor rankings since these law firms tend to handle Delaware corporate law work of the M&A legal advisors, and they neither act as transactional (i.e. deal) legal counsels in the traditional sense, nor generally compete for M&A deal advisory work.<sup>10</sup> We use the terms "top", "top 10", "top-tier" or "prominent" law firms to refer to such highly ranked M&A legal advisors.

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<sup>&</sup>lt;sup>10</sup> Based on information in the Martindale-Hubbell database, there are five such law firms: (1) Richards, Layton & Finger; (2) Morris, Nichols, Arsht & Tunnell; (3) Young, Conaway, Stargatt & Taylor; (4) Potter, Anderson & Corroon; and (5) Morris, James, Hitchens & Williams. There are 34 (23) offers in which Richards Layton (Morris Nichols) is the lead legal advisor to the target, and 20 (23) offers in which Richards Layton (Morris Nichols) is the lead law firm for the bidder. In these offers, we use the market share of the law firm with the next highest market share, in our analysis. When either Richards Layton or Morris Nichols is the only top 10 legal advisor, we re-coded these offers as being advised by a non-top 10 lead legal advisor, and use the median non-top 10 bidder (target) law firm market share in the year prior to offer announcement as the *Bidder (Target) Law Firm Market Share*.

Table 2 reports the number of appearances of law firms in Thomson Financial's top 10 league tables over the years 1990-2008. Panels A and B report the average annual legal advisory market shares and the average annual offer values for the top bidder and target legal advisors respectively. Table 2A shows two bidder law firms, Sullivan & Cromwell and Skadden Arps (which are consistently ranked in the top 10 in *Vault*'s annual list of top U.S. law firms) appear in the Thomson Financial list of top 10 bidder law firms in every year of our sample period.

Table 2B shows that in every year of our sample period Thomson Financial's list of top 10 target law firms includes Sullivan & Cromwell and Skadden Arps, as well as Wachtell Lipton (known for inventing the poison pill and being the most profitable large law firm in the world on a per-partner basis according to the *American Lawyer*). Indeed, the list of target law firms with most appearances in top 10 league tables is identical to the list of bidder law firms, with the exception that Cleary Gottlieb replaces Fried Frank in the list of top target law firms.

The difference in M&A legal advisor market shares of top law firms compared to lower ranked law firms is substantial. The average annual market share of the top bidder (target) law firms is 44% (46%) over our sample period, while the average annual market share of all bidder (target) law firms in our dataset is only 0.08% (0.07%). Top bidder and target law firms are also large, ranging in gross revenue for the most recent available year from over \$50 million for Linklaters to over \$2 billion for Skadden Arps, while the number of lawyers employed by these firms ranges from over 200 for Wachtell Lipton to over 2000 for Skadden Arps.

#### 3. Top Law Firms and M&A Offer Outcomes

#### 3.1 Univariate Analysis

To differentiate the effects of top law firms and investment banks, we examine offers double-sorted by whether top-tier investment banks and law firms are retained. Following our treatment of law firms, we distinguish prominent investment bankers by indicators, *Top 10 Bidder I-Bank* and *Top 10 Target I-Bank*, which represent top 10 financial advisors based on annual

league tables in the prior calendar year (to avoid any look-ahead bias).<sup>11</sup> In robustness analysis, top 10 financial advisor indicators are replaced by an investment bank's prior 3-year market shares in aggregate M&A deals, denoted by *Bidder (Target) I-Bank Market Share*.

Table 3A shows that, after controlling for bidder investment bank prominence, top bidder law firms are associated with a significantly lower proportion of withdrawn offers and significantly higher takeover premia than less prominent bidder law firms, in both subsamples of offers with and without a *Top 10 Bidder I-Bank*. A comparison of the coefficients in columns 2 and 3 suggests that the effects of top law firms are significantly stronger than the effects of top investment banks. Offer completion rates and takeover premia both are significantly higher when a bidder employs a top law firm and a non-top I-bank, compared to when a bidder employs a top I-bank and a non-top law firm. Finally, comparing outcomes across all 4 columns, we find that deal withdrawal rates are lowest and takeover premia are highest when top bidder law firms are involved, independent of whether top bidder investment banks are involved. This indicates that prominent bidder law firms play a more important role than prominent bidder investment banks in realizing deal completions, even at the cost of higher takeover premia.

Table 3B presents analogous statistics, where the focus is on target legal advisors, and shows that top target law firms are associated with a significantly higher proportion of withdrawn offers than other target law firms in both the subsamples of bids with and without *Top 10 Target I-Bank*. Top target law firms are also associated with significantly higher takeover premia than other target law firms in the subsample of bids without a *Top 10 Target I-Bank*.

Again, comparing the coefficient estimates in columns 2 and 3 suggests that a target's choice of a top law firm has stronger effects than its choice of a top I-bank. Offer withdrawal rate and takeover premia are both significantly higher when a target employs a top law firm and a non-

<sup>&</sup>lt;sup>11</sup> The top tier bidder investment banks, based on the number of appearances in the top-10 league table listings are, in order: Goldman Sachs, Citigroup, Morgan Stanley, Merrill Lynch, Credit Suisse, UBS, Deutsche Bank, Lazard Frères, JP Morgan, and Barclays Capital. The top-10 target-investment-banks are the same firms as the big bidder investment banks listed, and are, in order: Goldman Sachs, Morgan Stanley, JP Morgan, UBS, Citigroup, Credit Suisse, Lazard Frères, Merrill Lynch, Deutsche Bank, and Barclays Capital.

top I-bank, compared to when a target employs a top I-bank and a non-top law firm. Finally, comparing deal outcomes across all 4 columns, we find that both offer withdrawal rates and takeover premia are highest when top target law firms are hired, regardless of whether top target I-banks are also hired.

Top bidder law firms are selected significantly more often in larger M&A offers, offers with target termination fee provisions and tender offers, but significantly less often in hostile offers and offers with bidder toeholds, compared to other less prominent bidder law firms. Top target law firms are selected significantly more often in larger offers, stock financed offers, multi-bidder offers and offers with target termination fee provisions and significantly less frequently in offers with bidder toeholds, than other less prominent target law firms

We next define large offers as those above the sample median *Offer Size* of \$100 million.<sup>12</sup> We find that top bidder (target) law firms are hired significantly more often in large intra-industry offers and especially in offers involving more concentrated industries (defined as those with *Bidder Industry Concentration* values greater than or equal to 0.10, the level the Justice Department's Antitrust Division considers moderately concentrated) relative to other bidder (target) law firms, regardless of whether a top bidder (target) I-bank is hired. The implication of this evidence is that top legal expertise is more highly valued in M&A bids where anti-trust challenges are more likely.

#### 3.2 Multivariate Analysis

To obtain more reliable evidence on the effects of legal advisor expertise on offer outcomes, that is not so sensitive to differences in subsample characteristics, we employ a multivariate analysis where we control for major offer and bidder characteristics and financial advisor prominence, while also adjusting for selection bias in legal advisor appointment decisions. To

<sup>&</sup>lt;sup>12</sup> Moeller, Schlingemann and Stulz (2005) report an average M&A offer value of \$149 million for the 1980-1997 sample period.

address selection bias concerns associated with legal advisor appointments, we implement a standard Heckman (1979) 2-step selection procedure. In the 1st step we estimate a probit model to predict the likelihood of top bidder and target law firms being hired as M&A advisors. As is standard practice, in addition to the instruments, all control variables of the 2nd step equation are also included in the 1st step estimation. The inverse Mills ratios calculated from the 1st step regression estimates are included as additional explanatory variables in the 2nd step regressions of bid outcomes on law firm prominence. A valid instrumental variable (IV) should strongly predict the appointment of a top bidder or target legal advisor and be unrelated to the dependent variables (bid outcomes) to meet the exclusion requirement. Further, for our particular study, the IV should not be associated with the choice of a top financial advisor.

All the major M&A offer and bidder characteristics we examine are significantly related to one or both deal outcome variables, invalidating their use as instruments for both deal outcome variables, under the exclusion requirement. Further, given the need to separate the incentives to hire top law firms from the incentives to hire top investment banks, we implement the following procedure. For each year beginning in 1990, we examine a prior 3-year rolling window of M&A offers in which a bidder (target) hires a top 10 law firm, but does not hire a top 10 investment bank, and then determine the top 10 industries in which this choice occurs. Our presumption is that firms in these industries have particularly strong needs for top legal advisors, but no similar need for top financial advisors. In addition, we examine prior 3-year rolling windows of M&A offers that are subject to litigation, and select the top 10 industries in which this occurs for each rolling window period. Again the motivation for this classification is these are industries where top M&A legal advice is especially important, but top financial advice is not so critical.

From these calculations, we create an indicator variable, *Bidder (Target) Top Law Firm Industry* that takes the value of 1 in the current year for top 10 industries (based on 2 digit SIC

codes) in which the bidder (target) hires a top 10 bidder (target) law firm and a non-top 10 bidder (target) investment bank over the prior 3 years. To calculate this IV for the year 1990, we extend our M&A data back to include the 1987-1989 period. Over all such 3-year rolling window periods in our sample, the top 10 industries for which *Bidder Top Law Firm Industry* takes the value of one are (a) chemicals, machinery, electronics, transportation equipment, which are all found in Eckbo (1992) to be industries in which mergers are most often challenged by anti-trust authorities, (b) communications, utilities, banks and financial companies, which are all highly regulated industries [see Agrawal and Knoeber (1996)] such that M&A regulatory or execution risk is naturally high because of the stricter regulatory environment, (c) instruments, which can have a high level of sensitive proprietary information, and (d) business services, which is a highly fragmented industry with a large number of similar size competitors. Over all the 3-year rolling windows, the top 10 industries for which *Target Top Law Firm Industry* takes the value of 1 are the same, except that one highly regulated industry, transportation equipment, is replaced by another, namely insurance. We then use these two indicator variables as instruments.

Our second IV, High Litigation Bidder (Target) Industry, is an indicator variable that takes a value of 1 in the current year for the top 10 industries with the most frequent M&A bid litigation over the past 3 years. We again use M&A data back to the 1987-1989 period to compute this indicator for the year 1990. Across all the 3-year rolling windows in our sample period, the top 10 industries for which High Litigation Bidder Industry takes the value of 1 are similar to the top industries for which Bidder Top Law Firm Industry takes the value of 1, except that two highly regulated industries, transportation equipment and utilities are replaced by two others, namely insurance and health services (which also has an average Bidder Industry Concentration value close to 0.10, raising potential anti-trust concerns). Although across our full sample, the industries represented in the Bidder Top Law Firm Industry and High Litigation Bidder

Industry are similar, the simple correlation of these two instruments over our sample period is only 41% (alleviating concerns about potentially serious multicollinearity problems of using both instruments in the 1st stage regression). The correlation is relatively low because top 10 industries vary from one 3-year rolling window period to another, and differ for the Bidder Top Law Firm Industry and High Litigation Bidder Industry categories. Turning to targets, we find that over all the 3-year rolling windows in our sample period, the top 10 industries for which High Litigation Target Industry takes the value of 1 are similar to those in the Target Top Law Firm Industry, except that one regulated industry, utilities, is replaced by another, financial services. The correlation between Target Top Law Firm Industry and High Litigation Target Industry is 51%.

The choice of these indicators as instruments is justified because firms in these industries appear to need top tier M&A legal advice, but not necessarily top tier M&A financial advice. Further, there is no compelling reason to expect past industry associations with top law firms to be related to M&A deal outcomes, once we control for current offer characteristics, including current M&A advisor choices. Statistically, after controlling for major offer characteristics and top law firm and investment bank effects, neither *Bidder (Target) Top Law Firm Industry* nor *High Litigation Bidder (Target) Industry* is significantly associated with either offer outcome variable, thus satisfying the exclusion property of a valid IV. Our 2<sup>nd</sup> stage regression equation is:

(1) 
$$Y = \beta_{Y} + \beta_{I} + \beta_{I} + \beta_{I}$$
 Top 10 Bidder Law Firm +  $\beta_{2}$  Top 10 Target Law Firm +  $\beta_{3}$  Top 10 Bidder I-Bank +  $\beta_{4}$  Top 10 Target I-Bank +  $\beta_{5}$  Repeat Bidder +  $\beta_{6}$  Intra-Industry Offer +  $\beta_{7}$  Ln(Offer Size) +  $\beta_{8}$  Hostile Offer +  $\beta_{9}$  Multi-Bidder Offer +  $\beta_{10}$  Bidder Toehold +  $\beta_{11}$  Stock Financing +  $\beta_{12}$  Target Termination Fee +  $\beta_{13}$  Tender Offer + $\varepsilon$ ,

where Y represents Withdrawn Offer, Takeover Premium in All Offers or Takeover Premium in Completed Deals, while Top 10 Bidder Law Firm and Top 10 Target Law Firm are the fitted values from the 1st stage probit regressions. When Withdrawn Offer is the dependent variable, we estimate a logit regression, and when Takeover Premium is the dependent variable, we use an

OLS regression.  $\beta_{Y}$  is a vector of 19 year fixed effects,  $\beta_{I}$  is a vector of 17 bidder industry fixed effects, based on Fama-French industry sectors,  $\beta_{I}$  is a vector of 3 indicator variables for M&A deal types, namely (1) domestic bidders and targets, (2) domestic bidders and foreign targets, and (3) foreign bidders and domestic targets, and  $\beta_{A}$  is the vector of 2 Inverse Mills ratios estimated from the 1st stage regressions explaining the hiring of *Top 10 Bidder Law Firm* and *Top 10 Target Law Firm* [see Mills (1998)]. The explanatory variables and residuals from the panel regressions of M&A offer outcomes can be correlated within industries. To correct for industry correlations in M&A outcomes, we report *z*-statistics (*t*-statistics) that are based on heteroskedasticity-consistent standard errors adjusted for industry clustering in all the regressions [see Petersen (2009)].

The first two columns of Table 4A report results for the 1<sup>st</sup> stage estimation. The results show that the probability of hiring a *Top 10 Bidder (Target) Law Firm* has a significant positive association with both IVs: *Bidder (Target) Top Law Firm Industry* and *High Litigation Bidder (Target) Industry*. The associations of *Top 10 Bidder Law Firm* and *Top 10 Target Law Firm* with the control variables are in line with the univariate results reported earlier.

The 3rd column of Table 4A shows that top bidder law firms are associated with a significantly lower probability of a withdrawn offer, while top target law firms are associated with a significantly higher probability of a withdrawn offer, even after controlling for selection bias, major offer characteristics and M&A financial advisor expertise. In line with our earlier analysis, the deal complexity variables, namely offer size, hostile bids and multi-bidder offers, as well as offers with proportionally more stock financing are all associated with a higher probability of deal failure. Offers with target paid termination fees, tender offers [see Officer (2003)], intra-industry bids [see Andrade, Mitchell and Stafford (2001)], and top bidder financial advisors [see Rau (2000)] are all associated with a higher likelihood of deal success.

The 4<sup>th</sup> column of Table 4A shows that top bidder and target law firms are both associated with significantly higher takeover premia, after controlling for offer characteristics, financial advisor expertise and selection bias. Deal complexity, measured by offer size and multi-bidder offers, is associated with higher takeover premia. Intra-industry offers, offers with target termination fee provisions and tender offers are all associated with higher takeover premia [see Officer (2003)]. In contrast, bidder toeholds and hostile bids are associated with significantly lower takeover premia [see Bates and Lemmon (2003)]. Consistent with the results in Rau (2000), top bidder and target I-banks have no significant association with takeover premia. The last column examines the determinants of takeover premia in completed deals. Top bidder and target law firms continue to be associated with significantly higher takeover premia.

Table 4B is estimated over the domestic public bidder sample, and includes the two bidder characteristics, *Bidder Size* and *Bidder ROA*. We also interact the *Intra-Industry Offer* indicator with *Bidder Market Share* because intra-industry merger bids are more likely to elicit antitrust concerns when a bidder's existing market share of industry sales is high. The results are similar to those in Table 4A: top bidder law firms are associated with a significantly lower probability of deal failure, while top target law firms are associated with a significantly higher probability of deal failure. Both top bidder and target law firms are associated with significantly higher takeover premia.

Consistent with the agency cost and empire building incentives analyzed in the extant literature, larger bidders and more profitable bidders are associated with a higher probability of deal completion. However, larger bidders are also associated with lower takeover premia, which implies that large bidders have the experience and expertise to complete bids at lower takeover premia, once we carefully control for M&A offer characteristics and service provider expertise. Among the other control variables, *Intra-Industry Offer x Bidder Market Share* is

positively associated with the probability of hiring a top law firm and with a higher takeover premia.

Table 5 reports results from models similar to those in Table 4A, except that the indicator variables for top 10 law firms and investment banks are replaced by the market shares of the lead legal and financial advisors computed over the 3 calendar years prior to the M&A offer announcement. The results are qualitatively similar to those in Table 4A in that top bidder and target law firms continue to have significant negative and positive associations respectively with offer withdrawals, and top bidder and target law firms both continue to have significant positive associations with takeover premia. In short, the associations between more reputable law firms and deal completion rates are robust to using either indicator variables for annual top 10 league table rankings or market shares of legal advisors over the prior 3 years.

#### Economic Importance of Legal Advisor Selection

Examining the economic effects of top law firms on deal completion rates and takeover premia, we find that after using the full set of controls, (a) the deal completion probability increases (decreases) by 5.16% (2.20%) when a top bidder (target) law firm is a legal advisor; (b) the average takeover premium over all offers (both completed and withdrawn) increases by 7.32% (7.58%) when a top bidder (target) law firm is used, and (c) the average takeover premium in completed deals increases by 8.51% (8.61%) when a top bidder (target) law firm is used. Three conclusions can be drawn from these findings. First, the economic effect of retaining top bidder law firms on the deal completion rate is more than twice as large as that of top target law firms. Second, top bidder (target) law firms are associated with a higher unconditional expected takeover premium. Third, when top target law firms are involved, the rise in the average takeover premium in completed deals more than offsets the fall in the deal

completion probability, such that top target law firms are associated with an unconditional expected wealth gain for target shareholders of 6.87%.<sup>13</sup>

#### 4. Sensitivity Analysis

#### 4.1 Sub-sample Estimates

The evidence in Table 4 indicates that offer outcome dynamics may be different for more complex deals such as those associated with larger bidders, larger offers, hostile bids and multiple bidders. Therefore, to further analyze this possibility and insure that our results are not being driven by differences in deal characteristics across the subsamples of offers involving top and non-top law firms, we separate offers along four important dimensions that can be related to deal complexity (hostile or friendly deals, large or small offers, large or small bidders and single or multiple bidders). For example, to control for the effect of large versus small bidders, we create indicator variables for public bidders above and below the median bidder equity capitalization level (\$1.6 billion) denoted by *Large Bidders* and *Small Bidders*. Then we examine the associations of law firm expertise with deal outcomes to see if our earlier results continue to hold for both the large and small bidder subsamples.

The various panels of Table 6 show that while deal withdrawal rates are higher for hostile bids and larger bids, top bidder (target) law firms are associated with significantly higher deal completion (withdrawal) rates in both hostile and larger offer subsamples. Top bidder and target law firms are also both associated with significantly higher takeover premia in both hostile and larger offer subsamples. Examining bids by bidder size categories, we find that top bidder (target) law firms are associated with significantly higher deal completion (withdrawal) rates for both large and small bidder subsamples. For the large bidder subsample, top bidder

<sup>&</sup>lt;sup>13</sup> The change in expected takeover premium is given by the change in deal completion probability multiplied by the takeover premium conditional on not using a top tier target law firm plus the change in takeover premium multiplied by the probability of deal completion conditional on using a top tier target law firm.

<sup>&</sup>lt;sup>14</sup> Moeller, Schlingemann and Stulz (2005) report an average bidder market capitalization of \$1 billion.

and target law firms are associated with significantly higher takeover premia in completed deals, which suggests that that large bidders are both able and willing to pay higher premia to complete deals and that they select top bidder law firms to help facilitate deal completions. Turning to single and multi-bidder offers, top bidder law firms are associated with a significantly higher deal completion rate in both subsamples. For single-bidder offers, both top bidder and target law firms are associated with significantly higher takeover premia, while in multi-bidder offers, top bidder law firms are associated with a significantly higher takeover premia, suggesting that top bidder law firms encourage bidders to pay high takeover premia to prevail over competing bids and facilitate deal completions. In summary, law firm expertise appears to matter for deal outcomes, whether an offer is hostile or friendly, relatively large or small, made by a large or small bidder, or involves one or more bidders.

#### 4.2 Multivariate Analysis Using Repeat Bidder (Target) Subsamples

Adjustments for self-selection are often controversial because the validity of a particular IV can always be challenged. So for robustness, we consider an alternative IV. For the 3740 repeat bidders and 1665 repeat targets in our sample, we compute for each year in our 1990-2008 sample period an indicator variable, *Bidder's* (*Target's*) *Prior Top Law Firm*, which takes the value of 1 if the bidder (target) hired a top 10 law firm and non-top 10 investment bank in its most recent M&A transaction as a bidder (target) over the prior 3 calendar years. Although this IV is arguably a more direct measure of which firms have recently hired top M&A legal advisors and non-top financial advisors, we must estimate *Top 10 Bidder Law Firm* and *Top 10 Target Law Firm* separately in the 1st step of the Heckman self-selection model detailed above since the samples of repeat bidder and targets are different.

In untabulated estimates, we find that in the 1st stage probit regressions, *Bidder's (Target's) Prior Top Law Firm* has a significant positive relation with *Top 10 Bidder (Target) Law Firm* at the

1% significance level, showing that the current legal advisor choice is strongly influenced by whom the firm used in its last M&A offer. After controlling for major offer characteristics and top law firm and I-bank effects, *Bidder's (Target's) Prior Top Law Firm* is not significantly associated with either offer outcome variable, thus satisfying the exclusion property of a valid IV. Economically, a bidder or target firm that needed top tier legal help (but not top tier financial advisory help) in its last deal is more likely to seek such help again. More importantly, we continue to observe that *Top 10 Bidder Law Firm* and *Top 10 Target Law Firm* have significant positive and negative associations respectively with deal completions and they both have significant positive associations with takeover premia.

#### 4.3 Multivariate Analysis of Offer Subsamples

To directly remove the effects of top I-banks, we estimate regression equation 1 separately for (a) the *Top 10 Bidder Law Firm* indicator over the 1050 offers that involve a top bidder law firm and a non-top bidder I-bank, and (b) the *Top 10 Target Law Firm* indicator over the 898 offers that involve a top target law firm and a non-top target I-bank. Of course, the *Top 10 Bidder (Target) I-Bank* indicator is excluded from the two variants of regression equation 1. In untabulated results, we find that the previously documented significant associations of top tier bidder (target) law firms with offer outcomes continue to hold in these two subsamples.

#### 4.4 What Do Top-tier Law Firms Provide to Clients?

To directly test whether top target and bidder law firms have the requisite experience and expertise needed to facilitate M&A outcomes that a client may seek, we examine the relations between published league table rankings and past deal performance.<sup>15</sup> For this purpose, we examine M&A completion rates and average takeover premium in completed deals over the

<sup>&</sup>lt;sup>15</sup> Golubov, Petmezas and Travlosy (2012) show that the current practice of constructing top 10 league tables of M&A financial advisors based on the value of deals they advised is consistent with the notion that the position of the investment bank in these rankings signals the quality of its services.

prior 3-years for each bidder and target law firm in our sample. While 1570 (1685) different law firms act as bidder (target) legal advisors in our sample period, only 25 (23) different law firms are included in any of the annual lists of top 10 bidder (target) law firms over this same period.

Examining all sixteen prior 3-year performance windows (1990-92 through 2005-2007) in our sample period, we find that the average deal withdrawal rate of the top 10 bidder (target) law firms is 8.70% (14.75%), which is significantly lower (higher) than the average deal withdrawal rate of 12.00% (9.73%) for all other bidder (target) law firms. We also regress *Top 10 Bidder (Target) Law Firm* on the past 3-year withdrawal rate using a logit regression estimated over the panel of all bidder (target) law firms for all 16 prior 3-year performance periods, where year and firm fixed effects control for other unidentified time trends and time invariant firm specific attributes. We find that the past 3-year deal withdrawal rate has a significant negative (positive) association with being a current *Top 10 Bidder (Target) Law Firm*. Thus, we find a significant association between the deal completion rate of a bidder (target) law firms and their subsequent top 10 league table rankings [also see McConnell and Sibilkov (2011)]. Combining these results with those of Table 4, we conclude that past deal completion rates are significantly associated with current law firm rankings, which, in turn, are significantly associated with deal completion (or withdrawal) rates in current offers.

Turning to takeover premia, we find, in our full sample of bids (completed deals), an average offer premia of 39.66% (39.56%) over the same 16 consecutive prior 3-year windows for offers involving top 10 target law firms, which is significantly higher at the 1% level than that for offers associated involving all other target law firms of 30.84% (29.63%). Next, we regress *Top 10 Target Law Firm* on the past 3-year average takeover premium using OLS regressions over the full panel of target law firms, where we include year and firm fixed effects as control variables. Again *t*-statistics are based on standard errors adjusted for heteroskedasticity and

<sup>&</sup>lt;sup>16</sup> In such panel regressions, the use of overlapping prior 3-year performance periods as the explanatory variable can create firm-level correlation in both the explanatory variable and residuals, and hence, we examine *z*-statistics based on standard errors adjusted for heteroskedasticity and firm clustering.

clustering by firm. We find, in unreported results, that the average prior 3-year takeover premium has a significant positive association with the *Top 10 Target Law Firm* indicator. Combining these results with those of Table 4, we conclude that past takeover premia are significantly associated with current target law firm rankings, which, in turn, are significantly related to takeover premia in current offers.

The average takeover premium for all bids (completed deals) associated with top 10 bidder law firms is 39.35% (39.40%) using all the prior 3-year windows is higher at the 1% significance level than the 31.41% (29.91%) level for offers associated with non-top 10 bidder law firms. We interpret this evidence as indicating that bidders employing top law firms are more willing to accept higher takeover premia to complete their M&A deals. Of course, successful deal completions enhance a bidder law firm's market share, which gives law firms added incentives to encourage higher bids. We discuss lawyer incentives in the next section.

#### 4.5 Lawyer Incentives

While we have documented statistically significant associations between top law firms and deal outcomes, this leaves two important related questions to address. (a) Why do top law firms behave differently when their clients are bidders or targets? That is, why do law firm incentives change depending on whom they represent? (b) What is different about top law firms that lead to stronger associations with deal outcomes compared to other law firms, as documented above?

To address the first question, we argue that concerns about maintaining reputation and receiving repeat business can be a powerful factor motivating top law firms to act on behalf of their clients, especially given the competitive nature of the market for M&A legal services. It is noteworthy that competition for clients has increased dramatically in recent years, especially for larger clients that typically have sophisticated in-house counsels. Realizing repeat business is a

potential reward for successfully meeting client goals and repeat business is critical to maintaining market shares and top league table rankings. Beardslee, Coates, Nanda and Wilkins (2010) show that large companies often have long running relationships with a few law firms. These law firms provide quality assurance and legal capacity insurance, which, in turn, assures them of steady work flows, while preserving relationship-specific capital.

A second reason is related to the ethical responsibilities of lawyers to their clients. The ethical code of conduct require law firms to preserve the confidences of and protect the information provided by a client, and to use them to exercise professional judgment, within the bounds of the law, solely for the benefit of the client. Neither the lawyer's personal interests, nor the interests of other clients, should be permitted to dilute the lawyer's loyalty to the client [see, e.g., the New York Lawyer's Code of Professional Responsibility]. Although the Model Rules (governing professional and ethical conduct of lawyers) relate to the practice of law generally, conflict of interest and client confidentiality rules are particularly relevant for lawyers who participate in corporate M&A transactions [see Walker and Newbold (2012)]. Indeed, Ribstein (2001) notes that conflicts of interest between a law firm and its clients are potential "smoking guns" that can trigger heavy malpractice damages. Conversely, Schneyer (1991) notes that a law firm's reputation for good ethics draws clients in, and that such a reputation also induce lawyers to stay with the law firm in order to benefit from that good reputation. In sum, M&A law firms have strong incentives to meet their clients' primary objectives.

In answer to the second question, Gilson and Mnookin (1985) point out that some of the most successful law firms in the U.S., which are generally top tier firms, use a "lockstep incentive system" where any reputational benefit realized by a lawyer acting properly on behalf of a client is rewarded financially (and any potential malpractice liability from acting improperly is penalized) reflecting the fact that these actions affect the reputation of the entire

 $<sup>^{17}</sup>$  The desire to be respected professionals also constrains lawyers from acting in their own narrow self-interest (e.g., billing more hours) [see Regan (1998)].

firm. In short, as Ribstein (1998) notes, "a brand name for client devotion is an increasingly important law firm asset." Promotion-to-partnership tournaments can also help explain lawyer incentives at top tier firms to show tangible outcomes in the deals they work on. Galanter and Palay (1991), for example, explain the exponential growth of large law firms by the tournaments they run among associates seeking to realize the large financial benefits associated with making partner. A tournament mechanism also provides incentives for associates to work without being closely monitored and motivates them to achieve tangible and efficient deal outcomes. Thus, based on this promotion system, top 10 law firms are more likely to have higher powered incentives, which encourage their employees to help clients to achieve their deal objectives than is the case for the typical law firm.

Moreover, while most law firms work on an hourly basis, compensation paid to some top law firms provides added incentives similar to those provided by contingency fees paid to investment banks [Rau (2000)]. There is nothing in the Model Rules that prohibits a law firm from entering into a success fee (contingent fee) arrangement with a client. Starbuck (1993) reports individual compensation at Wachtell Lipton is based in part on success at meeting client objectives. There can also be success fees paid to law firms involved in more complex deals. Indeed, sometimes fees can be astronomical: Cohen (1991) reports that Wachtell Lipton earned \$20 million in two weeks in 1988 by defending Kraft in a takeover bid by Philip Morris.

It is also important to recognize that top 10 law firms tend to be relatively large organizations that can offer a full gamut of legal expertise, which enable them to act effectively as transactional engineers, creating value for their clients by structuring deals in such a way as to minimize a variety of transaction costs to achieve their clients' objectives [Gilson (1984)]. Moreover, the size of the reputational bond between the law firm and its clients is increasing in the size of the law firm, so top law firms stand to lose more if they do not satisfy their clients' needs [see Cohen (1998)].

But what do clients want? Bidder managements generally want deal completion. An effective approach to realizing their goal is to raise the offer price, thereby adding pressure on the target board to agree to do a deal and making deal success more likely. Target management objectives can differ. Some targets seek to be bought (in friendly deals), but a key issue is the adequacy of the offer price, other targets seek to stay independent, but at a sufficiently high offer price, they will bow to shareholder wishes to be acquired, yet other firms with entrenched managers only want to stay independent, and seek to force the purchase price up to a level that they hope will discourage the bidder, while not antagonizing their own shareholders. So while there can be heterogeneity on the part of targets in their desire for deal success, in virtually all cases, the target wants to obtain a high purchase price.

Indeed, as Tables 3 and 4 show, top bidder law firms have a significant association with successful deal completion (along with higher takeover premia, which often facilitate deal completions), and top target law firms have a significant positive association with higher takeover premia (along with a higher deal failure rate that is often the result of aggressively seeking higher takeover premia) compared to other law firms.

#### 4.6 Additional Robustness Checks

We find that the above-documented associations between top law firms and offer outcomes continue to be robust to the following untabulated experiments: (a) we separate our full sample into domestic offers and cross border offers; (b), we alternatively measure takeover premia by either target stock price 1 day or 4 weeks prior to the deal announcement; (c) about 14% of takeover premia in our sample of completed deals are negative, which suggests that these premia are likely to be measured with error and, since negative premia are unlikely to be approved by target shareholders, we set these premia to zero as a more economically meaningful lower bound and re-estimate regression model (1) using Tobit estimation, or

alternatively, exclude these observations from our sample; and (d) we replace the *Hostile Offer* indicator with an *Unsolicited Offer* indicator as a control variable in the base model, or alternatively, exclude hostile offers from the sample (since these bids entail different M&A outcomes, at least from a target's perspective) and re-estimate our regression model.

As an alternate selection bias adjustment mechanism, we analyze the associations of top law firms with deal outcomes using the propensity score matching (PSM) approach developed by Heckman, Ichimura, and Todd (1997, 1998). This method simultaneously controls for a number of key offer characteristics, without the need to assume linear associations with M&A offer outcome variables. From this analysis, we find in bids involving top bidder (target) law firms, the match-adjusted bid withdrawal rate is significantly negative (positive), while the match-adjusted average takeover premium is significantly positive, consistent with our earlier results.

#### 5. Conclusion

We investigate a comprehensive sample of acquisition bids and completed offers over the 1990-2008 period employing both univariate and multivariate analysis. We find top tier bidder law firms are associated with a significantly higher deal completion rate and significantly higher takeover premia than less prominent bidder law firms. One interpretation of this finding is that top bidder law firms have stronger incentives than less prominent law firms to successfully complete M&A offers even at the cost of higher takeover premia, consistent with their clients' objectives. Top tier target law firms, in contrast, are associated with a significantly lower deal completion rate and a significantly higher average takeover premium than less prominent law firms. However, we find that the reduction in the likelihood of a successful bid

<sup>&</sup>lt;sup>18</sup> We use the nearest-neighbor matching estimation procedure. For each offer with a top bidder (target) law firm, we choose 5 offers with non-top law firms that have propensity scores closest to that of the offer with a top law firm after matching on offer year and bidder(target) industry. The offer characteristics that we match on, for choosing nearby propensity scores are based on the findings of Table 3; for top bidder law firms they are: Offer Size, Target Termination Fee, Tender Offer, Hostile Offer, Bidder Toehold, and for top Target Law firms they are: Offer Size, Stock Financing, Intra-Industry Offer, Multi-bidder Offers, Target Termination Fee and Bidder Toehold (see Hellman, Lindsey and Puri (2008) for details on the estimation procedures).

is more than offset by the higher expected takeover premium in completed deals, which indicates that on average target shareholders benefit from the choice of top tier legal counsels because these advisors raise the expected wealth gains for target shareholders.

Our results are robust to controlling for bidder and target financial advisors (investment banks), offer characteristics and bidder characteristics. Our results are also unchanged when we replace bidder and target law firm top 10 league-table indicator variables with lead legal advisor M&A market shares over the prior 3 years. Our results are also robust to controlling for selection bias in the appointment of top tier legal advisors by both bidder and target firms. Indeed, a simple self-selection story concerning the relations between law firm ranking and deal outcomes appears inconsistent with our findings because top tier bidder and target law firms are actually associated with opposite deal outcomes in offers differentiated by offer complexity measures than what would be expected given the unconditional correlations of these deal characteristics with deal outcomes.

Finally, we find that top law firms have significantly stronger effects on M&A outcomes than do top investment banks. Thus, other studies of M&A deal outcomes may be subject to important omitted-variable biases when the important roles of prominent M&A law firms are ignored.

#### References

Andrade, G., M. Mitchell, and E. Stafford, 2001, New evidence and perspectives on mergers, *Journal of Economic Perspectives* 15, 103-120.

Agrawal, A., and C. Knoeber, 1996, Firm performance and mechanisms to control agency problems between managers and shareholders, *Journal of Financial and Quantitative Analysis* 31, 377-397.

Bates, T. and M. Lemmon, 2003, Breaking up is hard to do: An analysis of termination fee provisions and merger outcomes, *Journal of Financial Economics* 69, 469-504.

Bao, J., and A. Edmans, 2011, Do Investment Banks Matter For M&A Returns? *Review of Financial Studies* 24, 2286-2315.

Beardslee, M.S., J. Coates, A. Nanda and D. Wilkins, 2010, Hiring Teams from Rivals: Theory and Evidence on the Evolving Relationships in the Corporate Legal Market, *Law of Social Inquiry*, Forthcoming.

Beatty, R. and I. Welch, 1996, Issuer expenses and legal liability in initial public offerings, *Journal of Law* and *Economics* 39, 545-603.

Betton, S., B.E. Eckbo, and K. Thorburn, 2009, Merger negotiations and the toehold puzzle, *Journal of Financial Economics* 91, 158–178.

Bradley, M., A. Desai, and H. Kim, 1988, Synergistic gains from corporate acquisitions and their division between the stockholders of target and acquiring firms, *Journal of Financial Economics* 21, 3-40.

Coates, J., 2001, Explaining Variation in Takeover Defenses: Blame the Lawyers, 89 California Law Review 1301.

Choudhary, P., J. Schloetzer, and J. Sturgess, 2010, Top-Tier Law Firms and Corporate Disclosure: Evidence from Regulatory Noncompliance, Working paper, Georgetown University.

Cohen, R., 1991, Denting a Legal Galahad's armor, New York Times, October 16.

Cohen, G., 1998, When Law and Economics Met Professional Responsibility, Fordham Law Review 67 (2).

Cotter, J., A.Shivdasani and M. Zenner, 1997, Do independent directors enhance target shareholder wealth during tender offers?, *Journal of Financial Economics* 43, 195-218.

Daines, R., 2002, The Incorporation Choices of IPO Firms, New York University Law Review 77:1559-1611.

Eckbo, B.E., 1992, Mergers and the value of antitrust deterrence, Journal of Finance 47, 1005-1029.

Galanter, M., and T. Palay, 1991, Tournament of lawyers: The transformation of the big law firm, University of Chicago Press.

Gilson, R, 1984, Value creation by business lawyers: Legal skills and asset pricing, *The Yale Law Journal* 94, 239-313.

Gilson, R., and R. Mnookin, 1985, Sharing Among the Human Capitalists: An Economic Inquiry into the Corporate Law Firm and How Partners Split Profits, 37 *Stanford Law Review*, 313-352.

Gompers, P., Ishii, J., and Metrick, A., 2003, Corporate governance and equity prices, *Quarterly Journal of Economics* 118, 107-155.

Golubov, A., D. Petmezas and N. Travlos, 2012, It Pays to Pay Your Investment Banker: New Evidence on the Role of Financial Advisors in M&As, forthcoming, *Journal of Finance*.

Heckman, J. J., 1979, Sample Selection Bias as a Specification Error, Econometrica, 47, 153–161.

Heckman, J., H. Ichimura, and P. Todd, 1997, Matching as an econometric evaluation estimator: Evidence from evaluating a job training programme, *Review of Economic Studies* 64, 605-654.

Heckman, J., H. Ichimura, and P. Todd, 1998, Matching as an econometric evaluation estimator. *Review of Economic Studies* 65, 261-294.

Hellmann, T, L. Lindsey, and M. Puri, 2008, Building relationships early: Banks in venture capital, *Review of Financial Studies* 21, 513-541.

Heron, R. and E. Lie, 2002, Operating performance and the method of payment in takeovers, *Journal of Financial and Quantitative Analysis* 37, 137-155.

Krishnan, CNV., V. Ivanov, R. Masulis, and A. Singh, 2011, Venture capital reputation, post-IPO performance and corporate governance, *Journal of Financial and Quantitative Analysis*, 46(5), 1295 – 1333.

Krishnan, CNV., R. Masulis, R. Thomas, and R. Thompson, 2011, Litigation in Mergers and Acquisitions, Working Paper, Vanderbilt University.

Jensen, M., 1986, Agency costs and free cash flow, corporate finance and takeovers. *American Economic Review 76*, 659–665.

Kale, J., O. Kini, and H. Ryan, 2003, Financial advisors and shareholder wealth gains in corporate takeovers, *Journal of Financial and Quantitative Analysis* 38, 475 -501.

Kau, J., J. Linck, and P. Rubin, 2008, Do managers listen to the market?, *Journal of Corporate Finance* 14, 347–362.

Luo, Y., 2005, Do insiders learn from outsiders? Evidence from mergers and acquisitions, *Journal of Finance* 60, 1951–1982.

Loughran, T. and A. Vijh, 1997, Do long-term shareholders benefit from corporate acquisitions?, *Journal of Finance* 52, 1765-90.

Martin, K., and J.J. McConnell, 1991, Corporate performance, corporate takeovers, and management turnover, *Journal of Finance* 46, 671–687.

McConnell, J., and V. Sibilkov, 2011, Client Performance, Choice of Investment Bank Advisors in Corporate Takeovers, and Investment Bank Market Share, Working Paper, Purdue University.

Megginson, W., and K. Weiss, 1991, Venture capitalist certification in initial public offerings, *Journal of Finance* 46, 879-904.

Mills, L., 1998, Book-Tax Differences and Internal Revenue Service Adjustments, Journal of Accounting Research 36, 343-356.

Moeller, T., 2005, Let's make a deal! How shareholder control impacts merger payoffs, *Journal of Financial Economics* 76, 167–190.

Moeller, S., F. Schlingemann and R. Stulz, 2004, Firm size and the gains from acquisitions, Journal of

Financial Economics 73, 201-228.

Moeller, S., F. Schlingemann and R. Stulz, 2005, Wealth destruction on a massive scale? A study of acquiring-firm returns in the recent merger wave, *Journal of Finance* 60, 757-782.

Officer, M., 2003, Termination fees in mergers and acquisitions, Journal of Financial Economics 69, 431–467.

Petersen, M., 2009, Estimating standard errors in finance panel data sets: Comparing approaches, *Review of Financial Studies* 22, 435-480.

Rau, R., 2000, Investment bank market-share, Contingent fee payments and the performance of acquiring firms, *Journal of Financial Economics* 56, 293-324.

Regan, M., 1998, Professional Reputation: Looking for the Good Lawyer, 39 S. Tex. L. Rev. 549, 565-66.

Ribstein, L., 1998, Ethical Rules, Agency Costs, and Law Firm Structure, *Virginia Law Review*, 84 (8), 1707-1759.

Ribstein, L., 2001, Ethical Rules, Law firm Structure and the Choice of Law, George Mason University Working Paper.

Safieddine, A., and S. Titman, 1999, Leverage and Corporate Performance: Evidence from Unsuccessful Takeovers, *Journal of Finance* 54, 547-580.

Schneyer, T., 1991, Professional Discipline for Law Firms?, 77 Cornell Law Review 1.

Servaes, H. and M. Zenner, 1996, The role of investment banks in acquisitions, *Review of Financial Studies*, 787-815.

Starbuck, W., 1993, Keeping a butterfly and an elephant in a house of cards: The elements of exceptional success, *Journal of Management Studies* 30, 885-921.

Subramanian, G., 2007, Post-Siliconix freezeouts: Theory and evidence, Journal of Legal Studies 36, 1-26.

Walker, J. and T. Newbold, 2012, Ethical Traps for the M&A Practitioner, Mergers & Acquisitions 2012: Trends and Developments, Corporate Law and Practice Course Handbook Series, Practising Law Institute.

#### Table 1 Sample Descriptive Statistics

This table reports the mean offer characteristics (Panel A) and mean offer outcomes (Panel B) for our sample of mergers and acquisitions offers made over a 19-year period from January 1, 1990 through December 31, 2008 taken from the Thomson Financial's SDC Platinum Mergers and Acquisitions database. All variables are defined in the Appendix.

Panel A	4
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Number of Offers	Average Offer Size (\$ bn)	Intra- Industry Offer (%)	Hostile Offer (%)	Multi- Bidder Offer (%	Toehold	Stock Financing (%)	Target Termination Fee (%)	Tender Offer (%)
9560	0.97	52.06	3.13	6.33	18.66	40.10	39.15	18.33
Panel B								
Number of Offers	Proportion Withdrawn		rm Pren ffers in All	eover mium Offers %) eeks	Takeover Premium in All Offers (%) 1 day	Takeover Premium in Completed Deals (%) 1 week	Takeover Premium in Completed Deals (%) 4 weeks	Takeover Premium in Completed Deals (%) 1 day
9560	11.36%	31.97	7 36	5.63	28.27	30.98	35.90	27.29

Table 2
Law Firms with Most Number of Appearances in Top 10 M&A Legal Advisory League Tables

The table reports the number of appearances in Thomson Financial's Mergers and Corporate Transactions annual Top 10 League Tables over the years from 1990 through 2008, the average market share per year based on the dollar values of offers advised on, and the average dollar value of offers advised per year for the law firms acting as legal advisors for the bidder firms (Panel A) and target firms (Panel B) in M&A offers. The 10 firms with the maximum number of appearances in Thomson Financial's Mergers and Corporate Transactions annual Top 10 League Tables over the years from 1990 through 2008 are shown. The league tables are separate for bidder and target advisors, and give each law firm full credit for any M&A offer it advised on. Specialty Delaware litigation counsels are excluded.

Ţ	วลา	าค์	Ι Δ

Panel A			
Bidder Law Firms	Number of appearances in Top 10 League Tables	Average Market Share per year (%)	Average offer value per year (\$billion)
Sullivan & Cromwell	19	8.03	501.9
Skadden Arps Slate Meagher & Flom	19	6.87	385.8
Simpson Thacher & Bartlett	17	5.71	392.4
Shearman & Sterling	17	4.73	298.1
Davis Polk & Wardwell	16	3.95	232.5
Dewey & LeBoeuf	11	3.31	224.7
Cravath Swaine & Moore	11	2.47	86.7
Linklaters	10	3.62	279.3
Wachtell Lipton Rosen & Katz	10	1.89	67.4
Cleary Gottlieb Steen & Hamilton	9	3.03	257.1

Panel B

Target Law Firms	Number of appearances in Top 10 League Tables	Average Market Share per year (%)	Average offer value per year (\$billion)
Skadden Arps Slate Meagher & Flom	19	8.44	500.8
Sullivan & Cromwell	19	7.61	444.6
Wachtell Lipton Rosen & Katz	19	5.81	338.7
Simpson Thacher & Bartlett	18	6.12	373.2
Shearman & Sterling	15	4.48	300.5
Cravath Swaine & Moore	14	3.71	159.8
Dewey & LeBoeuf	11	3.45	265.8
Fried Frank Harris Shriver & Jacobson	10	2.17	60.6
Davis Polk & Wardwell	8	2.00	173.5
Linklaters	7	1.75	135.4

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Table 3
Top Bidder and Target Law Firms, Offer Features and Outcomes

Panel A reports the average offer features and offer outcomes for offers without a *Top 10 Bidder Law Firm* versus those advised by at least one *Top 10 Bidder Law Firm*, after offers are first divided into those without a *Top 10 Bidder I-Bank* and those advised by at least one *Top 10 Bidder I-Bank*. Panel B reports the average offer features and offer outcomes for offers without a *Top 10 Target Law Firm* versus those advised by at least one *Top 10 Target Law Firm*, after offers are first divided into those without a *Top 10 Target I-Bank* and those advised by at least one *Top 10 Target I-Bank*. The sample period is from 1990 through 2008. All variables are defined in the Appendix.

Panel A

	Without a Top	10 Bidder I-Bank	With a Top 10	Bidder I-Bank
	Without a Top 10 Bidder Law Firm	With a Top 10 Bidder Law Firm	Without a Top 10 Bidder Law Firm	With a Top 10 Bidder Law Firm
	(1)	(2)	(3)	(4)
Number of Offers	6338	1050	972	1200
Intra-Industry Offer (%)	48.84	55.43***	60.80 <sup>†</sup>	59.00
Offer Size (\$ bn)	0.23	1.97***	1.17	3.84***
Hostile Offer (%)	3.90	1.71***	2.16	1.08**
Multi-Bidder Offer (%)	5.22	7.71***	8.12	9.50
Bidder Toehold (%)	21.60	10.86***	15.53 <sup>†</sup>	12.50**
Stock Financing (%)	38.75	42.54***	42.28	43.29
Target Termination Fee (%)	29.23	57.14***	50.41	66.67***
Tender Offer (%)	13.69	28.38***	22.84	30.42***
Withdrawn Offer (%)	12.86	7.05***	11.63 <sup>††</sup>	7.00***
Takeover Premium in All Offers (%)	29.66	38.42***	33.55†	37.24*
Takeover Premium in Completed Deals (%)	27.98	38.48***	33.55†	37.28*

<sup>\*, \*\*, \*\*\*</sup> denote significant difference, based on the difference-of-means *t*-statistics, between columns (1) and (2), and between columns (3) and (4) at the 10, 5 and 1 percent levels respectively.

 $<sup>^{\</sup>dagger}$ ,  $^{\dagger\dagger}$ ,  $^{\dagger\dagger}$  denote significant difference, based on the difference-of-means t-statistics, between columns (2) and (3) at the 10, 5 and 1 percent levels respectively.

Panel B

	Without a <i>Top 1</i>	10 Target I-Bank	With a Top 10 Target I-Bank		
	Without a Top 10 Target Law Firm	With a Top 10 Target Law Firm	Without a Top 10 Target Law Firm	With a Top 10 Target Law Firm	
	(1)	(2)	(3)	(4)	
Number of Offers	6483	898	910	1269	
Intra-Industry Offer (%)	49.14	59.02***	55.05†	59.89**	
Offer Size (\$ bn)	0.16	1.61***	1.31	4.39***	
Hostile Offer (%)	3.00	2.11	4.39	3.62	
Multi-Bidder Offer (%)	4.32	7.79***	8.02	14.34***	
Bidder Toehold (%)	21.59	12.24***	14.73	11.03***	
Stock Financing (%)	38.45	45.87***	39.45††	44.86***	
Target Termination Fee (%)	30.00	60.13***	50.43††	62.96***	
Tender Offer (%)	15.41	24.72***	25.60	23.56	
Withdrawn Offer (%)	10.50	12.69**	11.65 <sup>†</sup>	14.58**	
Takeover Premium in All Offers (%)	29.37	40.62***	35.80 <sup>†</sup>	36.38	
Takeover Premium in Completed Deals (%)	28.04	40.36***	35.76 <sup>†</sup>	36.37	

<sup>\*, \*\*, \*\*\*</sup> denote significant difference, based on the difference-of-means *t*-statistics, between columns (1) and (2), and between columns (3) and (4) at the 10, 5 and 1 percent levels respectively.

†, ††, ††† denote significant difference, based on the difference-of-means *t*-statistics, between columns (2) and (3) at the

<sup>10, 5</sup> and 1 percent levels respectively.

## Table 4 Top Bidder and Target Law Firms and Offer Outcomes

The table presents two-step Heckman regression coefficients and in parentheses associated *t*-statistics (or *z*-statistics in the case of probit or logit regressions) based on standard errors which are robust to heteroskedasticity and adjusted for industry clustering. In a first step, a probit regression is estimated for the likelihood of observing the employment of a *Top 10 Bidder (Target) Law Firm.* The instrumental variables used are *Bidder (Target) Top Law Firm Industry* and *High Litigation Bidder (Target) Industry.* The Inverse Mills' ratios estimated from the first-step regressions are used in the second-step regression where the dependent variable is *Withdrawn Offer* or *Takeover Premium in All Offers* or *Takeover Premium in Completed Deals.* Panel A reports the results for all offers, while Panel B reports the results for only domestic public bidder offers. The sample period is from 1990 through 2008. All variables are defined in the Appendix.

Panel A

I unei A	Dependent Variable				
	Top 10 Bidder Law Firm	Top 10 Target Law Firm	Withdrawn Offer	Takeover Premium in All Offers	Takeover Premium in Completed Deals
	(1)	(2)	(3)	(4)	(5)
Top 10 Bidder Law Firm		0.20***	-1.00***	3.84***	4.84***
,	0.00***	(3.91)	(-5.38)	(2.97)	(3.56)
Top 10 Target Law Firm	0.23*** (4.72)		0.34*** (2.88)	4.51*** (3.07)	4.75*** (2.97)
	0.15***		(2.00)	(0.07)	(2.77)
Bidder Top Law Firm Industry	(2.74)				
High Litigation Bidder Industry	0.15***				
8 8	(2.88)	0.16***			
Target Top Law Firm Industry		(2.97)			
TT 1 T 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		0.13***			
High Litigation Target Industry		(2.55)			
Top 10 Bidder I-Bank	0.53***	0.09**	-0.34***	0.59	0.16
10р 10 Вишет 1-Випк	(4.83)	(2.07)	(-3.15)	(0.48)	(0.12)
Top 10 Target I-Bank	0.06	0.56***	-0.21*	0.87	1.18
10p 10 1urget 1-bunk	(1.56)	(4.95)	(-1.90)	(0.67)	(0.82)
Repeat Bidder	-0.03	-0.04	-0.28*	-1.37	-1.28
Repeat Blader	(-0.64)	(-1.12)	(-1.86)	(-1.36)	(-1.19)
Intra-Industry Offer	-0.07	0.05**	-0.21***	2.92***	3.07***
mar madely oner	(-1.46)	(2.10)	(-2.62)	(2.90)	(2.71)
Ln(Offer Size)	0.31***	0.42***	0.28***	2.03***	2.11**
()	(6.46)	(7.35)	(3.68)	(2.48)	(2.35)
Hostile Offer	-0.61***	-0.13	2.84***	-1.13**	-1.48***
	(-3.48)	(-1.00)	(4.29)	(-2.05)	(-2.67)
Multi-Bidder Offer	-0.12	0.26**	2.38***	2.35***	2.11**
	(-1.19)	(2.54)	(4.16)	(2.59)	(2.27)
Bidder Toehold	-0.18**	-0.13**	0.40	-4.01***	-3.55***
	(-2.13) 0.01	(-2.32) 0.02*	(1.36) 0.02***	(-2.70) 0.02	(-2.88) 0.02
Stock Financing	(0.15)	(1.75)	(2.57)	(1.09)	(1.10)
	0.19***	0.17***	-1.32***	3.24***	4.09***
Target Termination Fee	(3.48)	(3.39)	(-2.80)	(2.58)	(3.01)
	0.36***	0.19**	-0.69**	1.19**	1.24**
Tender Offer	(5.20)	(2.07)	(-2.48)	(2.45)	(2.26)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes
Firm type Fixed Effects	Yes	Yes	Yes	Yes	Yes
Inverse Mills Ratios			Yes	Yes	Yes
N	9560	9560	9560	9560	8474
Adjusted/Pseudo R <sup>2</sup> (%)	30.86	37.51	25.28	6.54	7.81

	Dependent Variable				
	Top 10 Bidder Law Firm	Top 10 Target Law Firm	Withdrawn Offer	Takeover Premium in All Offers	Takeover Premium in Completed Deals
	(1)	(2)	(3)	(4)	(5)
Ton 10 Piddor I azu Firm		0.23***	-0.75***	4.33***	4.67***
Top 10 Bidder Law Firm		(4.37)	(-5.72)	(2.60)	(2.63)
Top 10 Target Law Firm	0.25***		0.36***	3.97***	4.43***
, 8	(4.96) 0.16**		(2.74)	(3.14)	(3.29)
Bidder Top Law Firm Industry	(2.29)				
	0.18**				
High Litigation Bidder Industry	(2.49)				
Target Top Law Firm Industry	, ,	0.12**			
rurger 10p Luw 1 triii muustry		(2.46)			
High Litigation Target Industry		0.15***			
	0.54***	(2.63) 0.09*	-0.25***	0.11	0.29
Гор 10 Bidder I-Bank	(4.42)	(1.87)	(-2.83)	(1.30)	(1.33)
	0.01	0.53***	-0.24*	1.21	0.90
Гор 10 Target I-Bank	(1.16)	(4.41)	(-1.72)	(0.64)	(0.44)
D ( D. 1.1	-0.04	-0.02	-0.05	-0.58	-0.38
Repeat Bidder	(-1.03)	(-0.58)	(-0.46)	(-0.40)	(-0.24)
ntra-Industry Offer x	0.84***	1.44***	1.87	2.32**	3.51***
Bidder Market Share	(3.11)	(2.78)	(1.63)	(2.32)	(2.88)
Ln(Offer Size)	0.29***	0.41***	0.41***	1.98***	2.21***
,	(5.31) -0.57***	(7.24) -0.06	(4.68) 3.22***	(2.90) -0.67	(3.19) -0.53
Hostile Offer	(-3.55)	(-0.52)	(4.10)	(-1.16)	(-1.06)
	-0.07	0.30***	2.43***	2.18***	2.09***
Multi-Bidder Offer	(-0.79)	(2.55)	(4.85)	(2.77)	(2.96)
Bidder Toehold	-0.03	-0.15**	0.50	-3.69***	-4.24***
oluder Toeriold	(-0.44)	(-2.00)	(1.36)	(-2.82)	(-3.33)
Stock Financing	0.01	0.01	0.01**	0.01	0.01
Accel I marientg	(0.13)	(0.74)	(2.04)	(0.35)	(0.16)
Target Termination Fee	0.17***	0.09*	-1.53***	3.50**	4.20***
	(3.38) 0.42***	(1.72) 0.11*	(-2.74) -0.73**	(2.25) 1.08***	(2.55) 1.07**
Tender Offer	(6.06)	(1.65)	(-3.16)	(2.90)	(2.37)
(7.11	0.06***	0.12*	-0.33***	-1.78***	-1.54***
Ln(Bidder Size)	(4.43)	(1.82)	(-2.66)	(-4.25)	(-3.41)
Bidder ROA	0.23	0.01	-1.05**	1.20	2.08
oludei KOA	(0.86)	(0.04)	(-2.15)	(0.12)	(0.21)
ear Fixed Effects	Yes	Yes	Yes	Yes	Yes
ndustry Fixed Effects	Yes	Yes	Yes	Yes	Yes
Firm type Fixed Effects	Yes	Yes	Yes	Yes	Yes
Inverse Mills Ratios			Yes	Yes	Yes
N	6311	6311	6311	6311	5564
Adjusted/Pseudo R <sup>2</sup> (%)	28.60	34.06	29.23	5.31	5.25

<sup>\*, \*\*, \*\*\*</sup> denote significantly different from zero at the 10, 5 and 1 percent level respectively.

 ${\bf Table~5} \\ {\bf Top~Bidder~and~Target~Law~Firms~and~Offer~Outcomes:~Using~Law~Firm~Market~Shares}$ 

The table presents two-step Heckman regression coefficients and in parentheses associated *t*-statistics (or *z*-statistics in the case of probit or logit regressions) based on standard errors which are robust to heteroskedasticity and adjusted for industry clustering. In a first step, a probit regression is estimated for the likelihood of observing the employment of a *Top Bidder (Target) Law Firm Market Share* above the sample median *Bidder (Target) Law Firm Market Share*. The instrumental variables used are *Bidder (Target) Top Law Firm Industry* and *High Litigation Bidder (Target) Industry*. The Inverse Mills' ratios estimated from the first-step regressions are used in the second-step regression where the dependent variable is *Withdrawn Offer* or *Takeover Premium in All Offers* or *Takeover Premium in Completed Deals*. The sample period is from 1990 through 2008. All variables are defined in the Appendix.

		D	ependent Varial	ole	
	Pr (Top Bidder Law Firm=1)	Pr (Top Target Law Firm=1)	Withdrawn Offer	Takeover Premium in All Offers	Takeover Premium in Completed Deals
	(1)	(2)	(3)	(4)	(5)
Bidder Law Firm Market Share		0.31***	-0.16***	0.70***	0.90***
Diane I I I I I I I I I I I I I I I I I I I		(4.09)	(-4.87)	(3.59)	(4.36)
Target Law Firm Market Share	0.41***		0.11***	0.52**	0.50**
	(5.67) 0.16**		(2.93)	(2.53)	(2.27)
Bidder Top Law Firm Industry	(2.30)				
	0.22***				
High Litigation Bidder Industry	(3.13)				
Town of Town Fred Late	()	0.16**			
Target Top Law Firm Industry		(2.37)			
High Litigation Target Industry		0.15**			
riigh Litigution Turget Industry		(2.25)			
Bidder I-Bank Market Share	0.56***	0.20**	-0.12***	0.15	0.14
Diuder 1-Durk Warket Share	(5.46)	(4.53)	(-2.75)	(1.12)	(0.90)
Target I-Bank Market Share	0.09	0.52***	-0.01	-0.10	-0.26
Till ger I Zillin Ivilliner eviline	(1.56)	(5.53)	(-1.25)	(-1.13)	(-1.50)
Repeat Bidder	0.03	-0.11	-0.46***	-1.67	-1.22
•	(1.03) -0.03	(-1.29) 0.06*	(-2.56) -0.20***	(-1.58) 2.81***	(-1.15) 2.93***
Intra-Industry Offer	(-1.07)	(1.72)	(-2.56)	(2.82)	(2.67)
	0.28***	0.36***	0.29***	2.36***	2.47***
Ln(Offer Size)	(6.27)	(8.00)	(3.94)	(3.66)	(3.57)
	-0.82***	-0.39	2.82***	-1.27**	-1.52***
Hostile Offer	(-4.25)	(-1.15)	(3.09)	(-2.10)	(-2.79)
M In P. 11 Off	-0.20	0.31**	2.39***	2.60***	2.27**
Multi-Bidder Offer	(-1.59)	(2.57)	(4.27)	(2.59)	(2.29)
Bidder Toehold	-0.14**	-0.13*	0.41	-2.80***	-2.25***
blader Toerloid	(-1.92)	(-1.68)	(1.05)	(-2.55)	(-2.68)
Stock Financing	0.01	0.02	0.02***	0.01	0.01
Stock I marking	(1.49)	(1.51)	(2.64)	(0.94)	(0.92)
Target Termination Fee	0.42***	0.43***	-1.29***	3.47***	3.32**
8	(4.41)	(4.68)	(-2.59)	(2.77)	(2.18)
Tender Offer	0.50***	0.32**	-0.69**	1.79**	1.24**
	(3.98)	(2.83)	(-2.50)	(2.36)	(2.15)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes
Firm type Fixed Effects	Yes	Yes	Yes	Yes	Yes
Inverse Mills Ratios			Yes	Yes	Yes
N	9560	9560	9560	9560	8474
Adjusted/Pseudo R <sup>2</sup> (%)	38.55	39.48	25.25	6.72	8.00

<sup>\*, \*\*, \*\*\*</sup> denote significantly different from zero at the 10, 5 and 1 percent level respectively.

#### Table 6 Subsample Analysis of Offer Outcomes

Panels A, C, E and G (B, D, F and H) report the average offer outcomes for offers without a *Top 10 Bidder Law Firm* (*Top 10 Target Law Firm*), versus those advised by at least one *Top 10 Bidder Law Firm* (*Top 10 Target Law Firm*). Offers are segregated into *Hostile* and non-*Hostile* offers in panels A and B, by *Offer Size* being above and below the median *Offer Size* of \$100 million: *Large Offers* and *Small Offers* in panels C and D, by *Bidder Size* being above or below \$1 billion: *Large Bidders* and *Small Bidders* in panels E and F, by whether an offer is a *Single-bidder* offer or a *Multi-bidder* offer in panels G and H. The sample period is from 1990 through 2008. All variables are defined in the Appendix.

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	Non-Hosi	tile Offers	Hostile Offers		
	Without a Top 10 Bidder Law Firm	With a Top 10 Bidder Law Firm	Without a Top 10 Bidder Law Firm	With a Top 10 Bidder Law Firm	
Number of Offers	7042	2219	268	31	
Withdrawn Offer (%)	10.30	6.17***	75.75	67.74*	
Takeover Premium in All Offers (%)	30.07	37.78***	33.03	38.20*	
Takeover Premium in Completed Deals (%)	28.87	37.89***	15.24	28.26*	

#### Panel B

	Non-Hostile Offers		Hostile Offers	
	Without a Top 10 Target Law Firm	With a Top 10 Target Law Firm	Without a Top 10 Target Law Firm	With a Top 10 Target Law Firm
Number of Offers	7159	2102	234	65
Withdrawn Offer (%)	8.66	11.51***	71.37	87.70***
Takeover Premium in All Offers (%)	30.11	38.05***	31.52	40.93*
Takeover Premium in Completed Deals (%)	29.13	38.04***	14.45	38.04*

#### Panel C

	Small Offers		Large Offers	
	Without a Top 10 Bidder Law Firm	With a Top 10 Bidder Law Firm	Without a Top 10 Bidder Law Firm	With a Top 10 Bidder Law Firm
Number of Offers	4529	295	2781	1955
Withdrawn Offer (%)	10.69	0.33***	15.97	8.03***
Takeover Premium in All Offers (%)	27.83	41.00***	33.98	37.31**
Takeover Premium in Completed Deals (%)	25.57	41.12***	34.21	37.31**

#### Panel D

	Small Offers		Large Offers	
	Without a Top 10 Target Law Firm	With a Top 10 Target Law Firm	Without a Top 10 Target Law Firm	With a Top 10 Target Law Firm
Number of Offers	4651	173	2742	1994
Withdrawn Offer (%)	9.93	13.29*	11.85	13.84**
Takeover Premium in All Offers (%)	27.87	49.42***	34.04	37.16**
Takeover Premium in Completed Deals (%)	25.85	48.09***	34.40	37.17**

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	Small Bidders		Large Bidders	
	Without a Top 10 Bidder Law Firm	With a Top 10 Bidder Law Firm	Without a Top 10 Bidder Law Firm	With a Top 10 Bidder Law Firm
Number of Offers	2089	338	2458	1427
Withdrawn Offer (%)	17.19	9.47***	9.89	7.91**
Takeover Premium in All Offers (%)	38.99	38.05	32.25	39.12***
Takeover Premium in Completed Deals (%)	37.70	38.25	31.87	39.15***

#### Panel F

	Small Bidders		Large Bidders	
	Without a Top 10 Target Law Firm	With a Top 10 Target Law Firm	Without a Top 10 Target Law Firm	With a Top 10 Target Law Firm
Number of Offers	2063	364	2551	1334
Withdrawn Offer (%)	15.41	20.05**	7.53	12.30***
Takeover Premium in All Offers (%)	39.42	36.55	32.97	38.22***
Takeover Premium in Completed Deals (%)	37.84	37.42	32.74	38.29**

#### Panel G

Twice G	Single-Bidder Offers		Multi-Bidder Offers	
	Without a Top 10 Bidder Law Firm	With a Top 10 Bidder Law Firm	Without a Top 10 Bidder Law Firm	With a Top 10 Bidder Law Firm
Number of Offers	6900	2055	410	195
Withdrawn Offer (%)	10.30	3.89***	52.93	40.00**
Takeover Premium in All Offers (%)	29.23	36.35***	46.04	52.94*
Takeover Premium in Completed Deals (%)	27.91	36.51***	55.16	60.35*

#### Panel H

	Single-Bidder Offers		Multi-Bidder Offers	
	Without a Top 10 Target Law Firm	With a Top 10 Target Law Firm	Without a Top 10 Target Law Firm	With a Top 10 Target Law Firm
Number of Offers	7040	1915	353	252
Withdrawn Offer (%)	8.74	9.19	48.73	48.81
Takeover Premium in All Offers (%)	29.26	36.76***	48.05	48.56
Takeover Premium in Completed Deals (%)	28.20	36.58***	56.60	57.84

<sup>\*, \*\*, \*\*\*</sup> denote significantly different from the other cohort at the 10, 5 and 1 percent level respectively.

# **Appendix** Definitions of Variables

Offer Outcomes	Description  Data Source: Thomson Financial's SDC Mergers and Corporate Transactions database
Withdrawn Offer	An indicator variable that takes the value of 1 for withdrawn acquisition offers and 0 otherwise.
Takeover Premium in All Offers	The price per share paid by a bidder for a public target firm's shares relative to the target's pre offer-announcement stock price 1 week prior to the announcement date.
Takeover Premium in Completed Deals	The price per share paid by an acquirer in completed deals for a public target firm's shares relative to the target's pre offer-announcement stock price 1 week prior to the announcement date.
Offer Characteristics	Description  Data Source: Thomson Financial's SDC Mergers and Corporate Transactions database
Intra-Industry Offer	An indicator variable that takes the value of 1 when the bidder and target firms are from the same industry (using the 2-digit SIC code) and 0 otherwise.
Offer Size	The value of the transaction (in \$), which is the total value of consideration paid by the acquirer for the target, excluding fees and expenses.
Hostile Offer	An indicator variable set equal to 1 for hostile bids and 0 otherwise.
Multi-Bidder Offer	An indicator variable set equal to 1 for offers involving competing bidders, and 0 otherwise.
Bidder Toehold	An indicator variable set equal to $1$ for offers where a bidder had a toehold in the target firm before the announcement date, and $0$ otherwise.
Stock Financing	The percentage of the total offer that is in stock.
Tender Offer	An indicator variable set equal to 1 for tender offers, and 0 otherwise.
Target Termination Fee	An indicator variable set equal to 1 for offers with a termination fee provision payable by target firms to bidders, and 0 otherwise.

Firm Features	Description  Data Source: Thomson Financial's SDC Mergers and Corporate Transactions,  CRSP, and Quarterly Compustat database
Bidder Size	The market value of equity as at the end of the quarter immediately before an offer announcement for public bidder firms.
Bidder ROA	The return on assets, measured as the ratio of net income to total assets as at the end of the quarter immediately before an offer announcement.
Repeat Bidder	An indicator variable set equal to 1 for bidder firms that have bid before in the 1987-2008 period, and 0 otherwise.
Bidder Market Share	The market share by sales of a public bidder firm in the industry of its main area of business, in the year prior to the year of the bid.
Bidder (Target) Industry Concentration	Bidder (target) industry concentration by sales as measured by the Herfindahl index in the year prior to the year of the bid.
Bidder (Target) Top Law Firm Industry	An indicator variable that takes the value of 1 in the current year for the 2-digit SIC codes of top 10 industries in which the bidder (target) firm hired a top 10 bidder (target) law firm, but did not hire a top 10 bidder (target) investment bank in the past 3 years.
High Litigation Bidder (Target) Industry	An indicator variable that takes the value of 1 in the current year for the 2-digit SIC codes of top 10 industries where an M&A bid has been litigated in the past 3 years.
Bidder's (Target's) Prior Top Law Firm	An indicator variable that takes the value of 1 if the bidder (target) firm hired a top 10 law firm, but did not hire a top 10 investment bank in its most recent prior M&A offer as a bidder (target) in 1987-2008 period.
Law firm/Investment Bank Prominence	Description  Data Source: Thomson Financial's SDC Mergers and Corporate Transactions database
Top 10 Bidder (Target) Law Firm (I- bank)	An indicator variable that takes the value of 1 if any of the legal advisors (financial advisors) advising the bidder (target) is in the top 10 annual league table rankings of bidder (target) legal advisors (financial advisors) based on the value of M&A offers that a bidder (target) law firm (investment bank) advised on, in the previous year (to avoid any look-ahead bias). League tables are separately calculated for bidder and target financial and legal advisors. Specialty Delaware litigation counsels are not considered in law firm league tables.
Bidder (Target) Law Firm (I-bank) Market Share	The prior 3-year rolling window lead bidder (target) law-firm (I-bank) market share of the legal (financial) advisory business. Each law firm (I-bank) is given full credit for each offer for which it provides advisory services. Specialty Delaware litigation counsels are excluded for law firms. We focus on "lead" bidder (target) law firms (I-banks) defined as the one with the highest market share, when more than one law firm (I-bank) is advising the bidder (target) in a deal.