14.01 Principles of Microeconomics, Fall 2007
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September 5, 2007

Lecture 1

# Overview: Themes, Types of Markets, Economic Measurement, Economic Analysis

**Microeconomics** is a branch of economics that studies how individuals and firms make decisions to allocate limited resources, typically in markets where goods or services are being bought and sold.

## Outline

1. Chap 1: *Optimization and Allocation*
2. Chap 1: *Definition and Various Type of Markets*
3. Chap 1: *Economic Measurement*
4. Chap 1: *Economic Analysis*

## 1 Optimization and Allocation

**Consumer theory.** Maximize preference (with limited income or time)

**Producer theory.** Maximize profit (with limited capital)

## 2 Definition and Various Type of Markets

**Market.** A place where buyers and sellers come together to exchange some product or good.

### Product and Factor Markets

| Market | Buyers | Sellers |
|---|---|---|
| Product Market | individuals | firms |
| Factor Market | firms | individuals |

Table 1: Product and Factor Markets.

In a factor market, buyers are firms who need to hire workers and borrow money for capital expenditure, and sellers are individuals who provide labor and save money in banks.

## Types of Markets Based on Influence on Price

| Market Type | Products | Sellers | Buyers |
|---|---|---|---|
| Competitive | homogeneous | many | many |
| Monopolistic | heterogeneous | many | many |
| Oligopoly | | a few | many |
| Monopoly | | one | many |
| Monopsony | | many | one |
| Oligopsony | | many | a few |

Table 2: Types of Markets Based on Influence on Price.

Table 2 shows different markets based on product differentiation and influence on price. Influence on price increases in moving from Competitive markets to Monopoly.

# 3 Economic Measurement

## Flow and Stock Variables

**Stock variables.** Not measured with respect to time. e.g. price, wealth, inventories.

**Flow variables.** Measured per some unit of time. e.g. production, consumption, income.

Two additional flow variables:

**Expenditure.**

$$\text{EXPENDITURE} = \text{PRICE} \times \text{CONSUMPTION}.$$

**Revenue.**

$$\text{REVENUE} = \text{PRICE} \times \text{PRODUCTION}.$$

## Prices

**Nominal price.** The absolute or current dollar price of a good or service when it is sold.

**Real price.** The price relative to an aggregate measure of prices or constant dollar price. It also measures prices relative to others. Price after adjustment for inflation.

**CPI(Consumer Price Index).** Total spending on a market basket of goods.

**Formula of inflation rate:**

$$\text{(Gross) Inflation rate} = \frac{\text{CPI (current year)}}{\text{CPI (base year)}}.$$

**Formula of real price:**

$$\text{Real price} = \frac{\text{Nominal price (current year)}}{\text{Inflation rate (base year to current year)}},$$

or

$$\text{Real price} = \frac{\text{Nominal price (current year)}}{\text{CPI(current)/CPI(base)}}.$$

*Example.* For instance, the average tuition of college:

| Year | Nominal Price | CPI | Real Price (base year 1970) |
|---|---|---|---|
| 1970 | 2,530 | 38.8 | 2,530 |
| 1990 | 12,018 | 130.7 | 3,569 |
| 2002 | 18,273 | 181.0 | 3,917 |

Table 3: Average Tuition of College 1970 to 2002.

Notice that from 1970 to 2002 *nominal price* increases by 7 times but *real price* increases by 1.5 times.

# 4 Economic Analysis

**Positive analysis.** Study the relationship of cause and effect (Questions that deal with explanation and prediction).

**Normative analysis.** Analysis examining questions of what ought to be (Often supplemented by value judgments).