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Can preemptive bidding in takeover auctions be socially optimal? Yes it can

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ABSTRACT

This paper analyzes a model of preemptive jump bidding in private value takeover auctions with entry costs. It shows that when the second bidder owns a fraction of the target firm preemptive jump bidding leads to a higher social surplus, improves the expected profit of both bidders and reduces the expected final price. Such a toehold also leads to higher jump bids. The model implies that preemptive bidding hurts the minority shareholders but benefits the large shareholder of the target firm.

1. Introduction

The opening bids in takeover auctions are usually placed at a substantial premium relative to the pre-auction target stock price (Bradley, 1980; Betton & Eckbo, 2000; Eckbo, 2009). One of the most plausible explanations for such behavior, offered by Fishman (1988), is based on the signaling argument. Fishman (1988) models a takeover auction as a private value English auction with two bidders in which bidders must incur investigation (or entry) costs in order to find out their valuation of the target firm and enter the auction. Given such costs the first bidder with high valuation may want to place a high opening bid in order to signal his valuation and deter potential competition. Consistent

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with the signaling argument, Jenning and Mazzeo (1993) and Betton and Eckbo (2000) have shown that the probability of a multi-bidder contest decreases with the size of the initial bid premium. The signaling arguments behind jump bidding have been further analyzed by Hirshleifer and P'ng (1989) and Daniel and Hirshleifer (1998), who argue that not only the first, but also any subsequent bids in takeover contests may carry substantial transaction costs. Avery (1998), who studied jump bidding in takeover auctions with affiliated values, used the multiplicity of equilibriums in English auctions with affiliated values to show that signaling jump bidding equilibrium can exist even in the absence of entry or bidding costs.

While preemptive bidding may appear to negatively impact the social surplus (where social surplus is defined as the sum of all parties' profits) by allowing the first bidder to win the auction when the second bidder with potentially higher valuation gets preempted, Fishman (1988) has shown that the loss of the social surplus from potential inefficient allocation of the target firm is compensated by the entry costs saved by the second bidder. In fact, Fishman (1988) has shown that preemptive bidding leads to the reallocation of a part of the seller's expected profit toward the first bidder but affects neither the expected profit of the second bidder nor the expected social surplus.

Dodonova (2012) extends Fishman's (1988) model to takeover auctions in which the first bidder is able to acquire some of the target's shares (a toehold) prior to placing the opening bid. By combining Fishman's (1988) model with that of Burkart (1995)—which analyzed private value takeover auctions when one or both bidders own a fraction of the target firm[1]—Dodonova (2012) has shown that, while preemptive bidding still benefits the first bidder, hurts the target firm, and does not affect the second bidder, it actually lowers the social surplus.

The intuition behind Fishman (1988) and Dailami et al. (2012) results is similar. When the first bidder has low valuation and places the minimum required bid, the expected profit of all parties is the same regardless of whether jump bidding has been allowed or not. When the first bidder with high valuation places a preemptive jump bid, the size of the jump bid and the preemption rate are chosen so that the second bidder is indifferent between entering and not entering the auction, and hence jump bidding has no effect on the expected profit of the second bidder. The first bidder with the minimum valuation sufficient to place the preemptive bid is also indifferent, but any first bidder with a higher valuation is strictly better off with jump bidding, so the ex-ante expected profit of the first bidder is higher when jump bidding is allowed. In Fishman (1988), the expected cost of item misallocation—which is equal to the difference between the second and the first bidder's valuations when the second bidder with higher valuation got preempted—is equal to the expected second bidder's potential loss from not entering which, in turn, is exactly equal to the expected value of the saved entry costs. As a result, the expected social surplus is not affected by jump bidding and jump bidding simply leads to wealth reallocation from the seller to the first bidder. In Dodonova (2012), the first bidder with a toehold bids above his true valuation, which results in the expected cost of item misallocation (due to preemptive bidding) being higher than the expected second bidder's potential loss from not entering the auction. Since such potential loss is still equal to the saved entry costs, jump bidding reduces social surplus.

In this paper we show that when the second bidder owns a fraction of the target firm, preemptive jump bidding in takeover auctions can improve the social surplus. Similar to Fishman (1988) and Dodonova (2012), we consider a private value takeover auction with two bidders and entry costs. We also assume that the second bidder owns a toehold in the target firm. Such second bidder may, for example, be a large shareholder of the target firm who, prior to the takeover attempt, was not actively involved in the management of the firm or was not actively looking for a way to improve the firm's profitability. The takeover attempt made by the first bidder reveals to this large shareholder that the target's management is inefficient and implies that the target's productivity can be improved. At this stage he may wish to seek a way to improve the productivity by himself and decide to fight the takeover

[1] See also Singh (1998) and Bullow et al. (1999) for models of takeover auctions with toeholds for private and common value auctions, respectively. See Dasgupta and Tsui (2004) for analysis of takeover auctions in which potential acquirers own each other's shares. See Schmid, Sánchez, and Goldberg (2012) and Dailami, Kurlat, and Lim (2012) for the review of the recent M&A activity.