Shareholder Litigation in Mergers and Acquisitions

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ABSTRACT:

Using hand-collected data, we examine the targeting of shareholder class action lawsuits in merger & acquisition (M&A) transactions, and the associations of these lawsuits with offer completion rates and takeover premia. We find that M&A offers subject to shareholder lawsuits are completed at a significantly lower rate than offers not subject to litigation, after controlling for selection bias, different judicial standards, major offer characteristics, M&A financial and legal advisor reputations as well as industry and year fixed effects. M&A offers subject to shareholder lawsuits have significantly higher takeover premia in completed deals, after controlling for the same factors. Economically, the expected rise in takeover premia more than offsets the fall in the probability of deal completion, resulting in a positive expected gain to target shareholders. However, in general, target stock price reactions to bid announcements do not appear to fully anticipate the positive expected gain from potential litigation. We find that during a merger wave characterized by friendly single-bidder offers, shareholder litigation substitutes for the presence of a rival bidder by policing low-ball bids and forcing offer price improvement by the bidder.

Keywords: M&A Offers, Shareholder Class Action Lawsuits, Announcement Period Return, Deal completion rate, Takeover premium, Price Revision, Controlling Shareholder Squeeze-outs, Selection bias control.

JEL Classification Code: G34

1. Introduction

Merger and acquisition (M&A) activity has transformed the global business landscape in its pursuit of economic gain. Nonetheless, public announcements of M&A proposals are associated with a non-trivial number of target shareholder class action lawsuits against their boards of directors. In these suits, it is generally alleged that target firm directors breached their fiduciary duties to their shareholders by agreeing to sell the company for too low a price. To further understand the causes of this litigation and to determine whether shareholder litigation significantly protects shareholder value, we examine this form of litigation in the relatively recent fifth U.S. merger wave (1993-2001). Using hand-collected data, we document a number of factors that influence the likelihood of target shareholder class action lawsuits and then explore the economic impacts of such litigation on M&A offer outcomes, specifically, offer completion rates and takeover premia. We believe that this is the first study to carefully investigate these questions.

Litigation is the subject of numerous empirical studies in the law literature. Cox and Thomas (2009), Thomas and Thompson (2010) and Choi (2004) provide surveys of the findings of earlier studies of securities fraud class actions, which have advanced our understanding of the issues surrounding this form of litigation. Unfortunately, M&A litigation is only incidentally covered in these class action litigation studies, representing a small portion of all such suits.

Empirical analysis of the effects of M&A lawsuits is also rather sparse in the financial economics literature. In an early study, Jarrell (1985) reports that target managements litigate in roughly a third of all takeover attempts. Rosenzweig (1986) examines a sample of unsuccessful hostile tender offers and finds that in several cases a bid is defeated either directly or indirectly as a result of relief granted by the court. Both studies, however, predate the important development in the mid-1980s of the widespread use of Shareholder Rights Plans (poison pills) as takeover defenses. Prior to that time, experienced takeover practitioners routinely

recommended that target companies file litigation to stop or delay unwanted tender offers (Wachtell, 1979). But since the adoption of poison pills, target initiated litigation is a much less common defensive strategy. Poison pills enable target boards to block unwanted offers or to force bidders to negotiate with target boards without the need for target initiated litigation. Indeed, only 2% of all lawsuits are initiated by targets in our sample period. This makes the relevance of these earlier studies to the current environment doubtful. Shareholder class action lawsuits form the vast majority of M&A lawsuits in our more recent sample period, and they are the focus of our study.

Using hand collected data on lawsuits related to every U.S. M&A transaction involving public targets during 1999 and 2000 (a representative period for studying M&A litigation in the fifth merger wave, as argued in the next section), we first document that about 10% of all M&A offers result in shareholder class action lawsuits. Exploring the types of bids likely to trigger litigation, we find that shareholder litigation is significantly more likely to occur in

(a) larger offers (for two potential reasons: larger offers may stem from empire building objectives, and lawsuits may be the most efficient mechanism for settling disputes when more dispersed shareholders in large firms are involved), hostile offers (that raise questions about board entrenchment motives), and tender offers (that are often associated with unsolicited bids and which can trigger special bidder obligations under the Williams Act);

(b) offers with prior bidder shareholdings in a target (that can antagonize entrenched target managers), rival bidders (that can create disputes regarding which bid is in the best interests of shareholders), and target paid termination fees (that can trigger challenges over the preclusive nature of large fees under the Unocal judicial standard); and

(c) offers involving relatively more cash financing (that can trigger strict Revlon duties for target boards of directors, and also can be used to expropriate wealth from the minority target shareholders by controlling shareholders), top-tier target and bidder legal advisors (more likely

in legally complex deals) and controlling shareholder squeeze-outs (where dominant shareholders can craft deal terms in their favor, which can adversely affect minority shareholders).

M&A activity in the fifth U.S. merger wave is one in which the vast majority of offers involved a single friendly bidder. Thus, in the absence of bidder competition, a key question is whether target shareholder litigation substitutes for the presence of a rival bidder, and polices low ball offers, leading to improved terms in completed deals? Examining the full sample of M&A offers, we find the deal completion rate is significantly lower and takeover premia in completed deals are significantly higher for litigated offers.

To alleviate the concern that litigation could appear to be associated with certain deal outcomes simply because litigation occurs more frequently in certain types of offers, we examine various sub-samples of offers differentiated by alternative measures of offer complexity (that can affect offer outcomes). We find that the deal completion rate is significantly lower for litigated offers, when we examine only (a) larger offers (defined as those with above-median offer size that often elicit more scrutiny and resistance), (b) offers that involve top target law firms or top bidder law firms (legally complex offers that could benefit from top legal expertise), (c) offers by bidders that have more entrenched management (firms that are more likely to indulge in unprofitable empire-building acquisitions), and (d) controlling shareholder squeeze-outs (for which the judicial standard of scrutiny is most stringent). Takeover premia are significantly higher in litigated offers when we separately examine (a) larger offers, (b) hostile offers, (c) single or competing bidder offers, (d) squeeze-out offers by controlling shareholders, (e) deals involving top legal advisors, or (f) deals involving more entrenched target managers.

While the subsample results are reassuring, nonetheless, we carefully control for self-selection, deals falling under different judicial standards and offer features that can affect deal outcomes in our multivariate analysis. The first issue is controlling for selection bias. However,

all the offer characteristics that we examine can be argued to be related to one or both of the deal outcome variables, invalidating their use as instruments for both deal outcomes, under the exclusion requirement for standard endogeneity adjustments. To overcome this problem, we construct instruments that are based on bidder and target industries that recently experience relatively greater M&A litigation activity. Economically, the choice of our instruments is justified because industries that have recently attracted substantial M&A litigation are more likely to continue to attract litigation in future. However, there is no compelling reason to expect past industry associations with litigation to be related to current M&A deal outcomes, once we control for current offer characteristics and the current deal litigation indicator. Statistically, we fail to reject the null hypothesis that our instruments are uncorrelated with the error terms of the M&A outcome equations. Hence, our instruments satisfy the exclusion requirement.

The second issue is the effects of the Unocal/Revlon judicial standard used in many acquisitions and that of the much stricter Weinberger judicial standard used generally in controlling shareholder squeeze-outs. Given the differences in judicial standards across M&A deal types, we carefully control for shareholder squeeze-out offers and cash financed offers, to better understand how shareholder litigation affects M&A offer outcomes.

The third issue is that several deal characteristics are related to deal completion and takeover premia, and hence we need to control for them. Completion rates are significantly lower for hostile and multiple-bidder offers, but significantly higher for offers with target termination fees, tender offers and intra-industry offers. Deal completion rates are among the highest for controlling shareholder squeeze-out offers relative to other M&A offer types because a controlling shareholder can unilaterally insure that a deal is successfully completed, simply by advising a target board of directors to approve a merger transaction and then voting his controlling block of shares in favor of the transaction. Takeover premia are significantly higher for offers involving competing bidders and offers with termination fees. Consistent with

Krishnan and Masulis (2012), we find that top-tier target legal advisers are associated with significantly higher premia in completed deals, but significantly lower completion rates (as they can help a target employ more effective defensive tactics)[1], than non-top tier target law firms. On the other hand, top-tier bidder law firms, as well as both top bidder and target investment banks, are associated with significantly higher deal completion rates.

We document several findings that are not obviously predicted by legal precedence. We find that even after controlling for M&A financial and legal advisor expertise, judicial standards, offer characteristics that are significantly associated with deal outcomes, industry and year fixed effects and adjusting for endogeniety, offers subject to shareholder lawsuits are completed at a significantly lower rate, but at a significantly higher average takeover premium than the remaining offers not subject to litigation. The economic effects of litigation are such that while the probability of deal completion falls by 7.8%, takeover premia in completed deals increases by about 30%,[2] after controlling for other offer features. Thus, the expected rise in the takeover premia more than offsets the fall in the probability of deal completion, resulting in a positive expected gain to target shareholders in offers potentially subject to shareholder litigation.

However, we find that, in general, target stock price reactions to bid announcements do not appear to fully anticipate the positive expected gain from potential litigation. We conjecture that this is the case because although the announcement period *CAR* will incorporate the probability of litigation and deal completion, this is based on public information available at that time. Even the filing of the lawsuit usually does not disclose additional information. However, as the litigation proceeds, the defendants are forced to disclose private

[1] For example, Wachtell Lipton, a top-tier law firm is credited with inventing the poison pill for a client (Costa, 2005).
[2] The average takeover premium in completed litigated and non-litigated deals is about 59% and 43% respectively, resulting in the percentage increase of 30% due to litigation after controlling for the effect of other features (see section 3).

information to the lawyers for the target shareholders that can often result in bid revision and/or a settlement.

Our finding that litigation raises expected takeover premia supports the premise that litigation generally leads to higher bid premia as bidders raise their bids in response to target shareholder claims of unacceptably low offer prices, in an effort to gain target board and shareholder support for the bid (Thompson and Thomas, 2004). More importantly, we show litigation is an important monitor of target shareholder value, even after controlling for different judicial standards applied to different types M&A transactions. We show that the offer price revision (defined in terms of the initial offer price relative to the final offer price) is significantly higher for offers that are litigated compared to offers that are not, especially in single-bidder offers (see Section 3.3). Further, we show that litigation, on average, is associated with significant increases in takeover premia in follow-up bids, even when there is a single-bidder (see Section 3.4). Thus, we find that litigation significantly affects the bidding process.

The remainder of the paper is organized as follows. The next section details our sample selection procedure and describes our data, Section 3 conducts extensive univariate and multivariate analyses of the associations between M&A litigation and outcomes, and Section 4 concludes.

2. Data and Descriptive Statistics

To examine the effects of shareholder litigation challenging M&A offers announced during the fifth merger wave period, we focus on the 1999-2000 period for several reasons. First, the number of M&A transactions that occur during this time frame is reasonably representative of the period since 1995 (Thompson, 2010). Further, our sample is broadly representative of deals in the fifth merger wave encompassing the 1993-2001 period, and there are no overtly abnormal features in this sample period that could drive our results. For example, (a) the

average transaction value for our sample is $1.12 billion, as compared to the average of the $1.99 billion number for the 1998-2001 period reported in Moeller, Schlingemann and Stulz (2005), alleviating concerns that large deal litigation is driving our results; (b) the average deal completion rate in our sample is 79.4%, which is similar to the 79% completion rate reported for the 1989-1998 period in Bates and Lemmon (2003); (c) the average takeover premium in our sample is 40.5% for all offers (44.1% for completed deals) which is similar to the 45% average premium reported in Betton, Eckbo and Thorburn (2009) for 1990-2002, who use the same takeover premium computation method; and (d) the average announcement period CAR for the target firm in our sample is 20.09%, which is similar to the 7-day abnormal announcement period return of 22.16% for the period 1988-2000 recorded in Officer (2003).

Second, the legal rules related to mergers and acquisitions litigation were relatively settled during this time and have remained so since. The most influential Delaware judicial decisions in the mergers and acquisitions area, Weinberger, Unocal and Revlon, were decided more than a decade earlier. The Private Securities Litigation Reform Act (PSLRA) had been enacted in 1995 and had already changed the manner in which federal securities class actions were litigated. An important federal statute passed in 1998, the Securities Litigation Uniform Standards Act, pre-empted many state court securities fraud claims, but expressly exempts state court M&A litigation.[3] Finally, by using this sample period, we are able to employ the most complete dataset of M&A litigation compiled to date (see Section 2.1 below).

We focus our investigation on public targets because prior research indicates that virtually all representative shareholder litigation challenging mergers and acquisitions transactions is filed against public companies and not against private companies (Thompson

[3] Delaware law has subjected tender offers to less intrusive judicial review, as opposed to mergers, since the mid-1990s [Solomon v. Pathe Communications Corp., 672 A.2d 35 (Del 1996)]. While the effect on controlling shareholder cash-outs often is traced to the interaction of this doctrine with a subsequent Delaware decision on short-form mergers in 2001 (Subramanian, 2007), we check the association of controlling shareholder squeeze-outs via tender offers with the probability of lawsuit settlements in our sample, and find that this interaction term is indeed negatively related to the probability of lawsuit settlements. So our finding (not reported in this paper) suggests that the trend began earlier, and hence our 1999-2000 period does not miss this judicial trend.

and Thomas, 2004). Moreover, we analyze takeover premia as an important deal outcome, and they are available only for public targets. We examine U.S. target companies because pending mergers and acquisitions litigation must be disclosed in their SEC filings under the U.S. securities laws, whereas foreign companies usually are not required to make such filings and furthermore, they are unlikely to voluntarily disclose the existence of pending litigation.

2.1 Litigation Cases and Variables

Our M&A litigation dataset is carefully hand collected as described below. We first collect all M&A litigation filed in the Delaware Chancery Court during 1999 and 2000. Using this Court's electronic filing system, we compiled all complaints and other relevant documents filed for every M&A case brought in the Delaware Chancery Court. Next, we include all litigation challenging M&A transactions in the Federal and other state courts. Unfortunately, most other states do not have electronic filing systems and they also have many different courts in which a case can be filed. Those few state courts that do have electronic filing, and the PACER system for federal courts, do not classify M&A cases separately from other forms of civil litigation. As a result, we are unable to systematically use court websites to electronically access data on M&A related cases as we did in Delaware. Instead, for this portion of the sample, we rely on companies' federally mandated securities law disclosures to determine whether litigation is filed concerning their M&A activities.[4]

Our search procedure is to examine all target (and if necessary bidder) SEC filings on and after the announcement date of a proposed M&A transaction. Item 103 of Regulation S-K, the SEC's hub for disclosure in these situations, requires companies to "[d]escribe briefly any material pending legal proceedings..." to which the Company is a party. Thus, we search all target (and if necessary bidder) Form 10-K, Form 10-Q, Form 8-K, Form S-1, Schedule 14A,

[4] These filings are found in the EDGAR database and are publicly available on the SEC's website (sec.gov). Full coverage begins on January 1, 1996.

Schedule 14D9, Schedule TO and other filings, for each M&A transaction that occur over our sample period. We supplement this search with a Lexis-Nexis database search for press releases or other announcements relating to the transaction, in each case looking for announcements of deal litigation. If we do not find disclosures or news reports within two months of the bid announcement date that litigation was filed challenging the transaction, then we coded the transaction as not generating litigation. This is consistent with earlier research finding that almost all M&A litigation is filed within one month of the first public announcement of the transaction (Thompson and Thomas, 2004).

While we believe this to be the best search procedure that is currently possible for identifying M&A litigation, we recognize that only "material" litigation must be disclosed in companies' federal securities law filings. Materiality, as specified in Item 103, is a legal term of art that different lawyers may interpret in different ways. It only requires disclosure of information if "there is a substantial likelihood that a reasonable shareholder would consider it important" [TSC Industries, Inc. v. Northways, 426 U.S. 438 (1976)]. This standard could be interpreted by lawyers as permitting firms not to disclose M&A litigation in certain circumstances. Thus, we cannot be sure that we have all the M&A cases filed in courts outside of the Delaware Chancery Court; only that we have all material M&A cases (as interpreted by the attorneys that prepared the companies securities law filings) in those courts. To assess the potential size of this bias, we estimated the likelihood of litigation for Delaware firms and Non-Delaware firms for all deals in our sample, and find that state of incorporation is not statistically significant. As we are sure that we have found all Delaware litigation, and there is no reason *a priori* to believe that deals involving Delaware corporations are more likely to generate litigation than deals involving non-Delaware firms, we view this evidence as consistent with the claim that any potential sample bias is insignificant.

Further, for material legal proceedings, Regulation S-K requires companies to disclose the name of the court in which the proceedings are pending, the date the case was commenced, the names of the principal parties to the case, and a description of the facts underlying the claim and relief sought. In some cases, companies chose to comply with this obligation by disclosing not only summaries of the allegations of cases filed, but also copies of the actual complaints filed in the cases. However, the level of disclosure is frequently quite incomplete when compared to the requirements of item 103 in regulation S-K. As a result, we supplement our search of companies' securities filings by (a) enlisting the aid of librarians to contact each court individually to request any additional information that we needed concerning the case and its outcome, (b) writing letters to all of the attorneys of record that we could identify in each case, asking them to provide us with certain pieces of missing information or documents for the cases that they were involved in, and (c) using a number of different databases to supplement the information that we have on each suit: the PACER system for federal cases, state electronic filing systems that have them, and Lexis Court Link service, which is a for-profit service that permits retrieval of dockets and certain other information for some federal and state cases.

We end up with an initial sample of 373 lawsuits of all types for M&A offers announced in our sample period. We use the following variables pertaining to M&A lawsuits in our analysis: (a) *Shareholder Litigation*, an indicator variable that takes the value of 1 for offers in which an M&A related shareholder class action lawsuit is filed before the offer outcome (deal completion or withdrawal) is realized and 0 otherwise (we use the terms "litigation" or "litigated offers" to refer to these lawsuits), (b) *Delaware Suit,* an indicator variable for Delaware Chancery Court cases (because given its preeminent position, commentators have argued over whether this court provides a more favorable forum for plaintiffs), and (c) *Federal Suit,* an indicator variable for suits filed in federal district courts.

In our initial sample of litigation cases, the vast majority, about 87%, are shareholder class action suits. About half of the cases are Delaware suits and less than a tenth are Federal suits. The number of bidder and target lawsuits is very small because, as noted above, the evolution of the combination of anti-takeover mechanisms like poison pills and staggered boards already generate long delays in hostile bidders' ability to rapidly acquire a target company, thereby decreasing the value that targets derive from filing bid delaying litigation. The number of derivative suits is also small because, as Thompson and Thomas (2004) note, shareholders prefer to bring class actions to challenge mergers and acquisitions transactions to avoid the additional procedural barriers that are raised in derivative suits. Thus, we focus on M&A shareholder class action lawsuits in this study.

Moreover, we can also check whether target shareholders rationally try and maximize target shareholder wealth via shareholder litigation. Class action lawsuits are filed by plaintiffs and their attorneys on the basis of publicly available information, usually contained in the target company's disclosure statements. This means that at the time of the filing of the suit, there may be no new information revealed to the market in the lawsuit. However, promptly after filing the case, the plaintiffs will be able to demand private information from the defendants as part of the litigation process. Based on this private information, the defendants and the plaintiffs will either choose to negotiate a settlement of the case, go to court and seek relief from the judge or dismiss the case as having no value. The announcement of any of these actions will reveal to the market new information and affect target shareholder wealth.

2.2 Offer Outcomes, Control Variables and the Final Sample

The M&A offer outcomes that we examine are: (a) *Completed Offer*, an indicator variable that takes a value of 1 for completed offers and 0 otherwise, (b) *Target CAR*, the three-day cumulative abnormal return (over and above the value-weighted CRSP index return for the

same period) around announcement date for the target firm, and (c) *Takeover Premium-All Offers,* the percentage premium paid by a bidder for target shares relative to the target's pre-offer announcement stock price 41 days prior to the initial announcement date of the bid,[5] to control for any anticipated premium effects prior to the announcement (Betton, Eckbo and Thorburn, 2009). Noting that on average target stock prices decline around offer termination announcement dates (Safieddine and Titman, 1999) since target shareholders do not realize the takeover premium in these cases, we also examine *Takeover Premium in Completed Deals,* the percentage premium paid in completed deals for target shares relative to the target's pre-offer announcement stock price, measured 41 days prior to the initial bid announcement date, again following Betton, Eckbo and Thorburn (2009).

We control for the following offer characteristics that can influence M&A offer outcomes: (a) *Intra-Industry Offer*, an indicator variable for when the bidder and target firms are from the same industry (defined at the 2-digit SIC code level), (b) *Offer Size*, the value of the transaction (in $ billion), as measured by the total consideration paid by the acquirer, excluding fees and expenses (Moeller, Schlingemann and Stulz, 2004), (c) *Hostile Offer*, an indicator variable set equal to one for hostile bids as reported in the SDC database, (d) *Multiple-Bidder Offer*, an indicator variable set equal to one for offers involving two or more competing bidders, (e) *Stock Financing*, the percentage of the total offer price that is paid in stock, or alternatively, *Cash Financing*, the percentage of total offer price that is paid in cash, (f) *Target Termination Fee*, an indicator variable set equal to one for offers where a termination fee is payable by a target to a bidder,[6] (g) *Tender Offer*, an indicator variable set equal to one for tender offers by a bidder for target shares, (h) *Bidder Minority Stake*, an indicator variable for where the bidder holds a target share toehold position between 5% and 50% prior to the bid, and (i) *Controlling Shareholder*

[5] We also check results with alternative definitions of takeover premia (see Section 3.2.4).
[6] Alternatively, we analyze the dollar amount of target termination fee.

Squeeze-outs, an indicator for deals where the bidder has 50% or more of the voting rights in a target firm before the acquisition announcement.

The reasons for including these control variables in our analysis are based on the prior literature. Prior research documents that intra-industry mergers are an increasing proportion of all M&A transactions (Andrade, Mitchell and Stafford, 2001) perhaps due to their less severe information asymmetry problems and more reliable realization of synergies. Economic deal complexity can be positively correlated with the size of the transaction (Servaes and Zenner, 1996). Larger deals are also economically more important deals involving larger firms, often reflecting a bidder management's empire building motives. Hostile bids tend to be more difficult to complete than friendly bids.[7] Offers with multiple bidders are generally more difficult to complete than single-bidder offers (Bradley, Desai and Kim, 1988).

Stock financed deals can involve greater challenges for bidders (and their advisors) since stock-based acquisitions can be alleged to be market timed and can be undermined by weak stock performance (Loughran and Vijh, 1997), and thus, they can be more difficult to complete. On the other hand, cash deals are more complex from a legal point of view. Since the establishment of "Revlon duties" by Delaware courts in the mid-1980s, directors of target companies considering a cash offer (and some stock offers where the deal would produce a controlling shareholder in the combined entity) have the responsibility to obtain the highest short-term shareholder value (Coates and Subramanian, 2000).[8] Further, expropriation from the minority target shareholders by majority shareholders is more likely when cash rather than equity is used as the form of payment leading to the application of the strict Weinberger judicial standard if these deals are litigated.

Bates and Lemmon (2003) and Officer (2003) report that target-payable termination fee provisions are associated with higher deal completion rates as well as higher takeover premia.

[7] Hostile offers generally involve target resistance and rival bids (Bebchuk, Coates, and Subramanian, 2002).
[8] Because of multicollinearity, we include *Stock Financing* or *Cash Financing* in our regression analysis, but not both.

Coates and Subramanian (2000) argue that such lockup provisions change deal completion rates. Tender offers can trigger special bidder obligations and potential liability under the Williams Act (Klein and Coffee, 2000). Target shareholder gains can be affected by target management incentives to be acquired, which can be significantly different for hostile tender offers as compared to friendly mergers (Martin and McConnell, 1991; Cotter, Shivdasani and Zenner, 1997). Finally, bidders with toeholds can have a greater ability to obtain favorable deal outcomes including substantial control benefits (Officer, 2003), but toeholds are also viewed as aggressive bidder actions that tend to antagonize entrenched target managers and make successful deal completions more difficult (Betton, Eckbo and Thorburn, 2009).

The annual league-table ranks of bidder and target financial advisors (investment banks) and legal advisors (law firms) are taken from Thomson Financial's Mergers and Corporate Transactions database. Annual league table rankings of investment advisors and legal advisors are based on the total value of all M&A offers that a financial or legal advisor is associated with, scaled by the value of all M&A offers occurring that year. League tables are separately calculated for bidder and target financial and legal advisers. Each advisor is given full credit for each offer for which it provides advisory services. Following Krishnan and Masulis (2012), we separate top tier investment banks and law firms from other financial and legal advisors to investigate the influence of these top tier advisors on M&A offer outcomes. Whenever at least one law firm (investment bank) associated with the bidder (target) is in the top-10 league tables in the year prior to the offer announcement (to avoid look-ahead bias), the indicator variable *Top Target (Bidder) Law Firm* takes a value of one, and is zero otherwise. Likewise, *Top Bidder (Target) Bank* is an indicator variable that takes a value of one when a bidder (target) financial advisor is a top-10 bidder (target) investment bank in the prior year's league table rankings, and is zero otherwise. Appendix A lists top-10 target and bidder law firms and investment banks represented in order of league-table ranking for each year of our sample. The top-10 target

(bidder) law firms have a combined market share of 74% (63%) in 1999 and 80% (80%) in 2000.[9] The top-10 target (bidder) investment banks have a combined market share of 80% (77.5%) in 1999 and 88% (87%) in 2000.

Each shareholder lawsuit is associated with an M&A offer (and its features) in Thomson Financial's SDC Mergers and Acquisitions database. We discard offers that do not contain necessary data on offer outcomes, offer advisors, and offer characteristics detailed above. Following Moeller, Schlingemann and Stulz (2004), we require the number of calendar days between the announcement and completion dates to be bounded between zero and 1000. After including all remaining non-litigation offers that satisfy the above data requirements, we have 2512 distinct offers announced during our sample period 1999-2000 with all the requisite information.

Table 1A reports year-by-year as well as overall sample descriptive statistics of shareholder class action lawsuits in our final sample. Interestingly, 259 offers, or a little over 10% of all transactions in our sample, are *Shareholder Litigation* offers. About half the cases are filed in Delaware, and only about 6% in are filed in Federal district court. These descriptive statistics are not significantly different across the two years.

Table 1B shows that, overall, over 79% of our sample of deals are successfully completed at an average premium of over 44% above the stock price 41 days before the offer.[10] The average takeover premium for all deals whether completed or not (based on the final offer price) is not significantly different at over 40%. The average announcement period abnormal stock return for

[9] We also examine results excluding specialty Delaware counsels that tend to primarily handle Delaware litigation work in corporate control contests, and are not transactional law firms *per se*. Based on information in the Martindale-Hubbell database, there are 5 large specialty Delaware litigation counsels: Richards Layton, Morris Nichols, Young Conaway, Potter Anderson, and Morris James. Of these, two firms -- Richards Layton and Morris Nichols -- have large enough M&A market share to qualify as lead target law firms in some offers, and as top 10 target law firm in some years. When we exclude specialty Delaware counsels in top tier target law firm rankings, Cleary Gottlieb and Davis Polk replace Richards Layton and Morris Nichols in 1999, and Cleary Gottlieb and Fried Frank replace Richards Layton and Morris Nichols in 2000.

[10] This is similar to the 45% average premium reported in Betton, Eckbo and Thorburn (2009) who use the same takeover premium computation method.

the target firm is 20%. In line with the major characteristics of the fifth merger wave, multi-bidder offers, and non-friendly offers (hostile and unsolicited offers) comprise only about 4% of our sample of deals. About 4% of all deals are controlling shareholder squeeze-outs. A controlling shareholder can unilaterally insure that a deal is completed by having the controlled target's board of directors propose a merger transaction and then voting its controlling share interest in favor of it. But, because courts analyze such transactions using the most demanding judicial scrutiny (Thompson and Thomas, 2004), takeover premia can be higher for such deals. Therefore, in our analysis of the association between shareholder litigation and deal outcomes, it is important to statistically control for majority shareholder squeeze-outs or to exclude this subsample from the analysis.

3. Litigation, Offer Features and Outcomes

3.1 Univariate Analysis

In this section, we present descriptive statistics on the frequencies and means of M&A offer features and outcomes for offers with and without shareholder litigation challenging the M&A offer. We examine the full sample, as well as several subsamples segregated by other important potential determinants of offer outcomes to check whether the associations of litigation with M&A offer outcomes are robust.

The first two columns of Table 2A examine all offers in our sample, and show that shareholder class-action lawsuits are significantly more likely to arise in larger offers, hostile offers, multiple-bidder offers, and tender offers. Litigation is significantly more common for offers where the bidder has a prior toehold in the target (both controlling shareholder stake and minority stake) or where the transaction includes a target termination fee provision. The purchase prices in litigated offers also involve a higher percentage of cash payments. Offers that

involve litigation are completed at a significantly lower rate, but at a significantly higher average takeover premium than offers that do not involve litigation.

In untabulated results, we note that the average takeover premium in failed deals of 26.6% is significantly lower than that for successfully completed deals. The average takeover premium in litigated failed deals at 33.5% is significantly higher than that of non-litigated failed deals, but significantly lower than that for litigated completed deals (59.5%). The two implications of this result are: (a) litigation did not raise the takeover premium sufficiently in failed deals, and (b) there are costs to target shareholders, in terms of offer price not realized, in failed bids (Safieddine and Titman, 1999; Betton, Eckbo, Thorburn, 2008).

Controlling shareholder squeeze-outs result in more frequent litigation because they involve conflict of interest transactions. Hence, we examine if litigation continues to be significantly associated with offer features and outcomes in this subsample, in the last two columns of Table 2A. The difference from the full sample results is that controlling squeeze-outs where shareholder litigation is expected entail a significantly more positive announcement period stock price reaction for the target firm in anticipation of target shareholder gains that could result from the demanding judicial scrutiny in such cases. As with the full sample, controlling shareholder squeeze-out offers that are subject to litigation have a significantly lower probability of deal completion and significantly higher takeover premia.[11]

Larger offers can reflect a bidder management's empire building motivations and elicit stiffer resistance from targets. Larger offers may also involve more dispersed shareholders in larger firms, for whom lawsuits may be the most efficient mechanism for settling disputes. The first two columns of Table 2B examine the associations of litigation with offer features and outcomes for only large offers (defined as those greater than or equal to the median offer size in

[11] Our sample includes 76 bids involving dual-class-share target firms (using data from Andrew Metrick's web site), of which 2 are coded as controlling shareholder bids. Recognizing that majority shareholding may not be controlling shareholding in a dual-class-share firm, we re-coded these 2 offers as not being controlling shareholder squeeze-outs Our results continue to be robust.

our sample, which is $80 million). The associations of litigation with offer features and offer outcomes are consistent with those for the full sample.

One of the important drivers of M&A outcomes is whether an acquisition bid is hostile or friendly.[12] The last two columns of Table 2B examine the associations of litigation with offer features and outcomes for 107 non-friendly offers, comprising 40 offers classified as "Hostile" in Thomson Financial's SDC database, and 77 offers classified as "Unsolicited" (with some classified as both). While most results are consistent with those of the full sample, two results stand out: (a) litigation in non-friendly offers are significantly associated with greater stock financing, implying bidder stock valuation disagreements, and (b) offer completion rates for non-friendly offers are lower than that for the full sample, yet litigation is associated with a significantly *higher* offer completion rate, which indicates that litigation can facilitate favorable revisions in deal terms.

It is also noteworthy that there are only 2 hostile offers (coded as such in the SDC database) that entail target termination fee provisions. If we examine only the unsolicited offers, then target termination fee provision is significantly more prevalent in unsolicited offers that are subject to litigation, compared to those that are not. This is consistent with the results reported in Bates and Lemmon (2003), which imply that, although target termination fee provisions are relatively rare in hostile offers (but not non-existent), they are more prevalent in litigated offers and unsolicited offers.

Table 2C reports similar descriptive statistics for offers segregated by whether competing bidders exist. While litigated offers entail a significantly lower rate of deal completion and higher takeover premia in both subsamples, interestingly these results are statistically significant in the single-bidder subsample, showing that litigation serves as a monitor of shareholder value in the absence of bidder competition. Litigated offers also entail a

[12] Armour and Skeel (2007) use Thomson Financial's SDC platinum M&A database in their analysis of hostile takeover litigation in the U.S over the 1990-2005 period and find litigation in approximately 34% of these deals.

significantly lower completion rate and higher takeover premia for offers involving top target and bidder law firms (used as proxies for legal complexity of offers) in Table 2D.

Next, we examine the associations of takeover defenses with deal completion and bid premia. More entrenched managers may have weaker incentives to operate target firms efficiently when protected by more extensive anti-takeover provisions, while acquiring company managements protected by more antitakeover provisions are more likely to indulge in unprofitable empire-building acquisitions. Bebchuk, Cohen, and Ferrell (BCF, 2009) construct an Entrenchment Index (E-Index) based on the 6 most important features of the 24 governance provisions in the Gompers, Ishii, and Metrick (GIM, 2003) index.[13] We are able to determine the BCF E-Index values for 708 target firms and 712 bidder firms in our total sample of 2512 firms.[14] The median BCF E-Index score in our sample (and, more generally, for all firms) is 2. We segregate firms into high (low) E-Index bidder and target firms, indicating more (less) protected bidders and targets based on a firm having an E-Index level greater than (less than or equal to) the median E-Index score of 2.

Table 2E examines the associations of litigation for offers involving high E-Index target or bidder firms. These associations are similar to those found earlier for all offers (presented in the first two columns of Table 2A), except that (a) the announcement period stock price reaction for target firms is significantly lower for offers made by dictatorial bidders that are expected to be litigated perhaps because such offers entail a lower probability of deal completion and target shareholders realizing the premium; and (b) the difference between deal completion rates

[13] These are staggered boards, limits on shareholder bylaw amendments, supermajority requirements for mergers, supermajority requirements for charter amendments, poison pills and golden parachutes.

[14] The BCF E-Index data is taken from Lucian Bebchuk's web site. Following the usual convention, we assume that during the years between consecutive publications, firm governance provisions are the same as in the previous year.

(takeover premium) for bids with litigation and bids without litigation is not statistically significant when we examine high E-Index targets (bidders) only.[15]

Overall, Table 2 shows that shareholder class action lawsuits are more prevalent in certain types of offers, namely larger offers, hostile offers, and with certain types of deal structures, namely target termination fee provisions and higher cash payments, and they are also associated with significantly different offer outcomes – offer completion rate and takeover premium - than non-litigated offers. However, in general, the announcement period target stock price reaction is not significantly different for offers that are subject to shareholder litigation versus offers that are not. We conjecture that this is the case because although the announcement period *CAR* will incorporate the probability of litigation, this is based on public information available at that time. Usually, even the filing of the lawsuit usually does not disclose additional information. However, as the litigation proceeds, the defendants are forced to disclose information that can often result in offer price revision.

But since M&A deal completion rates and takeover premia, on average, differ for offers segregated by deal features, we need to control for these deal features to more reliably determine the associations between litigation and offer outcomes, which we explore next.

3.1.1 Correlations

To obtain more reliable evidence on the associations of litigation with deal outcomes, we use a multivariate setting to control for offer and litigation features, bidder and target advisor expertise, and for selection bias, which is described in the next section. As a first step, we examine the degree of correlation among our key explanatory variables. For example, M&A law

[15] We also segregate the firms into high (low) GIM bidder and target firms based on a firm having a GIM index level equal to or greater (less) than our sample median value of 9. We are able to determine the GIM index values for 708 target firms and 712 bidder firms from the IRRC database. We also segregate firms based on staggered board indicator only. In each case, the associations of litigation with offer outcome are qualitatively similar to those when we examine high E-Index target firms shown in Table 2E.

firm and investment bank selection can be influenced by offer complexity, and the probability of litigation is also likely related to offer complexity.

Table 3 reports the pairwise Pearson's correlations between our key explanatory variables. The table shows that hiring a top target law firm has a significant positive correlation with shareholder litigation. As expected, the hiring of top target and bidder legal and financial advisors are all significantly correlated with each other. The hiring of top target and bidder legal and financial advisors are also significantly correlated with incidences of a target termination fee provision. Yet, almost all of the correlations are less than 30%, which lessens concerns about potentially serious multicollinearity problems among key explanatory variables.

3.2 Multivariate Analysis

In all our multivariate analysis, we include β_Y, a vector of year fixed effects and β_I, a vector of 10 bidder industry sector fixed effects, based on the 10 Fama-French industry sectors. Since the explanatory variables and residuals may exhibit serial correlation because the sample includes multiple firm and industry observations, we use industry-clustered standard errors to produce more accurate confidence intervals that Petersen (2009) finds are well-specified in such situations. We also examine alternative specifications of each regression model, namely, with and without litigation variables, with and without potentially endogenous offer features, and with and without M&A legal and financial advisor effects, to ensure that our main results are robust. Finally, we control for endogeneity as explained below.

3.2.1 Probability of Litigation

Table 4A examines the probability of litigation in M&A offers, and reports regression coefficient estimates (and the associated *z* statistics in parenthesis) for different variants of the following general logit regression model:

$$\textit{Shareholder Litigation} = \beta_Y + \beta_I + \beta_1 \textit{Offer Size} + \beta_2 \textit{Intra-Industry Offer} + \beta_3 \textit{Hostile Offer} + \beta_4 \textit{Multiple-Bidder Offer} + \beta_5 \textit{Controlling Shareholder Squeeze-out} + \beta_6 \textit{Bidder Minority Stake} + \beta_7 \textit{Cash Financing} + \beta_8 \textit{Target Termination Fee} + \beta_9 \textit{Tender Offer} + \beta_{10} \textit{Top Target Law firm} + \beta_{11} \textit{Top Bidder Law firm} + \beta_{12} \textit{Top Target Investment Bank} + \beta_{13} \textit{Top Bidder Investment Bank} + \varepsilon. \quad (1)$$

Controlling shareholders may ensure higher deal completion rates, but minority shareholder legal claims are also much stronger in such bids, if litigated, because courts may use especially demanding judicial scrutiny (the Weinberger standard) in such cases. Hence to avoid confounding controlling shareholder squeeze-out effects with litigation effects, we examine litigation cases (a) after excluding controlling shareholder squeeze-out offers, or alternatively, or (b) including all shareholder litigation, but controlling for majority shareholder squeeze-outs using an indicator variable.

The first column of Table 4A reports estimates of a parsimonious specification of the above regression model that excludes potentially endogenous variables, using our full sample. The model estimates show that larger size offers, hostile bids, multiple bidder offers, and prior bidder stakes in targets are all associated with a higher probability of litigation. This finding is not unexpected since larger offers may stem from empire building objectives involving larger firms, and more dispersed shareholders for whom lawsuits may be the most efficient mechanism for resolving disputes; hostile deals raise issues of possible target board entrenchment, as well as a potentially more favorable standard of judicial review, at least in Delaware, under Unocal Corp. v. Mesa Petroleum Corp., 493 A.2d 946 (1985) or Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc., 506 A.2d 173 (1985); multiple bidders increase the possibility of disputes regarding which bidder's offer is in the best interests of shareholders; toeholds which can antagonize entrenched target managers and large shareholders (Betton, Eckbo and Thorburn, 2009), making litigation more likely; and finally, controlling shareholder squeeze-outs are given extra judicial scrutiny because of the inherent conflict of interest that a

controlling shareholder faces in setting the purchase price for minority investor shares [Weinberger v. UOP, 457 A.2d 701 (Del. 1983)]. As Subramanian (2007) notes, these transactions frequently spawn litigation.

The second column reports the results of the full regression specification. We find that litigation is significantly more likely in offers with a higher percentage of cash financing (as they are more likely to trigger strict Revlon duties that provide target shareholders with stronger legal claims, and also expropriation from the minority target shareholders by majority shareholders is more likely when cash rather than equity is used as the form of payment leading to the application of the strict Weinberger judicial standard if these deals are litigated), tender offers (which trigger special bidder obligations and more severe insider trading liability under the Williams Act), and target termination fee provisions, contrary to Coates (2009).[16] However, we use hand collected data in our study, unlike Coates who suggests that his conclusions "should be treated carefully" because of limitations of SDC data on litigation. We argue that the greater likelihood of litigation over deal breakup fees reflects judicial unwillingness to provide a bright line test for the appropriate level of deal breakup fees, and that they can be attacked as "preclusive" defenses under Unocal, so that shareholders have legal grounds to challenge the termination fees paid in virtually every deal, especially when the fee is high. Examining the level of target termination fees, we find that the average target termination fee is significantly higher at $106 million for offers that face litigation as compared to $49 million for offers that are not subject to litigation.[17] The mean target termination fee as a proportion of offer size is

[16] Coates (2009) uses data directly from Thomson Financial's SDC M&A database and finds that litigation is significantly more frequent in deals without termination fees and that M&A litigation reduces the likelihood of deal completion, but that this effect does not persist once he includes industry and year control variables.

[17] The mean and median target termination fee in our sample is $59 million and $ 10 million respectively, which are higher than the $35 million mean and $8 million median levels reported in Officer (2003) for the period 1988-2000, but as Bates and Lemmon (2003) note, the average termination fee has increased over the years.

significantly higher at 3.69% for offers that are subject to litigation compared to 2.93% for offers that are not.[18]

Finally, after controlling for various offer characteristics, we continue to find that top target and bidder law firms are associated with a significantly greater incidence of litigation: top legal advice is sought in litigious deals, particularly by target firms. The last two columns of Table 4A shows the associations of offer features and litigation, after excluding controlling shareholder squeeze-outs. It is comforting to note that the results discussed above continue to hold, which are also consistent with our earlier univariate statistics in Table 2.

As an additional sensitivity check of our results, in untabulated results, we include the initial offer price as an additional explanatory variable because low initial offer prices can also spawn litigation. Initial offer prices can be determined for 2362 offers (out of our total sample of 2512 offers). However, we find that, although as expected, initial offer price is negatively associated with the probability of litigation, the coefficient is not significant at the 10% level.

3.2.2 Announcement Period Target CAR

The first 2 columns of Table 4B report regression coefficients and associated *t*-statistics (in parenthesis) based on heteroscedasticity-consistent standard errors adjusted for industry clustering under two different specifications of the following regression model:

$$\begin{aligned} \textit{Target CAR} = \quad & \beta_Y + \beta_I + \beta_1\, \textit{Shareholder Litigation} + \beta_2\, \textit{Offer Size} + \\ & \beta_3\, \textit{Intra-Industry Offer} + \beta_4\, \textit{Hostile Offer} + \beta_5\, \textit{Multiple-Bidder Offer} + \\ & \beta_6\, \textit{Controlling Shareholder Squeeze-out} + \beta_7\, \textit{Bidder Minority Stake} + \\ & \beta_8\, \textit{Shareholder Litigation} \times \textit{Controlling Shareholder Squeeze-out} + \\ & \beta_9\, \textit{Delaware Suit} + \beta_{10}\, \textit{Stock Financing} + \beta_{11}\, \textit{Target Termination Fee} + \\ & \beta_{12}\, \textit{Tender Offer} + \beta_{13}\, \textit{Top Target Law Firm} + \beta_{14}\, \textit{Top Bidder Law Firm} + \\ & \beta_{15} \textit{Top Target Investment Bank} + \beta_{16}\, \textit{Top Bidder Investment Bank} + \varepsilon. \end{aligned} \qquad (2)$$

[18] This is based on difference of means *t*-test. Termination fees as a proportion of offer size ranges from 0.2% to 14.1% in litigated offers.

We include the interaction between *Shareholder Litigation* and *Controlling Shareholder Squeeze-out* because the judicial standard for majority shareholder squeeze-outs is most stringent for these offers.

For most deals, shareholders have a choice about where to file their lawsuit: in state court in the company's state of incorporation, in state court where the company is headquartered, or in federal district court in either of those two states. State court claims are based on allegations of breach of the target company's board of directors. If shareholders choose to file in federal court, then they must also add a claim under federal law that attacks the veracity or completeness of the target company's disclosures to their shareholders. Shareholders will try to select the court that can hear their strongest claims and/or that they believe will be most sympathetic to their claims. Therefore, we include *Delaware Suit* as an important control variable capturing the choice among the courts, because Delaware is the single most important state as the place of incorporation for a substantial majority of all publicly traded U.S. companies, and the Delaware Chancery Court, where all corporate cases in that state are filed, is the most important business trial court in the country (Thompson and Thomas, 2004).

The first column of Table 4B reports the results of a parsimonious regression specification that includes as controls only *Shareholder Litigation* and certain major offer characteristics that are not potentially endogenous variables, using our full sample. The results show that, consistent with our univariate results, anticipated shareholder litigation does not affect the announcement period market reaction for target firms, except in cases of majority shareholder squeeze-outs where the filing of shareholder litigation is most likely to lead to a positive settlement (Thompson and Thomas, 2004). These offers entail a significantly higher announcement period target stock price reaction because the strict judicial standards associated with such litigation are expected to yield target shareholder gains.

The full model estimates are presented in the last column of Table 4B and they show that in addition to the interaction terms between controlling shareholder squeeze-outs and shareholder litigation, tender offers and offers with target termination fee provisions also entail a significantly higher announcement period stock price reaction for the target firms, consistent with the results in Officer (2003). Thus, in general, the announcement period target stock price reaction is not significantly different for offers that are subject to shareholder litigation versus offers that are not, which may reflect the fact that the litigation discovery process takes time, so material new information is only expected to be revealed later in the ligation process.

3.2.3 Probability of Offer Completion

We next examine the associations of *Shareholder Litigation* with M&A offer outcomes and expected shareholder value. Although we control for offer characteristics and financial and legal advisor expertise, it is still possible for *Shareholder Litigation* to appear to be associated with certain deal outcomes simply because litigation occurs more frequently in certain types of offers where the observed outcomes are more likely. To control for this form of selection bias, we employ an instrumental variable (IV) simultaneous equations regression model, using limited information maximum likelihood (LIML) estimation (Juergens and Lindsey, 2009), where *Shareholder Litigation* is the endogenous covariate. An IV should have the properties that while it strongly predicts shareholder litigation, it is unrelated to the dependent variables (the deal outcomes) being examined –- *Completed Offer* or *Takeover Premium*.

All the offer characteristics that we examine can be argued to be related to one or both of the deal outcome variables, invalidating their use as instruments under the exclusion requirement. As an alternative approach, we use recent historical industry patterns to obtain valid IVs (Krishnan and Masulis, 2012). In particular, we define *High Litigation Bidder (Target) Industry* as an indicator variable that takes a value of 1 in the current year for the 2-digit SIC codes of top 10

bidder (target) industries where M&A offers are most frequently litigated over the past 3 years. To compute this indicator for year 1999, we use SDC's data for the 1996-1998 period. To compute this indicator for year 2000, we use our hand-collected litigation data for 1999 and the 1997-1998 data from SDC. We use *High Litigation Bidder Industry* **and** *High Litigation Target Industry* indicator variables as IVs. The simple correlation between these two variables over our sample period is only 27%, which justifies the use of both as IVs. We provide detailed economic and statistical justifications for the choice of these two variables as instruments, as well as examine an alternative version of these IVs, in Appendix C.

The last two columns of Table 4B report regression coefficients and associated *z*-statistics (in parenthesis) based on heteroscedasticity-consistent standard errors adjusted for industry clustering under two different specifications of the following IV- LIML model, where *Shareholder Litigation* is the endogenous covariate:

$$\begin{aligned} \textit{Completed Offer} = \quad & \beta_Y + \beta_I + \beta_1\, \textit{Shareholder Litigation} + \beta_2\, \textit{Offer Size} + \\ & \beta_3\, \textit{Intra-Industry Offer} + \beta_4\, \textit{Hostile Offer} + \beta_5\, \textit{Multiple-Bidder Offer} + \\ & \beta_6\, \textit{Controlling Shareholder Squeeze-out} + \beta_7\, \textit{Bidder Minority Stake} + \\ & \beta_8\, \textit{Shareholder Litigation} \times \textit{Controlling Shareholder Squeeze-out} + \\ & \beta_9\, \textit{Delaware Suit} + \beta_{10}\, \textit{Stock Financing} + \beta_{11}\, \textit{Target Termination Fee} + \\ & \beta_{12}\, \textit{Tender Offer} + \beta_{13}\, \textit{Top Target Law Firm} + \beta_{14}\, \textit{Top Bidder Law Firm} + \\ & \beta_{15} \textit{Top Target Investment Bank} + \beta_{16}\, \textit{Top Bidder Investment Bank} + \varepsilon. \end{aligned} \tag{3}$$

The third column of Table 4B reports the results of a parsimonious regression specification that includes as controls only *Shareholder Litigation* and certain major offer characteristics that are not potentially endogenous variables, using our full sample. Shareholder litigation is significantly associated with a higher probability of deal failure. The signs on the control variables are as expected, namely intra-industry offers are associated with a higher probability of deal completion, while the deal complexity variables -- hostile bids and multiple-bidder offers -- are associated with a lower probability of deal completion. Bidder pre-offer

minority equity stake is also significantly negatively associated with the probability of deal completion, consistent with bidder toeholds often being viewed as aggressive moves that tend to antagonize entrenched target managers, which make deal completions more difficult (Betton, Eckbo and Thorburn, 2009). The interaction effect of shareholder litigation in controlling shareholder squeeze-outs is not significant.

The full model estimates are presented in the last column of Table 4B and they show that shareholder litigation continues to be significantly associated with a higher probability of deal failure. We also find results consistent with Officer (2003) in that offers with target termination fee provisions and tender offers are associated with a higher probability of deal success. Top target law firms and shareholder litigation are both associated with a significantly higher probability of deal failure, whereas top bidder law firms and both top target and bidder investment banks (Krishnan and Masulis, 2012; Rau, 2000) are associated with a significantly higher probability of deal success relative to other less prominent advisors.[19] This evidence is consistent with the claim that top investment banks and top bidder law firms try to ensure that deals are completed,[20] whereas top target law firms try to negotiate the best terms in deals, thereby increasing the risk of deal failure.[21]

[19] When we reconstruct the top-10 target law firm league-table list after excluding specialty Delaware counsels, the results are very similar to the results reported in Table 4B.

[20] In a friendly deal, the typical banker sell side fee would be a flat fee plus an incentive fee dependent on the transaction closing. The incentive fee is, by far, the most important payment to bankers, in some instances 98% of their total fees, giving them a big incentive to get the deal done [Atheros Communications, Inc. Shareholder Litigation, 2011 Del. Ch. LEXIS 36 (Del. Ch. March 4, 2011)]. In a similar vein, the buy side banker's fees are normally derived largely from providing the financing for the acquisition, and they only earn them if the deal is completed [Del Monte Foods Company Shareholders Litigation, 2011 Del. Ch. LEXIS 30 (Del. Ch. February 14, 2011)]. Although most law firms work on an hourly basis, the top ones stress the importance of obtaining follow up business (to maintain or enhance their market shares). To this end, the compensation structure for lawyers (especially in top law firms) can provide incentives similar to those provided to the investment bankers.

[21] We examine one more specification (untabulated) that includes the potential endogenous offer features (financing method, termination fee provision and tender offer), but not the indicator variables capturing advisor pedigree, and continue to find that *Shareholder Litigation* is significantly associated with deal failure at the 1% significance level. The consistency of this finding across specifications provides comfort on the robustness of our main result.

3.2.4 Takeover Premium

The right two columns of Table 4C reports the regression coefficients and associated *t*-statistics (in parenthesis) based on heteroskedasticity-consistent standard errors adjusted for industry clustering, for different specifications of the IV-LIML model, where *Shareholder Litigation* is again the endogenous covariate. The model is the same as that presented in equation (2), except that *Takeover Premium-All Offers* is now the dependent variable.

The first column is based on the more parsimonious version of the model and it shows that shareholder litigation is associated with significantly higher takeover premia. Multiple-bidder offers, because of their competitive nature, and controlling shareholder stakes, because of the stronger legal position of minority shareholder claims in such offers, are both associated with significantly higher takeover premia.

The second column reports estimates for the full model and shows that shareholder litigation continues to be associated with significantly higher takeover premia. We also find results consistent with Officer (2003), specifically that offers with target termination fees and tender offers are associated with significant higher takeover premia. More stock financing is also associated with higher takeover premia, as potential market timing allegations or weak stock performance can result in higher target purchase prices. Finally, top target law firms are associated with a significantly higher takeover premia, consistent with the claims that top target law firms are successful in employing defensive strategies on behalf of their clients that raise the offer price bidders pay to acquire target companies.[22] Other top advisors are not associated with significantly higher takeover premia. The right two columns of Table 4C reports on the results

[22] When we reconstruct the top-10 target law firm league-table list after excluding specialty Delaware counsels, the results are very similar to the results reported in Table 4C.

for takeover premia in completed deals only, and shows that the results are qualitatively similar to those when we examine takeover premia for our full sample of successful and failed offers.[23]

Although our primary focus is on takeover premia measured relative to target stock price 41 days before the deal announcement to control for any anticipated premium effects around announcement date, we also find our results are robust to measuring takeover premia using target stock price 1 week or 4 weeks prior to the deal announcement.[24] Further, in our sample, about 7% of takeover premia in completed deals are negative, which is potentially troubling (Officer, 2003), as zero is likely to be an economically meaningful lower bound, and this is being violated in these cases. Hence, we also investigate the effect of placing a lower bound on takeover premia at zero and then re-estimate regression models of Table 4C using a Tobit model, which is appropriate when negative takeover premia are replaced by a value of zero. We find that our earlier results are robust, as *Shareholder Litigation* continues to have a significant positive association with takeover premia.

Instead of using percentage cash financing or percentage stock financing in our regression specifications, we use indicator variables for 100% cash and 100% stock financed deals (in which case, we can use both indicator variables in our regression specification). Our main results continue to be robust.

As a final robustness check, we note that there are 11 bidder initiated suits and 5 target initiated suits in our larger sample that that are not included in the shareholder class action data presented here. When we include these observations and take these special litigation cases into account with two additional indicator variables for bidder and target initiated suits, we find

[23] We examine one more specification (untabulated) that includes the potential endogenous offer features (financing method, termination fee provision and tender offer), but not the indicator variables capturing advisor pedigree, and continue to find that *Shareholder Litigation* is significantly associated with takeover premium both in all offers and in completed deals only at the 1% significance level. Again, the consistency of this finding across specifications provides further evidence of the robustness of our main result.

[24] The average takeover premium computed from stock price 4 weeks (1 week) before announcement is 38.5% (36.4%), both lower than that computed from stock price 41 days before announcement (40.5%).

that both these indicator variables are insignificantly associated with deal completion rate, and only the target initiated suit indicator variable is significantly and positively associated with takeover premia. Nevertheless, *Shareholder Litigation* continues to have a significant negative (positive) association with deal completion rate (takeover premia).

Overall, the results of our multivariate analysis confirm the univariate ones. Lawsuits are more prevalent in certain types of offers, namely larger offers, hostile offers and offers involving controlling shareholder squeeze-outs, and certain deal structures, namely deals with target termination fee provisions and higher cash payments. Moreover, lawsuits are associated with significantly lower deal completion rates and significantly higher takeover premia compared to non-litigated offers, even after controlling for endogeneity and other offer features.

Examining the economic effects of litigation on deal completion rates and takeover premia, we find that, after controlling for other offer features in the full model specification shown in Table 4, the probability of deal completion decreases by 7.88% when an M&A offer is subject to litigation. However, the average takeover premium in completed deals increases by 30.25% when an M&A offer is subject to litigation. Overall, the expected rise in the takeover premium more than offsets the expected fall in the deal completion probability implying that *Shareholder Litigation* raises the expected takeover premium of all proposed offers by 6.84%.[25] Alternatively, if we use the takeover premium computed based on stock price 1 week before announcement date taken from the SDC database, the average takeover premium in completed deals increases by 10% when an M&A offer is subject to litigation. Overall, *Shareholder Litigation* raises the expected takeover premium by 0.37%, again showing that the expected rise in the takeover premium more than offsets the expected fall in the deal completion probability. The difference in the results using takeover premium computed using stock price 41 days before

[25] The change in expected takeover premium is given by the change in deal completion probability multiplied by the expected takeover premium, conditional on an M&A offer not being subject to litigation plus the change in expected takeover premium multiplied by the probability of deal completion, conditional on shareholder litigation.

announcement and 1 week before announcement suggests the market anticipates a substantial portion of the takeover premium prior to the public announcement date. Nevertheless, on average, M&A shareholder litigation generates a net benefit for target shareholders in line with shareholders rationally trying to maximize shareholder wealth.

3.3 Litigation and Bid Revision

To better understand how the bidding process can be influenced by litigation (or anticipated litigation), we examine the frequency and size of offer price revisions, calculated as the percentage change in the initial offer price to final offer price, and the association of the bid increase with target shareholder initiated litigation. The litigation filing date is close to the offer announcement date: the mean (median) time in days between bid announcement and the filing of litigation in our sample is 28 (4) days. Initial offer prices can be determined for 2362 offers, of which the vast majority (2140 offers) has the same initial and the final offer prices.[26]

Table 5A compares the average bid price revision for *Shareholder Litigation* offers with that for non-*Shareholder Litigation* offers for the full sample as well as for various sub-samples of offers segregated by different measures of offer complexity. The first row shows that offers subject to shareholder litigation entailed a significantly higher bid price revision (at 2.42%) than offer not subject to shareholder litigation. The implication is that shareholder litigation is significantly associated with offer price revision. Shareholder litigation is also significantly associated with bid price revision when we separately examine only completed deals, controlling shareholder squeeze-outs, larger offers, and single bidder offers. Offer price revision is higher for litigated offers as compared to non-litigated offers, but not significantly so, for multiple-bidder offers and unfriendly offers, presumably because of the smaller sample sizes.

[26] This is in line with Betton, Eckbo and Thorburn (2009), who report that takeover premium increased by less than 2% on average, from initial premium to final premium for 1990-2002 period.

We also observe that the bid price revision is relatively large for litigated controlling shareholder squeeze-outs, hostile offers and multiple bidder offers.

Table 5B reports on the regression results of two specifications in which bid price revision is the dependent variable. Consistent with the univariate results, shareholder litigation is positively and significantly associated with bid price revision, as are controlling shareholder squeeze-out offers, controlling shareholder squeeze-outs that are litigated, hostile offers, and multiple bidder offers. The implication of these results is that shareholder litigation polices low-ball bids, and leads to improved offer prices.

3.4 Litigation and Takeover Premium Revisions in Subsequent Bids

There are 273 different target firms that are repeat targets in our sample, i.e., being involved as the target firm in more than one offer at different points in time, where the initial acquisition bids are partly or wholly unsuccessful, of which shareholder lawsuits are associated with 58 target firms. We find, in untabulated results, that the average percentage change in takeover premia (from initial bid to a subsequent bid) for offers involving repeat target firms is significantly higher for offers that are litigated in an initial bid, as compared to offers that are not (4.4% versus 0.10% respectively). The average (median) bid announcement to bid announcement time period in days is only 170 (107) days. Hence, it is quite plausible that, on average, shareholder litigation has a significant positive impact on takeover premia in the subsequent bid. Moreover, noting that shareholder litigation is present in only about 10% of all offers in our sample period (as opposed to a much higher percentage in more recent sample periods), we conjecture that frivolous lawsuits were much less common in our sample period and the effects of litigation correspondingly stronger, both in the current bid and in the subsequent bid.

4. Conclusion

In this study, we examine causes and effects of target shareholder litigation in U.S. mergers and acquisitions. We examine the fifth merger wave characterized largely by friendly single-bidder offers, and examine whether shareholder litigation substitutes for the presence of a motivated rival bidder, and whether it improves the terms of M&A offers.

Using carefully hand-collected data, we find that about 10% of all announced deals attract target shareholder litigation and that larger offers, hostile offers, offers involving more cash, termination fee provisions and controlling shareholder stakes in target firms all are positively related to the likelihood of a proposed M&A transaction attracting shareholder litigation. We are careful to control for the effects of Unocal/Revlon judicial standard and the much stricter Weinberger judicial standard to better understand the effect of a typical shareholder class action suit in improving target shareholder value. We find that M&A offers subject to shareholder lawsuits are completed at a significantly lower rate than offers not subject to litigation, after controlling for selection bias, differences in judicial standards, major offer characteristics, M&A financial and legal advisor reputation as well as industry and year fixed effects. Litigation also increases takeover premia significantly in completed deals, after controlling for these same factors. Economically, the expected rise in takeover premia more than offsets the fall in the probability of deal completion; that is, M&A litigation generates a positive expected gain to target shareholders. However, except for specific cases like controlling shareholder squeeze-outs, target stock price reactions to bid announcements do not appear to fully anticipate the positive expected gain from potential litigation.

We find that the offer price revision percentage is significantly higher for litigated offers compared to non-litigated offers, especially for single-bidder offers. We also find evidence to support the notion that litigation does not raise takeover premia sufficiently in failed deals; nevertheless target shareholders do bear the cost of not realizing positive takeover premia in

failed bids. Finally, we find evidence supporting the conclusion that litigation raises takeover premia in subsequent bids for the same target firm.

Our results demonstrate the importance of considering litigation's impact on the market for corporate control in any empirical research examining the determinants of M&A transaction outcomes. Further research in the area would benefit greatly from improved federal securities law disclosure requirements concerning deal litigation. In particular, the SEC should require target firms to disclose all pending litigation in M&A transactions as part of their Schedule 14d-9 filings required in tender offers, and Schedule 14A proxy statement disclosures to shareholders for mergers. Current requirements leave companies the option of not disclosing some cases. The SEC should create stronger incentives for compliance with its existing disclosure requirements, as we observe that many recent M&A corporate disclosures provide incomplete information about the litigation cases that they do disclose. This will ensure that investors are aware of all litigation that can have significant economic implications. This will also facilitate future research on litigation's effects on M&A activity by insuring that all cases can be found by researchers.

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Table 1
Sample Descriptive Statistics

Panel A reports the year-by-year as well as overall sample descriptive statistics for our sample of shareholder class action lawsuits filed challenging M&A offers announced during 1999-2000. Panel B reports the overall sample descriptive statistics of all M&A offers in our sample. All variables are defined in Appendix B.

Panel A

Offer Announcement Year	Number of Offers	Number of *Shareholder Litigation* Offers	Proportion *Shareholder Litigation*	Proportion *Delaware Suits*	Proportion *Federal Suits*
1999	1288	145	11.26%	47.59%	7.59%
2000	1224	114	9.31%	57.89%	4.39%
All Offers	2512	259	10.31%	52.12%	6.17%

Panel B

Number of Offers	Proportion *Majority Shareholder Squeeze-out* Offers	*Target Announcement Period CAR*	Proportion *Completed Offers*	Average *Takeover Premium* in All Offers	Average *Takeover Premium* in Completed Offers
2512	4.18%	20.09%	79.42%	40.53%	44.15%

Table 2
Offer Features and Outcomes: Univariate Analysis

Panels A, B, C, D and E report the average features and outcomes for offers that entailed shareholder litigation versus offers that did not, for our full sample as well as for various subsample of offers segregated by different measures of offer complexity. All variables are defined in the Appendix B. "N/A" denotes Not Applicable.

Panel A

	All Offers		Controlling Shareholder Squeeze-outs Offers only	
	Shareholder Litigation Offers	Non- *Shareholder Litigation* Offers	*Shareholder Litigation* Offers	Non- *Shareholder Litigation* Offers
Number of Offers	259	2253	44	61
Intra-Industry Offer (%)	40.54	46.69*	34.09	40.98
Offer Size ($ bn)	3.32	0.87***	0.59	0.43
Hostile Offer (%)	4.25	1.29***	4.55	1.64
Multiple-Bidder Offer (%)	9.65	3.60***	2.27	1.64
Controlling Shareholder Squeeze-outs (%)	16.99	2.71***	N/A	N/A
Bidder Minority Stake (%)	13.90	5.63**	N/A	N/A
Cash Financing (%)	63.21	43.79***	90.70	64.35***
Tender Offer (%)	27.41	18.33***	50.00	24.59***
Target Termination Fee (%)	54.05	32.58***	13.64	6.56*
Target CAR (%)	20.65	20.02	30.68	18.54**
Completed Deals (%)	71.04	80.38***	81.81	83.61*
Takeover Premium All Offers (%)	51.94	39.22***	47.18	38.84*
Takeover Premium in Completed Deals (%)	59.47	42.59***	56.32	43.05**

*, **, *** denote significantly different from *Shareholder Litigation* Offers at the 10, 5 and 1 percent level respectively.

Panel B

	Large Offers only		Non-Friendly Offers only	
	Shareholder Litigation Offers	Non- *Shareholder Litigation* Offers	*Shareholder Litigation* Offers	Non- *Shareholder Litigation* Offers
Number of Offers	200	1055	23	84
Intra-Industry Offer (%)	42.00	54.50***	56.52	41.67*
Offer Size ($ bn)	4.29	1.83***	6.69	0.71***
Hostile Offer (%)	3.00	1.14***	N/A	N/A
Multiple-Bidder Offer (%)	9.00	5.59**	34.78	28.57
Controlling Shareholder Squeeze-outs (%)	12.00	1.99***	13.04	2.38**
Bidder Minority Stake (%)	10.50	3.60***	17.39	15.47
Cash Financing (%)	61.60	38.97***	56.84	76.20**
Tender Offer (%)	26.50	22.36	34.78	28.57
Target Termination Fee (%)	64.00	52.22***	30.43	5.95***
Target CAR (%)	19.87	21.28	22.21	18.57
Completed Deals (%)	75.50	86.64***	39.13	15.48**
Takeover Premium All Offers (%)	52.17	45.27*	44.82	42.69
Takeover Premium in Completed Deals (%)	57.29	47.94**	58.69	31.11*

*, **, *** denote significantly different from *Shareholder Litigation* Offers at the 10, 5 and 1 percent level respectively.

Panel C

	Single Bidder Offers		Multiple Bidder Offers	
	Shareholder Litigation Offers	Non- *Shareholder Litigation* Offers	*Shareholder Litigation* Offers	Non- *Shareholder Litigation* Offers
Number of Offers	234	2172	25	81
Intra-Industry Offer (%)	39.32	46.27**	52.00	58.02
Offer Size ($ bn)	1.94	0.79**	16.30	2.95***
Hostile Offer (%)	3.42	1.06***	12.00	7.41
Multiple-Bidder Offer (%)	N/A	N/A	N/A	N/A
Controlling Shareholder Squeeze-outs (%)	18.38	2.76***	4.00	1.23
Bidder Minority Stake (%)	13.68	5.52***	16.00	8.64**
Cash Financing (%)	64.81	43.02***	48.26	64.23*
Tender Offer (%)	28.21	18.05***	20.00	25.93
Target Termination Fee (%)	53.42	32.09***	60.00	45.68*
Target CAR (%)	21.02	20.10	17.17	17.98
Completed Deals (%)	75.21	81.95***	32.00	38.27
Takeover Premium All Offers (%)	52.40	39.04***	47.64	44.11
Takeover Premium in Completed Deals (%)	59.44	42.60***	60.11	42.23*

*, **, *** denote significantly different from *Shareholder Litigation* Offers at the 10, 5 and 1 percent level respectively.

Panel D

	Top-10 Target Legal Advisor Offers only		Top-10 Bidder Legal Advisor Offers only	
	Shareholder Litigation Offers	Non- *Shareholder Litigation* Offers	*Shareholder Litigation* Offers	Non- *Shareholder Litigation* Offers
Number of Offers	126	297	83	369
Intra-Industry Offer (%)	37.30	56.23***	46.99	55.01
Offer Size ($ bn)	4.18	4.11*	6.58	2.83***
Hostile Offer (%)	3.97	1.01**	3.61	0.27***
Multiple-Bidder Offer (%)	10.32	8.08	12.05	4.88**
Controlling Shareholder Squeeze-outs (%)	18.25	2.36***	16.87	4.34***
Bidder Minority Stake (%)	16.67	4.71***	10.84	2.98***
Cash Financing (%)	56.45	37.17***	57.55	44.30**
Tender Offer (%)	18.87	23.91*	33.74	31.44
Target Termination Fee (%)	48.41	62.29***	63.86	60.70
Target CAR (%)	19.64	21.10	18.02	20.32
Completed Deals (%)	58.73	87.88***	83.13	91.87**
Takeover Premium All Offers (%)	50.46	44.38	57.35	45.48*
Takeover Premium in Completed Deals (%)	67.61	46.42**	62.89	47.53*

*, **, *** denote significantly different from *Shareholder Litigation* Offers at the 10, 5 and 1 percent level respectively.

Panel E

	High Target-E-Index Offers only		High Bidder-E-Index Offers only	
	Shareholder Litigation Offers	Non- *Shareholder Litigation* Offers	*Shareholder Litigation* Offers	Non- *Shareholder Litigation* Offers
Number of Offers	39	245	25	273
Intra-Industry Offer (%)	58.97	60.82	68.00	60.44
Offer Size ($ bn)	6.73	2.06**	4.92	1.14***
Hostile Offer (%)	2.56	1.63	0.00	0.36
Multiple-Bidder Offer (%)	20.51	5.71***	24.00	3.66***
Controlling Shareholder Squeeze-outs (%)	10.26	0.82***	12.00	4.76*
Bidder Minority Stake (%)	12.82	4.90**	8.00	1.83**
Cash Financing (%)	56.06	43.83	43.39	37.36
Tender Offer (%)	30.77	19.18*	24.00	19.41
Target Termination Fee (%)	69.23	43.67***	68.00	41.39***
Target CAR (%)	16.48	18.30	11.65	21.77**
Completed Deals (%)	79.49	83.27	76.00	85.71*
Takeover Premium All Offers (%)	68.51	38.84**	42.03	46.36
Takeover Premium in Completed Deals (%)	79.72	44.19**	46.19	48.57

*, **, *** denote significantly different from *Shareholder Litigation* Offers at the 10, 5 and 1 percent level respectively.

Table 3
Correlation Matrix

The table reports the pair-wise Pearson's correlations between select explanatory variables used in analysis.

	Shareholder Litigation	Top Target Law firm	Top Bidder Law firm	Top Target Investment bank	Top Bidder Investment bank	Stock Financing	Target Termination Fee
Top Target Law firm	0.2822						
Top Bidder Law firm	0.1205	0.2157					
Top Target Investment bank	0.1021	0.2329	0.3077				
Top Bidder Investment bank	0.1535	0.2741	0.2729	0.2499			
Stock Financing	-0.0492	0.1010	0.1081	0.1365	0.1072		
Target Termination Fee	0.1336	0.2207	0.2605	0.2807	0.2699	0.2298	
Tender Offer	0.0697	0.0256	0.1495	0.1395	0.0612	-0.2743	0.2323

Table 4
Offer Features and Outcomes: Multivariate Analysis

Table 4A reports the regression coefficients, and the associated *z* statistics in parenthesis based on heteroskedasticity-consistent industry-clustered standard errors, of logit regression explaining the probability of shareholder litigation, using two different data sample: including and excluding controlling shareholder squeeze-outs. The first 2 columns of Table 4B reports the OLS regression coefficients, and associated *t*-statistics based on heteroskedasticity-consistent industry-clustered standard errors explaining *Target CAR*, while the last 2 columns of Table 4B (Table 4C) reports the regression coefficients, and associated *z*-statistics (and *t*-statistics) based on heteroskedasticity-consistent industry-clustered standard errors, for IV model using the limited information maximum likelihood (LIML) estimation approach, explaining the probability of deal completion (magnitude of takeover premia in all offers and, alternatively, only in completed deals), where *Shareholder Litigation* is the endogenous covariate instrumented with *High Litigation Bidder Industry* and *High Litigation Target Industry*. Also reported are Pseudo R^2 values for logit regression specifications and Adjusted R^2 values for OLS regression specifications, and the number of M&A offers over which each regression specification is run. Included in the regressions as controls are β_Y, a vector of year fixed effects, and β_I, a vector of bidder industry fixed effects based on the 10 Fama-French industry classifications. All variables are defined in the Appendix B.

Panel A

	Dependent Variable: *Shareholder Litigation*		Dependent Variable: *Shareholder Litigation* (excluding Controlling Shareholder Squeeze-out offers)	
	(1)	(2)	(1)	(2)
Offer Size	0.04***	0.02**	0.03***	0.02**
	(3.65)	(2.21)	(3.62)	(2.07)
Intra-Industry Offer	-0.19	-0.17	-0.20	-0.21
	(-1.27)	(-1.04)	(-1.28)	(-1.25)
Hostile Offer	0.76**	1.02**	0.70*	0.98**
	(2.00)	(2.36)	(1.67)	(2.17)
Multiple-Bidder Offer	0.83***	0.67***	0.88***	0.64**
	(3.06)	(2.62)	(3.19)	(1.97)
Controlling Shareholder Squeeze-out	2.18***	2.32***	N/A	N/A
	(3.82)	(3.83)		
Bidder Minority Stake	0.93**	1.09**	0.80**	1.00**
	(2.28)	(2.53)	(2.27)	(2.47)
Cash Financing		0.01***		0.01***
		(4.47)		(4.25)
Tender Offer		0.04		0.29
		(0.21)		(1.34)
Target Termination Fee		1.06***		1.16***
		(3.05)		(3.32)
Top Target Law firm		1.48***		1.42***
		(3.80)		(3.95)
Top Bidder Law firm		0.30*		0.31*
		(1.65)		(1.66)
Top Target Investment Bank		0.13		0.09
		(0.67)		(0.05)
Top Bidder Investment Bank		0.30		0.32
		(1.58)		(1.61)
β_Y	Yes	Yes	Yes	Yes
β_I	Yes	Yes	Yes	Yes
N	2512	2512	2407	2407
Pseudo R^2 (%)	10.49	22.49	6.27	18.59

*, **, *** denote significantly different from zero at the 10, 5 and 1 percent level respectively.

Panel B

	Dependent Variable: *Target CAR*		Dependent Variable: *Completed Offer*	
	(1)	(2)	(1)	(2)
Shareholder Litigation	0.01	0.02	-0.40***	-0.98***
	(0.13)	(1.05)	(-2.64)	(-4.61)
Offer Size	-0.01	-0.01	0.01	0.01
	(-1.49)	(-1.23)	(1.54)	(0.58)
Intra-Industry Offer	-0.01	-0.01	0.54***	0.45***
	(-0.32)	(-0.28)	(4.09)	(3.70)
Hostile Offer	-0.01	-0.01	-2.74***	-2.65***
	(-0.05)	(-0.12)	(-3.36)	(-2.84)
Multiple-Bidder Offer	-0.02	-0.02	-2.06***	-2.60***
	(-0.55)	(-0.94)	(-4.36)	(-4.76)
Controlling Shareholder Squeeze-out	0.03	0.01	0.18	0.30
	(0.76)	(0.27)	(0.49)	(0.75)
Bidder Minority Stake	-0.01	0.01	-0.37*	-0.17
	(-0.38)	(0.03)	(-1.84)	(-0.80)
Shareholder Litigation x Controlling Shareholder Squeeze-	0.13***	0.12**	0.62	0.81
	(2.56)	(2.44)	(1.00)	(1.32)
Delaware Suits	0.01	0.01	0.14	0.09
	(0.31)	(0.21)	(1.36)	(0.93)
Stock Financing		-0.01		-0.01
		(-1.26)		(-0.92)
Tender Offer		0.06***		0.91**
		(3.41)		(2.54)
Target Termination Fee		0.05***		1.23***
		(3.08)		(3.18)
Top Target Law firm		0.01		-0.38***
		(0.16)		(-2.59)
Top Bidder Law firm		-0.03*		0.68***
		(-1.94)		(3.56)
Top Target Investment Bank		0.02		0.50**
		(1.06)		(2.46)
Top Bidder Investment Bank		0.02		0.44**
		(1.43)		(2.41)
β_Y	Yes	Yes	Yes	Yes
β_I	Yes	Yes	Yes	Yes
N	2512	2512	2512	2512
Adjusted/ Pseudo R^2 (%)	39.87	41.09	10.37	17.95

*, **, *** denote significantly different from zero at the 10, 5 and 1 percent level respectively.

Panel C

	Dependent Variable: *Takeover Premium-All Offers*		Dependent Variable: *Takeover Premium in Completed Deals*	
	(1)	(2)	(1)	(2)
Shareholder Litigation	4.18***	3.35**	4.62***	4.03***
	(3.68)	(2.41)	(4.05)	(3.83)
Offer Size	0.02	0.01	0.02	0.01
	(1.18)	(1.00)	(1.29)	(0.82)
Intra-Industry Offer	1.30	1.48	0.77	1.25
	(0.62)	(0.69)	(0.09)	(0.43)
Hostile Offer	1.78	1.73	-1.04	-0.61
	(1.15)	(1.09)	(-0.16)	(-0.09)
Multiple-Bidder Offer	1.60**	1.95**	2.09**	2.29***
	(2.11)	(2.38)	(2.41)	(2.86)
Controlling Shareholder Squeeze-out	1.55*	1.20*	1.51*	1.59*
	(1.68)	(1.64)	(1.64)	(1.76)
Bidder Minority Stake	-1.19	-1.06	-1.47	-1.25
	(-0.66)	(-0.49)	(-1.52)	(-1.43)
Shareholder Litigation x Controlling Shareholder Squeeze-	0.77	0.81	0.73	0.97
	(0.70)	(0.76)	(0.59)	(1.06)
Delaware Suits	-0.27	-0.78	-0.66	-0.04
	(-0.13)	(-0.38)	(-0.28)	(-0.02)
Stock Financing		0.12***		0.14***
		(2.70)		(2.86)
Tender Offer		0.81*		0.82*
		(1.84)		(1.83)
Target Termination Fee		1.58***		1.54***
		(3.24)		(3.11)
Top Target Law firm		2.45**		2.57**
		(2.15)		(2.45)
Top Bidder Law firm		-0.62		-0.70
		(-0.56)		(-0.55)
Top Target Investment Bank		1.09		1.34
		(1.05)		(1.07)
Top Bidder Investment Bank		-0.71		-0.71
		(-0.24)		(-0.53)
β_Y	Yes	Yes	Yes	Yes
β_I	Yes	Yes	Yes	Yes
N	2512	2512	1995	1995
Adjusted R^2 (%)	33.60	37.25	36.94	40.24

*, **, *** denote significantly different from zero at the 10, 5 and 1 percent level respectively.

Table 5
Bid Price Revision

Panel A reports the average bid price revision for offers for Shareholder litigation offers and non-Shareholder litigation offers for the full sample as well as for various subsample of offers segregated by different measures of offer complexity. Panel B reports the regression coefficients and associated *t*-statistics based on heteroskedasticity-consistent industry-clustered standard errors, for an IV model using the limited information maximum likelihood (LIML) estimation approach, explaining Bid Price revision, where *Shareholder Litigation* is the endogenous covariate instrumented with *High Litigation Bidder Industry* and *High Litigation Target Industry*. Also reported are Adjusted R^2 values for OLS regression specifications, and the number of M&A offers over which the regression specification is run. Included in the regressions as controls are $\boldsymbol{\beta}_Y$, a vector of year fixed effects, and $\boldsymbol{\beta}_I$, a vector of bidder industry fixed effects based on the 10 Fama-French industry classifications. All variables are defined in the Appendix B.

Panel A

	Shareholder Litigation Offers	Non- *Shareholder Litigation* Offers
All Offers	2.42%	0.30%***
Completed Offers only	3.00%	0.04%***
Controlling Shareholder Squeeze-out Offers only	8.44%	2.84%***
Large Offers only	1.95%	0.20%***
Non-Friendly Offers only	6.45%	5.52%
Single Bidder Offer only	2.03%	0.11%***
Multiple Bidder Offers only	6.03%	5.30%

*, **, *** denote significantly different from *Shareholder Litigation* Offers at the 10, 5 and 1 percent level respectively.

Panel B

	Dependent Variable: *Bid Price Revision*	
	(1)	(2)
Shareholder Litigation	1.04**	1.37**
	(2.02)	(2.11)
Offer Size	-0.01**	-0.01
	(-2.01)	(-0.77)
Intra-Industry Offer	0.05	-1.59
	(0.14)	(-0.86)
Hostile Offer	3.98***	2.35*
	(3.06)	(1.66)
Multiple-Bidder Offer	4.38***	3.25***
	(3.42)	(2.95)
Controlling Shareholder Squeeze-out	2.70***	1.78*
	(2.71)	(1.68)
Bidder Minority Stake	0.43	0.87
	(0.24)	(1.22)
Shareholder Litigation x Controlling Shareholder Squeeze-out	4.92***	2.43**
	(3.01)	(2.26)
Delaware Suits	-0.23	-1.71
	(-0.74)	(-1.56)
Stock Financing		0.06***
		(2.77)
Tender Offer		3.55***
		(2.58)
Target Termination Fee		1.21
		(1.37)
Top Target Law firm		1.92
		(0.74)
Top Bidder Law firm		-0.67
		(-1.09)
Top Target Investment Bank		0.35
		(0.14)
Top Bidder Investment Bank		0.58
		(0.24)
β_Y	Yes	Yes
β_I	Yes	Yes
N	2362	2362
Adjusted R^2 (%)	26.32	27.60

*, **, *** denote significantly different from zero at the 10, 5 and 1 percent level respectively.

Appendix A

The Panels below present the lists of the Top 10 Target and Bidder Law firms (legal advisors) and Investment Banks (financial advisors), based on the annual league-table ranks from Thomson Financial's SDC Mergers and Corporate Transactions database.

	Top-10 Target Law Firms		Top-10 Bidder Law Firms	
	1999	2000	1999	2000
1	Simpson Thacher	Simpson Thacher	Sullivan & Cromwell	Sullivan & Cromwell
2	Skadden Arps	Skadden Arps	Skadden Arps	Simpson Thacher
3	Wachtell Lipton	Shearman & Sterling	Simpson Thacher	Cleary Gottlieb
4	Sullivan Cromwell	Sullivan Cromwell	Shearman & Sterling	Skadden Arps
5	Dewey & LeBoeuf	Wachtell Lipton	Dewey & LeBoeuf	Davis Polk
6	Richards Layton	Dewey & LeBoeuf	Davis Polk	Shearman & Sterling
7	Shearman & Sterling	Morris Nichols	Wachtell Lipton	Dewey & LeBoeuf
8	Cravath Swaine	Freshfields Bruckhaus	Cravath Swaine	Wachtell Lipton
9	Fried Frank	Davis Polk	Fried Frank	Cravath Swaine
10	Morris Nichols	Richards Layton	Cleary Gottlieb	Freshfields Bruckhaus

	Top-10 Target Investment Banks		Top-10 Bidder Investment Banks	
	1999	2000	1999	2000
1	Goldman Sachs	Goldman Sachs	JP Morgan	Goldman Sachs
2	Morgan Stanley	JP Morgan	Merrill Lynch	Merrill Lynch
3	JP Morgan	Morgan Stanley	Morgan Stanley	JP Morgan
4	Credit Suisse	Merrill Lynch	Goldman Sachs	Morgan Stanley
5	Merrill Lynch	Credit Suisse	Citicorp	Credit Suisse
6	Citicorp	Citicorp	Credit Suisse	Citicorp
7	Lazard	Lazard	UBS	UBS
8	UBS	UBS	Deutsche Bank	Lazard
9	Lehman Brothers	Lehman Brothers	Lehman Brothers	Deutsche Bank
10	Dresdner Kleinwort	Deutsche Bank	Lazard	Dresdner Kleinwort

Appendix B

Definitions of Variables

Lawsuit Variables	*Description*
Shareholder Litigation	An indicator variable that takes the value of 1 for offers in which an M&A related shareholder class action lawsuit is filed before the offer outcome (deal completion or withdrawal) is realized and 0 otherwise.
Delaware Suits	An indicator variable for Delaware cases.
Federal Suits	As indicator variable for federal jurisdiction cases, as opposed to State jurisdiction cases.

Offer Variables	*Description*
Completed Offer	An indicator variable that takes the value of 1 for successfully completed acquisition offers and 0 otherwise.
Target CAR	The three-day cumulative abnormal return (over and above the value-weighted CRSP index return for the same period) around announcement date for the target firm.
Takeover Premium All Offers	The price per share a bidder pays for a target firm's shares relative to the target's pre offer-announcement stock price 41 days prior to the announcement date (adjusted for splits and dividends).
Takeover Premium in Completed Deals	The price per share paid by an acquirer in completed deals for a target firm's shares relative to the target's pre offer-announcement stock price 41 days prior to the announcement date (adjusted for splits and dividends
Bid Price Revision	The percentage change from the initial offer price to the final offer price.
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 $ billion), which is the total value of consideration paid by the acquirer for the target, excluding fees and expenses.

Larger Offer	Offers with Offer Size greater than or equal to the sample median offer size, which is $80 million.
Hostile Offer	An indicator variable set equal to 1 for hostile bids and "Unsolicited" offers, as reported in the SDC database and 0 otherwise.
Multiple-Bidder Offer	An indicator variable set equal to 1 for offers involving competing bidders, and 0 otherwise.
Controlling Shareholder Squeeze-out	An indicator variable set equal to 1 for offers where a bidder had a toehold of 50% or more in the target firm before the announcement date, and 0 otherwise.
Bidder Minority Stake	An indicator variable set equal to 1 for offers where a bidder had a toehold of 5% or more, but less than 50%, in the target firm before the announcement date, and 0 otherwise.
Stock Financing	The percentage of the total offer that is in stock.
Cash Financing	The percentage of the total offer that is in cash.
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.
High (Bidder) Target-E-Index	Indicator variable for Bidder (Target) firm whose BCF E-Index measure of anti-takeover provisions as at the time of offer announcement higher than the median score of 2 taken from Lucian Bebchuk's database, denoting the more protected bidder (target) firms.

M&A Intermediary Variables	*Descriptions*
Top Bidder (Target) Law Firm	An indicator variable that takes the value of 1 for a law firm that is in the top 10 annual league table rankings of bidder (target) legal advisors in the previous year (to avoid any look-ahead bias), based on the value of M&A offers that a bidder (target) legal advisor advised on. Each law firm is given full credit for each offer for which it provides advisory services. League tables are separately calculated for bidder and target legal advisers.

Top Bidder (Target) Investment Bank	An indicator variable that takes the value of 1 for an investment bank that is in the top 10 annual league table rankings of bidder (target) financial advisors in the previous year (to avoid any look-ahead bias), based on the value of M&A offers that a bidder (target) financial advisor advised on. Each investment bank is given full credit for each offer for which it provides advisory services. League tables are separately calculated for bidder and target financial advisers.

Instrumental Variables	*Descriptions*
High Litigation Bidder (Target) Industry	An indicator variable that takes a value of 1 in the current year for the 2-digit SIC codes of top 10 bidder (target) industries where that had the most number of M&A bids litigated in the past 3 years.
High Litigation Proportion Bidder (Target) Industry	An indicator variable that takes a value of 1 in the current year for the 2-digit SIC codes of top 10 bidder (target) industries where that had the most proportion of M&A bids litigated in the past 3 years.

Appendix C

Justifications for using High Litigation Bidder Industry and *High Litigation Target Industry as IVs*

The top 10 industries for which *High Litigation Bidder Industry* takes the value of 1 in 1999 are chemicals, machinery, electronics, transportation equipment (which are all found in Eckbo (1992) to be industries in which mergers are most often challenged), communications, utilities, banks, insurance, and financial companies, which are all regulated industries (Agrawal and Knoeber, 1996) where M&A regulatory or execution risk is naturally high because of more demanding regulatory requirements, and oil and gas, where there could be reserves valuation and environmental issues. The top 10 industries for which *High Litigation Target Industry* takes the value of 1 in 1999 are similar, except that transportation equipment is replaced by instruments, where there can be a high level of sensitive proprietary information, and financial services is replaced by business services, where a large number of similar size competitors exists. These are also the top 10 industries for which *High Litigation Bidder Industry* takes the value of 1 in 2000, except that one regulated industry, insurance, is replaced by another, financial services. The top 10 industries for which *High Litigation Target Industry* takes the value of 1 in 2000 are the same as those for which *High Litigation Bidder Industry* takes the value of 1 in 2000, except that financial services is replaced by heath care (where deals are generally fraught with technical, regulatory and commercial risks).

Thus, economically, the choice of *High Litigation Bidder Industry* and *High Litigation Target Industry* as instruments is justified because they are industries that have attracted substantial M&A litigation in the recent past and are more likely to attract litigation in future. However, there is no compelling reason to expect past industry associations with litigation to be related to our M&A deal outcome variables, in the presence of controls for current offer characteristics and whether the current deal is associated with litigation, other than through litigation itself.

Statistically, we examine the validity of the instruments by performing overidentification tests. The *F*-statistic for the joint significance of the two IVs is 13.7 for *Shareholder Litigation*, which is above the critical value of 10 recommended by Staiger and Stock (1997). The *Anderson-Rubin* statistic for overidentification results in insignificant *p*-values for either M&A outcome variable, namely *Withdrew* or *Takeover Premium*, after controlling for other major offer characteristics including *Shareholder Litigation*. Thus, we fail to reject the joint null that the IVs are uncorrelated with the error term and hence, they are correctly excluded from the second-stage equation. Therefore, the *High Litigation Bidder Industry* and *High Litigation Target Industry* indicators statistically satisfy the exclusion requirement of a valid instrument.

Alternative IVs

Andrade, Mitchell and Stafford (2001) examine merger waves across the decades and report that banking and telecommunications are two of the most active M&A industries in the 1990s. The top 10 industries that were most subject to M&A litigation, therefore, could also be industries where the number of M&A offers has been the highest in the years we examined. To control for merger waves, we use the top 10 bidder and target industries that had the highest *proportion* of M&A offers (subject to a minimum of 25 M&A offers) that were subject to litigation, as alternative IVs. If we do so, some of the above-listed industries get replaced by some others. For example, Oil and Natural Gas and Business Services are replaced by Hospitality and Durable Goods industries. We find that our main results continue to hold with shareholder litigation being significantly associated with probability of deal completion and takeover premia in completed deals, both at the 5% significance level.