Chapter 1: The Study of Economics Some definitions

- *Economics* is the study of how individuals and societies choose to use the scarce resources that nature and previous generations have provided.
- "*Economics* is a study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of well-being" (Alfred Marshall)
- John M. Keynes: "The theory of economics does not furnish a body of settled conclusions immediately applicable to policy. It is a method rather than a doctrine, an apparatus of the mind, a technique of thinking, which helps it possessors to draw correct conclusions"
- Webster Dictionary defines economics: "a social science concerned chiefly with description and analysis of the production, distribution, and consumption of goods and services."
- **Maurice Clark**: "An economist is a man with an irrational passion for dispassionate rationality"

Why Study Economics?

- Probably the most important reason for studying economics is *to learn a way of thinking*.
- For example: Three fundamental concepts:
 - Opportunity cost
 - Marginalism
 - Efficient markets

Opportunity Cost

- *Opportunity cost* is the best alternative that we forgo, or give up, when we make a choice or a decision.
- Opportunity costs arise because time and resources are scarce. Nearly all decisions involve trade-offs.

Examples:

Marginalism

- In weighing the costs and benefits of a decision, it is important to weigh only the costs and benefits that arise from the decision.
- For example, when deciding whether to produce additional output, a firm considers only the *additional* (or marginal cost), not the sunk cost.
 - *Sunk costs* are costs that cannot be avoided, regardless of what is done in the future, because they have already been incurred.

Efficient Markets

- An *efficient market* is one in which profit opportunities are eliminated almost instantaneously.
- There is no free lunch! Profit opportunities are rare because, at any one time, there are many people searching for them.

More Reasons to Study Economics

- Economics involves the study of societal and global affairs concerning resource allocation.
- Economics is helpful to us as voters. Voting decisions require a basic understanding of economics.
- Money and financial systems are an important component of the economic system, but are not the most fundamental issue in economics.

- *Microeconomics* is the branch of economics that examines the functioning of individual industries and the behavior of individual decision-making units—that is, business firms and households.
- *Macroeconomics* is the branch of economics that examines the economic behavior of *aggregates*—income, output, employment, and so on—on a national scale.

The Diverse Fields of Economics

Examples of microeconomic and macroeconomic concerns				
	Production	Prices	Income	Employment
Microeconomics	Production/Output in Individual Industries and <u>Businesses</u> How much steel How many offices How many cars	Price of Individual <u>Goods and Services</u> Price of medical care Price of gasoline Food prices Apartment rents	Distribution of <u>Income and Wealth</u> Wages in the auto industry Minimum wages Executive salaries Poverty	Employment by Individual Businesses & <u>Industries</u> Jobs in the steel industry Number of employees in a firm
Macroeconomics	National <u>Production/Output</u> Total Industrial Output Gross Domestic Product Growth of Output	<u>Aggregate Price Level</u> Consumer prices Producer Prices Rate of Inflation	<u>National Income</u> Total wages and salaries Total corporate profits	Employment and Unemployment in the <u>Economy</u> Total number of jobs Unemployment rate

The Method of Economics

- *Normative economics*, also called policy economics, analyzes outcomes of economic behavior, evaluates them as good or bad, and may prescribe courses of action.
- *Positive economics* studies economic behavior without making judgments. It describes what exists and how it works. It includes:
 - Descriptive economics, which involves the compilation of data that describe phenomena and facts.
 - Economic theory that involves building models of behavior. A theory is a statement or set of related statements about cause and effect, action and reaction.

Theories and Models

- A *theory* is a general statement of cause and effect, action and reaction. Theories involve models, and models involve variables.
- A *model* is a formal statement of a theory. Models are descriptions of the relationship between two or more variables.
- Ockham's razor is the principle that irrelevant detail should be cut away. Models are simplifications, not complications, of reality.
- A variable is a measure that can change from observation to observation.
- Using the **ceteris paribus**, or all else equal, assumption, economists study the relationship between two variables while the values of other variables are held unchanged. It is part of the process of abstraction used to focus only on key relationships.

Theories and Models

- In formulating theories and models we must avoid two pitfalls:
 - The *Post Hoc Fallacy*: "post hoc, ergo propter hoc," which translates as "after this, therefore because of this." It is fallacy to say: "one event happened before another, so the first event must have caused the second event" It is erroneous to believe that if event A happened before event B, then A caused B.

• The *Fallacy of Composition*: It is erroneous to believe that what is true for one person must be true for everyone. Theories that seem to work well when applied to individuals often break down when they are applied to the whole.

Economic Policy

Criteria for judging economic outcomes:

- *Efficiency*, or allocative efficiency. An efficient economy is one that produces what people want at the least possible cost.
- *Equity*, or fairness of economic outcomes.
- *Growth*, or an increase in the total output of an economy.
- *Stability*, or the condition in which output is steady or growing, with low inflation and full employment of resources.

How to Read and Understand Graphs



- Each point on the Cartesian plane is a combination of (X,Y) values.
- The relationship between X and Y is causal. For a given value of X, there is a corresponding value of Y, or X causes Y.

Reading Between the Lines



- A *line* is a continuous string of points, or sets of (X,Y) values on the Cartesian plane.
- The relationship between X and Y on this graph is negative. An increase in the value of X leads to a decrease in the value of Y, and vice versa.

Positive and Negative Relationships

An *upward-sloping* line describes a positive relationship between X and Y.

 $\begin{array}{c} \uparrow x \longrightarrow \uparrow Y \\ \downarrow x \longrightarrow \downarrow Y \end{array}^{Y} \end{array}$

A *downward-sloping* line describes a negative relationship between X and Y.



The Components of a Line



The algebraic expression of this line is as follows:

Y = a + bX

where:

Y is the *dependent variable* X is the *independent variable*

a is the *Y*-intercept, or value of *Y* when X = 0.

b = slope of the line, or the rate of change in Y given a change in X.

If b is positive \rightarrow upward sloping line If b is negative \rightarrow downward sloping line

Different Slope Values



Strength of the Relationship Between X and Y



 This line is *relatively flat*. Changes in the value of X have only a small influence on the value of Y.

 This line is *relatively steep*. Changes in the value of X have a greater influence on the value of Y.

The Difference Between a Line and a Curve



Interpreting the Slope of a Curve

