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

Adonis Antoniades, Charles W. Calomiris, and Donna M. Hitscherich *

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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. Specifically, 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, in certain circumstances, lowers the termination fee paid by the target in the event of a competing bid. We find that the decision to retain the option to shop is predicted by various firm attributes, including larger size, more fragmented ownership, and various characteristics of the firms' legal advisory team and procedures. We find that go-shops are not a free option; they result in a lower initial acquisition premium and that reduction is not offset by gains associated with new competing offers. The over-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.

JEL codes: G32, G34, K22.

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 respecting the manner in which they may 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 a 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.

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[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.

Over the last decade, "go-shop" provisions have become more common in merger agreements. 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.

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

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[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.

[3] Subramanian (2008) and Jeon and Lee (2013).

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 public policy consequences. In particular, there is an increasing risk that judges may fail to recognize the economic costs to target shareholders of employing go-shop clauses. If judges 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.

In this paper, we examine the determinants of the go-shop decision and the effects on the bidding activity and pricing of an acquisition that result from the decision of the target board of directors 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.

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[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 (2013).
[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).

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." Target firms that employ go-shops may be less likely to face legal challenges from their shareholders about the bargaining process that resulted in the acquisition, and may expect lower litigation costs associated with the challenges that they do face. 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 suit will be filed claiming that directors failed to fulfill their fiduciary duties or if filed, that the directors will ultimately be found to have breached their fiduciary to the shareholders. This implies that, 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.

These considerations suggest that target firms with different characteristics should differ with respect to the valuation consequences of choosing a go-shop clause. For example, the expected costs of litigation by target shareholders challenging an acquisition, ceteris paribus, 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 legal counsel may also diverge from that of target shareholders. To the extent that future potential clients evaluate law firms on the basis of their ability to avoid litigation risk in the crafting of merger agreements, lawyers seeking to acquire reputations for negotiating transactions that avoid litigation risk may advise their clients to use go-shops too frequently. Because go-shops may serve to reduce litigation risk, lawyers always 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.

A third potential conflict of interest involves the investment banker to the target firms. 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

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[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).

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.

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 (positive) "lawyer agency effect," and the (negative) "banker 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) finds 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."

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 excludes acquisitions

out of bankruptcy, as well as 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)." It is also true that

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. As we show below, closely held firms are less likely to choose go-shop provisions.

Subramanian (2008) finds that go-shop provisions are used in roughly a third of the transactions

he studies. He compares cumulative abnormal stock returns (net of the S&P Composite Index) over the

period from 30 days prior to the deal announcement to 30 days after the announcement, and finds that

the deals with *pure* go-shop clauses (29 observations) have cumulative abnormal returns that are 5

percent higher than the other firms, which is significant at the 90% level, although he finds no

statistically significant difference between go-shops as a whole and no-shops.

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

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 excess abnormal returns, after holding other factors constant, this would provide evidence in favor of the under-use of go-shops by at least some of the no-shop firms, presumably reflecting conflicts of interest.

Nevertheless, we do not believe that Subramanian (2008) has estimated a convincing measure of the net expected benefits to target firms from choosing go-shops, holding other factors constant. He does not model the go-shop decision, nor adequately considers how differences in firms' circumstances and in deal characteristics increase or decrease the probability of the choice of a go-shop clause. 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

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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 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).

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

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[8] It is not clear in Jeon and Lee (2013) the time period over which the industry average is taken.
[9] Indeed the OLS and 2SLS estimates in Jeon and Lee (2013) 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.

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 forthcoming). 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), for example, 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

Given the variety of potential motivations for go-shops 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 with lawyers who are excessively risk averse in their concerns about litigation risk, ceteris paribus, may be more likely to choose a go-shop clause; smaller targets, target firms with more concentrated ownership, targets that were widely marketed prior to executing the merger agreement, or firms that suffer from director, managerial or investment banker conflicts may be less likely to choose a go-shop. 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. Table 1 also provides the labels for the regressors used in the tables that report summary statistics.

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. In private equity transactions, however, the valuation of targets is not complicated by operational synergies between the acquiring and target firm, which would introduce an additional layer of complexity to identification.

Table 2 shows summary statistics for those variables. Some key variables have definitions that depend on the choice of the base, pre-offer price. Our main analysis relies on defining the pre-offer price using the closing price 30 days prior to the offer announcement. This makes it unlikely that the pre-offer price will contain pre-announcement information that reflects the bidding for the target firm. In a robustness section we will show that the results remain qualitatively unaffected if instead we use a

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[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)

5-day pre-announcement window, rather than a 30-day window. Our discussion henceforth will refer to definitions of variables based on the 30-day pre-offer window.

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. The average termination fee for the acquiror[11] is 3% and the average termination fee for the target is slightly higher at 3.6%. That difference is a result of the fact that in a large number of deals (123), the acquiror did not agree to a termination fee.

Management buyouts (MBOs) account for 10.5% of the transactions. In a MBO the buyers are also the managers of the firm, and this can give rise to important differences between this type of acquisition and other acquisitions, stemming either from conflicts of interest or from differences in the extent of informational asymmetries. Unlike other acquisitions, in an MBO, the buyer (management) likely knows more about the company than the seller (the board of directors). Because of these considerations, we will perform our analysis both on the complete sample and on a subsample that excludes MBOs. Our results remain quantitatively unchanged across these two sampling methods.

The average enterprise value is $2.3bil, with values ranging from $300k to $123bil. Target firms have an average leverage ratio of 0.22, with 88 (29%) target firms financed exclusively by equity. 87% have a shareholding structure in which 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 an ownership distribution for which the ownership of the largest shareholder or the collective ownership of officers and directors (a coordinated block) exceeds 20%. The number of officers and directors of the firm varies from 4 to 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%.

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[11] Also known as the reverse termination fee.

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%.

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.

We construct three binary indicator variables to capture the effects of lawyer conflicts on the go-shop decision. We assume that lawyers' excessive risk aversion will be higher: (1) the higher is the rank of the law firm advising the target (because that firm has greater reputational capital at stake from litigation costs), (2) if a special committee is formed to advise the board on the transaction (because this places a greater focus on procedural concerns and gives greater weight to lawyers' opinions on contractual terms), and (3) if there are multiple law firms advising the target (because more lawyers will be associated with a greater focus on procedural concerns, and because 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). 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.[12]

M&A activity seems to have been affected by the 2007-2009 financial crisis. Figure 1 shows the number of deals per year for the period 2004-2011. Activity peaked in 2006 and 2007, with 65 and 64 acquisitions announced in each of those years, respectively. Activity dropped significantly in 2008-2009

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[12] Our definition of "top-tier" is shown in Table 1 and described in detail in a subsequent section.

to 23 and 18 deals, respectively, and recovered partially in 2010-2011. Go-shop provisions initially gained in popularity over time, rising from 13% of all deals in 2004 to 41% by 2007. The share of deals with go-shop provisions remained at similar levels until 2011 when it suddenly dropped to 24%. As can be seen in Figure 2, these patterns extend to the dollar value of the deals per year where, however, a much sharper decline after 2007 is visible.[13]

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 distribution of the offer premium appears to be centered on a slightly higher mean for go-shops, the difference being a bit more significant for the distribution of the 5-day premia.

The offer premium may depend on a number of factors, so further analysis – in particular, the regression analysis developed in Sections IV and V below – is needed before one can derive conclusions about the effect of the go-shop provision on the premium. Firm attributes that may directly affect the offer premium, such as size, for example, may be substantially different in the two populations.

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. Those predictions generally are consistent with the simple comparisons of means reported in Table 3. In particular, as further illustrated in Figure 4, go-shop firms tend to be larger than no-shop firms. Figure 4 shows the distribution of the natural logarithm of enterprise value for target firms, for the populations of go-shops and no-shops, where it is clear that go-shops are associated with larger targets.

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[13] Our specifications include year fixed effects to sweep out aggregate macro effects in the propensity to include go-shop provisions in initial merger agreements.

Table 3 provides other support for some of the theoretical propositions developed in Section I. In theory, if litigation risk is higher for deals with relatively high ratios of high 52-week highs to offer price, then go-shops should display higher ratios, which they do, although the difference in means is not statistically significant. Similarly, 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 from including a go-shop clause. In theory, greater ownership concentration should be associated with less use of go-shops because it mitigates concerns about litigation risk, and we find that this is true (whether one uses the Total Ownership by 5% holders, or an indicator for whether there is a >20% owner, as the measure of ownership concentration).

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 concern for litigation risk, 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.

All three of the binary legal variables prove to be associated with a greater use of go-shops, but the difference for the presence of multiple lawyers is not statistically significant. We also find that target firms with a greater number of officers and directors are more likely to choose go-shops. There are many potential interpretations of that finding. One possibility is that more officers and directors is associated with a preference for formalized procedures.

No statistically significant differences exist in the offer premium, although the average offer premium is somewhat higher for go-shops. 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 marginally less likely to

17

include the option for the acquiror 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).

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

The differences in means tests presented in Table 3 suggest that including a go-shop provision in the initial agreement may be associated with a positive, albeit statistically insignificant, effect on the offer premium. To measure the partial covariance between the go-shop choice and the initial offer premium, we estimate a linear model of the offer premium using a rich set of controls as explanatory variables, in addition to the dummy variable for the go-shop provision. The estimated 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). Our OLS specification is shown in Equation (1):

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

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.

The control variables used in the OLS regressions 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.[15] Target leverage may indicate growth opportunities, positive

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[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.

[15] 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.

creditor perceptions or managerial discipline, and could thus enter the acquisition premium equation with a positive sign. Size may proxy for many characteristics that could matter for valuation, and therefore the effect of large size on the premium is uncertain. The effect of shareholding structure is also unclear on a priori grounds, but to control for the possibility of an effect we include two dummy variables, one indicating 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 indicating whether holders of a minimum 5% stake collectively own more than 20% of the target firm.

Market controls are also included. Baker, Pan and Wurgler (2012) show that reference point prices can have a positive effect on the bidder's offer price. To control for this effect, we include the 52 week high offer ratio. We also include returns volatility although its effect is not clear.

The merger agreement specifies termination fees for the target and the acquiror. Although it is not clear how these fees should covary with the premium, we include them as important financial parameters of the agreement.[16] The financing aspects of the contract may also covary with the offer premium. A financing condition permits the acquiror to exit the contract if financing cannot be secured. Such exit risk, however, can be hedged if the target firm's financial advisor offers financing to the acquiror as needed. That provision reduces exit risk for the target, but at the same time, it may create a conflict of interest for the 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 indicator variables to indicate the presence of a financing condition or a financing option, and proxy for additional potential conflicts of interest by including a dummy variable indicating whether the target's financial advisor had a prior relationship with the acquiror.

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, for example, to

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[16] 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.

lower informational asymmetries. We therefore add a binary indicator for whether the deal is an MBO. We also re-estimate our models on a slightly smaller sample that excludes management buyouts. Finally, we include a dummy variable which indicates whether an auction was conducted as part of the process of obtaining the initial bid. All of the regressions include year fixed effects.

Table 4 shows the results of 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 estimation on a sample that excludes MBOs in column (2). Columns (3)-(4) repeat the estimates shown in columns (1)-(2) for definitions which use the 5-day closing price as the pre-offer price. In all four columns, the go-shop provision does not covary statistically significantly with the offer premium in the presence of the various controls. 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.

IV. 2SLS Methodology for a Continuous Endogenous Regressor

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 causal effect of go-shop choice on the acquisition premium because the go-shop decision likely is not exogenous to many factors that are correlated with the acquisition premium. In order to estimate the causal effect of the go-shop provision on 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 causal effect of the go-shop provision on the offer premium. The instrumental variables should affect the offer premium only through their influence on the determination of the go-shop decision. We use a 2SLS estimator, adapted to the case of a binary endogenous regressor, which utilizes a non-linear "zeroth" stage; we

describe the details of the estimator 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 legal indicator variables to capture exogenous variation in the go-shop decision. These three variables (the same three legal indicators discussed in Section III) affect the propensity to include a go-shop provision in the merger agreement, but should not be directly related to target firm's value and, therefore, should not directly affect the offer premium.

First, we include an indicator 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. We assume that firms that employ special committees are more subject to lawyer conflicts of interest which make them litigation risk averse.

Second, as we argued in Section III, the number of legal advisors involved in the transaction is also an indicator either of higher litigation risk or greater lawyer conflicts. 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, another indicator of a greater potential lawyer conflict (higher ranked law firms have more reputational risk, and therefore, more potential conflict with target shareholders). To construct the legal rank variable, we first construct a variable (*deals*) which contains 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 new 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 lies above a certain threshold. The threshold we use is the upper quartile of

21

the distribution of *avgdeals* over all acquisitions that were announced during the same year. [17] This is

the last instrument used to proxy for legal advisor driven litigation risk.

V. Regression Results

Determinants of the go-shop decision

Column (1) of Table 5 reports coefficients of a probit model for the complete sample (including

MBOs) using a full set of controls and instruments. The three legal 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. Targets with a single block controlling more

than 20% of shares are less likely to choose go-shops. The sign on Total Ownership by 5% shareholders,

however, is positive but statistically insignificant. The sum of the two ownership coefficients is negative,

indicating that high concentration with a blockholder results in a lower probability of a go-shop, but high

concentration without a block holder possibly results in a higher go-shop probability. One interpretation

of this latter effect is that high concentration without a blockholder may give greater incentives for a

disgruntled shareholder to challenge the deal, resulting in higher expected litigation costs.

Two more variables may be important for the go-shop decision, although they enter with

statistical significance that misses the 10% threshold. The first variable is the number of officers and

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[17] 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.

directors, which may reflect the need for more formal assurances in assessments of fairness. Also, a financing condition also results 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 parameters of the involvement of the target's financial advisor do not have an impact on the go-shop decision.

Column (2) estimates the same model using only the legal instruments as regressors. The coefficients of these three variables remain relatively unchanged from the results in the full model, which attests to the very robust effect 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 exhibit appreciable increases in magnitude).

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. A one-tailed test places a lower bound (in absolute value) of a 13% decrease, at the 10% level of statistical significance. At the 5% level of significance, the lower bound would be a 7% decrease.

Column (2) of Table 6 repeats the same estimations on a subsample that excludes MBOs, where we observe the same negative relationship but with a slight decrease in magnitude. Columns (3) and (4) repeat the same tests using the noisier[18] 5-day closing price as the pre-offer price in our definitions. The results still hold using this alternative measure of the pre-offer price, but the coefficient decreases in

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[18] 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.

magnitude and narrowly misses statistical significance at the 10% level in the subsample that excludes MBOs. In the Appendix, we show that our results remain unchanged if we employ the use of a two-step Heckman estimator instead of the 2SLS estimator.

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. One could object, however, that firms' choices of legal counsel result from unobserved cross-sectional heterogeneity with respect to litigation risk – that is, firms with high litigation risk tend to be more likely to appoint a special committee, employ multiple lawyers, and choose lawyers with a great market share in M&A transactions. We cannot rule out this possibility. 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. Those results, however – which indicate a positive association between the choice of top legal firms and the resulting acquisition premium – imply that our instrumented estimates of the effect of go-shop options are possibly conservative; to the extent that our empirical estimates ignore the fact that employing top legal counsel raises acquisition premia, as Krishnan and Masulis (2013) find, our negative coefficients of instrumented go-shops on acquisition premia would understate the estimated negative effect.[19]

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[19] We also considered a related potential criticism of our instruments. Suppose that a private equity firm and a target firm both are privy to information not known by others in the market that leads them to agree that the target firm is over-valued in the market. Suppose further that the private equity acquiror and target firm recognize that the agreed low acquisition premium they anticipate in their deal would raise objections by relatively uninformed target stockholders. Anticipating unusual legal problems, the target may be spurred to take extra legal precautions. In that case, it is conceivable that our three legal variables would be associated with a negative acquisition premium as the result of reverse causality. Although this is a logical possibility, it assumes that low anticipated acquisition premia, driven by circumstances where targets and acquirors share adverse asymmetric information, are associated with greater investment in legal counsel. The evidence in Krishnan and Masulis (2013) indicates that, on average, the selection of highly rated law firms is associated with higher acquisition premia. Thus, even if the shared private information story were plausible for some transactions, it would not seem to be a sufficiently pervasive phenomenon to drive a reverse-causality interpretation of our results. In addition, our results hold when we only consider the subsample which excludes MBOs, which are deals in which the acquiror is more likely to be privy to negative information non known to shareholders. Finally, the estimates remained unchanged

In our view, to the extent that endogeneity is a potential concern, that concern applies more to the target's choices about forming a special committee and retaining the services of multiple legal advisors, where the potential direct consequences of such choices for acquisition premia have not been a topic of existing empirical research. We note that, to the extent that these choices would have a direct effect on the acquisition premium, one would expect these choices to have a positive effect, not the negative one implied by our estimation where they appear as instruments for go-shop choice.

Nevertheless, to test the robustness of our results with respect to the possible endogeneity of the legal advisory variables, we re-ran our estimations treating the special committee and multiple lawyer dummies as control variables rather than instruments, and found the effect of the go-shop decision retained its magnitude and also remained statistically significant at the 10% level. We also ran an even stricter test in which we treated all three instruments as control variables, thus relying only on the non-linearity of the go-shop decision as the sole source of identification, and found the effect of the go-shop decision to have a negative, albeit somewhat reduced in magnitude, effect. The null of a zero effect was rejected at the 20% level, and the null of a non-negative effect was rejected at the 10% level. Although we cannot completely rule out the possibility of our instruments partly capturing the endogenous effect of target litigation risk, the results of these rather strict tests strongly suggest that the instruments are capturing the exogenous effect of the go-shop clause on the offer premium.

The Effect of Go-Shop Choice on Subsequent Bidding

The results of the 2SLS estimates show that the inclusion of a go-shop provision has a negative causal effect on the initial offer premium. One could argue, however, that this decrease in the initial bid is compensated for by an increase in the probability of subsequent bidding, which can result in an improvement of the terms in the original deal agreement. Go-shops, after all, are designed to facilitate subsequent bidding by these so-called "jumpers," by allowing the target to actively solicit bids and by

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when we included as an additional control a dummy variable indicating whether a board member of the target company also worked for the acquiring company/PE firm (or for one of the group of acquiring companies).

including lower termination fees during the go-shop window. To test that hypothesis, we examine post-merger agreement bidding 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 evidence does not support the view that the lower initial acquisition premium that results from a go-shop is offset by an improvement in bidding as the result of the go-shop. First, the percentage of deals with a jumper is very low, that is 4.5% for no-shop deals and 10.6% for go-shop deals. Even though that comparison indicates that the inclusion of go-shop clauses appears to result in more jumpers, a more formal analysis of the difference shows no significant difference in the propensity for jumpers between go-shops and no-shops. Specifically, we employ a 2SLS model to estimate the causal 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 7 show, we find this effect to be small and statistically undifferentiated from 0. Furthermore, if we assume, as our point estimate implies, 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% offer premium 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 (for a 10% significance level).[20] Even the 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. An increase of this magnitude is, of course, greatly at odds with the data. In the data, we found the average additive increase in the offer premium (effected by a jumper) to be less than 20% for both no-shops and go-shops.

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[20] 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.

The Effect of Go-Shop Choice on CARs

Another way to evaluate the value to a target of requiring a no-shop clause focuses on the market value consequences of the decision, expressed in terms of cumulative abnormal returns (CARs) at the time the merger agreement is announced. 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. 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. We then observe significant gains in CARs taking place on the day of the announcement and the day following the announcement.

As the figure shows, at the end of this 31-day window, go-shop deals accumulate an excess of 4% in CARs when compared to no-shop deals. Interestingly, this differential is achieved over the same two-day window where CARs exhibit their rapid increase for both populations; the day of the announcement and the day following the announcement.

Table 8 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 in 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. Proceeding as with the offer premium estimates and jumper propensity estimates, 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 9 shows the results for the 31-day CARs estimated over the complete sample, which includes MBOs. 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 up 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 these 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 is what is driving the positive effect identified in column (1). Columns (4), (5) and (6) repeat the estimations on a sample that excludes MBOs and the results are shown to remain qualitatively unchanged, with the post-announcement effect decreasing slightly in magnitude.

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

In this section 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 10 shows the results for the 31-day CARs estimated over the complete sample.[21] The sign of the go-shop variable is positive but statistically undifferentiated from 0. Columns (2) and (3) break this effect down to its pre- and post- announcement components. We see that the sign of the go-shop coefficient

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[21] 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.

reverses moving from the pre- to the post- announcement window but the effects are economically small and not statistically significant.

Columns (4)-(6) repeat the estimation on the subsample which excludes 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.

The go-shop decision does not appear to have any robust economically or statisticaly significant effect on CARs during the pre-announcement period and post-announcement periods.

Robustness: CEO Age

CEOs involved in acquisitions may accumulate private benefits after the successful conclusion of the deal. Yim (forthcoming) develops and empirically validates a theory which connects CEO age to the propensity for acquisitions. In that model, private benefits to the CEO stemming from an acquisition, such as permanent increases in compensation, accumulate over a longer period for younger CEOs and thus increase the propensity for acquisition that is exhibited by acquirors with younger CEOs. Brewer, Jackson and Wall (2012) argue that a similar mechanism may be at play on the target's side. 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 correlation between CEO age and the offer premium. We tested that hypothesis in our sample[22] and found no evidence that the age of the CEO affects the go-shop decision,[23] the offer premium or CARs. Our results for the effect of go-shop choice on the offer premium and CARs are not affected by the inclusion of controls for the age of the target's CEO.

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[22] 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.

[23] The signs of the age-related controls in the probit stage are as in Brewer, Jackson and Wall (2012), but the coefficients in our sample are not statistically significant.

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 lower probability of 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 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 effect on the go-shop decision and no effect on CARs. It did affect the offer-premium equation marginally, achieving significance at the 10% level only 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.

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 possible that our legal instruments are capturing residual effects generated by the tier of the financial advisor. To test that hypothesis, we constructed a binary variable indicating whether the target firm worked with a top-tier financial advisor during the acquisition; the variable was constructed as in Golubov, Petmezas and

Travlos (2012). Including this variable in the list of controls did not affect our results regarding the determinants of the go-shop decision, or its exogenous effect on either the offer premium or CARs.

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 a regression methodology that explicitly allows for the endogeneity of the go-shop decision. Our sample includes data on 306 cash acquisition deals – the entire sample of transactions – 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 counsel, their ownership structure, their size, and various other firm, and deal characteristics. We find that legal advisor characteristics, 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 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.

31

Estimates range widely (between -23% and -66%), 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 (at least -7%).

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. Using CARs, we find some evidence of a positive post-announcement effect for CARs related to go-shop choice, but this effect 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.
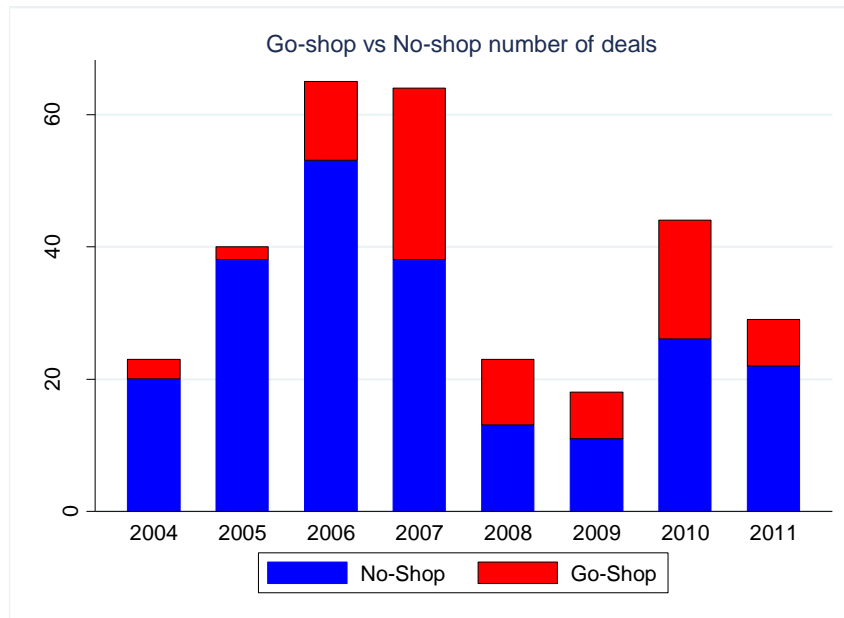
Figure 2: Value of go-shop vs no-shop deals by year of announcement. The total dollar value of deals per year is shown for each of the years 2004-2011. For each year, the upper bar shows the total value of go-shop deals and the lower bar the total value of no-shop deals.
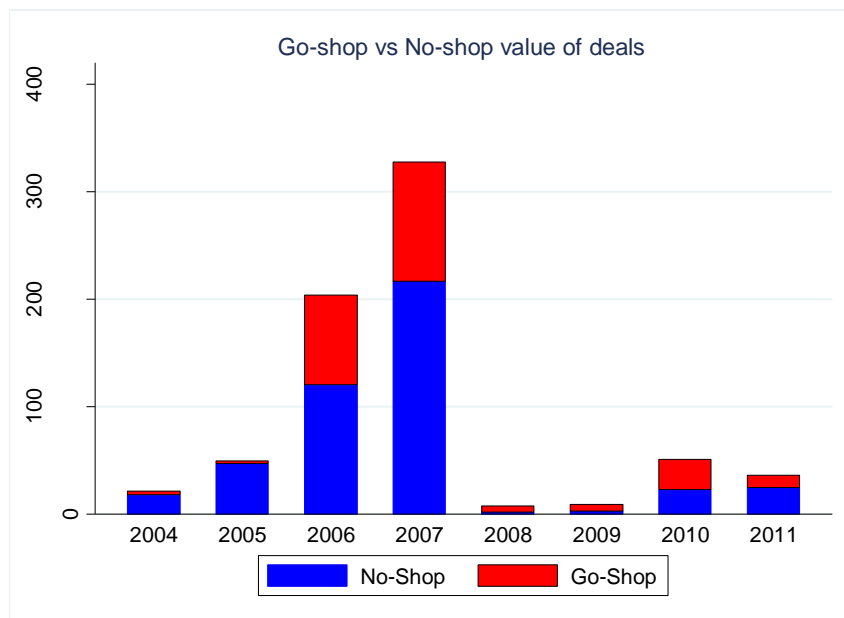
Figure 3: Distribution of offer-premium for go-shop vs no-shop deals. The diagrams show a kernel density function for the offer-premium for go-shop deals (dashed line) and no-shop deals (solid line). Panel (a) shows the distribution for the offer premium defined using the 30-day pre-offer price and panel (b) shows the distribution for the offer premium defined using the 5-day pre-offer price.

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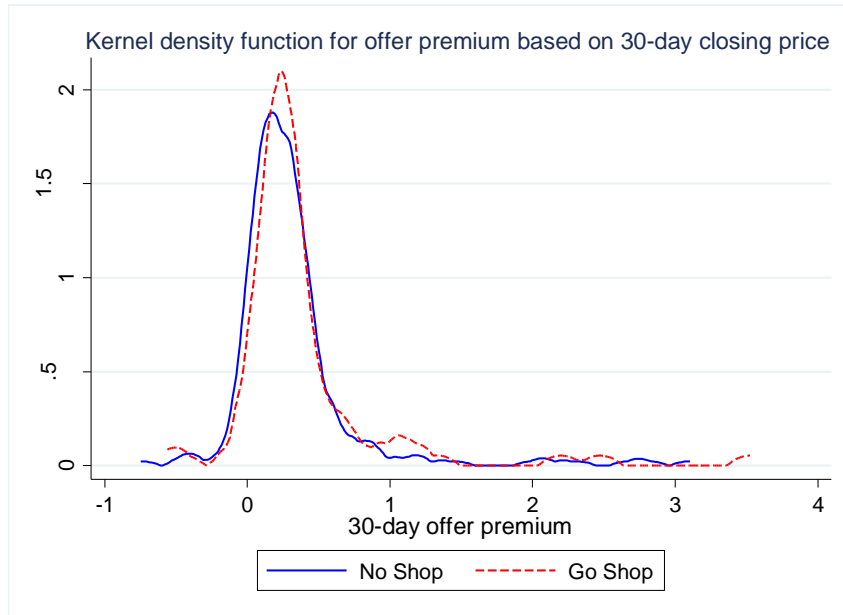
Panel (b)
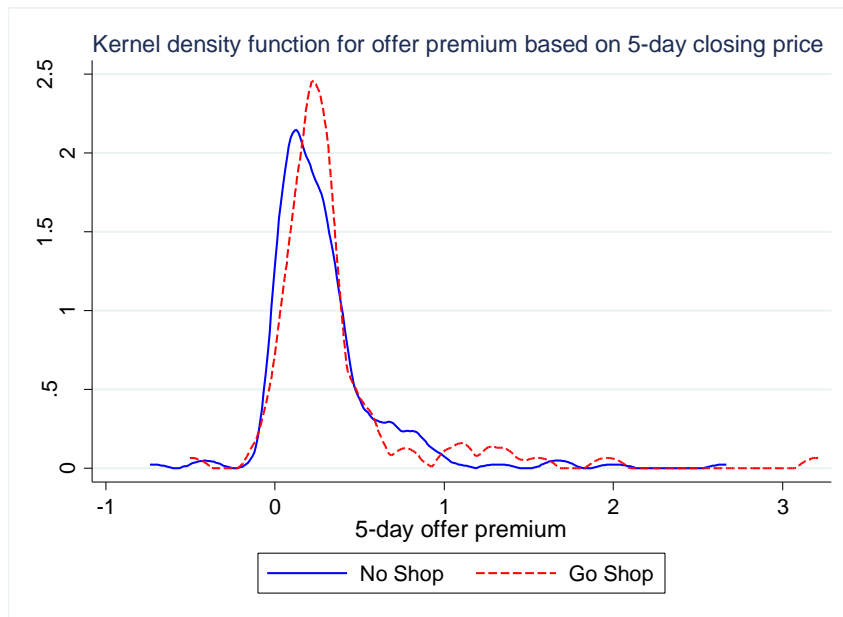
Figure 4: Distribution of the log of enterprise value for go-shops vs no-shops. The diagrams show a kernel density function for the natural logarithm of enterprise value for go-shop deals (dashed line) and no-shop deals (solid line).

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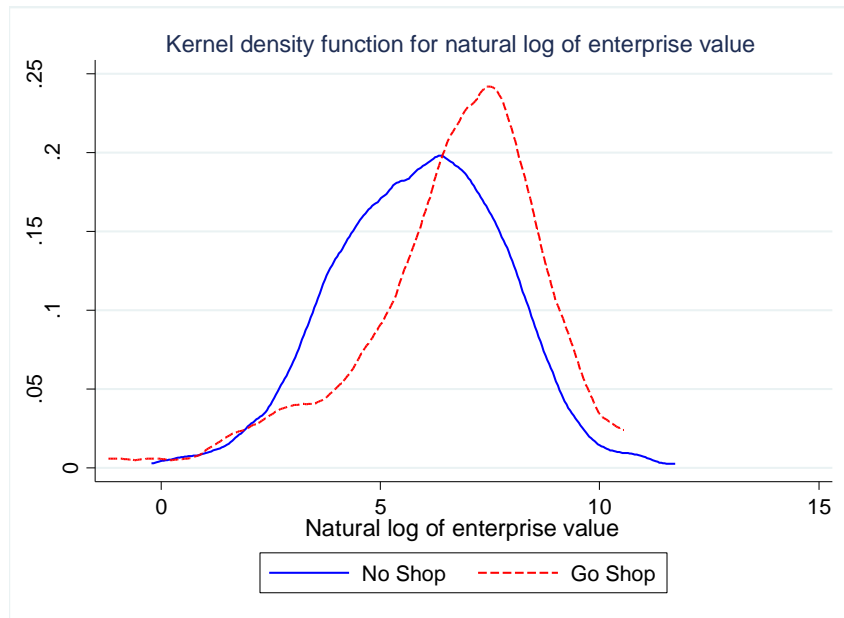
Figure 5: Distribution of target 31-day CARs. The figure shows the distribution of cumulative abnormal returns for the target for the period starting 15 days prior to the announcement date and extending to 15 days after the announcement date. The distributions are shown separately for go-shops (dashed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

Kernel density function for cumulative abnormal returns (31-day window)
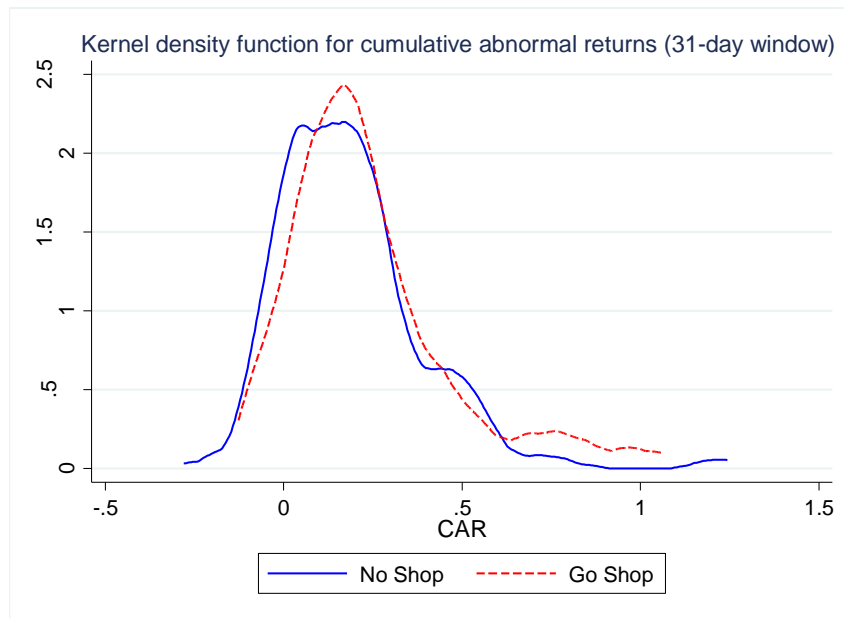
Figure 6: Evolution of target CARs. The figure shows the evolution of cumulative abnormal returns for the target for windows starting 15 days prior to the announcement date and eventually extending to 15 days after the announcement date. CARs are shown separately for go-shops (dashed line) and no-shops (solid line).
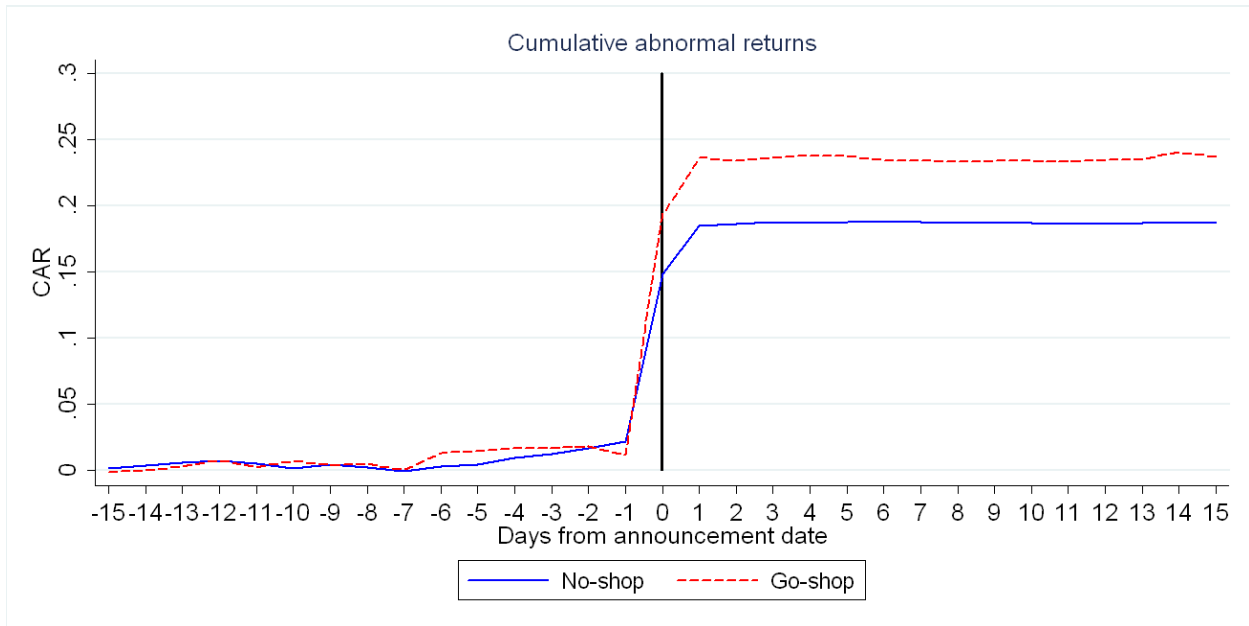
Table 1
Variable Definitions

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 Regressions 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	BASED ON 30-DAY PRE-OFFER PRICE		BASED ON 5-DAY PRE-OFFER PRICE	
MANAGEMENT BUYOUTS	INCLUDED	EXCLUDED	INCLUDED	EXCLUDED
DEPENDENT VARIABLE: OFFER PREMIUM	(1)	(2)	(3)	(4)
Go-Shop	-0.0133	-0.0751	-0.0029	-0.0638
	(0.0696)	(0.0575)	(0.0619)	(0.0492)
52wk_High_Ratio	0.1855***	0.2029***	0.1908***	0.2333***
	(0.0381)	(0.0451)	(0.0561)	(0.0565)
Volatility	0.1691	0.1871*	0.2202**	0.2101**
	(0.1134)	(0.1118)	(0.0944)	(0.0927)
Acq_Termin_Fee	1.0929	0.5950	-0.2011	-0.6616
	(0.9552)	(0.9837)	(0.7119)	(0.6802)
Target_Termin_Fee	-4.0819***	-3.1588***	-1.8065	-1.2222
	(1.5482)	(1.1630)	(1.3453)	(1.1002)
Leverage	0.3796***	0.3208***	0.2788***	0.2164**
	(0.1308)	(0.1158)	(0.1012)	(0.0845)
Auction	-0.0356	-0.0589	-0.0467	-0.0696**
	(0.0411)	(0.0422)	(0.0334)	(0.0338)
Management_Buyout	0.0140		0.0502	
	(0.1179)		(0.0974)	
Large_Target	-0.0788	-0.0532	-0.0442	-0.0163
	(0.0484)	(0.0435)	(0.0406)	(0.0369)
Total Owner. by 5% Holders > 20%	-0.0732	-0.0884	-0.0841*	-0.0934*
	(0.0546)	(0.0566)	(0.0473)	(0.0499)
Largest Owner.>20% OR O&D Owner.>20%	0.0825	0.0450	0.0539	0.0223
	(0.0557)	(0.0508)	(0.0464)	(0.0404)
Number_O&D	-0.0002	0.0019	-0.0024	0.0006
	(0.0064)	(0.0050)	(0.0057)	(0.0046)
Financing_Condition	-0.1014	-0.0370	-0.0787	-0.0190
	(0.0693)	(0.0514)	(0.0597)	(0.0467)
Target_Adv_Fin	-0.0128	-0.0045	-0.0001	0.0129
	(0.0533)	(0.0515)	(0.0499)	(0.0491)
Target_Adv_AcqServ	0.0384	0.0254	0.0473	0.0258
	(0.0494)	(0.0454)	(0.0433)	(0.0386)
Constant	-0.0020	-0.0154	-0.0467	-0.0875
	(0.1268)	(0.1157)	(0.1088)	(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 and year fixed effects, and column (2) reports the coefficients for a parsimonious model which includes only the subset of controls which capture exogenous litigation risk 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	INCLUDED		EXCLUDED	
INSTRUMENTS	FULL	LIT. RISK	FULL	LIT.RISK
DEPENDENT VARIABLE: GO-SHOP DECISION	(1)	(2)	(3)	(4)
Multiple_Lawyers	0.4113	0.4813*	0.3256	0.4240
	(0.2880)	(0.2467)	(0.3123)	(0.2625)
Legal_Adv_Rank	0.6116***	0.5527***	0.6530***	0.5453***
	(0.2330)	(0.1820)	(0.2515)	(0.1879)
Special_Committee	0.6334***	0.4975***	0.6591***	0.4549***
	(0.2210)	(0.1657)	(0.2295)	(0.1720)
52wk_High_Ratio	0.0110		-0.0060	
	(0.0711)		(0.0671)	
Volatility	0.2389		0.2111	
	(0.4200)		(0.4170)	
Acq_Termin_Fee	1.9033		-2.1261	
	(3.5393)		(3.8073)	
Target_Termin_Fee	-2.7234		-9.3770	
	(5.2070)		(7.0768)	
Leverage	-0.1667		0.0449	
	(0.4948)		(0.5535)	
Auction	-1.5710***		-1.6545***	
	(0.2237)		(0.2403)	
Management_Buyout	0.3292			
	(0.3648)			
Large_Target	0.5950**		0.5241*	
	(0.2410)		(0.2738)	
Total Owner. by 5% Holders > 20%	0.3057		0.3879	
	(0.2861)		(0.3078)	
Largest Owner.>20% OR O&D Owner.>20%	-0.9647***		-1.1595***	
	(0.2719)		(0.3333)	
Number_O&D	0.0227		0.0470*	
	(0.0235)		(0.0250)	
Financing_Condition	0.4306		0.6059*	
	(0.3306)		(0.3604)	
Target_Adv_Fin	0.0934		0.1946	
	(0.2790)		(0.2887)	
Target_Adv_AcqServ	0.1414		0.0904	
	(0.2137)		(0.2256)	
Constant	-2.2946***	-1.0773***	-2.5271***	-1.0654***
	(0.6775)	(0.1496)	(0.7881)	(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	BASED ON 30-DAY PRE-OFFER PRICE		BASED ON 5-DAY PRE-OFFER PRICE	
MANAGEMENT BUYOUTS	INCLUDED	EXCLUDED	INCLUDED	EXCLUDED
DEPENDENT VARIABLE: OFFER PREMIUM	(1)	(2)	(3)	(4)
Go-Shop	-0.3508**	-0.2384*	-0.2378*	-0.1540
	(0.1698)	(0.1329)	(0.1433)	(0.1100)
52wk_High_Ratio	0.1872***	0.2028***	0.2029***	0.2364***
	(0.0393)	(0.0443)	(0.0532)	(0.0551)
Volatility	0.1733	0.1896*	0.2087**	0.2072**
	(0.1134)	(0.1086)	(0.0933)	(0.0886)
Acq_Termin_Fee	1.0886	0.5120	-0.1880	-0.7012
	(0.9688)	(0.9573)	(0.7152)	(0.6565)
Target_Termin_Fee	-4.0102**	-3.3143***	-1.8293	-1.3195
	(1.6234)	(1.2224)	(1.3964)	(1.1113)
Leverage	0.3879***	0.3325***	0.2853***	0.2233***
	(0.1327)	(0.1122)	(0.1023)	(0.0814)
Auction	-0.1604**	-0.1194**	-0.1326**	-0.1030**
	(0.0758)	(0.0557)	(0.0640)	(0.0437)
Management_Buyout	0.0418		0.0680	
	(0.1287)		(0.1063)	
Large_Target	-0.0210	-0.0279	-0.0035	-0.0021
	(0.0615)	(0.0474)	(0.0518)	(0.0393)
Total Owner. by 5% Holders > 20%	-0.0753	-0.0897*	-0.0851*	-0.0940**
	(0.0530)	(0.0534)	(0.0444)	(0.0471)
Largest Owner.>20% OR O&D Owner.>20%	0.0302	0.0210	0.0169	0.0088
	(0.0490)	(0.0496)	(0.0381)	(0.0385)
Number_O&D	0.0010	0.0033	-0.0014	0.0013
	(0.0060)	(0.0051)	(0.0053)	(0.0045)
Financing_Condition	-0.0651	-0.0212	-0.0524	-0.0095
	(0.0650)	(0.0516)	(0.0539)	(0.0457)
Target_Adv_Fin	-0.0312	-0.0123	-0.0124	0.0088
	(0.0567)	(0.0503)	(0.0509)	(0.0468)
Target_Adv_AcqServ	0.0551	0.0299	0.0574	0.0280
	(0.0537)	(0.0436)	(0.0461)	(0.0367)
Constant	0.0366	0.0053	-0.0276	-0.0788
	(0.1238)	(0.1102)	(0.1059)	(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 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	INCLUDED	EXCLUDED
DEPENDENT VARIABLE: OFFER PREMIUM	(1)	(2)
Go-Shop	0.0419	0.0348
	(0.0976)	(0.1068)
52wk_High_Ratio	0.0040	-0.0028
	(0.0095)	(0.0083)
Volatility	-0.0718*	-0.0712*
	(0.0368)	(0.0375)
Acq_Termin_Fee	-0.4597	-0.8521*
	(0.5419)	(0.4901)
Target_Termin_Fee	-0.1927	-0.1309
	(0.9048)	(1.0034)
Leverage	0.0443	0.0003
	(0.0585)	(0.0561)
Auction	-0.0377	-0.0523
	(0.0442)	(0.0446)
Management_Buyout	0.0115	
	(0.0493)	
Large_Target	-0.0593	-0.0254
	(0.0433)	(0.0396)
Total Owner. by 5% Holders > 20%	-0.0340	-0.0441
	(0.0566)	(0.0615)
Largest Owner.>20% OR O&D Owner.>20%	-0.0743**	-0.0642*
	(0.0362)	(0.0341)
Number_O&D	0.0003	0.0002
	(0.0048)	(0.0053)
Financing_Condition	0.0120	0.0196
	(0.0373)	(0.0432)
Target_Adv_Fin	-0.0142	-0.0175
	(0.0374)	(0.0391)
Target_Adv_AcqServ	0.0258	0.0211
	(0.0358)	(0.0380)
Constant	0.2098	0.1909
	(0.1288)	(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 8
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 9
OLS Regressions 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	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	0.0062	-0.0286	0.0349	-0.0046	-0.0276	0.0230
	(0.0294)	(0.0184)	(0.0303)	(0.0316)	(0.0199)	(0.0310)
52wk_High_Ratio	0.0609**	0.0342***	0.0267	0.0574**	0.0318***	0.0256
	(0.0277)	(0.0114)	(0.0209)	(0.0272)	(0.0116)	(0.0202)
Volatility	0.0927	-0.1074**	0.2001***	0.0941	-0.1141**	0.2082***
	(0.0650)	(0.0430)	(0.0520)	(0.0655)	(0.0443)	(0.0526)
Acq_Termin_Fee	0.5994	0.4302	0.1692	0.1784	0.3403	-0.1619
	(0.5495)	(0.3085)	(0.4574)	(0.5563)	(0.3277)	(0.4119)
Target_Termin_Fee	-0.1870	0.0748	-0.2618	-0.1176	-0.1015	-0.0161
	(0.6964)	(0.5959)	(0.7226)	(0.8176)	(0.7303)	(0.6985)
Leverage	0.1467***	0.0425	0.1041**	0.1641***	0.0613*	0.1028**
	(0.0464)	(0.0300)	(0.0410)	(0.0520)	(0.0320)	(0.0440)
Auction	-0.0616***	-0.0169	-0.0448**	-0.0712***	-0.0135	-0.0576***
	(0.0231)	(0.0151)	(0.0213)	(0.0249)	(0.0159)	(0.0221)
Management_Buyout	0.0002	-0.0218	0.0220			
	(0.0403)	(0.0247)	(0.0435)			
Large_Target	-0.0807***	-0.0251*	-0.0556**	-0.0593**	-0.0228	-0.0365
	(0.0291)	(0.0152)	(0.0280)	(0.0294)	(0.0159)	(0.0263)
Total Owner. by 5% Holders > 20%	-0.0038	-0.0048	0.0009	-0.0100	-0.0105	0.0005
	(0.0247)	(0.0163)	(0.0228)	(0.0266)	(0.0165)	(0.0239)
Largest Owner.>20% OR O&D Owner.>20%	0.0187	0.0123	0.0064	0.0178	0.0099	0.0079
	(0.0255)	(0.0152)	(0.0219)	(0.0287)	(0.0161)	(0.0236)
Number_O&D	0.0033	0.0060***	-0.0027	0.0020	0.0053***	-0.0033
	(0.0024)	(0.0018)	(0.0022)	(0.0026)	(0.0019)	(0.0023)
Financing_Condition	0.0061	0.0091	-0.0030	0.0041	0.0160	-0.0119
	(0.0303)	(0.0150)	(0.0293)	(0.0354)	(0.0163)	(0.0315)
Target_Adv_Fin	-0.0107	-0.0186	0.0079	-0.0139	-0.0205	0.0066
	(0.0259)	(0.0152)	(0.0245)	(0.0259)	(0.0154)	(0.0243)
Target_Adv_AcqServ	0.0401	0.0070	0.0331	0.0384	0.0093	0.0291
	(0.0244)	(0.0128)	(0.0239)	(0.0254)	(0.0132)	(0.0239)
Constant	-0.0088	-0.0427	0.0339	0.0108	-0.0429	0.0537
	(0.0649)	(0.0427)	(0.0587)	(0.0702)	(0.0475)	(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 10
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	0.0137	-0.0009	0.0239	0.0286	-0.0047
	(0.0638)	(0.0446)	(0.0618)	(0.0698)	(0.0472)	(0.0645)
52wk_High_Ratio	0.0609**	0.0343***	0.0266	0.0578**	0.0324***	0.0253
	(0.0266)	(0.0109)	(0.0205)	(0.0260)	(0.0114)	(0.0195)
Volatility	0.0925	-0.1086**	0.2011***	0.0930	-0.1163***	0.2093***
	(0.0624)	(0.0427)	(0.0513)	(0.0628)	(0.0450)	(0.0519)
Acq_Termin_Fee	0.5987	0.4254	0.1733	0.1886	0.3604	-0.1718
	(0.5273)	(0.2992)	(0.4433)	(0.5360)	(0.3198)	(0.3976)
Target_Termin_Fee	-0.1782	0.1317	-0.3100	-0.0082	0.1143	-0.1225
	(0.6712)	(0.5599)	(0.6943)	(0.8072)	(0.6693)	(0.6926)
Leverage	0.1464***	0.0411	0.1054***	0.1613***	0.0559*	0.1054**
	(0.0450)	(0.0293)	(0.0395)	(0.0510)	(0.0319)	(0.0419)
Auction	-0.0592**	-0.0009	-0.0583**	-0.0606*	0.0073	-0.0679**
	(0.0299)	(0.0194)	(0.0272)	(0.0319)	(0.0206)	(0.0276)
Management_Buyout	-0.0003	-0.0251	0.0248			
	(0.0390)	(0.0242)	(0.0425)			
Large_Target	-0.0819***	-0.0328**	-0.0492*	-0.0636**	-0.0313*	-0.0323
	(0.0293)	(0.0161)	(0.0290)	(0.0298)	(0.0162)	(0.0271)
Total Owner. by 5% Holders > 20%	-0.0040	-0.0056	0.0017	-0.0106	-0.0118	0.0011
	(0.0237)	(0.0153)	(0.0216)	(0.0255)	(0.0155)	(0.0226)
Largest Owner.>20% OR O&D Owner.>20%	0.0197	0.0184	0.0013	0.0216	0.0175	0.0041
	(0.0256)	(0.0158)	(0.0226)	(0.0286)	(0.0165)	(0.0236)
Number_O&D	0.0032	0.0058***	-0.0026	0.0017	0.0048**	-0.0031
	(0.0024)	(0.0018)	(0.0021)	(0.0026)	(0.0020)	(0.0023)
Financing_Condition	0.0055	0.0052	0.0003	0.0019	0.0118	-0.0099
	(0.0288)	(0.0152)	(0.0289)	(0.0331)	(0.0158)	(0.0305)
Target_Adv_Fin	-0.0103	-0.0163	0.0060	-0.0126	-0.0179	0.0053
	(0.0250)	(0.0146)	(0.0236)	(0.0248)	(0.0146)	(0.0232)
Target_Adv_AcqServ	0.0398*	0.0050	0.0348	0.0378	0.0080	0.0298
	(0.0234)	(0.0126)	(0.0231)	(0.0242)	(0.0129)	(0.0227)
Constant	-0.0098	-0.0491	0.0393	0.0047	-0.0549	0.0596
	(0.0628)	(0.0403)	(0.0561)	(0.0679)	(0.0449)	(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_t, $Controls_{it}$) and exogenous instruments ($Instruments_{it}$):

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

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:

$$OP_{it} = \kappa_t + \beta \cdot \hat{GO_i} + \gamma \cdot Controls_{it} + u_{it} \qquad (3)$$

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 $I(.)$ is the indicator function and ε_{it} is a normally distributed error term:

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

Following the steps outlined as procedure 18.1 in Wooldridge (2002),[24] 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 $\hat{GOpr_i}$, the first stage of the 2SLS now becomes:

$$GO_i = \alpha_t + \delta \cdot Controls_{it} + \mu \cdot \hat{GOpr_i} + w_{it} \qquad (5)$$

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) $E(u_{it} \mid Controls_{it}, Instruments_{it} = 0)$, 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.[25]

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.

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[24] Wooldridge (2002) pg 623
[25] 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.[26]

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:

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

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

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 groups[27], 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.

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

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[26] See Vella and Verbeek (1999) for a detailed discussion of the similarities between the IV and Heckman approach.
[27] The results remain unchanged if we assume the treated and untreated groups to have equal covariances between the error terms of the two stages.

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

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 litigation risk. 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.

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 litigation risk, 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	BASED ON 30-DAY PRE-OFFER PRICE		BASED ON 5-DAY PRE-OFFER PRICE	
MANAGEMENT BUYOUTS	INCLUDED	EXCLUDED	INCLUDED	EXCLUDED
DEPENDENT VARIABLE: OFFER PREMIUM	(1)	(2)	(3)	(4)
Go-Shop	-0.4054**	-0.2920**	-0.2724**	-0.1809
	(0.1730)	(0.1336)	(0.1378)	(0.1164)
52wk_High_Ratio	0.1874***	0.2035**	0.2046***	0.2383***
	(0.0681)	(0.0802)	(0.0654)	(0.0669)
Volatility	0.1753	0.1862	0.2019*	0.1970*
	(0.1275)	(0.1325)	(0.1078)	(0.1115)
Acq_Termin_Fee	1.0749	0.5387	-0.0987	-0.5335
	(0.9317)	(0.9678)	(0.7525)	(0.7150)
Target_Termin_Fee	-4.0059**	-3.3510***	-1.7653	-1.2972
	(1.6760)	(1.1701)	(1.4077)	(1.2786)
Leverage	0.3902***	0.3330***	0.2788***	0.2127**
	(0.1388)	(0.1164)	(0.1026)	(0.0847)
Auction	-0.1814**	-0.1368**	-0.1397**	-0.1050**
	(0.0729)	(0.0603)	(0.0636)	(0.0476)
Management_Buyout	0.0473		0.0645	
	(0.1218)		(0.1003)	
Large_Target	-0.0108	-0.0224	-0.0035	-0.0073
	(0.0611)	(0.0490)	(0.0509)	(0.0424)
Total Ownership by 5% Holders > 20%	-0.0753	-0.0915	-0.0875*	-0.0988*
	(0.0560)	(0.0610)	(0.0472)	(0.0505)
Largest Owner.>20% OR O&D Owner.>20%	0.0210	0.0158	0.0170	0.0138
	(0.0527)	(0.0518)	(0.0463)	(0.0424)
Number_O&D	0.0012	0.0036	-0.0014	0.0013
	(0.0062)	(0.0053)	(0.0054)	(0.0047)
Financing_Condition	-0.0590	-0.0165	-0.0498	-0.0092
	(0.0691)	(0.0531)	(0.0562)	(0.0487)
Target_Adv_Fin	-0.0339	-0.0155	-0.0157	0.0060
	(0.0580)	(0.0527)	(0.0506)	(0.0488)
Target_Adv_AcqServ	0.0579	0.0314	0.0589	0.0287
	(0.0540)	(0.0476)	(0.0460)	(0.0378)
_wL1	0.2546*	0.1590*	0.2071*	0.1218*
	(0.1347)	(0.0822)	(0.1196)	(0.0698)
_wL0	-0.2650**	-0.1269	-0.1318	-0.0107
	(0.1303)	(0.1093)	(0.1003)	(0.0885)
Constant	0.0437	0.0102	-0.0317	-0.0826
	(0.1545)	(0.1353)	(0.1192)	(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 litigation risk, 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	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	-0.0132	0.0300	-0.0431	-0.0023	0.0388	-0.0411
	(0.0702)	(0.0474)	(0.0693)	(0.0712)	(0.0500)	(0.0667)
52wk_High_Ratio	0.0614	0.0344	0.0270	0.0602	0.0319	0.0283
	(0.0479)	(0.0209)	(0.0370)	(0.0568)	(0.0265)	(0.0402)
Volatility	0.0888	-0.1095**	0.1983***	0.0815	-0.1137**	0.1952***
	(0.0797)	(0.0449)	(0.0575)	(0.0780)	(0.0445)	(0.0579)
Acq_Termin_Fee	0.6435	0.4287	0.2149	0.2928	0.3373	-0.0445
	(0.5818)	(0.3038)	(0.4784)	(0.5901)	(0.3427)	(0.4378)
Target_Termin_Fee	-0.1639	0.1597	-0.3236	0.0508	0.1159	-0.0651
	(0.7833)	(0.5691)	(0.7823)	(0.9665)	(0.7596)	(0.8052)
Leverage	0.1431***	0.0400	0.1031**	0.1529**	0.0575*	0.0954**
	(0.0488)	(0.0332)	(0.0465)	(0.0619)	(0.0340)	(0.0477)
Auction	-0.0660**	0.0057	-0.0717**	-0.0655*	0.0099	-0.0754***
	(0.0329)	(0.0216)	(0.0315)	(0.0334)	(0.0233)	(0.0282)
Management_Buyout	-0.0027	-0.0270	0.0242			
	(0.0428)	(0.0249)	(0.0428)			
Large_Target	-0.0800***	-0.0360**	-0.0440	-0.0652**	-0.0316*	-0.0336
	(0.0306)	(0.0178)	(0.0303)	(0.0303)	(0.0183)	(0.0287)
Total Owner. by 5% Holders > 20%	-0.0050	-0.0062	0.0012	-0.0145	-0.0109	-0.0035
	(0.0260)	(0.0153)	(0.0222)	(0.0283)	(0.0174)	(0.0243)
Largest Owner.>20% OR O&D Owner.>20%	0.0189	0.0211	-0.0022	0.0254	0.0172	0.0082
	(0.0286)	(0.0166)	(0.0264)	(0.0291)	(0.0178)	(0.0279)
Number_O&D	0.0033	0.0058***	-0.0025	0.0018	0.0048**	-0.0030
	(0.0025)	(0.0018)	(0.0022)	(0.0027)	(0.0021)	(0.0024)
Financing_Condition	0.0075	0.0036	0.0039	0.0037	0.0110	-0.0073
	(0.0302)	(0.0159)	(0.0291)	(0.0347)	(0.0190)	(0.0313)
Target_Adv_Fin	-0.0127	-0.0156	0.0028	-0.0149	-0.0172	0.0023
	(0.0263)	(0.0155)	(0.0242)	(0.0268)	(0.0165)	(0.0250)
Target_Adv_AcqServ	0.0408*	0.0042	0.0367	0.0384	0.0078	0.0306
	(0.0242)	(0.0131)	(0.0230)	(0.0255)	(0.0141)	(0.0222)
_wL1	0.0289	-0.0371	0.0659	0.0313	-0.0546	0.0859
	(0.0488)	(0.0314)	(0.0510)	(0.0493)	(0.0340)	(0.0581)
_wL0	0.0111	0.0420	-0.0309	0.0529	0.0347	0.0182
	(0.0540)	(0.0424)	(0.0565)	(0.0542)	(0.0418)	(0.0486)
Constant	-0.0100	-0.0521	0.0421	0.0032	-0.0555	0.0586
	(0.0769)	(0.0438)	(0.0675)	(0.0982)	(0.0542)	(0.0797)
Observations	298	298	298	267	267	267
Adjusted R-Squared	0.305	0.118	0.283	0.283	0.128	0.314