

No Free Shop: Why Target Companies in MBOs and Private Equity Transactions Sometimes Choose Not to Buy 'Go-Shop' Options

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Abstract

We study the decisions by targets in private equity and MBO transactions whether to actively “shop” executed merger agreements prior to shareholder approval. Targets can negotiate for a 'go-shop' clause, which permits the solicitation of offers from other would-be acquirors during the “go-shop” window and may lower the termination fee paid by the target in the event of a competing bid. The decision to retain the option to shop is predicted by various firm attributes, including larger size and more fragmented ownership. Go-shops are not a free option. We exploit the impact of various characteristics of the firms’ legal advisory team and procedures on the probability of inclusion of a go-shop provision to establish a negative relationship between go-shop provisions and initial acquisition premia. Importantly, that loss to shareholder value is not offset by gains associated with new competing offers. We conclude that the increased-use of go-shops reflects excessive concerns about litigation risks, possibly resulting from lawyers’ conflicts of interest in advising targets.

Keywords: Private equity, management buyouts, mergers, acquisitions, offer premium, cumulative abnormal returns, conflicts, litigation risk, lawyers, merger agreements, go-shop, special committee.

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I. Introduction

The manner in which firms sell themselves in the market is an important, and little-studied, topic. Firms must decide whether to enter into an agreement with an acquiror as part of a bilateral discussion or as part of a broader “auction” process. Once they have chosen to do one or the other, they must decide how aggressively to continue to market themselves to other would-be acquirors prior to their shareholders’ vote on the acquisition. Firms, unlike commodities, are unique assets and are acquired as part of a costly process of investigation by potential acquirors. Interestingly, the process is not uniform; the decisions targets make about how to market themselves to acquirors, both before and after they enter into an acquisition agreement, vary greatly.

Legal constraints govern the duties of the board of directors in marketing targets in change of control transactions; however, targets enjoy substantial latitude in determining the contract structure through which they sell themselves. When a US public company agrees to be purchased by an acquiror in a change of control transaction requiring the approval of the target company shareholders, the transaction is announced publicly and the executed contract providing for the purchase (the merger agreement) is filed as an exhibit to Form 8-K filed with the Securities and Exchange Commission (SEC). In such a transaction, the board of directors of the target company must obtain the best transaction reasonably available to the company. This mandate is often expressed as the board of directors’ “*Revlon* duties” based on the 1986 Delaware case where the court held that in a “change of control” scenario “[t]he directors’ role changed from defenders of the corporate bastion to auctioneers charged with getting the best price for the shareholders at a sale of the company.”¹ *Revlon* does not require any particular procedure for sale of the company, but rather provides that if the target receives a competing bid after the execution of the merger agreement but before the target shareholders approve the transaction, the board of directors must consider the competing bid.

¹ *Revlon Inc. v. MacAndrews & Forbes Holdings, Inc.*, 506 A.2d 173, 182 (Del. 1986).

While the target board in a change of control transaction may choose not to market the company widely prior to the initial accepted acquisition offer, and may also contractually agree not to actively “shop” the target after the execution of the merger agreement, the target board of directors must evaluate bona fide offers made by competing acquirors.² It is for this reason that acquirors often contract for a fee to be paid by the target company in the event that the target board terminates the merger agreement to pursue the competing bid. These termination or “break-up” fees generally range between 3 and 5 percent of the transaction value of the target.

A go-shop provision in a merger agreement enables the investment bank financial advisor to the target company to actively solicit (i.e., “shop”) and negotiate with other potential acquirors (notwithstanding the executed merger agreement contract) with a reduced termination fee for a specified period of time generally ranging from 30 to 50 days (such period of time being referred to as the “go-shop window”). Should the target board of directors determine to terminate the merger agreement with the acquiror based on a bid received during the go-shop window, the termination fee paid to the acquiror typically will be approximately one-third to two-thirds of the full termination fee that would be payable were the same bid to be received and pursued after the go-shop window.

Initially sparsely employed in merger agreements, over the last decade, “go-shop” provisions have become more common. Figure 1 shows the number of deals in our sample per year for the period 2004-2011, as well as the proportion of go-shops. M&A activity peaked in 2006 and 2007, with 65 and 64 acquisitions announced in each of those years, respectively, declined sharply in 2008-2009 to 23 and 18 deals, respectively, and partially recovered in 2010-2011. During this period, go-shop provisions rose in popularity, and went from being employed in 13% of all deals in 2004 to 41% by 2007. Their share

² Such a provision in the merger agreement is often referred to as a “no-shop.” The no-shop provision does not eliminate the “fiduciary out” of the board of directors to evaluate bona fide competing offers received after the execution of the merger agreement but before approval of the merger agreement by the target shareholders in a change of control transaction.

remained at similarly elevated levels through and after the crisis, and declined to 24% only in 2011. These patterns extend to the dollar volume of deals where, however, the decline in activity during 2008-2009 is more pronounced (Figure 2).

In recent years, two academic commentators have argued that the option to shop an offer can, and on average does, lead to a higher price for the target firm.³ The views of practitioners on the efficacy of go-shops have been mixed, however, with some suggesting that the go-shop may in certain circumstances be “window dressing” and others suggesting that the go-shop presents an opportunity to overcome a “much lower threshold of obstacles” than would be faced by a competing bidder in the absence of a go-shop.⁴ It is also recognized that the option to shop for an offer may have an additional benefit of the reduction in litigation risk for the target.⁵ Nevertheless, when a target firm buys a go-shop option it must pay for that option, and in theory that payment should take the form of a lower initial offer price for the firm, *ceteris paribus*. The current literature on go-shops neither has come to grips fully with the tradeoffs between the costs and benefits of go-shops, nor has provided empirical evidence about go-shops that fully takes account of all those costs and benefits.

These questions have important policy consequences. There is an increasing risk that judges may fail to recognize the economic costs to target shareholders of employing go-shop clauses. If judges

³ Subramanian (2008) and Jeon and Lee (2014).

⁴ Compare Potter Anderson & Corroon LLP (2008) (observing that the utility of the go-shop is a function of the context in which the target board determines to negotiate for it and suggests that if the initial transaction is the product of overreaching by target management then the go-shop will have little utility) with Signal Hill Capital Group LLC (2012) (hereinafter “Signal Hill Study (2012)”) (quoting Robert Friedman, former Chief Legal Officer of the Blackstone Group stating that “Go-Shops are meaningful...Both the strategic universe and the private equity universe would be reticent to come in during a classic no-shop process [after a signed deal is announced]. We just wouldn’t do it. But when you put a ‘For Sale’ on the door, and say come get me then people drop everything and look because they are being invited in.”). New York Times (2006), Sautter (2008), and Bloch (2010) specifically note the possibility that go-shops may be designed to provide litigation protection to targets, especially in the context of a “sweetheart” deal between the target and its management. For further references, see Jeon and Lee (2014).

⁵ Compare Signal Hill Study 5 (observing that in the years 2010 and 2011 transactions with go-shops were subject to litigation 70% and 76% of the time, respectively) with Cornerstone Research (2013) (observing that M&A shareholder litigation of all deals valued at over \$500 million impacted 95% and 96% of the deals in the years 2010 and 2011, respectively).

adopted an unbalanced view of the costs and benefits of go-shop clauses, that could push acquisition targets to adopt go-shops even if the economic consequences of doing so were unfavorable.

We examine the determinants of the go-shop decision and the effects on the bidding activity and pricing that result from the target board's decision to include a go-shop clause rather than a no-shop clause. Economic theory implies that there are countervailing considerations that the target board of directors should take into account when deciding whether to include a go-shop clause, and we take these considerations into account when modeling the go-shop decision and its consequences.

On the one hand, there is the obvious positive value, *ex post facto* of the signing of the merger agreement, from retaining the option to shop any offer at a reduced termination fee for a period of time. With an offer in hand, the target can attract new offers more easily by showing that a credible bidder has already ascertained that the target firm is worth enough to warrant the offer that is being shopped. In the presence of search and due diligence costs to potential acquirors, being able to shop an offer may attract bidders who otherwise would not participate in the bidding to acquire the target, and it may encourage them to bid above the price of the offer being shopped, especially if there are competitive considerations leading competing bidders to want to prevent the original bidder from consummating its offer at the agreed price.

On the other hand, if a target insists on a go-shop clause, doing so may have a chilling effect, *ex ante facto* of signing the merger agreement, on the willingness of the initial acquiror to expend search and due diligence costs, and to offer a high price for the target. Knowing that its offer will be shopped, and understanding the positive externalities that its offer creates for other would-be acquirors (precisely as the result of the search and due diligence costs that create *ex post* option value for the target), *ceteris paribus*, the initial acquiror should be less likely to bid, and should bid at a lower price, if a target insists on including a go-shop clause.

In addition to the two countervailing economic implications of the go-shop choice, there is a third potential value-maximizing influence on the go-shop decision, namely concerns about legal liability or what we will term “litigation risk aversion.” Target firms that employ go-shops may be concerned about costly legal challenges from their shareholders about the bargaining process that resulted in the acquisition. The duty of the board of directors of the target firm to act as “auctioneers” when considering offers for the target firm in a change of control of transaction does not specifically require them to actively solicit alternative offers, either before the merger agreement is executed (through what is sometimes called a “pre-signing market check” or an “auction” of the firm), or after the merger agreement is executed (through what is sometimes called a “post-signing market check” or a go-shop clause). Doing so, however, may reduce the risk that a successful suit will be filed claiming that directors failed to fulfill their fiduciary duties. For some target firms, including a go-shop may be value-maximizing because of its incremental effect on expected litigation costs, even if absent those considerations (based on the first two countervailing considerations) a go-shop clause would not have been value-maximizing. For other firms, excessive litigation risk aversion may be value-destroying.

Target firms with different characteristics should differ with respect to the valuation consequences of choosing a go-shop clause. For example, litigation risk aversion should be greater if ownership is more diffuse; concentrated ownership makes it more difficult to prevail in such a suit because it is prima facie evidence of less managerial latitude in accepting too low a price. With concentrated ownership, it is likely that blockholders (who would have enough knowledge of the firm’s prospects and enough voting power to block the transaction) are able to constrain management, making undervalued sales that are contrary to shareholders’ interests less likely. Firms of different sizes may experience greater costs or benefits from go-shop clauses, although size captures a number of potential influences, and the net effect is hard to predict. On the one hand, smaller firms are less well-known and therefore may benefit more from a go-shop. On the other hand, expected litigation costs should be an

increasing function of target size because of fixed costs that should deter would-be litigant shareholders from suing smaller firms, and because ownership tends to be more concentrated in smaller firms.

In addition to the three influences that matter for the go-shop choice from the perspective of value maximization, agency problems may also distort the go-shop decision. We take into account three different agency problems.

First, the interests of target board of directors and/ or managers may conflict with target shareholders with regard to the decision over the go-shop clause. If a target manager either is part of the group acquiring the target (as in a management buyout or so called, MBO), or if the target manager is promised employment by the would-be buyer, those conflicts of interest may make the manager more willing to agree to a lower acquisition price, and less willing to insist on a go-shop clause in the merger agreement (in order to discourage competing bids).⁶ Concerns about director and managerial conflicts of interest are central to the Delaware court's concerns about the sufficiency of offer prices.⁷

Second, the interest of the investment banker to the firm may diverge from that of the target's shareholders. It is sometimes suggested that investment banks may take into account the business the bank may have with the acquiror as a consequence of the transaction (for example, target investment banks can provide financing or other services to acquirors). If such conflicts of interest are important, no-shops could be a means for conflicted investment bankers or managers to limit competition in pricing, and thereby pass on an implicit side payment to the acquiror. According to this view, the absence of a go-shop clause reflects a conflict of interest that leads to under-pricing of the target firm.

⁶ We find, however, that concerns about litigation risk make MBOs more likely to employ go-shops, *ceteris paribus*.

⁷ Weil Gotshal (2006) writes that "Delaware courts, including the recent decision concerning the 2005 SS&C Technologies going-private transaction, have questioned the adverse effects that a private equity sponsor's arrangements with management can have on a sales process by chilling the potential for competing bids." For additional legal perspectives on the origins of "go-shop" clauses, see Potter Anderson (2007), Latham Watkins (2007), Debevoise Plimpton (2006), and Subramanian (2008).

A third potential conflict of interest involves the firm's legal counsel. To the extent that future potential clients evaluate law firms on the basis of their ability to survive litigation challenges in the crafting of merger agreements, lawyers seeking to acquire reputations for negotiating successful transactions may advise their clients to use go-shops too frequently. Lawyers may benefit when their clients include a go-shop clause, even if adopting a go-shop is not value maximizing for the client. To our knowledge, we are the first to consider agency conflicts faced by lawyers when analyzing the contracting choices faced by a target firm. We label the six posited influences on the go-shop choice as the (positive) "ex post option effect," the (negative) "ex ante chilling effect," the (positive) "expected litigation cost effect," the (negative) "managerial agency effect," the (negative) "banker agency effect," and the (positive) "lawyer agency effect" (where positive or negative refer to the effects on the probability of choosing a go-shop provision). The importance of each of these six effects should vary across transactions, depending on the characteristics of targets and the characteristics of their transactions. We consider the nature of the cross-sectional variation in observable characteristics that might arise in the choice of go-shops and we test those alternative perspectives in our empirical analysis of the choice of go-shop clauses and their consequences for bids and for target firm value.

II. Literature Review

Roberts and Sweeting (2011) develop a theoretical framework that is most directly applicable to go-shops, although it is more general in its treatment. Building on the theoretical and empirical M&A studies of others, Roberts and Sweeting (2011) explore a range of theoretical questions related to the differences between sequential and simultaneous auctions. They show that sequential auctions can be value-creating for targets when bidder entry is costly and when potential bidders receive imperfectly informative signals about their values prior to deciding whether to bid. In other words, sellers can benefit from the learning process that occurs in a sequential auction, such as a go-shop. Under some

circumstances, structuring a bidding process for a target firm to elicit accepted bids in a sequence tends to result in higher ultimate bids.

Subramanian (2008) analyzes 141 public company buyout transactions for US targets of greater than \$50 million in value announced between January 2006 and August 2007. He finds that go-shop provisions are used in roughly a third of the transactions he studies, and that go-shop clauses yield greater search (both pre- and post-signing of the merger agreement). He also finds that pure go-shops – go-shop deals without pre-signing market checks – result in a higher post-offer bidder 17 percent of the time (a total of six instances), and that target shareholders receive approximately 5 percent higher returns from the pure go-shop process than they do under a no-shop. The exceptions are management buyouts (MBOs), where the inclusion of a go-shop clause has no discernible effect on competing bidding. Subramanian concludes that “the Delaware courts should generally permit go-shops as a means of satisfying a sell-side board’s Revlon duties but should pay close attention to their structure, particularly in the context of go-shop MBOs.”

Nevertheless, we do not believe that the empirical methodology employed in Subramanian (2008) yields convincing estimates of the net expected benefits to targets from choosing go-shops. He does not model the go-shop decision, nor adequately consider how differences in firms’ circumstances and in deal characteristics increase or decrease the probability of the choice of a go-shop. When go-shop decisions are an endogenous outcome of firms’ circumstances, a two-stage regression analysis is needed to disentangle the extent to which the correlation between go-shops and acquisition premia reflects the go-shop decision per se, or the consequences for acquisition pricing of cross-sectional differences in firm attributes that also predict the use of go-shops. Subramanian recognizes this problem, and constructs a “matched sample” of no-shops that he matches with his pure go-shops in an attempt to control for differences in target firms’ circumstances. In his matched-sample comparisons, he again finds a 5 percent difference in returns, although they are no longer statistically significant. The differences across deals that

Subramanian takes into account in his matched-sample comparisons (deal size, who initiates the deal, and the timing of the transaction), however, as we show below, do not capture all of the important heterogeneity in targets' characteristics that matter for the go-shop choice. Because go-shop decisions are not made randomly by firms, Subramanian's methodology results in biased estimates of the effects of go-shops on firms' returns.

Jeon and Lee (2013) extend Subramanian's (2008) results in several respects. They find that choosing a go-shop increases each of the: (1) acquisition premium, (2) probability of receiving competing bids after the merger agreement is executed, and (3) probability of deal completion. Methodologically, they attempt to take account of the endogeneity problem of the go-shop decision by employing the average proportion of go-shops in the target's (or acquiror's) industry.⁸ In doing so, they assume that the average proportion of go-shops affects the go-shop choice, but is unrelated to (time-varying) industry characteristics which may have a direct effect on acquisition premia. We do not find that identifying restriction plausible. Industries experience changes over time in their riskiness and competitiveness, and these factors should be central to the determination of acquisition premia. For that reason, the average proportion of go-shops is not a valid go-shop instrument.⁹

Indeed, as we discuss in Section I, in theory, once the endogeneity of go-shops is taken into account, the exogenous effect of go-shops on the initial offer price should be *negative*, not positive, and the effect on returns is ambiguous. In our empirical work, we model the go-shop decision explicitly, and measure the effect of plausibly exogenous influences on the go-shop choice on the offer price received by the target, and on target returns, after controlling for firm and deal characteristics that affect the offer price and target returns directly (rather than through the go-shop decision).

⁸ It is not clear in Jeon and Lee (2014) the time period over which the industry average is taken.

⁹ Indeed the OLS and 2SLS estimates in Jeon and Lee (2014) are remarkably similar, casting doubt on whether the instruments do extract the exogenous component of the variation in the propensity to include a go-shop provision in the initial merger agreement.

The literature on termination fees in mergers and acquisitions also bears on the consequences of go-shops for bidding and valuation. After all, go-shops are, in essence, a temporary reduction in the target termination fee. Thus, evidence that higher termination fees can be value-creating for targets is also evidence in favor of potential value-creating consequences from no-shop provisions. Officer (2003) finds that merger transactions with termination fees tend to result in higher acquisition premia and higher success rates than transactions without termination fees. Bates and Lemmon (2003) show that termination fees are used more in situations where bidding is costly. Both studies, as well as a related study by Boone and Mulherin (2007), conclude that termination fees serve as an efficient contracting device, not a means for incentive-conflicted managers to deter bidding to protect “sweetheart” deals that benefit management at target shareholders’ expense. Jeon and Ligon (2011) find that the effects of termination fees vary with their size: relatively low fees are an efficient contracting device, but higher fees (reflecting agency problems) are sometimes employed.

We do not attempt a comprehensive review of the literatures on conflicts of interest here. With respect to conflicts of target management in M&A transactions, Brewer, Jackson and Wall (2012) provide a review of the literature, and an empirical methodology that shares many aspects with our approach (see also Yim, 2013). For Brewer, Jackson and Wall (2012)’s sample of bank mergers, they find evidence that CEOs wishing to find future employment opportunities (instrumented by age) limit the marketing of target firms. For a review of the literature on investment bankers’ conflicts of interest in M&A transactions, see Calomiris and Singer (2004) and Calomiris and Hitscherich (2007). These studies examine whether prior relationships between a target’s investment bankers and the acquiror are associated with different outcomes in acquisition premia for targets. Calomiris and Singer (2004) analyze 52 large hostile takeover transactions between 1993 and 2003. They find no evidence that potential conflicts affect acquisition premia. Calomiris and Hitscherich (2007) examine 170 cash acquisitions of more than \$100 million over

the period 1994 to 2002. They find no evidence of a connection between a target bank's prior relationship with the acquiror and the acquisition premium.

With respect to potential lawyer conflicts, we are unaware of any prior study related to this phenomenon. There are, however, studies that posit effects on corporate financing decisions that vary with the identities of legal advisers. Coates (2001) shows that despite theoretical predictions suggesting that takeover defenses can lead to lower proceeds in IPOs, "companies advised by larger law firms with more takeover experience adopt more defenses." Coates argues that the decision to take an action that can affect firm value is the net sum of a host of motivations, many of which may also directly correlate with firm value. He argues that a key aspect of legal advisers is that they tend to be exogenous influences on firm value, especially in light of the fact that the choice of legal counsel tends to pre-date the relevant transactions being studied. The choice of legal advisor is thus a valid instrument that can help identify the exogenous effect of the recommended action on firm value. Building on Coates (2001), Johnson, Karpoff and Yi (2012) use the choice of legal advisor as an instrument to identify the causal effect of takeover defenses on firm valuation. Our use of legal advisor identity is similar in spirit to these studies, although the three measures related to the firm's legal team are new, and reflect our desire to consider which aspects of legal advice are more likely to be associated with a conservative posture toward litigation risk.

III. Data

As discussed in Section I, a proper analysis of the choice of go-shop clauses requires one to take account of the heterogeneous circumstances of the target firms that are choosing whether to include go-shop or no-shop clauses. Larger target firms, targets with more diffuse ownership, firms that did not widely market a target before executing the merger agreement, firms where potential director, managerial or investment banker conflicts of interest are absent, and firms and lawyers that are

excessively risk averse in their concerns about litigation risk, *ceteris paribus*, may be more likely to choose a go-shop clause. These various considerations define the content of the dataset we assembled.

The transactions in our sample were identified based on information set forth in the database of MergerMetrics, which is a product of FactSet. To be included in the sample, the transaction needed to satisfy the following criteria: 1. The transaction reflects the consideration set forth in the initially executed merger agreement between the target and acquiror and was announced between January 2004 and December 2011; 2. The target was a US public company; 3. The consideration paid to the target shareholders was cash and was offered pursuant to a transaction whereby public ownership in the target would cease; 4. The acquiror was either a financial or private equity buyer; 5. The transaction was not pursuant to a tender offer; and 6. The target had available each of the (a) merger agreement and Merger Proxy Statement for the transaction and the most recent proxy statement for the regularly scheduled annual meeting of shareholders on the EDGAR database of the SEC and (b) stock price data. These various requirements, especially given the 52-week range of analysis of stock prices used in our study, reduced the number of observations in the sample from 341 identified transactions to 306 usable transactions.¹⁰ For each of the transactions so identified, information on a number of attributes of the transaction was obtained, as described in Table 1.

We focus on cash deals with financial or private equity buyers because these transactions permit a clear analysis of the responses of returns to deal characteristics. Deals that involve the exchange of stock or involve strategic buyers who may reap synergies from merging complicate the analysis of returns; once an accepted bid is announced changes in target value reflect both the fortunes of the target and those of the would-be acquiror.

¹⁰ The most significant source of attrition are price variables, for the computation of which we required no fewer than 180 non-missing price observations over a calendar year (252 trading days)

Key Variables

The key explanatory variables used in the analysis, can be grouped into three broad categories, based on the degree to which they convey information about target characteristics, market perceptions, or attributes of the initial agreement.¹¹

Target leverage may indicate growth opportunities, positive creditor perceptions, or managerial discipline, and could thus enter the acquisition premium equation with a positive sign. We include a dummy variable for larger targets. Target size proxies for a host of characteristics that could matter for valuation (opacity, market access, etc...), and the effect of large size on the premium is uncertain.

We include dummy variables to describe the shareholding structure of the target. One variable indicates whether the largest coordinated shareholding block (single shareholder or collective ownership of owners and directors) controls more than 20% of the firm and the other indicates whether holders of a minimum 5% stake collectively own more than 20% of the target firm. The effect of shareholding structure on firm value is unclear on a priori grounds.

Market metrics can influence the offer price. Baker, Pan and Wurgler (2012) show that reference point prices can have a positive effect on the bidder's offer price. We include the 52 week high offer ratio as the reference value. We also include returns volatility although its effect is not clear.

The merger agreement specifies termination fees for target and acquiror, and we include these as important financial parameters of the agreement.¹² The offer premium may covary with the financing aspects of the contract. A financing condition permits the acquiror to exit the contract if financing cannot be secured. Exit risk, however, can be mitigated if the target firm's financial advisor offers financing to the acquiror as needed. At the same time, this financing option may create a conflict of interest for the

¹¹ Though a host of target firm characteristics can affect firm value, for identification we can limit our attention only to those characteristics that may affect the *offer premium*, which measures the premium of the initial offer in relation to a pre-announcement market measure of firm value.

¹² Termination fees impose exit costs and may also reflect bargaining power differentials between the parties involved in the acquisition, and, therefore, may covary with the offer premium.

financial advisor who, on one hand, has an incentive to obtain the highest offer possible for the target, but on the other hand, may stand to profit from financing the deal for the acquiror. We include two binary variables to indicate the presence of a financing condition or a financing option, and proxy for additional potential conflicts of interest by including a binary variable indicating whether the target's financial advisor had a prior relationship with the acquiror. We also include a dummy variable that indicates whether an auction was conducted as part of the process of obtaining the initial bid.

The acquisition may be a management buyout. We have no strong prior on the direction of this effect but recognize that MBOs are qualitatively different from normal acquisitions, due to, for example, the informational advantage managers enjoy over external acquirors. We therefore add a binary indicator for whether the deal is an MBO. For robustness, in subsequent analyses we re-estimate all models on a slightly smaller sample that excludes management buyouts.

Summary Statistics

Table 2 shows summary statistics for the key variables. Market variables have definitions that depend on the choice of the base, pre-offer price. Our main analysis and discussion of market variables rely on the pre-offer price defined as the closing price 30 days prior to the offer announcement. This makes it unlikely that the pre-offer price will be affected by pre-announcement information concerning the bidding for the target firm. In robustness tests we show that the results remain qualitatively unaffected if we use the 5-day pre-announcement window.

The average enterprise value of target firms is \$2.3bil, with values ranging from \$300k to \$123bil. Target firms have an average leverage ratio of 0.22, with 29% of them financed entirely by equity. In 87% of the target firms, significant owners (shareholders who individually own more than a 5% stake) collectively control more than 20% of the target. 57% of the target firms have "concentrated ownership," which we define as the ownership of the largest shareholder or the collective ownership of officers and

directors (a coordinated block) exceeding 20%. The number of officers and directors of the firm varies between 4 and 34, with the average at 13.

The average offer premium is 33%. There is substantial variation in the offer premium, with a standard deviation of 45% and offer premia ranging from a low value of -75% to a high value of 352%. The average 52-week high offer ratio is 149%, ranging from 100% to 1688%, and the average annualized volatility of daily returns is 48%, ranging from 16% to 266%.

Management buyouts (MBOs) account for 10.5% of the transactions. In 61% of the deals, the target was widely marketed (a so-called “auction” was conducted) as part of the process of determining the initial bid. At 3.6%, the average termination fee for the target is slightly higher than the 3% average termination fee for the acquiror (also known as the reverse termination fee). The difference is partly driven by the large number of deals (123) in which the acquiror did not agree to a termination fee.

In 23% of the deals the acquiror has the option to exit the deal if they fail to secure financing for the acquisition, but in 15% of the deals the target’s financial advisor agreed to offer the acquiror the option of financing. In almost half the deals (49%), the target firm’s financial advisor has a prior relationship with the acquiror.

Mean Comparisons: Go-shops vs no-shops

A central question of our paper is whether the inclusion of a go-shop provision in the merger agreement affects the offer premium. Figure 3 shows the distribution of the offer premium for go-shop and no-shop deals. Panel (a) shows the offer premium computed based on the 30-day pre-offer price and panel (b) using the 5-day pre-offer price. The distributions of offer premia for go-shops have a higher mean than those of no-shops; the differences are more pronounced for 5-day premia. The difference in means tests shown in Table 3 indicate that the means of the two distributions are statistically undifferentiated from each other.

The offer premium may depend on a number of factors. Firm attributes that may directly affect the offer premium may also differ across the two types of deals. For example, as illustrated in Figure 4, go-shops are associated with larger targets.

In Section I, we developed several theoretical predictions about the effects of choosing a go-shop, and about differences between the attributes of go-shop and no-shop transactions. Table 3 provides initial support for some of these theoretical predictions. The difference in means tests reported in Table 3 should be interpreted as identifying systematic differences in the distribution of target/deal characteristics across the two deal types, which may in turn reflect the influence of target characteristics on the decision to include a go-shop clause; we study this possibility more formally in Section IV.

There are no large or statistically significant differences between go-shops and no-shops associated with the 52-week high offer ratio, volatility, or the size of the termination fees for the target. Go-shop provisions display higher target leverage, include higher acquirer termination fees, are less likely to include a financing condition, and are marginally less likely to include the option for the acquirer to obtain financing from the target firm's financial advisor. These differences in contract structure may reflect other aspects of no-shop transactions (e.g., greater opacity of no-shops, which may make financing by an informed target banker useful).

Widely marketed deals ("auctions") are much less likely to require go-shops, presumably because there is less value in the go-shop option, and because there is less to be gained in terms of mitigating litigation risk aversion from including a go-shop clause.

Greater ownership concentration should be associated with less use of go-shops, and we find support for this in the data, both using the Total Ownership by 5% holders, and an indicator for whether there is a >20% owner, as the measure of ownership concentration. Closely controlled targets may have less need of a go-shop provision to mitigate litigation risk, because the implicit approval of the controlling

shareholder generally argues against the possibility of managerial conflicts of interest.¹³ We also find that target firms with a greater number of officers and directors are more likely to choose go-shops. One potential interpretation of this finding is that the presence of a high number of officers and directors indicates a stronger preference for formalized procedures.

In theory, the effect of MBOs on the go-shop decision is ambiguous; in Table 3, MBOs tend to make greater use of go-shops, presumably out of concerns about litigation, but the difference is not statistically significant. Similarly, with respect to the effect of investment banker conflicts on the go-shop decision (which is ambiguous in theory), go-shops are more likely to be chosen if the target's investment bank has a relationship with the acquiror.

OLS Regressions: Partial Covariance between Go-Shop Choice and the Offer Premium

We estimate the partial covariance between the go-shop choice and the initial offer premium using a linear model of the offer premium, including a rich set of controls to account for distributional differences in the populations of go-shops and no-shops.. Our OLS specification is shown in Equation (1):

$$OP_{it} = \kappa_t + \beta \cdot GO_i + \gamma \cdot Controls_{it} + u_{it} \quad (1)$$

OP_{it} is the offer premium for deal i announced in year t . GO_i is a dummy variable indicating whether the initial agreement contained a go-shop provision and $Controls_{it}$ is a vector of additional controls (definitions are shown in Table 1).¹⁴ We also include year fixed effects (κ_t) to control for the impact of aggregate macroeconomic conditions on offer premia; u_{it} is an idiosyncratic error term.

Table 4 shows the results for the OLS regression. Column (1) shows estimates for the complete sample, which includes MBOs, using the 30-day closing price as the pre-offer price. We repeat the

¹³ Subramanian (2008) excludes acquisitions with a controlling target shareholder (using a threshold of 35%), on the theory that “any shopping process would not be meaningful in these deals unless the controller agreed to sell its shares into a higher-value competing bid (which is rare).”

¹⁴ The time index indicates the use of time-dependent rather than time-varying controls, as all controls are measured at only one point in time for each deal.

estimation on a sample that excludes MBOs in column (2). Columns (3)-(4) repeat the estimates shown in columns (1)-(2), using the 5-day closing price as the pre-offer price. In all four columns, the go-shop provision covaries negatively with the offer premium, but the identified covariance is not statistically significant. We do not discuss the partial covariances between the offer premium and the various control variables, except to mention that several of them are statistically significant.

The estimated OLS coefficient on the go-shop choice should not be interpreted as measuring a causal effect of the go-shop choice on the offer premium because the go-shop choice is itself an endogenous variable. We address this endogeneity problem at length in Sections IV and V below.

IV. Identification Strategy

Our OLS estimates indicate no simple empirical connection between go-shops and offer premia once one controls for firm, market and deal characteristics, but OLS estimates are not conclusive measures of the effect of go-shop choice on the acquisition premium. The go-shop decision is endogenous to many factors that are correlated with the acquisition premium. To identify the relationship between the choice of the go-shop provision and the offer premium, we need to employ a framework that addresses the endogeneity of the go-shop decision.

We employ the two-stage least squares methodology (2SLS) to estimate the effect of the go-shop provision on the offer premium. We use a 2SLS estimator that utilizes a non-linear “zeroth” stage to better fit the non-endogenous component of the go-shop variable; the details of the estimator are described in the Appendix. In the Appendix, we also show that the results remain unchanged if we use a two-step Heckman estimator instead.

Choice of exogenous instruments

We use three binary indicator variables to capture variation in the go-shop decision that is not directly related to the target firm’s value and, therefore, should not directly affect the offer premium.

First, we include an indicator variable for whether a special committee was formed to examine the transaction. The special committee explores different options before making a recommendation to the board, and aims at structuring a deal which strengthens the legal defenses of the firm against future lawsuits challenging the fairness of the transaction. If a special committee is formed to advise the board on the transaction, a greater focus is placed on procedural concerns and gives greater weight to lawyers' opinions on contractual terms.

Second, the number of legal advisors involved in the transaction is a potential indicator of greater lawyer conflicts. A higher number of lawyers will be associated with a greater focus on procedural concerns. In addition, retaining more lawyers increases the probability of a conservative legal opinion in favor of a go-shop, which other lawyers would have little interest in opposing. We thus include a binary indicator variable, indicating whether the target's legal team included multiple legal advisors.

Third, for each legal advisor, we construct another binary indicator variable that captures whether the legal advisor is a highly ranked law firm. The details of the construction are provided in the Appendix. Higher ranked law firms have more reputational capital at stake from litigation challenges, and therefore, more potential conflict of interest with target shareholders.

There are three potential interpretations of what the instruments are capturing. The first interpretation is that the use of a special committee, the use of multiple lawyers and the use of high-ranking law firms increase the potential for attorney conflicts of interest. A deal that results in highly costly and disruptive litigation can cost a law firm valuable reputational capital. Attorneys, therefore, have an incentive to immunize the deal against future litigation through a go-shop provision even if the economics of that immunization would generate a net cost for the target firm's shareholders.

The second potential interpretation of the instruments is that they capture unobserved heterogeneity in levels of risk aversion across target firms. Targets with excessively litigation risk-averse management retain the services of multiple legal firms, organize special committees, and hire highly

ranked law firms, and these decisions tend to result in greater legal immunizations to the deal. For such firms, the decision to include a go-shop provision is but one of many manifestations of inherent aversion to litigation risk, and the instruments proxy for the firm's level of risk-aversion.

The third potential interpretation is reverse causality. The target firm's managers may have private information that leads them to expect a low offer premium, and managers may worry that shareholders will infer that a low offer premium is the result of some managerial conflict of interest. Anticipating unusual legal problems, the target may be spurred to take extra legal precautions. In this case our three legal variables would be associated with a negative acquisition premium, with causality running in the direction from the offer premium to the legal variables.

Under the first two interpretations, the instrumental variables are exogenous to firm value and therefore satisfy the exclusion restrictions. Under the reverse causality interpretation, however, the exclusion restriction is violated. In a robustness section, we discuss reverse causality further, estimate an alternative specification to gauge its potential magnitude, and argue that endogeneity does not reverse our central finding – that go-shop provisions are costly to acquirors and result in reduced initial offers for targets. We recognize, however, that one cannot rule out the possibility that reverse causality may introduce bias to the estimates that rely on the exclusion restrictions, and therefore, we abstain from making strong inferences about the magnitude of our results.

Table 2 displays summary statistics for the instrumental variables. Litigation risk is an important concern in acquisitions, as is evident by the fact that more than half of the deals (57%) had a special committee of independent directors formed to make a recommendation to the full board of directors with respect to the price and terms of the proposed transaction. Moreover, 10% of the target firms retained the services of multiple legal advisors to advise them about the acquisition proposal. By construction, roughly a fourth of the targets are classified as retaining the services of what we define as "top-tier" legal advisors. The difference in means tests shown in Table 3, indicate that all three of the

binary legal variables are associated with a greater use of go-shops, though the difference in the dummy variable for the presence of multiple lawyers is not statistically significant.

V. Regression Results

Determinants of the go-shop decision

Column (1) of Table 5 reports coefficients of a probit model of the go-shop decision for the complete sample (including MBOs) with the full set of controls and instruments. Our specifications include year fixed effects to sweep out aggregate macro effects in the propensity to include go-shop provisions in initial merger agreements (Figure 1). The three instruments have a positive influence on the go-shop decision. Legal_Adv_Rank and Special_Committee are both statistically significant at the 1% level, while Multiple_Lawyers narrowly misses statistical significance at the 10% level.

Acquisitions where broad marketing (an “auction”) was conducted as part of determining the initial bid are less likely to include a go-shop provision, since the auction process reduces the marginal benefit of shopping around for competing bids.

Large targets are more likely to choose go-shops, due perhaps to higher levels of litigation risk aversion. Targets with high concentration with a blockholder results are less likely to include a go-shop, but, as indicated by the coefficient for ownership by 5% shareholders, high concentration without a block holder possibly results in a higher go-shop probability (the latter effect is not statistically significant). One interpretation is that high concentration without a blockholder may give greater incentives for a disgruntled shareholder to challenge the deal, resulting in contractual features that shield the firm from future litigation risk. We note that the net effect of concentration is negative.

Two more variables may be important for the go-shop decision, although they enter with statistical significance that misses the 10% threshold. A high number of officers and directors may reflect the need for more formal assurances in assessments of fairness. A financing condition may also result in

a higher propensity to include a go-shop provision. A financing condition offers the acquiror the option to exit the deal if it is unable to secure financing and thus raises the need for a contingency plan in case the initial deal collapses; the option of shopping around for competing bids provides such a contingency plan through greater access to other potential acquirors.

Finally, market-related variables, leverage, termination fees and variables capturing various aspects of the target's financial advisor involvement do not have an impact on the go-shop decision.

Column (2) estimates the model using only the instrumental variables. The instruments' coefficients are relatively unchanged, which attests to the very robust effect that these variables have on the go-shop decision. Columns (3) and (4) repeat the regressions in the first two columns for the sample that excludes MBOs. The results remain largely unchanged (however, the coefficients for Number_OD, and Financing_Condition are now statistically significant at the 10% level).

2SLS estimates of the effect of the go-shop provision on the offer premium

Column (1) of Table 6 shows the 2SLS estimates. The option provided to the target firm by the go-shop provision reduces the initial bid premium. The magnitude is large and statistically significant, indicating that the go-shop provision results in a 35% decrease in the initial offer premium. In unreported tests, we run more conservative one-tailed tests, which bound the absolute value of the decrease to 13% and 7%, respectively at the 10% and 5% levels of statistical significance.

Column (2) of Table 6 repeats the same estimations on a subsample that excludes MBOs, where we observe the same negative relationship. Columns (3) and (4) show that the results are robust to the use of the more noisy¹⁵ 5-day closing price as the pre-offer price, with slight decreases in magnitude and statistical significance. In the Appendix, we show that the results remain unchanged if we employ the use of a two-step Heckman estimator instead of the 2SLS estimator.

¹⁵ The 5-day price is closer to the day of the announcement of the merger and thus more likely to be affected by pre-announcement leakage.

Endogenous litigation risk

As discussed in Section II, previous studies (Coates 2001 and Johnson, Karpoff and Yi 2012) have argued that the choice of legal advisors is a valid instrument, both in the context of IPO transaction outcomes and takeover defenses. As we discussed in Section IV, however, in our setting firms' choices of legal counsel and procedures may be driven by reverse causality, if a target believes that its anticipated (low) acquisition premium would raise objections by target stockholders. Our regressions control for some of the most obvious observable determinants of litigation risk that an acquiror would presumably find easy to price, such as ownership concentration and reference price. Nevertheless, we recognize that unobservable factors affecting acquisition premia cannot be ruled out. Indeed, one recent study – Krishnan and Masulis (2013) – shows that target firms with higher exogenous risk of anti-trust litigation tend to choose higher-ranked law firms to represent them. Krishnan and Masulis (2013), however, find that the choice of higher-ranked law firms indicates a *higher* acquisition premium – implying that endogeneity may actually bias our instrumented estimates to understate the true negative effect.

To ascertain the potential impact of endogeneity of the legal advisory variables, we estimate an alternative specification that provides a lower bound – in absolute value – for the effect of the go-shop decision on the offer premium. In this specification we treat all three instruments as control variables, thus relying solely on the non-linearity of the go-shop decision as the source of identification. The three legal variables now enter both the first- and second-stage regressions as control variables. Note that our setting satisfies the conditions set in Escanciano, Jacho-Chávez, and Lewbel (forthcoming) for potentially endogenous parameters to be strongly identified based solely on functional form, without exclusion restrictions or instruments.¹⁶ The coefficient for the go-shop dummy under this specification is therefore a reasonably precise estimate of the causal effect of go-shop choice on the offer premium.

¹⁶ Escanciano, Jacho-Chávez, and Lewbel (forthcoming) show that identification based solely on functional form extends to a semiparametric setting where the only parameterization is that one index in the model is linear.

The results are shown in columns (1)-(2) of Table 7 for the complete sample and the subsample which excludes MBOs. All of the instruments enter with negative coefficients, and *Legal_Adv_Rank* and *Multiple_Lawyers* do so at statistically significant levels. Importantly, even when relying solely on the non-linearity of the go-shop decision for identification, we still obtain a negative effect of the go-shop provision on the initial offer premium, though the effect is not statistically significant, possibly due to the combination of the limited sample size and the large number of covariates. In columns (3)-(4) we repeat the same estimates using, as before, the full set of variables in the probit stage but only retaining in the second stage variables that entered the estimates shown in columns (1)-(2) of Table 7 at robust levels of statistical significance. In this more parsimonious specification we find the effect of the go-shop decision to be statistically significant at the 5% level for the complete sample, and to marginally miss statistical significance at the 10% level for the subsample which excludes MBOs. The coefficients are comparable in magnitude to the ones obtained in columns (1)-(2) of both Table 6 and Table 7.

Taken together these results strongly indicate that go-shop decisions, on average, do not have a positive impact on initial offers, and very likely have a negative one.

The Effect of Go-Shop Choice on Subsequent Bidding

That go-shop provisions result in lower initial offer premia may not imply that go-shops harm target shareholders. The low initial bid could be offset by an increase in the probability of subsequent bidding, which can result in an improvement of the terms in the original deal agreement. After all, go-shops are designed to facilitate subsequent bidding by so-called “jumpers,” by allowing the target to actively solicit bids and by including lower termination fees during the go-shop window. To test this hypothesis, we examine post-merger agreement bidding behavior in go-shop and no-shop deals. We define a dummy variable which takes the value of 1 if either (a) there is a change in the cash consideration offered due to a subsequent bid being placed or (b) there is a change in the winning bidder; the dummy variable otherwise takes the value of 0.

The lower initial acquisition premium associated with a go-shop provision is not offset by an improvement in the frequency of subsequent bidding. First, in our sample the overall percentage of deals with a jumper is very low, that is 4.5% for no-shops and 10.6% for go-shops. Though these differences suggest that the inclusion of go-shop clauses results in more jumpers, a more formal analysis of the difference shows no significant difference between go-shops and no-shops. Specifically, we employ a 2SLS model to estimate the effect of go-shop choice on jumper propensity (using the same first-stage regressions as shown in Table 5) and, as the results in Table 8 show, we find the effect of go-shop provisions on the probability of a jumper to be small and statistically undifferentiated from 0.

Furthermore, if we assume, as our point estimate would imply, that go-shops do on average increase the probability of a jumper by 4.2%, a back-of-the-envelope calculation shows that the expected gain in the offer premium, conditional on obtaining a new deal as the result of the go-shop choice, would have to exceed an additional 300% to compensate for the 13% decrease in the initial offer premium, which is what we estimated as a reasonable lower bound of the effect of the go-shop to be (at the 10% significance level).¹⁷ Even the more conservative 7% lower-bound estimate of the effect on the acquisition premium derived above (assuming a 5% significance level) implies an implausibly high expected increase (161%) in the acquisition premium conditional on a jumped deal. Increases of such magnitude are greatly at odds with the data. In the data, the average additive increase in the offer premium effected by a jumper is less than 20% for both no-shops and go-shops.

The Effect of Go-Shop Choice on CARs

Subramanian (2008) finds that go-shops provide a bona fide means of marketing a target firm after the receipt of an accepted offer. His focus on returns is also potentially useful for distinguishing whether go-shops are chosen in a manner consistent with value maximization. If go-shops are chosen by

¹⁷ The numbers remain qualitatively unchanged if we compute a more elaborate example which incorporates information about the baseline probability of a jumper for no-shops and the fee structure of no-shops and go-shops.

targets only in order to maximize expected target value, then *holding other factors constant*, the cumulative abnormal returns associated with go-shop choice should be zero. As the market observes firms predictably choosing go-shops or no-shops and bargaining to maximize their potential value, there should be no consequence for abnormal returns of the predictable differences in contracting structure that reflect firms' heterogeneous circumstances. Conversely, if go-shops deliver negative excess abnormal returns, after holding other factors constant, this would provide evidence in favor of the over-use of go-shops by at least some of the go-shop firms.

We first plot the distribution of CARs for the 31-day window starting 15 days prior to the announcement date. Figure 5 shows the distribution separately for the populations of go-shop and no-shop deals. Go-shops exhibit slightly higher CARs. In Figure 6 we plot the daily evolution of average CARs of go-shops and no-shops for the period starting 15 days prior to the announcement date and ending 15 days after the announcement date. Note that the means of the distributions shown in Figure 5 correspond to the rightmost values in Figure 6.

Up until and including the day prior to the announcement date, CARs exhibit a slightly upward but rather undifferentiated path between go-shops and no-shops; CARs reach a moderate 2% level at that time. Then, we observe significant gains in CARs taking place on the day of the announcement and the day following the announcement. By the end of the 31-day window, go-shop deals have accumulated an excess of 4% in CARs when compared to no-shop deals. Interestingly, this difference is attained primarily during the same two-day window where CARs exhibit their rapid ascent for both groups; the day of the announcement and the day following the announcement.

Table 9 shows means tests for CARs for complete 31-day and 11-day windows centered at the date of announcement, but also breaking down each window to its pre-announcement and post-announcement components; the post announcement window is inclusive of the date of announcement. At the end of the 31-day window, go-shop deals generate a statistically significant 4.69% excess CARs

compared to no-shop deals. Go-shops experience a statistically significant though economically insignificant 0.9% decline in CARs during the pre-announcement window, but the major gains are experienced from the day of the announcement onwards, where go-shops accumulate a 5.61% excess in CARs. Similar observations hold if we examine the 11-day window instead.

OLS Estimates of the Effect of the Go-Shop Provision on CARs

Although the means tests suggest a positive effect of the go-shop provision on value (proxied by CARs), these estimates are likely to contain significant omitted variable bias. We first correct for this bias by estimating an OLS specification, where we include the same extensive list of explanatory variables used in the offer premium equation. Column (1) of Table 10 shows the results for the 31-day CARs estimated over the complete sample. The effect of the go-shop decision appears to be positive but not significant under this specification. *52wk_high_ratio* and *Leverage* correlates positively with CARs and *Large_Target* and *Auction* come in with a negative sign; these effects are statistically significant.

Columns (2) and (3) break the 31-day window into a pre-announcement window and a post-announcement one; the latter includes the announcement date. Note that the sum of the coefficients in columns (2) and (3) should be equal to the coefficient in column (1). Comparing the two columns, the main differences are the reversal of the sign of the go-shop decision and volatility. With regards to the go-shop decision, we see that it has a positive but statistically not significant effect during the post-announcement period, which drives the net positive effect identified in column (1). Columns (4), (5) and (6) repeat the estimations on a sample that excludes MBOs and the results are qualitatively unchanged, with the post-announcement effect decreasing slightly in magnitude and making the combined effect negative but undifferentiated from zero.

2SLS estimates of the effect of the go-shop provision on CARs

We estimate the exogenous effect of the go-shop provision on CARs using the same 2SLS methodology we employed in estimating the effect on the offer premium. Column (1) of Table 11 shows

the results for the 31-day CARs estimated over the complete sample.¹⁸ The sign of the go-shop variable is positive but statistically undifferentiated from 0. Columns (2) and (3) break this effect into its pre- and post- announcement components. The effects are not statistically significant. Columns (4)-(6) repeat the estimation on the subsample with no MBOs, and the effect of the go-shop decision is still small and statistically undifferentiated from zero in all regressions. In unreported regressions, we also show that the estimates do not change if we examine an 11-day window instead, or if we employ the use of a two-step Heckman estimator instead of the 2SLS. Overall, go-shop clauses do not appear to have any robust effect on CARs during the pre- and post-announcement periods.

Robustness: CEO Age

Target CEOs may receive private benefits after the successful conclusion of the deal. Yim (2013) develops and empirically validates a theory connecting CEO age to the propensity for acquisitions. Propensity for acquisitions decreases with CEO age because private benefits to the CEO stemming from an acquisition, such as permanent increases in compensation, accumulate over a longer period for younger CEOs. Brewer, Jackson and Wall (2012) argue that a similar mechanism may be at play at the target firm. The CEO of the target may be offered private benefits from the acquiror in exchange for recommending a lower offer premium to the target's board. To the extent that such benefits are permanent and accumulate over time, there should be a positive relation between CEO age and the offer premium. We tested this hypothesis in our sample¹⁹ and found that our results for the effect of go-shop choice on the offer premium and CARs are robust to controlling for the age of the target's CEO.

¹⁸ In the regressions involving CARs the sample size falls from 306 to 298 because 8 observations had fewer than 29 non-missing values during the 31-day window.

¹⁹ Following Brewer, Jackson and Wall (2012), we added as additional controls the age of the CEO, a dummy variable indicating whether the CEO was chairman, and their interaction.

Robustness: 13E-3 Disclosure

A member of the target's board may hold an equity share in the acquiring firm, or may be offered equity participation in the merged entity. This presents a conflict of interest: the board member must work to secure the best possible deal for the target shareholders, but he/she stands to benefit from the acquiring firm's concluding the deal at a lower price. Conflicts of interest of this nature are more likely to arise in targets with concentrated ownership. One implication of the presence of such a correlation is that the variable capturing the effects of concentrated ownership on the go-shop decision may actually be capturing more than the higher probability of surviving future litigation.

The target firm needs to disclose such potential conflicts of interest by filing Schedule 13E-3. We thus ran alternative specifications that include as a control an indicator variable to capture whether a Schedule 13E-3 was filed. This allows us to test for the effect of these conflicts on either the go-shop decision or on target firm value. We found this variable to have no statistically significant impact on either the go-shop decision or CARs, and to affect the offer-premium only marginally in the estimates on the sample that excluded MBOs. More importantly for the main findings of this paper, its inclusion did not result in any qualitative or quantitative changes on the estimated effect of the go-shop decision on either the offer-premium or CARs.²⁰

Robustness: Reputation of the Investment Advisor

Golubov, Petmezas and Travlos (2012) show that top-tier financial advisors generate higher bidder returns in public acquisitions. Since "tier" is determined by deal activity, the tier of the financial advisor likely correlates positively with the tier of the legal advisor. It is therefore possible that our legal

²⁰ We performed additional tests to assess whether other, plausibly exogenous, characteristics of the target's board may affect the decision to include a go-shop provision and/or firm value. In particular, we collected data on the average director age, the number of directors who attended law school, who are practicing law, or who have experience in private equity, as well as whether one of the board members is General Counsel. We ran several tests in which these variables (or subsets or interactions of these variables) were treated as instruments or controls, but did not find any robust evidence that they have an effect on the decision to include a go-shop provision, on the offer premium, or on CARs.

instruments are capturing the effect of a high tier financial advisor. To test that hypothesis, we follow Golubov, Petmezas and Travlos (2012) and include a binary variable indicating whether the target firm worked with a top-tier financial advisor during the acquisition; the results remain unchanged with the inclusion of this variable.

VII. Conclusion

We construct a theoretical framework for explaining the choice of go-shop clauses by acquisition targets, which takes account of value-maximizing motivations, as well as agency problems related to conflicts of interest of management, investment bankers, and lawyers. On the basis of that framework, we empirically investigate the determinants of the go-shop decision, and the effects of the go-shop choice on acquisition premia and on target firm value, using an empirical methodology that explicitly allows for the endogeneity of the go-shop decision. Our sample includes data on 306 cash acquisition deals for the period 2004-2011.

We allow many aspects of target firms to enter into their go-shop decision, including the nature of their legal advisory team and procedures, their ownership structure, their size, and various other firm, and deal characteristics. We find that the characteristics of the legal advisor and legal procedures, ownership structure, and the extent to which the transaction was widely marketed prior to the first accepted offer all matter for the go-shop decision.

Our paper is the first of which we are aware that explicitly considers potential conflicts of interest between target shareholders and the attorneys that represent target firms. To investigate the potential importance of such conflicts, we employ legal advisor characteristics, which capture differences in the identity and structure of the legal team advising the target board of directors, as instruments when analyzing the effects of go-shop decisions on target acquisition premia and value. These characteristics play an important role in predicting targets' use of go-shop provisions.

We find, as predicted in our theoretical review, that go-shops result in lower acquisition premia, *ceteris paribus*. In other words, when targets – motivated by excessive litigation risk aversion or influenced by conflicted legal counsel – insist on including a go-shop provision, they receive a lower offer. The adverse effect of go-shop provisions on the initial acquisition premium is large. Estimates range widely (between -24% and -41%), depending on the specification of the model, which is roughly the size of one standard deviation of the merger premium. Given the size of the standard errors of our estimates, across all of these various specifications, it seems clear that the effect of go-shop choice on the acquisition premium is negative and large.

Our theoretical framework has an ambiguous prediction about the effects of go-shop choice on target firm valuation. Whether the go-shop choice should increase the value of a target should depend on a *combination* of the motivations underlying the go-shop choice (that is, whether it arises from value-maximizing considerations or agency problems, such as attorneys' conflicts of interest). Our examination of the effect of go-shop clauses on the propensity for "jumpers" indicates that there is a small but statistically insignificant improvement in attracting post-agreement bidders. Nevertheless, the large adverse effect on the initial acquisition premium cannot be plausibly offset by the prospect of attracting additional bidders, which indicates that go-shop choices have tended to be value-destroying for targets. A positive post-announcement effect of go-shop choice on CARs is not robust to controlling for endogeneity.

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Figure 1: Number of go-shop vs no-shop deals by year of announcement. The total number of deals per year is shown for each of the years 2004-2011. For each year, the upper bar shows the number of go-shop deals and the lower bar the number of no-shop deals.

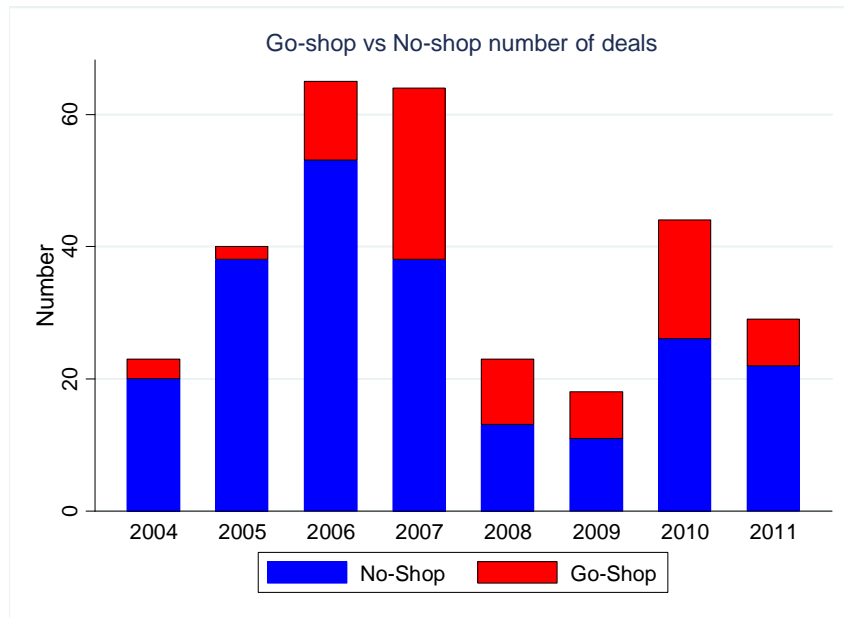


Figure 2: Value of go-shop vs no-shop deals by year of announcement. The total dollar value of deals per year is shown for each of the years 2004-2011. For each year, the upper bar shows the total value of go-shop deals and the lower bar the total value of no-shop deals.

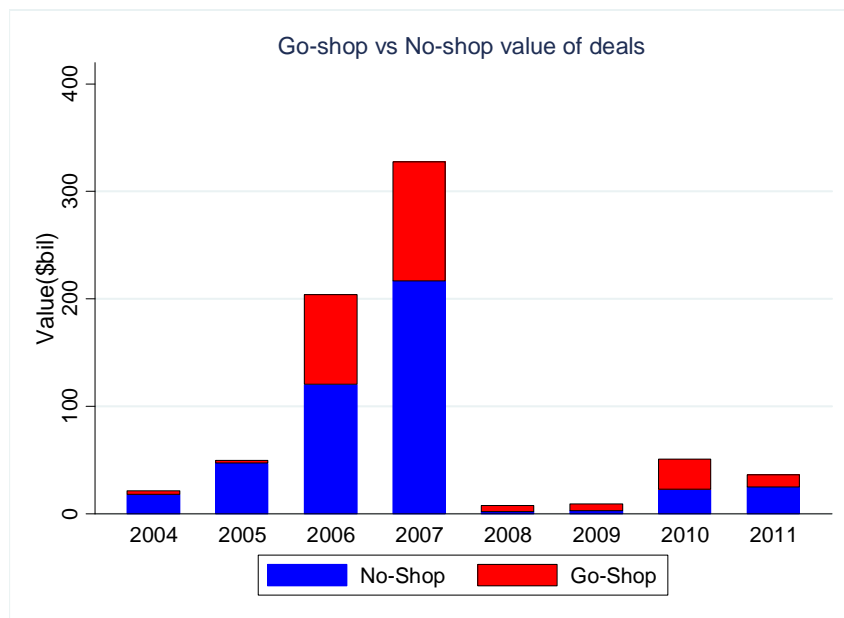
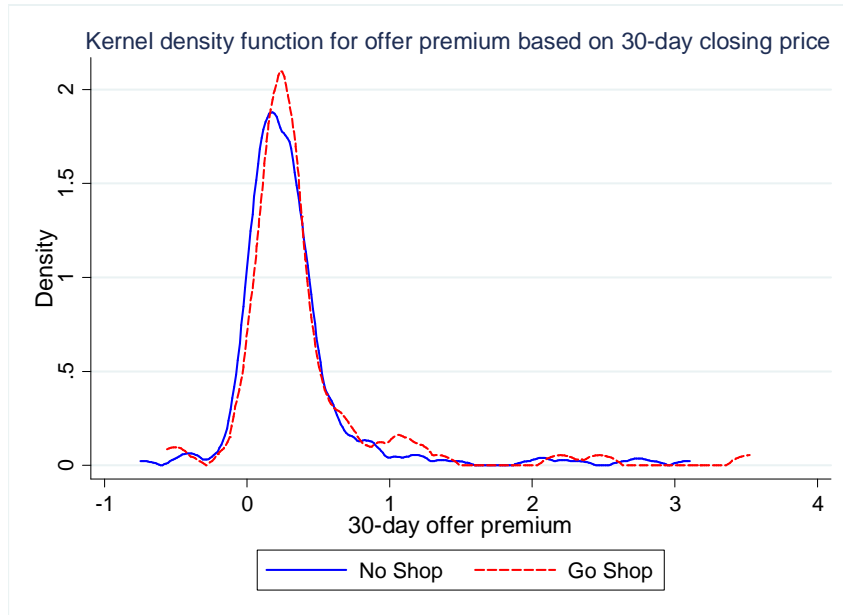


Figure 3: Distribution of offer-premium for go-shop vs no-shop deals. The diagrams show a kernel density function for the offer-premium for go-shop deals (dashed line) and no-shop deals (solid line). Panel (a) shows the distribution for the offer premium defined using the 30-day pre-offer price and panel (b) shows the distribution for the offer premium defined using the 5-day pre-offer price.

Panel (a)



Panel (b)



Figure 4: Distribution of the log of enterprise value for go-shops vs no-shops. The diagrams show a kernel density function for the natural logarithm of enterprise value for go-shop deals (dashed line) and no-shop deals (solid line).

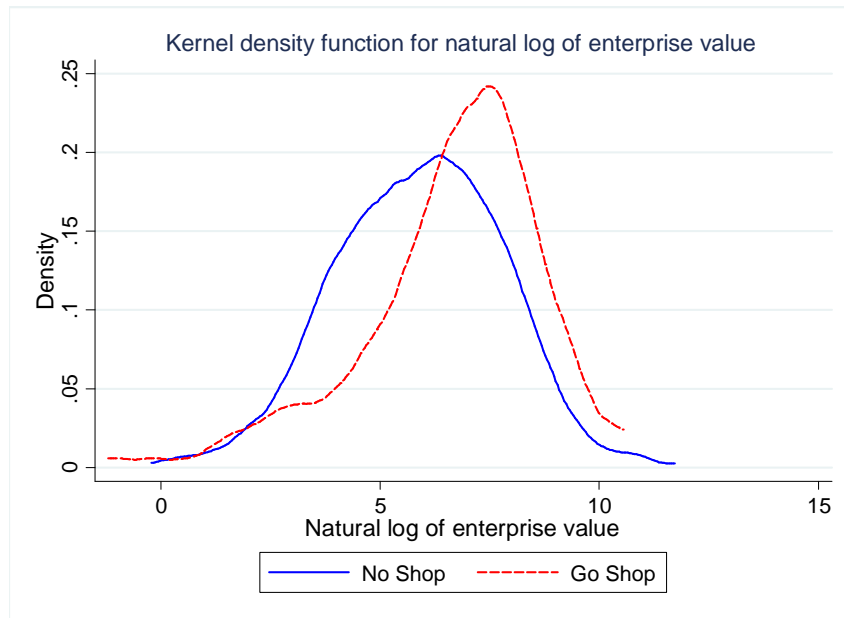


Figure 5: Distribution of target 31-day CARs. The figure shows the distribution of cumulative abnormal returns for the target for the period starting 15 days prior to the announcement date and extending to 15 days after the announcement date. The distributions are shown separately for go-shops (dashed line) and no-shops (solid line).

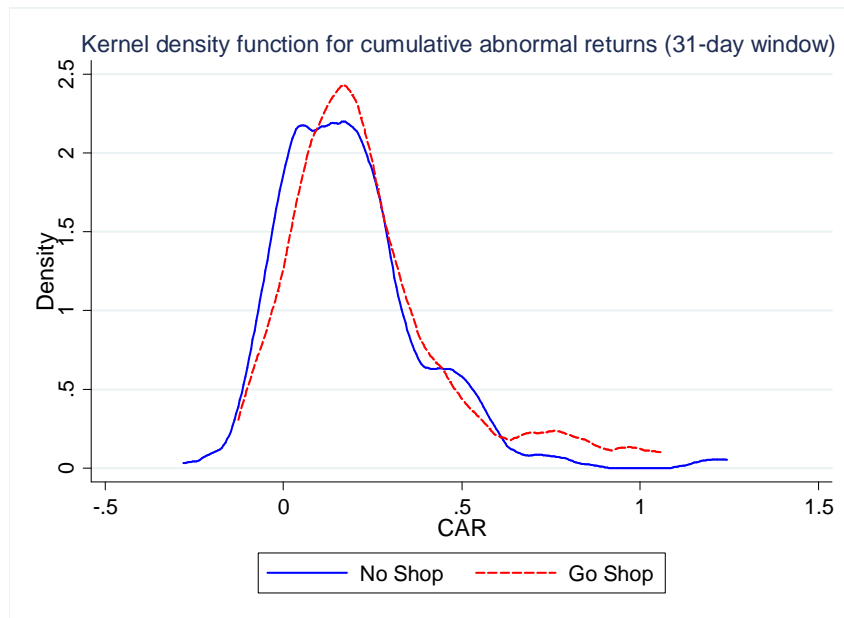


Figure 6: Evolution of target CARs. The figure shows the evolution of cumulative abnormal returns for the target for windows starting 15 days prior to the announcement date and eventually extending to 15 days after the announcement date. CARs are shown separately for go-shops (dashed line) and no-shops (solid line).

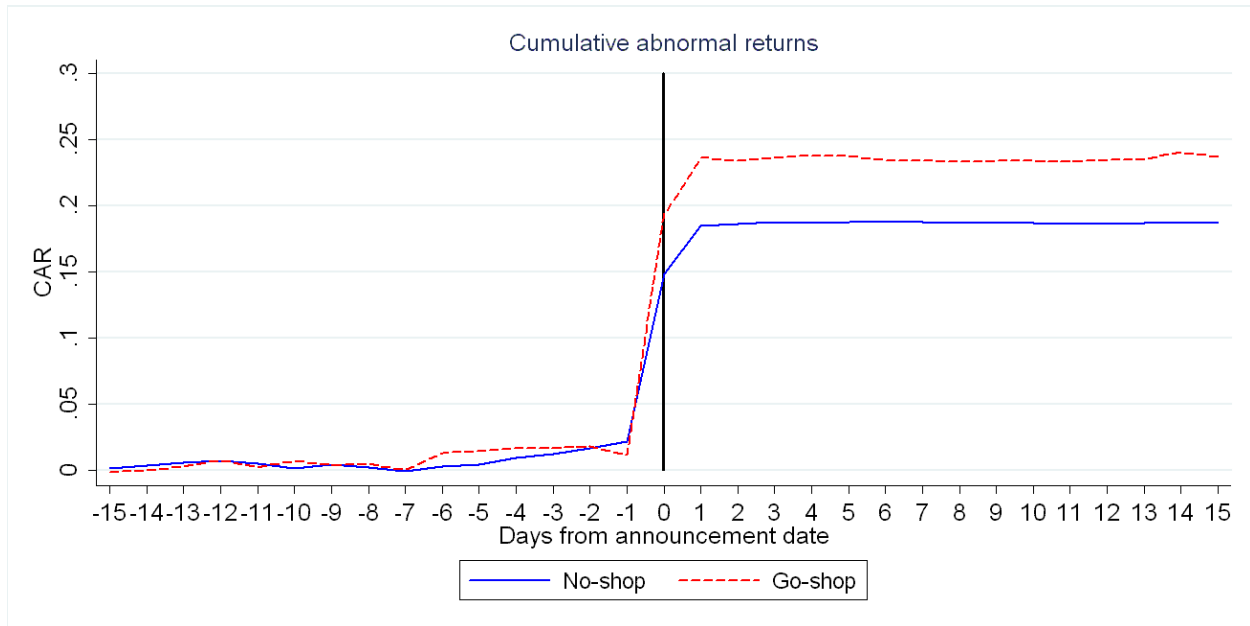


Table 1
Variable Definitions

VARIABLE	DEFINITION
Go-Shop	Merger agreement contains a go-shop provision
30-day pre-offer price	Closing price 30 days prior to announcement
5-day pre-offer price	Closing price 5 days prior to announcement
Offer premium*	(Offer price divided by pre-offer price)-1
52wk High Offer Ratio*	Highest value of target stock price for the 252 trading days before the day at which the pre-offer price is measured, divided by pre-offer price
Volatility*	Annualized standard deviation of daily log returns over the period extending 252 trading days back from the day at which the pre-offer price is measured
Leverage*	(Total debt) divided by [(number of shares outstanding)*(pre-offer price)+(total debt)]
Acq_Termin_Fee	Acquiror termination fee as a percentage of transaction value
Target_Termin_Fee	Target termination fee as a percentage of transaction value
Auction	An auction was conducted as determined by Merger Metrics
Management_Buyout	The transaction was a management buyout
Large_Target	The target's log of enterprise value lies above the median
Total Owner. by 5% Holders > 20%	Total percentage ownership by owners of at least 5% stakes is greater than 20%
Largest Owner.>20% OR O&D Owner.>20%	Ownership by largest shareholder or collective ownership by officers and directors is greater than 20%
Number_O&D	Number of officers and directors of the target
Financing_Condition	The merger agreement contains a financing condition
Target_Adv_Fin	The target's financial advisor provided financing for the acquiror
Target_Adv_AcqServ	The target's financial advisor provided other services for the acquiror
Legal_Adv_Rank	The average of the total number of deals of the target's legal advisors over the three years prior to the year of announcement lies above the upper quartile of the distribution
Multiple_Lawyers	The target had multiple legal advisors
Special_Committee	A special committee was formed
CAR [-t ₁ ,t ₂]	Cumulative abnormal daily returns over the window which starts t ₁ days before the announcement date and ends t ₂ days after the announcement date. Daily abnormal returns are calculated using the market model with parameters estimated over the period which starts 268 days and ends 16 days prior to the announcement day. The S&P 500 index return is the market return
Jumper	Takes the value of 1 if either (a) there is a change in the cash consideration offered due to a subsequent bid being placed or (b) there is a change in the winning bidder, and 0 otherwise.

*The variable has alternative definitions using either the 5-day or the 30-day pre-offer price

Table 2
Sample Descriptive Statistics

This table presents descriptive statistics for a sample of acquisitions announced over the period January 1, 2004 to December 31, 2011 identified based on information set forth in the database of MergerMetrics, which is a product of FactSet, where the target is a U.S. public company, the transaction reflects the consideration set forth in the initially executed merger agreement between the target and acquiror, consideration paid to the target shareholders was cash and was offered pursuant to a transaction whereby public ownership in the target would cease, the acquiror was either a financial or private equity buyer, the transaction was not pursuant to a tender offer and target had available each of the (a) merger agreement and Merger Proxy Statement for the transaction and the most recent proxy statement for the regularly scheduled annual meeting of shareholders on the EDGAR database of the SEC and (b) stock price data. Definitions for the variables are shown in Table 1. Columns (1)-(6) show the mean, median, standard deviation, minimum value, maximum value, and number of observations respectively.

VARIABLE	Mean (1)	Median (2)	SD (3)	Min (4)	Max (5)	N (6)
Go-Shop	0.278	0	0.449	0	1	306
Offer premium based on 30-day closing price	0.334	0.244	0.482	-0.748	3.523	306
Offer premium based on 5-day closing price	0.304	0.225	0.388	-0.738	3.208	306
52wk High Offer Ratio 30 days prior to announcement	1.487	1.183	1.199	1	16.88	306
52wk High Offer Ratio 5 days prior to announcement	1.426	1.169	0.794	1	8.652	306
Volatility 30 days prior to announcement	0.482	0.382	0.325	0.157	2.656	306
Volatility 5 days prior to announcement	0.478	0.375	0.322	0.164	2.543	306
Leverage based on 30-day closing price	0.221	0.123	0.249	0	0.927	306
Leverage based on 5-day closing price	0.220	0.128	0.248	0	0.924	306
Acq_Termin_Fee	0.0301	0.0275	0.0330	0	0.165	306
Target_Termin_Fee	0.0358	0.0326	0.0190	0	0.198	306
Auction	0.605	1	0.490	0	1	306
Management_Buyout	0.105	0	0.307	0	1	306
Enterprise Value (\$mil)	2,308	529.8	8,222	0.300	123,345	306
Total Ownership by 5% Holders > 20%	0.866	1	0.341	0	1	306
Largest Owner.>20% OR O&D Owner.>20%	0.565	1	0.497	0	1	306
Number_O&D	12.75	12	4.251	4	34	306
Financing_Condition	0.229	0	0.421	0	1	306
Target_Adv_Fin	0.147	0	0.355	0	1	306
Target_Adv_AcqServ	0.490	0	0.501	0	1	306
Legal_Adv_Rank	0.225	0	0.419	0	1	306
Multiple_Lawyers	0.0980	0	0.298	0	1	306
Special_Committee	0.572	1	0.496	0	1	306

Table 3
Conditional Means Tests

This table presents t tests on the equality of means for a list of variables for a sample of acquisitions of U.S. public companies, announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section III. Column (1) shows the mean value of each variable within the group of deals with a no-shop provision, column (2) shows the mean value within the group of deals with a go-shop provision, and column (3) shows the difference in the means of the two groups tested against the null of equal means and assuming unequal variances for the distributions of the two groups, ***, **, and * denote that the mean of deals with go-shop provisions differs significantly from the mean of deals with no-shop provisions at the 1%, 5%, and 10% level, respectively.

VARIABLE	NO-SHOP (1)	GO-SHOP (2)	DIFFERENCE (3)
Offer premium based on 30-day closing price	0.3156	0.3834	0.0677
Offer premium based on 5-day closing price	0.2825	0.3615	0.0790
52wk High Offer Ratio 30 days prior to announcement	1.4536	1.5737	0.1201
52wk High Offer Ratio 5 days prior to announcement	1.3842	1.5355	0.1513
Volatility 30 days prior to announcement	0.4796	0.4870	0.0074
Volatility 5 days prior to announcement	0.4764	0.4812	0.0047
Leverage based on 30-day closing price	0.2054	0.2624	0.0570*
Leverage based on 5-day closing price	0.2039	0.2610	0.0571*
Acq_Termin_Fee	0.0277	0.0363	0.0086**
Target_Termin_Fee	0.0363	0.0344	-0.0019
Auction	0.7195	0.3059	-0.4136***
Management_Buyout	0.0905	0.1412	0.0507
Enterprise Value	2.0e+03	3.0e+03	939.8212
Total Ownership by 5% Holders > 20%	0.8914	0.8000	-0.0914*
Largest Owner.>20% OR O&D Owner.>20%	0.5973	0.4824	-0.1149*
Number_O&D	12.3394	13.8000	1.4606**
Financing_Condition	0.2579	0.1529	-0.1050**
Target_Adv_Fin	0.1538	0.1294	-0.0244
Target_Adv_AcqServ	0.4480	0.6000	0.1520**
Legal_Adv_Rank	0.1855	0.3294	0.1439**
Multiple_Lawyers	0.0814	0.1412	0.0597
Special_Committee	0.5294	0.6824	0.1529**

Table 4
OLS Estimates For The Offer Premium

This table shows the results of an OLS regression of the offer premium, for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section III. The offer premium is defined as the initial bid price divided by the pre-offer price, minus 1. Go-Shop is a variable that takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. In columns (1)-(2) variables are defined using the closing price 30 days prior to the announcement date as the pre-offer price. Column (1) reports the coefficients for the complete sample which includes MBOs and column (2) for the subsample which excludes MBOs. Columns (3)-(4) repeat the estimations shown in columns (1)-(2), using definitions of variables based on the closing price 5 days prior to the announcement date as the pre-offer price. The regressions control for year fixed effects. Robust standard errors in parenthesis, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

DEFINITIONS MANAGEMENT BUYOUTS DEPENDENT VARIABLE: OFFER PREMIUM	BASED ON 30-DAY PRE-OFFER PRICE		BASED ON 5-DAY PRE-OFFER PRICE	
	INCLUDED (1)	EXCLUDED (2)	INCLUDED (3)	EXCLUDED (4)
Go-Shop	-0.0133 (0.0696)	-0.0751 (0.0575)	-0.0029 (0.0619)	-0.0638 (0.0492)
52wk_High_Ratio	0.1855*** (0.0381)	0.2029*** (0.0451)	0.1908*** (0.0561)	0.2333*** (0.0565)
Volatility	0.1691 (0.1134)	0.1871* (0.1118)	0.2202** (0.0944)	0.2101** (0.0927)
Acq_Termin_Fee	1.0929 (0.9552)	0.5950 (0.9837)	-0.2011 (0.7119)	-0.6616 (0.6802)
Target_Termin_Fee	-4.0819*** (1.5482)	-3.1588*** (1.1630)	-1.8065 (1.3453)	-1.2222 (1.1002)
Leverage	0.3796*** (0.1308)	0.3208*** (0.1158)	0.2788*** (0.1012)	0.2164** (0.0845)
Auction	-0.0356 (0.0411)	-0.0589 (0.0422)	-0.0467 (0.0334)	-0.0696** (0.0338)
Management_Buyout	0.0140 (0.1179)		0.0502 (0.0974)	
Large_Target	-0.0788 (0.0484)	-0.0532 (0.0435)	-0.0442 (0.0406)	-0.0163 (0.0369)
Total Owner. by 5% Holders > 20%	-0.0732 (0.0546)	-0.0884 (0.0566)	-0.0841* (0.0473)	-0.0934* (0.0499)
Largest Owner.>20% OR O&D Owner.>20%	0.0825 (0.0557)	0.0450 (0.0508)	0.0539 (0.0464)	0.0223 (0.0404)
Number_O&D	-0.0002 (0.0064)	0.0019 (0.0050)	-0.0024 (0.0057)	0.0006 (0.0046)
Financing_Condition	-0.1014 (0.0693)	-0.0370 (0.0514)	-0.0787 (0.0597)	-0.0190 (0.0467)
Target_Adv_Fin	-0.0128 (0.0533)	-0.0045 (0.0515)	-0.0001 (0.0499)	0.0129 (0.0491)
Target_Adv_AcqServ	0.0384 (0.0494)	0.0254 (0.0454)	0.0473 (0.0433)	0.0258 (0.0386)
Constant	-0.0020 (0.1268)	-0.0154 (0.1157)	-0.0467 (0.1088)	-0.0875 (0.1001)
Observations	306	274	306	274
Adjusted R-Squared	0.338	0.439	0.292	0.416

Table 5
Determinants Of The Go-Shop Decision

The table presents results for a probit regression analysis of the decision to include a go-shop provision in the initial agreement, for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section III. The dependent variable takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. In all definitions, the closing price 30 days prior to the announcement date is used as the pre-offer price. Column (1) reports the coefficients for a model which includes a full set of control variables, instruments, and year fixed effects, and column (2) reports the coefficients for a parsimonious model which includes only the instruments and does not control for year fixed effects. Both models are estimated over the complete sample which includes MBOs. Columns (3) and (4) repeat the estimations shown in columns (1) and (2) respectively over the subsample which excludes MBOs. Robust standard errors in parenthesis, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MANAGEMENT BUYOUTS MODEL DEPENDENT VARIABLE: GO-SHOP DECISION	INCLUDED		EXCLUDED	
	FULL (1)	INSTR. ONLY (2)	FULL (3)	INSTR. ONLY (4)
Multiple_Lawyers	0.4113 (0.2880)	0.4813* (0.2467)	0.3256 (0.3123)	0.4240 (0.2625)
Legal_Adv_Rank	0.6116*** (0.2330)	0.5527*** (0.1820)	0.6530*** (0.2515)	0.5453*** (0.1879)
Special_Committee	0.6334*** (0.2210)	0.4975*** (0.1657)	0.6591*** (0.2295)	0.4549*** (0.1720)
52wk_High_Ratio	0.0110 (0.0711)		-0.0060 (0.0671)	
Volatility	0.2389 (0.4200)		0.2111 (0.4170)	
Acq_Termin_Fee	1.9033 (3.5393)		-2.1261 (3.8073)	
Target_Termin_Fee	-2.7234 (5.2070)		-9.3770 (7.0768)	
Leverage	-0.1667 (0.4948)		0.0449 (0.5535)	
Auction	-1.5710*** (0.2237)		-1.6545*** (0.2403)	
Management_Buyout	0.3292 (0.3648)			
Large_Target	0.5950** (0.2410)		0.5241* (0.2738)	
Total Owner. by 5% Holders > 20%	0.3057 (0.2861)		0.3879 (0.3078)	
Largest Owner.>20% OR O&D Owner.>20%	-0.9647*** (0.2719)		-1.1595*** (0.3333)	
Number_O&D	0.0227 (0.0235)		0.0470* (0.0250)	
Financing_Condition	0.4306 (0.3306)		0.6059* (0.3604)	
Target_Adv_Fin	0.0934 (0.2790)		0.1946 (0.2887)	
Target_Adv_AcqServ	0.1414 (0.2137)		0.0904 (0.2256)	
Constant	-2.2946*** (0.6775)	-1.0773*** (0.1496)	-2.5271*** (0.7881)	-1.0654*** (0.1501)
Observations	306	306	274	274
Pseudo R-Squared	0.392	0.0514	0.422	0.0488

Table 6
2SLS Estimates For The Offer Premium

The table shows the results of a 2SLS estimation of the effect of the go-shop provision on the offer-premium for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section III. We employ a 2SLS methodology, adapted for the case of an endogenous binary variable and discussed in detail in the Appendix. The dependent variable in the second stage is the offer premium, defined as the initial bid price divided by the pre-offer price, minus 1. The endogenous variable is Go-Shop, and takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. In columns (1)-(2) variables are defined using the closing price 30 days prior to the announcement date as the pre-offer price. Column (1) reports the coefficients for the complete sample which includes MBOs and column (2) for the subsample which excludes MBOs. Columns (3)-(4) repeat the estimations shown in columns (1)-(2), using definitions of variables based on the closing price 5 days prior to the announcement date as the pre-offer price. All 2SLS regressions control for year fixed effects. Robust standard errors in parenthesis, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

DEFINITIONS MANAGEMENT BUYOUTS DEPENDENT VARIABLE: OFFER PREMIUM	BASED ON 30-DAY PRE-OFFER PRICE		BASED ON 5-DAY PRE-OFFER PRICE	
	INCLUDED (1)	EXCLUDED (2)	INCLUDED (3)	EXCLUDED (4)
Go-Shop	-0.3508** (0.1698)	-0.2384* (0.1329)	-0.2378* (0.1433)	-0.1540 (0.1100)
52wk_High_Ratio	0.1872*** (0.0393)	0.2028*** (0.0443)	0.2029*** (0.0532)	0.2364*** (0.0551)
Volatility	0.1733 (0.1134)	0.1896* (0.1086)	0.2087** (0.0933)	0.2072** (0.0886)
Acq_Termin_Fee	1.0886 (0.9688)	0.5120 (0.9573)	-0.1880 (0.7152)	-0.7012 (0.6565)
Target_Termin_Fee	-4.0102** (1.6234)	-3.3143*** (1.2224)	-1.8293 (1.3964)	-1.3195 (1.1113)
Leverage	0.3879*** (0.1327)	0.3325*** (0.1122)	0.2853*** (0.1023)	0.2233*** (0.0814)
Auction	-0.1604** (0.0758)	-0.1194** (0.0557)	-0.1326** (0.0640)	-0.1030** (0.0437)
Management_Buyout	0.0418 (0.1287)		0.0680 (0.1063)	
Large_Target	-0.0210 (0.0615)	-0.0279 (0.0474)	-0.0035 (0.0518)	-0.0021 (0.0393)
Total Owner. by 5% Holders > 20%	-0.0753 (0.0530)	-0.0897* (0.0534)	-0.0851* (0.0444)	-0.0940** (0.0471)
Largest Owner.>20% OR O&D Owner.>20%	0.0302 (0.0490)	0.0210 (0.0496)	0.0169 (0.0381)	0.0088 (0.0385)
Number_O&D	0.0010 (0.0060)	0.0033 (0.0051)	-0.0014 (0.0053)	0.0013 (0.0045)
Financing_Condition	-0.0651 (0.0650)	-0.0212 (0.0516)	-0.0524 (0.0539)	-0.0095 (0.0457)
Target_Adv_Fin	-0.0312 (0.0567)	-0.0123 (0.0503)	-0.0124 (0.0509)	0.0088 (0.0468)
Target_Adv_AcqServ	0.0551 (0.0537)	0.0299 (0.0436)	0.0574 (0.0461)	0.0280 (0.0367)
Constant	0.0366 (0.1238)	0.0053 (0.1102)	-0.0276 (0.1059)	-0.0788 (0.0963)
Observations	306	274	306	274
Centered R-Squared	0.321	0.464	0.295	0.452
Anderson-Rubin Wald (signif. of endogenous, pval)	0.0292	0.0686	0.0873	0.163
Kleibergen-Paap rk LM (underid, pval)	6.67e-11	1.97e-10	5.71e-11	1.56e-10
Kleibergen-Paap rk Wald F (weakid, stat)	67.45	60.55	68.13	61.29
Stock-Yogo 10% maximal IV size (weakid, critical val)	16.38	16.38	16.38	16.38

Table 7
2SLS Estimates For The Offer Premium With Instruments Treated as Controls

The table shows the results of a 2SLS estimation of the effect of the go-shop provision on the offer-premium for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section III. We employ a 2SLS methodology, adapted for the case of an endogenous binary variable and discussed in detail in the Appendix. Instrumental variables are also treated as controls, and the estimator thus relies solely on the non-linearity of the probit stage for identification. The dependent variable in the second stage is the offer premium, defined as the initial bid price divided by the pre-offer price, minus 1. The endogenous variable is Go-Shop, and takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. All variables are defined using the closing price 30 days prior to the announcement date as the pre-offer price. Column (1) reports the coefficients for the complete sample which includes MBOs and column (2) for the subsample which excludes MBOs. Columns (3)-(4) repeat the estimations shown in columns (1)-(2), using a parsimonious model in the linear stages, but a full model in the probit stage. All 2SLS regressions control for year fixed effects. Robust standard errors in parenthesis, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MODEL MANAGEMENT BUYOUTS DEPENDENT VARIABLE: OFFER PREMIUM	FULL		PARSIMONIOUS	
	INCLUDED (1)	EXCLUDED (2)	INCLUDED (3)	EXCLUDED (4)
Go-Shop	-0.2187 (0.1678)	-0.1315 (0.1321)	-0.2932** (0.1373)	-0.1847 (0.1146)
Legal_Adv_Rank	-0.0784* (0.0475)	-0.0749 (0.0468)	-0.0369 (0.0458)	-0.0457 (0.0429)
Multiple_Lawyers	-0.1013** (0.0491)	-0.0912* (0.0480)	-0.0864* (0.0474)	-0.0832* (0.0476)
Special_Committee	-0.0233 (0.0444)	-0.0298 (0.0395)	-0.0166 (0.0439)	-0.0285 (0.0391)
fiftytwo_week_high_ratio	0.1854*** (0.0381)	0.2026*** (0.0435)	0.1899*** (0.0405)	0.2040*** (0.0450)
volatility	0.1678 (0.1094)	0.1826* (0.1072)	0.1343 (0.1036)	0.1628 (0.0990)
Acq_Termin_Fee	1.0832 (0.9480)	0.5570 (0.9410)		
Target_Termin_Fee	-3.9941** (1.6041)	-3.1376*** (1.1672)	-4.1526*** (1.5052)	-3.3784*** (1.1599)
leverage	0.3910*** (0.1295)	0.3350*** (0.1118)	0.4181*** (0.1475)	0.3428*** (0.1152)
Auction	-0.1190 (0.0736)	-0.0883 (0.0560)	-0.1508** (0.0732)	-0.1068* (0.0560)
Management_Buyout	0.0282 (0.1228)			
Large_Target	-0.0261 (0.0596)	-0.0255 (0.0466)		
Total Ownership by 5% Holders > 20%	-0.0898* (0.0541)	-0.1026* (0.0560)	-0.0766 (0.0556)	-0.0965* (0.0566)
Largest Owner.>20% OR O&D Owner.>20%	0.0581 (0.0496)	0.0473 (0.0507)		
Number_O&D	0.0010 (0.0058)	0.0030 (0.0050)		
Financing_Condition	-0.0831 (0.0633)	-0.0342 (0.0512)		
Target_Adv_Fin	-0.0270 (0.0535)	-0.0111 (0.0492)		
Target_Adv_AcqServ	0.0648 (0.0559)	0.0413 (0.0462)		
Constant	0.0543 (0.1219)	0.0179 (0.1120)	0.0754 (0.1024)	0.0772 (0.0985)
Observations	306	274	306	274
Centered R-Squared	0.369	0.488	0.333	0.475
Anderson-Rubin Wald (signif. of endogenous, pval)	0.179	0.316	0.0271	0.106
Kleibergen-Paap rk LM (underid, pval)	1.03e-09	2.47e-09	0	0
Kleibergen-Paap rk Wald F (weakid, stat)	53.58	47.71	96.47	92.12
Stock-Yogo 10% maximal IV size (weakid, critical val)	16.38	16.38	16.38	16.38

Table 8
2SLS Estimates For The Probability of a “Jumper”

The table shows the results of a 2SLS estimation of the effect of the go-shop provision on the probability of a jumper for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section III. We employ a 2SLS methodology, adapted for the case of an endogenous binary variable and discussed in detail in the Appendix. The dependent variable in the second stage is the jumper dummy, which takes the value of 1 if either (a) there is a change in the cash consideration offered due to a subsequent bid being placed or (b) there is a change in the winning bidder, and 0 otherwise. The endogenous variable is Go-Shop, and takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. Variables are defined using the closing price 30 days prior to the announcement date as the pre-offer price. Column (1) reports the coefficients for the complete sample which includes MBOs and column (2) for the subsample which excludes MBOs. All 2SLS regressions control for year fixed effects. Robust standard errors in parenthesis, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MANAGEMENT BUYOUTS DEPENDENT VARIABLE: PROBABILITY OF A JUMPER	INCLUDED (1)	EXCLUDED (2)
Go-Shop	0.0419 (0.0976)	0.0348 (0.1068)
52wk_High_Ratio	0.0040 (0.0095)	-0.0028 (0.0083)
Volatility	-0.0718* (0.0368)	-0.0712* (0.0375)
Acq_Termin_Fee	-0.4597 (0.5419)	-0.8521* (0.4901)
Target_Termin_Fee	-0.1927 (0.9048)	-0.1309 (1.0034)
Leverage	0.0443 (0.0585)	0.0003 (0.0561)
Auction	-0.0377 (0.0442)	-0.0523 (0.0446)
Management_Buyout	0.0115 (0.0493)	
Large_Target	-0.0593 (0.0433)	-0.0254 (0.0396)
Total Owner. by 5% Holders > 20%	-0.0340 (0.0566)	-0.0441 (0.0615)
Largest Owner.>20% OR O&D Owner.>20%	-0.0743** (0.0362)	-0.0642* (0.0341)
Number_O&D	0.0003 (0.0048)	0.0002 (0.0053)
Financing_Condition	0.0120 (0.0373)	0.0196 (0.0432)
Target_Adv_Fin	-0.0142 (0.0374)	-0.0175 (0.0391)
Target_Adv_AcqServ	0.0258 (0.0358)	0.0211 (0.0380)
Constant	0.2098 (0.1288)	0.1909 (0.1325)
Observations	306	274
Centered R-Squared	0.0602	0.0700
Anderson-Rubin Wald (signif. of endogenous, pval)	0.668	0.745
Kleibergen-Paap rk LM (underid, pval)	6.67e-11	1.97e-10
Kleibergen-Paap rk Wald F (weakid, stat)	67.45	60.55
Stock-Yogo 10% maximal IV size (weakid, critical val)	16.38	16.38

Table 9
Conditional means tests for target CARs

This table presents t tests on the equality of means for target CARs for a sample of acquisitions of U.S. public companies, announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section III. Daily abnormal returns are calculated using the market model with parameters estimated over the period which starts 268 days and ends 16 days prior to the announcement day. The S&P 500 index return is the market return. The CARs are computed over the windows indicated in the square brackets, with the numbers indicating days from the announcement date. Day 0 corresponds to the announcement dates, negative numbers indicate days prior to the announcement date and positive numbers days after the announcement date. Column (1) shows the mean value of each variable within the group of deals with a no-shop provision, column (2) shows the mean value within the group of deals with a go-shop provision, and column (3) shows the difference in the means of the two groups tested against the null of equal means and assuming unequal variances for the distributions of the two groups, ***, **, and * denote that the mean of deals with go-shop provisions differs significantly from the mean of deals with no-shop provisions at the 1%, 5%, and 10% level, respectively.

VARIABLE	NO-SHOP (1)	GO-SHOP (2)	DIFFERENCE (3)
CAR [-15,15]	0.1835	0.2303	0.0469**
CAR [-15,-1]	0.0204	0.0111	-0.0093**
CAR [0,15]	0.1631	0.2192	0.0561*
CAR [-5,5]	0.1812	0.2195	0.0383*
CAR [-5,-1]	0.0174	-0.0016	-0.0189*
CAR [0,5]	0.1638	0.2211	0.0573**

Table 10
OLS Estimates For Target 31-Day CARs

This table shows the results of an OLS regression of CARs, for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section III. Daily abnormal returns are calculated using the market model with parameters estimated over the period which starts 268 days and ends 16 days prior to the announcement day. The S&P 500 index return is the market return. Go-Shop is a variable that takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. All variables are defined using the closing price 30 days prior to the announcement date as the pre-offer price. Columns (1)-(3) report the coefficients for the complete sample which includes MBOs. In column (1), the dependent variable is CARs over the period which starts 15 days prior to the announcement date and ends 15 days after the announcement date. In column (2) the dependent variable is the pre-announcement CARs, computed over the period which starts 15 days and ends 1 day prior to the announcement date. In column (3) the dependent variable is the post-announcement CARs, computed over the period which starts on the announcement date and ends 15 days after the announcement date. Columns (4)-(6) repeat the estimations shown in columns (1)-(3) over the sample which excludes MBOs. The regressions control for year fixed effects. Robust standard errors in parenthesis, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MANAGEMENT BUYOUTS PERIOD DEPENDENT VARIABLE: CARs	INCLUDED			EXCLUDED		
	[-15,15] (1)	[-15,-1] (2)	[0,15] (3)	[-15,15] (4)	[-15,-1] (5)	[0,15] (6)
Go-Shop	0.0062 (0.0294)	-0.0286 (0.0184)	0.0349 (0.0303)	-0.0046 (0.0316)	-0.0276 (0.0199)	0.0230 (0.0310)
52wk_High_Ratio	0.0609** (0.0277)	0.0342*** (0.0114)	0.0267 (0.0209)	0.0574** (0.0272)	0.0318*** (0.0116)	0.0256 (0.0202)
Volatility	0.0927 (0.0650)	-0.1074** (0.0430)	0.2001*** (0.0520)	0.0941 (0.0655)	-0.1141** (0.0443)	0.2082*** (0.0526)
Acq_Termin_Fee	0.5994 (0.5495)	0.4302 (0.3085)	0.1692 (0.4574)	0.1784 (0.5563)	0.3403 (0.3277)	-0.1619 (0.4119)
Target_Termin_Fee	-0.1870 (0.6964)	0.0748 (0.5959)	-0.2618 (0.7226)	-0.1176 (0.8176)	-0.1015 (0.7303)	-0.0161 (0.6985)
Leverage	0.1467*** (0.0464)	0.0425 (0.0300)	0.1041** (0.0410)	0.1641*** (0.0520)	0.0613* (0.0320)	0.1028** (0.0440)
Auction	-0.0616*** (0.0231)	-0.0169 (0.0151)	-0.0448** (0.0213)	-0.0712*** (0.0249)	-0.0135 (0.0159)	-0.0576*** (0.0221)
Management_Buyout	0.0002 (0.0403)	-0.0218 (0.0247)	0.0220 (0.0435)			
Large_Target	-0.0807*** (0.0291)	-0.0251* (0.0152)	-0.0556** (0.0280)	-0.0593** (0.0294)	-0.0228 (0.0159)	-0.0365 (0.0263)
Total Owner. by 5% Holders > 20%	-0.0038 (0.0247)	-0.0048 (0.0163)	0.0009 (0.0228)	-0.0100 (0.0266)	-0.0105 (0.0165)	0.0005 (0.0239)
Largest Owner.>20% OR O&D Owner.>20%	0.0187 (0.0255)	0.0123 (0.0152)	0.0064 (0.0219)	0.0178 (0.0287)	0.0099 (0.0161)	0.0079 (0.0236)
Number_O&D	0.0033 (0.0024)	0.0060*** (0.0018)	-0.0027 (0.0022)	0.0020 (0.0026)	0.0053*** (0.0019)	-0.0033 (0.0023)
Financing_Condition	0.0061 (0.0303)	0.0091 (0.0150)	-0.0030 (0.0293)	0.0041 (0.0354)	0.0160 (0.0163)	-0.0119 (0.0315)
Target_Adv_Fin	-0.0107 (0.0259)	-0.0186 (0.0152)	0.0079 (0.0245)	-0.0139 (0.0259)	-0.0205 (0.0154)	0.0066 (0.0243)
Target_Adv_AcqServ	0.0401 (0.0244)	0.0070 (0.0128)	0.0331 (0.0239)	0.0384 (0.0254)	0.0093 (0.0132)	0.0291 (0.0239)
Constant	-0.0088 (0.0649)	-0.0427 (0.0427)	0.0339 (0.0587)	0.0108 (0.0702)	-0.0429 (0.0475)	0.0537 (0.0591)
Observations	298	298	298	267	267	267
Adjusted R-Squared	0.309	0.118	0.282	0.283	0.122	0.302

Table 11
2SLS Estimates For Target 31-day CARs

The table shows the results of a 2SLS estimation of the effect of the go-shop provision on CARs for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section III. We employ a 2SLS methodology, adapted for the case of an endogenous binary variable and discussed in detail in Section IV. The dependent variable in the second stage is CARs. Daily abnormal returns are calculated using the market model with parameters estimated over the period which starts 268 days and ends 16 days prior to the announcement day. The S&P 500 index return is the market return. The endogenous variable is Go-Shop, and takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. All variables are defined using the closing price 30 days prior to the announcement date as the pre-offer price. Columns (1)-(3) report the coefficients for the complete sample which includes MBOs. In column (1), the dependent variable is CARs over the period which starts 15 days prior to the announcement date and ends 15 days after the announcement date. In column (2) the dependent variable is the pre-announcement CARs, computed over the period which starts 15 days and ends 1 day prior to the announcement date. In column (3) the dependent variable is the post-announcement CARs, computed over the period which starts on the announcement date and ends 15 days after the announcement date. Columns (4)-(6) repeat the estimations shown in columns (1)-(3) over the sample which excludes MBOs. The regressions control for year fixed effects. Robust standard errors in parenthesis, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MANAGEMENT BUYOUTS	INCLUDED			EXCLUDED		
PERIOD	[-15,15]	[-15,-1]	[0,15]	[-15,15]	[-15,-1]	[0,15]
DEPENDENT VARIABLE: CARs	(1)	(2)	(3)	(4)	(5)	(6)
Go-Shop	0.0128 (0.0638)	0.0137 (0.0446)	-0.0009 (0.0618)	0.0239 (0.0698)	0.0286 (0.0472)	-0.0047 (0.0645)
52wk_High_Ratio	0.0609** (0.0266)	0.0343*** (0.0109)	0.0266 (0.0205)	0.0578** (0.0260)	0.0324*** (0.0114)	0.0253 (0.0195)
Volatility	0.0925 (0.0624)	-0.1086** (0.0427)	0.2011*** (0.0513)	0.0930 (0.0628)	-0.1163*** (0.0450)	0.2093*** (0.0519)
Acq_Termin_Fee	0.5987 (0.5273)	0.4254 (0.2992)	0.1733 (0.4433)	0.1886 (0.5360)	0.3604 (0.3198)	-0.1718 (0.3976)
Target_Termin_Fee	-0.1782 (0.6712)	0.1317 (0.5599)	-0.3100 (0.6943)	-0.0082 (0.8072)	0.1143 (0.6693)	-0.1225 (0.6926)
Leverage	0.1464*** (0.0450)	0.0411 (0.0293)	0.1054*** (0.0395)	0.1613*** (0.0510)	0.0559* (0.0319)	0.1054** (0.0419)
Auction	-0.0592** (0.0299)	-0.0009 (0.0194)	-0.0583** (0.0272)	-0.0606* (0.0319)	0.0073 (0.0206)	-0.0679** (0.0276)
Management_Buyout	-0.0003 (0.0390)	-0.0251 (0.0242)	0.0248 (0.0425)			
Large_Target	-0.0819*** (0.0293)	-0.0328** (0.0161)	-0.0492* (0.0290)	-0.0636** (0.0298)	-0.0313* (0.0162)	-0.0323 (0.0271)
Total Owner. by 5% Holders > 20%	-0.0040 (0.0237)	-0.0056 (0.0153)	0.0017 (0.0216)	-0.0106 (0.0255)	-0.0118 (0.0155)	0.0011 (0.0226)
Largest Owner.>20% OR O&D Owner.>20%	0.0197 (0.0256)	0.0184 (0.0158)	0.0013 (0.0226)	0.0216 (0.0286)	0.0175 (0.0165)	0.0041 (0.0236)
Number_O&D	0.0032 (0.0024)	0.0058*** (0.0018)	-0.0026 (0.0021)	0.0017 (0.0026)	0.0048** (0.0020)	-0.0031 (0.0023)
Financing_Condition	0.0055 (0.0288)	0.0052 (0.0152)	0.0003 (0.0289)	0.0019 (0.0331)	0.0118 (0.0158)	-0.0099 (0.0305)
Target_Adv_Fin	-0.0103 (0.0250)	-0.0163 (0.0146)	0.0060 (0.0236)	-0.0126 (0.0248)	-0.0179 (0.0146)	0.0053 (0.0232)
Target_Adv_AcqServ	0.0398* (0.0234)	0.0050 (0.0126)	0.0348 (0.0231)	0.0378 (0.0242)	0.0080 (0.0129)	0.0298 (0.0227)
Constant	-0.0098 (0.0628)	-0.0491 (0.0403)	0.0393 (0.0561)	0.0047 (0.0679)	-0.0549 (0.0449)	0.0596 (0.0569)
Observations	298	298	298	267	267	267
Centered R-Squared	0.360	0.165	0.331	0.338	0.161	0.355
Anderson-Rubin Wald (signif. of endogenous, pval)	0.841	0.758	0.989	0.731	0.540	0.942
Kleibergen-Paap rk LM (underid, pval)	0	0	0	9.02e-11	9.02e-11	9.02e-11
Kleibergen-Paap rk Wald F (weakid, stat)	74.73	74.73	74.73	67.10	67.10	67.10
Stock-Yogo 10% maximal IV size (weakid, critical val)	16.38	16.38	16.38	16.38	16.38	16.38

Appendix: Methodology and Additional Tables

2SLS Methodology Adjusted for a Binary Endogenous Variable

The 2SLS estimation method consists of two linear stages, the first modeling the go-shop decision and the second using the fitted values from the first stage to estimate the exogenous effect of the go-shop decision on the offer premium. More concretely, in the first stage we estimate the specification shown in Equation (2), where the go-shop decision is modeled as a linear equation, which includes a set of control variables (α_i , $Controls_{it}$) and exogenous instruments ($Instruments_{it}$):

$$GO_i = \alpha_i + \delta \cdot Controls_{it} + \mu \cdot Instruments_{it} + w_{it} \quad (2)$$

Controls are defined as variables that affect both the go-shop decision and the acquisition premium. Instruments are assumed only to affect the go-shop decision; instruments only matter for the acquisition premium through their effect on the go-shop decision. For each deal, this linear first stage would yield estimates of the probability of including a go-shop decision, and this projected probability (\hat{GO}_i) would be used in the place of the go-shop dummy in the second stage, which models the offer premium. The second stage is shown in Equation (3), where the exogenous effect of the go-shop provision on the offer premium is captured by the estimated value of β :

$$OP_{it} = \kappa_i + \beta \cdot \hat{GO}_i + \gamma \cdot Controls_{it} + u_{it} \quad (3)$$

The go-shop decision is a binary variable, and although we could model this variable using a linear equation as described above, we can greatly improve the fit and efficiency of 2SLS by employing the use of a non-linear binary choice model such as the probit model for the first-stage regression. As in the linear case, we estimate the probit model using as explanatory variables a set of control variables that are common to the first and second stage, as well as one or more instrumental variables. The specification we use is shown in Equation (4), where $I(\cdot)$ is the indicator function and ε_{it} is a normally distributed error term:

$$GO_i = I(\alpha_i + \gamma \cdot Controls_{it} + \lambda \cdot Instruments_{it} + \varepsilon_{it} > 0) \quad (4)$$

Following the steps outlined as procedure 18.1 in Wooldridge (2002),²¹ the fitted probabilities from this “zeroth” stage regression can then be used as the *sole instrument* in the first stage of the 2SLS estimator. Denoting the fitted values from the probit \hat{GO}_{pr_i} , the first stage of the 2SLS now becomes:

$$GO_i = \alpha_i + \delta \cdot Controls_{it} + \mu \cdot \hat{GO}_{pr_i} + w_{it} \quad (5)$$

The second stage is estimated as in a normal 2SLS estimation. With an endogenous binary variable, this approach improves efficiency over the standard 2SLS estimator. We need not adjust the standard errors to account for having a generated instrument because (a) the probit estimates are \sqrt{N} -consistent and (b) $E(u_{it} | Controls_{it}, Instruments_{it} = 0) = 0$, and hence the \sqrt{N} -asymptotic distribution of β is the same whether we use the true or estimated coefficients from the probit stage in constructing the instrument.²²

This method relies on the standard 2SLS assumption that the control variables only have a linear effect on the second-stage dependent variable. In other words, in the offer-premium equation any non-linear effects should only be due to the nonlinearity introduced by the go-shop decision. Under this approach, in principle one could model the go-shop decision in the probit stage without including any additional exogenous regressors as instruments (i.e., just using the control variables from the second stage) and have the identification come exclusively from the non-linearity introduced by the probit model. To avoid issues of severe multicollinearity in the first stage, however, it is recommended that excluded instruments be added to the probit stage.

²¹ Wooldridge (2002) pg 623

²² Wooldridge (2002), pg 117

Two-Step Heckman Estimator

As an additional robustness test, we estimate the exogenous effect of the go-shop provision on the offer premium and CARs using a Heckman estimator.²³

If we think of the go-shop decision as the treatment variable, the bias we are concerned with arises from the fact that assignment to the treated (go-shop) and untreated (no-shop) groups may not be random and thus potentially endogenous to the outcome variable (offer premium or CARs). Similar to the 2SLS case, we can think of two stages, an assignment first stage and a primary second stage as shown in Equations (6) and (7) respectively:

$$GO_i = I(\alpha_i + \gamma \cdot Controls_{it} + \lambda \cdot Instruments_{it} + \varepsilon_{it} > 0) \quad (6)$$

$$OP_{it} = \kappa_i + \beta \cdot GO_i + \gamma \cdot Controls_{it} + u_{it} \quad (7)$$

In this setting, the endogeneity of the go-shop variable in the offer premium equation arises from a correlation between the error terms of the first and second stages. The Heckman estimator employs a control function approach in which the nature of the endogeneity is explicitly modeled in the second stage. In particular, after estimating the non-linear first stage, we include the generalized probit residual as an additional control in the second stage. Defining Z_{it} as in Equation (8) and allowing for the covariance between the error terms in the two stages to differ between the treated and untreated groups²⁴, the augmented second stage used in this approach is shown in Equation (9). In this framework, β consistently estimates the exogenous effect of the go-shop provision on the offer premium.

$$Z_{it} = \alpha_i + \gamma \cdot Controls_{it} + \lambda \cdot Instruments_{it} \quad (8)$$

²³ See Vella and Verbeek (1999) for a detailed discussion of the similarities between the IV and Heckman approach.

²⁴ The results remain unchanged if we assume the treated and untreated groups to have equal covariances between the error terms of the two stages.

$$OP_{it} = \kappa_i + \beta \cdot GO_i + \gamma \cdot Controls_{it} + \omega_1 \frac{\phi(-Z_{it})}{1 - \Phi(-Z_{it})} \cdot GO_i + \omega_0 \frac{-\phi(Z_{it})}{\Phi(-Z_{it})} \cdot (1 - GO_i) + u_{it} \quad (9)$$

The estimation method proceeds in two stages. We first estimate the decision to include a go-shop provision in the merger agreement using a probit model with a full set of controls, including variables capturing exogenous litigation risk aversion (the instruments). We then add the generalized probit residuals from this first stage (*_wL1*, *_wL0*) as additional controls in the second stage.

The results are shown for samples including or excluding management buyouts, and for full or parsimonious specifications of the offer-premium equation. Regressions control for year fixed effects. Bootstrapped standard errors are computed over 500 iterations. Appendix Table A1 displays the Heckman estimates for the 30-day premium using samples including or excluding MBOs, and for full and parsimonious specifications. Note that the corresponding probit stage always includes the full list of controls and the instruments. As can be seen, the results are qualitatively unchanged when compared to the ones obtained employing the 2SLS approach. The Heckman estimates also remain unchanged for the 5-day premium, as shown in columns (3)-(4) of Appendix Table A1.

We also repeat our tests for CARs using the Heckman estimator. Appendix Table A2 shows the results for the three CAR periods. Columns (1)-(3) show estimates for the complete sample and columns (4)-(6) show estimates for the sample that excludes MBOs. The estimates are very similar to those obtained using the 2SLS estimator. In unreported regressions we show that the results remain qualitatively unchanged if we estimate the effect over an 11-day window instead.

Construction of the lawyer rank variable

To construct the rank variable, we first compute the total number of deals that each legal advisor was involved in over the three-year period prior to the year of announcement of the acquisition. We then create a variable (*avgdeals*) which averages these deals over all of the legal advisors involved in each particular acquisition. Finally, we construct a dummy variable (*Legal_Adv_Rank*) which assumes the value

of 1 if the value of *avgdeals* for the particular acquisition exceeds a predefined threshold. The threshold we use is the upper quartile of the distribution of *avgdeals* over all acquisitions that were announced during the same year.²⁵

²⁵ We have experimented with different definitions of this variable involving the value of the deals instead of the number of deals, the maximum value of *deals* instead of the average for each acquisition, and using alternative threshold rules such as the mean and median of the distribution. The definition that created the strongest instrument was the one using the number of deals, averaged over the legal advisors involved in the acquisition, and compared against the upper quartile of the distribution.

Appendix Table A1
Heckman Estimates For The Offer Premium

The table shows the results of a Heckman estimation of the effect of the go-shop provision on the offer-premium for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section III. We employ a Heckman estimator discussed in detail in the Appendix. The dependent variable in the second stage is the offer premium, defined as the initial bid price divided by the pre-offer price, minus 1. The selection variable is Go-Shop, and takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. In all definitions the closing price 30 days prior to the announcement date is used as the pre-offer price. We first estimate the decision to include a go-shop provision in the initial agreement using a probit model with a full set of controls, including variables capturing exogenous litigation risk aversion, shown in Column 1 of Table 5. We then add the generalized probit residuals from this first stage ($_wL1$, $_wL0$) as additional controls and estimate the second stage. In columns (1)-(2) variables are defined using the closing price 30 days prior to the announcement date as the pre-offer price. Column (1) reports the coefficients for the complete sample which includes MBOs and column (2) for the subsample which excludes MBOs. Columns (3)-(4) repeat the estimations shown in columns (1)-(2), using definitions of variables based on the closing price 5 days prior to the announcement date as the pre-offer price. All regressions control for year fixed effects. Standard errors in parenthesis, bootstrapped over 500 iterations, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

DEFINITIONS MANAGEMENT BUYOUTS DEPENDENT VARIABLE: OFFER PREMIUM	BASED ON 30-DAY PRE-OFFER PRICE		BASED ON 5-DAY PRE-OFFER PRICE	
	INCLUDED (1)	EXCLUDED (2)	INCLUDED (3)	EXCLUDED (4)
Go-Shop	-0.4054** (0.1730)	-0.2920** (0.1336)	-0.2724** (0.1378)	-0.1809 (0.1164)
52wk_High_Ratio	0.1874*** (0.0681)	0.2035** (0.0802)	0.2046*** (0.0654)	0.2383*** (0.0669)
Volatility	0.1753 (0.1275)	0.1862 (0.1325)	0.2019* (0.1078)	0.1970* (0.1115)
Acq_Termin_Fee	1.0749 (0.9317)	0.5387 (0.9678)	-0.0987 (0.7525)	-0.5335 (0.7150)
Target_Termin_Fee	-4.0059** (1.6760)	-3.3510*** (1.1701)	-1.7653 (1.4077)	-1.2972 (1.2786)
Leverage	0.3902*** (0.1388)	0.3330*** (0.1164)	0.2788*** (0.1026)	0.2127** (0.0847)
Auction	-0.1814** (0.0729)	-0.1368** (0.0603)	-0.1397** (0.0636)	-0.1050** (0.0476)
Management_Buyout	0.0473 (0.1218)		0.0645 (0.1003)	
Large_Target	-0.0108 (0.0611)	-0.0224 (0.0490)	-0.0035 (0.0509)	-0.0073 (0.0424)
Total Ownership by 5% Holders > 20%	-0.0753 (0.0560)	-0.0915 (0.0610)	-0.0875* (0.0472)	-0.0988* (0.0505)
Largest Owner.>20% OR O&D Owner.>20%	0.0210 (0.0527)	0.0158 (0.0518)	0.0170 (0.0463)	0.0138 (0.0424)
Number_O&D	0.0012 (0.0062)	0.0036 (0.0053)	-0.0014 (0.0054)	0.0013 (0.0047)
Financing_Condition	-0.0590 (0.0691)	-0.0165 (0.0531)	-0.0498 (0.0562)	-0.0092 (0.0487)
Target_Adv_Fin	-0.0339 (0.0580)	-0.0155 (0.0527)	-0.0157 (0.0506)	-0.0060 (0.0488)
Target_Adv_AcqServ	0.0579 (0.0540)	0.0314 (0.0476)	0.0589 (0.0460)	0.0287 (0.0378)
$_wL1$	0.2546* (0.1347)	0.1590* (0.0822)	0.2071* (0.1196)	0.1218* (0.0698)
$_wL0$	-0.2650** (0.1303)	-0.1269 (0.1093)	-0.1318 (0.1003)	-0.0107 (0.0885)
Constant	0.0437 (0.1545)	0.0102 (0.1353)	-0.0317 (0.1192)	-0.0826 (0.1109)
Observations	306	274	306	274
Adjusted R-Squared	0.349	0.442	0.302	0.419

Appendix Table A2
Heckman Estimates For Target 31-Day CARs

The table shows the results of a Heckman estimation of the effect of the go-shop provision on CARs for a sample of acquisitions of U.S. public companies announced over the period January 1, 2004 to December 31, 2011. Definitions for the variables are shown in Table 1 and sample selection is discussed in detail in Section III. We employ a Heckman estimator discussed in detail in the Appendix. The dependent variable in the second stage is CARs. Daily abnormal returns are calculated using the market model with parameters estimated over the period which starts 268 days and ends 16 days prior to the announcement day. The S&P 500 index return is the market return. The selection variable is Go-Shop, and takes the value of 1 if the merger agreement included a go-shop provision and 0 otherwise. In all definitions the closing price 30 days prior to the announcement date is used as the pre-offer price. We first estimate the decision to include a go-shop provision in the initial agreement using a probit model with a full set of controls, including variables capturing exogenous litigation risk aversion, shown in column 1 of Table 5. We then add the generalized probit residuals from this first stage ($_wL1$, $_wL0$) as additional controls and estimate the second stage. Columns (1)-(3) report second stage coefficients estimated over the complete sample which includes MBOs. In column (1), the dependent variable is CARs over the period which starts 15 days prior to the announcement date and ends 15 days after the announcement date. In column (2) the dependent variable is the pre-announcement CARs, computed over the period which starts 15 days and ends 1 day prior to the announcement date. In column (3) the dependent variable is the post-announcement CARs, computed over the period which starts on the announcement date and ends 15 days after the announcement date. Columns (4)-(6) repeat the estimations shown in columns (1)-(3) over a subsample which excludes MBOs. The regressions control for year fixed effects. Standard errors in parenthesis, bootstrapped over 500 iterations, ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level respectively.

MANAGEMENT BUYOUTS PERIOD DEPENDENT VARIABLE: CARs	INCLUDED			EXCLUDED		
	[-15,15] (1)	[-15,-1] (2)	[0,15] (3)	[-15,15] (4)	[-15,-1] (5)	[0,15] (6)
Go-Shop	-0.0132 (0.0702)	0.0300 (0.0474)	-0.0431 (0.0693)	-0.0023 (0.0712)	0.0388 (0.0500)	-0.0411 (0.0667)
52wk_High_Ratio	0.0614 (0.0479)	0.0344 (0.0209)	0.0270 (0.0370)	0.0602 (0.0568)	0.0319 (0.0265)	0.0283 (0.0402)
Volatility	0.0888 (0.0797)	-0.1095** (0.0449)	0.1983*** (0.0575)	0.0815 (0.0780)	-0.1137** (0.0445)	0.1952*** (0.0579)
Acq_Termin_Fee	0.6435 (0.5818)	0.4287 (0.3038)	0.2149 (0.4784)	0.2928 (0.5901)	0.3373 (0.3427)	-0.0445 (0.4378)
Target_Termin_Fee	-0.1639 (0.7833)	0.1597 (0.5691)	-0.3236 (0.7823)	0.0508 (0.9665)	0.1159 (0.7596)	-0.0651 (0.8052)
Leverage	0.1431*** (0.0488)	0.0400 (0.0332)	0.1031** (0.0465)	0.1529** (0.0619)	0.0575* (0.0340)	0.0954** (0.0477)
Auction	-0.0660** (0.0329)	0.0057 (0.0216)	-0.0717** (0.0315)	-0.0655* (0.0334)	0.0099 (0.0233)	- (0.0282)
Management_Buyout	-0.0027 (0.0428)	-0.0270 (0.0249)	0.0242 (0.0428)			
Large_Target	-0.0800*** (0.0306)	-0.0360** (0.0178)	-0.0440 (0.0303)	-0.0652** (0.0303)	-0.0316* (0.0183)	-0.0336 (0.0287)
Total Owner. by 5% Holders > 20%	-0.0050 (0.0260)	-0.0062 (0.0153)	0.0012 (0.0222)	-0.0145 (0.0283)	-0.0109 (0.0174)	-0.0035 (0.0243)
Largest Owner.>20% OR O&D Owner.>20%	0.0189 (0.0286)	0.0211 (0.0166)	-0.0022 (0.0264)	0.0254 (0.0291)	0.0172 (0.0178)	0.0082 (0.0279)
Number_O&D	0.0033 (0.0025)	0.0058*** (0.0018)	-0.0025 (0.0022)	0.0018 (0.0027)	0.0048** (0.0021)	-0.0030 (0.0024)
Financing_Condition	0.0075 (0.0302)	0.0036 (0.0159)	0.0039 (0.0291)	0.0037 (0.0347)	0.0110 (0.0190)	-0.0073 (0.0313)
Target_Adv_Fin	-0.0127 (0.0263)	-0.0156 (0.0155)	0.0028 (0.0242)	-0.0149 (0.0268)	-0.0172 (0.0165)	0.0023 (0.0250)
Target_Adv_AcqServ	0.0408* (0.0242)	0.0042 (0.0131)	0.0367 (0.0230)	0.0384 (0.0255)	0.0078 (0.0141)	0.0306 (0.0222)
$_wL1$	0.0289 (0.0488)	-0.0371 (0.0314)	0.0659 (0.0510)	0.0313 (0.0493)	-0.0546 (0.0340)	0.0859 (0.0581)
$_wL0$	0.0111 (0.0540)	0.0420 (0.0424)	-0.0309 (0.0565)	0.0529 (0.0542)	0.0347 (0.0418)	0.0182 (0.0486)
Constant	-0.0100 (0.0769)	-0.0521 (0.0438)	0.0421 (0.0675)	0.0032 (0.0982)	-0.0555 (0.0542)	0.0586 (0.0797)
Observations	298	298	298	267	267	267
Adjusted R-Squared	0.305	0.118	0.283	0.283	0.128	0.314

