

Competitive Bidding for Contracts Under Alternative Auction Procedures

Charles A. Holt

Journal of Political Economy, June 1980, 88(3), 433-445.

Abstract: This paper presents a game theoretic analysis of the competition for procurement contracts under different auction procedures. One procedure is a "discriminatory" auction in which contractors submit sealed bids, and the lowest bidder wins. The other procedure is a "competitive" auction in which the bid price is lowered sequentially until only one interested bidder remains. The focus is on the effect of changes in procurement procedures and the number of bidders on expected procurement costs. Expected procurement costs are the same for the two auction types when bidders are risk neutral. But under risk aversion, the expected procurement cost is lower in a discriminatory auction than in a competitive auction.

Note: This paper generalized Vickrey's (1961) revenue equivalence result, and it is the first derivation of a revenue *non*-equivalence under risk aversion.