VeconLab: Double Auction

The Veconlab double auction market is a computerized continuous market where the best bid and offer are displayed in real time.

- Veconlab is a suite of internet-based experimental markets organized by Charles Holt at the University of Virginia.
- The game we'll play is the “double auction” market.
- It is very similar in structure to the Citadex floor market except:
  - Buyers’ limit prices are called values; sellers’ limit prices are called costs. Contracts are called units.
  - We’ll start out buying or selling one unit (like Citadex), but in later rounds we’ll buy/sell multiple units.
  - It is computerized and anonymous.

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http://veconlab.econ.virginia.edu/

Veconlab: Experimental Economics Laboratory

- Login as Administrator: Set up, manage and review experiments.
- Login as Participant: Participate in an economics experiment.

Veconlab Participant Login Screen

Initial Login for All Programs:
(if no ID has been assigned)

- Login

Subsequent Login to On-going Experiment
(emergency restart if you already have been assigned an ID)

- Emergency Restart
**Veconlab: Enter Session Name**

Please enter the session name supplied by your instructor.

**Session Name:** [sn1]

[Submit]

**Veconlab: Participant Login**

First Name: [Your real first name]

Last Name: Stern/NYU email prefix, e.g., jsh123

Optional Password: [up to 4 letters and/or numbers]

Re-enter Password:

[Continue]
The play

- You are randomly assigned to be a buyer or a seller.
- As a buyer, you will receive one unit (“contract”) to buy. For this unit, you have a random values.
  - The value corresponds to the buy limit price in the floor game.
  - “Buy one unit with a value of $10” ⇔ “Buy limit 10.”
    - If you buy at price P, you make $10 - P.$
- As a seller, you will receive one unit (“contract”) to sell. This unit has a random cost.
  - The cost corresponds to the sell limit price in the floor game.
  - “Sell one unit with a cost of $6” ⇔ “Sell limit 6.”
    - If you sell at price P, you make $P - 6.$
### Sample buyer screen

**Double Auction: Buyer 1, round 1**

<table>
<thead>
<tr>
<th>Bid</th>
<th>Ask</th>
<th>unit</th>
<th>value</th>
<th>bid</th>
<th>price</th>
<th>earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>$4.00</td>
<td></td>
<td></td>
<td>$0.00</td>
<td></td>
</tr>
</tbody>
</table>

Highest Bid = $4.00, Lowest Ask = $10.00

Total Earnings: $0.00

Round 1 Price Sequence

### Sample seller screen

**Results for Round 1, Seller 2**

<table>
<thead>
<tr>
<th>Bid</th>
<th>Ask</th>
<th>unit</th>
<th>cost</th>
<th>ask price</th>
<th>earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>$6.00</td>
<td>$0.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Highest Bid = $6.00, Lowest Ask = $10.00

Please enter or revise ask prices.

Total Earnings: $0.00

Round 1 Price Sequence:
The market

- Trading is continuous. Bids and asks can be entered at any time. Trades can occur at any time.
- Buyers may submit bids or accept the lowest available ask price.
  - A bid must be no higher than the buyer's value.
- Sellers may submit asks or accept the highest available bid.
  - An ask must be no lower than the seller's cost.

The market (cont’d)

- A trade between a buyer and a seller results in the cancellation of all prior bids for that buyer and of all prior asks for that seller. Others' bids and asks still stand and do not need to be resubmitted.
Buyer screen: submitting a bid

Everyone in the market sees your bid (but not your value)

Seller screen: submitting an offer

Everyone in the market sees your ask (but not your cost)
Trades

If another seller entered an ask at or below 3.50, this would hit the 3.50 bid.
- There would be a trade at 3.50, and the bid would update to the next available bid.

If another buyer entered a bid at or above 7.00, this would lift the offer.
- There would be a trade at 7.00, and the ask would update to the next available offer.

Note: In this example, the buyer has a value of 4; the seller has a cost of 6. There is no possibility of trade between them.
- This market is essentially a limit order market where we only see the best bid and offer.

Buyer screen with multiple units

Initially, you’ll have only one unit to buy or sell; In later rounds, you’ll have three units to buy or sell.

Double Auction: Buyer 1, round 1

Please wait until your instructor starts round 1
(from the admin control screen).

<table>
<thead>
<tr>
<th>unit</th>
<th>value</th>
<th>bid price</th>
<th>earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$10.00</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>2</td>
<td>$8.00</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>3</td>
<td>$5.00</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
</tbody>
</table>

Total Earnings: $0.00

You must buy your units in the indicated order.
### Results for Round 1, Seller 2

Please wait until your instructor starts round 1 (from the admin control screen).

<table>
<thead>
<tr>
<th>Bid/Ask Sequence</th>
<th>Unit</th>
<th>Cost</th>
<th>Ask Price</th>
<th>Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bid</td>
<td>1</td>
<td>$4.00</td>
<td>$0.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>$5.00</td>
<td>$0.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>$6.00</td>
<td>$0.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td>$0.00</td>
</tr>
</tbody>
</table>

Total Earnings: $0.00