Toeholds and Bid Timing: Recognizing the Option Value of Deferral

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Abstract

We partition takeover bids into two groups: those that are deferred from the date of a toehold purchase, and those that are coincident with a toehold purchase. Coincident bids alone have approximately zero abnormal returns at bid/toehold, but deferred bids have negative abnormals both in the pre-bid interval (representing bid anticipation) and at announcement. Negative returns are puzzling due to the implication that intending bidders should never defer. We adapt the risk-neutral valuation procedure to enable posterior valuation of the option to defer. We classify deferred bids into those that should optimally have been deferred, and those that should not, after incorporating the option to revise a bid once made. The negative returns are traced to a sub-group of deferred bids that should optimally have been coincident. We conjecture why non-optimally deferring bidders should have preferred to defer their bids.

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1. Introduction

Event studies have consistently failed to document positive returns to acquirers of toeholds (toeholders), whether accompanied by a bid or not. Toeholds are pre-bid block purchases of equity when there is an intention to gain control of the target. Betton and Eckbo (2000) report that toeholders making bids gain only when their toehold is subsequently sold to a rival bidder, but this is uncommon. This evidence suggests the absence of a profitable target acquisition strategy in a competitive equities market. This is surprising given our finding that about 43 per cent of toehold acquirers elect to defer their offers past the time of an initial toehold purchase. The option to defer an offer is valuable when a bid made concurrent with a toehold purchase (a coincident bid) is more costly. Assuming a bidder can secure control by either bidding now or later, a bid is optimally deferred when the bidder has private information of a sufficient chance of a price decline in the target stock; else, a coincident bid is predicated in order to deter target management resistance. Potential entry by rival bidder may also influence the choice, for the deferral option has value only when competing bids are unlikely.

No evidence has been reported on the performance of bidders who opt to defer their bids past the date of their toehold purchase. This paper therefore seeks to redress this deficiency. Our task is twofold. First, we value the option to defer a bid given the purchase of a toehold. Direct valuation is difficult because target stock volatility is affected by jumps in the return-generating process caused by bids. To avoid this problem we adapt the standard risk-neutral valuation procedure to enable posterior valuation of the option to defer. A bid effectively resets volatility such that the initial branching of a binomial tree is sufficient to capture the volatility arguments. Second, having determined the optimal bid deferral/non-deferral choice, we evaluate observed deferral choices to identify optimality. We document a strong, positive relation between abnormal returns at toehold announcement and bid deferral options that are valuable. The abnormal returns associated with optimal bid deferrals exceed the abnormal returns of deferred bids that are non-optimal, and which are negative. We

conjecture that non-optimally deferred bids are attributable to bidders initially deferring their bid in the expectation of a target price decline given little interest from potential rivals, but who then launch a bid one the threat of a rival bid emerges. If so, bidding in a hurry means these bidders pay higher premiums and, not surprisingly, are greeted with market disapproval.

The remainder of the paper is organized as follows. Section 2 reviews argument and evidence in relation to the rationale for acquiring a toehold in a bidding context. The sample and data are described in the following Section. The analysis in Section 3 is followed by conclusions in the final Section.

2. Background

The received rationale for toehold purchases is the reduction of free rider costs (Grossman and Hart, 1980). Minority shareholders who cannot influence the bid outcome have an incentive to reject the offer in order to participate in the value added by the bidder after acquisition of a majority shareholding. However, when the offer timing is recognized as a bidding strategy, a toehold plays a different role. The cost of deferring an offer is the risk that the merged value of the target to the first bidder will fall as control transfer is delayed. Thus, when a deferred bid is considered optimal, purchase of a toehold by an intending bidder hedges this implicit short position. The toehold can therefore be sold at a profit in the (unexpected) event of a target stock price rise; if the target's stock price falls a bid can be mounted at a lower offer price. A key factor that impinges on the bid deferral decision is the likelihood of a rival bidder emerging. The first bidder has an advantage over a second bidder in that the first bidder has the option to sell the toehold to a rival bidder. Bid deferral increases the probability of a rival bidding first. If there is a high probability of a rival offer, an intending bidder is likely

better off by mounting a coincident bid in order to be the first bidder[1]. If a bidding contest is likely, intending acquirers have an incentive to buy stock aggressively not only to maximize their acquisition of target stock at a lower pre-bid price but also to raise the price at which they may sell out (Burkart (1995), Singh (1998) and Bulow, Huang and Klemperer (1999)).

No analytical models have been developed to explain the rationality of bid deferral. Apart from Bris (1998), virtually no direct evidence on these propositions has been reported. Nor has evidence has been reported on the returns histories of bidders who mount bids coincident with a toehold purchase or bid later (and who are distinguished from toehold acquirers who do not bid). Instead, the extant evidence focuses on the shareholder wealth effects of single events. Mikkelson and Ruback (1985) examine stock price responses to SEC Schedule 13D (substantial shareholder) filings, and report positive abnormal returns accruing to target firms for all sub-samples, but returns for acquiring firms are weakly positive at best. Less than 10% of 13D filings were followed by completed takeovers. Acquiring firms initially recorded a 2.04% mean abnormal return at 13D filing, but this had been offset by subsequent negative returns by the time the takeover was complete. For the UK, Franks and Harris (1989) report effectively zero abnormal returns accruing to bidders with or without toeholds except for unrevised and uncontested bids with toeholds $\geq 30\%$, for which bidders recorded a small 2.20% one-month gain. Van Hulle, Vermaelen and deWouters (1991) report zero abnormal returns even for Belgian bidders with large toeholds, and irrespective of bid outcomes. Sudarsanam (1996) additionally finds that smaller toeholds are associated with more rival bids than larger toeholds, and that larger toeholds do not alter the bid premium or the (posterior) probability of a control transfer. When a coincident bid is not made, a toehold purchase may be expected to signal an impending bid and cause a target stock price runup (Bishop, 1991).

[1] Being the first bidder with a toehold increases the risk of the 'owner's curse', which states that a toehold causes the bidder to bid more aggressively in order to minimise the change of finishing with a minority interest (see Burkart (1995) and Singh (1998)).

3. Sample and data

Our sample comprises 88 randomly-selected Australian initial toehold acquisitions from 1989 through 2000 either accompanied by a (coincident) bid or followed by a (deferred) bid. All bids (or offers) are first offers. Toeholds acquired by pension funds and other investment vehicles are excluded because they do not lead to an offer. Also excluded were toeholds building on earlier acquisitions. A further filter is that all offers are successful (i.e., result in control of a majority of target stock). This condition ensures that cross-sectional variations in offer premiums, toehold size and (importantly) the decision whether to defer an offer are not outcome-dependent. Hence, we are able to model the deferral choice without controlling for the prior probability of a control transfer. The Australian institutional setting relative to the US or UK confers a further simplifying benefit: the mandatory bid threshold is capped at just 20 percent of outstanding (and voting) target stock unless the bidder proceeds forthwith to an offer, so toeholds are rarely large enough to influence the offer outcome. In other words, the threshold is low enough to allow rivals also to acquire toeholds, none of which are so large that they pre-empt other toehold purchases. In using the dates of toehold acquisitions to identify the commencement of the bid deferral period we are confident that the size of toeholds is unlikely to be an important factor in influencing the length of the bid deferral interval, as our evidence confirms.

During the sample period, takeover and merger activity in Australia was regulated by the *Corporations Law* and through the Australian Stock Exchange (ASX) *Listing Requirements*. Substantial shareholder notices (Form 603) must be lodged with the ASX within two business days whenever a shareholder owns more than 5% of the outstanding ordinary shares of a listed company (*Corporations Law* , s. 710(4). Material changes above 5% must also be advised. A substantial shareholder is defined by s.708 of the *Corporations Law* as a person who has a substantial shareholding, that is, an entitlement to not less than 5 per cent of: (a) where the

voting shares are not divided into two or more classes - those voting shares; or (b) where the voting shares are divided into two or more classes - the shares in one of those classes. Accordingly, the toehold date is the earliest announcement date of a toehold purchase, or the first in a series of toehold acquisitions where disclosure is subsequently triggered by an accumulation of 5% or more of outstanding stock. The Australian threshold for toehold disclosures (5%) is the same as in the US. Some voluntary disclosures of toehold acquisitions below the 5% threshold were also taken. Most of offers originated through Part A or Part C proposals, but three were Scheme of Arrangement proposals. In a Part A offer the acquiring firm offers cash or shares to target shareholders and the offer may be conditional (e.g., on a minimum level of acceptance). An on-market Part C offer must be for cash and unconditional as well. Mergers by way of Scheme of Arrangement typically (*Corporations Law*, s. 411) require both target shareholder and court approval. The Australian *Corporations Law* at the time mandated a compulsory bid at or above this threshold, so toeholds of this magnitude are qualitatively different from those below the threshold that do not require a bid to be mounted[2]. Corporate financial data and announcements were obtained primarily from Huntley's *DatAnalysis* database, which includes all corporate ASX announcements including Form 603, the date of release of which establishes the toehold announcement date.

Descriptive statistics are reported in Table I. More than half ($^{50}/_{88}$) of all toeholds sampled are accompanied by coincident bids made on the same day that a toehold acquisition is announced, or within the following eight days. All remaining bids are deferred bids, for which the length of the deferral period is measured by the number of calendar days from toehold announcement date to the bid date. Toeholds accompanying coincident bids roughly correspond to target shareholder tender pre-commitments that account for 23% of Betton and Eckbo's (2000) sample. Bids with toeholds also tend to be unrevised (60.0% of cases), uncontested

[2] The *Corporations Law* provides that a shareholding can grow by up to 3% per six months beyond 20% without triggering a mandatory bid.

(65.9%) and have a high success rate (71.6%), but have an indifferent level of initial target board acceptance (38.6%). A bid is defined to be successful when the bidder acquires 40% or more of the target's outstanding stock. For bids in general Betton and Eckbo (2000) and Jennings and Mazzeo (1993) report lower target acceptance levels at around 30%, but have similar success rates (68% and 79%, respectively). Toeholds are disposed of in 27.3% of cases, mostly to a rival bidder. The median toehold size is 14.65% of target stock and is not dissimilar to levels reported in prior studies, despite the 20% cap. The median bid premium is a low figure compared with both for previous Australian and overseas studies because it is not a final bid premium and is calculated with reference to the target stock price on announcement day –3 and not a much earlier date to precede a possible runup (often day –90) day. This is done in order to allow separate observation of runups and bid premiums, the latter being set in relation to immediate pre-bid target stock prices. Median bidder size is about four times that of targets as measured by book value of total assets[3].

Deferred bids have marginally higher success rates than coincident bids (75.6% *vs*. 68.5%)[4], as reflected in higher initial target board acceptance (47.4% *vs*. 32.0%) and, as expected, a much lower propensity to attract competing bids (18.4% *vs*. 46.0%)[5]. In aggregate, cash bids predominate (60.2%). When aggregated, there is little evidence of 'stock' and 'cash & stock' consideration modes loading more highly on deferred bids and possibly driving a negative bidders' return at bid[6]. Possibly reflecting the lower incidence of rivals, deferred bid

[3] For the UK, Franks and Harris (1989) report that bidders are on average eight times the size of targets.

[4] Control passes for percentage ownerships below 50%. The cut-off at 40% reflects recent industry experience in Australia. In any event, just one observation recorded a final ownership outcome between 40% and 50%.

[5] Although competing bids are usually higher in equivalent value, they may comprise a lower cash value than the notional value of securities offered in an initial bid.

[6] See Travlos (1987) for the US, and Franks, Harris and Mayer (1988) for both the US and UK.

premiums are about half the level of coincident bid premiums. Inter-group differences are also significant on both bidder and target size[7]. Relative to coincident bids, deferred bids are characterized by smaller bidders bidding for still smaller targets.

Bidder cumulative abnormal returns are reported in Table 2. Cumulative abnormal returns (CARs) are calculated according to Dodd and Warner (1983). Target returns are not relevant to this study so they are not reported. The pre-toehold and pre-bid announcement intervals are set at days [-11, -2] in relation to a day 0 announcement. This interval is not intended to be so long as to capture all possible anticipation. Rather, it is long enough to show whether there was anticipation or not, for an absence of anticipation over the immediately-preceding short interval also suggests an absence over longer interval. Although coincident bids are accompanied by toehold acquisitions, abnormal returns for coincident bids are shown under the bid announcement classification. There are several regularities. Coincident bidder returns are generally zero, but median CARs are slightly negative at bid announcement. Deferred bid CARs around toehold do not differ significantly from zero, indicating that toeholds are not anticipated, but subsequent or deferred bids are. Around a deferred bid significantly negative bidder CARs are observed, and these are even higher in the pre-announcement interval. Taken at face value, it would appear that deferring a bid is not a profitable strategy. This creates a puzzle, because if this were always so we would never observe deferred bids. We proceed to resolve the puzzle: negative returns are localised on bidders who should optimally have made coincident bids, i.e., should not have waited to bid. To show this, we develop a procedure to value the option to defer by substituting a posterior surrogate for volatility in a binomial tree.

4. Analysis

[7] Hereafter, all significance tests on group mean differences employ the paired-sample unequal variance *t* test, and all group median differences employ the Mann-Whitney *U* test.

Toeholders defer bids in order to benefit from a lower target stock price. If the stock price is not expected to fall it is optimal to bid immediately, but if future stock price movements are uncertain the intending bidder rationally calculates the value of the option to defer. Any measure of historically-derived volatility used in valuing this option is inappropriate because a bid effectively resets volatility. The initial branching of a binomial tree is sufficient to capture the volatility arguments because a bid influences the target stock price and also allows us to define the opposite price movement. Since our sample comprises ultimately successful bids, target stock prices will always move in the direction of an anticipated bid. This is usually upwards, but the stock price may also fall if the anticipated bid is below market (i.e., the bid reveals 'bad' news about the target). A bid effectively resets volatility in a way that can effectively represented by the first branch of a binomial tree. The bid price establishes the target stock price on one branch, while an opposite log-normal symmetric price change is applied to establish the other branch. We use this initial branching of a binomial tree to value an intending bidder's payoffs for (i) the defer/non-defer decision, and (ii) the revise/no revise decision in relation to the offer price. In our analysis, the second of these options cannot impact on the length of the deferral interval, which is taken as fixed, but bid revisions will affect the payoffs at toehold acquisition for bid deferral. For the defer/non-defer decision, the target stock price at the decision node is mirrored by another stock price representing the opposite price movement required by the valuation technique. The stock prices on each branch are then subtracted from the bid at the end of each branch to obtain the payoffs, enabling valuation of the options to defer using standard risk-neutral valuation techniques pioneered by Cox, Ross and Rubinstein (1979).

Figure 1 illustrates application of the technique. For deferred bids, the date of toehold purchases always precedes the bid date. For convenience, the following notation is employed:

S_{th} price of target stock at toehold acquisition date
B_1 initial bid or offer price
B_2 final bid or offer price

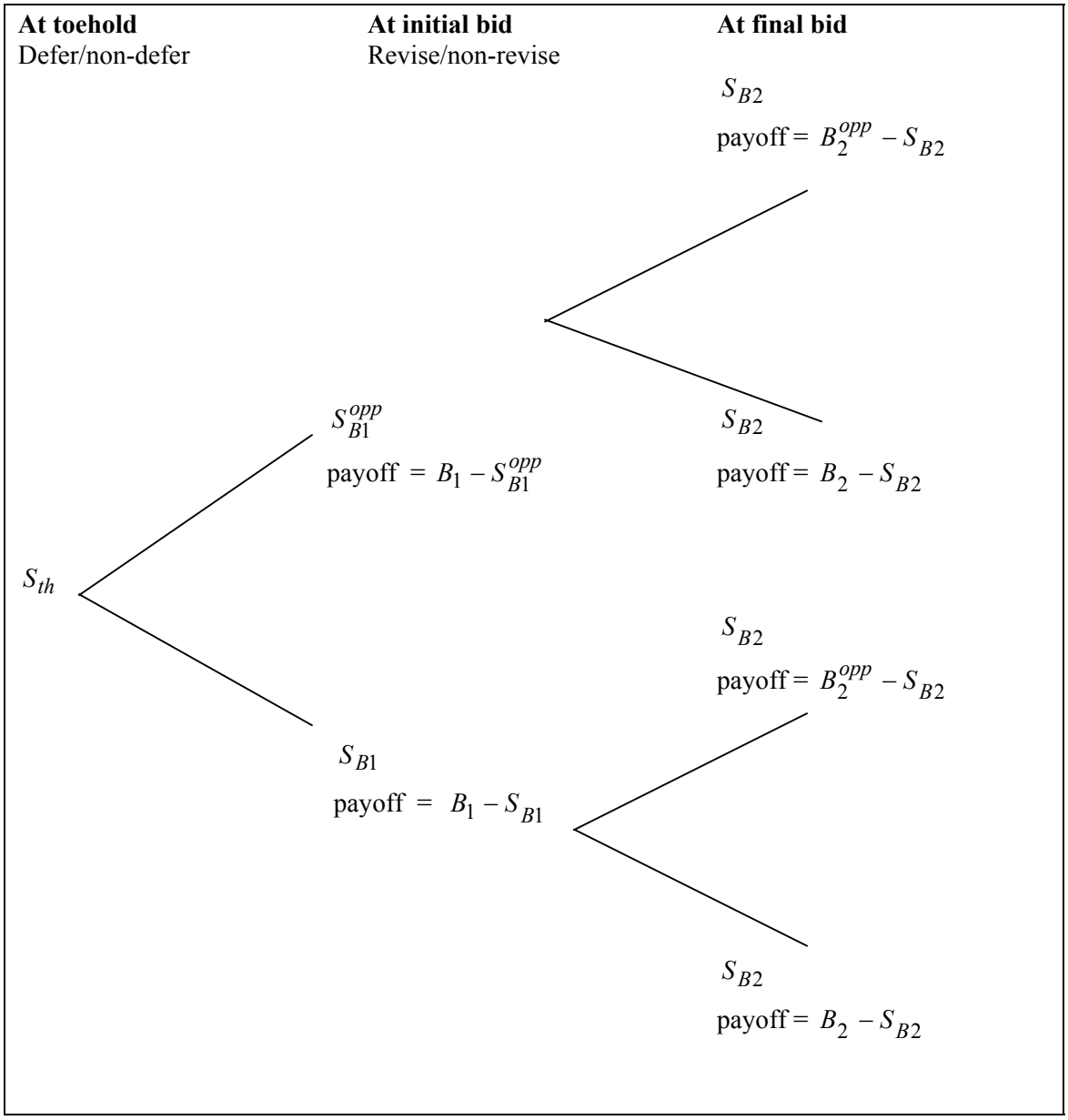
S_{B1} price of target stock at initial bid

S_{B2} price of target stock at final bid

S_{B1}^{opp} 'opposite' price of target stock at initial bid

B_2^{opp} 'opposite' bid at final bid

Figure 1


At toehold
Defer/non-defer
At initial bid
Revise/non-revise
At final bid
S_{th}
S_{B1}^{opp}
payoff = $B_1 - S_{B1}^{opp}$
S_{B1}
payoff = $B_1 - S_{B1}$
S_{B2}
payoff = $B_2^{opp} - S_{B2}$
S_{B2}
payoff = $B_2 - S_{B2}$
S_{B2}
payoff = $B_2^{opp} - S_{B2}$
S_{B2}
payoff = $B_2 - S_{B2}$

For deferred bids, the 'up' state is always the lower of the two stock prices at bid (S_{B1}^{opp} or S_{B1}), irrespective of whether the actual price change from toehold to bid is up or down. The probability of an up state (*U*) is given by

$$p(U) = \frac{\left(1 + r_f\right)^T S_{th} - S_{B1}^D}{S_{B1}^U - S_{B1}^D},$$

where S_{B1}^D and S_{B1}^U are the 'down' and 'up' state price outcomes, respectively. The value of the deferral option is

$$C_{th}^{def} = \frac{p(U).payoff^U}{\left(1 + r_f\right)^T},$$

where r_f is the risk-free rate of return and *T* is the length of the observed deferral interval. The optimality of this interval is not evaluated because progressive re-evaluation of the optimality of continued deferral requires data we do not have. When $S_{B1} > S_{th}$, $\text{payoff}^U = B_1 - S_{B1}^{opp}$, and when $S_{B1} > S_{th}$, $\text{payoff}^U = B_1 - S_{B1}$. The present value of the payoff of non-deferral at the toehold date is an unobserved coincident bid *minus* the target stock price at toehold. To arrive at an estimate of this coincident bid, we take the present value of the deferred bid discounted at the opportunity cost of waiting to bid, which is the risk-adjusted cost of capital, *k*. *k* is also before-tax because the payoffs are before-tax. Hence, $k = k_d.\frac{D}{V} + k_e.\frac{E}{V}$, where k_d is the before-tax cost of debt, k_e is the cost of equity, *D* is the market value of debt and *E* is the market value of equity, and $k_e = r_f + \beta\left(\overline{r_M} - r_f\right)$, where β is the toeholder company's covariance risk and $\left(\overline{r_M} - r_f\right)$ is the average market risk premium on Australian stocks for the sample period, which is estimated at 8.13% pa. Thus,

$$PV(\ payoff_{th}^{\overline{def}}\ ) = \frac{B}{(1+k)^T} - S_{th},$$

Finally, the decision rule is to defer when $C_{th}^{def} < payoff_{th}^{\overline{def}}$; else do not defer. Intuitively, a bid is deferred when the gain from deferral is less than the gain from bidding immediately (i.e., at toehold). In the present context a gain means a saving that results from securing control of the target at a lower offer price.

Deferred bids may be either revised or not. This creates a compound option, where the value of the option to revise affects C_{th}^{def} depending on which path is optimal (out of defer/non-defer and revise/non-revise). For the revise/non-revise decision, the final bid price is mirrored by the 'opposite' final bid price required by the valuation technique. The stock price on each branch is then subtracted from the final bids at the end of each branch to obtain the payoffs, enabling valuation of the options to revise using standard risk-neutral valuation techniques pioneered by Cox, Ross and Rubinstein (1979). The optimal revision decision is simply to choose the pathway with the lowest acquisition cost of the target. For revised bids, the 'up' state is therefore always the lower of the two final bids (B_2^{opp} or B_2). The probability of an up state (U) is given by

$$p(U) = \frac{(1 + r_f)B_1 - B_2^D}{B_2^U - B_2^D},$$

where B_2^D and B_2^U are the 'down' and 'up' state bid outcomes, respectively. The value of the revised option is

$$C_{B1}^{rev} = \frac{p(U).payoff^U}{(1 + r_f)^T},$$

where r_f is the risk-free rate of return and T is the length of the observed interval between initial and final bids. The payoff to no revision is the initial bid less the value of the target stock price at initial bid: $payoff_{B1}^{\overline{rev}} = B_1 - S_{B1}$. When $payoff_{B1}^{\overline{rev}} < C_{B1}^{rev}$ the decision is to revise, else no revision is optimal. The integration of the defer/non-defer and revise/non-revise option

requires selecting the chosen revise/non-revise payoff for the payoff value at initial bid, which is then used to value the defer/non-defer decision at toehold.

Table 3 shows cumulative abnormal bidder returns for deferred bids by optimality as determined by the risk neutral valuation method just described. $14/38$ deferred bids are found to be non-optimal, being bids which with hindsight should not have been deferred when the toehold was purchased. Of the remaining $24/38$ optimally deferred bids, 15 revised their (initial) bid and 9 of these are found to have revised optimally.

In considering weaknesses of our model, we realise it is possible that the present value of the (actual) deferred bid may not be a good surrogate for an equivalent coincident bid (at toehold) in the context of a bidding contest. For example, a present value does not value alternative outcomes, such as selling the toehold to a rival bidder. The findings are highly supportive: strongly negative [-11, -2] CARs are exhibited for the non-defer group (median = -.0432) and these flow into the [-1, 0] CARs at announcement (median = -.0192). The results for non-deferral bids suggest (i) these toeholds are anticipated, and (ii) a penalty is imposed by the market deferring when not optimal to do so. Pre-toehold anticipation by the market of deferred bids that should not have been deferred is remarkable given the zero CARs exhibited for deferred bids generally in Table 2. Bids that are optimally deferred show no sign of having been anticipated. However, the [-1, 0] CARs at announcement are positive (median = .0176); post-toehold returns are insignificantly different from zero. In short, the spread between deferral and non-deferral [-1, 0] CARs is in the anticipated direction and provides strong support for our optimal choice modelling.

To demonstrate confidence in our results we relate stock price responses to the central prediction of our model. In a well-functioning efficient capital market, we expect abnormal returns around toehold to capture the valuation consequences of bid deferral and revision as applied to deferred bids. We test this expectation in Table 4. The variable CLOSENESS is constructed to measure of the closeness of the optimal defer/non-defer choice (that also

incorporates the optimal revise/non-revise choice) to a choice reversal, and is measured by $\frac{C_{def} - payoff_{\overline{def}}}{S_{th}}$. To show that wealth effects of bid revisions are captured at toehold, we first report OLS regressions of [-11, 0] CARs at toehold and bid on REVISION to show that bid revisions are anticipated at toehold (column (1)), but by the time a bid is made the information has already been fully assimilated in the stock price (column (2)). In column (3) we report the results of a successful regression of [-11, 0] CARs at toehold on CLOSENESS which is positively signed, as expected.

We subject the non-optimal bid deferrals to further empirical scrutiny. It turns out that this group defers for a much shorter interval than optimally-deferred bids: the median deferral interval is 99 days *versus* 240 days, respectively. Further, non-optimally deferring bidders have a median bid premium of 13.33% in contrast to a 4.76% premium for optimally-deferring bidders: the difference is significantly different at the 1% level. Moreover, non-optimally deferring bidders exhibit twice target management bid acceptance rate (67% *versus* 35%) which favors a coincident bid, and is reinforced by higher target management blockholdings (18.44% *versus* just 5.45%) that characterize non-optimally deferred bids. This group also has just over half the incidence of rival bids (13% versus 22%). The story seems to be that non-optimally deferring bidders should not have waited to bid given better initial target management acceptance, but not having bid at toehold then did not wait long enough. This sub-group also paid higher bid premiums, yet had relative fewer rival bids to contend with down the track. We lean toward the latter regularity for an answer. Our conjecture is that non-optimally deferring bidders originally deferred because there was a lower perceived chance of a competing bid, and in so doing were hoping that the target stock price would eventually fall thereby enabling a cheaper acquisition. If so, then on emergence of a potential rival they finish up bidding in a hurry at a higher premium than in the first place to secure control. Despite their *ex post* mistake, non-optimally deferring bidders behave rationally when the defer/non-defer decision is

made (at toehold purchase). Unfortunately, potential rivals are difficult to observe because in our sample all first bids are ultimately successful.

5. Conclusion

Prior evidence has documented zero or slightly negative bidder abnormal returns in general. We replicate this finding for a sample of Australian bids. We partition bids into two groups: those that are deferred from the date of a toehold purchase, and those that are coincident with a toehold purchase. Our first finding is that coincident bids alone have approximately zero abnormals at bid/toehold, but deferred bids have negative abnormals both in the pre-bid interval (representing bid anticipation) and at announcement. Negative returns are puzzling because of the implication that intending bidders should never defer. We classify deferred bids into those that should optimally have been deferred, and those that should not by devising a risk-neutral valuation procedure to measure the value of the option to defer in tandem with the option to revise. The negative returns are traced to a sub-group of deferred bids that should optimally have been coincident. At the same time, abnormal returns at announcement for optimally deferred bids are positive. The resulting spread constitutes our second finding. Why intending bidders non-optimally defer their bids is conjectured and remains an open question amenable to future research.

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Table 1. Descriptive Statistics
A control transfer (or successful bid) is defined to take place when 40% or more of target outstanding stock is acquired through bid. Toehold size is measured by the number of fully paid ordinary (and voting) shares expressed as a percentage of the number of such outstanding shares of the target company. The bid premium is the excess of the bid price to the target's last share price at the close of trading 3 days before the bid, expressed as a percentage. A coincident bid is made on the same day a toehold acquisition is announced or within eight calendar days of that date; bids after this date are deferred bids.

	Whole sample	Coincident bids	Deferred bids
n	88	50	38
Percentage of cases with:			
control transfer	71.6	68.5	75.6
toehold sold	27.3	28.0	26.3
initial target board acceptance	38.6	32.0	47.4
rival bid(s)	34.1	46.0	18.4
bid revised	39.8	40.0	39.5
Consideration type (% of cases):			
cash	60.2	64.0	55.3
stock	29.6	24.0	36.8
cash & stock	10.2	12.0	7.9
Length of bid deferral period (calendar days)			
mean	130	0	301
median	0	0	143
standard deviation	257	0	319
Toehold size (%)			
mean	13.63	12.96	14.50
median	14.65	13.49	15.02
standard deviation	5.47	5.68	5.12
Deferred *less* coincident bids:			
t		1.254	
Mann-Whitney *U*		954.0	
Bid premium (%)			
mean	14.41	17.77	9.97
median	9.88	13.60	7.35
standard deviation	20.79	20.15	21.05
Deferred *less* coincident bids:			
t		-1.785*	
Mann-Whitney *U*		846.5**	
Size of bidder ($m total assets at book)			
mean	1031.35	1482.86	437.27
median	136.75	332.57	55.36
standard deviation	2963.95	3744.70	1203.33
Deferred *less* coincident bids:			
t		-2.335**	
Mann-Whitney *U*		526.0***	
Size of target ($m total assets at book)			
mean	181.80	270.25	65.48

median	32.60	59.06	25.52
standard deviation	530.31	686.76	110.49
Deferred *less* coincident bids:			
t		-3.197***	
Mann-Whitney *U*		736.0***	

***two-tailed significance at 1%
** two-tailed significance at 5%
* two-tailed significance at 10%

Table 2. Cumulative abnormal bidder returns

Cumulative abnormal returns (CARs) are calculated according to Dodd and Warner (1983). A coincident bid is made on the same day a toehold acquisition is announced or within eight calendar days of that date; bids after this date are deferred bids.

	Whole sample	Coincident bids	Deferred bids
n	88	50	38
At toehold announcement:			
[-11, -2] CAR			
mean	-.0105	$^{\Psi}$	-.0105
median	-.0248		-.0248
[-1, 0] CAR			
mean	-.0006	$^{\Psi}$	-.0006
median	-.0037		-.0037
[1, 5] CAR			
mean	-.0075	$^{\Psi}$	-.0075
median	.0054		.0054
At bid announcement			
[-11, -2] CAR			
mean	-.0189*	-.0008	-.0428**
median	-.0107*	.0002	-.0389**
[-1, 0] CAR			
mean	-.0092	-.0063	-.0130
median	-.0103***	-.0083**	-.0138**
[1, 5] CAR			
mean	-.0048	-.0039	-.0060
median	-.0053	-.0068	-.0053

$^{\Psi}$ reported under bid announcement

***two-tailed significance at 1%

** two-tailed significance at 5%

* two-tailed significance at 10%

Table 3. Cumulative abnormal bidder returns at toehold for deferred bids by optimality
Cumulative abnormal returns (CARs) are calculated according to Dodd and Warner (1983). A coincident bid is made on the same day a toehold acquisition is announced or within eight calendar days of that date; bids after this date are deferred bids. The optimality of a deferred bid is determined in relation to a risk-neutral valuation process.

	Optimal choice for deferred bids	
	Deferral	Non-deferral
n	24	14
[-11, -2] CAR		
mean	.0253	-.0178
median	-.0073	-.0432**
[-1, 0] CAR		
mean	.0167*	-.0303*
median	.0176**	-.0192**
[1, 5] CAR		
mean	-.0014	-.0179
median	.0146	-.0356

***two-tailed significance at 1%
** two-tailed significance at 5%
* two-tailed significance at 10%

Table 4. OLS regressions of [-11, 0] CARs at toehold and bid on REVISION, and at toehold on CLOSENESS, for all deferred bids

Cumulative abnormal returns (CARs) are calculated according to Dodd and Warner (1983). A coincident bid is made on the same day a toehold acquisition is announced or within eight calendar days of that date; bids after this date are deferred bids. REVISION = 1 for observed revised bids. CLOSENESS = $\frac{C_{def} - payoff_{\overline{def}}}{S_{th}}$. *t* statistics are reported in parentheses.

	(1)	(2)	(3)
n	38 *At toehold*	38 *At bid*	38 *At toehold*
R^2	.144	.003	.214
F	6.038	.221	9.774
probability	.019	(.639)	.003
Intercept	-.067* (-1.769)	-.033** (-2.418)	-.054* (-.1.697)
REVISION	.147** (2.457)	.010 (.470)	
CLOSENESS			.145*** (3.126)

***two-tailed significance at 1%
** two-tailed significance at 5%
* two-tailed significance at 10%