Chapter 1
Introducing the Economic Way of Thinking

CHAPTER SUMMARY

Scarcity permeates the entire human experience. Scarcity means we are unable to have as much as we would like to have. Our wants are unlimited. But, our production capabilities are limited by our factors of production, which include land, labor (the entrepreneur is a special type of labor) and capital (plant and equipment). Because we are faced with scarcity we must make choices. Choices are made at the "macro" and "micro" level. Macroeconomics is concerned with the entire economic system, whereas microeconomics is concerned with some particular segment of the economy.

Economics can be further subdivided into positive ("what is") and normative ("what ought to be") economic analysis. We would all be well advised to first have a firm handle on "what is" before we argue "what ought to be." This takes us to a look at how economists derive positive economic theories---a look at the methodology of economics. That methodology is the same scientific methodology used in all sciences---it is the process of induction and deduction. Theories can be expressed: 1) verbally, or in written form, 2) as a numerical table, 3) graphically, or 4) mathematically. Theories are helpful to understanding the relationship between economic variables but should be used with caution. Two common pitfalls to clear thinking are the failure to understand the *ceteris paribus* assumption and confusing *association* and *causation*.

The appendix to this chapter focuses on how theories can be expressed graphically. Graphs are visual aids that help us see the *direct* or *inverse* relationship between two or more sets of data or variables.

NEW CONCEPTS INTRODUCED

scarcity	labor	economics	entrepreneurship	ceteris paribus
resources	capital	macroeconomics	normative economics	
land	model	microeconomics	positive economics	

LEARNING OBJECTIVES
After completing this chapter, you should be able to:

1. Understand the problem of scarcity.
2. Explain factors of production.
3. Distinguish between microeconomics and macroeconomics.
4. Understand how a model explains the relationship between variables.
5. Understand the importance of the ceteris paribus assumption,
6. Explain the difference between association and causation.
7. Classify an argument as either positive or normative.

CHAPTER OUTLINE

1-1 The Problem of Scarcity

1-2 Scarce Resources and Production
    a. Land
    b. Labor
    c. Capital

    Exhibit 1 "Three Categories of Resources"

1-3 Economics: The Study of Scarcity and Choice
    a. Macroeconomics
    b. Microeconomics

1-4 The Methodology of Economics
    a. Problem Identification
    b. Model Development
    c. Testing a Theory

    Exhibit 2 "The Steps in the Model-Building Process"

    Checkpoint: "Can You Prove There Is No Trillion-Dollar Person?"

1-5 Hazards of the Economic Way of Thinking
    a. The Ceteris Paribus Assumption
    b. Association versus Causation

    Checkpoint: "Should Nebraska State Join a Big-Time Athletic Conference?"

    You're The Economist: Analyze the Issue
        "Mops and Brooms, the Boston Snow Index, the Super Bowl, and Other Economic Indicators"
        Applicable Concept: Association versus Causation.

1-6 Why do Economists Disagree?
    a. Positive Economics
    b. Normative Economics

    You're The Economist: Analyze the Issue
        "Does Raising The Minimum Wage Help The Working Poor?" Applicable Concept: Positive and Normative Analysis.

1-7 Careers in Economics

    Exhibit 3 "Average Yearly Salary for Selected Bachelor Majors with 0-5 Years of Experience "

Summary of Conclusion Statements
    a.   The problem of scarcity and choice are basic economic problems faced by every society.
    b.   Money by itself does not produce goods and services; instead, it is only a means to facilitate the purchase and sale of resources and consumer products.
    c.   A theory cannot be tested legitimately unless its ceteris paribus assumption is satisfied.

      d.   The fact that one event follows another does not necessarily mean that the first event caused the second event.

      e.   Economists' forecasts can differ because using the same methodology, economists can agree that event X causes event Y, but disagree over the assumption that event X will occur.

      f.   When opinions or points of view are not based on facts, they are scientifically untestable.

HINTS FOR EFFECTIVE TEACHING

1. Try to use this chapter for generating as much interest in economics as possible. Don't feel too pressed for time. Treat this chapter thoroughly---especially, "theories." It will be time well spent. (Some additional comments with respect to theories are found below.)
   You may want to start the class by asking students what they want to get out of the class---what they always wanted to know and were afraid to ask. Let them know that there is no such thing as a "silly" question. (Establishing a rapport with your students at the first opportunity will pay off!) Although you may field some questions which are best treated in some detail later, go ahead and survey the issues at hand and indicate that they will be treated in more detail later when it is more logical to do so---but for now ask them to note that these issues stem from the fact that we are faced with scarcity. Moreover, you will probably be given the opportunity to stress the difference between "positive" and "normative" economic analysis---the difference between "fact" and "opinion." For the "You're the Economist" on the minimum wage, be sure to note that you will return to this issue in Chapter 4 as an application of supply and demand analysis. Finally, take the opportunity to show by your actions that you will be keeping the course as application-oriented, or "user-friendly" as possible.

2. Indicate that in economics, *capital* is not money! It is defined as "plant and equipment." Students often get "capital" and "money" confused.

3. Point out that scarcity is not a synonym for poverty. Even "rich" nations like the United States (and rich people) are faced with scarcity because they are unable to have as much as they would like to have. Indicate that all nations face scarcity and as a result they face 3 challenges: 1) They all try to produce as much as they can and this is why full employment is an important goal; 2) All nations try to produce that combination that most satisfies society; and 3) All nations try to distribute production in some fair or equitable fashion. This is related to the 3 fundamental economic questions ("What," How," and For Whom") discussed in Chapter 2.

4. Give some examples of economic investigations and ask students to distinguish between whether they are of concern to "macro" or "micro."

5. Indicate that *theories are realistic* because they are based on facts. *Theories are practical* because they avoid unnecessary detail and enhance our understanding of relationships among economic variables. *Theories* (general statements about the causal relationship between variables based on facts) *are extremely useful in developing workable policies* to address a real-world problem. In sum, stress that economists derive economic theories because they are useful in the development of economic policies designed to solve real-world economic problems.

6. Indicate that there are really three forces at play in the real world in which we all live: economic, social and political. These three forces are often in conflict. Sound or rational economic reasoning doesn't always prevail---especially when it comes to developing "economic" policy in a political environment.

CRITICAL THINKING /GROUP DISCUSSION QUESTIONS

1. Why isn't money a resource?
    > *It isn't used in the production process; it merely facilitates trade.*
2. Respond to the following statement: "Theories are of no use to me because they are not very practical. All I need are the facts because they speak for themselves."
    > *Facts don't speak for themselves. Facts are meaningless unless there is a theory to tie them together.*
3. Does economics help to teach us how to approach problems, or does it provide us with a set of answers to problems?
    > *It teaches us "how to think." It doesn't provide us with answers.*
4. To what extent do you think normative economic analysis, as opposed to positive economic analysis determines our nation's public policy decisions made by government? Why? Is that "good" or "bad?" Why?
    > *This is debatable.*
5. What are our nation's major macroeconomic goals? Are they in conflict with each other?
    > *Full employment, low inflation, and high rates of economic growth are our nation's major macro goals. Also note that they are often in conflict with each other. For example, full employment and more rapid growth create higher rates of inflation.*

CLASSROOM GAMES

Approximately 170 non-computerized economic games (experiments) for use in the classroom are available for free at http://www.marietta.edu/~delemeeg/games/. The following games are recommended to help teach some of the concepts in this chapter:
> *There are no recommended games for this chapter.*

ANSWERS TO: *"You're the Economist: Analyze the Issue"*

MOPS AND BROOMS, THE BOSTON SNOW INDEX, THE SUPER BOWL, AND OTHER ECONOMIC INDICATORS

Which of the above indicators are examples of causation? Explain.

> *Each example involves association and not causation.*

DOES RAISING THE MINIMUM WAGE HELP THE WORKING POOR?

1. Identify two positive and two normative statements given concerning raising the minimum wage. List other minimum wage arguments not discussed in this You're the Economist and classify them as either positive or normative economics.

    > "In 1938 Congress enacted. . ." *(positive economics)*
    > "Today a minimum wage worker. . . earns a deplorably low annual income." *(normative economics)*
    > "Only a small percentage. . . are full-time workers… below the poverty line." *(positive economics)*
    > "They say it just isn't right that a worker who works full-time should live in poverty. . ." *(normative economics)*

2. Give a positive and a normative argument why a business leader would oppose raising the minimum wage. Give a positive and a normative argument why a labor leader would favor raising the minimum wage.

   A business leader might argue that a higher minimum wage raises labor costs and cuts profits (positive economics). The business leader might also argue that a higher minimum wage is unfair to businesses because the business should be able to set wages without government intervention (normative economics). A labor leader could state that there is no relationship between higher minimum wage rates and unemployment (positive economics). The labor leader may also argue that the government must insure that workers earn a decent living (normative economics).

3. Explain your position on this issue. Identify positive and normative reasons for your decision. Are there alternative ways to aid the working poor? Explain.

   Students should give thoughtful answers. One alternative to aid the working poor is simply to mail them a check.

ANSWERS TO EVEN-NUMBERED *"Study Questions and Problems"*

2. *Money itself cannot physically be used to produce anything. Money is only a means to purchase resources, such as labor or capital that can actually produce goods and services.*

4. *a. microeconomic issue*
   b. macroeconomic issue
   c. microeconomic issue
   d. macroeconomic issue

6. *The real world is full of complexities that make it difficult to understand and predict the relationships between variables. For example, the relationship between changes in the price of gasoline and changes in consumption of gasoline requires abstraction from the reality that such variables as the fuel economy of cars and weather conditions often change at the same time as the price of gasoline.*

8. *The positive argument is that airbags are worth an additional cost of about $600 because of the reduction in the number and severity of injuries to and deaths of motorists. This argument can be tested by data collected from drivers using airbags versus drivers using only seat belts. The normative argument is whether the government should make airbags mandatory or allow the decision to be voluntary. This policy question involves people's opinions on the appropriate role of government in the automobile market. Students can research the Internet and share their findings with the class.*

CHAPTER 1 SUMMARY QUIZ

1. Scarcity:
    a. exists because resources are unlimited while human wants are limited.
    b. means we are unable to have as much as we would like to have.
    c. will likely be eliminated as technology continues to expand.
    d. is not an issue addressed in economics.

2. Which of the following is *not* a resource?
    a. land
    b. labor
    c. money
    d. capital

3. Microeconomics is concerned with:
    a. some specific segment of the economic system.
    b. the entire economic system.
    c. reducing national unemployment and inflation rates.
    d. what causes changes in the overall level of economic activity.

4. Which of the following is a *normative* economic statement?
    a. The unemployment rate for the United States is currently 5.4%.
    b. The inflation rate in the United States is too high.
    c. An increase in the price of a good will reduce the amount purchased.
    d. Higher profits in an industry will attract more entrepreneurs into the industry.

5. A model (or theory):
    a. is a general statement about the causal relationship between variables based on facts.
    b. helps explain and predict the relationship between variables.
    c. when expressed as a downward (negatively) sloping graph implies an inverse relationship between the variables.
    d. all of the above.

ANSWERS TO CHAPTER 1 SUMMARY QUIZ

1. b
2. c
3. a
4. b
5. d