The impact of go-shop provisions in merger agreements

Sridhar Gogineni
University of Wyoming
Department of Economics & Finance, College of Business, 1000 E. University Avenue, Laramie, Wyoming 82071.
Phone: 307-766-3848. Fax: 307-766-5090. E-mail: sgoginen@uwyo.edu

John Puthenpurackal
University of Nevada – Las Vegas
Department of Finance, 537 Beam Hall, College of Business, UNLV, Las Vegas. NV 89154-6008.
Ph: 702.895.1184. Fax: 702-895-4650 Email: john.puthenpurackal@unlv.edu

Abstract

Go-shop provisions in merger agreements drastically alter the bidding process by shifting the solicitation of bids to after a merger agreement is signed with a particular bidder. Using a large sample of merger agreements from 2003 to 2012, we examine whether go-shops are used to benefit target shareholders or for agency/entrenchment reasons. We find deals with go-shops are more likely to be faced with a competing bid and more likely to have an upward revision of the initial offer price. We also find that while a go-shop provision increases the probability of a particular bid being jumped by another bid, it does not appear to affect the probability of the target being ultimately taken over. We also document that go-shops have a non-negative association with announcement period and long run target returns. Collectively, our results appear to indicate that go-shops are used to further target shareholder interests and not to secure deals with favored bidders at the expense of target shareholders.

1. Introduction

The introduction of "go-shop" clauses in merger agreements has been an important innovation in merger contracting provisions. The board of directors and management of target firms have a fiduciary duty to obtain the highest possible price for their shareholders. Go-shop clauses represent a radical departure from how this fiduciary duty has traditionally been fulfilled. In deals with go-shop clauses, the target board of directors typically negotiates with only one bidder, and then sign and publicly announce a definitive merger agreement with that bidder. The go-shop clause then allows the target firm to actively solicit other bids during a "go-shop" period of typically 30-45 days which starts on the day of the public announcement of the merger agreement. By actively seeking superior bids after a definitive merger agreement is announced, target boards claim to fulfill their fiduciary duty to target shareholders.

In contrast, fiduciary duty has traditionally been demonstrated through a pre-public takeover process which includes contacting potential bidders, signing confidentiality/standstill agreements and accepting private bids (Boone and Mulherin, 2007a; Gogineni and Puthenpurackal, 2013). The target board then negotiates with the bidders for the highest possible price. If an acceptable price is obtained from a bidder, a definitive merger agreement is signed and a public announcement is made. Typically, after the public announcement of a merger agreement, target boards do not actively solicit new bids although superior bids can still be considered.

There is an extensive finance literature on merger events and on different types of merger provisions and clauses. However, partly due to their relatively recent introduction, there has been virtually no study of go-shop provisions, with only a few business law articles examining their potential impact (Sauter, 2008; Subramanium, 2008). In this paper, we test two explanations for

go-shop usage. The first explanation, based on managerial agency problems, argues that target management use go-shop provisions to secure deals with favored bidders and curb the bidding activity of hostile but potentially higher value bidders. The second explanation, based on shareholder interest and efficiency arguments, proposes that targets use go-shop provisions to improve incentives for bidding. That is, by giving a particular bidder a favored position, the bidder is compensated for negotiation costs and information externalities and is thus encouraged to invest in the transaction and make a bid. To determine empirical support for either explanation, we examine (1) which firm and deal characteristics are correlated with the use of go-shop provisions; (2) whether go-shop provisions affect the likelihood of a competing offer by another bidder as well as the likelihood of upward revisions to the initial offer price; (3) whether go-shop provisions impact the probability of a deal being completed; and (4) how go-shop provisions are associated with target returns.

Most deals with go-shop provisions also have target termination fee provisions. Target termination fee clauses require a payment by the target to the bidder if the target dissolves the merger agreement. Traditionally, this fee averages about 3 percent of the deal value and represents an additional cost to a competing bidder wishing to outbid the initial bidder. A tiered termination fee provision is however present in go-shop deals, with a reduced termination fee (typically 50-60% of the full termination fee) if a new successful bidder emerges during the go-shop period. If however successful bidders make their bids after the go-shop period, the target has to pay the full termination fee to the initial bidder. Similar to go-shop provisions, termination fee provisions can potentially be used for agency reasons or for target shareholder interests, i.e., they may limit competition from potentially higher value bidders but can also improve incentives for bidding. Bates and Lemmon (2003) and Officer (2003) carefully examine the impact of

termination fees and conclude that they appear to be used in the interest of target shareholders. In this paper, we are careful to control for the presence of target termination fee provisions while estimating the incremental impact of go-shop provisions.

Using a large sample of merger agreements over the 2003 to 2012 period, we find that go-shop provisions are more likely in deals involving negotiation selling method, financial buyers and all cash financing. Go-shops are also associated with a higher likelihood of a competing bid. Thus, go-shops do not appear to be a superficial attempt to demonstrate fiduciary duty: active solicitation of new bids and the tiered termination fee structure of go-shop deals appear to be effective in facilitating competing bids. We also find deals with go-shops are less likely to be completed, which is consistent with the above result that go-shops are associated with a higher likelihood of a competing bid. This raises the question whether go-shop provisions reduce the probability of target shareholders capturing takeover premiums. To explore this, we perform target level (not deal level) analysis and find that go-shop provisions are not significantly related to the probability of takeover completion. Thus, while a go-shop provision increases the probability of a particular deal being jumped by another bid, it does not appear to affect the probability of the target being ultimately taken over.

Further, using target level analysis, we find that there is a higher probability of an upward revision of the initial offer price when go-shops deals are involved. Finally, we find that the incidence of go-shop provisions has a non-negative association with both target announcement returns and long run target returns. Collectively, our findings suggest that the use of go-shop clauses in merger agreements is consistent with target management and boards acting in the interests of target shareholders.

The rest of the paper is organized as follows. We review related literature and develop our hypotheses in section 2. Sample selection and variables used are discussed in section 3. We present our empirical findings in section 4 and conclude in section 5.

2. Related literature and hypotheses

The Delaware Supreme Court's 1986 decision *Revlon, Inc. v. MacAndrews & Forbes Holdings Inc.,* has shaped the fiduciary duty expectations of target boards. It stated that target boards should take steps to ensure the maximization of target shareholder value and that target directors should foster competitive bidding to obtain the highest possible price. Although this initially suggested an auction type model, other deal making approaches such as negotiations with a few bidders have also been adopted. Some papers show that properly structured negotiations can result in target returns similar to those using auctions (Hansen, 2001; Povel and Singh, 2006; Boone and Mulherin, 2007a). Hence, it appears that a target board can adopt different approaches while selling a firm and still continue to fulfill their fiduciary duty to obtain the highest possible price.

Go-shop provisions significantly alter the takeover process since typically the target negotiates with only one bidder and signs a definitive agreement with that bidder. Since target termination fee provisions are present in almost all go shop deals, it appears to give an upfront advantage to the initial bidder relative to other potential bidders. That is, other bidders now have to bear a termination fee if they choose to bid. If the applicable target termination fee exceeds the difference between the reservation prices of the new potential bidders and the initial bid, the bidders will not make an offer. Note however that the burden of the target termination fee is

lower in go-shop deals since there is a reduced termination fee if a new successful bid emerges during the go-shop period.

The main findings of Bates and Lemmon (2003) and Officer (2003) on the impact of target termination fees are as follows. Deals with termination fees have higher deal completion rates and greater takeover premiums than deals without such clauses. Officer (2003) also finds weak evidence of target termination fees deterring competing bidders. Both these papers conclude that target termination fees serve as an efficient contracting device, and not a means of deterring competitive bidding to the detriment of target shareholders. These findings support evidence documented on the use of poison pills and lockup options. For example, Schwert (2000) concludes that target managements' tough bargaining stance with potential acquirers are consistent with a bargaining strategy that is beneficial to target shareholders on average. Similarly, Comment and Schwert (1995) conclude that the adoption of poison pills benefit target shareholders on average. Burch (2001) finds the use of lockup options in corporate mergers is more consistent with managers using lockup options to enhance bargaining power than with lockup options harming shareholder wealth. Hence, although target termination fees, poison pills and lockup options can conceivably be used to the detriment of shareholders, they appear on average to be used to benefit target shareholders. Similar to the above papers, we explore two potential explanations of go-shop usage.

2.1. Agency problem hypothesis

Go-shop provisions can potentially be used by target management to secure deals with favored bidders and curb the bidding activity of hostile, but potentially higher value bidders. This is because a new bidder is now faced with termination fee costs and also the target management team may already be aligned with the initial bidder. If the bidding process is curtailed due to

these reasons, target shareholders may obtain lower takeover premiums. If this is the case, legitimate concerns can be raised about whether the use of go-shop provisions adequately fulfills the fiduciary duty of target boards and management. The *agency problem hypothesis* thus predicts lower target returns for go-shop deals. If go-shop provisions are merely window dressing to superficially fulfill fiduciary duty, the *agency problem hypothesis* also predicts that that the incidence of competing bids after the merger agreement announcement and the incidence of upward revisions to the initial offer price will be no higher in go-shop deals. Finally, the *agency problem hypothesis* predicts a success rate for go-shop deals that is not different from other deals.

2.2. Shareholder interest hypothesis

This hypothesis argues that go-shop provisions are a contracting mechanism that improves incentives for bidding. As discussed by Bates and Lemmon (2003) and Officer (2003), the public announcement of a bid for a target creates a positive externality by providing third parties with information about the potential value creation associated with the target. The initial bidder is thus exposed to the risk that a higher value bidder, free riding on information contained in the prior bids, may submit an ultimately successful competing bid. In addition, bidders bear direct costs such as valuation and negotiation with the target. Hence, by granting favored status to a particular bidder, a deal with termination fee and go-shop provisions provides incentives to that bidder to make deal-specific investments in the transaction and make a bid to the benefit of target shareholders.

The predictions of the *shareholder interest hypothesis* are as follows. The active solicitation of new bids and the tiered structure of termination fees in go-shop deals should increase the incidence of competing bids and upward revisions of the initial offer price. This

suggests a lower deal completion rate of a given bid since there is a higher likelihood of any given bid being jumped by a competing bid. However for go-shops to be value adding to target shareholders, the likelihood of the target being successfully taken over by any one bidder should not be lower. Finally, the *shareholder interest hypothesis* predicts that target returns will be no lower in go-shop deals since there is an adequate market check in the takeover process.

3. Sample construction and variable description

Our initial sample of 2,996 merger announcements of publicly traded U.S. targets between January 1, 2003 and December 31, 2012 is provided by *Merger Metrics*. Of these, 2,246 deals have *CRSP* and *COMPUSTAT* data available. We supplement this dataset with information from *ThomsonOne* (formerly *SDC*) where available. Inside ownership data is obtained from *ThomsonReuters* insiders filings and measures the fractional ownership of the target firm's officers and directors in the year prior to the acquisition bid. Go-shop provisions are present in 147 deals. Our final sample therefore consists of 2,099 no go-shop deals and 147 go-shop deals.

As proxies for firm size, we use book value of total assets in the fiscal year prior to bid announcement and market value of equity computed 42 trading days prior to bid announcement. Our measure of prior firm performance is net of market return calculated as the difference between the buy-and-hold return of the target and that of the value weighted CRSP index over the months -12 to -1 relative to the announcement month of the acquisition. Our proxy for firm profitability and potential free cash flow problems is free cash flow, computed as operating income before depreciation minus total taxes minus change in deferred taxes minus gross interest expense minus any preferred and common dividends paid, scaled by total assets. We follow Smith and Watts (1992) and include the target's ratio of market-to-book assets in the fiscal year

prior to the announcement year as a proxy of the firm's growth opportunities. We note that firms with higher growth opportunities are often associated with greater information asymmetry between insiders and outsiders. Please refer to Appendix for definitions of all the variables used in our analyses.

4. Empirical analysis

4.1. Sample description and univariate statistics

Panel A of Table 1 provides the distribution of the sample by year. There does not appear to be clustering of observations in any particular year. About 84 percent of the full sample have target termination fees and this proportion is fairly uniform across years, ranging from 72 percent (in 2008) to 92 percent (in 2003). These statistics are similar to those reported by Boone and Mulherin (2007b) who note that the lower incidence of termination fee provisions reported in earlier research on termination fee provisions was a result of underreporting in the SDC database. Since 97 percent of go-shop deals also have target termination fee provisions, we are careful to control for target termination fee provisions while examining the incremental impact of go-shop provisions.

Panel B of Table 1 reports the industry distribution of the sample using two-digit SIC codes for industry classifications. For go-shop deals, the sample is well represented across all industry groups with *Business Services* and *Health Services* having the highest representation. For no go-shop deals, the sample is again well represented across industries with *Business Services*, *Financials* and *Chemical and Allied Products* having the highest representation.

We provide univariate statistics of deal and target characteristics for the full sample in Table 2. Definitions of all variables are provided in Appendix. To gain an understanding of deal

and target characteristics that are different in go-shop deals, we also provide univariate statistics for go-shop and no go-shop deals and test for differences in means and medians. Starting with deal characteristics, cash offers (*all cash*) comprise 66.4 percent, 91.8 percent and 64.6 percent, of the full sample, go-shop sample and no go-shop sample, respectively. This indicates that go-shop deals are mostly cash deals. Auction selling method (*auction dummy*) comprises 34.3 percent, 25.2 percent and 35 percent, of the full sample, go-shop sample and no go-shop sample, respectively. Hence, while a majority (74.8 percent) of go-shop deals used a negotiation selling method involving one bidder, go-shop provisions are sometimes present in auction deals.

For completed go-shop deals, it takes, on average, 115 days after the announcement to get completed and the corresponding figure for no go-shop deals is 123 days (*days to completion*). The differences of means and medians of *days to completion* for go-shop and no go-shop deals are not statistically significant. After the announcement of an agreement, on average, a competing bid (*competing bid dummy*) arises in 12.9 percent of go-shop deals and in 7.5 percent of no go-shop deals and the difference is significant at the 10 percent level. Further 78.2 percent of announced go-shop deals are completed (*success dummy*) while 81.5 percent of no go-shop deals are completed. The initial offer price is revised upwards (*upward dummy*) in 16.3 percent of go-shop deals and in 9.5 percent of no go-shop deals and this difference is significant at the 5 percent level. The univariate evidence on the incidence of competing bids, deal success rate and upward revision of the initial offer price suggests that go-shops appear to allow for a robust market check after the merger agreement by actively soliciting new bids and lowering the cost for a new bidder to make a bid, consistent with the *shareholder interest hypothesis*.

The deal attitude in our sample is mainly friendly (*hostile dummy*) with only about 5 percent deals considered hostile. Hostile deals are even rarer among go-shop deals (1.4 percent).

Financial buyers (*financial buyer dummy*), of which private equity firms are the predominant group, account for 21.7 percent, 64.6 percent and 18.7 percent, of the full sample, go-shop sample and no go-shop sample, respectively. The corresponding figures for private equity firms (*PE dummy*) are 17.8 percent, 59.9 percent and 14.8 percent, respectively. This indicates that go-shop deals often involve financial buyers and PE firms. The desire for a favored bidder status is likely to be greater among financial buyers since the cost of information externalities could be more pronounced for them. Specifically, since the gains from a deal are unlikely to be unique to a particular financial buyer, other bidders may be able to free ride on the information revealed in the initial bid and offer a competing bid. The target management (*management dummy*) is involved as a bidder in 9.5 percent of go-shop deals and in 2.4 percent of no go-shop deals and this difference is significant at the 1 percent level. The mean (median) transaction value of go-shop and no go-shop deals are 1,080 mill. (387 mill.) and 1,663 mill. (361 mill.), respectively and the difference in means is significant at the 1 percent level.

The mean (median) go-shop window is 35.4 (30) days while the mean (median) go-shop termination fee is 17.1 mill. (7.5 mill.). The mean (median) ratio of go-shop termination fee to full termination fee is 0.53 (0.5). The initial bidder often has matching rights wherein the initial bidder has a certain number of days to match a new bid. The matching offer period for both the go-shop and no go-shop deals is about 4 days.

With respect to target firm characteristics, the mean (median) total assets of go-shop deals is 1244 mill. (440 mill.) while that for no go-shop deals is 3046 mill. (414 mill.) and the means are significant at the 1 percent level. The mean (median) market value of equity 42 days prior to the bid announcement date is 865 mill. (337 mill.) for go-shop deals and 1305 mill. (267 mill.) for no go-shop deals. The difference in means is significant at the 5 percent level. Both the

mean and median free cash flow to total assets ratio is higher for go-shop targets, significant at the 1 percent level. The debt to assets ratio is similar for go-shop and no go-shop targets while the market to book ratio, a measure of growth opportunities, is significantly lower for go-shop targets.

We measure announcement period target returns using short-run cumulative abnormal returns (CARs). We follow Schwert (1996) by estimating market model parameters, using CRSP value-weighted index as the market proxy, for each target firm using daily returns from *day* -379 to *day* -127 relative to the deal announcement date. We calculate CARs for (-1,+1) and (-2,+2) windows with day 0 being the deal announcement date. The mean (median) 3-day announcement period target returns for go-shop deals is 29.7 (22) percent while that for no go-shop deals is 23.6 (19) percent. Both the mean and median are significant at the 5 percent level. We obtain similar results using 5-days CARs. These univariate results suggest that go-shop provisions are used to further shareholder interests, consistent with the *shareholder interest hypothesis*.

4.2. Likelihood of go-shop provisions

Although the above univariate statistics provide some insight into the differences in deal and target characteristics between go-shop and no go-shop deals, we next conduct logistic regressions to identify characteristics that are correlated to the incidence of go-shop provisions in a multivariate framework. As reported in Model 1 of Table 3, go-shop provisions are less likely to be present in deals with auction selling method, consistent with the univariate results. Go-shops are also more likely to be present in deals where a financial buyer is involved as a bidder and less likely to be present in hostile deals. In Model 2 of Table 3, we include additional control variables, year and industry dummy variables. The findings of Model 1 generally remain intact except for the hostile offer variable. In addition, cash offer deals and targets with lower

market to book ratios are more likely to have go-shop provisions, consistent with the univariate results.

4.3. Go-shop provisions and the incidence of competing bids

We next attempt to provide more direct evidence on whether go-shop provisions, through the active solicitation of new bids and the tiered termination fee structure, allow for a robust takeover market check. We examine the association between go-shop provisions and the likelihood of a competing public bid. As reported in Model 1 of Table 4, go-shops are positively associated with the likelihood of a competing bid, significant at the 5 percent level. In addition, deals with auction selling method are less likely to receive a competing bid after the announcement of a merger agreement. Larger targets and deals with financial buyers are more likely to receive a competing bid while deals with termination fee are less likely to receive a competing bid. In Model 2, we include additional control variables (termination fee dummy gets dropped due to collinearity). We find that go-shops continue to be positively associated with the likelihood of a competing bid, again significant at the 5 percent level. The findings of Model 1 generally remain intact. In addition, deals involving targets with strong net of market returns prior to the merger announcement are more likely to receive a competing bid.

4.4. Go-shop provisions and deal completion

We next study whether the presence of go-shop provisions significantly affects the likelihood of deal completion in a multivariate setting. The results of logistic regressions that model the probability of deal completion are reported in Table 5. As reported in Model 1, the more parsimonious model, we find that go-shop provisions are negatively associated with the

likelihood of deal completion, significant at the 1 percent level. This suggests that go-shop provisions are not mere window dressing but do result in a robust market check wherein the initial bid may be jumped by a new bid. Consistent with Bates and Lemmon (2003) and Officer (2003), deals with termination fees have higher deal completion rates. Deals with financial buyers are associated with lower completion rates. In Model 2, we include additional control variables. The significant variables of Model 1, including the go-shop variable, remain significant in Model 2. In addition, we find that deals involving targets with weaker net of market returns prior to the merger announcement are more likely to be completed. Cash offer deals and deals with bidder toeholds are more likely to be completed. Overall, go-shop provisions are negatively associated with the likelihood of deal completion.

While the above finding indicates that go-shop provisions provide a robust market check, it raises the question whether go-shop provisions reduce the probability of target shareholders capturing takeover premiums. To explore this, we next perform target level analysis, not the deal level analysis described above. In the target level analysis, we are interested in whether the target is ultimately acquired by any one bidder, even if an earlier deal involving a particular bidder was jumped by another bid. The target level results are reported in Table 6. In both Models 1 and 2, go-shop provisions are not significantly related to the probability of completion. Most control variables have similar signs and significant to those in the deal level analysis reported in Table 5. Thus, while a go-shop provision increases the probability of a particular deal being jumped by another bid, it does not appear to affect the probability of the target being ultimately taken over.

4.5. Go-shop provisions and target returns

Our findings so far appear to support the *shareholder interest hypothesis*. However, the primary concern of target shareholders are the returns they receive in the merger. The univariate

results reported in Table 2 indicated higher target announcement returns for go-shop deals. We next examine the association of go-shop provisions with announcement period target returns in a multivariate framework. As reported in Model 1 of Table 7, we find that go-shop is positively associated with 3-day announcement period returns, CAR(-1,+1), significant at the 1 percent level. Consistent with prior literature (Bargeron et al., 2008; Officer et al., 2010), we also find that larger targets have smaller announcement period returns. Consistent with Bates and Lemmon (2003) and Officer (2003), deals with termination fee provisions have higher target returns. Friendly deals and deals with prior bids also have lower announcement period returns. Targets with weak net of market returns prior to the merger announcement have higher announcement period returns. Deals involving financial buyers have lower target returns.

In Model 2, we include additional control variables. The go-shop variable continues to be positive but is no longer significant. Cash offer deals tend to have higher announcement period returns. Overall, the return results are consistent with the *shareholder interest hypothesis* since target returns in go-shop deals appear to be no lower than that of no go-shop deals.

4.6. Go-shop provisions and upward price revisions

We next examine the association between go-shop provisions and the likelihood of an upward price revision of the initial offer price. As reported in Table 8 Model 1, go-shop provisions are positively and significantly associated with the likelihood of an upward revision. Consistent with Gogineni and Puthenpurackal (2013), we find that deals where target management are involved as a bidder are more likely to have the initial offer price upward revised. In addition, hostile deals are more likely to have an upward offer price revision. In Model 2, we include additional control variables and find that the go-shop coefficient is positive but no longer significant.

In Models 3 and 4, the dependent variable is the percentage price change from the initial price to final price. We find that go-shop provisions are positively and significantly associated with percentage price changes. Overall, results from Table 8 are consistent with the *shareholder interest hypothesis* in that go-shop provisions appear to result in a robust market check with more frequent incidences of upward price revisions to the initial offer price and greater percentage changes to the initial offer price.

4.7. Go-shop provisions and long run target returns

Since there is a possibility of revisions to the initial offer price as well as uncertainty about deal completion, we also compute long run target returns calculated as market adjusted holding period return from -10 days of announcement date till the date that the target is either successfully acquired or the final bid is withdrawn**.** We report regressions in Models 1 and 2 of Table 9 with this long run target return measure as dependent variable. The coefficient of the Go-shop dummy variable is positive in both models and significant in the first model. As expected, target returns in completed deals are higher than that of withdrawn deals. Larger targets, deals involving financial buyers and friendly deals are associated with lower target returns. Thus, using both announcement period and long run target returns, we find a non-negative association between go-shop provisions and target returns, consistent with the *shareholder interest hypothesis*.

5. Conclusions

Go-shop provisions are a relatively recent feature in merger agreements which drastically alter the bidding process by shifting the solicitation of bids to after a merger agreement is signed with a particular bidder. Go-shop provisions thus represent a significant change in how fiduciary

duty is demonstrated by target boards and management. Using a comprehensive sample of 147 go-shop deals and a large sample of merger deals over the 2003 to 2012 period, we examine whether go-shops are used to benefit target shareholders or for managerial agency cost reasons. To determine support for either hypothesis, we examine the association of go-shop provisions with the likelihood of competing bids, the likelihood of deal completion, upward revisions to the initial offer price, announcement period target returns and long run target returns. We also study the determinants of go-shop provisions.

We find that go-shop provisions are more likely in deals involving negotiation selling method, financial buyers and all cash financing. Go-shop provisions are also associated with a higher likelihood of a competing bid. Thus, go-shop provisions appear to demonstrate adequate fiduciary duty by ensuring a robust market check: the active solicitation of new bids and the tiered termination fee structure of go-shop deals appear to be effective in facilitating competing bids. We find deals with go-shops are less likely to be completed, which is consistent with the above result that go-shops are associated with a higher likelihood of a competing bid. Using target level (not deal level) analysis however, we find that go-shop provisions are not significantly related to the probability of completion. Thus, while a go-shop provision increases the probability of a particular deal being jumped by another bid, it does not appear to affect the probability of the target being ultimately taken over.

Further, using target level analysis, we find that there is a higher probability of an upward revision of the initial offer price and greater percentage changes to the initial offer price when go-shops deals are involved. Finally, we find that the incidence of go-shop provisions has a non-negative association with both target announcement period returns and long run target returns. Collectively, our findings suggest that the use of go-shop clauses in merger agreements is

consistent with target management and boards acting in the interests of target shareholders and support our *shareholder interest hypothesis*.

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Appendix: Variable definitions

Variable	Definition	Source
All cash	Dummy variable equals 1 if the deal is paid entirely by cash	Merger Metrics
Assets	Total assets ($mn) in the fiscal year priror to the announcement date	COMPUSTAT
Auction Dummy	Dummy variable equals 1 if the method of sale is auction. An auction deal is one which multiple potenitial buyers are involved in the bidding process prior to initial public announcement of merger	Merger Metrics
Bidder cost	Go-Shop fee / Transaction value. In deals without Go-Shop provision, it is calculated as Termination fee / Transaction Value	Merger Metrics
Bidder Toehold	Percent of target's stock owned by bidder prior to announcement	ThomsonOne / SDC
CAR(-1,+1)	Cumulative abnormal returns from days -1 to +1 relative to merger announcement day	CRSP
CAR(-2,+2)	Cumulative abnormal returns from days -2 to +2 relative to merger announcement day	CRSP
Days to completion	Difference between announcement date and completion date	Merger Metrics
Competing bid dummy	Dummy variable equals 1 if there is a competing bid to initial bid.	Merger Metrics
Final premium	Final offer price divided by stock price 42 days prior to the announcement. Captures any price revisions after the initial announcement	Merger Metrics & CRSP
Financial buyer dummy	Dummy variable equals 1 if acquirer is classified as a financial buyer	Merger Metrics
Free cash flow / Assets	Operating income before depreciation minus total taxes minus change in deferred taxes minus gross interest expense minus any preferred and common dividends paid / Assets	COMPUSTAT
Friendly deal dummy	Dummy variable equals 1 if the acquisition technique is described as friendly.	Merger Metrics
Go-Shop dummy	Dummy variable equals 1 if the deal contains a go-shop provision	Merger Metrics
Go-Shop fee ($mn)	Fee payable to initial bidder if an alternate bid is accepted during the Go-shop period	Merger Metrics
Go-Shop fee / Termination fee	Go-Shop fee divided by Termination fee	Merger Metrics
Go-shop window (days)	Duration of Go-Shop period	Merger Metrics
Hostile deal dummy	Dummy variable equals 1 if the acquisition technique is described as hostile.	Merger Metrics

Variable	Definition	Source
Initial premium	Initial offer price divided by stock price 42 days prior to the announcement	Merger Metrics & CRSP
Insider pct	Fractional ownership of the target firm's officers and directors in the calendar year prior to the acquisition bid	Thomson Reuters
Management dummy	Dummy variable equals 1 if target management are involved in the bidding process	Merger Metrics
Market to book ratio	Total assets minus book equity plus market equity divided by total assets	CRSP & COMPUSTAT
Market value of equity	Market value of equity 42 days prior to the announcement date	CRSP
Matching offer period (days)	Time given to initial bidder to match any competing offer	Merger Metrics
Net of market return	Difference between the buy-and-hold return of the target and that of the value weighted NYSE/AMEX/NASDAQ CRSP index over the months -12 to -1 relative to the announcement month of the acquisition	CRSP
PE dummy	Dummy variable equals 1 if private equity firm(s) are involved in the bidding process	Merger Metrics
Prior bid dummy	Dummy variable equals 1 if there were any bids within the past 365 days relative to public announcement date	Merger Metrics
Same Industry dummy	Dummy variable equals 1 if the bidder and target are in the same 2-digit SIC code	COMPUSTAT
Success dummy	Dummy variable equals 1 if the deal is completed	Merger Metrics
Termination fee dummy	Dummy variable equals 1 if the deal has a target termination fee provision	Merger Metrics
Total debt / assets	Sum of long-term and short-term debt divided by total assets	COMPUSTAT
Transaction value	Deal value in millions	Merger Metrics
Upward dummy	Dummy variable equals 1 if there were any upward revisions to initial offer price	Merger Metrics

Table 1. Distribution of merger announcements

The sample comes from Merger Metrics and includes all merger attempts between 2003 and 2012 where target firm is a U.S. public firm. Go-Shop deals are deals which include go-shop provision. Panel A presents distribution of the sample over time. Panel B presents distribution of the sample across industries defined according to two digit SIC classification.

Panel A. Distribution over time

Year	All Deals	Go-Shop Deals	No Go-Shop Deals
2003	87		87
2004	232	4	228
2005	284	3	281
2006	338	10	328
2007	340	34	306
2008	229	11	218
2009	163	16	147
2010	238	28	210
2011	202	20	182
2012	133	21	112
Total	2,246	147	2,099

Panel B. Distribution across industries

SIC Two Digit	Industry Name	All Deals	Go-Shop Deals	No Go-Shop Deals
13	Oil and Gas Extraction	74	6	68
20	Food and Kindered Products	32	5	27
28	Chemicals and Allied Products	199	7	192
35	Industrial and Commercial Machinery and Computer Equipment	83	3	80
36	Electronic and Other Electrical Equipment, Except Computer Equipment	154	9	145
38	Measuring, Analyzing, and Controlling Instruments: Photographic, Medical and Optical Goods; Watches and Clocks	147	7	140
48	Communications	66	6	60
49	Electric, Gas and Sanitary Services	49	4	45
50	Wholesale Trade-durable Goods	29	2	27
58	Eating and Drinking Places	36	7	29
59	Miscellaneous Retail	35	6	29
60	Depository Institutions	251	3	248
62	Security and Commodity Brokers, Dealers, Exchanges and Services	23	1	22
63	Insurance Carriers	61	2	59
67	Holding and Other Investment Offices	119	3	116

70	Hotels, Rooming Houses, Camps and Other Lodging Places	26	2	24
73	Business Services	404	29	375
80	Health Services	60	13	47
87	Engineering, Accounting, Research, Management and Related Services	43	3	40
NA	Other	355	29	326

Table 2. Summary of deal and target characteristics.

The sample comes from Merger Metrics and consists of 2,246 merger attempts of U.S. publicly traded companies between 2003 and 2012. Go-Shop deals are deals which include go-shop provision. Please refer to Appendix A for variable descriptions.

	All Deals			Go-Shop Deals			No Go-Shop Deals			P-values of Diff	
	N	Mean	Median	*N*	Mean	Median	*N*	Mean	Median	Means	Medians
Deal Characteristics											
All cash	*2,246*	0.664	1.000	*147*	0.918	1.000	*2,099*	0.646	1.000	0.000	<.0001
Auction dummy	*2,246*	0.343	0.000	*147*	0.252	0.000	*2,099*	0.350	0.000	0.010	0.0156
CAR(-1,+1)	*2,246*	0.240	0.194	*147*	0.297	0.220	*2,099*	0.236	0.190	0.013	0.0057
CAR(-2,+2)	*2,246*	0.242	0.196	*147*	0.298	0.237	*2,099*	0.238	0.194	0.013	0.0038
Days to completion	*1,825*	122	105	*115*	115	104	*1,710*	123	106	0.180	0.7167
Competing bid dummy	*2,246*	0.078	0.000	*147*	0.129	0.000	*2,099*	0.075	0.000	0.057	0.0176
Final premium	*2,226*	0.315	0.302	*145*	0.362	0.302	*2,081*	0.312	0.303	0.321	0.6655
Financial buyer dummy	*2,246*	0.217	0.000	*147*	0.646	1.000	*2,099*	0.187	0.000	0.000	0.0001
Friendly deal dummy	*2,246*	0.842	1.000	*147*	0.932	1.000	*2,099*	0.836	1.000	0.000	0.0021
Go-Shop fee ($mn)	*107*	17.058	7.500	*107*	17.058	7.500	*0*				
Go-Shop fee / Termination fee	*107*	53.225	50.000	*107*	53.225	50.000	*0*				
Go-shop window (days)	*144*	35.361	30.000	*144*	35.361	30.000	*0*				
Hostile Offer	*2,246*	0.050	0.000	*147*	0.014	0.000	*2,099*	0.053	0.000	0.000	0.0353
Initial premium	*2,226*	0.297	0.287	*145*	0.330	0.286	*2,081*	0.294	0.288	0.447	0.7310
Management dummy	*2,246*	0.028	0.000	*147*	0.095	0.000	*2,099*	0.024	0.000	0.004	<.0001
Matching offer period (days)	*1,647*	3.914	4.000	*130*	3.808	4.000	*1,517*	3.924	4.000	0.311	0.1883
PE dummy	*2,246*	0.178	0.000	*147*	0.599	1.000	*2,099*	0.148	0.000	0.000	<.0001
Prior bid dummy	*2,246*	0.041	0.000	*147*	0.020	0.000	*2,099*	0.042	0.000	0.080	0.1936
Success dummy	*2,246*	0.813	1.000	*147*	0.782	1.000	*2,099*	0.815	1.000	0.359	0.3313
Target termination fee	*1,904*	50.939	13.175	*142*	32.373	12.850	*1,762*	52.435	13.200	0.003	0.2874
Termination dummy	*2,246*	0.848	1.000	*147*	0.966	1.000	*2,099*	0.839	1.000	0.000	<.0001
Transaction value	*2,242*	1624.719	361.460	*147*	1080.211	386.710	*2,095*	1662.925	361.060	0.010	0.7020
Upward dummy	*2,246*	0.100	0.000	*147*	0.163	0.000	*2,099*	0.095	0.000	0.031	0.0078
Target Characteristics											
Assets	*2,243*	2927.731	415.957	*147*	1243.805	439.862	*2,096*	3045.831	413.563	0.001	0.6113
Free cash flow / Assets	*1,692*	0.017	0.061	*131*	0.059	0.077	*1,561*	0.013	0.060	0.001	0.0079

	All Deals			Go-Shop Deals			No Go-Shop Deals			P-values of Diff	
	N	Mean	Median	*N*	Mean	Median	*N*	Mean	Median	Means	Medians
Net of market return	*2,214*	0.044	-0.058	*147*	0.100	-0.101	*2,067*	0.040	-0.055	0.712	0.1212
Market value of equity	*2,245*	1276.323	269.611	*146*	864.694	337.293	*2,099*	1304.955	267.373	0.011	0.9386
Market to book ratio	*2,242*	1.762	1.305	*146*	1.414	1.331	*2,096*	1.786	1.303	0.000	0.0925
Total debt / assets	*2,231*	0.208	0.137	*146*	0.216	0.168	*2,085*	0.208	0.136	0.662	0.3552

Table 3. Logistic regressions modeling the likelihood of Go-Shop provisions

Models 1 and 2 estimate the decision to include a go-shop provision in a merger agreement. In each model the dependent variable is an indicator variable equal to one if a go-shop provision is present and zero if not. Please see Appendix for a description of the variables used. All models include natural logarithm of total assets fiscal year prior (log(assets)) as a standard control variable. Model 1 includes deal characteristics as independent variables including: indicator variable if multiple bidders are involved in the bidding process prior to initial public announcement (auction dummy), indicator variable if the target management is a part of the bidding group (management dummy), indicator variable if a financial buyer is involved as a bidder (financial buyer dummy), indicator variable if the deal is classified as "hostile" by Merger Metrics (hostile offer), and an indicator variable if the deal follows a prior bid within 365 calendar days (prior bid). Model 2 also includes additional control variables like a continuous measure of the fraction of target shares held by the bidder prior to announcement (bidder toehold), indicator variable if the proposed payment method is cash (all cash), length of time in days available to initial bidder to match any competing bid (matching offer period), and an indicator variable if the bidder and target are in the same 2-digit SIC code (same industry dummy). This model also includes a performance measure: target's cumulative net-of-market return over a – 12 to – 1 month interval prior to the bid announcement date (net of market return), a measure of growth opportunities: target's market-to-book ratio in the fiscal year prior (market to book ratio) and a measure of leverage (Total debt/Assets) calculated as the sum of short-term and long-term debt in the fiscal year prior, scaled by total assets. Model 2 also includes year dummies and 2-digit SIC dummies. Significance levels at 1%, 5% and 10% are denoted by ***, **, and *, respectively, and are calculated using White (1980) standard errors.

	Model 1	**Model 2**
Constant	-3.1417	-1.8146
	(0.4025)***	(1.1748)
Log(Assets)	-0.0127	0.0214
	(0.0538)	(0.0816)
Auction dummy	-0.8282	-1.8382
	(0.2121)***	(0.2787)***
Management dummy	0.184	0.3769
	(0.3468)	(0.6794)
Financial buyer dummy	2.2009	2.2108
	(0.2001)***	(0.3016)***
Hostile offer	-1.877	-0.4294
	(0.7204)***	(0.7216)
Prior bid dummy	-0.884	-1.3162
	(0.6136)	(0.7451)*
Bidder toehold		-5.6578
		(2.6221)**
All cash		1.3324
		(0.3994)***
Matching offer period (days)		-0.0284
		(0.1099)
Same Industry Dummy		-0.4528
		(0.2735)*

	Model 1	**Model 2**
Total debt / assets		-0.7781
		(0.5624)
Net of market return		0.0833
		(0.0678)
Market to book ratio		-0.4967
		(0.1544)***
Observations	2,243	1,614
Pseudo R Squared	0.153	0.342

Table 4. Logistic regressions modeling the likelihood of competing bids

Models 1 and 2 estimate the probability of the occurrence of a competing bid after the announcement of initial bid. In each model, the dependent variable is an indicator variable equal to one if a competing bid is received and zero if not. Please see Appendix for a description of the variables used. All models include natural logarithm of total assets fiscal year prior (log(assets)) as a standard control variable. Model 1 includes deal characteristics as independent variables including: indicator variable if the deal has a go-shop provision (go-shop dummy), indicator variable if the deal has a target termination fee provision (Termination dummy), indicator variable if multiple bidders are involved in the bidding process prior to initial public announcement (auction dummy), indicator variable if the target management is a part of the bidding group (management dummy), indicator variable if a financial buyer is involved as a bidder (financial buyer dummy), an interaction term of go-shop indicator and financial buyer indicator (Finbuyer X Go Shop), indicator variable if the deal is classified as "hostile" by Merger Metrics (hostile offer), and an indicator variable if the deal follows a prior bid within 365 calendar days (prior bid). Model 2 also includes additional control variables like a continuous measure of the fraction of target shares held by the bidder prior to announcement (bidder toehold), a measure of the cost of terminating the deal (bidder cost) defined as the go-shop fee divided by transaction value for deals with go-shop and termination fee divided by transaction value for deals without go-shop provision, and an indicator variable if the proposed payment method is cash (all cash). This model also includes a performance measure: target's cumulative net-of-market return over a – 12 to – 1 month interval prior to the bid announcement date (net of market return), a measure of growth opportunities: target's market-to-book ratio in the fiscal year prior (market to book ratio) and a measure of leverage (Total debt/Assets) calculated as the sum of short-term and long-term debt in the fiscal year prior, scaled by total assets. Model 2 also includes year dummies and 2-digit SIC dummies. Significance levels at 1%, 5% and 10% are denoted by ***, **, and *, respectively, and are calculated using White (1980) standard errors.

	Model 1	**Model 2**
Constant	-2.4214	-3.5944
	(0.3538)***	(0.8399)***
Log(Assets)	0.0879	0.1472
	(0.0437)**	(0.0669)**
Go-Shop dummy	1.0104	1.1039
	(0.4390)**	(0.4980)**
Termination dummy	-0.7878	-
	(0.2285)***	
Auction dummy	-0.7622	-0.8357
	(0.2128)***	(0.2603)***
Management dummy	-0.9166	0.2592
	(0.5274)*	(0.5655)
Financial buyer dummy	0.9811	1.5214
	(0.2048)***	(0.2987)***

Finbuyer X Go Shop	-1.0323	-1.684
	(0.5612)*	(0.6256)***
Hostile offer	-0.2776	-0.3407
	(0.3468)	(0.8578)
Prior bid dummy	-0.9321	-0.3739
	(0.6207)	(0.5704)
Bidder Cost		3.8691
		(5.9492)
Bidder toehold		-1.5598
		(2.3154)
All cash		-0.0449
		(0.2676)
Net of market return		0.257
		(0.0928)***
Market to book ratio		0.0056
		(0.0177)
Total debt / assets		-0.191
		(0.4353)
Observations	2,243	1,836
Pseudo R Squared	0.064	0.119

Table 5. Logistic regressions modeling the probability of completing a proposed merger transaction using deal level analysis

Models 1 and 2 estimate the probability that a proposed deal in the sample will be completed. In each model, the dependent variable is an indicator variable equal to one if the proposed deal is completed and zero if not. Please see Appendix for a description of the variables used. All models include natural logarithm of total assets fiscal year prior (log(assets)) as a standard control variable. Model 1 includes deal characteristics as independent variables including: indicator variable if the deal has a go-shop provision (go-shop dummy), indicator variable if the deal has a target termination fee provision (Termination dummy), indicator variable if multiple bidders are involved in the bidding process prior to initial public announcement (auction dummy), indicator variable if the target management is a part of the bidding group (management dummy), indicator variable if a financial buyer is involved as a bidder (financial buyer dummy), indicator variable if the deal is classified as "hostile" by Merger Metrics (hostile offer), and an indicator variable if the deal follows a prior bid within 365 calendar days (prior bid). Model 2 also includes additional control variables like a continuous measure of the fraction of target shares held by the bidder prior to announcement (bidder toehold), an indicator variable if the proposed payment method is cash (all cash) and an indicator variable if the bidder and target are in the same 2-digit SIC code (same industry dummy). This model also includes a performance measure: target's cumulative net-of-market return over a – 12 to – 1 month interval prior to the bid announcement date (net of market return), a measure of growth opportunities: target's market-to-book ratio in the fiscal year prior (market to book ratio) and a measure of leverage (Total debt/Assets) calculated as the sum of short-term and long-term debt in the fiscal year prior, scaled by total assets. Model 2 also includes year dummies and 2-digit SIC dummies. Significance levels at 1%, 5% and 10% are denoted by ***, **, and *, respectively, and are calculated using White (1980) standard errors.

	Model 1	**Model 2**
Constant	-1.2892	-2.5309
	(0.3264)***	(0.7717)***
Log(Assets)	0.0079	0.0178
	(0.0498)	(0.0584)
Go-Shop dummy	-0.8391	-0.7914
	(0.2862)***	(0.2982)***
Termination dummy	4.0613	4.2833
	(0.1987)***	(0.2254)***
Auction dummy	0.4986	0.4284
	(0.2112)**	(0.2250)*
Hostile offer	-0.5825	-0.5934
	(0.2689)**	(0.3066)*
Management dummy	-0.0942	-0.4812
	(0.4224)	(0.4048)
Financial buyer dummy	-0.8862	-0.9702
	(0.1904)***	(0.2284)***
Prior bid dummy	-0.9709	-0.9051
	(0.3207)***	(0.3477)***
All cash		0.5367
		(0.2177)**

Bidder toehold		4.3118
		(1.6075)***
Net of market return		-0.1376
		(0.0443)***
Total debt / assets		-0.3708
		(0.3672)
Market to book ratio		0.2629
		(0.0862)***
Same Industry Dummy		0.1132
		(0.1906)
Observations	2,243	2,198
Pseudo R Squared	0.447	0.475

Table 6. Logistic regressions modeling the probability of completing a proposed merger transaction using firm level analysis.

The analysis in Table 6 is performed at a target firm level, different from that reported in Table 5 where the analysis is done at a deal level. Models 1 and 2 estimate the probability that a given target is ultimately acquired by any one bidder. In each model, the dependent variable is an indicator variable equal to one if a given target is acquired by any one bidder and zero otherwise. Please see Appendix for a description of the variables used. The "Tgtlevel" prefix indicates that all competing bids for a given target are collapsed to a target level. All models include natural logarithm of total assets fiscal year prior (log(assets)) as a standard control variable. Model 1 includes deal characteristics as independent variables including: indicator variable if at least one bid has a go-shop provision (go-shop dummy), indicator variable if at least one bid has a target termination fee provision (Tgtlevel_Termination dummy), indicator variable if multiple bidders are involved in the bidding process prior to initial public announcement (auction dummy), indicator variable if in at least one bid the target management is a part of the bidding group (Tgtlevel_Management dummy), indicator variable if in at least one bid a financial buyer is involved as a bidder (Tgtlevel_Financial buyer dummy), indicator variable if in at least one bid the deal is classified as "hostile" by Merger Metrics (Tgtlevel_Hostile offer), and an indicator variable if the deal follows a prior bid within 365 calendar days (prior bid). Model 2 also includes an indicator variable if in at least one bid the proposed payment method is cash (all cash). This model also includes a performance measure: target's cumulative net-of-market return over a – 12 to – 1 month interval prior to the bid announcement date (net of market return), a measure of growth opportunities: target's market-to-book ratio in the fiscal year prior (market to book ratio) and a measure of leverage (Total debt/Assets) calculated as the sum of short-term and long-term debt in the fiscal year prior, scaled by total assets. Model 2 also includes year dummies and 2-digit SIC dummies. Significance levels at 1%, 5% and 10% are denoted by ***, **, and *, respectively, and are calculated using White (1980) standard errors.

	Model 1	**Model 2**
Constant	-1.183	-2.3981
	(0.3647)***	(0.8408)***
Log(Assets)	0.0252	0.0503
	(0.0560)	(0.0664)
Go-Shop dummy	-0.3046	-0.2923
	(0.3870)	(0.3932)
Tgtlevel_Termination dummy	4.1241	4.2125
	(0.2091)***	(0.2428)***
Auction dummy	0.6627	0.6305
	(0.2526)***	(0.2621)**
Tgtlevel_Hostile dummy	-0.7962	-0.8303
	(0.2874)***	(0.3356)**
Tgtlevel_Management dummy	0.1042	0.07
	(0.4463)	(0.4737)
Tgtlevel_Financial buyer dummy	-0.9058	-0.882
	(0.2112)***	(0.2304)***
Prior bid dummy	-1.0866	-0.9988
	(0.3507)***	(0.3695)***
Tgtlevel_All cash		0.3363
		(0.2446)
Net of market return		-0.1477
		(0.0488)***

Total debt / assets		-0.5334
		(0.4329)
Market to book ratio		0.4907
		(0.1265)***
Observations	2,149	2,106
Pseudo R Squared	0.478	0.509

Table 7. The effect of Go-Shop provisions on announcement period abnormal returns

Models 1 and 2 present OLS regressions of 3-day announcement period abnormal returns calculated as cumulative abnormal returns from days – 1 to + 1 with day 0 being the announcement date. We estimate market model parameters using CRSP value-weighted index as the market proxy, for each target firm using daily returns from *day* -379 to *day* -127 relative to the deal announcement date. Please see Appendix for a description of the variables used. All models include natural logarithm of total assets fiscal year prior (log(assets)) as a standard control variable. Model 1 includes deal characteristics as independent variables including: indicator variable if the deal has a go-shop provision (go-shop dummy), indicator variable if the deal has a target termination fee provision (Termination dummy), indicator variable if multiple bidders are involved in the bidding process prior to initial public announcement (auction dummy), indicator variable if the target management is a part of the bidding group (management dummy), indicator variable if a financial buyer is involved as a bidder (financial buyer dummy), indicator variable if the deal is classified as "hostile" by Merger Metrics (hostile offer), indicator variable if the deal follows a prior bid within 365 calendar days (prior bid), and a performance measure: target's cumulative net-of-market return over a – 12 to – 1 month interval prior to the bid announcement date (net of market return). Model 2 also includes additional control variables like a continuous measure of the fraction of target shares held by the bidder prior to announcement (bidder toehold) and an indicator variable if the proposed payment method is cash (all cash), a measure of growth opportunities: target's market-to-book ratio in the fiscal year prior (market to book ratio), a measure of leverage (Total debt/Assets) calculated as the sum of short-term and long-term debt in the fiscal year prior, scaled by total assets. Model 2 also includes an indicator variable if the deal is subsequently completed (success dummy), an indicator variable if the bidder and target are in the same 2-digit SIC code (same industry dummy), year dummies and 2-digit SIC dummies. Significance levels at 1%, 5% and 10% are denoted by ***, **, and *, respectively, and are calculated using White (1980) standard errors.

	Model 1	**Model 2**
Constant	0.3508	0.2279
	(0.0258)***	(0.0392)***
Log(Assets)	-0.0275	-0.0222
	(0.0034)***	(0.0041)***
Go-Shop dummy	0.0786	0.0381
	(0.0242)***	(0.0250)
Termination dummy	0.082	0.0695
	(0.0166)***	(0.0230)***
Auction dummy	-0.0187	-0.0501
	(0.0117)	(0.0121)***
Management dummy	0.0214	0.0238
	(0.0317)	(0.0311)
Financial buyer dummy	-0.066	-0.0809
	(0.0122)***	(0.0136)***
Hostile offer	0.088	0.0598
	(0.0207)***	(0.0207)***
Prior bid dummy	-0.0443	-0.0588
	(0.0233)*	(0.0225)***

	Model 1	**Model 2**
Net of market return	-0.0281	-0.0267
	(0.0092)***	(0.0087)***
Market to book ratio		-0.0015
		(0.0008)*
All cash		0.0897
		(0.0120)***
Bidder toehold		0.0901
		(0.1209)
Total debt / assets		0.0375
		(0.0385)
Success dummy		0.0456
		(0.0191)**
Same Industry Dummy		0.0156
		(0.0111)
Observations	2,211	2,198
Adjusted R Squared	0.074	0.159

Table 8. The effect of Go-Shop provisions on upward revisions to initial offer price

Models 1 and 2 estimate the probability that the initial offer price will be upward revised. In these models, the dependent variable is an indicator variable (Upward dummy) equal to one if the initial offer price is upward revised and zero otherwise. In models 3 and 4, the dependent variable is the percentage price change (Pct_chg) from the initial offer price to the final offer price. Please see Appendix for a description of the variables used. The "Tgtlevel" prefix indicates that all competing bids for a given target are collapsed to a target level. All models include natural logarithm of total assets fiscal year prior (log(assets)) as a standard control variable. Models 1 and 3 include deal characteristics as independent variables including: indicator variable if at least one bid has a go-shop provision (go-shop dummy), indicator variable if at least one bid has a target termination fee provision (Tgtlevel_Termination dummy), indicator variable if multiple bidders are involved in the bidding process prior to initial public announcement (auction dummy), indicator variable if in at least one bid the target management is a part of the bidding group (Tgtlevel_Management dummy), indicator variable if in at least one bid a financial buyer is involved as a bidder (Tgtlevel_Financial buyer dummy), and an indicator variable if in at least one bid the deal is classified as "hostile" by Merger Metrics (Tgtlevel_Hostile offer). Models 2 and 4 also include an indicator variable if in at least one bid the proposed payment method is cash (all cash) and an indicator variable if the deal follows a prior bid within 365 calendar days (prior bid). These models also includes a performance measure: target's cumulative net-of-market return over a – 12 to – 1 month interval prior to the bid announcement date (net of market return), a measure of growth opportunities: target's market-to-book ratio in the fiscal year prior (market to book ratio) and a measure of leverage (Total debt/Assets) calculated as the sum of short-term and long-term debt in the fiscal year prior, scaled by total assets. Model 2 and 4 also include year dummies and 2-digit SIC dummies. Significance levels at 1%, 5% and 10% are denoted by ***, **, and *, respectively, and are calculated using White (1980) standard errors.

	Model 1 Upward dummy	**Model 2** Upward dummy	**Model 3** Pct_chg	**Model 4** Pct_chg
Constant	-3.1705	-3.9464	0.0759	0.0701
	(0.4433)***	(0.6940)***	(0.0493)	(0.0417)*
Log(Assets)	-0.0416	0.0084	0.0028	0.0034
	(0.0527)	(0.0572)	(0.0044)	(0.0046)
Go-Shop dummy	0.5744	0.3979	0.0218	0.0217
	(0.3065)*	(0.3233)	(0.0109)**	(0.0113)*
Tgtlevel_Termination dummy	0.3903	0.3535	-0.0908	-0.0967
	(0.3345)	(0.3495)	(0.0760)	(0.0729)
Auction dummy	-0.2133	-0.1655	0.0096	0.0132
	(0.2038)	(0.2213)	(0.0094)	(0.0106)
Tgtlevel_Management dummy	1.7148	1.4836	0.0352	0.0332
	(0.3498)***	(0.3696)***	(0.0212)*	(0.0199)*
Tgtlevel_Financial buyer dummy	0.7581	0.5444	0.0113	0.013
	(0.2414)***	(0.2521)**	(0.0071)	(0.0067)*
Tgtlevel_Hostile dummy	3.8205	3.7106	0.1483	0.1414
	(0.3373)***	(0.3594)***	(0.0373)***	(0.0377)***
Tgtlevel_All cash		0.4654		-0.0054
		(0.2545)*		(0.0048)

	Model 1 Upward dummy	**Model 2** Upward dummy	**Model 3** Pct_chg	**Model 4** Pct_chg
Net of market return		0.1297		0.0052
		(0.0494)***		(0.0040)
Market to book ratio		-0.0255		-0.0008
		(0.0752)		(0.0002)***
Prior bid dummy				-0.0011
				(0.0061)
Total debt / assets				0.013
				(0.0106)
Observations	2,149	2,061	1,816	1,781
Pseudo R Squared	0.225	0.279		
Adjusted R Squared			0.057	0.107

Table 9. The effect of Go-Shop provisions on long run target returns

In this table, the dependent variable is long run target returns calculated as market adjusted holding period return from -10 days of announcement date till the date that the target is either successfully acquired or the final bid is withdrawn. Please see Appendix for a description of the variables used. The "Tgtlevel" prefix indicates that all competing bids for a given target are collapsed to a target level. All models include natural logarithm of total assets fiscal year prior (log(assets)) as a standard control variable. Model 1 includes deal characteristics as independent variables including: indicator variable if at least one bid has a go-shop provision (go-shop dummy), indicator variable if at least one bid has a target termination fee provision (Tgtlevel_Termination dummy), indicator variable if multiple bidders are involved in the bidding process prior to initial public announcement (auction dummy), indicator variable if in at least one bid the target management is a part of the bidding group (Tgtlevel_Management dummy), indicator variable if in at least one bid a financial buyer is involved as a bidder (Tgtlevel_Financial buyer dummy), an indicator variable if in at least one bid the deal is classified as "hostile" by Merger Metrics (Tgtlevel_Hostile offer), an indicator variable if the deal follows a prior bid within 365 calendar days (prior bid) and a performance measure: target's cumulative net-of-market return over a – 12 to – 1 month interval prior to the bid announcement date (net of market return). Model 2 includes an indicator variable if in at least one bid the proposed payment method is cash (all cash), a measure of growth opportunities: target's market-to-book ratio in the fiscal year prior (market to book ratio), a measure of leverage (Total debt/Assets) calculated as the sum of short-term and long-term debt in the fiscal year prior, scaled by total assets, a continuous measure of the fraction of target shares held by the bidder prior to announcement (bidder toehold), an indicator variable if the target is ultimately successfully acquired (Tgtlevel_Success) and an indicator variable if the bidder and target are in the same 2-digit SIC code (same industry dummy). Model 2 also includes year dummies and 2-digit SIC dummies. Significance levels at 1%, 5% and 10% are denoted by ***, **, and *, respectively, and are calculated using White (1980) standard errors.

	Model 1	**Model 2**
Constant	0.4244	0.312
	(0.0440)***	(0.0610)***
Log(Assets)	-0.0403	-0.0375
	(0.0051)***	(0.0061)***
Go-Shop dummy	0.0575	0.0116
	(0.0310)*	(0.0305)
Tgtlevel_Termination dummy	0.1272	-0.0399
	(0.0295)***	(0.0425)
Auction dummy	-0.0049	-0.0558
	(0.0163)	(0.0161)***
Tgtlevel_Management dummy	-0.0679	-0.0529
	(0.0489)	(0.0472)
Tgtlevel_Financial buyer dummy	-0.0733	-0.0763
	(0.0189)***	(0.0200)***
Tgtlevel_Hostile dummy	0.0972	0.0895
	(0.0405)**	(0.0412)**
Prior bid dummy	-0.0385	-0.0311

	(0.0315)	(0.0325)
Net of market return	-0.0013	0.0081
	(0.0063)	(0.0062)
Market to book ratio		-0.0049
		(0.0018)***
Tgtlevel_All cash		0.0724
		(0.0204)***
Bidder toehold		0.0388
		(0.1771)
Total debt / assets		0.0894
		(0.0413)**
Tgtlevel_Success		0.2862
		(0.0392)***
Same Industry Dummy		0.0085
		(0.0167)
Observations	2,118	2,105
Adjusted R Squared	0.06	0.172