Markets, Competition and Generation of Wealth in Society

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A Simple Problem of Society

• There are many people in society

• Some can produce and want to sell
  – different people produce at different costs

• Others want to buy and consume
  – different people attach different values to the good
Questions to Answer

• How should we decide:
  – Who should produce and sell?
  – Who should buy and consume?
  – What should be the price associated with the transfer from the producer to the seller?

• How we solve this simple problem determines a large part of how much wealth we create in society.

• If you prefer more wealth than less, you may be interested in learning how to find a better solution to this problem.
Try Two Methods

• We shall take a simple example of the problem

• And try to solve it by two methods

• I need two volunteers
Volunteers’ Work

• The volunteers will take this description of the problem

• Go outside to solve the problem written on this paper

• They have 30 minutes to solve the problem and return to this room with their solution
All Others Will Stay Here

• The rest of us shall play a game

• Let me describe the game

• People to my left will be buyers

• People to my right will be sellers
Organization of the Market Game

• Description
• Instructions
• Game
• Review and analysis
• Payoff
Description of the Market Game

• Market will be conducted in several periods

• Trade an imaginary good (e.g., potato or wheat or mangoes, etc.)

• Trade according to the specified rules

• Try to earn as many points as you can
Instructions for Buyers

• Each buyer given a sheet of paper with your value on the top of your sheet (value is private, not to be shared with others)

• You may buy one unit each period

• If you buy at a price below your value, the difference is your profit = value – price

• You incur a loss by buying above value
  – You do not have to buy (if you can’t buy at profit, you may choose not to buy)

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<table>
<thead>
<tr>
<th>ID:5</th>
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<tbody>
<tr>
<td>Period</td>
</tr>
<tr>
<td>Value</td>
</tr>
<tr>
<td>- Purchase Price</td>
</tr>
<tr>
<td>= Profit</td>
</tr>
<tr>
<td>Seller ID</td>
</tr>
</tbody>
</table>
Instructions for Sellers

• Each seller given a sheet of paper with your cost on the top of your sheet (cost is private, do not share it with others)

• You may sell one unit each period

• If you sell at a price **above your cost**, the difference is your profit = sale price - cost

• You incur a **loss** by selling **below cost**
  – You do not have to sell (if you can’t sell at profit, you may choose not to sell)
Seller Card

ID: 6

Period

Sale Price
- Cost (1,200)
= Profit

Buyer ID
Rules of the Market

• Each buyer can buy one unit in each period
• Each seller can sell one unit in each period
• Negotiate with as many people as you like
• You do not have to enter into a transaction
• If you enter into a transaction, calculate your profit and write down on your profit card
## Profit Card

<table>
<thead>
<tr>
<th>Your Name</th>
<th>Period</th>
<th>Profit</th>
<th>Total Profit</th>
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<tr>
<td></td>
<td>1</td>
<td>____</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>____</td>
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<td>____</td>
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<td>4</td>
<td>____</td>
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</table>

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Rules of the Market

• Buyers hand in their cards at the front desk
• Sellers hand in their cards at the back
• Transaction prices posted on the screen
• At the end of the session, add your total profits
• We shall collect your profit cards at the end of the session
• Higher profit ⇒ better your performance
Please Remember

- Secret of success in trading
- Buy above value $\Rightarrow$ loss
- Sell below cost $\Rightarrow$ loss
- Keep the information on your card to yourself
- Negotiate to the best of your ability (trading lasts for 5 minutes each period)
- You do not have to trade if you can’t make money (wait for the next period)
## Buyer Values

<table>
<thead>
<tr>
<th>ID</th>
<th>Value</th>
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<tbody>
<tr>
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<tr>
<td>2</td>
<td>360</td>
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<tr>
<td>3</td>
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<td>16</td>
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<td>17</td>
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## Seller Costs

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<th>Seller ID</th>
<th>Cost</th>
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<td>36</td>
<td>150</td>
</tr>
<tr>
<td>37</td>
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</tbody>
</table>
Buyer Values

Value vs. Quantity graph.
Seller Costs

Costs

Quantity

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Demand, Supply and Prices

Demand, Supply and Equilibrium Price

Price vs. Quantity

- Demand (blue line)
- Supply (pink line)
- Equilibrium Price (dashed black line)
- Equilibrium Quantity (dashed black line)

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Demand, Supply and Prices

![Graph showing demand, supply, and equilibrium prices and quantities.](image)
Sources of Wealth in Society: Production

• Production: use resources that cost $X$ to produce output which has value $Y$, such that $Y > X$
  – If the cost of resources used up exceeds the value of the output generated, the production reduces instead of increasing wealth
  – Example: production subsidies (may be justified by externalities)
  – We must examine each subsidy in the economy to determine if the related production increases wealth
  – Besides concealing wealth decreasing processes, subsidies may also induce wasteful use of resources, and fail to provide clear signals about the wealth generating and wealth destroying processes
Sources of Wealth in Society: Exchange

- If A is the opportunity cost of a resource to its owner,
- B is the value another person assigns to this resource,
- If \( B > A \), there is opportunity of mutually beneficial exchange between the two
- Such an exchange will increase their collective wealth by \( B - A \)
- If no externalities are associated with the exchange, facilitating such exchanges increases wealth of society
- This is how trading societies that may produce little become rich
- What are the government policies that promote or inhibit trade (exchange)?
Sources of Wealth in Society: Stealing

• Some societies may become rich by taking wealth away from others
• This is rarely sustainable
• Some individuals may become rich by taking wealth from others
• But this does not increase the wealth of society as a whole
• If anything, it decreases the total wealth as people engage in protective activities to preserve their wealth
What Does This Mean?

• We know about laws of natural sciences
• Social sciences also have laws that can predict and help understand what we do
• You have just seen the power of one such basic law from economics
• Under certain, conditions, free markets can generate the maximum possible amount of total wealth in a society
• Carefully designed experiments can help us refine the economic science by sorting out theories by the robustness and predictive ability