

CHAPTER 1 – PRELIMINARIES

Key Concepts and Topics

- The Themes of Microeconomics
- What is a Market?
- Real versus Nominal Prices
- Why Study Microeconomics?

Microeconomics

- Study of the behaviour of individual economic units (i.e., consumers, workers, firms, investors, etc.) and the market that formed by these economic units

Themes of Microeconomics

- Microeconomics deals with *limits* (e.g., budgets, time, ability to produce)
 - How do we make the most of limits?
 - How do we allocate scarce resources?
- Trade-Offs
 - Workers, firms and consumers must make *trade-offs*
 - ♦ Do I work or go on vacation?
 - ♦ Do I purchase a new car or save my money?
 - ♦ Do we hire more workers or buy new machinery?
 - How are these trade-offs best made?
 - Consumers
 - ♦ Limited incomes
 - ♦ How do consumers maximize their well being, using their preferences, to make decisions about trade-offs (*Consumer Theory*)?
 - ♦ How do consumers make decisions about consumption and savings?
 - Workers
 - ♦ Individuals decide when and if to enter the work-force
 - Trade-offs of working now or obtaining more education/training
 - ♦ What choices do individuals make in terms of jobs or work places?
 - ♦ How many hours do individuals choose to work?
 - Trade-off of labor and leisure

- Firms
 - ♦ What types of products do firms produce?
 - Constraints on production capacity & financial resources create needs for trade-offs
 - ♦ How trade-offs are best made (*Theory of the Firm*)?
- Prices and Markets
 - Trade-offs are often based on prices faced by consumers and producers
 - ♦ Workers make decisions based on prices for labor (i.e., wages)
 - ♦ Firms make decisions based on prices for inputs and on prices for the goods they produce
 - How are prices determined?
 - ♦ Centrally planned economies – governments control prices
 - ♦ Market economies – prices determined by interaction of market participants
 - Markets – collection of buyers and sellers whose interaction determines the prices of goods

Theories and Models

- Theories are used to *explain observed phenomena* in terms of a set of basic rules and assumptions
 - The Theory of the Firm: assumes firms try to maximize their profits
- Theories are used to *make predictions*
 - The Theory of the Firm: reveals whether a firm's output level will increase or decrease in response to an increase in wage rates or a decrease in the prices of raw materials
- Models are *mathematical representations* (created from economic theories) used to *make quantitative predictions*
 - A model of a particular firm can be constructed to predict by how much the firm's output level will change as a result of a 10% drop in the prices of raw materials
- Validating a Theory
 - The validity of a theory is determined by the quality of its prediction, given the assumptions
 - Theories must be tested and refined
 - Theories are invariably imperfect (hold true only on the average, not as exact relationships) – but gives much insight into observed phenomena

Positive & Normative Analysis

- The distinction between a *factual statement* (e.g., what will happen?) and a *value judgment* (e.g., what ought to be? What is the best?)
- Positive Analysis explains the facts, circumstances and the cause and effect relationships, and predict the probable outcomes
 - What will be the impact of an import quota on foreign cars?
 - What will be the impact of an increase in the gasoline tax on gasoline consumption?
 - What will be the impact of rent control upon the economy?
- Normative Analysis involves ethics and value judgments, is used to prescribe alternative policy options
 - Should the government subsidize wheat growers or use price support?
 - Should the government use tariffs versus imported quotas on imported cars?

What is a Market?

- Markets
 - Collection of buyers and sellers, through their *actual* or *potential* interaction, determine the prices of products
 - ♦ Buyers: consumers purchase goods; companies purchase labor and inputs
 - ♦ Sellers: consumers sell labor; resource owners sell inputs, firms sell goods
- Market Definition
 - Determination of the buyers, sellers, and range of products that should be included in a particular market
- Arbitrage
 - The practice of buying a product at a low price in one location and selling it for more in another location (risk-free profit)
- Defining the Market
 - Many of the most interesting questions in economics concern the functioning of markets
 - ♦ Why are there a lot of firms in some markets and not in others?
 - ♦ Are consumers better off with many firms?
 - ♦ Should the government intervene in markets?

Types of Markets

- Perfectly competitive markets
 - Many buyers and sellers, no individual buyer or seller can influence the market price
 - ♦ Example: most agricultural markets
 - Fierce competition among firms can create a competitive market
 - ♦ Example: the airline industry
- Noncompetitive Markets
 - Markets where individual producers can influence the price.
 - ♦ Cartel – groups of producers who act collectively
 - ♦ Example: OPEC dominates with world oil market

Market Price

- Market price – price prevailing in a competitive market
 - Some markets have one price: price of gold
 - Some markets have more than one price: price of Tide versus Wisk

Market Definition

- Market Definition
 - Which buyers and sellers should be included in a given market
 - Depends on the extent of the market – boundaries, geographical and by range of products, to be included in it
 - ♦ Market for housing in Montreal or Toronto
 - ♦ Market for all cameras or digital cameras
- Importance of market definition
 - In order to set price, make budgeting decisions, etc., companies must know
 - ♦ Their competitors
 - ♦ Product-characteristic and geographic boundaries of the market
 - Important for public policy decisions
 - ♦ Should government allow a merger between companies in same market?

Real Versus Nominal Prices

- Comparing prices across time required measuring prices relative to some overall price level
 - Nominal price is the *absolute* or *current* dollar price of a good or service when it is sold, not adjusted for inflation
 - Real price is the price *relative* to an aggregate measure of prices or *constant* dollar price, adjusted for inflation
- Consumer Price Index (CPI) often used as a measure of aggregate prices
 - Records the prices of a large market basket of goods purchased by a “typical” consumer over time
 - Percent changes in CPI measure the rate of inflation (the change in the real purchasing power of a dollar)
- Calculating Real Prices

$$\text{Real Price}_{\text{Base Year} = 100} = \frac{\text{CPI}_{\text{Base Year}}}{\text{CPI}_{\text{Current Year}}} \times \text{Nominal Price}_{\text{Current Year}}$$

- Example: Real Price of College

	1970	1980	1990	2000
CPI	38.8	82.4	130.7	181.0
Nominal Price	\$2,530	\$4,912	\$12,018	\$18,273

Year	Nominal Price	CPI	Real Price	
1970	\$2,530	38.8	= ?	= \$2,530
1990	\$12,018	130.7	= ?	= \$3,568
2000	\$18,273	181.0	= ?	= \$3,917

Why Study Microeconomics?

- Microeconomic concepts are used by consumers and producers to assist them in making choices
- Example: Ford SUV's
 - Built Ford Explorer in 1991, Ford Expedition in 1997 and the Ford Excursion in 1999
 - In each of these cases, Ford had to consider many aspects of the economy to ensure their introduction was a sound investment
 - Questions
 - ♦ How strong in demand and how quickly will it grow?
 - Must understand consumer preferences and trade-offs
 - ♦ What are the costs of manufacturing
 - ♦ Given all costs of production, how many should be produced each year?
 - ♦ Ford had to develop pricing strategy and determine competitors' reactions?
 - ♦ Risk analysis
 - Uncertainty of future prices: gas, wages
 - ♦ Organizational decisions
 - Integration of all divisions of production
 - ♦ Government regulation
 - Emissions standards
- Example: Emission Standards
 - 1970 Clean Air Act imposed emissions standards and have become increasingly stringent
 - Questions
 - ♦ What are the impacts on consumers?
 - ♦ What are the impacts on producers?
 - ♦ How should the standards be enforced?
 - ♦ What are the benefits and costs?

Quick Quiz

1. Which of the following two statements involves positive economic analysis and which normative? How do the two kinds of analysis differ?
 - a. Gasoline rationing (allocating to each individual a maximum amount of gasoline that can be purchased each year) is a poor social policy because it interferes with the workings of the competitive market system.
 - b. Gasoline rationing is a policy under which more people are made worse off than are made better off.

2. The following table shows the average retail price of butter and the Consumer Price Index from 1980 to 2010.

	1980	1990	2000	2010
CPI	100	158.56	208.98	214.93
Retail Price	\$1.88	\$1.99	\$2.52	\$3.30

- a. Calculate the real price of butter in 1980 dollars. Has the real price increased/decreased/ stayed the same since 1980?
- b. What is the percentage change in the real price (1980 dollars) from 1980 to 2010?
- c. Convert the CPI into 1990 = 100 and determine the real price of butter in 1990 dollars.
- d. What is the percentage change in real price (1990 dollars) from 1980 to 2010? Compare this with your answer in (b). What do you notice? Explain.