

Double Oral Auction

Intended audience: students of Principles of Economics.

Keywords: competitive markets, demand, supply, marginal cost, marginal utility, equilibrium price, double oral auction.

Requirements:

- A minimum of 10 and a maximum of 20 participants (though a total of 40 students could be accommodated by pairing them up).
- Copies of instructions to buyers (half the class) and sellers (half the class). Hard copies included. Electronic document: BuyerInstr.pdf and SellerInstr.pdf.
- One copy of the transactions record for you. A hard copy is included. Electronic document: TransRec.pdf
- Three sets of cards (one for buyers, one for sellers without tax, one for sellers with tax). Hard copies are included. Electronic document: Buyers1.pdf, Sellers1.pdf, and SellersTax.pdf
- One assistant.
- Electronic document containing these instructions: Auction.pdf.

Mechanics:

- (1) Distribute schedules and instructions as people enter the class. Be sure that you have an equal number of buyers and sellers (buyers on one side of the room, sellers on the other). If there is an odd student, let him/her assist you by writing bids and asks on the blackboard. If more than 20 students show up, have them pair up with another students (so, for example, two students would be just one buyer).
- (2) Begin to read instructions five minutes into the class (otherwise you will not finish the experiment within a fifty-minute class period). Do not accept latecomers in the experiment.
- (3) Answer questions regarding the mechanics of the experiment (not about strategies!) while your assistant distributes the cards to buyers and sellers. There is a letter on each card, and it is important that the cards be distributed in alphabetical order. Buyers' cards have uppercase letters, while sellers' cards have lowercase letters. There are two sets of sellers' cards: with and without tax. The cards *without* tax should be distributed first (there is a small "T" written by the letter).
- (4) Begin the practice round at about 10 minutes into the class, and end it 5 minutes later. You should conduct the auction while your assistant writes the asks and bids on the blackboard. You should keep the rate of bidding and asking at a slow enough pace so that both you and your assistant can keep up with it.
- (5) Begin the second round (the first "real" one) and finish it after twelve minutes, or when there are no bids or asks for a couple of minutes—whatever comes first.
- (6) After the second round, change the sellers' cards without telling them that they are now being charged a \$6 excise tax.

- (7) Run the third round just as you ran the second one.
- (8) After the experiment is over, you can show your students what equilibrium price and quantity were predicted by the theory and what happened in the auction. Show them the demand and supply schedules and the effects of the tax in the final round.

Variations: If the class is too big to allow the participation of all students, you could either select a group of students while the others observe, or you could defer the experiment to the weekly TA sections, that usually have 25 students or less.

References:

- Peter Gray and Charles R. Plott, "Multiple Unit Oral Double Auction," mimeo, California Institute of Technology.
- Actual experiment done in Elementary Economics by John Taylor, and described in his textbook Economics, published by Houghton Mifflin.