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# Conclusion

This paper assesses the equilibrium of a buy-or-sell auction. In a buy-or-sell auction an auctioneer can conduct an auction and not inform the participants if this auction is going to be forward or reverse (or both). The bidders have affiliated private signals, place a single bid and demand (or supply) a single unit. If a bidder wins the forward (reverse) auction, he pays his bid minus (plus) a spread, treated as a parameter. This feature changes drastically the incentive structure for participants. Using this buy-or-sell auction, we explained how the expected profit changes, both for the bidders and to the auctioneer for different values of the spread. Two applications inspired our analysis: an exchange rate conducted in Brazil during the second half of the 90's and a hypothetical OTC market where market dealers apply the auction proposed on this paper.

The design of a buy-or-sell auction creates a trade-off for agents when deciding what bid to place, given that each side of the auction (forward or reverse) presents opposite incentives. For instance, if a participant bids a value that is too high (with the intention to sell at this price), he might have to buy the good at a high value. Additionally, as valuations are affiliated, this trade-off is associated with a "Double Sided Winner's Curse" phenomenon - bidders face an expected winner's curse on the forward and reverse auctions - that reduces the expected profit of bidders.

We investigated the effect of revealing the direction of the trade, that is, we compare the expected profit of the buy-or-sell auction with the forward and reverse auctions. We conclude that revealing the type of auction reduces the expected profit for the auctioneer. We also explored the expected profit of bidders on this setting. If the spread is positive but sufficiently small, there is no symmetric equilibrium with all agents having an *ex-ante* (i.e., before observing their private signal) non-negative expected profit. Moreover, there is a set of possible spreads that guarantees the existence of a symmetric equilibrium and that all bidders have an interim non-negative expected profit (i.e., after observing their private signal but before the auction actually occurring).

We consider that the conclusions reached are theoretical contributions to the field, given that we approach an intriguing and useful auction design and, to the extent of our knowledge, there is no other paper with a model close to ours. Future research on the topic might endogenize the spread choice by the auctioneer and emphasize on the decision of entry of participants after

observing their private signal. Another possible development is to define a secondary market structure and analyze the effects of this auction on asset prices, for example.