Topic 1: Introduction to Economics 1 (The Price System)

Economics 1, Fall 2002
Andreas Bentz
Based Primarily on Frank Chapter 1

Micro and Macroeconomics

A Quick Taxonomy
Micro and Macroeconomics

- Microeconomics studies individual decision-making:
  - How do individuals make decisions?
  - How do people interact?
  - If we can understand how individuals make decisions, we can predict what they will do in different situations (that is, we can give economic advice).

Micro and Macroeconomics, cont’d

- Macroeconomics traditionally studies the behavior of large aggregates, for instance:
  - inflation
  - unemployment
  - output (business cycles, output growth)
  - etc.

- (Modern Macroeconomics has become a lot more like Microeconomics in its approach.)
What is Microeconomics about?

The Rationality Assumption
The Maximization Principle

How do we make decisions?

The method of Economics:

- Assumption (Rationality): Individuals are rational.
- Maximization Principle: A rational individual always chooses to do what she most prefers to do, given the options that are open to her.

(Almost) all of economics is a working-out of the consequences of this assumption.
Maximization: Scarcity

“A rational individual always chooses to do what she most prefers to do, given the options that are open to her.”

“… given the options that are open to her” signals that we live in a world of scarcity (not all options are open to us):
- money
- time
- natural resources
- “information”
- etc.

Maximization: Preferences

“A rational individual always chooses to do what she most prefers to do, given the options that are open to her.”

“… chooses to do what she most prefers to do” says that we always do the best we can by our own standard (what we most prefer to do).
- Is this straightforward? Philosophically, no. You may choose to do things you do not prefer most, maybe because they are good for you (give up smoking), or maybe because they are good for someone else (care for your child).
What does “rationality” mean?

- “Completeness.” For any two alternative options, you can always say:
  - *either:* which you prefer most,
  - *or:* that you are precisely indifferent between them.
  - This rules out that you could say “I cannot rank these two alternatives.”

- “Transitivity.” This is really a consistency requirement:
  - if you prefer apples to bananas and you prefer bananas to cactus fruit, then you must also prefer apples to cactus fruit.
A Tour around Economics 1

Consumers

Preferences

Constraints

\[ \sum \text{Individual Demand} = \text{Market Demand} \]

Producers (Firms)

Production

Costs

Industry Supply

Market Structure:

Perfect Competition,

Monopoly

Efficiency, Externalities, Public Goods.

The Role of Government

Thinking like an Economist

Costs and Benefits

Sunk Costs

Marginal Analysis
Costs and Benefits

- Should I do something or not?
- When Economists evaluate what they should do, they think in terms of costs and benefits.
- **Example**: should you go to the movies or study for this class?

| Movie: | Study: |

Opportunity Cost

- “Should I go to the movies” in isolation makes no sense to an economist:
  - in the example, you might think that since the benefit is greater than the cost, you should go to the movies.
- **But we always need to compare one option to the best available alternative.**
  - We sometimes express this by saying that there is an *opportunity cost* to going to the movies: you cannot do whatever you could have done otherwise.
Opportunity Cost, cont’d

- You could think about the movie example in terms of opportunity cost:
  - Movie:
    - benefit: $10
    - "direct" cost: - $7
    - opportunity cost: - $5
    = total: - $2
  - Here the opportunity cost is what you could have done instead: study.
- Since the costs are greater than the benefit, you should not go to the movies (i.e. study).

Sunk Costs

- Example: You have already paid $10 for a ticket for a Dartmouth football game. Your friend has a free ticket. On the day of the game, there is a tremendous thunderstorm. If you both have the same tastes, who do you think is more likely to attend the game?
Sunk Costs, cont’d

- *Sunk costs* are costs that you incur regardless of what decision you make (for instance, whether or not to go to the football game). They should therefore *not* influence your decision.
- You should not count sunk costs in your cost-benefit calculation.

Marginal Analysis

- How much of something should I do?
- **Example**: Each slice of pizza you eat at Thayer costs $1.75. Each slice gives you the following benefit (in money terms):
  - 1st slice: $4.00
  - 2nd slice: $2.00
  - 3rd slice: $0.50
  - 4th slice: - $0.20
- How many slices should you eat?
Example, cont’d:

- In the example, the first slice gives you a benefit of $4, but it costs you only $1.75. So you should eat that slice.
- Now think about eating one more slice: the second slice gives you a benefit of $2, but it costs you only $1.75. So you should eat that slice.
- Now think about eating one more slice: the third slice gives you a benefit of $0.50, but it costs you $1.75. So you should not eat that slice (or any further slices).
Economists always think in terms of “should I consume one more unit?”, or: “should I produce one more unit?”

This is often the most natural way of framing decisions. (For instance, think about the manager who has to decide about whether to expand production by hiring one more worker.)

And it makes life a lot easier: we only need to think about the costs and benefits of “one more” (or, the marginal) unit of the good.

The idea of “marginal analysis” - wondering about whether to do one more (or one less) of something (consume, produce) - is one of the most important in economics.