UNDERSTANDING CAPITALISM
3rd Edition

By Samuel Bowles, Richard Edwards,
and Frank Roosevelt

INSTRUCTOR'S MANUAL

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TEACHING MODULES

<u>About the Author</u>

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INTRODUCTION

This is an instructor's manual for the third edition of the textbook *Understanding Capitalism* by Samuel Bowles, Richard Edwards, and Frank Roosevelt. The textbook is designed to provide the introductory student with an overview of political economy. It assumes no previous background in political economy or in microeconomic or macroeconomic theory. Building carefully from the concepts of surplus, profit, and class, *Understanding Capitalism* presents a coherent model of a whole capitalist economy. It integrates a microeconomic analysis of firm behavior with a macroeconomic analysis through the profit rate. In the process it teaches elements of conventional introductory microeconomic theory, such as supply and demand, and the main elements of conventional macroeconomic theory, such as aggregate demand. This general model is set in historical and institutional perspectives using the idea of changing social structures of accumulation.

In what kind of course can the text be used?

Like the second edition, this third edition may be used in several different kinds of courses. It may be used as the main text for a one- or two-semester course in introductory economics. It also may be used as a supplement to a standard introductory microeconomic theory course or a standard introductory macroeconomic theory course. For example, Chapters 2 through 13 could be used in a microeconomics course or Chapters 8–12 as a supplement to a principles of microeconomics course and 15–19 as a supplement to an equivalent macroeconomics course. A course on international political economy might include Chapters 1, 4–8, and 15. Interdisciplinary courses on social issues could use the nontechnical portions of the text to stimulate discussion of issues of fairness and equality and what kind of political and economic system fosters these values.

What is the level of mathematical difficulty of the text?

Throughout the text, concepts are explained without mathematical notation as fully as possible. The most mathematically challenging chapters are Chapters 10–12. The mathematical background needed is only algebra and the ability to understand graphs.

Brief outline of the text

Part 1: Political Economy, Chapters 1-7

The text begins with a historical chapter that focuses on capitalism as a powerful force for change, a force that turned the world upside down, broke up old institutions and traditions, and introduced new ways of doing things in every area of life. Of the three dimensions in political economy, change is the one emphasized in Chapter 1.

Chapter 2 is an introduction to the recent work on the nature of human interaction and the importance of norms, fairness, and reciprocity in our lives.

Chapter 3 introduces the broad framework of political economy: the three dimensions of competition, command, and change. It also introduces the criteria of efficiency, fairness, and democracy, by which the authors evaluate an economic system and encourage the student to think of an economic system as something created by human beings, subject to the judgment of human beings, and therefore capable of being changed by human beings.

Chapter 4, the last of the introductory chapters, gives some historical perspective and repeats the themes of the text through a survey of the views of Adam Smith, Karl Marx, Joseph Schumpeter, John Maynard Keynes, Ronald Coase, and Amartya Sen, which are part of the tradition of political economy. Chapter 4 may also be seen as a way to raise in the minds of students some of the questions to be answered later in the text.

Chapter 5 introduces the fundamental idea of surplus; Chapter 6 discusses class; and Chapter 7 is about accumulation and class structure and their historical development in the United States, summarized in the description of a series of social structures of accumulation. Each of these chapters establishes a foundation of terms and concepts to be elaborated on in later chapters and raises most of the issues to be dealt with in a more detailed way later in the book.

Part 2: Microeconomics, Chapters 8–13

Chapter 8 is an introduction to supply and demand and the standard interpretation of how markets work. Chapter 9 goes on to consider the rules by which resources are allocated and activities are coordinated. It assesses the problems with markets and those of command.

The other chapters in Part 2 focus on the conflict (or, occasionally, collusion) among capitalists (Chapter 11) and the conflict between capitalist and worker (part of Chapters 10, 11, 12, and 13).

Chapter 10 explores the determinants of the profit rate (intensity of work, capacity utilization, and many others) in full detail, building up an algebraic expression for the profit rate from which students can see the influences at work. The algebra is the foundation for a discussion of ways in which employers' interests almost always conflict with workers' interests because each wants to alter the determinants of the profit rate in opposing ways.

Chapter 11 explores the relationship between competition and concentration (or monopoly/oligopoly): Competition gives rise to concentration of capital in large firms, but large firms tend to earn higher profit rates, which attracts competition from new firms.

Chapter 12 introduces the idea that the capitalist faces a problem in extracting labor from the worker and that the most common solution to the problem, at least in the United

States, is the existence of some loss of income to the worker in case the worker gets fired for shirking. That loss of income depends on the existence of unemployment. The beginnings of the formal labor extraction model are presented here.

Chapter 13 explores further the conflict of interest between capitalists and workers within the firm and the techniques, apart from setting the wage, by which the firm exercises control over the pace and conditions of work.

Part 3: Macroeconomics, Chapters 14–19

Chapter 14 analyzes the mosaic of inequality and its determinants in the United States. It discusses the relationship between capitalism and racial and sexual discrimination.

Chapter 15 is about the international economy. Its focus is on income distribution among and within countries, as well as on the meaning and causes of economic growth, and the relationship between income distribution and growth.

Chapters 16, 17, and 18 are the main macroeconomic theory chapters, and they follow roughly the same topics that conventional macroeconomic texts present, with some differences in emphasis and conclusions. Chapter 19 is about the role of government in relation to the economy.

Chapter 16 returns to the subject of employment and unemployment, but this time it is from a macroeconomic standpoint. It is here that standard macroeconomic concepts appear, such as aggregate demand and supply, the multiplier, fiscal and monetary policy, the business cycle, and built-in stabilizers. The chapter also continues the discussion, begun in Chapter 10, of what determines the level of investment.

Chapter 17 uses the foundation laid in Chapter 16 to explore the crucial issue of whether, and how, it is possible for full employment to be reached in a capitalist economy. Because there do exist capitalist economies (Sweden, e.g., over long periods of its recent history) with nearly full employment, the main issues are why the U.S. economy has not achieved full employment and how the microeconomic analysis of the firm (the labor extraction model) interacts with the macroeconomic analysis of aggregate demand to produce obstacles to full employment in a capitalist system like that in the United States.

Chapter 18 is about inflation, and it covers the distinction between cyclical and structural inflation as well as the trade-off between unemployment and inflation.

Chapter 19 emphasizes the "political" in political economy by analyzing the relationship between the government and capitalists: the ways in which wealth is used to get political power and influence over government decisions and the ways in which government decisions affect the profit rate and, hence, the accumulation of wealth.

Part 4: Conclusion, Chapter 20

Chapter 20 considers the future of capitalism in the context of limits to growth and the new pressures being placed by the degradation of the natural environment and the rise of the information economy.

Aim and structure of this manual

This manual is like other instructors' manuals in many respects, but it differs from them in one important respect. Like other manuals, it is designed to save the instructor time: It has a detailed outline (following the text almost exactly) that may be used as lecture notes, and it includes mention of difficult teaching points as well as useful teaching modules, activities, and discussions; suggested exercises and handouts; and sample questions (both multiple choice and essay).

Unlike most instructors' manuals, however, this manual does not assume that the instructor is fully familiar with the subject matter. Most graduate economic programs teach little or nothing about political economy. This instructor's manual is therefore designed to provide some extra background material for instructors. Two resources that have been used extensively for games to teach the principles in this book are Teaching with Games, available at http://www.people.virginia.edu/~cah2k/classy2k.htm (Classroom Games: Using Experiments in Teaching) and Games Economists Play, available at http://www.marietta.edu/~delemeeg/games/

Brief Acknowledgments

This manual owes the greatest debt to four people. Mehrene Larudee's excellent manual for the second edition of the text was the basis for this manual. Readers of the last manual will recognize that large parts of this current version are derived and reproduced (with her kind permission) directly from Mehrene's work. She should be recognized as the virtual co-author of this manual. Sam Bowles worked closely with me to make sure that I minimized any disastrous errors. My father, U. K. Jayadev, painstakingly edited (twice) rough versions of this document, which resulted in enormous improvements. Finally, Catherine Finnoff rescued my sanity by carefully formatting the document and constantly providing encouragement. This would not have been possible without her.

Other people also assisted in the process. Hector Saez provided useful comments on an earlier draft, and Catherine Rae provided gentle pressure to make sure that this manual did see the light at the end of the day.

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CHAPTER 1: Capitalism Shakes the World

How This Chapter Fits into the Text

The purpose of Chapter 1 is to introduce the student to the profoundly revolutionary nature of capitalism as an economic system and the way in which it has transformed the human world in a very short period of time when compared with the span of modern human history. Students often imagine capitalism to be a consequence of industrial development. The chapter suggests, by contrast, that capitalism as a system came into being in a particular historical and geographical context preceding the Industrial Revolution. The system displays a tendency to perpetual change, including, but certainly not limited to, scientific and technological development. The numerous examples of the changes wrought by capitalism are meant to give the student a sense of the vast differences in the culture, daily life, and social and ecological impacts between capitalist and pre-capitalist societies. The hope is to make the student more curious about the history, development, and nature of capitalism as a system.

MAIN POINTS

1. Capitalism has not always existed; it began in a definite period of history around 1500 in Europe. Currently, following the collapse of Soviet-style communism, capitalism is the predominant mode of production in the world.

2. Capitalism by its very nature is relentlessly changeful, even revolutionary: It uproots old ways of life and old production methods, causes massive population migrations, and changes the fabric of daily life intensely.

3. Capitalism, like other systems, has both positive and negative aspects. It differs, however, in its scale and rapidity of transformation.

4. Understanding change is an important part of understanding capitalism.

DETAILED OUTLINE

1. Capitalism has supplanted almost every competing economic system since its inception (except the family, if that is considered an economic system). The most recent competitor, Soviet-style communism, has (like other systems) been replaced by capitalism.

2. Capitalism, an economic system in which employers hire workers to produce goods and services that will be marketed with the intention of making a profit, began in Europe around A.D. 1500 and unleashed a dynamism, a tendency toward constant change, unknown in previous times.

Among the changes wrought by capitalism are

3. The Permanent Technological Revolution. As technical change revolutionized production, it reduced the amount of time required to produce most products. Figure 1.1 shows the increase in agricultural productivity.

4. The Enrichment of Material Life. The technological changes of the past five centuries have been accompanied by significant increases in people's consumption standards and the quality of economic goods. Figure 1.2 ("Real wages in London over seven centuries"), Figure 1.3 ("Two millennia of world GDP per capita"), and Figure 1.4 ("Improvements in lighting technology, 1700 to the present") are striking evidence of this.

5. Uneven Development. Because some countries saw capitalism before others and because these countries also were able to translate their economic gains into political gains, growth has been uneven across the globe and has resulted in large inequalities. Figure 1.3 inset (share of world output by region) and Figure 1.5 ("Growing world inequality, 1820–1992") display evidence of this.

6. Population Explosion, Migration, and Urbanization. Capitalism, through the spread of modern medicine, has allowed for massive population growth, especially in the twentieth century. At the same time, because of the rapid destruction and creation of livelihoods engendered by capitalism, there have been large-scale migrations, both forced (slavery) and voluntary. Finally, there has been a trend toward living in cities as more and more people leave the countryside. Figure 1.6 ("Capitalism and the population explosion") and Figure 1.7 ("Cities of the world with more than a million inhabitants, 2002") show this graphically.

7. Changing Nature of Work. Capitalism has profoundly changed the activity of work. After capitalism, there are fewer self-employed people and more people working for a wage or salary. Job skills are rendered rapidly obsolete. People's sense of natural time has been supplanted by clock time. Finally, there has been a decline in the percentage of the productive population engaged in producing food.

8. Transformation of Family. Family life has been changed. Families are smaller, the household is no longer a production unit, and many households no longer are "families." In addition, people do not stay in the same location as a family as before but move around in response to the dictates of the economy.

9. Threats to the Ecosystem. It is no longer very controversial that capitalism has led to a large-scale destruction of certain aspects of our natural environment. Figure 1.8 and Figure 1.9 focus on global warming and carbon dioxide emissions, respectively, as examples of these changes.

10. Changes in Government. Along with capitalism, there has been a growth, generally, of democratic government. Governments have more functions and more direct influence over the lives of their subjects than in the past.

11. Globalization. The capitalist economy, unlike its predecessors, is the first truly global economy, bringing most of the world into an interdependent (but unequal) system.

TEACHING TIPS AND MODULES

This is a somewhat challenging chapter to teach first because there is a lot of information that is conveyed, with few easy ways of eliciting interaction from students. Students may have difficulty picturing the pre-capitalist world or imagining a world very different from their own, particularly if they have never been in the midst of a different culture. Some anthropological or historical descriptions of other societies at other places and times are often useful sources for discussion (and interesting in and of themselves).

One extremely attractive and sensitive modern book that illustrates (literally) differing conceptions within a capitalist and noncapitalist framework is *The London Jungle Book* by Bhajju Shyam (Tara Publishing, 2004). The author is a tribal artist from interior India who draws the city of London (which he visited for three months) using the motifs of his tribal art framework. Examples of this are available at
http://www.tarabooks.com/the_london_jungle_book.htm
Numerous other examples are available in Marshall Sahlins's *Stone Age Economics* (Chicago: Aldine-Atherton, 1972); for example, see Chapter 1, "The Original Affluent Society" or later chapters. He quotes vivid passages from several studies, illustrating the different attitude toward work and play (or the absence of any distinction between work and play) as well as the different attitude toward time in many noncapitalist (noncommodity) societies. One example follows:

Since the Kapauku have a conception of balance in life, only every other day is supposed to be a working day. Such a day is followed by a day of rest in order to "regain the lost power and health." This monotonous fluctuation of leisure and work is made more appealing to the Kapauku by inserting into their schedule periods of more prolonged holidays (spent in dancing, visiting, fishing, or hunting ...). Consequently, we usually find only some of the people departing for their gardens in the morning, the others are taking their "day off." However, many individuals do not rigidly conform to this ideal. The more conscientious cultivators often work intensively for several days in order to complete clearing a plot, making a fence, or digging a ditch. After such a task is accomplished, they relax for a period of several days, thus compensating for their "missed" days of rest. (Pospisil, Leopold, *Kapauku Papuan Economy,* Yale University Press Publications in Anthropology, No. 67, pp. 14–15, 1957, cited in Sahlins, p. 57)

The upheaval that accompanies the transition from a more or less traditional agricultural economy to a partly industrialized economy is a very well explored theme in literature. Some literature that students may have come across in the canon that has industrialization

and transition as its backdrop includes authors such as Dickens and the Romantics (in Britain). For other countries, the novel *Nectar in a Sieve* by Kamala Markandaya and Chinua Achebe's novel *Things Fall Apart* describe a similar transition in India and Nigeria, respectively. Students may have been exposed to some of these.

Readable nonfiction accounts of the process of uneven development are given in David Landes's *Wealth and Poverty of Nations* and in Kenneth Pomeranz's *The Great Divergence*. A more ambitious account is Jared Diamond's *Guns, Germs, and Steel*; also see his book *Collapse,* which details the strains that various societies have placed historically on their environment. Finally, an excellent look at uneven development is provided by Mike Davis's *Late Victorian Holocausts,* which explores the linkages between colonialism, the entry of capitalism, and the massive famines during the period of high imperialism.

ACTIVITIES AND DISCUSSION

1. One way to look at an economy is to notice that it determines how people spend time. For instance, today people spend a lot of time shopping for things rather than making them. They spend a lot of time working with networks of people who are not related to them or from their area. How might you think that this was different (given what you have read in this chapter) if you lived five centuries ago in Europe? How might you imagine that daily life would be? Where might you have lived, and what would your work have been like?

2. It is clear that the advent of capitalism has created environmental tensions on a scale unknown in human history. At the same time, there have been massive technological advances, benefiting millions. How do you feel about this? If you were emperor of the world (or maybe just the president of the United States) would you try to reduce the destruction of the natural environment if it meant slowing down the pace of technological advance? What reasons could you give for your decision?

Short Essay Questions

1. Why do you think that capitalism has been such a revolutionary system? Can you describe where it led to growth and how uneven it has been? If you can, explain why it has been so uneven, and often unequal, between countries and regions. If you find this question to be overwhelming, don't worry: If you can answer this question satisfactorily, you would probably win the Nobel Prize!

2. Consider any large city that you know or like. How large is its population? Is it one of the 400+ cities in the world with over a million people? At what point in history did it come to grow to be so large? If it is in the past 50–100 years, do you have any idea why this might have been the case? What kind of industries led to this level of urbanization?

3. Describe the ways in which capitalism brought about rapid and dramatic change. In particular, give at least three examples of its effect on work and production.

4. In what ways do you consider capitalism to be an advance over earlier ways of organizing the economy?

5. Consider any technology that you are interested in. In recent decades, how this has technology changed the way people do things?

6. What do you think about economic globalization? What features of it do you think are good? Which features might you consider bad?

Multiple Choice Questions

1.1 The capitalist epoch began when capitalist organization of work first appeared in parts of England, around the year
      a) 1300
      b) 1500*
      c) 1700
      d) 1800
[Note: Correct answers have asterisks here and in all chapters]

1.2 The rise of capitalism brought with it dramatic increases in all of the following except
      a) Total population
      b) Size of households*
      c) Productivity
      d) Real wages

1.3 All of the following are consequences of the rise of capitalism except
      a) More people are self-employed*
      b) Clock time supplanted natural time
      c) The household is no longer a productive unit
      d) The natural environment has come under increasing strain from humankind

1.4 Improvements in agricultural productivity
      a) Took place mainly in the 1700s
      b) Took place mainly during the Industrial Revolution in the 1800s
      c) Took place up through the early 1900s
      d) Have continued to occur right up through recent decades*

1.5 The population of the world
      a) Has risen steadily since 10,000 B.C.
      b) Has fallen since 1980
      c) Has been steady for the last century
      d) Has risen very quickly over the last century*

1.6 One consequence of the spread of capitalism has been
     a) Increasing family size
     b) Higher birth rates
     c) Higher death rates
     d) Higher productivity*

ADDITIONAL RESOURCES

The following films look at various aspects of the transition to capitalism and the topics dealt with in this chapter.

1. *Koyanisqatsi* (1978) Reggio's debut as a film director and producer is the first film of the Qatsi trilogy. The title is a Hopi Indian word meaning "life out of balance." The film is an art film, set to music by Philip Glass, that depicts the collision of urban life and technology on the one hand and the previously undisturbed environment on the other.

2. *Advertising and the End of the World* (1997) Sut Jhally's documentary looks at the cultural messages emanating from the market-based view of the world and the impact on the environment.

3. *The Road to Riches: The History of Wealth-Building* (BBC, 2000) A six-part series—hosted by BBC economics editor Peter Jay, author of *Road to Riches, or, The Wealth of Man*—that looks at wealth building over the course of 10 millennia (46–52 minutes each).

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CHAPTER 2:   People, Preferences, and Society

How This Chapter Fits into the Text

Chapter 2 is a new chapter for this edition. It brings to the students the most recent research in behavioral and experimental economics and other related fields. As such, it provides "microfoundations" for the complex actions of human beings and their ability to coordinate extensively as well as compete. This theme is continued in other chapters. In terms of the "thinkers" in political economy in Chapter 3, this chapter closely reflects Sen's critique of *Homo economicus* (or economic man) and provides examples from experimental economics of the need to theorize human action more completely.

MAIN POINTS

1. In order to explain behavior, we need to consider an individual's constraints, preferences, and beliefs.

2. Selfishness (the defining feature of *Homo economicus*) is only one of the behaviors observed in human beings.

3. Human nature does exist—but so does cultural differentiation. The combination makes human beings both similar and different worldwide.

4. Several institutions (families, schools, neighborhoods, workplaces) condition human action.

5. All animals, including humans, compete. Human beings are a uniquely cooperative species, however.

DETAILED OUTLINE

1. Economists have long used the model of *Homo economicus* (economic man) as their model of human action. The central assumption is that human beings are calculating, amoral, and self-interested (in the sense that actions are considered only with respect to how it will affect oneself).

2. Constraints, Preferences, and Beliefs. In order to explain human action, economists focus on three things: (1) constraints (limits on the action that an individual can take), (2) preferences (relative values one places on the various outcomes that one's actions may bring about), and (3) beliefs (one's understandings of the actions necessary to bring about particular outcomes). Thus, human action consists of making choices in order to achieve preferred outcomes, based on the beliefs and constraints relevant to the action. In neoclassical economics, as taught by the vast majority of its practitioners, people's preferences are self-interested and exogenously determined. In the approach of this book,

human beings' preferences are more varied, including "social preferences" such as generosity toward others, spite, and fair-mindedness and also are determined by the society around them (i.e., they are endogenous).

3. Economic Man Reconsidered? Much new (and old) evidence militates against the notion of universal selfishness, which is the cornerstone of the conception of economic man in neoclassical economics. Experiments in behavioral economics have further undermined the claim of self-interest being the primary motivation of human action. The ultimatum game (see the section on activities), which has been played in many different countries, suggests that humans have a strong preference for reciprocity.

4. Human Nature and Cultural Differences. Although there is strong evidence against single-minded selfishness, experiments also show that human beings do differ in the degree of their resemblance to economic man. Anthropological experiments suggest that there are marked differences in humans' behavior in different societies. This is evidence for cultural differences. Culture is defined here as behaviors learned from others. Although it is difficult to distinguish between human nature and culture, it is accepted that groups differ.

5. The Economy Produces People. The economy produces more than goods. It also reproduces human beings. Reproduction—as defined in this book—is the sum total of processes (biological and social) that go into the formation of an individual. Behavioral experiments suggest that economic institutions, such as market integration and cooperation, affect the ways in which people behave. The public goods games (see the section on teaching tips for an example)played in the small-scale societies studied by Bowles and others underscore these patterns. The general point to be made is that our values, preferences, likes and dislikes appear to be conditioned by living in a set of particular institutions. Even in less exotic societies, such as our own, we have developed ways of teaching preferences (hence they are endogenous) in order to live a normal functioning life as an adult. Examples of institutions that do this are schools and workplaces.

6. The Cooperative Species. Human beings are unique among species because there is abundant cooperation across a large number of genetically unrelated people. This cooperative aspect of human nature has evolved because groups of cooperating humans can survive and prosper better than self-interested individuals acting out of their own concern.

TEACHING TIPS AND MODULES

This chapter criticizes the predominant and mistaken view in mainstream economics of economic man. For students who have not been exposed to the idea of *Homo economicus*, it may appear to be an odd exercise, given that they are likely to accept human behavior as being complex. It is important therefore to carefully trace out the predominant view

and/or its history and current application to understanding social science. Reference to Gary Becker's work on agency within the household may be of particular use here.

The use of the experiments and modules later in this chapter is the simplest way to introduce the ideas of reciprocity and altruism.

Students sometimes make the opposite mistake of suggesting that all behavior is self-interested because people are motivated to do it. According to this view, those who enjoy helping others are being selfish. Apart from giving examples of completely altruistic behavior, the instructor may point out that calling any self-motivated behavior selfish simply defines away "other-regarding" actions. Reference to this can be made by looking at Bowles and Gintis's "Walrasian Economics in Retrospect."

ACTIVITIES AND DISCUSSION

1. Conduct the ultimatum game (described below). Write the results on the board. Questions to ask: (a) Why did you offer 50%? (b) Why did you accept 50%? (c) To the proposers: What would you have done if the amount was $10,000 instead of $1 or $10? (d) To the proposers and responders: What would you do if you heard that the person on the other side was a convicted murderer?

2. Conduct the dictator game after the ultimatum game. If the offers change, ask: (a) Why did you offer less than 50% this time? (b) Why didn't you take it all?

3. Play the public goods game for five rounds. At the end of the rounds, add up the scores and ask the following questions: (a) Why did people contribute? (b) Why did people not contribute (if people did not contribute)? (c) How do people feel about those who did not contribute? (d) What if you weren't receiving the money immediately? (e) What if instead of money, you received some sort of good (such as a music player) that all of you had equal access to?

Teaching Module 2.1:   The Ultimatum Game

Make students face away from each other. Then take one or more sets of two students (each student doesn't know who his or her partner is) and tell them they have the opportunity to split $10 (or $1 in case you choose many sets of players). Tell one person (who you will tap on the shoulder) that as first mover (or proposer), they get to make a one-time offer of a portion of the $10. The partner who is the second mover (or respondent) can either accept or reject this offer. If the offer is rejected, both students get nothing. Ask the proposer his or her offer and write it on the board. If the respondent accepts this offer, write this on the board as well.

Most often there is an equal ($5, $5) split of the $10. Explain how this violates the basic understanding of self-interested behavior and suggests preferences toward reciprocity. If

people were entirely self-interested and unwilling to take other people's preferences into account in their decisions, then the proposer should offer a split of ($9, $1) in his or her favor, because getting $1 for the responder is better than nothing.

Explain that this game has been played many times all over the world with roughly similar results.

Extension: Use unequal numbers of players on either side. This usually generates unequal splits more often.

Teaching Module 2.2:   The Dictator Game

Repeat the ultimatum game above, but this time with a slight change. The proposer gets to keep his or her share of the offer, no matter what. What usually happens is that the proposer usually takes a larger share of the pie than he or she would in the ultimatum game. One interpretation is that the fear of rejection is a powerful motivator under uncertainty.

Nevertheless, it is very unusual for people to not offer anything to the responder, which suggests some desire for reciprocity. Students may be interested to know that these behavioral traits were also discovered in chimps by Sarah Brosnan and Frans de Waal.

Teaching Module 2.3:   The Public Goods Game

NOTE: This game may take time, and as such, if time is an issue, the instructor may simply describe the game and the typical results.

Give 10 students three tokens each; each token represents a dollar. Say that they are contributing to a collective good called a public good. They can choose (secretly) to donate a token or not in every round. This is known only to the person collecting the data. At the end of the round, whatever is contributed is doubled and shared equally among them. Keep a running tally of the total contributed and returned in each round for three rounds. At the end of the three rounds, ask each student to tally up his or her total earnings. If everyone contributed in all three rounds, everyone would have $6 (or six tokens) = 60 tokens/10 people (10 tokens in each round doubled and returned yield 20 tokens every round, or 60 tokens after three rounds).

It is possible that some students may have more than that if they did not contribute while everyone else did. To see this, note that if one person did not contribute in any round and everyone else contributed in every round, then everyone else would have (9 X 2 X 3)/10 = 5.4 dollars. The person who did not contribute, meanwhile, would have (9 X 2 X 3)/10= 5.4 dollars + 3 tokens or dollars = 8.4 dollars. Note, however, that if everyone behaved like this individual, then everyone would get only $3 [(0 X 2 X 3) + 3]. This

describes many situations, where individual selfishness would be beneficial for the individual but detrimental for the group.

Teaching Module 2.4:   Free Rider

To Teach: The free rider problem.

Reference and contact: Sulock, Joseph M. "The Free Rider and Voting Paradox ˙Games.'" *Journal of Economic Education* 21(1), Winter 1990, pp. 65–69, or contact Dr. Joseph M. Sulock, Department of Economics, University of North Carolina, Asheville, NC; jsulock@unca.edu

Abstract: "The students are instructed that they may 'contribute' any amount of money from $0 to $10. I explain that I will increase the amount collected by 20 percent, and the resulting total will be divided equally among all class members (but not the instructor). Students are allowed to interact with one another regarding the amount each will contribute before the contributions are made. However, at the 'moment of truth,' no interaction is permitted, and anonymity is guaranteed" (Sulock 1990, p. 66).

Dr. Sulock explains that a typical contribution ranges from $1.25 to $1.75 per student and that the instructor can draw a number of useful lessons: (a) The optimal contribution, of course, would have been $10. Thus, each student's contribution (output) is economically inefficient. (b) Economically, too, little has been "produced" (contributed), and that is the crux of the free-rider problem. (c) An efficient level of "production" (contributions) could be achieved through taxation (an involuntary contribution). (d) If the group were smaller, a more efficient level of contributions might have emerged, which is why, for example, fire and police services in very small communities do function on the basis of voluntary contributions rather than involuntary ones (taxes). (e) Each student's contribution generates externalities (this game allows instructors to link the topics of public goods and externalities).

Dr. Sulock lets classes play for real money. Usually around 50% of any one class free-rides totally (i.e., a contribution of $0). Repeating the experiment in the same class often results in all contributions being $0!

Short Essay Questions

1. A field of biology called sociobiology predicts that altruistic behavior decreases as people become less genetically related. The geneticist J. B. S. Haldane had once put it this way: "I'd gladly give my life for three of my brothers, five of my nephews, nine of my cousins. …" How much of human behavior do you think can be described by this? (Don't worry if you think this is a difficult question; many biologists have spent lifetimes arguing about this!)

2. A very famous economist (one who you will meet in Chapter 4) once remarked, "Men make their own history, but not under circumstances of their own choosing." Relate this statement to the model of human behavior written about in the section on preferences, beliefs, and constraints.

3. Explain the ultimatum game and the ways in which this throws light on human behavior.

4. In an old Indian folktale, a village committee decides that on the occasion of a feast, everyone should contribute a cup of milk to the dessert and pour it into the cooking pot the night before, so that it can boil through the night. One person decides to pour a cup of water instead because this is cheaper and he thinks no one will know the difference. The next morning, when the cooks open the lid to the pot, they find that the entire pot is filled with water!

    (a) What kind of game does this story describe?

    (b) What kind of behavior of individuals does this suppose? Is this realistic?

    (c) If you were on the village committee, what would you think of doing to make sure that people contributed milk rather than water?

5. Robert Cialdini, a professor of psychology, notes that when the Disabled American Veterans Organization mails out requests for contributions, their success rate is only about 18%. However, when their mailing includes personalized address labels, the success rates almost doubles to 35%. What principle of human behavior is on display here?

6. Clifford Geertz, a famous anthropologist, once said: "There is no such thing as human nature independent of culture." What might the evidence from the ultimatum game played in different societies have to contribute to this view?

Multiple Choice Questions

2.1 The conception of human beings as acting primarily out of amoral self-interest is called
    a) *Homo economicus**
    b) Behavioral economics
    c) Constrained behavior
    d) None of the above

2.2 Which is not an example of a preference?
    a) I buy a car because it's red
    b) I buy a car because cars are needed to get to faraway places.* (it's an example of a belief)

c) I buy a car because I want to take my friends places

d) I buy a car because a car will raise my esteem

2.3 When preferences are determined outside the system that we study, then they are called

 a) Endogenous

 b) Exogamous

 c) Exogenous*

 d) Reciprocal

2.4 The usual outcome of an ultimatum game is

 a) A 50-50 split*

 b) A 75-25 split

 c) A 40-60 split

 d) None of the above

2.5 The results of the ultimatum game from various societies suggest that

 a) People have self-regarding preferences

 b) People have a preference for reciprocity*

 c) People are completely altruistic

 d) People behave like *Homo economicus*

2.6 The different results of games in small societies suggest that

 a) Human nature does not exist

 b) Human nature and cultural differences affect behavior*

 c) Cultural differences do not matter

 d) None of the above

2.7 The evidence from the studies suggest that market integration

 a) Gives rise to societal sharing norms*

 b) Reduces cooperation

 c) Leads to greed

 d) Makes it harder to tolerate strangers

2.8 Economic institutions shape people's preferences

 a) Not at all

 b) By changing human nature

 c) Mostly by forcible behavior

 d) By determining what kind of individuals will be successful*

2.9 Human beings are a unique species because

 a) We compete so much

 b) We compete so little

 c) We cooperate so much*

 d) We cooperate so little

ADDITIONAL RESOURCES

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CHAPTER 3:   A Three-Dimensional Approach to Economics

How This Chapter Fits into the Text

This chapter introduces political economy, or "three-dimensional" economics. This approach is in contrast to conventional neoclassical economics and as such is different from that found in most introductory texts. The chapter places the analytical and normative perspectives of political economy side by side with those of neoclassical economics. Many of the subsequent chapters elucidate points made in this chapter regarding these differences, and as such, it may be useful for the instructor to spend a little time on this section. A useful summary is given on page 68 (Table 3.1) on these distinctions.

MAIN POINTS

1. Capitalism is an economic system. Economic systems are fundamentally relationships among people.

2. Every economic system can be analyzed in terms of three dimensions: a horizontal dimension (competition), a vertical dimension (command), and a time dimension (change).

3. Economics is about both facts and values. Political economy, like all social theories, incorporates certain values; in the case of political economy, these values are efficiency, fairness, and democracy.

DETAILED OUTLINE

1. Economic Systems and Capitalism

An economic system is a set of relationships among people (social relationships) that organizes human labor in labor processes.

Capitalism is one of many economic systems wherein goods and services are produced by people at the direction of their employers with the purpose of making profits.

2. Three-Dimensional Economics: Competition, Command, and Change

Competition

Within the three-dimensional framework, this refers to the relationships in which voluntary exchange and choice among large numbers of buyers and sellers play the central role. It is akin to a horizontal dimension, meaning there is relative equality of power among economic actors involved. Both political economy and neoclassical

economics regard competition as essential to understanding the capitalist economy, although they differ on the degree of competition within capitalism. A key example is a competitive market.

Command

Command refers to those aspects of economic relationships into which power, coercion, and hierarchy come into play. It can be thought of as a vertical dimension (power cascades downward). Power can be defined as follows: A has power over B if by imposing costs on B, A can cause B to act in a way that is to A's advantage. Examples of command relationships can be found in the workplace, household, government, and in relations among classes, races, and genders.

Change

Change refers to the historical evolution of people and economic systems. This is the time dimension within the three-dimensional framework. Examples of change are technological innovations, new products, changes in demographics, changes in the locale of production, and historical change in institutions.

3. Neoclassical Economics

A conventional or neoclassical economics perspective focuses primarily on the horizontal dimension (competition). It has three central elements.

First, neoclassical economics assumes that human beings behave like *Homo economicus* (economic man) described in the second chapter. Second, it assumes that contracts (implicit or explicit agreements that commit two or more individuals to certain actions) are usually complete (fully specified). Externalities are not central in the neoclassical economist's world. Third, neoclassical economics typically assumes nonincreasing returns to scale (that is, increasing the scale of production does not reduce the average cost of production after a certain point).

Note: Neoclassical economics can be said to be defined (according to the authors) by the elements on the left-hand side of Table 3.1.

4. Values in Political Economy

Conventional economics texts often say economics focuses on what is (positive economics) not what should be. However, debate rages within economics on what should be (normative questions). There are a number of ways in which to evaluate an economy. Political economy uses three criteria or values to judge an economic system.

Efficiency: For a given amount of inputs, a maximum amount of useful goods and services are produced. However, some goods or services are not socially useful, for example, advertising and weapons. Also, all inputs should be counted, whether paid for

or not, and the degradation of the natural environment is usually not counted. The effort and health of the worker are usually not counted. Also, household labor is usually not counted.

Fairness: All people should suffer burdens and enjoy benefits of the economic system equitably.

Democracy: This has three requirements:

(a) Accountability of power (elections, referendum, and recall)

(b) Civil liberties (free speech and assembly, etc.)

(c) Political equality (all have equal resources to participate in and influence the political process)

Some decisions, like what to eat for dinner, are left to individuals. Other decisions that affect many people, like a plant closing that devastates a community, should be democratically made. A command is democratic if it implements a democratically made decision.

TEACHING TIPS AND MODULES

This chapter, like the first chapter, is challenging to teach because it involves introducing big picture ideas as well as a comparison between two competing views of the economy. Students are often unfamiliar with the notion of different and competing economic theories. Instead, they envision economics as a unified body of thought in which there are more or less uncontroversial ways of distinguishing between true and false statements. Certain topics may need particular attention.

1. An economic system is a system of social relationships:

The idea that the economic system is fundamentally a system of social relationships is often tricky. Students may be more used to thinking of it as a relationship between people and things (for example, between people and land, people and machinery, and so on). It is useful to spend a little time explaining how different social relationships doing the same activity may yield different economic systems. A simple example could be the difference in agricultural production between a feudal system, slavery, and modern sharecropping.

2. Capitalism is an economic system:

Because capitalism is an economic and not a political system, it can coexist with a variety of different political systems. It is not a complete set of rules for organizing society but only a set of rules governing certain activities in society. In particular, to have capitalism does not at all guarantee democracy. Fascism and various other forms of dictatorships

have flourished in capitalist countries. Students often conflate capitalism and democracy, and it is important to make the theoretical distinction between the two.

3. Values:

Political economy does not accept the simple distinction between normative and positive economics. Instead, political economy assesses an economic system using the values of efficiency, fairness, and democracy. Students may be puzzled by the insistence on values for evaluation. It is best to underline the importance of values by reference to any debate that has been recently in the media that the students may be aware of (tax cuts, social security, outsourcing, and so on).

4. Distinction between political economy and neoclassical economics:

It is worth making students aware that they are to be introduced to one way of understanding the world, that is, one school of thought. In the teaching tips and modules section, there is reference to one example of how you might do this.

Adopting the stance that there is more than one theory is not meant to imply that every theory is equally valid, nor that the facts do not matter. On the contrary: the facts matter greatly, and it is hoped that students will actively try to determine what is right and what is wrong and reach their own conclusions.

Teaching Module 3.1:   Economic Systems, Part 1

To Teach: Economic systems are fundamentally relationships among people; they are the rules of the game.

A. Ask students: What is an economic system? What do you think the U.S. economic system consists of? Students will provide a variety of answers: free enterprise, market, etc.

B. Economic systems are not fundamentally relationships between people and things, that is, between people and nature—though such relationships are relevant to economic analysis.

Economic systems are systems of social relations, that is, relations among human beings, rather than what are sometimes called "natural" relations, that is, relations between human beings and nature or between human beings and physical things.

Ask students: Think about just one aspect of our economic system: private property. What is private property? Is it a relationship? Between what and what? Private property is an institution based on laws and customs; it appears to define a relationship between a thing and a person (the owner of the thing); actually, it defines a relationship between people, that is, one person is allowed to use the property in certain ways and is allowed to

exclude others from it. Thus, private property is a social relationship that has the appearance of being a relationship between people and things, or in other words, between human beings and nature. The social relationship consists of a rule that the owner is permitted to use the thing, give it away, trade it, destroy it, and so forth; those who do not own it are not permitted to use, trade, give away, or destroy it. For example, if I own real estate, the social relationship includes a rule that you may not trespass without my permission, and I may call the police to have you thrown off my property if you violate this rule.

C. The conventional definition of an economic system is the allocation of scarce resources to meet unlimited needs. Thus, it focuses on distribution, and it talks about the relationship between things (resources) and needs, not the relationships between people. Chapter 5 will define an economic system as a way of organizing labor processes—in other words, a way of deciding what people will spend their time doing.

D. Capitalism is one economic system defined by a particular set of relationships among people.

Other economic systems such as feudalism or socialism are defined by a different and distinct set of relationships among people.

These relationships came into existence at some point in history, and they are subject to change. This contrasts with the neoclassical view of a timeless and a priori set of principles that do not arise out of any particular historical or institutional setting.

Political economy understands the social relationships that make up an economic system as having been created at some point in time; moreover, the decisions that create or change these relationships are made by some subset of society. It is important to understand who makes these decisions and how they are made.

The social relationships of capitalism may be thought of as rules of the game; these rules of the game change from time to time. Ask students to think of limitations on the absolute right to use of private property: noise ordinances, zoning laws, ordinances about business signs, laws against air and water pollution, and so forth. It might be pointed out that these limitations have not always existed and to discuss approximately when they came into existence.

E. An economic system is a system of social relationships that carries out production and distribution of goods.

More simply, an economic system is a set of rules of the game that decide what you get and what you give up. For example, rules of inheritance (along with inheritance taxes) partly decide who inherits, and what they inherit, when someone dies. These are rules about property. In a market system, how much money you have to give up in order to buy something is decided by a decentralized system in which each seller sets his or her own price (and can vary it from day to day, in theory). How is it decided how much money

each person gives up in tax payments? (It is legislated, or decided by initiative, but also by how good an accountant you can afford.) How is it decided how much work you have to do for a given wage? (Combination of labor laws such as minimum wage law, collective bargaining agreements, customary work level in workplace, laws prohibiting slavery, and so forth—but see Chapter 10.) How is it decided how much housing will cost? (Landlord decides how much to ask, but landlord–tenant law specifies what must be provided, to some extent, for each tenant, and so forth.)

Contrast several pre-capitalist systems of production, such as stable societies in which the same crops and other items are produced year after year and no complex machinery is needed. Or contrast traditional societies with very different systems of production and distribution, such as society in the northwestern United States that taught people who accumulated excessive wealth to distribute it to the community through a big party or "potlatch" or Inuit society in which one who kills a seal for food is expected to distribute it to others and not to eat any of it himself.

Teaching Module 3.1:   Economic Systems, Part 2

To Teach: The main features of capitalism using the three-dimensional approach.

Political economy defines capitalism as having these four main features:

(1) Private ownership of the goods used in production (factories, tools, machines). It is the ownership of these capital goods that is important.

(2) Wage labor. Those who own no tools or machines are forced to go to those who own the factories to find work.

(3) Commodity exchange or markets. Everything is for sale in a capitalist economy (including capital goods and labor power). Products are produced for the prospect of their sale, not their use.

(4) Production for profit. This is the aspect that governs the movement of the system over time. If something is not profitable, it won't be produced. When there are not enough profits to be made in the system as a whole, growth slows.

Note that these features illustrate the three-dimensional approach. Point (3) is the horizontal dimension: exchange in the market. Taken together, (1) and (2) comprise the vertical or class aspect of capitalism: some people get income from property (owning capital goods) and some from labor. Point (4) is the time dimension—how and why capitalism grows over time. Note that this is intimately connected to the vertical dimension: profits govern the rate of growth of the system as a whole.

Notice the contrast with the conventional one-dimensional approach. We've moved beyond the market—one aspect of capitalism—to questions of social structure and change.

Teaching Module 3.2:   Fairness and Capitalism

To Teach: Capitalism has great productive potential, but because in it production is for the purpose of making a profit, it often does not meet human needs.

The topic of hunger often provokes good discussions about fairness in capitalism. The box "Money talks (and eats)" on pages 133–134 is a good starting point. Other supplementary information: Enough food is available to provide at least 4.3 pounds of food per person a day worldwide: 2.5 pounds of grain, beans, and nuts; about a pound of fruits and vegetables; and nearly another pound of meat, milk, and eggs. (The source of this information, *World Hunger: 12 Myths*, 2nd Edition, by Frances Moore Lappé, Joseph Collins, and Peter Rosset, with Luis Esparza, by Grove/Atlantic and Food First Books, 1998, is an excellent resource.)

Ask students: Why do you think that despite no scarcity, hunger occurs? Ask whether something should be done about this, and what problems they might foresee in implementing a no-hunger policy.

Teaching Module 3.3:   Contested Values

To Teach: Values in economics and society are contested.

A. Copy and distribute to students the survey "Is it fair?" below. Then collect and tally the results, present them to the class, and discuss different ideas of what is fair (if possible, it is a good idea to distribute, collect, tally them, and report the results during the next class period).

B. Copy and distribute to students the survey "Capitalism among consenting adults: should all voluntary contractual exchanges be allowed?" below. Tally their answers and discuss the results. The exercise challenges the naive conventional view that market exchanges are generally unobjectionable because entered into voluntarily.

C. Undertake the exercise "How would you distribute a scarce resource?" (See below.) Discuss the results.

D. Copy and distribute to students the survey "Take your chances on your own Utopia" (see below). Tally the answers and discuss whether income inequality is ever fair and on what, if anything, such income inequality might fairly be based. Then ask students a different question: What level of or kind of income equality or inequality would lead to the most peaceful and harmonious society, free of crime and war?

E. Use Richard Deitz's experiment on income redistribution and povery measurement (Deitz, Richard, "An Experiment in Income Redistribution and Poverty Measurement," *Classroom Expernomics* 5 (2) (1996): 5–6). Each student in class must contribute $1 to a class fund. The sum of the contributions will then be given to a single class member. A small group of students must jointly and unanimously determine who that person will be. The recipient may not share the money with anyone else. The group may use any criteria it so desires—except for chance. Discussions usually focus on questions such as Who is most deserving? Who is the poorest? Who works the hardest? What will the recipient do with the money? Discussion can then be oriented toward how current poverty programs and taxes are administered. This exercise can also be used in Chapter 14, "The Mosaic of Inequality."

Teaching Module 3.4:   Capitalism and Command

To Teach: A central element of the capitalist economy is command.

Ask students:

A. What does democracy mean to you? How important is each of the three components of democracy discussed in the text?

B. How do you feel about the example in the text of a plant owner wanting to shut his/her factory down despite the wishes of the local community? Would the plant owner's rights be violated by a community decision to keep the plant open? How about if the plant owner wanted to pollute the environment?

C. What distinguishes horizontal and vertical relations between people? What types of relations reflect voluntary exchange and individual choice? What sorts of relations reflect coercion or command? Is "take a wage cut or the plant shuts down" a choice or a command?

Survey: Is it fair?

Please answer each question yes or no.

1. Z is an incredibly good-looking guy and makes $500,000 a year as a model, working only three days a week. By contrast, W was born with a speech defect that makes it difficult for him to talk. As a result, given the limited opportunities available in this society, W is unable to find any job but very low paid manual work. He works a 35-hour week, but because he has no other source of income must live in poverty on $120 a week after taxes.

Is this situation fair?

2. X inherited $10 million from her grandfather, does not work, lives on her annual income of $500,000, and owns a vacation home on Cape Cod and one in the Keys as well as two luxury apartments, one in New York and the other in Los Angeles. (She likes to be able to make spur-of-the-moment decisions about where to spend her free time.) By contrast, Q worked hard as a welder but lost his job when his company moved and, not being able to keep up with his rent, was evicted. Q is now homeless.

Is this situation fair?

3. Y worked hard in school and did well. But now he works long hours at minimum wage as a dishwasher, has no medical insurance, and can barely make ends meet. Y's brother, Ynot, goofed off in school and dropped out; he, too, works long hours as a dishwasher, has no medical insurance, and can barely make ends meet.

Is this situation fair?

4. R won the lottery and now spends $500,000 a year from the proceeds. By contrast, T grew up in a middle-class family who had saved for her college years, but when she was 16, her father was hit by lightning and died. The family's savings were quickly depleted; T went to work to support her ailing mother and never did get to college.

Is this situation fair?

Survey: Capitalism among consenting adults:Should all voluntary contractual exchanges be allowed?

What do you think about the following exchanges? You may assume in each case that the people involved are sane, rational adults who have thought about the alternatives and consequences of what they are doing.

1) A very complicated medical procedure has been discovered that cures a rare form of cancer in patients who would otherwise certainly die. Staff shortages make it impossible to treat all those who would benefit, and the hospital has established a policy of first come, first served. Ben, a wealthy patient who is at the bottom of the list, offers to pay Aisha, a poor person on the top of the list, a million dollars to exchange places. If Aisha dies (which is very likely), then her children will inherit the money. Aisha agrees.

Do you approve or disapprove? Approve_____ Disapprove_____
Should this transaction be prohibited? Yes_____ No_____

2) Melissa is 18. She has been admitted to a good college but does not have any financial aid and cannot get any. She signs a 4-year contract to be a web stripper with "Webcams R Us" and will begin work when she is 19. The company will pay her tuition.

Do you approve or disapprove? Approve____ Disapprove____
Should this transaction be prohibited? Yes____ No_____

3) Tired of making choices all the time, a person decides to sell himself to another person, receiving a large sum of money and promising to obey the new owner, who promises not to mistreat the slave.

Do you approve or disapprove? Approve____ Disapprove____
Should this transaction be prohibited? Yes____ No_____

4) Space Marketing, Inc., announces plans to launch square mile size billboards made from Mylar sheets into low orbit. Companies would pay a few million dollars in order to display their advertisements. Logos about the size of the moon will be visible to millions of people on earth.

Do you approve or disapprove? Approve____ Disapprove____
Should this transaction be prohibited? Yes____ No_____

5) You are waiting in line to buy tickets for a movie that is just about to be sold out. Someone from the back of the line approaches the person in front of you and offers her $25 to let him in front of her.

Do you approve or disapprove? Approve____ Disapprove____
Should this transaction be prohibited? Yes____ No_____

6) A politically apathetic person who never votes agrees to vote for the Republican or Democratic nominee who pays him the highest amount.

Do you approve or disapprove? Approve____ Disapprove____
Should this transaction be prohibited? Yes____ No_____

7) William and Elizabeth are a wealthy couple who give birth to a baby with a minor birth defect. They sell this baby to their (equally wealthy) neighbors and buy a "perfect" child from Jim and Chrissie, a family badly in need of cash.

Do you approve or disapprove? Approve____ Disapprove____
Should this transaction be prohibited? Yes____ No_____

8) An old–age home puts out an ad for nurses. They list as one of their criteria "Jamaicans Preferred." When asked why, the director says that in their experience, Jamaican nurses are the most efficient.

Do you approve or disapprove? Approve____ Disapprove____
Should this transaction be prohibited? Yes____ No_____

Exercise: How would you distribute a scarce resource?

Begin the class by announcing that Oxford University Publishing has just created a new study guide for "Understanding Capitalism, 3rd Edition," which will greatly aid students in the mastery of the material. Then announce that, unfortunately, only three copies of the guide are available because OUP has only advance copies out and that you are in a quandary about what to do. Elicit the students' suggestions with regard to this. Chances are that they will suggest sharing the copies, copying them, or some other relatively egalitarian solution. Then suggest auctioning them to the highest bidder, explaining that in this manner, the ones who want the books most will get them. This is likely to be met with some protests. Ask why it is the case that students do not like this solution because, after all, this is a market solution. This can be effectively used as a starting point in a discussion about the conflicts between fairness and individual self-interest and about the allocation mechanism of markets. End by admitting that there is no such study guide, and that, unfortunately, only hard work will do the trick.

Survey: Take your chances on your own Utopia

Imagine that you will fall asleep tonight and wake up tomorrow in a new society. Until you wake up you will know nothing about who you will be, except that you will have some set of characteristics that will determine your income level. YOU are in charge of deciding how each person's characteristics should affect their income level—even though you have no power to decide who will have which characteristics.

There will be exactly two groups: the well off and the less well off. What do you think the ratio of their incomes should be? (For example, if you think the well off should receive twice what the less well off get, write 2 in place of X.)

$$\frac{\text{Income of a person in the well off group}}{\text{Income of a person in the less well off group}} = X$$

Now indicate how important the following should be in determining who should be in which group. (Give each of the characteristics that you think should determine how well off a person is a percentage adding up to 100%. You may give 100% to a single characteristic if you want.)
____% how much property the person owns
____% the person's birth (e.g., aristocracy, caste, race, gender)
____% the person's need for the goods
____% how much or how hard the person has worked (time or effort)
____% how much the person's labor produced (productivity)
____% luck
____= 100% (check to see that your entries add up to 100%)

Realistically speaking, what is your best guess of what your own yearly income (before taxes) will be (in this world, not the hypothetical one you have devised!) when you are 40

years old? (Or if you are already past 40, what income did you make the year you were 40?)

Short Essay Questions

1. The text says that political economy is three-dimensional. What are the three dimensions? How is this different from conventional economics?

2. What are the criteria, or values, in political economy that we use to judge the merits of an economic system? Explain the meaning of each, and for each criterion give an example of an economic system that does not meet the criterion.

3. Distinguish between Pareto optimality and efficiency.

4. What are the three central assumptions of neoclassical economics?

5. What is meant by a contract? What does it mean for a contract to be complete or incomplete?

6. The following conversation took place in 1913 between Walter Page, the U.S. government's man in London and the British Foreign Secretary, Sir Edward Grey. They were discussing the coup in Mexico that had just taken place. U.S. President Woodrow Wilson wanted to teach the South American republics "to elect good men." Page reports that Edward Grey asked him:

"Suppose you have to intervene, what then?"

"Make 'em vote and live by their decisions."

"But suppose they will not so live?"

"We'll go in and make 'em vote again."

"And keep this up 200 years?" asked he.

"Yes," said I. "The United States will be here for two hundred years and it can continue to shoot men for that little space till they learn to vote and to rule themselves."

(From Empire: How Britain Made the Modern World, Allen Lane, 2003. by Niall Ferguson)

What conception of "democracy" is being espoused here? What difference is there in this conception and the one suggested in the text, if any?

7. What is meant by increasing returns to scale? What kind of returns to scale do you see in the following two examples of production?

(i) A tailoring shop uses sewing machines and workers to produce shirts. Each machine can be rented for $5 an hour, and each worker hired to run a machine is paid $10 an hour. The manager of the firm notices over time that in the shop, with more workers and more machines, the workers are able to learn from each other's mistakes and become more efficient at their own work. As a result, the following table describes the outputs and inputs of the firm as it grew larger.

Labor	Machines	Output
1	1	2
2	2	5
3	3	9

Calculate the cost per shirt when the firm has one, two, and three workers. Is this an example of increasing or nonincreasing returns to scale?

(ii) In the tailoring shop down the street, the workers are separated by cubicles and, hence, cannot learn from each other's mistakes. As a result, the manager of the firm down the street notices the following pattern as the firm hires more workers and machines.

Labor	Machines	Output
1	1	2
2	2	4
3	3	6

Calculate the cost per shirt when the firm has one, two, and three workers. Is this an example of increasing or nonincreasing returns to scale?

(iii) Which firm is going to do better if the firms are competing for the same customers (and the shirts are the same quality) and why?

ANSWERS:

(i) Increasing returns to scale because of decreasing unit costs:

(ii) Nonincreasing returns to scale because of constant unit costs:

(iii) The second firm has lower costs with more output, so it can outcompete the first firm.

Multiple Choice Questions

3.1 Economic systems are ways of organizing
      a) Resources
      b) Money
      c) Labor*
      d) Markets

3.2. The relationship between buyer and seller and the relationship between employer and worker are illustrations of the idea that
      a) An economic system is fundamentally a set of relationships among people*
      b) The goal of capitalists is to make profits
      c) Capitalism is essentially a system of markets
      d) All economic activities are voluntary and are entered into freely

3.3 The approach that views capitalism as essentially a system of markets is called the
      a) Market approach
      b) Neoclassical approach*
      c) Political economy approach
      d) Horizontal approach

3.4 The three dimensions referred to in the phrase "three-dimensional economics" are
      a) Profits, commodities, and markets

b) Competition, command, and change*
c) Household, firm, and government
d) Fairness, efficiency, and democracy

3.5 One principle that political economy shares with conventional economics is that
    a) Command is central to a capitalist economy
    b) It is important to understand competition*
    c) Institutions are constantly in a process of change
    d) We should analyze not only how the economy is but also how it should be

3.6 If for a given quantity of productive inputs, the maximum output of useful goods and services is produced, then the economic system is said to have achieved
    a) Growth
    b) Efficiency*
    c) Fairness
    d) Democracy

3.7 A situation is said to be Pareto optimum when
    a) It is not possible to make someone better off without making someone else worse off*
    b) Everyone is well off
    c) It is possible to make everyone better off by making someone worse off
    d) Everyone is equally well off

3.8 Some inputs used in production are ignored when the capitalist does not have to pay for them. All of the following are examples except
    a) The health of workers
    b) The natural environment
    c) Housework
    d) Machinery*

3.9 The rights to free speech and free assembly, the right to worship as one pleases, and the right to follow one's own sexual preferences are all examples of one of the three essential characteristics of democracy; this characteristic is called
    a) Political equality
    b) Accountability
    c) Efficiency
    d) Civil liberties*

3.10 Democracy and command are not always inconsistent, but sometimes a command is undemocratic. One example of an undemocratic command is the following:
    a) A court enforces an anti-pollution law
    b) An elected manager of a workers' cooperative tells a worker what to do
    c) A factory owner decides to shut down the factory and relocate it*
    d) A police officer tells a motorist not to drive when drunk

3.11 Economic systems (including capitalism) are described in a political economy framework as
        a) A set of social relationships*
        b) A system of markets
        c) An association between bosses and workers
        d) A system to expand money

3.12 One conclusion that can be drawn from the fact that there are a few hundred thousand civil lawyers in the U.S. today is that
        a) Americans like to fight
        b) The judicial system is very inefficient
        c) Incomplete contracts are pervasive in society*
        d) There are increasing returns to scale in law

ADDITIONAL RESOURCES

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CHAPTER 4:   Political Economy Past and Present

How This Chapter Fits into the Text

The purpose of Chapter 4 is to give students a sense that the issues in political economy have a long history and arise out of historical events and conflicts and to introduce them to the giants in the field of political economy.

The main ideas here are the idea of the invisible hand, from Adam Smith; the ideas of class and class conflict, from Karl Marx; the idea of technical change and innovation leading to both instability and growth, from Joseph Schumpeter; the idea that persistent unemployment can be expected to exist in capitalist economies but can be reduced by government intervention, from John Maynard Keynes; the notion that private interactions can sometimes do the task of coordinating activities, from Ronald Coase; and the notion of human action being more than simply self-interested behavior, from Amartya Sen.
Marx's ideas are elaborated on in Chapter 5 among others; Smith's ideas are contained especially in Chapters 7 and 8 but also in parts of later chapters. Schumpeter's ideas can be found in parts of Chapters 7, 9, 12, and 18; Keynes' ideas in Chapters 14 and 15; Coase's ideas in Chapters 7, 8, and 11; and Sen's ideas in Chapter 2.

MAIN POINTS

1. Economics as a distinct field began around the same time as capitalism; Karl Polanyi suggests that until that point, the economy was embedded in society and not seen as something separate from society.

2. Adam Smith: the invisible hand means that markets can coordinate private economic decisions.

3. Karl Marx: classes and class conflict are crucial to understanding society.

4. Joseph Schumpeter: innovation and technical change lead to economic instability and growth; long waves of boom and recession occur in the economy.

5. John Maynard Keynes: unemployment can be expected to exist in capitalist economies, but government policies can help to reduce it.

6. Ronald Coase: bargaining between private individuals can solve coordination problems that might otherwise need government intervention. Firms are mini-command economies.

7. Amartya Sen: people are more than simply self-interested automatons. Ethical values are central to human behavior.

DETAILED OUTLINE

1. Modern economics as a field did not exist before capitalism.

Before around 300 years ago, economic activity was woven into family life and did not exist much outside of families. Markets were social meeting places, not just places to buy and sell. According to Karl Polanyi, the pre-capitalist economy was embedded in society. That is, the economy was fully integrated into the whole society and did not have a separate existence. Capitalism brought about changes to these characteristics. Work began to take place outside of home in specialized places. Buying and selling became the main purpose of markets, and the pursuit of economic gain became the guiding principle of economic life—as opposed to custom or religion dictating it.

2. Adam Smith (1723–1790)

First in the lineage of political economists and author of *The Wealth of Nations*, Smith developed the idea of "laissez-faire" and the "invisible hand."

A central concern of social theorists was the problem of coordination, namely, How can society coordinate the independent activities of large numbers of economic actors in a world of economic interdependence? Smith's first contribution was to focus on and elaborate on the division of labor as the core of economic interdependence.

Smith's second contribution was to challenge the idea of Thomas Hobbes that only government control could prevent chaos. Smith argued that the individual self-interest of economic actors in the context of markets, competition, and well-defined ownership of property could lead to socially beneficial outcomes.

In this regard Smith developed the notion of the invisible hand, that is, the idea that competitive markets would guide the economy toward the best use of its human and natural resources.

Because the market could guide the economy the best, Smith advocated laissez-faire policy, or limiting government intervention to the bare minimum. He, however, saw valid exceptions to this. For example, he advocated public works (roads, bridges, educational programs) and some other government activities to mitigate poverty.

3. Karl Marx (1818–1883)

Marx is capitalism's fiercest critic. Marx developed several ideas about the benefits and costs of capitalism as well as its development over time.

While fully in agreement that the capitalist system had immense productivity compared to the previously existing modes of production, Marx's contribution was to emphasize and elaborate certain themes.

First, power and control are crucial to how the economy works. Relationships of power pervade the trades that people make. With respect to capitalism, differences in power and income are based on the fact that one class—the capitalists—owns income-earning property like factories and another class (in capitalism, the workers) does not.

Second, Marx developed the idea that human beings form groups, especially economic classes, that act together in their own common interest.

Third, Marx saw capitalism as being a hindrance toward the full development of the productive potential of society because the conflicts between owner and worker often precluded the use of new technologies.

Finally, Marx had a theory of change: the operation of an economic system tends to lead to (endogenous) changes in the conditions within which the system operates. In capitalism, accumulation of capital brings changes such as those spoken about in Chapter 1.

4. Joseph Schumpeter (1883–1950)

Schumpeter deepened and modified the ideas of Smith and Marx. In particular, three ideas are associated with him.

First, expanding upon the notion of change in the capitalist economy, Schumpeter saw that competition creates the incentive for firms to achieve monopolies and new breakthroughs, based on great bursts of innovation and profit. The result of this propensity was what he called "creative destruction," or the tendency of capitalism to periodically destroy old institutions and technologies while creating new ones.

Second, Schumpeter saw that large-scale production allowed for more innovation, and as such, there is a tendency for large businesses to dominate the capitalist economy.

Finally, Schumpeter identified and wrote about long swings in capitalism in which a 20- to 30-year period of expansion is followed by a long period of stagnation.

5. John Maynard Keynes (1883–1946)

Keynes is considered by many to be one of the greatest of the twentieth-century economists and the intellectual founder of the IMF (International Monetary Fund) and the World Bank. His major contribution was to provide a model of the whole economy in which there would, in general, exist chronic involuntary unemployment.

According to neoclassical economics, only voluntary unemployment can exist, as the unemployed refuse to accept jobs at lower wages. Keynes challenged the idea that all unemployment is voluntary by suggesting unemployment exists because there is insufficient demand for output. Because higher wages would mean more consumption

and more demand for output, there may be a cure for unemployment (higher wages, not lower wages).

This critique undermined the idea that the economy was self-regulating and that unemployment was voluntary. Keynes held that government intervention could help the capitalist economy by increasing its demand for goods and services in order to boost total demand in the economy.

6. Ronald Coase (1910–)

Ronald Coase made two major contributions to the understanding of the economy.

His first contribution was to use the modern economic notion of transactions costs (the cost of carrying out exchanges) to analyze the economy in general and the structure of firms in particular. Because there are a considerable costs to carrying out exchanges, Coase argues, firms exist as mini-command economies because the cost of organizing production through hierarchical command within firms is less than the cost of organizing production through pure market exchanges.

His second major contribution was what has come to be known as the "Coase Theorem." This is the notion that in the absence of transactions costs and with well-defined property rights and in the event of conflict over externalities (when one person's actions affect the other), bargaining between private individuals can do away with the need for government regulation.

7. Amartya Sen (1933–)

Amartya Sen's work contributes to political economy by considering the question of fairness. For Sen, the notion of increasing well-being is more than simply increased incomes. It is the ability to do things, or as he puts it, to enhance "capabilities." Thus, he argues, economic policy should promote capabilities.

Sen also challenges the notion of *Homo economicus*. Although self-interested behavior is common, people also act out of motives of altruism and morality.

A third element of Sen's work is that on the causes of famine. Sen argues that famine is not caused by shortage but from unequal distributions of income and power and non-democratic governments.

TEACHING TIPS AND MODULES

This chapter demands a fairly thorough knowledge of the ideas that were developed by the six major economists in this chapter. A very useful online resource in this regard is available through the New School University's Center for Economic and Policy Analysis History of Economic Thought website: http://cepa.newschool.edu/het/

Some courses in introductory political economy have used a text such as Robert Heilbroner's *Worldly Philosophers* (New York: Simon & Schuster, 1986) as required reading, assigning at least the chapters on Smith, Marx, Schumpeter, and Keynes. This may be useful supplementary reading simply because it brings to the foreground the concurrence of the issues of the time and the ideas developed by the great economists.

Because all the ideas of this chapter are to be discussed more fully later, it is not expected that students will get a full grasp of them here. However, students should get the flavor of the different themes in political economy and the contributions made by different thinkers, as well as some sense of the relationship between history and the development of economic ideas.

Particular points that may be difficult are

1. The idea of spontaneous order. The magic of the invisible hand is widely accepted but not well understood by students. This idea will be explored in more depth in Chapter 8, where exercises in game theory are suggested to help teach the concept. One possibility is to use a double auction game (for a good example, see www.umass.edu/resec/faculty/murphy/handda/handda.html). Contrasting Adam Smith's idea of spontaneous order with Hobbes's view that order needed to be imposed by government is one way to teach it.

2. The notion of classes being defined in terms of relationships to assets. Because of the several different usages of class (income based, culturally based), it is important to stress that the most common interpretation of class as used by Marx is as in a relationship to the means of production.

3. The idea that production is often dependent on social relations. One very good source for examples of this is David Noble's *Forces of Production*.

4. The idea of insufficient aggregate demand. Although this will be dealt with more in the macroeconomics chapters, it is important here to stress that production takes place often because there is a demand for the product and that in the absence of the demand for the product, there is no demand for the inputs to production (labor and capital), and hence, there is an increase in unemployment.

5. The idea of capabilities. An example from Kerala in southern India (one of Sen's favorite stories) is useful here. Although Kerala is rather poor in terms of income, there is a hundred percent literacy in the state. One result is that human development indicators in Kerala score much higher than other regions of India with higher income levels.

Teaching Module 4.1:   Regulation and Well-Being

To Teach: The economy is often not self-regulatory, and some intervention is required to achieve the well-being of society.

A. Adam Smith thought the competitive market economy was self-regulating and that government intervention was generally unnecessary, though as the text points out, even he was in favor of some forms of government intervention. Smith lived at a time when capitalism was just taking a firm hold and much production was agricultural or craft production. Workers were just beginning to be assembled under one roof to carry out "manufacture" (from the Latin meaning hand-made); only gradually did machinery take over, mainly after the invention of the steam engine in the early nineteenth century. It was in the nineteenth century that capitalism began leading to periodic and frequent economic crises of devastating proportions.

B. It was in this later era that Karl Marx began to write. Marx did not think the economy was self-regulating, though he did not call for piecemeal government intervention as a solution to the problems of capitalism. Instead, he thought a socialist revolution, with the working class as a whole taking charge of the government and the economy, was the solution to the crises and misery that characterized capitalist economies.

C. Again, with the Great Depression of the 1930s, historical events forced rethinking of economic theory. Keynes was moved to challenge conventional economic wisdom and reject the idea that a competitive market economy was fully self-regulating because he showed that unemployment is a perpetual problem in such economies. Unlike Marx, however, he thought unemployment could be mitigated by government intervention.

D. Ask students: What regulations exist in the U.S. economy? (Possible answers are legion: they may include laws against discrimination; laws against pollution; city zoning laws regulating where commercial, industrial, and residential structures can be built; city sign ordinances regulating what kinds of signs businesses may post; minimum wage laws; the requirement for business licenses, restricting who can sell what, and where; public health and sanitation laws, including laws requiring restaurant employees to wash their hands and requiring restaurants to have and use certain equipment and follow certain sanitary procedures; food and drug laws including labeling laws, laws against adulteration of meat, flour, or other products; and so forth.)

Why were these regulations passed? Would the market have taken care of them if there had continued to be no regulations about them?

Example: Quack medicines and nostrums of all kinds were available before the Food and Drug Administration was created to regulate them. Can you think of why the market would not eliminate medicines that don't work? Or why, even if the market did so, it would do so too slowly so that a regulatory agency might be a better way to deal with the problem? Point out that (1) it is difficult for people to get reliable information about a product and (2) the consequences of misinformation about medicines can be serious or even fatal.

Example: Zoning laws. Ask students: Do you think cities are better with residential areas separated from industrial and commercial areas? Why? Would the market ensure that this happened anyway?

Example: Goods that are not what they seem, such as food that is contaminated or of bad quality (but not visibly so to the purchaser), or appliances that don't work properly or even are dangerous. Ask students: What would it take for the market to eliminate these things? (Answer: all consumers would need to find out that certain brand-name goods, or goods sold in a certain place, were of bad quality so that they could boycott them. This requires information, but in today's world, it is virtually impossible to get [or even to disseminate] information about everything one buys.)

However, not all regulations are beneficial to the majority of people; some are passed in order to serve special interests. The U.S. sugar quota, limiting imports of sugar from other countries in order to maintain the price of sugar in the United States at several times the world market price, is one example. Try to think of other examples.

Short Essay Questions

1. What does it mean for the economy to be embedded?

2. What do you understand the term "creative destruction" to mean?

3. What is meant by "transactions costs"? Why, according to Coase, does this concept help us to understand the existence of firms?

4. According to a prominent neoclassical economist, the puzzle about the Great Depression was why so many people "chose" to remain unemployed. Why, according to Keynes, was this a misdiagnosis of the Great Depression? What did Keynes think might be the solution?

5. Give a case in which you think the invisible hand works and one in which it doesn't work. That is, give an example in the modern economy where you think there should be government intervention and one in which there shouldn't be, explaining why in each case, the invisible hand works or doesn't.

6. Imagine that Smith, Marx, and Keynes were alive today and sat down to dinner with you and began arguing about whether the government should intervene in the economy. What would each of them say? When you finally get a chance to get a word in edgewise, what viewpoint would you put forward?

7. Look at the figure on page 405. Of the economists discussed in this chapter, who is most closely associated with the picture? What would he call the long term ups and downs noted in the figure?

8. In mid-2000, Kodak announced that it was eliminating 10,000 jobs as it struggled to cope with the move toward digital photography. What would Schumpeter have to say about this? What might Marx say?

Multiple Choice Questions

Note: Unlike most of the multiple choice questions for other chapters, these questions are not in the order that the relevant material appears in the text because the order itself would give students too strong a hint for the "who-said-what" questions.

4.1 The field of economics as an object of study
   a) Has existed for as long as human beings have produced their own food
   b) Really began when communities started trading with each other
   c) Really began in the Middle Ages with feudalism
   d) Really began with capitalism*

4.2 Which one of the following is a characteristic of an embedded economy?
   a) Markets are places for entertainment as much as trading*
   b) Work is done in places specialized for work, like factories
   c) Pursuing economic gain is the main goal of economic life
   d) Production is no longer done in or near the home by the whole family

4.3 The idea that power is central to how the economy works was contributed to political economy mainly by
   a) Adam Smith
   b) Karl Marx*
   c) Joseph Schumpeter
   d) John Maynard Keynes

4.4 All of the following ideas were held by Karl Marx except
   a) The fact that some own land and factories while others do not shapes the economy
   b) Groups, especially economic classes, act together for their common interests
   c) Unemployment can be reduced by government intervention in the economy*
   d) In capitalism, the accumulation of capital fuels economic change

4.5 Which economist said that the history of capitalism reveals long swings consisting of a 20- to 30-year boom followed by a long period of stagnation?
   a) Adam Smith
   b) Karl Marx
   c) Joseph Schumpeter*
   d) John Maynard Keynes

4.6 Laissez-faire means
   a) Individual self-interest leads to the good of all

b) Workers' intellectual capacities are stunted by repetitive labor
c) The government should let well enough alone*
d) The division of labor leads to specialization

4.7 The idea that government intervention in the economy can reduce unemployment and instability was a key idea of
a) Adam Smith
b) Karl Marx
c) Joseph Schumpeter
d) John Maynard Keynes*

4.8 Which of the following did Adam Smith not support?
a) Government investment in roads, canals, and bridges
b) Expansion of education for the general populace
c) Taxes on alcohol
d) Intervention of the government in market competition*

4.9 All of the following ideas were held by Joseph Schumpeter except
a) The important thing about competition is innovation and breakthroughs
b) Understanding class conflict is key to understanding society*
c) Large businesses tend to dominate the economy
d) Long swings of boom and stagnation occur in capitalist economies

4.10 The idea that classes, such as workers or employers, act together to defend and advance their interests was central to the writings of
a) Adam Smith
b) Karl Marx*
c) Joseph Schumpeter
d) John Maynard Keynes

4.11 The notion that private bargaining could solve the problem of externalities was suggested by
a) Ronald Coase*
b) Adam Smith
c) Joseph Schumpeter
d) John Maynard Keynes

4.12 *The General Theory of Employment, Interest, and Money* was written by
a) Adam Smith
b) Karl Marx
c) Amartya Sen
d) John Maynard Keynes*

4.13 The neoclassical view of unemployment is that it occurs because
a) Wages are too high*
b) Wages are too low

c) The government does not intervene enough in the economy

d) The unemployed lack appropriate skills

4.14 Which economist said that what is economically important about competition is the incentive for firms to achieve monopolies and new breakthroughs, based on great bursts of innovation and profit?

a) Adam Smith

b) Karl Marx

c) Joseph Schumpeter*

d) Ronald Coase

4.15. Which economist introduced the idea that an economic system is not a fixed set of relations (like competitive markets) but that the operation of an economic system tends to change the conditions within which that system operates?

a) Adam Smith

b) Karl Marx*

c) Joseph Schumpeter

d) John Maynard Keynes

4.16 Which economist contributed a model of the whole economy in which there would generally be unemployment?

a) Amartya Sen

b) Karl Marx

c) Joseph Schumpeter

d) John Maynard Keynes*

4.17 According to neoclassical economics, in a capitalist economy

a) Unemployment cannot exist because government policy prevents it

b) Unemployment cannot exist because labor supply always equals labor demand*

c) Unemployment generally exists because government policy encourages it

d) Unemployment generally exists because capitalists need it

4.18 The idea that capitalism as an economic system is irrational and is an obstacle to meeting human needs was a key idea of

a) Adam Smith

b) Karl Marx*

c) Ronald Coase

d) John Maynard Keynes

4.19 Which two economists would have argued most hotly over the following statement? "The market system is self-regulating; left alone it makes full use of our productive potential."

a) Smith and Keynes*

b) Smith and Schumpeter

c) Schumpeter and Coase

d) Marx and Schumpeter

4.20 The fact that with CD burners and high-storage devices, 5¼-inch floppy disks are no longer used is an example of
    a) Poor innovation
    b) Creative destruction*
    c) Planned obsolescence
    d) Long swings

4.21 According to Sen, all of the following may contribute to famine except
    a) Short-sighted government policies
    b) An "unfree" press
    c) Unequal distribution of income
    d) Democratically elected governments*

4.22 Write the name of the famous economic thinker next to the box which most closely identifies his core ideas.

All known economic systems have divided societies into "haves" and "have-nots"—or "dominant" and "subordinate" *classes*. Members of classes bind together in the pursuit of their common interests. Technical progress, the growth of knowledge, and conflict among classes all foster perpetual change. Capitalism as an economic system is irrational in the sense that it stands in the way of making good the ability of modern science and technology to meet human needs.
Bargaining among private individuals can often solve problems that governments or market exchanges cannot solve. Government policies should facilitate these private bargains. Firms are mini-command economies run by the giving and following of orders rather than by market exchange, because of transactions costs.

The key to progress is innovation, and capitalism above all other economic systems fosters innovation. The operation of modern economies is determined by a relatively small number of large-scale organizations—businesses, unions, and governments—rather than by a large number of small businesses and individuals. The growth of the capitalist economy can be characterized as a process of "creative destruction."
The division of labor implies economic interdependence. Markets are self-regulating systems for the orderly coordination of the division of labor. The individual pursuit of self-interest in competitive market interactions has socially beneficial effects (that are brought about by "the invisible hand").

ADDITIONAL RESOURCES

Videos

Karl Marx and Marxism [videorecording]. Thames Colour Productions, Films for the Humanities & Sciences, ©1993.

"The Commanding Heights," a PBS documentary, contains extensive coverage about the debates mentioned (e.g., between Keynes and Hayek). More information is available at http://www.pbs.org/wgbh/commandingheights/lo/index.html

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CHAPTER 5:   The Surplus Product: Conflict and Change

How This Chapter Fits into the Text

Chapter 5 brings in the central notions of surplus, economic interdependence, and class. As such, it develops a very simple model of the workings of the capitalist economy using a one-good economy (a grain-based economy). The main idea of the chapter is to analyze the surplus of the economy in terms of how it arises, how large it is, how it is used, and how this is linked to the evolution of the economic system. Understanding the surplus product involves all three dimensions of political economy mentioned in Chapter 2. It also involves ideas of Adam Smith and Karl Marx. The chapter develops the concepts used to describe capitalism in Chapter 6.

MAIN POINTS

1. An economy is set of social relationships (relationships among people) that organize labor processes. Each labor process is made up of a technology (a relation between inputs and outputs, which is also a relationship between people and their natural surroundings) and a social organization of production (a relation among those doing the labor and between them and those who own the tools, land, and other production inputs).

2. A surplus product is produced whenever the labor processes in an economy produce more than is needed to maintain the producers at the standard of living to which they are accustomed and to replace the materials used and machines used up in production. The production as well as control of the surplus is the main vertical, or command, dimension of the economy.

3. The size of the surplus in an economy depends on relationships both within the country and among people in different economies. These relationships are often conflictual.

DETAILED OUTLINE

1. Economic Interdependence, Production, and Reproduction

Definition of economic interdependence. Because it allows for greater productivity, the economic system usually involves interdependence, that is, a situation when the livelihood of one person is dependent on the activities of another person. This usually means that there is mutual interdependence (e.g., the worker depends on the employer for wages, but the employer also depends on the worker for profits).

There are two types of interdependence. The first is horizontal economic interdependence (based on specialization and not necessarily based on unequal advantage or command). So, for example, there can be exchange between shoemakers and engineers through a process like a market. This is the type of interdependence emphasized by Smith. The

second is vertical economic interdependence (one person exerts control over the labor and product of another based on unequal advantage in command). Examples of this are the relationship between slave owner and slave and between employer and worker. This is the type of interdependence emphasized by Marx.

In order to analyze vertical interdependence (which is crucial to understand surplus), we need to study production. Definitions: All production involves a labor process. An economy is defined, therefore, as a collection of labor processes. A labor process is any activity performed with the intention of producing something. Inputs are turned into outputs. Technology is the relationship of inputs (including labor) to outputs. Technical progress is defined as a change in the relationship of inputs to outputs that allows for more output to be produced with fewer inputs.

Production is a labor process whose output is a good or a service; reproduction is a labor process whose output is people (includes not only biological reproduction but also activities such as caregiving). Figure 5.1, "The production-reproduction cloverleaf," provides an overview of the interdependence between production and reproduction.

The fundamental inputs into both production and reproduction are capital goods (goods such as machines and buildings used in production but that are durable over time and only partly used up in production), materials (goods that are used up in production), and labor (activity performed by people in production and reproduction).

On page 100 ("The 'house of pancakes' pancake technology") is an illustration of inputs, outputs, and production.

2. The Surplus Product

Society produces a certain quantity of goods and services in a year. This is called the total product.

Total product can be divided into two components as follows: Total product = necessary product + surplus product = (producers' consumption at customary living standard + replacement of materials used and capital goods used up) + surplus product.

The necessary product is the portion of the total product that is needed to maintain the inputs in the labor process (workers, materials, and tools). Note that "necessary" does not mean "physically necessary" but is socially and historically defined, that is, the wage need not be a subsistence wage.

Necessary Product = consumption of producers at customary standard of living + depreciation of capital goods + replacement of materials.

The net product is the total product minus materials and capital goods used up during production.

Figure 5.2 illustrates the concepts of net, necessary, total, and surplus products.

The surplus product is important because it can be used in several different ways that affect the economy. Without it, everyone would have to engage in productive work all the time. (No one could be a student, for example, unless they were learning skills absolutely and directly essential to production.) More important, it makes economic change and growth possible through investment. It can make greater material wealth possible or more leisure time. If it is used in ways to increase or improve productive capacities, it is called investment. It can also be used for less productive purposes (e.g., opulent displays—see "Megayachts and bull market boats" on page 104).

3. A Model of Production and Reproduction

The simplest way to understand the process of production and reproduction is to consider an economy where there is only one good that is both an input and an output. The good in this model is grain, which can be used as seed (input) and as grain to be consumed (output). "The grain technology" box (page 106) describes this economy.

The box titled "The surplus product: an example" on page 108 provides an example of the categories in the hypothetical grain economy.

Changes to the product of the economy could occur because of either a labor-saving technical change (a new technology that increases output with a given amount of labor) or a capital goods–saving technical change (a new technology that reduces capital goods and materials needed to produce a given amount of total output). Figure 5.3 on page 109 illustrates these changes. A third way to increase output would be to increase the intensity of labor (the work effort producers expend per hour of work). This could be done by hiring monitors, for example.

4. International Exchange and the Surplus Product

The international sector can be introduced using the grain model. Definition: The real price of an imported input is the amount of domestically produced goods needed to purchase one unit of the imported good. This is the same as the price of the imported good divided by the price of the domestically produced good, when measured in the same currency.

International trade can increase the amount of production in the economy and increase the surplus product. However, who this surplus benefits as well as who it is controlled by is a source of conflict.

5. The Surplus Product and Conflict

A conflict of interest exists between the owners of surplus and the producers of the surplus.

Owners want producers to work harder and longer and consume less. Producers want more free time, less arduous work, and a higher standard of living. The box "The surplus product and the producers' well-being: a recipe for conflict" illustrates all the manners in which there is conflict.

Numerical examples and instances of these conflicts are given on pages 116 and 117.

6. The Surplus Product and Change

The surplus product in capitalist societies is typically invested so as to increase the productive capacity of society because of competitive pressures. As such, it usually is the engine that drives the rapid change that is seen in the system.

Those who control surplus also wield political power, since they can influence government's decisions and unequal power in national and international bargaining conflicts.

TEACHING TIPS AND MODULES

The chapter introduces several new ideas and definitions. It is imperative that these ideas are understood because they are the basis on which several further chapters are built. Particular focus could be spent on the following:

1. Surplus

Both the idea that the economy is a collection of labor processes and the idea of the surplus, though unfamiliar to students, have been found to be intuitively appealing to most students and easy to teach. The teaching modules below provide an effective way to teach the idea of surplus.

The historical approach is also often an excellent way to make the concept of surplus clear to students. They can see that the systems of slavery, feudalism, and capitalism have in common the production of surplus, whereas these systems differ in the form that surplus takes (tribute, rent to feudal lords, interest, profit) and in the nature of the class that appropriates that surplus (slave owners, feudal lords, capitalists).

2. Production and Reproduction

Students are usually conversant with a circular flow diagram from standard textbooks (households offering services to firms in return for factor payments, firms offering products to households in return for payments). In the economic interdependence model pictures in this chapter pictured here, however, firms and households are both the sites of labor processes. A point that has been made by many is that there is a conceptual and actual separation of labor processes into those of production and reproduction, corresponding roughly to the separate arenas of firm and household. Production in the

former is often monetized, marketed, and rewarded, while that in the latter is not. Both are nevertheless necessary for society.

3. The economy is a collection of labor processes.

The text defines the economy as "a collection of labor processes." Although this may seem like a production-based approach, ignoring market exchange, the intent of the text is to emphasize that organizing human labor is the most fundamental activity of the economy. The definition could be rephrased, "An economy is a collection of human activities," and its point would be the same. The idea that the economy is a collection of labor processes is part of a strong emphasis on labor as central in the political economy approach.

4. Necessary Product

The term "necessary product" may lead to confusion. What is meant by "necessary" is not a bare subsistence level of consumption. Rather, it is socially defined and, as Marx said, has a "historical and moral" component. It is the "normal" standard of living that prevails as a result of the current balance of power in the conflict between classes.

5. Terms of Trade

The alert instructor will notice that the phrase "terms of trade" is not used in the chapter and that instead the concept real price of imported inputs is used, defined as (Pm/Px), that is, the price of the import divided by the price of the domestic good (both in the home currency), or the inverse of the terms of trade. The text avoids the use of the phrase terms of trade in later chapters in order to avoid the confusion that might arise in students' minds.

6. Models

Chapter 5 is the first place a model comes up. Students should be made aware that a model is an abstraction from reality by which to analyze reality. It simplifies complex reality to illuminate things that would be obscure or unexpected in their absence.

ACTIVITIES AND DISCUSSION

1. Ask students to describe work they have done in the past. What has it been like? How were the employer/employee relations? Recall the simple surplus model. There, more surplus could be produced by increasing the length of the day, increasing the intensity of work, or increasing the productivity of the workers. Were these sorts of things done where they worked? Can they understand the firm as a place that attempts to produce a surplus product?

2. What is necessary product? What determines its level?

In our example, a labor- or capital goods–saving technical advance produces an increase in surplus product. It's also possible to have an increase in both necessary and surplus product if the society adjusts its customary standard of living upward. Consider what the necessary product might be in the United States and in other countries.

3. How to count the children? Note that there is no straightforward way to represent a change in child-rearing technology. This is because of the assertion that child-rearing output should be measured by hours. One could handle this by saying that a new child-rearing technology, which reduces the amount of hours one needs to spend with the kids, results in a decrease in the child-rearing time deemed socially necessary. This, too, would result in an increase in surplus product.

4. Photocopy and distribute the handout Surplus Product in the U.S. in 2003 from Teaching Module 5.2 below, and use it in teaching the categories of total product, necessary product, net product, and surplus product. Note that the surplus product takes a variety of forms, notably profit, rent, and interest. Note also that unlike in the second edition of this book, there is no distinction made between unproductive and productive labor at this point.

If you also distribute the handout in Teaching Module 5.3, How Much Labor Time Goes to the Capitalist?, make sure students understand that it is derived from the Surplus Product in the U.S. in 2003 handout; that is, if wages and salaries are 46% of the total product, then we say that workers work 46% of the year to produce what they consume.

In case the instructor wishes to update the handout Surplus Product in the U.S. in 2003, using the current Economic Report of the President, each item is described. A classroom or homework exercise can be undertaken where the students derive the surplus product and the relationships between aggregates for different years. To provide the instructor with an example to this end, tables B28 and B26 from the Economic Report of the President, 2005, have been copied here for convenience. Later versions can be found on the Web at http://www.gpoaccess.gov/eop/download.html.

5. Teaching Module 5.4, Surplus Product and Civilization, may be given out as homework and later discussed in class. (At least one full class period will need to be devoted to going over this homework exercise after students have completed it.) Besides ensuring that students grasp the concept of surplus, it provides a basis for a discussion of the role of international trade and imperialism, as well as the role of guard labor (to be discussed later in the book).

Teaching Module 5.1:   Surplus and Class

To Teach: The concepts of surplus and class society and the relationship between them.

Imagine that the classroom is a simple society. The only product that can be brought to class is corn. Corn is eaten, used as clothing, and used as an input. To get corn, corn seeds are planted, and labor is done with oxen, which eat (you guessed it) corn. At the end of the year, all the grain is gathered into one place to be distributed. What is done with it? (Students will think of trading it, etc. Rule that out by insisting that we are a closed society and that we are doing this to see what happens inside a society.) We may think of the grain as being broken up into three piles. The first pile is set aside as seed for the next year; if we don't do that, we won't be able to produce the same amount of corn next year. This is termed the depreciation pile. Note that gross or total product minus depreciation is net product. The next two piles emerge from the net product. (Produce all these piles or draw them on the board.)

The next pile is set aside to maintain those who produced the grain at their customary standard of living (socially defined). This amount may be termed necessary consumption. It's necessary in the same sense that the depreciation pile is—if it's not set aside, the society won't have the strength (or be motivated enough) to go and produce the same amount of corn the next year.

Whatever is left over (if anything) may be termed the surplus product—that produced above and beyond the needs of the producers and their reproductive requirements. The class can then discuss what can be done with the surplus. Some possibilities: we could decide through some collective means to use the surplus to support nonproducers (e.g., the old, the young, the poets, the entertainers, or the athletes) or to invest—to add some of the surplus pile to the depreciation pile so we can have an even bigger pile the next year (provided we can also add some labor to transform the extra seed into new corn). Thus, the surplus is a potential source of growth.

What defines class is the disposition of the surplus. Class exists when some group is able to lay claim to the surplus through force, legal strictures, or some other means.

In our classroom society, there are no classes; we are all deciding together to invest, support certain individual, or whatever. But suppose from the class next door, another teacher and his band of merry marauding students were able to force our society to produce and surrender our surplus to them. Then we have a class society because we are producing surplus that we cannot appropriate.

It is just as likely that the class divisions occur not from outside but from inside. That is, someone in this classroom would find a way to lay claim to the surplus. How might they do this?

The piles of product may be thought of in terms of labor time:

How much direct and indirect labor (the labor that went into the grain that's used as input) went into the production of the depreciation, necessary, and surplus piles.

Thus, whoever controls the surplus product controls and lives off the labor of another group.

What if those who control the surplus also work, but their "income" far exceeds the return to their own labor. How does this complicate the analysis? Imagine that the teacher now claims that the surplus is his or her property and to receive anything, each student has to produce output for which he or she will be given some amount of the total product. Being a recipient of surplus implies that:

A. One can control the labor process of others. This is in two senses:(1) you're receiving the product of their labor, and(2) you have some way to make them work for you. In our little society, terror suffices—if the students in this class don't produce grain, the-instructor-as-king swoops down and threatens them with homework. Or the workers may have no other choice because jobs are available only through you.

B. You have some property rights. You can claim that you "own" the product.

Historically, a variety of economic systems or class societies have existed. Each of these has different ways of controlling the labor process and involves different sorts of property rights. Examples include:

Feudalism: This existed in pure form in Europe in the Middle Ages and in variants in pre-nineteenth-century Japan, in India, and in some parts of the world today. In this system, a set of lords owned land on which serfs worked. In return for the use of the land, serfs had to work several days of each week or month on the lord's estate (or surrender part of the product they grew as rent to the lord). This system was enforced (the labor process was controlled) by custom and tradition and, when necessary, by terrorizing the peasants.

Slavery: This existed in antiquity as well as in the Caribbean and in, mostly, the southern United States. Here a set of slave owners actually owned people. They gave the slaves so much a day to keep them alive (sometimes) and made them work on the land they owned. Because they owned both the land and the people, the slave owners were entitled to keep the product the slaves produced. This system was enforced by custom, force, and racism.

In feudalism and slavery, it is very clear that one group controls the product produced by the labor of another group. The class relations of these societies are "transparent."

Capitalism: This is a class society where one group, capitalists, has claim to the product produced by another by virtue of their ownership of the means of production, of the places where the product is produced. Given this ownership of the workplaces, they can control and direct the labor process. Thus, they hire direct producers as wage labor. And like the feudal lords and slave owners before them, they hire others to actually direct the labor process.

Summing up: The output of any economic system can be thought of in terms of three uses—that which must be set aside to replace used up means of production

(depreciation), that to reproduce the producers (necessary output), and the remainder (surplus). A class society exists when, through a combination of property rights and control of the labor process, one group is able to claim the surplus product of society. Capitalism is one form of class society.

TABLE B–28.—*National income by type of income, 1959–2004*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	National income	Compensation of employees							Proprietors' income with inventory valuation and capital consumption adjustments			Rental income of persons with capital consumption adjustment
		Total	Wage and salary accruals			Supplements to wages and salaries			Total	Farm	Non-farm	
			Total	Government	Other	Total	Employer contributions for employee pension and insurance funds	Employer contributions for government social insurance				
1959	455.8	281.0	259.8	46.1	213.8	21.1	13.3	7.9	50.7	10.0	40.6	16.2
1960	474.9	296.4	272.9	49.2	223.7	23.6	14.3	9.3	50.8	10.5	40.3	17.1
1961	491.6	305.3	280.5	52.5	228.0	24.8	15.2	9.6	53.2	11.0	42.2	17.9
1962	530.1	327.1	299.4	56.3	243.0	27.8	16.6	11.2	55.4	11.0	44.4	18.8
1963	560.6	345.2	314.9	60.0	254.8	30.4	18.0	12.4	56.5	10.8	45.7	19.5
1964	602.7	370.7	337.8	64.9	272.9	32.9	20.3	12.6	59.4	9.6	49.8	19.6
1965	653.4	399.5	363.8	69.9	293.8	35.7	22.7	13.1	63.9	11.8	52.1	20.2
1966	711.0	442.7	400.3	78.4	321.9	42.3	25.5	16.8	68.2	12.8	55.4	20.8
1967	751.9	475.1	429.0	86.5	342.5	46.1	28.1	18.0	69.8	11.5	58.4	21.2
1968	823.2	524.3	472.0	96.7	375.3	52.3	32.4	20.0	74.3	11.5	62.8	20.9
1969	889.7	577.6	518.3	105.6	412.7	59.3	36.5	22.8	77.4	12.6	64.7	21.2
1970	930.9	617.2	551.6	117.2	434.3	65.7	41.8	23.8	78.4	12.7	65.7	21.4
1971	1,008.1	658.9	584.5	126.8	457.8	74.4	47.9	26.4	84.8	13.2	71.6	22.4
1972	1,111.2	725.1	638.8	137.9	500.9	86.4	55.2	31.2	95.9	16.8	79.1	23.4
1973	1,247.4	811.2	708.8	148.8	560.0	102.5	62.7	39.8	113.5	28.9	84.6	24.3
1974	1,342.1	890.2	772.3	160.5	611.8	118.0	73.3	44.7	113.1	23.2	89.9	24.3
1975	1,445.9	949.1	814.8	176.2	638.6	134.3	87.6	46.7	119.5	21.7	97.8	23.7
1976	1,611.8	1,059.3	899.7	188.9	710.8	159.6	105.2	54.4	132.2	17.0	115.2	22.3
1977	1,798.9	1,180.5	994.2	202.6	791.6	186.4	125.3	61.1	145.7	15.7	130.0	20.7
1978	2,027.4	1,336.1	1,121.2	220.0	901.2	214.9	143.4	71.5	166.6	19.6	147.1	22.1
1979	2,249.1	1,500.8	1,255.8	237.1	1,018.7	245.0	162.4	82.6	180.1	21.8	158.3	23.8
1980	2,439.3	1,651.8	1,377.6	261.5	1,116.2	274.2	185.2	88.9	174.1	11.3	162.8	30.0
1981	2,742.4	1,825.8	1,517.5	285.8	1,231.7	308.3	204.7	103.6	183.0	18.7	164.3	38.0
1982	2,864.3	1,925.8	1,593.7	307.5	1,286.2	332.1	222.4	109.8	176.3	13.1	163.3	38.8
1983	3,084.2	2,042.6	1,684.6	324.8	1,359.8	358.0	238.1	119.9	192.5	6.0	186.5	37.8
1984	3,482.3	2,255.6	1,855.1	348.1	1,507.0	400.5	261.5	139.0	243.3	20.6	222.7	40.2
1985	3,723.4	2,424.7	1,995.5	373.9	1,621.6	429.2	281.5	147.7	262.3	20.8	241.5	41.9
1986	3,902.3	2,570.1	2,114.8	397.0	1,717.9	455.3	297.5	157.9	275.7	22.6	253.1	33.5
1987	4,173.7	2,750.2	2,270.7	422.6	1,848.1	479.5	313.2	166.3	302.2	28.7	273.5	33.5
1988	4,549.4	2,967.2	2,452.9	451.3	2,001.6	514.2	329.6	184.6	341.6	26.8	314.7	40.6
1989	4,826.6	3,145.2	2,596.3	480.2	2,116.2	548.9	355.2	193.7	363.3	33.0	330.3	43.1
1990	5,089.1	3,338.2	2,754.0	517.7	2,236.3	584.2	377.8	206.5	380.6	31.9	348.7	50.7
1991	5,227.9	3,445.2	2,823.0	546.8	2,276.2	622.3	407.1	215.1	377.1	26.7	350.4	60.3
1992	5,512.8	3,635.4	2,964.5	569.2	2,395.3	670.9	442.5	228.4	427.6	34.5	393.0	78.0
1993	5,773.4	3,801.4	3,089.2	586.8	2,502.4	712.2	472.4	239.8	453.8	31.2	422.6	95.6
1994	6,122.3	3,997.2	3,249.8	606.2	2,643.5	747.5	493.3	254.1	473.3	33.9	439.4	119.7
1995	6,453.9	4,193.3	3,435.7	625.5	2,810.2	757.7	493.6	264.0	492.1	22.7	469.5	122.1
1996	6,840.1	4,390.5	3,623.2	644.4	2,978.8	767.3	492.5	274.9	543.2	37.3	505.9	131.5
1997	7,292.2	4,661.7	3,874.7	668.1	3,206.6	787.0	497.5	289.5	576.0	34.2	541.8	128.8
1998	7,752.8	5,019.4	4,182.7	697.3	3,485.5	836.7	529.7	307.0	627.8	29.4	598.4	137.5
1999	8,236.7	5,357.1	4,471.4	729.3	3,742.1	885.7	562.4	323.3	678.3	28.6	649.7	147.3
2000	8,795.2	5,782.7	4,829.2	774.7	4,054.5	953.4	609.9	343.5	728.4	22.7	705.7	150.3
2001	8,979.8	5,942.1	4,942.8	815.9	4,126.9	999.3	642.7	356.6	771.9	19.7	752.2	167.4
2002	9,225.4	6,069.5	4,976.3	862.6	4,113.7	1,093.2	729.6	363.6	769.6	9.7	759.9	170.9
2003	9,679.6	6,289.0	5,103.6	897.9	4,205.6	1,185.5	808.9	376.6	834.1	21.8	812.3	153.8
2004 p	....	6,616.6	5,342.6	925.8	4,416.7	1,274.1	875.4	398.7	902.4	18.0	884.4	165.6
2000: I	8,680.5	5,694.1	4,760.0	762.0	3,998.0	934.1	593.9	340.2	709.3	23.2	686.1	153.8
II	8,750.4	5,727.2	4,783.2	772.8	4,010.5	944.0	603.7	340.3	726.5	23.8	702.7	148.5
III ..	8,858.3	5,837.4	4,874.9	779.2	4,095.8	962.5	616.5	346.0	735.6	23.0	712.6	148.2
IV ..	8,891.7	5,871.9	4,898.8	784.9	4,113.9	973.1	625.6	347.6	742.1	20.7	721.4	150.5
2001: I	8,987.6	5,946.2	4,961.1	798.0	4,163.0	985.1	629.3	355.8	769.4	21.9	747.5	155.3
II	9,001.5	5,944.6	4,951.4	809.1	4,142.2	993.2	636.4	356.9	770.6	19.2	751.5	161.7
III ..	8,890.3	5,939.3	4,935.2	822.2	4,113.0	1,004.1	647.2	356.9	773.4	17.7	755.7	176.4
IV ..	9,039.9	5,938.3	4,923.4	834.1	4,089.4	1,014.8	657.9	356.9	774.2	20.0	754.1	176.2
2002: I	9,136.5	6,010.2	4,956.2	850.7	4,105.6	1,054.0	691.5	362.5	762.2	10.8	751.4	179.7
II	9,222.3	6,068.3	4,980.3	859.7	4,120.6	1,088.0	723.8	364.2	769.0	10.4	758.6	184.7
III ..	9,241.6	6,086.0	4,981.2	866.8	4,114.4	1,104.8	740.9	363.9	770.4	8.7	761.7	165.4
IV ..	9,301.3	6,113.4	4,987.3	873.2	4,114.1	1,126.0	762.0	364.0	776.7	8.8	767.9	153.8
2003: I	9,407.7	6,179.1	5,024.7	889.2	4,135.6	1,154.3	782.7	371.6	794.0	13.8	780.2	155.5
II	9,568.8	6,245.6	5,072.0	896.4	4,175.6	1,173.7	799.0	374.6	825.7	24.1	801.6	144.1
III ..	9,771.1	6,324.7	5,128.6	901.1	4,227.5	1,196.1	817.9	378.2	852.0	24.8	827.2	148.8
IV ..	9,971.1	6,406.7	5,188.9	905.0	4,283.9	1,217.8	835.9	381.9	864.7	24.7	840.0	167.1
2004: I	10,128.1	6,489.4	5,240.7	918.8	4,321.8	1,248.8	856.5	392.3	872.1	17.9	854.2	172.8
II	10,262.0	6,578.5	5,311.4	922.0	4,389.3	1,267.2	870.4	396.8	901.2	18.9	882.5	172.6
III ..	10,264.7	6,657.4	5,375.0	928.2	4,446.8	1,282.3	881.6	400.8	902.9	13.6	889.3	153.8
IV p	....	6,741.1	5,443.2	934.3	4,508.9	1,297.9	892.9	405.0	933.1	21.6	911.6	163.1

Table B–28.—*National income by type of income, 1959–2004*—Continued

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Corporate profits with inventory valuation and capital consumption adjustments									Net interest and miscellaneous payments	Taxes on production and imports	Less: Subsidies	Business current transfer payments (net)	Current surplus of government enterprises
	Total	Profits with inventory valuation adjustment and without capital consumption adjustment							Capital consumption adjustment					
		Total	Profits		Profits after tax			Inventory valuation adjustment						
			Profits before tax	Taxes on corporate income	Total	Net dividends	Undistributed profits							
1959	55.7	53.5	53.8	23.7	30.0	12.6	17.5	-0.3	2.2	9.6	41.1	1.1	1.8	1.0
1960	53.8	51.5	51.6	22.8	28.8	13.4	15.5	-.2	2.3	10.6	44.6	1.1	1.9	.9
1961	54.9	51.8	51.6	22.9	28.7	13.9	14.8	.3	3.0	12.5	47.0	2.0	2.0	.8
1962	63.3	57.0	57.0	24.1	32.9	15.0	17.9	.0	6.2	14.2	50.4	2.3	2.2	.9
1963	69.0	62.1	62.1	26.4	35.7	16.2	19.5	.1	6.8	15.2	53.4	2.2	2.7	1.4
1964	76.5	68.6	69.1	28.2	40.9	18.2	22.7	-.5	7.9	17.4	57.3	2.7	3.1	1.3
1965	87.5	78.9	80.2	31.1	49.1	20.2	28.9	-1.2	8.6	19.6	60.8	3.0	3.6	1.3
1966	93.2	84.6	86.7	33.9	52.8	20.7	32.1	-2.1	8.6	22.4	63.3	3.9	3.5	1.0
1967	91.3	82.0	83.5	32.9	50.6	21.5	29.1	-1.6	9.3	25.5	68.0	3.8	3.8	.9
1968	98.8	88.8	92.4	39.6	52.8	23.5	29.3	-3.7	10.0	27.1	76.5	4.2	4.3	1.2
1969	95.4	85.5	91.4	40.0	51.4	24.2	27.2	-5.9	9.9	32.7	84.0	4.5	4.9	1.0
1970	83.6	74.4	81.0	34.8	46.2	24.3	21.9	-6.6	9.2	39.1	91.5	4.8	4.5	.0
1971	98.0	88.3	92.9	38.2	54.7	25.0	29.7	-4.6	9.7	43.9	100.6	4.7	4.3	-.2
1972	112.1	101.2	107.8	42.3	65.5	26.8	38.6	-6.6	10.9	47.9	108.1	6.6	4.9	.5
1973	125.5	115.3	134.8	50.0	84.9	29.9	55.0	-19.6	10.2	55.2	117.3	5.2	6.0	-.4
1974	115.8	109.5	147.8	52.8	95.0	33.2	61.8	-38.2	6.2	70.8	125.0	3.3	7.1	-.9
1975	134.8	135.0	145.5	51.6	93.9	33.0	60.9	-10.5	-.2	81.6	135.5	4.5	9.4	-3.2
1976	163.3	165.6	179.7	65.3	114.4	39.0	75.4	-14.1	-2.3	85.5	146.6	5.1	9.5	-1.8
1977	192.4	194.7	210.4	74.4	136.0	44.8	91.2	-15.7	-2.3	101.1	159.9	7.1	8.4	-2.6
1978	216.6	222.4	246.1	84.9	161.3	50.8	110.5	-23.7	-5.8	115.0	171.2	8.9	10.6	-1.9
1979	223.2	231.8	271.9	90.0	181.9	57.5	124.4	-40.1	-8.5	138.9	180.4	8.5	13.0	-2.6
1980	201.1	211.4	253.5	87.2	166.3	64.1	102.2	-42.1	-10.2	181.8	200.7	9.8	14.4	-4.8
1981	226.1	219.1	243.7	84.3	159.4	73.8	85.6	-24.6	7.0	232.3	236.0	11.5	17.6	-4.9
1982	209.7	191.0	198.5	66.5	132.0	77.7	54.3	-7.5	18.6	271.1	241.3	15.0	20.1	-4.0
1983	264.2	226.5	233.9	80.6	153.3	83.5	69.8	-7.4	37.8	285.3	263.7	21.2	22.5	-3.1
1984	318.6	264.6	268.6	97.5	171.1	90.8	80.3	-4.0	54.0	327.1	290.2	21.0	30.1	-1.9
1985	330.3	257.5	257.4	99.4	158.0	97.6	60.5	.0	72.9	341.3	308.5	21.3	34.8	.8
1986	319.5	253.0	246.0	109.7	136.3	106.2	30.1	7.1	66.5	366.8	323.7	24.8	36.6	1.3
1987	368.8	301.4	317.6	130.4	187.2	112.3	74.9	-16.2	67.5	366.4	347.9	30.2	33.8	1.2
1988	432.6	363.9	386.1	141.6	244.4	129.9	114.5	-22.2	68.7	385.3	374.9	29.4	34.0	2.5
1989	426.6	367.4	383.7	146.1	237.7	158.0	79.7	-16.3	59.2	432.1	399.3	27.2	39.2	4.9
1990	437.8	396.6	409.5	145.4	264.1	169.1	95.0	-12.9	41.2	442.2	425.5	26.8	39.4	1.6
1991	451.2	427.9	423.0	138.6	284.4	180.7	103.7	4.9	23.3	418.2	457.5	27.3	39.9	5.7
1992	479.3	458.3	461.1	148.7	312.4	187.9	124.5	-2.8	21.1	388.5	483.8	29.9	42.4	7.6
1993	541.9	513.1	517.1	171.0	346.1	202.8	143.3	-4.0	28.8	365.7	503.4	36.4	40.7	7.2
1994	600.3	564.6	577.1	193.7	383.3	234.7	148.6	-12.4	35.7	366.4	545.6	32.2	43.3	8.6
1995	696.7	656.0	674.3	218.7	455.6	254.2	201.4	-18.3	40.7	367.1	558.2	34.0	46.9	11.4
1996	786.2	736.1	733.0	231.7	501.4	297.6	203.8	3.1	50.1	376.2	581.1	34.3	53.1	12.7
1997	868.5	812.3	798.2	246.1	552.1	334.5	217.6	14.1	56.2	415.6	612.0	32.9	49.9	12.6
1998	801.6	738.5	718.3	248.3	470.0	351.6	118.3	20.2	63.1	487.1	639.8	35.4	64.7	10.3
1999	851.3	776.8	775.9	258.6	517.2	337.4	179.9	1.0	74.5	495.4	674.0	44.2	67.4	10.1
2000	817.9	759.3	773.4	265.2	508.2	377.9	130.3	-14.1	58.6	559.0	708.9	44.3	87.1	5.3
2001	767.3	719.2	707.9	204.1	503.8	370.9	132.9	11.3	48.1	566.3	728.6	55.3	92.8	-1.4
2002	874.6	756.8	758.0	183.8	574.2	390.0	184.1	-1.2	117.8	532.9	762.6	38.2	80.9	2.8
2003	1,021.1	860.4	874.5	234.9	639.6	395.3	244.2	-14.1	160.8	543.0	798.1	46.7	77.7	9.5
2004 P	....	....	....	....	....	443.9	....	....	239.4	548.2	840.1	39.9	81.7	6.7
2000:I	832.6	766.8	795.4	280.8	514.6	360.3	154.4	-28.6	65.8	548.3	697.6	44.4	81.3	7.9
II	833.0	773.5	784.8	272.5	512.2	377.3	135.0	-11.3	59.6	560.6	706.9	44.4	85.0	7.1
III	811.8	756.3	762.6	260.3	502.3	386.6	115.7	-6.3	55.5	564.3	712.2	44.3	88.9	4.2
IV	794.3	740.7	750.8	247.1	503.7	387.6	116.1	-10.1	53.6	563.0	718.7	44.1	93.1	2.2
2001:I	778.7	750.5	754.6	222.5	532.1	379.2	152.9	-4.1	28.2	565.2	725.1	52.3	98.3	1.7
II	783.1	756.0	755.0	217.9	537.1	370.1	167.0	1.1	27.1	569.9	726.3	58.4	104.8	-1.1
III	714.5	689.1	671.1	197.6	473.6	366.0	107.5	18.0	25.4	565.5	725.6	67.3	65.7	-2.9
IV	793.0	681.3	650.9	178.6	472.4	368.4	104.0	30.4	111.7	564.8	737.6	43.1	102.5	-3.4
2002:I	838.2	711.7	695.8	168.9	526.9	378.7	148.2	15.9	126.6	549.2	747.3	38.9	89.6	-.9
II	868.4	747.5	745.9	183.5	562.4	389.2	173.2	1.6	121.0	527.3	760.1	36.8	81.3	-.1
III	876.2	761.2	773.0	188.3	584.8	395.3	189.4	-11.8	115.0	526.8	771.2	38.4	78.0	6.0
IV	915.4	806.8	817.4	194.7	622.7	396.9	225.7	-10.6	108.6	528.3	771.8	38.7	74.6	6.0
2003:I	912.0	798.7	826.1	224.0	602.1	396.0	206.1	-27.4	113.3	541.3	783.5	42.8	74.8	10.3
II	986.2	823.5	824.5	224.6	600.0	394.7	205.3	-1.0	162.7	542.8	792.9	55.2	76.9	9.8
III	1,057.1	877.2	881.0	238.7	642.3	394.1	248.1	-3.8	179.9	542.8	802.0	44.5	78.9	9.3
IV	1,129.1	941.9	966.2	252.3	713.9	396.4	317.5	-24.3	187.2	545.3	813.9	44.4	80.1	8.7
2004:I	1,165.6	925.4	962.4	256.5	705.9	403.4	302.5	-37.0	240.2	554.5	823.3	40.4	82.7	8.1
II	1,173.9	940.6	988.3	271.2	717.1	413.2	303.9	-47.8	233.3	548.5	835.7	39.4	83.5	7.4
III	1,118.0	895.0	932.8	253.3	679.5	424.0	255.5	-37.8	223.0	546.7	843.1	39.7	76.0	6.5
IV P ...	....	....	....	....	....	534.7	....	....	261.2	543.0	858.1	40.2	84.4	4.7

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B–26.—*Relation of gross domestic product, gross national product, net national product, and national income, 1959–2004*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross domestic product	Plus: Income receipts from rest of the world	Less: Income payments to rest of the world	Equals: Gross national product	Less: Consumption of fixed capital			Equals: Net national product	Less: Statistical discrepancy	Equals: National income
					Total	Private	Government			
1959	506.6	4.3	1.5	509.3	53.0	38.6	14.5	456.3	0.5	455.8
1960	526.4	4.9	1.8	529.5	55.6	40.5	15.0	473.9	–.9	474.9
1961	544.7	5.3	1.8	548.2	57.2	41.6	15.6	491.0	–.6	491.6
1962	585.6	5.9	1.8	589.7	59.3	42.8	16.5	530.5	.4	530.1
1963	617.7	6.5	2.1	622.2	62.4	44.9	17.5	559.8	–.8	560.6
1964	663.6	7.2	2.3	668.5	65.0	46.9	18.1	603.5	.8	602.7
1965	719.1	7.9	2.6	724.4	69.4	50.5	18.9	655.0	1.6	653.4
1966	787.8	8.1	3.0	792.9	75.6	55.5	20.1	717.3	6.3	711.0
1967	832.6	8.7	3.3	838.0	81.5	59.9	21.6	756.5	4.6	751.9
1968	910.0	10.1	4.0	916.1	88.4	65.2	23.1	827.7	4.6	823.2
1969	984.6	11.8	5.7	990.7	97.9	73.1	24.8	892.8	3.2	889.7
1970	1,038.5	12.8	6.4	1,044.9	106.7	80.0	26.7	938.2	7.3	930.9
1971	1,127.1	14.0	6.4	1,134.7	115.0	86.7	28.3	1,019.7	11.6	1,008.1
1972	1,238.3	16.3	7.7	1,246.8	126.5	97.1	29.5	1,120.3	9.1	1,111.2
1973	1,382.7	23.5	10.9	1,395.3	139.3	107.9	31.4	1,256.0	8.6	1,247.4
1974	1,500.0	29.8	14.3	1,515.5	162.5	126.6	35.9	1,353.0	10.9	1,342.1
1975	1,638.3	28.0	15.0	1,651.3	187.7	147.8	40.0	1,463.6	17.7	1,445.9
1976	1,825.3	32.4	15.5	1,842.1	205.2	162.5	42.6	1,637.0	25.1	1,611.8
1977	2,030.9	37.2	16.9	2,051.2	230.0	184.3	45.7	1,821.2	22.3	1,798.9
1978	2,294.7	46.3	24.7	2,316.3	262.3	212.8	49.5	2,054.0	26.6	2,027.4
1979	2,563.3	68.3	36.4	2,595.3	300.1	245.7	54.5	2,295.1	46.0	2,249.1
1980	2,789.5	79.1	44.9	2,823.7	343.0	281.1	61.8	2,480.7	41.4	2,439.3
1981	3,128.4	92.0	59.1	3,161.4	388.1	317.9	70.1	2,773.3	30.9	2,742.4
1982	3,255.0	101.0	64.5	3,291.5	426.9	349.8	77.1	2,864.6	.3	2,864.3
1983	3,536.7	101.9	64.8	3,573.8	443.8	362.1	81.7	3,130.0	45.7	3,084.2
1984	3,933.2	121.9	85.6	3,969.5	472.6	385.6	87.0	3,496.9	14.6	3,482.3
1985	4,220.3	112.4	85.9	4,246.8	506.7	414.0	92.7	3,740.1	16.7	3,723.4
1986	4,462.8	111.4	93.6	4,480.6	531.3	431.8	99.5	3,949.3	47.0	3,902.3
1987	4,739.5	123.2	105.3	4,757.4	561.9	455.3	106.7	4,195.4	21.7	4,173.7
1988	5,103.8	152.1	128.5	5,127.4	597.6	483.5	114.1	4,529.8	–19.5	4,549.4
1989	5,484.4	177.7	151.5	5,510.6	644.3	522.1	122.2	4,866.3	39.7	4,826.6
1990	5,803.1	189.1	154.3	5,837.9	682.5	551.6	130.9	5,155.4	66.2	5,089.1
1991	5,995.9	168.9	138.5	6,026.3	725.9	586.9	139.1	5,300.4	72.5	5,227.9
1992	6,337.7	152.7	123.0	6,367.4	751.9	607.3	144.6	5,615.5	102.7	5,512.8
1993	6,657.4	156.2	124.3	6,689.3	776.4	624.7	151.8	5,912.9	139.5	5,773.4
1994	7,072.2	186.4	160.2	7,098.4	833.7	675.1	158.6	6,264.7	142.5	6,122.3
1995	7,397.7	233.9	198.1	7,433.4	878.4	713.4	165.0	6,555.1	101.2	6,453.9
1996	7,816.9	248.7	213.7	7,851.9	918.1	748.8	169.3	6,933.8	93.7	6,840.1
1997	8,304.3	286.7	253.7	8,337.3	974.4	800.3	174.1	7,362.8	70.7	7,292.2
1998	8,747.0	287.1	265.8	8,768.3	1,030.2	851.2	179.0	7,738.2	–14.6	7,752.8
1999	9,268.4	320.8	287.0	9,302.2	1,101.3	914.3	187.0	8,200.9	–35.7	8,236.7
2000	9,817.0	382.7	343.7	9,855.9	1,187.8	990.8	197.0	8,668.1	–127.2	8,795.2
2001	10,128.0	322.4	278.8	10,171.6	1,281.5	1,075.5	206.0	8,890.2	–89.6	8,979.8
2002	10,487.0	301.8	274.7	10,514.1	1,303.9	1,092.8	211.2	9,210.1	–15.3	9,225.4
2003	11,004.0	329.0	273.9	11,059.2	1,353.9	1,135.9	218.1	9,705.2	25.6	9,679.6
2004 ᴾ	11,728.0	....	....	....	1,406.9	1,177.9	229.0	....	....	....
2000: I	9,629.4	362.9	330.4	9,661.9	1,153.1	959.6	193.4	8,508.8	–171.7	8,680.5
II	9,822.8	386.0	349.2	9,859.6	1,177.0	981.0	196.0	8,682.6	–67.8	8,750.4
III	9,862.1	379.7	348.1	9,893.6	1,199.9	1,001.6	198.3	8,693.7	–164.6	8,858.3
IV	9,953.6	402.1	347.2	10,008.4	1,221.3	1,021.1	200.2	8,787.2	–104.6	8,891.7
2001: I	10,021.5	361.8	323.0	10,060.2	1,240.5	1,038.4	202.0	8,819.6	–167.8	8,987.6
II	10,128.9	337.8	293.2	10,173.5	1,270.8	1,067.0	203.8	8,902.7	–98.8	9,001.5
III	10,135.1	306.0	289.3	10,151.8	1,332.7	1,121.3	211.4	8,819.1	–71.1	8,890.3
IV	10,226.3	284.2	209.6	10,300.9	1,281.8	1,075.2	206.6	9,019.1	–20.9	9,039.9
2002: I	10,338.2	288.5	265.0	10,361.7	1,287.1	1,078.5	208.6	9,074.7	–61.8	9,136.5
II	10,445.7	304.5	288.6	10,461.6	1,297.9	1,087.7	210.3	9,163.7	–58.7	9,222.3
III	10,546.5	312.9	287.8	10,571.7	1,309.3	1,097.4	211.9	9,262.4	20.8	9,241.6
IV	10,617.5	301.2	257.5	10,661.2	1,321.5	1,107.6	213.8	9,339.7	38.4	9,301.3
2003: I	10,744.6	304.8	268.0	10,781.3	1,334.0	1,118.4	215.6	9,447.3	39.6	9,407.7
II	10,884.0	309.8	264.7	10,929.0	1,347.0	1,129.7	217.3	9,582.0	13.2	9,568.8
III	11,116.7	329.8	278.2	11,168.3	1,360.6	1,141.5	219.1	9,807.7	36.6	9,771.1
IV	11,270.9	371.8	284.6	11,358.1	1,374.2	1,153.8	220.4	9,983.9	12.8	9,971.1
2004: I	11,472.6	373.8	300.3	11,546.1	1,355.0	1,132.4	222.6	10,191.1	63.0	10,128.1
II	11,657.5	388.0	351.9	11,693.6	1,375.2	1,148.1	227.0	10,318.4	56.4	10,262.0
III	11,814.9	406.8	368.6	11,853.0	1,497.9	1,266.8	231.1	10,355.1	90.4	10,264.7
IV ᴾ	11,967.0	....	....	....	1,399.5	1,164.0	235.5	....	....	....

Source: Department of Commerce, Bureau of Economic Analysis.

Teaching Module 5.2:   Surplus Product

To Teach: Surplus product in the U.S. in 2003 (figures in billions).

1. Calculating Property Income

2. Calculating Surplus Product

3. Calculating Gross Domestic Product

Teaching Module 5.3:   How Much Labor Time Goes to the Capitalist?

To Teach: Surplus product as time

To produce the three "piles": (1) wages of productive workers, (2) replacement of materials used and capital goods used up, and (3) surplus, it takes the following amount of time in the United States today:

Wages and Salaries of Productive Workers	**$5,103**	**'Total Wage and Salary Accruals' from table B28, National Income By Type of Income, Economic Report of the President, 2005**
Replacement of used up Capital Goods	**$1,135**	**'Total Consumption of Fixed Capital' from table B26, National Income By Type of Income, Economic Report of the President, 2005**
Surplus product	**$4,766**	
Gross Domestic Product	**$11,004**	**'Gross Domestic Product' from table B26, National Income By Type of Income, Economic Report of the President, 2005**

Here is a hypothetical work schedule of a composite productive worker:

Teaching Module 5.4:   Surplus Product and Civilization

To Teach: The surplus product

In a small village in a far-off continent, 101 people live together in relative harmony. Life follows the seasons very closely because the only thing that the people produce is grain. Almost everyone is involved in tilling the fields and casting the seeds, except one individual who is the overlord and who has been given the land by divine ordinance (or by his father, no one can be sure, because it all happened a long time ago). This overlord "employs" 100 ordinary men and women, all of whom use an identical production process to make identical bushels of grain.

Given the methods available to the overlord to control workers, workers' motivation, and other determinants of the intensity of labor, to produce a bushel of grain requires 10 hours of effort from each person and 1/10 of a bushel of grain (as seed). Over the year, it seems that the community is able to do 1,000 hours of work a week (10 hours per person); the rest of the time is spent singing, dancing, and thanking its god. The overlord makes sure that everyone is paid the same, .05 bushel per hour worked, or .5 bushel per bushel produced. This amount is consumed by each worker in the simple acts of living.

1. What are the total, necessary, and surplus products produced in this society per week? (Show your calculations and give your answers in bushels of grain.)

Question to think about: Is there an exploiting "class"?

Answer: Each of the 100 workers works for 10 hours, so a total of 1,000 hours are worked. Each bushel of grain requires 10 hours of work, so a total of 100 bushels of grain are produced. Thus, total product is 100 bushels of grain.

Necessary product is the sum of the wages of workers and of the cost to replace the stock of grain used in production. Wages of workers are .05 bushel per worker-hourX 10 hours X100 workers = 50 bushels. Cost of replacement of grain is 1/10 bushel per bushel of grain X 100 bushels produced = 10 bushels. Therefore, necessary product is 50 + 10 = 60 bushels of grain per week.

Surplus product is the difference between total product and necessary product, so surplus product is 100 bushels – 60 bushels = 40 bushels of grain per week.

2. To their good fortune (they imagine), the grain producers discover a new kind of seed that is much more productive, requiring only 1/20 of a bushel of grain as seed per bushel of grain produced. (The new seeds are twice as productive as the initial seeds: this is a case of technical progress.)

If the rest of the data above remains unchanged, what are the total, necessary, and surplus products following the introduction of the new seeds?

Questions to think about: Who receives the surplus? Has the standard of living of the grain producers improved? Are the new seeds a case of labor-saving or capital goods–saving technical change?

Answer: Each of the 100 workers still works for 10 hours a week, so a total of 1,000 hours are worked. Each bushel of grain requires 10 hours of work, so a total of 100 bushels of grain are produced. Thus, total product is 100 bushels of grain.

Necessary product is the sum of the wages of workers and of the cost to replace the stock of grain used in production. Wages of workers are .05 bushel per worker-hour * 10 hours * 100 workers=50 bushels. Cost of replacement of grain seed is now lowered to 1/20 bushel per bushel of grain * 100 bushels produced = 5 bushels. Therefore, necessary product is 50 + 5 = 55 bushels of grain per week.

Surplus product is the difference between total product and necessary product, so surplus product is 100 bushels – 55 bushels = 45 bushels of grain per week.

3. The overlord, heartened by his ability to benefit from technical progress, now discovers that in a neighboring village plows are being produced and used to cultivate grain, apparently with good effect. Plows are not produced in his village, but must be obtained from the other one. To obtain plows, grain must be exchanged with the plow owners. To import one plow, a bushel of grain must be exported to the other economy (in terms of bushels of grain per plow, the price of the plow is 1; in other words, the real price of imports is 1). This is a case of technical progress and international specialization. Having a plow significantly reduces the effort for the workers (from 10 to 5 hours of labor for the same amount produced). A plow becomes useless and worn out after 10 bushels are produced (in other words, with every bushel of grain, 1/10 of the plow is used up). So for every 10 bushels produced, the overlord needs one bushel to buy a plow and another bushel to replace it as it gets used. What are the total, necessary, and surplus products now?

Questions to think about: Who receives the surplus? Has the standard of living of the grain producers improved?

Answer: Each of the 100 workers still work for 10 hours each week, so a total of 1,000 hours are worked. Each bushel of grain now requires only 5 hours of work because the introduction of plows, so a total of 1,000/5 = 200 bushels of grain are produced. Thus, total product is 200 bushels of grain.

Necessary product is the sum of the wages of workers and of the cost to replace the stock of grain as well as the cost of plows used in production. Wages of workers are .05 bushels per worker-hour * 10 hours * 100 workers = 50 bushels. The cost of replacement of the better-quality grain seed is 1/20 bushel per bushel of grain * 200 bushels produced = 10 bushels. For every 10 bushels of grain produced, the overlord needs 2 bushels of grain: the first to buy a plow and the second to replace it. So for 200 bushels of grain, he needs 200 bushels * 2/10 = 40 bushels to buy and replace the plows. Therefore, necessary product is 50 + 5 + 40= 95 bushels of grain per week.

Surplus product is the difference between total product and necessary product, so surplus product is 200 bushels – 95 bushels = 105 bushels of grain per week.

4. The overlord, now a rich man, begins to think about ways of using the surplus to make the surplus even larger. He notices that everyone is spending a lot of time singing, chatting, and dancing in the fields when they could be working. In order to make sure the people work a little harder, he handpicks 10 men who are beefier than the other workers. He promises to pay them, out of the surplus received, .1 bushels of grain per hour worked if they coax, cajole, and force the other workers to work a little harder and stay at the fields during production (he calls these workers preachers or foremen depending on whether they adopt a carrot or stick approach). The preachers are instructed to inspire the workers (and their children) with the moral value of hard work and strict obedience to authority. The foremen will be on hand to try less subtle forms of persuasion. As a result of this use of the surplus product, the overlord succeeds in making the workers work harder. Labor intensity doubles. The increase in effort means that with the plows, 1 bushel of grain needs only 2.5 hours of effort.

Because of this intensification of labor, what are the total, necessary, and surplus products? How much surplus is available to the overlord after paying his preachers and foremen?

Answer: There are now 90 workers producing output and 10 workers pushing them to do so. Each worker still works for 10 hours each week, so a total of 900 hours are worked. However, because each worker works harder, each bushel of grain now requires only 2.5 hours of work so a total of 9,000/2.5 = 360 bushels of grain are produced. Thus, total product is 360 bushels of grain.

Necessary product is the sum of the wages of workers and of the cost to replace the stock of grain as well as the cost of plows used in production. Wages of workers are =.05 bushels per worker-hour * 10 hours * 90 workers = 45 bushels. The cost of replacement of the better-quality grain seed is 1/20 bushel per bushel of grain * 360 bushels produced = 18 bushels. For every 10 bushels of grain produced, the overlord needs 2 bushels of

grain: the first to buy a plow and the second to replace it. So for 360 bushels of grain, he needs 360 bushels * 2/10 = 72 bushels to buy and replace the plows. Therefore, necessary product is 45 + 18 + 72 = 135 bushels of grain per week.

Surplus product is the difference between total product and necessary product, so surplus product is 360 bushels – 135 bushels = 225 bushels of grain per week. The cost of the preachers and foremen, paid out of surplus product, is .1 bushel * 10 preachers/foremen * 10 hours = 10 bushels of grain. So after paying for them, the overlord gets 225 – 10 = 215 bushels of grain.

5. Using part of the surplus to intensify labor at home was a success. The overlord wonders if they might succeed in a similar project vis-à-vis the plow producers who are getting a bit uppity and are asking for more bushels per plow. As a result, he takes 5 more beefy people, pays them .1 bushel per hour worked, gives them sharp, pointy sticks, calls them soldiers, and sends them over to the other village to negotiate. These 5 people manage to persuade the other village (only once in a while brandishing their sharp, pointy sticks) that it would be in their best interests to give 4 plows for every bushel of grain, instead of 1. The 5 soldiers remain in the other village, working for 10 hours each week and spreading the values of their village with its new society. Although some do-gooders in both societies snootily call this new configuration imperialism, plows can now be obtained at a fourth of the price. The remaining data remain as they were in Question 4.

What are the total, necessary, and surplus products? How much surplus is available to the overlord after paying his preachers, foremen, and soldiers?

Answer: There are now 85 workers producing output, 10 workers pushing them to do so, and 5 workers spreading freedom abroad. Each worker still works for 10 hours each week, so a total of 850 hours are worked. Each bushel of grain still requires 2.5 hours of work, so a total of 850/2.5 = 340 bushels of grain are produced. Thus, total product is 340 bushels of grain.

Necessary product is the sum of the wages of workers and of the cost to replace the stock of grain as well as the cost of plows used in production. Wages of workers are .05 bushels per worker-hour * 10 hours * 85 workers = 42.5 bushels. The cost of replacement of the better-quality grain seed is 1/20 bushel per bushel of grain * 340 bushels produced = 17 bushels. For every 10 bushels of grain produced, the overlord now needs only ½ a bushel of grain since sending the soldiers over to the next village has reduced the cost of plows per bushel by a fourth, from 2 bushels per 10 bushels of grain to ½ a bushel per 10 bushels of grain. So for 340 bushels of grain, he needs 340 bushels * (.5)/10= 17 bushels to buy and replace the plows. Therefore, necessary product is 42.5 + 17 + 17= 66.5 bushels of grain per week.

Surplus product is the difference between total product and necessary product, so surplus product is 340 bushels – 66.5 bushels = 273.5 bushels of grain per week. The cost of the preachers and foremen, paid out of surplus product is .1 bushels * 10 preachers/foremen * 10 hours = 10 bushels of grain. The cost of soldiers is similarly .1 bushels * 5 soldiers *

10 hours = 5 bushels of grain. So after paying for them, the overlord gets 273.5 – 10 – 5 = 258.5 bushels of grain.

Question to think about: How might the overlord keep his workers (especially the grumbling ones) happy with this new event?

6. But all is not quiet at home. A few grain producers are having meetings and are speaking of revolting. Their leader has published a tract denouncing the foreign misadventures of the overlord, calling it "The highest and worst stage of grainism." The group reasons that they are 80 and the overlord, soldiers, preachers, and foremen are only 20 and that if they could only inculcate a consciousness about this to the rest of the grain producers, then they could get the surplus product from the overlord and share it. Meanwhile, some of the workers are not listening when the preachers promise them that the meek shall inherit the earth and are beginning to retort that these notions are "drugging the workers into numbness." Also, the women in the society are equally incensed that they have a dual role as worker and caretaker (at home) and are not being recognized monetarily or otherwise for the latter. They want to be compensated by getting day care centers for the children if they work. In addition, the population demands real education (not just obedience training).

In short, this is a time of crisis. The overlord is troubled and assembles his most trusted preachers and foremen in a meeting. In the end, they make a deal with the workers that they will pay them .06 bushels per hour of work done. The overlord declares that he will also devote 1/10 of any surplus product he receives to provide free day care centers and also to take care of the elderly and sick.

In addition, free schools will be provided from an additional tenth of the surplus product. Crucially, however, the education will make workers more productive, and as such, they will requires only 1 hour of work to produce a bushel of grain (down from 2.5 hours). This eases the anger and tension of the workers who return to the fields.

What are the total, necessary, and surplus products if none of the other data in Question 5 change? What is the surplus left for the overlord after he pays for the day care centers and education?

Question to think about: Are the workers better off or worse off? Is the overlord better off or worse off? What is the relative size of wages vis-à-vis surplus product in this question and the previous? Was paying for education good or bad for the overlord?

Answer: There are still 85 workers producing output, 10 workers pushing them to do so, and 5 workers spreading freedom abroad. Each worker still works for 10 hours each week, so a total of 850 hours are worked. But because each worker is now more educated, each bushel of grain now requires only 1 hour of work, so a total of 850/1 = 850 bushels of grain are produced. Thus, total product is 850 bushels of grain.

Necessary product is the sum of the wages of workers and of the cost to replace the stock of grain as well as the cost of plows used in production. Wages of workers are now .06 bushels per worker-hour * 10 hours * 85 workers = 51 bushels. The cost of replacement of the better-quality grain seed is 1/20 bushel per bushel of grain * 850 bushels produced = 42.5 bushels. For every 10 bushels of grain produced, the overlord still only needs ½ a bushel of grain since the soldiers are still tramping around the next village. So for 850 bushels of grain, he needs 850 bushels * (.5)/10= 42.5 bushels to buy and replace the plows. Therefore, necessary product is 51 + 42.5 + 42.5 = 136 bushels of grain per week.

Surplus product is the difference between total product and necessary product, so surplus product is 850 bushels – 136 bushels = 714 bushels of grain per week. The cost of the preachers and foremen, paid out of surplus product, is .1 bushels * 10 preachers/foremen * 10 hours = 10 bushels of grain. The cost of soldiers is similarly .1 bushels * 5 soldiers * 10 hours = 5 bushels of grain. The day care centers and care of the sick and elderly cost 1/10 of surplus product = 850/10 = 85 bushels, and the schools cost another tenth or 850/10 = 85 bushels. So after paying for all of these, the overlord gets 714 – 10 – 5 – 85 – 85 = 529 bushels of grain.

Short Essay Questions

1. The text says that the economy may be thought of as a collection of labor processes. What are the two basic types of labor processes? How are they connected in the capitalist economy? How are they coordinated?

2. Suppose the "direct producers" in the simple economic model of Question 1 in Module 5.4 fought for and got a larger share of the grain they produced. How might those who get the surplus product respond to protect their share? What kind of conflicts might result? How could everyone get more?

3. What are some ways in which the size of the surplus product could be increased in the simple grain economy without foreign trade? Explain carefully how, after introduction of foreign trade, there is an additional way in which the surplus product could be enlarged.

4. Explain the conflicts of interest that may occur over (a) the consumption level of producers and (b) the real price of imported inputs.

5. During the game in Teaching Module 5.4 the king/instructor took the surplus by force. What does this imply about one of the common activities of the government in human history?

Multiple Choice Questions

5.1 Another word for a collection of labor processes is
     a) The surplus

b) The inputs
c) The economy*
d) The outputs

5.2 The relationship between a slave and a slave owner and the relationship between an employer and employee are two examples of
     a) Division of labor
     b) Horizontal interdependence
     c) Vertical interdependence*
     d) Reproduction

5.3 An example of horizontal interdependence is
     a) Specialization*
     b) Technical progress
     c) Reproduction
     d) Slavery

5.4 The first major economist to illuminate horizontal economic interdependence was
     a) Karl Marx
     b) Joseph Schumpeter
     c) John Maynard Keynes
     d) Adam Smith*

5.5 ____ is a labor process if which the output is people.
     a) Production
     b) Reproduction*
     c) Capital goods–saving technical change
     d) Specialization

5.6 Which of the following is not the output of a production process?
     a) Capital goods
     b) Wages*
     c) Materials
     d) Consumer goods

5.7 The difference between capital goods and materials used in production is that
     a) Materials are used up; capital goods are durable*
     b) Capital goods are bought on credit; materials are paid for in cash
     c) Capital goods are machinery; materials are everything else
     d) Materials become physically part of the output produced; capital goods do not

5.8 The existence of the Palace of Versailles, the Great Wall of China, the Taj Mahal, and the Egyptian pyramids is proof that in the societies and historical periods during which these were built,
     a) The intensity of labor was extremely high
     b) The rulers needed to produce capital goods

c) Technical progress was rapid
d) The economy was producing a surplus*

5.9 The part of the total output that is not needed to reproduce and replenish the labor, tools, materials, and other inputs used or used up in production is called the
    a) Net product*
    b) Necessary product
    c) Technology
    d) Surplus product

5.10 If the total product equals the necessary product, then
    a) There is no net product
    b) The producers will have nothing to eat
    c) The capital goods and materials will not be replenished
    d) There is no surplus product*

5.11 If we take the amount of the product required for consumption by producers at their customary standard of living and add it to the amount of the product needed to replace the capital goods and materials used up in production, these two combined make up the
    a) Necessary product*
    b) Total product
    c) Net product
    d) Surplus product

5.12 One form the surplus product can take is
    a) Wages paid to workers
    b) Capital goods–saving technical change
    c) Labor exerted in production
    d) Rents paid by serfs to feudal lords*

5.13 In a world with no surplus product, there would be
    a) No producers
    b) No feudal lords*
    c) Widespread starvation
    d) No children

5.14 If producers' intensity of labor increases and they continue to work the same number of hours and use the same materials and tools, then
    a) The necessary product will rise
    b) The total product will rise*
    c) The net product will fall
    d) The surplus product will fall

5.15 _____ is defined as the use of surplus to increase stocks of materials or capital goods available for use in future production processes.
    a) Capital goods–saving technical change

b) Reproduction
c) Investment*
d) Trade

5.16 An item that is, strictly speaking, not one of the inputs into the production process is
    a) Technical progress*
    b) Capital goods
    c) Materials
    d) Labor

5.17 In an economy based on grain, the grain that falls into the category of materials used in the production process is the grain that is
    a) Used to feed the draft animals
    b) Eaten by the workers
    c) Used as seed for the next crop*
    d) Exported in order to import plows

5.18 If the total product is 200 bushels and the necessary product is 80 bushels, then
    a) The net product is 120 bushels
    b) The surplus product is 120 bushels*
    c) 80 bushels are needed to replenish materials and capital goods
    d) 80 bushels are needed by producers for their consumption

5.19 If in a year one family, using 20 bushels of seed grain, 4,000 hours of labor, and no tools but their own hands, produces 100 bushels of grain, of which they customarily consume 50 bushels, and there are 100 families producing grain, then the necessary product for all families combined is
    a) 2,000 bushels
    b) 5,000 bushels
    c) 7,000 bushels*
    d) 10,000 bushels

5.20 Using the same amounts as in question 19, the net product is
    a) 3,000 bushels
    b) 4,000 bushels
    c) 5,000 bushels
    d) 8,000 bushels*

5.21 Using the same amounts as in question 20, the surplus product is
    a) 3,000 bushels*
    b) 4,000 bushels
    c) 5,000 bushels
    d) 7,000 bushels

5.22 A change in the technology that increases the efficiency of the production process so that producers can produce more output with the same amount of labor input is called

a) Capital goods–saving technical change
b) Vertical interdependence
c) Labor-saving technical change*
d) Horizontal interdependence

5.23 One way to reduce the surplus product is for
a) The customary standard of living of the producers to be raised*
b) Producers to work harder
c) Producers to spend more time each year growing grain without raising their living standard
d) A way to be found to reduce spoilage of seed between one harvest and the next planting

5.24 If plows are imported as inputs into the production process and it takes two bushels of grain to get one plow, then the real price of the imported input is
a) Half a plow
b) One plow
c) One bushel of grain
d) Two bushels of grain*

5.25 An illustration of low intensity of labor that can result in low output even when the efficiency of labor is high is when
a) The worker slows down his or her pace of work*
b) The worker lacks the necessary skill
c) The tools are not sharp
d) The material being worked on is faulty

5.26 Under what circumstances might an increase in consumption both improve the living standards of producers and enlarge the surplus product?
a) When producers are spending too much time raising children
b) When producers are so poor they are weak from malnutrition*
c) When producers are earning more than they really need
d) When the total product equals the necessary product

5.27 A way to increase the surplus product without reducing the producers' economic well-being is to
a) Reduce the real price of imported inputs*
b) Lower the producers' customary level of consumption
c) Increase the producers' labor time
d) Increase the intensity of labor

5.28 The interests of those who supply the imported plows conflict with the interests of those who control the surplus grain product because
a) The plow makers are a nation, and those who control the surplus are a class
b) The plow makers want to sell more plows, and those who control the surplus want to buy fewer plows

c) If the price of plows rises, the surplus falls*
d) If the price of plows rises, the producers must consume less

ADDITIONAL RESOURCES

References

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CHAPTER 6:   Capitalism as an Economic System

How This Chapter Fits into the Text

This chapter introduces the concepts of class and class society, building on the idea of surplus introduced in Chapter 5. Which group in society produces the surplus? Which group receives it , and how does the group lay claim to it? In any particular economic system, the answers to these three questions define the classes that exist, and they define the type of economic system, such as feudalism, slavery, and capitalism. Chapter 6 also describes the features that distinguish capitalism from other economic systems.

Class is defined differently from its common usage: it is a relationship between two groups of economic actors based on each group's relationship to the surplus product.

Chapter 7 will elaborate further on class societies, presenting a brief historical discussion of the class structure of the United States over two centuries, as part of introducing the idea of the social structure of accumulation.

MAIN POINTS

1. Economic systems represent different ways of organizing and controlling labor processes based on different property systems or other ways of determining how the surplus will be used. Each economic system has a distinct set of classes associated with it.

2. Capitalism is a particular economic system in which commodities are produced for profit using privately owned capital goods and wage labor.

3. In capitalism, surplus occurs as profit. Profit in turn may retained within the firm or used for various purposes.

DETAILED OUTLINE

1. Class and Class Relationships. Class as used in the book refers to a group of people who share a common position with respect to the production and control of the surplus product. A class relationship exists between those who produce the surplus and those who command its use. Four aspects of class are important:

Class is a relationship between two groups.

Class is defined with respect to the labor process and not to other social characteristics (such as income, status, or social esteem), although these may be related. Examples of groups that are not classes are nations, races, and sexes.

Class relationships are usually hierarchical. That is, there is control by one class of the surplus of another class.

Class relationships are often conflictual.

2. Classes and Economic Systems. Each economic system possesses distinct class relationships. Class relationships and methods of controlling the labor process are usually enshrined in property rights (the owner's right to control the property, to decide who uses it, and to benefit from its sale). These establish the rules of the game.

Example of an economic system (I): slavery. In slavery, slaveholders obtained the surplus product and owned all the inputs, including the laborer (slave), as well as the output. This was dominant in the U.S. South before the Civil War.

Example of an economic system (II): feudalism. Serfs were required by law to pay fees and rents to lords and to perform labor duties, because feudal courts enforced these laws. Unlike in slavery, lords did not own the serfs.

Table 6.1 on pages 127–128 gives detailed examples of different economic systems and their characteristic social relationships.

3. Capitalism, Commodities. Capitalism is an economic system in which commodities are produced for profit using privately owned capital goods and wage labor. A commodity, in turn, is defined as a good or service produced with the intention of selling it in order to make a profit. Therefore, there is a distinction between pancakes at a pancake house (made for profit) vs. pancakes at home (not made for profit). Other examples of goods that are not commodities are public schooling and people (although they were commodities when they were slaves). The amount of time spent in commodity production in the U.S. is about 40% of total work (the other 60% is spent in nonmarket activities, i.e., activities that do not involve exchange through markets, and government work). This distinction between commodity/noncommodity is important. The box "Money talks (and eats)" on pages 133–134 argues that because food is a commodity, hunger is persistent. Commodity production by itself is not sufficient to define capitalism because self-employed producers in the past and present have produced commodities, but they are not wage laborers. Similarly, market socialism calls for worker-owned firms that trade their products (commodities) in markets. Other characteristics are needed.

Capitalism, Privately Owned Capital Goods. In capitalism, capital goods used in production are the private property of capitalists. This is distinct from property that is government owned or communally owned. Private property rights are social rules that give individuals and entities the right to use, lend, or sell things such as land, buildings, and artistic and intellectual creations. This implies the right to exclude others from doing the same. Privately owned capital goods are machines, buildings, offices, tools, and other durable things needed in production and whose owner, because of a property right, determines how the property will be used. Capital goods need not be privately owned: consider the capital goods owned by the government or by worker-owned firms. Privately

owned capital goods do not give the capitalist the right to do whatever he wants with them. The rights are curtailed by other rights (e.g., zoning laws, health codes, and occupational codes).

It is useful to consider the difference between wealth (the ownership of a stock of durable things that yield benefits or income), property income (income received in the form of profit, interest, rent, and dividends as a result of holding an asset such as a business, bond, piece of real estate, or corporate stock), and earned income (wages and earnings from work). The box "Brother, can you spare a billion?" on page 139 lists the wealth of the top ten of the world's billionaires. Figure 6.2, "The concentration of ownership of capital goods" on page 141, shows the distribution of the ownership of capital goods in the United States in 2001. Table 6.2, "Sources of Income for U.S Taxpayers, 2001," describes the distribution of sources of income by income level.

Members of the capitalist class (capitalists) are those who own capital goods used in production and exercise control over the labor of others: they receive their income in the form of profits, interest, and rent for the use of their capital goods. Members of the working class (workers) are those who perform wage labor. They do not own capital goods used in their labor processes nor command control over the labor of others.

Capitalism, wage labor. Wage labor is defined as work performed under the direction of an employer in return for a wage or salary. The concentration of ownership implies most people cannot be self-employed and, therefore, implies that wage labor is the main way people survive; on average, $90,000 in capital goods is needed per worker in the United States.

4. Capitalism, the surplus product, and profits. Profit is the form that surplus product takes under capitalism. It is what is left over in revenues after wages, the cost of materials used, and the wear and tear on machines have been paid.

Surplus may be used for several purposes. Often, the corporation must pay rent (payment for the use of real estate used during production), interest (payment made by a corporation to owners of its bonds or to those who have loaned it money), taxes (payment to the government), and dividends (a payment made by the corporation to an owner of a share of its stock). Additional uses of the surplus may be for investment in new capital goods, for luxury goods for the rich, for research and development, and so on.

Ownership of capital goods and wealth confers power: the surplus product can be used to buy power and influence through lobbyists, campaign contributions, and lawyers; wealth also confers power directly, that is, power over workers through control of capital goods, the control over hiring and firing, and so on.

5. Conclusion. Capitalism does not imply democracy (dictatorships, even fascism, have frequently existed in a capitalist economy), and democracy can exist alongside a noncapitalist economy. Capitalism is only one of many possible sets of rules of the game.

The combination of class divisions and the system of property rights establishes the rules by which the economy is governed.

TEACHING TIPS AND MODULES

Difficult Points

Economic Systems: Students may have been exposed to more conventional notions of economic systems by their respective methods of allocation—market, tradition, or command. Such a typology is not surprising in light of the neoclassical focus on the horizontal aspect of an economic system. Students sometimes define economic systems by the level of development (agricultural vs. industrial). Students also often suggest entailments of economic systems (e.g., capitalism-democracy vs. communism-dictatorship). This book uses an economic typology based on the vertical relations of class. Economic systems (feudalism, slavery, capitalism) are distinguished fundamentally by the way in which one group is able to lay claim to the social surplus. Each system therefore has its own class relations and associated property rights. Also, getting students to understand that capitalism is not the same thing as private property or buying and selling or being interested in individual gain is often difficult.

Class: Students are often used to the notion of class as defined by the media and by general parlance as referring to income or lifestyle. The definition of class in this book is by an individual's relationship to the surplus product.

Commodities: Some students have trouble understanding precisely what is meant by the term commodity, as used in the sense in which political economy uses it. A commodity is defined as a good or service produced with the intention of its sale. As with all words that have a colloquial usage that is different from this textbook's definition, it will help to make explicit distinctions. Many students will have heard of the "commodities market," which is a subset of the understanding of commodities in this chapter. Not all products are commodities. Products are the output of any labor process, but commodities are only those products that are produced for sale. However, services—if they are sold, like a commercial haircut—are commodities. A musical performance can also be a commodity, even though there is no tangible product. A haircut given by a friend as a personal favor, however, or a song sung for a friend is not a commodity. The exercise on classification of commodities below is one way of teaching this.

Class Relationships: As anyone who has studied it knows, there is considerable slippage in the notion of class. For example, students may rightly point out that someone may be both a capitalist (in the sense of owning stock) and a worker (works for wage labor). One way to look at this is that we are not so much interested in a taxonomy, classifying individuals into one class or another, as we are interested in defining what we might call "class processes"; in that sense, it is possible for a worker who owns stock to participate in the capitalist class process. However, the class one belongs to is defined by the main class process in which one participates; most workers own little, if any, stock. The key

difference is the degree of capital goods ownership and the ability to live without performing wage labor. Also, several class relationships can and do coexist in the same historical time period. For example, slavery, independent commodity production, and capitalism all coexisted in the United States before the Civil War. The notion of different class relationships can be taught using the handout "TV programs and class relationships in the U.S." from the end of this chapter.

Profits: The word profit is used in two senses here. In the more general sense, profits are the main form (but not the only form) of the surplus product of a capitalist society. The capitalist is the owner of the entire gross product (because s/he owns the capital goods and employs the workers) and so receives the entire revenue from its sale. After setting some revenue aside to replace used-up raw materials and capital goods and subtracting that revenue expended on the wages of the workers, there is a residual category of surplus, or profits. From these total profits, taxes are paid to the government and interest payments are made to banks; rent is also paid to landowners. What is left to the firm to be used for investment, paying out dividends, or other purposes is profit in the narrow sense, that is, net operating profit.

ACTIVITIES AND DISCUSSION

1. Commodities

Which of the following are commodities and why?

A. A steak cooked at home

Answer:No. Not for profit.

B. A steak cooked at a fund-raiser

Answer:No. Not for profit (although money is exchanged).

C. A steak cooked at a restaurant

Answer:Yes.

D. A license obtained from the DMV

Answer:No. Not for profit (although money is exchanged).

E. Money

Answer:No. Not produced for profit.

F. A movie ticket

Answer:Yes.

G. Public education

Answer:No. Not for profit.

H. A haircut at the barbershop

Answer:Yes.

I. A burger at McDonalds

Answer:es.

J. Corporate stock of Microsoft

Answer:No. Not produced for profit.

K. Windows XP

Answer:Yes.

2. TV Programs and Class Relationships

A. *The Sopranos*—Bada Bing!

In HBO's *The Sopranos*, business is organized differently from businesses in capitalism. In the "garbage business" (a euphemism for organized crime), several "families" (or organized crime clans) perform activities that make them lots of (illegal) money. In return for protection (being a "made man") from Tony Soprano, the "boss" (the head of the organization), a young criminal who makes money has to "pay tribute" or "kick upstairs" some of his money (give a portion of the deal) to Tony and his capos (captains). If the criminal "eats alone" (keeps all the money to himself), he may soon see the "faccia bruta" (ugly face) of Tony who will come to take the money due to him along with his "crew" (group of soldiers).

Explain how this situation resembles feudalism more than capitalism.

B. *The A-Team*—"If you have a problem and no one else can help"

In the 1980s TV hit, *The A-Team*, Col. John "Hannibal" Smith, Lt. Templeton "Faceman" Peck, Captain H. M. "Howling Mad" Murdock, and Sgt. Bosco "B.A." Baracus are four Vietnam veterans who take on dangerous jobs for hire. They collectively own their capital goods (in this case, guns, other machines, and although Mr. T as "B.A." Baracus

is very possessive about their trademark black truck, their transportation as well). Although they have a nominal head in "Hannibal," they make their decisions about which jobs to take and what to do with their income collectively.

Explain why this arrangement resembles a worker-owned firm or independent production more than capitalism.

C. *The Cosby Show*—Dreadful Sweaters

In the most successful sitcom of the 1980s, Cliff Huxtable (Bill Cosby) is a doctor who practices from home. He owns his office and his machines and is his own boss. He independently makes his decisions on when to work.

Explain why this arrangement resembles a worker-owned firm or independent production more than capitalism.

D. *The Simpsons*—Eat my shorts!

Think about the cartoon show The Simpsons. Using the classifications in the chapter, what is the relationship between Homer and Mr. Burns? What kind of economic process is Moe involved in? How about Apu?

Short Essay Questions

1. Discuss some differences between the outputs of labor processes in the home and the outputs of the labor process in a capitalist firm.

2. Define economic system, and describe feudalism, slavery, and capitalism as economic systems. What features do they have in common? How do they differ?

3. Define class and surplus, and explain the relationship between them. Give at least two examples of this relationship from two different economic systems.

4. The production and distribution of goods and services in the United States have not always been organized along capitalist lines, nor are all of them even today. Define capitalism and indicate the major noncapitalist systems of production and distribution both today and two centuries ago. Describe briefly how they worked.

5. If it were not necessary for the dominant class to devote resources to controlling the producer class, how would society be different? What occupations would no longer exist or would be greatly reduced in numbers?

6. The text says that class is not defined by income but by relationship to the production of the surplus. Does this mean that there is no relationship between class and the size of people's incomes?

(Capitalists usually have much higher incomes than workers. Income and class are correlated, but income does not define class.)

7. Each class has an interest in getting and keeping an income that is both secure and as large as possible. What steps might the direct producers take to increase their income security?

(Answers may include: workers joining labor unions and going on strike for job security provisions such as layoff in order of seniority; peasants taking over land in order to grow crops on it for their livelihood; workers forming mutual benefit societies providing for funeral expenses and such.)

8. What steps might the dominant class (the receivers of the surplus) take to try to make their incomes more secure?

(Possible answers: Pay the salaries of public relations people, or the equivalent in feudal or other societies, to persuade the public that the existing order is the only possible one and the only just one; control the judicial system so that rulings on private property matters are made in their favor; control or influence decision-makers to outlaw rebellion in any form by direct producers [strikes, land takeovers, etc.]; train a loyal police force.)

9. What do you understand the term private ownership of capital goods to mean? What do property rights have to do with defining an economic system?

10. Indira Gandhi, the late Indian prime minister, once said, "The idea of a better world is one in which medical discoveries will be free of patents and there will be no profiteering from life and death." Patents are property rights over intellectual discoveries. What do you think of Gandhi's statement?

Multiple Choice Questions

6.1 Which of the following does not refer to a part of the definition of class relationship?
        a) Division between producers and controllers of the surplus product
        b) Vertical or hierarchical relationship
        c) Relationship to a labor process
        d) Division between workers and consumers*

6.2 A class society exists if
        a) A surplus is produced
        b) Ownership of property is unequal
        c) Production is for profit
        d) Producers of the surplus do not control it*

6.3 Which of the following is true of class as used in political economy?

a) There are two main classes: the rich and the poor
b) Class is defined by position with respect to the labor process*
c) There is competition between classes but not within them
d) A class is defined by its status and social esteem

6.4 Which of the following is true of class as used in political economy?
a) Capitalists are generally richer than workers, but income does not define class*
b) The dominant class is also the more productive class
c) Only those who control the surplus constitute a class
d) Every class is in a hierarchical relationship to every other class

6.5 In the economic system of feudalism, the surplus product is
a) The total of rents and obligations to the dominating class*
b) The total product of serf labor
c) Rents paid by the dominating class
d) Rents paid in product rather than in money

6.6 What distinguishes slavery from capitalism as an economic system is that
a) Wage labor is paid in money, not goods
b) Slavery is much more brutal
c) Slavery is predominantly an agricultural system
d) The capitalist does not own the worker outright*

6.7 Which of the following is not part of the definition of capitalism?
a) Wage labor
b) Privately owned capital goods
c) Production of a large surplus*
d) Production of commodities

6.8 What determines whether an economic system is capitalist or not is
a) Whether ownership of land and wealth are sufficiently concentrated
b) Whether advanced machinery is extensively used in production
c) Whether private owners of capital goods hire wage labor to produce for profit*
d) Whether the bulk of production is industrial or agricultural

6.9 Commodity production
a) Is found only in capitalism
b) Is production with intent to sell*
c) Is the only form of products of labor in the United States today
d) Constitutes the majority of work done in households

6.10 Capital goods include all of the following except
a) Machines
b) Offices
c) Buildings

d) Raw materials*

6.11 Which of the following is true about wage labor?
      a) It is found in other economic systems besides capitalism
      b) It always returns to labor the value of what labor produces
      c) It is labor performed under the direction of an employer*
      d) It includes income received by the self-employed producer

6.12 Profits are not used for
      a) Capitalists' incomes
      b) Workers' consumption*
      c) Interest payments to banks
      d) Purchase of new capital goods

6.13 In a capitalist economic system, profits are
      a) Only one form of the surplus product*
      b) Income for capitalists and workers
      c) Sales revenue less cost of materials used up in production
      d) Spent entirely on new capital goods

6.14 The capitalist class usually does all of the following except
      a) Own capital goods used in production
      b) Receive income as profits
      c) Own products of the labor process
      d) Participate in the labor process*

6.15 Which of the following is not true of the working class?
      a) Owns capital goods used in production*
      b) Receives income as wages and salaries
      c) Is subordinate to the capitalist class
      d) Sells its ability to work

6.16 Capitalism can coexist with many different systems of government, such as democracy and fascism, because
      a) Capitalism is inherently democratic
      b) Capitalism is just one of many sets of rules that organize society*
      c) The economic and political aspects of society are completely separate
      d) Capitalism is a class system

6.17 In political economy, class refers specifically to
      a) A group which has power over another group
      b) A group with a common position in the economy*
      c) A group with a common racial or ethnic background
      d) A group with a particular range of incomes

6.18 All of the following are examples of economic systems except

a) Slavery
b) Capitalism
c) Wage labor*
d) Socialism

6.19 Which is true of time allocated to commodity production, household labor, and government work, respectively, in the United States in 1990, in terms of the number of labor hours spent in each type of activity during a typical week?
a) Far more hours are spent in government work than on household work
b) Far more hours are spent on household work than in commodity production
c) Almost as many hours are spent in government work as in commodity production
d) Almost as many hours are spent in household work as in commodity production*

6.20 Which one of the following statements about wealth and income from property is true?
a) Wealth is the ownership of a stock of durable goods or intangibles that yields benefits over time*
b) Wealth is the total income of a person
c) Wealth is widely spread in the United States
d) Wealth is obtained only from property income

ADDITIONAL RESOURCES

References

Allen, Robert. *From Farm to Factory*. Princeton, N.J.: Princeton University Press, 2003.

Schumpeter, Joseph. *Capitalism, Socialism, and Democracy*. New York: Harper and Row, 1942.

CHAPTER 7:   American Capitalism: Accumulation and Change

How This Chapter Fits into the Text

This chapter begins the treatment of the time, or change, dimension. It discusses the causes and effects of the accumulation process, and it points out that U.S. capitalism has undergone a number of transformations on its way to the contemporary version.

This chapter introduces the idea that there is an intricate and important relationship between the growth of capitalism and the transformation of the class structure. Another important concept developed in this chapter is the social structure of accumulation: a set of institutions that ensures profitability to the capitalist class and reinvestment of those profits, usually for a period of decades.

MAIN POINTS

1. Competition for profits arises because profits are the only way in which businesses survive. This involves constant upgrading of technology, improvements in the product line, and cost cutting.

2. Accumulation, or the reinvestment of profits, is the most fundamental source of change in the capitalist economy. In capitalism, competition for profits among capitalists forces them to invest most of the surplus product, leading to continual change.

3. As a result, the capitalist class is the first elite in world history to revolutionize production for its own survival.

4. In this process of change, capitalism has become the dominant economic system in the U.S. economy, replacing other economic systems (slavery, independent commodity production) that were formerly more important. In this process, U.S. class structure has been transformed.

5. The process of change has also affected capitalism itself; U.S. capitalism has been characterized by several distinct institutional settings for the accumulation process, or social structures of accumulation.

6. These social structures of accumulation define the phases or stages of U.S. capitalism, including competitive capitalism, monopolistically competitive capitalism, and contemporary capitalism.

7. Contemporary capitalism in the United States is global. However, the U.S. economy is not homogeneous.

DETAILED OUTLINE

1. Accumulation as the Source of Change

Accumulation is defined as the reinvestment of profits into capitalist production.

Profits, when reinvested, create change. Investment, in turn, occurs in order to make more profits. Profits are both the lure and lever for change.

Change is central to capitalism. Within capitalism, the entrepreneur makes a profit and must then decide what to do with it. He or she could spend it on his or her own consumption but has no assurance of making the same profit next year. For example, factors outside the firm may have changed or input prices, customer preferences, and new competitors may have changed he landscape. (See the T-shirt example in the text.)

Other economic systems (feudalism, slavery) did not face this level of uncertainty.

There is an intense competition for profits between capitalists, which leads the capitalist class to invest the surplus and revolutionize production in order to survive. Although the capitalist elite enjoy more lavish lifestyles than in feudalism or other systems, this requires investment. Other societies encouraged only consumption.

2. Capitalism Comes to the United States

We can classify economic systems by asking two questions: Are the capital goods used in production privately owned, and is wage labor the main form of productive work? Based on these questions, in 1780 two economic systems were dominant—both were without wage labor and had private ownership: slavery (32%) and independent production of commodities (60%).

Because of competition from capitalist producers, independent producers had to become capitalists or be driven out of the market. The requisite wage labor for this came from former independent commodity producers and immigrants.

We can classify classes broadly by asking two questions: Does the individual own capital goods, and does he or she control the wage labor of others? The capitalist class owns capital goods and controls the wage labor of others; the working class does not own capital goods (and so has to seek work for wages) and does not control the wage labor of others. Middle classes are defined as those who possess one but not the other characteristic of the capitalist class. The "old" middle class owns capital goods (tools of the trade) but does not regularly employ and control the labor of others (examples include self-employed doctors, carpenters, artists, family farmers, mom-and-pop shopkeepers). The "new" middle class does not own capital goods but controls the labor of others (examples include managers and supervisors).

The sizes of classes in 1780 and the present are depicted in Tables 7.2 and 7.3, respectively (pages 155 and 156), which reveal the changes to class structure over time.

3. Social Structures of Accumulation

Social structure of accumulation (SSA) can be defined as the laws, institutions, and customs that provide the institutional environment that makes it possible for capitalists to earn profit and carry out accumulation.

Accumulation can occur within different social structures and includes several kinds of relationships: capitalist/capitalist, capitalist/worker, worker/worker, and government/economy.

An SSA usually lasts several decades and is rooted in durable relationships. There are two phases: a period of consolidation and boom and a period of decay and stagnation.

A long swing coincides with the SSA (see the definition on page 159).

It is not clear what erodes an SSA. Success or other causes can lead to its erosion. The erosion of an SSA can lead to crisis and eventual reconstruction of a new SSA.

4. Stages of American Capitalism (see Table 7.4, page 161)

A. Competitive capitalism: 1860s-1898

Capitalism triumphed over both slavery and independent commodity production to become the dominant economic system.

Small businesses, competing mainly by price cutting; government played a relatively minor role

B. Corporate capitalism: 1898–1939

Rise of large firms with substantial market power

Unions had little influence; government had a limited role.

C. Regulated capitalism: 1939–1991

Monopolistic competition on a world scale

Unions were relatively strong and established a labor accord with employers.

The government played a relatively major role in the economy.

D. Transnational capitalism: 1991–

Monopolistic and transnational competition on a world scale

Unions weakened by global competition

Government role in the economy is weakened.

5. American Capitalism Today: Economic Dualism

There are now greater differences within classes with regard to livelihoods than before.

Economic dualism is the situation that arises from the industrial structure of core and periphery. This can be described by several factors.

The rise and fall of labor unions (see Figures 7.1 and 7.2)

Segmented labor markets: The independent primary labor market includes those jobs with highly elaborate bureaucratic and professional career patterns. The subordinate primary labor market refers to those jobs in workplaces organized in collective bargaining (unionized work). The secondary labor market refers to those jobs that lack formalization and collective bargaining patterns (e.g., nonunion janitors, waitresses, hospital orderlies, messengers, guards, retail sales clerks, typists, file clerks, and recordkeepers; seasonal or migrant farm workers; and most employees of small businesses).

6. American Capitalism Today: Globalism

U.S. accumulation is now bound very closely to the rest of the world. This is seen in the fact that

There is a growing importance of international profits (see Figure 7.3, page 174).

There is higher import penetration (see Figure 7.4, page 175).

U.S. workers are global (within the United States as well) (see Figures 7.5 and 7.6, pages 176 and 177).

The United States produces few manufactured goods (more sales and services). This is partly because of globalization (see box "Globalization: American winners and losers").

TEACHING TIPS AND MODULES

Difficult Points

1. The main purpose of the discussion in this chapter of different economic systems is to get across the concept that there has existed a variety of class societies, but that they have in common the fact that a surplus product is produced and that a dominant group has

control of that surplus product. Important and interesting debates have occurred, both among political economists and among economic historians, over the historical relationships among different economic systems: the debate about when and why the transition from feudalism to capitalism occurred, for example.

Various themes may be followed up to give students a sense of the tremendous conflict and upheaval that accompanies transformations in economic systems.

Another possible theme for a lecture is the debate over the relationship between capitalism and slavery. Such a lecture could help clarify the idea of an economic system and would present some useful background for a discussion of racial discrimination. There has been considerable debate over the view that the labor of slaves allowed an extraordinarily high surplus product to be produced and that this made it possible for capitalism to develop at a much more rapid rate in Britain and the United States than would have happened without slavery.

Consider the triangular trade that occurred between England, Africa, and the Americas during the seventeenth, eighteenth, and nineteenth centuries. Slaves were shipped from Africa to the Americas, and they produced cotton in the U.S. South and sugar in the Caribbean. The cotton was the raw material for the booming textile industry of England, while the sugar was the fuel of the nascent English working class (one may note the energy obtained from sugar given the poor diet of the time). Rum, cloth, candles, and other items constituted the return flow to Africa from both England and the northern United States.

Through these trade flows, the development of capitalism proceeded in tandem with the development of another economic system, slavery. Why? British industrialization created a demand for the products of the slave system. Why did a slave system take root in the South? Recall the difficulty of obtaining wage workers in the early United States. With available land, people chose to be independent producers, that is, family farmers. Slaves resolved the labor scarcity problem: they were not free to leave the plantation, and if they ran away, they were identifiably different. An accompanying ideology of racism, the belief that blacks were inferior, was developed to justify the barbaric conditions to which they were subjected.

The debate can be summarized in the arguments of Pomeranz, Williams, and Fogel and Engerman, (see References at the end of this chapter).

2. Social Structures of Accumulation

Neoclassical economic models assume that endowments, preferences, and technology are given exogenously and that these, together with market exchanges, generate the main economic outcomes. Further, there is little or no place in neoclassical economics for institutions, customs, or social structures other than a simple (and unreal) description of competitive markets. Thus, the neoclassical approach to economic history focuses on such issues as changes in prices of factors (land, capital, labor), changes in the rate of

population growth, and changes in technology (again, primarily in relation to changes in factor prices).

In contrast, political economy regards institutions as important in economic analysis and regards them as both causes and effects. The historical approach presented in the concept of social structures of accumulation embodies this idea. Rather than viewing individual agents as the necessary starting point of economic analysis, the idea of social structures of accumulation implies that structures, customs, and institutions affect the objectives and actions of individual agents, while the actions of agents in history can also strengthen, undermine, or transform institutions.

The SSA approach also contrasts with an orthodox Marxist view that the economic base determines the superstructure of laws, practices, and institutions rather than the other way around. The implication of the SSA approach is that the SSA, once established, affects the ability of capitalists to earn profits, as well as the possibility and likelihood that these profits will be channeled into accumulation and growth.

The SSA analysis sees the social and economic institutions of capitalism as more adaptable than does an orthodox Marxist view. In Marx's view, the social relations of production would become increasingly ill suited to the increasing productive potential of the economy, and the result would be a crisis that overturned the capitalist economic system. In contrast, the SSA analysis regards crisis in the capitalist system not as the inevitable death-knell of capitalism but as the impulse that motivates an intensive search for new institutions that will restore the profit rate and lead to a new round of accumulation (investment) and growth. In this analysis, U.S. capitalism has survived two major crises already: one at the end of the long wave associated with the period of competitive capitalism and one at the end of the long wave ending in the 1980s.

3. Economic Dualism

The idea of a segmented labor market is sometimes difficult to understand without explicit reference to examples. A useful way to teach the consequences of a segmented labor market is to take the example of two couples given on page 371 (chapter: the mosaic of inequality). Using the occupations there, and building on similar cases is a fruitful way to describe the various segments of the labor market.

ACTIVITIES AND DISCUSSION

1. The chapter begins by telling us how difficult it was to employ wage workers in the early United States. Why was this so? Why were people reluctant to take employment? What alternatives to wage work existed? What about today? Does the reluctance live on? Why? What sorts of alternatives to wage work exist today?

2. The text defines old and new middle classes based on control of labor processes and ownership of capital goods. Are the following people wage workers, old middle class, or new middle class: school teachers, foremen, lawyers with their own practice, lawyers in a

large firm, police officers, software engineers, a young person working in the family store, professors, students?

3. What are the kinds of ways in which the United States is in a period of globalism today? Using references from newspapers, give examples.

Teaching Module 7.1:   Class Analysis

To Teach: The importance of class as a tool of analysis.

The instructor may spend the class asking students to explore some of the complexities of the idea of class from the political economy standpoint. Some questions would include:

A. What is the purpose of determining to which class a person or occupation belongs?

Classifying people or occupations has several purposes. For those who are involved in a social or political movement, an analysis of the class backgrounds or class positions of those actually or potentially involved in the movement will give a clue to what programs they will support and what actions they will be willing to take. Working-class people are likely to support strongly a proposal to raise the minimum wage; small business owners are quite likely to oppose it. Some workers may oppose environmentalists if the environmentalists' proposals mean loss of jobs. Capitalists are almost sure to support a cut in the capital gains tax, whereas workers may oppose it.

B. Students will certainly think of ambiguities in the definition of class given in the text. For example, what if people hold a series of different jobs with different class locations? To which class do we say they belong? Or, for example, is class defined for individuals or for households? If for households, what happens if a woman who is a manager of a team of computer programmers is married to a man who is an industrial worker? To what class does the household belong?

The problem is resolved by understanding class not as a taxonomy of individuals as much as a description of the interactions likely to occur. Thus, ambiguity can be tolerated: to the extent the individuals make decisions together in the household described above, they may be influenced both by the interests of industrial workers and by the interests of managers; to the extent they make decisions separately (how to vote, which movements for change to participate in or contribute to), they may each be influenced primarily by the job they currently hold.

C. How does class background, or current class position, influence individual actions?

Class location influences individual actions in a variety of ways: for one thing, it gives the individual a heightened awareness of the problems, hardships, and suffering of fellow members of the same class. For another, it makes the individual aware of the history of collective action of that class. Often, the child of a working-class family, even if he or she

ends up in a middle-class job, may remain well aware from the years of growing up in the family what struggles workers face—over unemployment, over health and safety on the job, and over inadequate pay, as well as over strike action. Such a person may support working-class interests even though he or she may hold a middle-class job.

Teaching Module 7.2:   Social Structures of Accumulation

To Teach: Social structures of accumulation.

Lead a class discussion using the following questions.

A. Suppose we were researchers doing detective work to decide whether the idea of social structures of accumulation is a sound one. Let us think of it as a hypothesis—a claim that is both debatable and testable. Then how would we test it?

Possible answers: Look at the trends over time in the profit rate, in workers' earnings (both wages and benefits), and in union membership, to name a few. If real wages and union membership are rising, the bargaining power of the working class is probably relatively high. Look at the trend in corporate tax rates and total corporate tax revenues in The State of Working America (http://www.stateofworkingamerica.org/), for example. If one or both of these is falling, then the power of capitalists relative to citizens may be rising.

Study the kinds of laws passed now, compared to previous periods: Do they favor corporations? citizens? workers? What kinds of issues have been publicly debated and hotly contested (such as raising the minimum wage, outlawing the hiring of permanent replacements for striking workers, signing the world biodiversity treaty)? Which side finally won?

How has the market structure changed over time in the country? Are markets today more dominated or less dominated by a few large firms than in the last several decades?

B. Consider each of the four kinds of relations that made up the postwar SSA: capitalist/ labor relations, capital/citizen relations, capital/capital relations, and government/economy relations. For the first three, there is both a conflict and a temporary resolution to (or truce in) that conflict, which allowed accumulation of capital to proceed. Consider the three following questions:

(1) In the capital/labor relations conflict, what victories were won and by which side during 1939–1991? What about from 1991 to the present? Were there any events or institutions that benefited both sides? What victories were won and by which side in the period from 1980 to the present? Were there events or institutions that benefited both sides? Which side has the upper hand now in the United States? What evidence can you cite for this view?

You may want to bring in data or anecdotes on the following:

- Union-busting

- Strikes won and lost

- Productivity, speedup, loss of jobs through automation

- Level and kinds of benefits: provision of health insurance by employers, percentage paid by employer, co-payments

- Effect of international competition on forcing concessions on wages and working conditions

- Urban enterprise zones giving special breaks to corporations

(2) In the capital/citizen conflict, what victories were won and by which side during 1945–1980? What victories were won, and by which side in the period from 1980 to the present? Do you think citizens are gaining more control or less control over capital in recent years in the United States? What does the evidence show?

You may want to bring in data on the following:

- Taxation of corporations and the wealthy relative to taxation of poor and middle-income people (contact an organization such as Citizens for Tax Justice to obtain up-to-date information)

- Regulation: Laws on the environment or on discrimination (on the basis of race, gender, age, disability, sexual preference, etc.)

- Enterprise zones (both a capital/labor issue and a capital/citizen issue)

(3) In the conflict among domestic capitalists and between domestic and foreign capitalists, which capitalists dominated, and in what ways, during 1939–1991? Which capitalists dominated, and in what ways, in the period from 1991 to the present?

Short Essay Questions

1. Briefly outline the various social structures of accumulation, or phases, of U.S. economic history. What were the time periods of each SSA? What were the dominant characteristics of the relations between capitalists? between capitalists and workers? between the government and the economy?

2. What is the middle class? Describe its two major parts and contrast their economic activities.

3. Define accumulation. Explain why accumulation might occur at a rapid rate under some circumstances or in some historical periods and at a slow rate during other periods of history.

4. Carefully define the capitalist class and the working class. Describe the development of the working class in the United States during the later eighteenth and early nineteenth centuries.

5. In what ways is American capitalism "global" today?

Multiple Choice Questions

7.1 What is the best explanation for why capitalists must reinvest most of their surplus product?
　　a) To expand the scale of their operations
　　b) Capitalists cannot consume all of their profits
　　c) Competition forces them to do so*
　　d) To prevent workers from getting a larger share

7.2 The fundamental driving force at the center of capitalist accumulation is
　　a) Profit-making and investment*
　　b) Meeting the material needs of society
　　c) Improving the average standard of living
　　d) Putting natural resources to the best possible use

7.3 Which of the following does not lead to social and economic change?
　　a) Competition
　　b) Changing input prices
　　c) Changing demand for goods
　　d) Replacement of worn machinery*

7.4 The most fundamental explanation for a firm's drive to make profits in the capitalist economy is
　　a) To reduce operating costs
　　b) To grow as a firm
　　c) To please their stockholders
　　d) To survive as a firm*

7.5 Compared to capitalism, in previous societies, elites
　　a) Consumed less of the surplus
　　b) Consumed more of the surplus*
　　c) Invested more of the surplus

d) Were generally more efficient

7.6 In the United States in 1780, the percentage of the total economically active population engaged in capitalist production, involving the use of wage labor and private ownership of capital goods, was approximately
        a) Less than 10%*
        b) Between 10% and 20%
        c) Between 20% and 30%
        d) Between 30% and 40%

7.7 Which of the following is not characteristic of the economic system of independent production of commodities?
        a) Capital goods are owned by workers
        b) Producers consume some of their own output
        c) Producers use their own labor, including family labor
        d) Producers surrender their surplus product to another class*

7.8 Which of the following is a correct characterization of today's class structure in the United States relative to that of 1780?
        a) The old middle class has been eliminated
        b) The capitalist class is a much larger percentage of the population now
        c) Wage workers now constitute over half the population*
        d) The old middle class is still larger than the new middle class

7.9 What is true about members of the old middle class?
        a) They do not own the capital goods that they work with
        b) They do not employ wage labor
        c) Historically, most became members of the emerging capitalist class
        d) They include self-employed doctors and carpenters*

7.10 What is true about the members of the new middle class?
        a) They own the capital goods they work with
        b) They do not include managers
        c) They have sufficient property income to avoid work for a salary
        d) They typically control the labor of others*

7.11 Managers are in the
        a) Working class
        b) Old middle class
        c) New middle class*
        d) Capitalist class

7.12 The old middle class today accounts for approximately what percentage of the labor force?
        a) 2%
        b) 5%

c) 8%
d) 12%*

7.13 A social structure of accumulation does all of the following except
    a) It structures relations between government and economy
    b) It specifies conditions under which profit-making occurs
    c) It ensures that no basic changes occur in the economy*
    d) It structures the relations among capitalists

7.14 A social structure of accumulation
    a) Is a permanent feature of capitalism
    b) Is rooted in resilient social relationships*
    c) Works to the advantage of all groups in society
    d) Includes just domestic economic institutions

7.15 All of the following were elements of the demise of regulated capitalism except
    a) The Vietnam War
    b) Concentration of firms into a core sector*
    c) Sharp reduction of profits
    d) Increased bargaining power of workers

7.16 Capitalism emerged in the United States from an economy consisting mainly of the economic system or systems of
    a) Slavery
    b) Independent commodity production
    c) Self-employed producers
    d) Slavery and independent commodity production*

7.17 Capitalism drew upon all of the following sources for wage laborers except
    a) The propertied class*
    b) Former slaves
    c) Former members of the old middle class
    d) Immigrants

7.18 During the last 150 years, the U.S. economy has had how many social structures of accumulation?
    a) Two
    b) Three*
    c) Five
    d) More than five

7.19 The regulated capitalism stage of U.S. capitalism is best characterized by
    a) Many small firms selling a small number of products
    b) Many small firms without market power
    c) The absence of competition between firms
    d) Large firms with substantial market power*

7.20 Which of the following is not a characteristic of transnational capitalism?
  a) Weakened environmental regulations
  b) Relatively limited government involvement*
  c) Large firms operating across national borders
  d) Competition facing U.S. firms from foreign firms

7.21 Which of the following is true about members of the middle classes in a capitalist economy?
  a) Their incomes are in between those of capitalists and workers
  b) They have only one of the defining characteristics of capitalists*
  c) They are really part of the capitalist class
  d) They are really part of the working class

7.22 Economic dualism refers to
  a) The two systems of communism and capitalism
  b) The industrial structure of core and periphery*
  c) The rich and the poor
  d) The working class and capitalist class

7.23 Union membership in the twentieth century
  a) Rose at first and then fell*
  b) Rose continuously
  c) Fell continuously
  d) Reduced wages

7.24 Which of the following are not elements of the segmented labor market?
  a) The independent primary labor market
  b) The tertiary labor market*
  c) The subordinate primary labor market
  d) The secondary labor market

7.25 All of the following suggests that American capitalism is global today except
  a) Higher import penetration
  b) Growing importance of international profits
  c) Greater levels of immigration
  d) Higher sales*

ADDITIONAL RESOURCES

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CHAPTER 8:   Supply and Demand: How Markets Work

How This Chapter Fits into the Text

Chapter 8 is a simple introduction to supply and demand curves. The concepts of a market, market equilibria, and the familiar formulation of how prices are equal to marginal cost in a competitive market are reviewed here. The chapter lays the basis for a more subtle understanding of price formation in Chapter 9 and the critique of competitive markets in Chapters 9 and 10.

MAIN POINTS

1. Competitive markets consist of many potential buyers and sellers, with none having the power to dictate terms to any other.

2. The key concepts in understanding how competitive markets work are supply curves, demand curves, and market-clearing.

DETAILED OUTLINE

1. The Nature of Markets

A market exchange is the transfer of ownership of a piece of property (a good or a service) to another party in return for some form of payment at mutually acceptable terms. It is a voluntary process. A market refers to all the buying and selling activities of those persons wishing to trade a particular good or service. This is not necessarily referring to a place but to a set of activities that can happen anywhere.

Markets determine two basic outcomes: the price of the commodity being sold and bought and the volume (or quantity) that is sold and bought. They consist of two sets of actors: demanders (those who wish to buy the product) and suppliers (those who wish to sell it).

A market with a large number of buyers and sellers is called a competitive market, and the rivalry between the buyers and sellers means that no one has control over the price.

2. Supply and Demand

A demand curve is a graphical representation of a situation in the market. It indicates for each possible price how much of the good or service the demanders are willing to buy. It does not reflect need, and it only shows the willingness to purchase (in other words, "wants" backed up by money). Demand curves generally slope downward and to the right (with lower prices, more is demanded).

Other determinants of demand (not all are mentioned in the book) are

(a) Income (more income, more demand)

(b) Tastes (a greater preference for the commodity, more demand)

(c) The price of a substitute commodity (a higher price for the substitute, more demand)

(d) The price of a complementary good (a lower price for the complement, more demand)

(e) The number of consumers in the market (more consumers, more demand)

(f) Expectations (of future prices of the product and of substitutes, future quality, and future income)

A supply curve similarly traces out for each possible price how much of the good or service suppliers are willing to sell. Supply curves slope upward and to the right (with higher prices, more is supplied).

Other determinants of supply are

(a) Input costs (higher input costs, less supply)

(b) Technology (better technology, more supply)

(c) The cost of obtaining the necessary permission to reproduce something from a patent holder (lower cost, more supply)

(d) The number of firms (more firms, more supply)

(See Table 8.1 for a full summary of the determinants of the positions of supply and demand curves.)

Figure 8.1 shows an example of a supply curve and a demand curve.

All the influences that affect the position of the supply curve also determine the marginal cost (the increase in the total cost incurred by a firm when it increases output by one unit) of the commodity's production.

Average cost, by contrast, is the total cost of producing a certain number of units of the commodity divided by the total number of units produced.

What happens with marginal and average costs determines what is called the production technology. If marginal and average costs rise with increasing output (as in a resource-

based industry), then the production is said to display decreasing returns to scale. If average cost decreases when output is increased, then there is said to be increasing returns to scale. Formally, increasing returns to scale are said to exist when an increase in inputs brings about a more than proportional increase in output (in other words, each output takes less to produce in terms of inputs).

3. Supply and Demand Interacting

Excess demand exists when more of a good or service is demanded than is supplied at a given price. Conversely, excess supply exists when more of a good or service is supplied than is demanded at a given price. In the first instance, the price of the good is bid up by those unable to purchase enough of the product at the given price. In the second instance, suppliers will lower price to attract more customers. Equilibrium is defined as a price and quantity exchanged in which there are no forces internal to the situation pushing it to change; this is achieved when the price is pushed to the market-clearing price (the price at which buyers want to purchase exactly the quantity that sellers want to sell).

In a competitive market the equilibrium price of the product (P) equals its marginal cost (MC). If $P > MC$, a producer could earn profits by producing one more unit of the product. If $P < MC$, the producer could lower losses by producing one less unit of the product.

TEACHING TIPS AND MODULES

This is a straightforward chapter to teach (similar to other introductory textbooks).

ACTIVITIES AND DISCUSSION

1. Be an Economic Detective

Ask students to use demand and supply graphs and/or reasoning using the concepts of supply and demand to explain some of the following situations:

A. Following an Internet article that suggests that aspartame (a common sugar substitute) may cause serious illnesses, the price of diet drinks falls.

B. A poultry farmer hires you. She wants to know what is going to happen to the price of eggs because of two events. First, a new rumor is sweeping the country that eggs are great diet food and they don't even raise cholesterol levels. At the same time, advances in chicken husbandry increase the number of eggs that can be produced. What happens to the price and quantity of eggs? (Hint: Both supply and demand are affected.)

C. True story: All tequila must be made with at least 51% blue agave grown in specified areas of Mexico. In 1997 a fungus plague occurred, affecting the blue agave plants in Mexico. The price of tequila in the following year shot up. Why?

D. Another true story: DVD players, which used to cost between $600 and $700 in 1997, now cost less than $100. What do you think is happening to video rentals and why?

E. Cover charges for bars are higher on Saturday than on Thursday.

Short Essay Questions

1. Define marginal cost. Why in a competitive market will there be a pressure for price to equal marginal cost (and not be above or below it)?

2. Answer the following using a supply and demand diagram: (a) What factors cause the demand curve to shift and in which way?(b) What factors cause the supply curve to shift and in which way?

3. Consider the market for oranges. Using supply and demand graphs, explain clearly the effect on equilibrium price and quantity of oranges traded under the following five scenarios:

   (a) An orange crop freeze

   (b) A scientific study proving that orange juice is good for you

   (c) A crackdown on illegal aliens working during the orange harvest

   (d) An economic boom in Florida

   (e) A development of a cost-saving harvesting technology

4. Can a demand curve ever slope upward? Hint: Think about certain products like cosmetics or perfume. Why might a cheap perfume have less demand than an expensive one?

Multiple Choice Questions

8.1 The price at which a good or service is exchanged and the quantity of it that will be brought or sold are determined by
      a) The market*
      b) The demanders
      c) The suppliers
      d) The labor process

8.2 For a market to be a competitive market, it must have
    a) Many potential demanders and many potential suppliers*
    b) Many potential demanders and few potential suppliers
    c) Few potential demanders and many potential suppliers
    d) Few potential demanders and few potential suppliers

8.3 In competitive markets
    a) One seller can charge a higher price for a product by making it less available
    b) Sellers can decide on the price, but not the quantity they offer for sale
    c) Buyers have no control over the amount they buy
    d) Suppliers will not be able to sell at higher than the market-clearing price*

8.4 If the point (520 bottles, $2) is on the demand curve for beer, this means that
    a) If beer costs $2, 520 bottles will be bought
    b) If beer costs $2, people will want 520 bottles
    c) If beer costs $2, the total amount all buyers are willing to buy is 520 bottles*
    d) In order to break even, beer producers must charge $2 a bottle

8.5 Demand curves generally slope downward because
    a) The higher the price, the less people buy*
    b) If a product's price is low, people assume it is of poor quality
    c) It costs less per unit to produce more of some goods
    d) Profit per unit falls as more units are sold

8.6 Supply curves generally slope upward because
    a) It is cheaper to produce large quantities of something
    b) Selling large quantities of something will drive down its price
    c) At high prices, suppliers will want to sell more*
    d) Only a few people can afford to buy high-priced items

8.7 The demand curve for beer depends on not only how much beer people want but also
    a) How hot the weather is
    b) How many pretzels are available
    c) How much money they have*
    d) How much wine they want

8.8 The supply curve for cars shows,
    a) At a given price, how many cars will be sold
    b) At a given price, how many cars will be offered for sale*
    c) At a given price, how many cars will be produced
    d) At a given price, how many cars people will want

8.9 To say the market for the Xbox clears means that
    a) The quantity bought equals the quantity sold
    b) The price at which an Xbox is sold is the same as the price at which it is bought

c) At the current price,the quantity demanded equals the quantity offered for sale*
d) Everyone who wants an Xbox gets one

8.10 To say that the beer market clears means that
        a) All the beer that is produced is bought
        b) All the people that want beer are able to buy it
        c) All the people who offer to pay for beer at the current price can buy it
        d) There is no excess demand or excess supply*

8.11 The demand curve for beer may shift if
        a) The cost of producing beer falls
        b) The price of beer changes
        c) The quantity of beer offered changes
        d) People's incomes change*

8.12 What might produce a movement along the demand curve for beer but not a shift in the demand curve?
        a) A drop in the price of beer*
        b) An improvement in beer-brewing technology
        c) A change in the price of wine
        d) A movement along the supply curve

8.13 Hops are used in making beer. If the price of hops falls, then
        a) The supply of beer offered at a given price will rise*
        b) The supply of beer offered at a given price will fall
        c) The quantity of beer demanded at a given price will rise
        d) The quantity of beer demanded at a given price will fall

8.14 If the current price of beer is \$0.50 a bottle and at this price 520 bottles are offered while consumers offer to buy 2,043 bottles, then we have
        a) A market-clearing price and quantity
        b) Excess demand*
        c) Excess supply
        d) A shift of the demand curve

8.15 When there is excess demand for ice cream,
        a) The price of ice cream tends to rise and the quantity demanded tends to fall*
        b) The price of ice cream tends to fall and the quantity demanded tends to fall
        c) The price of ice cream tends to rise and the quantity demanded tends to rise
        d) The price of ice cream tends to fall and the quantity demanded tends to rise

8.16 When there is an excess supply of beer,
        a) The price of beer tends to rise and the quantity supplied tends to rise
        b) The price of beer tends to rise and the quantity supplied tends to fall
        c) The price of beer tends to fall and the quantity supplied tends to rise
        d) The price of beer tends to fall and the quantity supplied tends to fall*

8.17 One determinant of the location of the supply curve is
    a) Alternative products available
    b) Number of potential buyers
    c) Technology*
    d) Consumers' incomes

8.18 One determinant of the direction of the demand curve is
    a) Cost of inputs
    b) Number of potential buyers*
    c) Alternative opportunities for profit by suppliers
    d) Technology

8.19 The departure of students from a university campus at the end of the spring term causes the demand curve for beer in town to shift. One change that would shift the demand back in the other direction would be
    a) A fall in the price of wine
    b) An advertising campaign for beer*
    c) A new technology for producing beer more cheaply
    d) A fall in the price of beer

ADDITIONAL RESOURCES

References

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CHAPTER 9:   Competition and Coordination: The Invisible Hand

How This Chapter Fits into the Text

This chapter looks at the functions of markets in the allocation of resources. In the three-dimensional view, this is the horizontal dimension of capitalism. Chapters 10–12 focus on the dimensions of change and command.

MAIN POINTS

1. There are two fundamental ways in which societies coordinate their resources: through rules and through command. Markets are an example of the former, with coordination occurring through adherence to competition and private property.

2. By rewarding success and punishing failure, competitive markets provide a decentralized system of motivation; through market prices they also transmit information about the relative scarcity of various goods and services.

3. Under certain circumstances, competitive markets coordinate the economy in ways that are generally beneficial, but when the right circumstances are not present, markets fail to perform this function well.

DETAILED OUTLINE

1. Coordination: Coordination is a central problem in allocating the resources of the economy. Every society faces the questions of economic coordination: What will be produced, how, for whom, and by whom? There are typically two ways of coordinating resources: through command (with someone directing the efforts of others) and through rules (with everyone obeying a set of rules while undertaking activities). Both types of coordination are often necessary in modern societies.

2. Rules vs. Command: Coordination by command works best when all the relevant information is easily available to the persons making the decisions and their motivations and incentives are aligned to those on behalf of whom they are making their decisions (e.g., air traffic controllers). These conditions are not present in most economies, and as a result, another way to coordinate activity is through rules. In the case of the overall economy, the rules of private property and competition may serve to allocate resources efficiently. This was the insight of Adam Smith.

3. Scarcity: Scarcity is defined as a relationship between a desire for something and how difficult it is to obtain. The price of a commodity on a market reflects its scarcity. Smith's invisible hand refers to the allocation of scarce resources through competitive markets. Competitive markets do this by working out excess demand or inadequate demand for a commodity through the price mechanism. If excess demand exists, price goes up (as in

the example with beer in the text) until there is equilibrium in quantity supplied and quantity demanded.

4. Prices as Signals: Prices, therefore, work as a decentralized system of information and motivation. They provide information to consumers and producers as to cost of production, the demand for the product, and the cost of inputs. They provide motivation for consumers and producers to satisfy wants as cheaply as possible and to undertake the lowest cost production given demand. We have two major requirements for self-interest and decentralized activity to lead to socially desirable outcomes. First, the prices of goods, as they are sold to consumers, measure the ability of the goods to satisfy human needs. That is, all "needs" are adequately expressed in market demand. Second, the price of every additional unit of the good sold on the market is exactly equal to the social (marginal) cost of producing that good ($P = MC$). That is, all the costs incurred to produce that one unit of the good in question are reflected exactly in its price.

5. Market Failure: Markets may fail to coordinate properly under certain cases when self-interest leads to socially suboptimal outcomes (e.g., the prisoner's dilemma, the tragedy of the commons). Markets also fail when there is market failure (i.e., the price does not equal the marginal cost to society from production). This may occur because of a lack of competition, externalities, or increasing returns.

6. Externalities and Increasing Returns: If there are externalities, there is a divergence between the private cost and the social cost of production and consumption. This may occur because of incomplete contracts and can be solved in this case by making the contract complete (the Coase Theorem). With increasing returns, the marginal cost of production will be lower than the average cost (and prices will be set to cover average costs); hence, $P > MC$ in this case.

TEACHING TIPS AND MODULES

Although this is a short chapter, it contains a very large amount of material. In particular, the concepts of market failure and coordination failures are fairly subtle notions and may require more than a couple of classes. For instructors who are interested in teaching more about demand and supply (particularly about the determinants of demand and supply and elasticity) from another source, this is a good place to provide any additional material. Such material is best presented before the succeeding chapter on capitalist production and profits. In Chapter 9, particular points that may be difficult are discussed below.

1. Prices as Motivation and Information. Most students are not made aware of Hayek's justification of markets. The exercise "Truth telling in widget markets" could be used to assist in this.

2. The Theme of Coordination Problems and Coordination Failures. Students often find such problems as the prisoner's dilemma to be engaging. Adam Smith's premise was that the "game" or set of choices presented to producers by the competitive market was the

kind of game in which the solution best for society turned out to be the solution that each individual—individually optimizing—would choose.

It is possible to demonstrate to students through a series of two-by-two games (two players, each faced with two strategy choices) that it is only in certain kinds of games that individuals will choose socially optimal outcomes; in other games, the socially optimal outcome can only be reached by some mechanism other than individual choice—mechanisms such as overt cooperation among agents.

The farmers' choice game (coordination through self interest) is an example in which the invisible hand works: farmers Rao and Johnson each decide to specialize in the crop each grows best, and society gets lower-cost vegetables. If Rao grows tomatoes and Johnson grows corn, neither will want to change; this is therefore a Nash equilibrium, and it is the only one in the game.

The road game illustrates one kind of coordination problem, in which individual choice initially will not avoid fatal collisions. Once a solution is reached, however (everyone drives on the right or else everyone drives on the left), no agent has any motivation to depart from it. As in the farmers' choice game then, the solution is self-enforcing once it is reached.

In the handout, "Do the wrong thing," the prisoner's dilemma illustrates a different kind of coordination problem, one in which each agent acting alone will definitely make a decision that will earn both lower payoffs than they could have earned by cooperating. Its purpose is to teach the idea of a coordination failure and reinforce the idea that coordination problems are not always best solved by individual decisions made without social cooperation. Profit-seeking and environmental destruction show how a prisoner's dilemma situation can lead to pollution, as does the advertising game that follows.

3. Price = Marginal Cost Condition. In typical microeconomics courses, the notion of marginal cost is taught more elaborately, with more effort expended on marginal, average, and total cost curves. Table 9.5 on page 217 can be used to teach this concept.

ACTIVITIES AND DISCUSSION

Present and discuss any of the teaching modules below.

Teaching Module 9.1: Truth Telling in Widget Markets

To Teach: Decentralized information can be conveyed by the price mechanism.

Explain that widgets are an economist's favorite nonsensical item used to represent real goods. The students are going to represent a market for widgets. Choose 10 students (producers) to whom you give each a piece of paper indicating the cost of widgets (let's say, each widget costs $2, and therefore each sheet has $2 written on it). Then choose one person (buyer) who will go around the classroom trying to buy widgets (give him a

budget of, say, $4 per widget). Now explain to the buyer that he or she can meet with each seller and try and obtain the best price he or she can for each widget. Explain to the sellers that they must try and sell their widgets to the buyer, or else they will take a loss, but that they do not want to sell at less than their cost. The buyer has a minute to speak in private with each seller and to try and obtain the best price. At the end of the conversation, the buyer can come back and announce that he or she will be buying at "x" price and ask whether anyone is willing to sell for less. If x > $2, sellers will be willing to sell for less. The final price should be $2—the truthful price.

Teaching Module 9.2:   Coordination through Self-Interest

To Teach: The invisible hand—coordinating the division of labor through self-interest.

		Johnson decides to grow:	
		Corn	Tomatoes
Rao decides	Corn	R:$40,000, J:$60,000	R:$50,000, J:$50,000
to grow:	Tomatoes	R:$80,000, J:$80,000	R:$60,000, J:$40,000

Two farmers named Rao and Johnson each have the same amount of land, and they are capable of growing either corn or tomatoes. The entry in the upper left-hand corner of the table indicates that if Rao decides to grow corn, and Johnson also decides to grow corn, then Rao receives a net income of $40,000 this year and Johnson receives a net income of $60,000. This must mean that Johnson is better at growing corn for some reason; perhaps her land is better suited for growing corn or she happens to have a mechanical corn harvester.

By checking all the possibilities, we can see that the ideal situation for both farmers is that Rao grows tomatoes and Johnson grows corn; both will make more income than with any other arrangement.

Assume that neither knows what the other will do, but each knows only her own payoff (the payoff is the income received, as shown in the table). Assume also that each farmer does what is best for her only. What will they do?

Johnson will notice that she will be better off growing corn, regardless of what Rao does. Likewise, whatever Johnson does, Rao will notice that she'll be better off growing tomatoes. Thus, Rao will decide on her own to grow tomatoes, and Johnson will decide on her own to grow corn.

By pursuing self-interest, each will make the choice that is not only right for herself but also right for the other person. In this case, the invisible hand works. But this happy outcome does not always occur.

Can you think of economic interactions in which the payoffs would be different and the outcome would therefore be different?

Teaching Module 9.3:   Coordination Failure—The Road Game

To Teach: Coordination problems and coordination failures.

A coordination problem is a situation in which the uncoordinated actions of individuals (each independently pursuing his/her own interest) produce results that are undesirable by comparison to results that could have been obtained by communication and agreement among the individuals.

A coordination failure occurs when the coordination problem is not solved and no agreement among the individuals is reached.

The road game is an example of a coordination problem.

Which side of the road to drive on?

		B drives on the:	
		Right	Left
A drives on the:	Right	2	−10
	Left	−10	2

In this game there is a very small town with one two-lane road and two drivers, A and B. The entries indicate the payoff to both A and B. For example, if both A and B drive on the right, then the payoff to each is 2, representing the fact that they will not collide. If one drives on the right and the other on the left, there is a pretty fair chance that they will one day be driving in opposite directions at the same time and collide, so the payoff to both is −10.

This is a particularly simple coordination problem because neither A nor B cares whether they drive on the right or the left, as long as both of them make the same choice.

In this situation, some coordination is needed, but once the custom or rule of driving on a particular side of the road is established, it does not need to be enforced, because no one would benefit by doing differently.

Teaching Module 9.4:   Do the Wrong Thing

To Teach: The prisoner's dilemma and coordination problems.

Robin and Hood are caught in a wealthy neighborhood with breaking and entering tools at 3 a.m. They are taken to the police station and interrogated in separate rooms. They are

not allowed to communicate with each other. Each must decide either to confess (and rat on his partner) or to insist on his innocence. Each knows that the other is as self-interested as himself and that no one is going to do any favors.

Each knows that (1) if he confesses and rats on his buddy, he is likely to get off with a 1-year sentence, and the buddy will get 10 years in the clink; (2) if neither confesses, they are likely both to get 3-year sentences; (3) if both confess, they are likely both to get 5-year sentences.

These payoffs are shown below.

		Hood decides:	
		Not to confess	To confess
Robin decides:	Not to confess	R:3 years, H:3 years	R:l0 years, H:1 year
	To confess	R:l year, H:l0 years	R:5 years, H:5 years

Here's the dilemma: It would be better for both if neither confessed, but it is also true that for either Robin or Hood, sitting in his cell and deciding alone what to do, it is hard to escape the fact that no matter what the other does, the best alternative is for him to confess. So each will confess and serve 5 years, when each could have gotten off with a 3-year sentence if both had refrained from confessing.

The moral of the story: There exist circumstances under which acting in one's own self-interest may produce undesirable consequences, not only for others but for oneself. How could they have avoided this outcome (aside from not walking around rich neighborhoods at 3 a.m. with burglars' tools)? What would have happened if they had made an agreement not to confess before getting caught? (Despite appearances, this question does not have a simple answer, because each would have a powerful incentive to violate the agreement once they were isolated in their cells.)

Does the prisoner's dilemma occur in economic interactions? Think of examples.

Teaching Module 9.5:   The Prisoner's Dilemma

To Teach: Examples of the prisoner's dilemma.

1. Profit-seeking and environmental destruction: a prisoner's dilemma leading to a coordination failure

Two megafarms, the Ag-grassive Company and the X-Seed Corporation, are neighbors and grow the same crops. Thus, for instance, when Ag-grassive uses more pesticide than X-Seed to spray its crop, insects migrate to X-Seed's land.

Both agribusinesses would be better off with a system of integrated pest management (IPM: a system of pest control without pesticides), but if only one uses IPM, it will not work because insects will still migrate to the IPM land, fleeing the other corporation's pesticide-drenched land.

Here is the matrix of payoffs to various choices, representing crop yield that varies with level of pest infestation:

		X-Seed decides to:	
		Use IPM	Spray its crop with pesticides
Ag-grassive decides to:	Use IPM	A:3, X:3	A:1, X:4
	Spray its crop with pesticides	A:4, X:1	A:2, X:2

The decision whether to use pesticides is a prisoner's dilemma. For example, if Ag-grassive decides not to spray, X-Seed can get a payoff of 3 by not spraying (upper left cell of matrix), but X-Seed gets a payoff of 4 by using pesticides, so X-Seed will spray. If Ag-grassive decides to spray, on the other hand, X-Seed gets 1 by not spraying, but 2 by spraying, so again, X-Seed will decide to spray.

This tells us that in the absence of coordination, both will choose to use pesticides. The structure of the payoffs in this game is the same as in the prisoner's dilemma. However, if both were to use IPM (and not pesticides), both would be better off (payoffs of 3 each) than if both used pesticides (payoffs of 2 each). For both to use IPM is not an equilibrium, however, because in that state, each has reason to change its pest control strategy. The temptation to spray is always there. This is a coordination failure.

Coordination could be brought about by negotiation or by a change in the rules of the game through, for instance, passage of a law requiring IPM for all agricultural producers. However, if the two corporations make their decisions in isolation and solely on the basis of self-interest, they will do the wrong thing; the invisible hand will not lead to the best outcome. In fact, even a voluntarily negotiated agreement that both refrain from spraying will be fragile because both will have incentives to break it.

2. The Advertising Game

Company A and company B have spent a lot of money on research to develop a cure for the common cold. Winter is approaching, and there is certainly going to be a lot of demand for their products. However, they both know that they are competitors and that

both of them have very similar products. As a result, they have to decide whether to conduct an expensive advertising campaign or not. If company A and company B both do not advertise, they do not have any additional costs and end up splitting the revenues from their market, earning $500,000 each. This is shown in the top left box. If, however, either decides to advertise while the other company does not advertise, customers are made aware only of the product that the advertising company produces. As a result, they will buy only the advertised product. If this is the case, the company that advertised will get $750,000, while the company that did not advertise loses $250,000 because of its costs in developing the product. These situations are shown in the top right and bottom left boxes. Finally, if both companies decide to advertise, they become locked in an advertising war and spend a lot of money shooting down the competitor's product. If this happens, both companies will earn profits, but a significantly lower amount: $100,000 each. This is shown in the bottom right box.

<div align="center">B's Strategy</div>

		Do not advertise	Advertise
A's Strategy	Do not advertise	A's profit: $500,000 B's profit: $500,000	A's loss: $250,000 B's profit: $750,000
	Advertise	A's profit: $750,000 B's loss: $250,000	A's profit: $100,000 B's profit: $100,000

(a) If both companies pursued only their self-interest, which outcome would occur? Explain carefully.

(b) What is this kind of situation sometimes called?

(c) Can both companies do better if they have an agreement? What should this agreement force them to do? What will be the profit of each company in this case?

Short Essay Questions

1. The Socialism Debate

Several famous economists—Ludwig von Mises, Friedrich Hayek, Maurice Dobb, Jacob Marschak, and Oskar Lange—were involved in a very intense debate in the 1930s called the "Socialism Debate." The first two contended that the market was the best coordinator of production, whereas the latter three felt that a central planner could do the job best. In other words, the battle was over whether an economy organized by competition between many individuals was better than one in which a central authority commanded production. Although the socialists carried the day at that time, the ideas of Hayek, in particular, won out over the long term. Hayek argued in a series of articles from the late

1930s to the 1960s that a state-run economy was less efficient in resource allocation than a market run economy, because the information conveyed by the price mechanism of a market economy was greater than that available to a central planner.

Elaborate on Hayek's insight by explaining how prices are a mechanism for conveying decentralized information and motivation for market participants.

2. The Kyoto Protocol

From Wikipedia http://en.wikipedia.org/wiki/Kyoto_Protocol:

The Kyoto Protocol is an amendment to the United Nations Framework Convention on Climate Change (UNFCCC), an international treaty on global warming. Countries which ratify this protocol commit to reduce their emissions of carbon dioxide and five other greenhouse gases, or engage in emissions trading if they maintain or increase emissions of these gases. A total of 141 countries have ratified the agreement. Notable exceptions include the United States and Australia.

Imagine that there are only two countries in the world that have any importance with respect to the emissions of greenhouse gases- country A and country B. Using the example in table 9.4, explain why something like the Kyoto Protocol might be necessary for an optimal social outcome.

3. File Sharing

From wikipedia: http://en.wikipedia.org/wiki/Napster

Napster is an online music service that was originally a file-sharing service created by Shawn Fanning. (The service was named Napster after Fanning's nickname.) Napster was the first widely used peer-to-peer (P2P) music-sharing service, and it made a major impact on how people, especially college students, used the Internet. Its technology allowed music fans to easily share MP3 format song files with each other, thus leading to the music industry's accusations of massive copyright violations. Although the original service was shut down by court order, it paved the way for decentralized P2P file-sharing programs, which have been much harder to control.

After Napster, there were several other P2P services, including eDonkey 2000, Emule, Piolet, Zultrax, Audiosap, Gnucleus, Grokster, BearShare, Kazaa, Shareaza, and Mp3 Wolf among others.

Imagine that you can download music without legal consequences. What is the approximate marginal cost to you (once you have a computer and the necessary software) of making a CD of your favorite songs by your favorite artist? What would be the approximate cost of buying that CD in a store? Is the price equal to the marginal cost here? Where does this market failure come from? Does the advent of services like iTunes where you can download a single song for a dollar solve this problem?

4. Define and explain the concept of an externality.

5. How, according to Adam Smith, might order and coherence be the result of the uncoordinated actions of self-seeking individuals?

6. Define market failure, give three examples of it, and explain at least two reasons why it might occur.

7. What is a coordination problem? What is a coordination failure? Use the prisoner's dilemma to explain your answers.

8. In what way is sleeping sickness a failure of capitalism?

9. Using a 2 X 2 grid like we developed in the text, explain why the strategic interaction between two companies that can charge either a high price or a low price may result in lower profits for both if they are acting competitively. Explain, again using the grid, why there may be a tendency for firms to try to collude. Finally, explain why it may be hard for firms to remain in an equilibrium in which they both collude. (Hint: What is the incentive for each player in the collusion equilibrium?)

Multiple Choice Questions

9.1 If a large drug company controls the market for a certain drug and maintains prices above the marginal cost, then
       a) There is a market failure because there is not enough competition*
       b) There is market failure because there are externalities
       c) The market works well because the high price limits consumption
       d) The market works well because the high price encourages production

9.2 Marginal cost is
       a) The cost of producing all output
       b) The cost incurred in producing an additional unit of output*
       c) The total cost divided by the total output
       d) The cost of producing the first unit of output

9.3 All of the following are reasons why price may differ from marginal costs except
       a) There is not enough competition
       b) There are externalities present
       c) There are too many buyers and sellers*
       d) There are increasing returns

9.4 Prices are a decentralized way of transmitting _____ and _____ to buyers and sellers.
       a) Money, wealth

b) Supply, demand
c) Democracy, accountability
d) Information, motivation*

9.5 Poisonous dioxin emissions that result from the production of paper are an example of a negative externality because
  a) Self-interested paper firms don't like environmental regulations
  b) There are fines for producing too much dioxin
  c) The full social cost of the dioxin pollution is not accounted for in the producer's cost of making paper*
  d) Toxic emissions are the only form of an externality

9.6 One efficient way of handling externalities arising out of production is to
  a) Ban production of the product
  b) Have the government take over production
  c) Issue clear property rights over the externality*
  d) Do nothing

9.7 All of the following are reasons that markets fail except
  a) The presence of externalities
  b) The presence of government*
  c) Increasing returns to scale
  d) People's needs are not reflected in market demands

9.8 Which of the following statements is true?
  a) Decentralized systems are always the best way to organize activity
  b) There is no such thing as government failure
  c) Prices always convey correct information about costs
  d) Incomplete contracts can lead to externalities*

9.9 In the case of OPEC, the increase in the price of oil communicated

  a) The right information, because demand rose
  b) The right information—that the cost of acquiring oil had risen
  c) The right information—that the market was not competitive
  d) The wrong information, because the market was not competitive*

9.10 If a large drug company controls the market for a certain drug and maintains price above the cost of producing an additional unit of the drug, then
  a) There is market failure because the price conveys the wrong information*
  b) There is market failure because social costs are not included
  c) The market works well because the high price limits consumption of the drug
  d) The market works well because the high price encourages more production

9.11 Suppose that the price of beer is $1 a bottle, that beer breweries do not pollute, and that drunk drivers sometimes cause accidents. We can conclude that

a) The $1 includes private costs, and there are no social costs
b) The $1 includes both the private and the social costs
c) The $1 includes the private but not the social costs*
d) There is no market failure

9.12 The existence of traffic congestion, air pollution, and accidents resulting from driving while intoxicated indicate that there is
a) Market failure in the auto market
b) Market failure in the markets for cars and gasoline
c) Market failure in the markets for liquor and autos
d) Market failure in the markets for liquor, autos, and gasoline*

9.13 Employees are trained by firm A to use advanced computerized production systems; then some of the employees go to work for other firms and use their skills there. This is an example of
a) Market failure, because firm A is not fully rewarded for the benefit it produces *
b) The market working well, because firm A's action benefits the whole society
c) Negative spillover
d) Private benefit and social cost

9.14 The price of a good measures its
a) Input costs
b) Desirability
c) Quantity
d) Scarcity*

9.15 If the price of a good falls, this must mean that it is
a) Less scarce than before*
b) More scarce than before
c) Less desirable than before
d) More desirable than before

ADDITIONAL RESOURCES

Reference

Hayek, Friedrich A. "The Use of Knowledge in Society." *American Economic Review* 35 (4) (1945): 519–530.

CHAPTER 10:   Capitalist Production and Profits

How This Chapter Fits into the Text

This and the next two chapters present the vertical dimension of the capitalist system. This chapter explains in particular why capitalists are able to get profits and what determines the profit rate. Because the key to understanding many aspects of firm behavior is to understand the determinants of the profit rate, this chapter is particularly important in "setting the stage."

Students first learn to think of the determinants of the profit rate in absolute terms: total profits, total materials costs, total wages, total capacity utilization, and so forth. The discussion is then reframed in terms of quantities per hour worked (wages per hour, materials costs per hour, capacity utilization per hour, etc.).

MAIN POINTS

1. Profit is what is left from sales revenue after all inputs (materials and labor) have been paid. The profit rate is the total amount of profit divided by the capital stock.

2. How high the profit rate is depends on the success of the capitalist class as a whole to extract high levels of efforts from workers, to obtain cheap raw materials, and to obtain services from the government at low tax cost.

3. In order to understand why the profit rate is high or low, we need to understand the determinants of the profit rate.

DETAILED OUTLINE

1. What are profits?

Profits can be divided into two types. The first is commercial profits—which arise from the selling of some good or service for more than it cost to purchase. With commercial profits, the buyer's loss is the seller's gain; it is a zero-sum game. The second is capitalist profits—which arise from a labor process in which the price of the good or service is greater than the cost of the labor time and the other inputs that were used to produce it. With capitalist profits, there are necessarily command relations.

Circuits of capital. Commercial profits can be depicted (as by Marx) by the circuit $M\text{-}M'$, where M is the initial money invested and M' is the money obtained from selling the product. Capitalist profits are depicted, by contrast, as $M\text{-}C\text{-}C'\text{-}M'$, where M is the initial money spent on procuring the inputs C, C' is the output with value added through the labor process, and M' is the money obtained by the capitalist at the end of the period.

Capitalist profits in the economy. If we look at the entire economy, total profits can be seen as the monetary value of the economy's surplus product. Capitalist profit, as measured by national income accounts, often includes all forms of property income: profits proper, rent, interest, and dividends.

2. Calculating the Rate of Profit

The rate of profit—the profit per unit of capital goods—is the variable that most matters to the capitalist because it indicates the degree of success in profit-making (how much profit was made in relation to how much was produced) more than the total amount of profits does.

Numerically, the profit rate can be defined as $r = R/K$ where r is the rate of profit, R is the amount of total profit in the year, and K is the value of capital goods owned. Notice that R and r are flows, whereas K is a stock. This formula can be used to define the profit rate either for a single firm or for the whole economy.

Profits are used to pay the owners of the capital stock. In the modern economy, these payments include dividend payments for owners of stock, interest payments on corporate bonds, rent to the owners of the facilities in which production takes place (for the right to occupy them), and retained earnings—money set aside for future investment and other purposes.

3. Determinants of the Profit Rate

The profit rate $r = R/K$ can be written as

$$r = (S - M - W)/K$$

where S is the value of total sales, M is the cost of materials and capital goods used per year, and W is the total wages and salaries per year.

Denoting net product as $Y = S - M$, the profit rate can be written as

$$r = (Y - W)/K \qquad \text{(equation 10.3 in the textbook)}$$

4. The Labor Determinants of the Profit Rate

To really understand how capitalist profits can be affected and changed, we need to have an understanding of the hourly wage and the net output per hour of labor (called labor productivity). Accordingly, we now rewrite equation 10.3, dividing each term on the right-hand side by the number of hours of labor (N) performed each year:

$$r = ((Y/N) - (W/N))/(K/N)$$

Using lowercase letters to denote that the equation is now in terms of units per labor hour and using the definitions $y = Y/N$, $w = W/N$, and $k = K/N$, we can rewrite equation 10.3 as follows:

$$r = (y - w)/k$$

where r = the profit rate, y = value of net output per hour of labor, w = wage rate per hour of labor, and k = value of capital goods owned per hour of labor.

5. The Labor Determinants of the Profit Rate (continued)

The wage rate, w, is the amount paid to a worker for each hour worked. The value of net output per hour of labor, y, is the dollar value of the total output minus materials and machine costs divided by the total number of hours worked.

Calling the total number of units produced per hour z and the price per unit Pz, we have

$$y = P_z z - P_m m$$

Total output per hour is $q = (P_z z)/n$ or $s = S/N$ assuming that all that is produced is sold.

The output produced per hour of labor is the product of two other variables: e, the work effort per hour, and f, the efficiency of labor. Thus,

$$y = P_z ef - P_m m$$

6. Materials and Capital Goods as Profit Rate Determinants

Denoting the price per unit of materials used in production as Pm and m as the amount of materials used per hour, we have the rate of profit as

$$r = \frac{(y - w)}{k} = \frac{(P_z ef - P_m m - w)}{k} \quad \text{(equation 10.5 from the text)}$$

The role of capital goods is denoted as

$$k = K/N$$

But not all capital goods owned are in use at any given time.

$$k = P_c (1/u) g = P_c (g/u)$$

where u = capacity utilization rate, g = capital goods in use per labor hour, and P_c = price of capital goods.

$$r = \frac{(P_z ef - P_m m - w)}{k}$$

$$r = \frac{P_z ef - P_m m}{P_c (g/u)}$$

7. Conflicts over the Profit Rate

Table 10.1 (page 251) lists the ways in which capitalists, workers, suppliers, and citizens battle over the profit rate.

TEACHING TIPS AND MODULES

Some of the following points have caused difficulty in previous teaching of this material.

1. Students sometimes confuse the two components e and f, which determine gross output per hour of labor. Efficiency, f, is mainly determined by the technology actually in use—the amount of output that results from exertion of a certain amount of effort. Work effort, e, which may also be thought of as labor intensity, labor effort, or diligence, is the amount of effort exerted in an hour. It is e that captures the struggle between the employer and the worker over how much workers will exert themselves on the job. As a first approximation, f represents the technical side and e the social side of the relation between labor and capital. However, on closer inspection, this generalization does not fully hold up because supervision or monitoring of workers may also involve additional capital goods used in surveillance. Chapter 12 discusses some examples, such as the use of assembly lines to control (and speed up) the pace of work.

2. The determinants of the profit rate that students find more difficult include those that refer to capital goods. K, the total value of capital goods owned by a firm, is easy to grasp; however, k is a little more difficult because it is not a strictly technically determined quantity. Instead, it is simply the total value of the capital stock divided by the number of hours of labor employed. From this, it is easy to see that it is in the capitalist's interest to hire as many hours of labor as possible, as long as the product can be sold, so that the cost of capital goods will be distributed over a larger number of labor hours, reducing k while the numerator $(y - w)$ remains constant. The difficult part of the full expression for the profit rate is the denominator. It is easy for students to confuse K, k, CG in use, and cg in use.

In addition, although capacity utilization rate, u, is not intrinsically a difficult concept, it is somewhat confusing to find its inverse, $1/u$, in the denominator of the full expression. An explanation could be as follows: Why do we multiply cg by the inverse of the capacity utilization rate ($1/u$)? It is important to realize that the total stock of capital goods owned is not always used. We define the capacity utilization rate as the fraction of owned capital goods (always between 0 and 1) that are actually in use. Algebraically, this

is *CG in use*/*CG*. The inverse of the capacity utilization rate is therefore the same thing as *CG/CG in use*. Now if we define the capital goods actually used per hour of labor as $c =$ *CG in use/N*, we can write the equation for k as follows:

$$k = \frac{K}{N} = \frac{(P_c)(CG)}{N} = \frac{(P_c)(CG)(CG\_in\_use)}{(CG\_in\_use)(N)}$$

Teaching Module 10.1: Profit Rate

To Teach: Profits and the profit rate.

Assume that all that is produced is sold.

The "In Cod We Trust" fishing company owns 100 identical fishing nets and employs workers who catch fish by throwing the nets from the shore. Because of the times at which the fish are "running," only 100 hours of fishing can be done per year per worker. The company owns no other capital goods and uses no other materials. The nets wear out after 100 hours of use so that the depreciation of the net during 1 hour of use averages 1/100 of a net. The nets cost $1,000 each.

The workers are paid a wage of $10 per hour, and each uses 1 net. The work is hard and dangerous. The pace of work varies depending on how the workers are feeling that day and how well their employers keep watch over them (a difficult task because the workers travel to remote points of land often out of the view of the owners). Recently, they have been averaging five throws of the net per hour. Each time they throw and haul in the net their catch varies, but it is averaging 5 lbs. of fish per throw. The price of fish when it is sold to fish market and grocery stores by "In Cod We Trust" is $1 per lb.

1. What is the gross output per worker-hour (a) in pounds of fish and (b) in dollars of sales?

A: (a) 25 lbs., (b) $25

2. What is the net (no pun intended) output per worker-hour in dollars?

A: $250 – (1/100)($1,000) = $25

3. What is the total capital stock of the company?

A: 100 * $1,000 = $100,000

4. Assume that the company hires 100 workers who work for 90 hours each per year (they could work 100 hours each, but the demand for fish on the market limits the number of hours they can profitably be employed).

4.1. What is the gross output (a) in pounds of fish and (b) in dollars of sales?

A: (a) 90 * 100 * 25 =225,000 lbs., (b) 225,000 * $1 = $225,000

4.2. What is the net output?

A: $135,000

4.3. What is the total wage paid to all workers?

A: $90,000

4.4. What is the capital stock per worker-hour?

A: $100,000/9,000 = $11.11/worker-hour

4.5. What is the capacity utilization ratio? (Full capacity utilization involves using all the nets for 100 hours a year.)

A: 90/100 = 90%

4.6. What is the profit rate?

A: $45,000/$100,000 = 45%

5. Questions to think about: (a) Think of at least five changes that would raise the profit rate (A: raise e, raise f, raise u, reduce w, raise p); (b) think of two changes that would improve the workers' standard of living (A: lower e, raise w); (c) which changes will both raise the profit rate and improve the workers' living standards (A: raise u)?

6. More fun for those with time on their hands (optional): What would the profit rate be if the wage were zero? (It's a hypothetical question; you may assume, unrealistically, that workers will continue to work, as before.) (A: 135%) What wage rate would make the profit rate zero? Graph these two points along with your answer to the above question (with the wage rate = $10). (A: $15/worker-hour) Put the profit rate on the horizontal axis and the wage rate on the vertical axis. The result of your effort is termed the wage/profit rate frontier.

Teaching Module 10.2:   Profit Rates—The Rubber Terror

To Teach: Profit rates.

The territory that became the "Congo Free State" under Belgian King Leopold's personal rule (today it is known as the Democratic Republic of Congo) is a massive one that "if superimposed on the map of Europe would stretch from Zurich to Moscow to central

Turkey" (Hochschild, *King Leopold's Ghost*, p. 72). In the nineteenth century and into the twentieth, there was massive genocide and exploitation for the king. One commentator described King Leopold as "a cartoon-strip megalomaniac [who] was a mad, greedy king obsessed since adolescence with the idea of running a colony of his own and intent throughout his career on covering his lust for money and real estate in honeyed talk of philanthropy and human rights." (Michiko Kakutani-King Leopold's Ghost': Genocide With Spin Control, New York Times, September 1st, 1998)

King Leopold set about exploiting the ivory and other resources of "his" Congo. His agents established a regime of "absolute terror" (Ankomah, "The Butcher of Congo") that would only deepen in the 1890s, with the invention of the pneumatic tire by the Irishman John Dunlop. "Rubber became the new gold, and Leopold was soon laughing all the way to the bank. The huge rainforest of Congo teemed with wild rubber, and Leopold pressed his agents for more of it. This is when the genocide reached its peak. Tapping wild rubber was a difficult affair, and Leopold's agents had to use brutal force to get the people [men] of Congo to go into the forests and gather rubber …" (Ankomah, "The Butcher of Congo").

It is 1895. The Royal Belgian Company hires 100 men to tap rubber. Because rubber grows deep in the forest and is an arduous job, only 1,000 hours of rubber tapping can be done every year. The company owns the tapping knives and the cups and uses no other materials. The cups and knives need to be replaced every year and cost 50 Belgian francs each.

The workers are paid 1 franc each per hour of work, and each one uses one cup and one knife. The work is hard and dangerous, and they are constantly harried by the overseers who force them to work harder. Every worker can manage to tap 1 cup of rubber an hour. Each cup of rubber is worth 10 francs on the market. For the year 1895:

1. What is the total output of the Royal Belgian Company in (a) cups of rubber and (b) francs?

2. What is the value of total output per worker-hour in (a) cups of rubber and (b) francs?

3. What is the value of net output of the Royal Belgian Company in francs?

4. What is the value of the net output per worker-hour in francs?

5. What is the wage bill of the Royal Belgian Company in francs?

6. What is the wage per worker-hour?

7. What is the value of the capital stock of the Royal Belgian Company in francs?

8. What is the value of the capital stock per worker-hour in francs?

9. What is the total profit of the Royal Belgian Company in francs?

10. What is the total profit per worker-hour in francs?

11. What is the profit rate of the Royal Belgian Company?

Teaching Module 10.3:   Application of Profit Rates

To Teach: Application of profit rates.

1. A company has a profit rate of 10%. The value of its capital goods (machinery) is $100,000, which was entirely used up over the year. Its 10 workers were paid $15 an hour, and each did 1,000 hours of work through the year. What were the total sales of this company? What is the total profit made?

2. The Royal Congo Rubber Company has a quandary. Each of their 20 workers works 50 hours. They tap rubber, which sells for 10 francs a cup. The knives they currently use (each worker has one and he throws it away after the year) cost 5 francs each. The workers can tap 1 tree per hour if their work effort is a maximum ($e = 1$). The number of cups per tree they get, however, depends on the type of knives they use. If they use low-quality Belgian knives, they get 1 cup from a tree ($f = 1$). If they use better-quality Swiss knives, they get 2 cups from a tree ($f = 2$). The Swiss knives cost 8 francs each.

   (a) What is the value of y if they use Belgian knives?

   (b) What is the value of y if they use Swiss knives?

   (c) If everything else remained constant, should the company buy Swiss knives or not if they wanted to maximize their profit rate?

3. A company uses 100 steel rollers in order to make paper. These steel rollers cost $500 each. The factory runs for a 1,000 hours a year. In 2003, it used only 80 rollers.

   (a) What is the capacity utilization rate of the firm?

   (b) What is the value of c?

   (c) Calculate k, the value of capital goods owned per hour of labor.

Teaching Module 10.4:   Determinants of Profit Rates

To Teach: Determinants of profit rates.

1. Write out the complete profit rate equation. Repeat the various determinants and the direction of their effect.

2. Ask students how these various exogenous shocks may affect the profit rate for a U.S. firm:

   (a) Oil price increases

   (b) Election of a union-backed government

   (c) Outsourcing of clerical work to India

   (d) Introducing a better assembly line

   (e) Unionization of a firm

   (f) Tariffs on steel imports

   (g) Low-wage immigrants

3. Point out contradictions—raising the output price might lead to a decline in capacity utilization, whereas trying to cut wages might lead to reduction in labor effort.

Short Essay Questions

1. Is it possible for a firm's profit rate to rise while its total profits fall? (Yes, but only if the value of its capital stock falls, through a decline in Pc or CG.) Is it possible for a firm's profit rate to fall while its total profits rise? (Yes, if the value of its capital stock rises.) What changes in the determinants of the profit rate could lead to these results? (Change in Pc or CG.)

2. Consider the determinants of the rate of profit. There are a variety of strategies capitalists might employ to raise the rate of profit. Does using these strategies to increase r necessarily hurt workers? If not, which do and which don't?

3. Distinguish between capitalist and commercial profits.

4. Write out the complete equation for the profit rate you have learned, defining all the terms you use.

5. Describe four strategies to increase the numerator in the equation for the profit rate.

6. Sometimes, when there is news that wages are on the rise, the stock market falls. Why?

Multiple Choice Questions

10.1 Commercial profits
    a) Are made by buying cheap and selling high*
    b) Result from a production process
    c) Are not a zero-sum game
    d) Are the same thing as capitalist profits

10.2 The rate of profit, r, is the amount of profits, R,
    a) Multiplied by the value of the capital goods invested
    b) Added to the value of the capital goods invested
    c) Divided by the value of the capital goods invested*
    d) Multiplied by the number of workers

10.3 Total profits often include all of the following except
    a) Dividends to stockholders
    b) Rents to landowners
    c) Interest to bankers
    d) Wages to workers*

10.4 A large firm is likely to make more total profits than a small firm. As for the profit rates of the two firms,
    a) The large firm will have the larger profit rate
    b) The small firm will have the larger profit rate
    c) Both firms will have the same profit rate
    d) We cannot know which has the larger profit rate without more information*

10.5 If a corporation made $8 billion in profits last year and owned buildings worth $20 billion and machinery and other capital goods worth $20 billion, its profit rate would be
    a) 20%*
    b) 25%
    c) 32%
    d) 40%

10.6 From the late 1940s to about 1990, the before-tax profit rate for nonfinancial corporate business in the United States
    a) Declined from around 15% to around 8%*
    b) Rose steeply
    c) Declined from around 5% to around 1%
    d) Rose and fell, staying generally around 20%

10.7 From the late 1940s through about 1990, total capital stock in the United States
    a) Fell steadily
    b) Rose and then fell
    c) Rose steadily*
    d) Fell and then rose

10.8 Profits are the surplus product
  a) Measured in physical terms
  b) As a proportion of capital stock
  c) Measured in labor hours
  d) Measured in money terms*

10.9 If the value of the net product of a corporation this year is $6 billion and the total wage is $2 billion and the cost of materials used and capital goods used up in production is $3.5 billion, then total profits are
  a) $0.5 billion
  b) $1.5 billion
  c) $2.5 billion
  d) $4.0 billion*

10.10 In the expression $r = (Y - W)/K$,
  a) Y is the value of total output
  b) W is wear and tear on machinery
  c) r is the amount of profits
  d) $(Y - W)$ is the amount of profits*

10.11. Which expression is not correct?
  a) $Y = S - M$
  b) $y = S/K$*
  c) $r = R/K$
  d) $y = (P_z)(z) - (P_m)(m)$

10.12 In the expression $r = (y - w)/k$, the numerator measures, for every hour that someone worked, the money that
  a) Goes to the worker
  b) Replaces materials used and capital goods used up
  c) Equals the value of the capital stock
  d) Is left over for the capitalist*

10.13 The quantity y will rise when (all else being equal)
  a) The price of output falls
  b) The price of materials falls
  c) The wage falls*
  d) The total output rises

10.14 The net output per hour of labor will fall when (all else being equal)
  a) The amount of materials and wear and tear per hour of labor falls
  b) The total output per hour of labor rises
  c) The intensity of labor falls*
  d) The efficiency of labor rises

10.15 The capital stock per hour of labor employed rises when
    a) The number of machines in use falls*
    b) The number of machines in use rises
    c) The hourly wage falls
    d) The hourly wage rises

10.16 A way to write an expression for the value of total output per hour of labor employed is
    a) $(P_m)(m)$
    b) (z)
    c) $(P_z)(z)$*
    d) $(P_z)(z) - (P_m)(m)$

10.17 Which statement best describes the relationship between the interest of an individual owner of a firm in raising the firm's profit rate and the interests of other groups in society?
    a) Conflicts never occur; what is good for one capitalist will help society as a whole
    b) Conflicts never occur among capitalists; what helps one capitalist will help all capitalists
    c) Conflicts exist between the interests of capitalists and workers and consumers
    d) Conflicts pit capitalist against capitalist and capitalists against workers and consumers*

ADDITIONAL RESOURCES

References

Ankomah, B. "The Butcher of Congo." *New African* (October 1999).

Hochschild, A. *King Leopold's Ghost: A Story of Greed, Terror, and Heroism in Colonial Africa.* Mariner Books, Boston 1999.

CHAPTER 11: Competition and Concentration

How This Chapter Fits into the Text

This chapter applies the three-dimensional approach to an analysis of the microeconomic behavior of firms and the resulting market structure in industries. The three dimensions of competition, command, and change are not only included but related to one another: competition drives firms to implement change or innovation; competition also drives firms to grow larger in an attempt to reach a commanding position (monopoly or shared monopoly) in the industry.

Moreover, competition leads to concentration (and command within an industry), but concentration, by making possible a higher profit rate, makes entry by other firms into an industry more attractive and, thereby, can give rise to greater competition. The dynamic relationship between competition and concentration occurs in part through the profit rate.

There is simultaneously a tendency for profit rates to diverge (because some firms are large and can obtain higher profit rates) and a tendency for profit rates to equalize through competition. The outcome depends on which tendency is stronger.

MAIN POINTS

1. Capitalists try to raise their own profit rates, but competition limits them from doing so.

2. Competition takes three main forms: (a) price competition, (b) breakthroughs, and (c) monopoly power.

3. Investment is the main way firms achieve advantages in any of the three forms of competition.

4. Because firms must invest to compete, capitalist competition contains within itself powerful forces for change.

5. There is both a tendency for profit rates to diverge (as firms become more concentrated) and a tendency for profit rates to equalize (through competition); the outcome depends on which tendency is stronger.

DETAILED OUTLINE

1. Competition for Profits

Businesses are limited in profit-making by competition. Raising Pz will mean losing sales in a competitive market. Reducing Pm is not possible under competition because in

competitive factor markets, no one will sell capitalists the inputs at a lower price. Profits can also be a zero-sum game if one producer's profit is another producer's loss.

2. Forms of Competition

Price competition occurs when a firm attempts to attract customers by offering lower prices. Price competition may put pressures on the firm to cut costs by cutting wages, speeding up work, and eliminating waste in production.

Breakthroughs occur when a firm discovers a new method of doing business, which can involve a new product, a new market, or a new way of organization. Breakthroughs allow temporarily large profits because over time success attracts competition.

Monopoly power is the ability of one firm (a monopoly) or several firms (oligopoly, or shared monopoly) to dominate markets and exclude competitors. To last, it must involve some advantage (natural or contrived) that prevents other firms from entering the market.

3. Price Competition

Price cutting increases the number of units sold (and capacity utilization), but it reduces the profit per unit. The demand curve limits the firm's choice of price and output. A change in price has opposite effects on ru, the profit rate on capital goods in use, and u, the capacity utilization rate; the effect on r is therefore indeterminate.

Markup pricing

In order for profits to be made, the price of a good must include a markup over costs. In a competitive market, a firm's markup tends to be limited; a firm that can charge a higher markup will attract new entrants into the industry.

4. Breakthroughs

Bigger profits come from breakthroughs rather than from price competition. A breakthrough may involve any of the determinants of the profit rate.

5. Monopoly Power

Monopoly power allows firms to escape from competition. It refers to a situation when one firm (a monopoly) or a small group of firms (oligopoly, or shared monopoly) can exclude others from the market. It can occur because of overt or tacit collusion or by being the only seller.

Barriers to market entry are obstacles that make it difficult or costly for new firms to enter a market. Breakthroughs create a temporary monopoly and temporary barriers to entry (Note that this is an argument made by Schumpeter).

Cartels are a combination of states or business firms operating in concert to regulate production, pricing, and marketing of goods by their members. The most well-known example is OPEC, but cartels are a pervasive feature of an economy.

Nonprice competition occurs under a shared monopoly where competition involves sales efforts, style changes, and marketing in order to increase the appeal for the product without lowering price.

6. Investing to Compete

Investment is required by all three forms of competition. Winning the competitive game in 1 year makes it possible to reinvest more and win again.

A firm will invest if the expected return from investment exceeds the cost of investment. The total return is given by the expression $I + rI$, where I is the cost of the investment and r is the anticiapted rate of profit on the investment. If the cost of the investment is given by $I+iI$, where i is the opportunity cost (usually the prevailing interest rate), then firms will invest if the return on investment exceeds the cost of investment or

$$I + rI > I + iI \ \rightarrow \ r > i$$

Because the future is not certain, investment will occur if

$$E(r) > i$$

where $E(r)$ is the expected rate of profit.

7. The Dynamics of Competition

Investment is the firm's way of carrying on competition in the future; competition, by forcing firms to invest, is inherently dynamic. Investment confers dynamic cost advantages.

Expansion of output often goes with reinvestment.

Competition creates an inherently dynamic system. Every capitalist will continue trying to gain a competitive advantage through price competition, breakthroughs, or monopoly, and this will upset any temporary stasis.

8. Toward Equal Profit Rates?

Equalization of profit rates refers to the process by which competitive pressures on firms in different industries, regions, and markets push their profit rates toward a common average level.

Competition both produces diverse profit rates and tends to make them converge; there are opposing tendencies.

Firms exit a low-profit industry, shifting its supply curve to the left; this raises the price of output and leaves u the same or higher; the profit rate on remaining firms in the industry rises. The opposite happens when firms enter a high-profit industry.

According to this logic, profit rates tend to equalize.

9. Toward Economic Concentration?

Economic concentration refers to the extent to which the economic activity of an industry or the economy is conducted by the largest firms.

Larger firms tend to have higher profit rates. Larger firms have decreasing costs arising from economies of scale. Larger firms can more easily achieve breakthroughs and monopoly power as well as more successfully profit from breakthroughs with extensive marketing and advertising. Research shows large firms have no special advantage in innovation, but they do better than smaller firms in exploiting the potential of a breakthrough, through advertising, distribution, and defense against competitors. Finally, they have more bargaining power with labor, finance, suppliers, and the government.

Competition erodes concentration when high profit rates attract new entrants. The extent of concentration depends on which of the opposing forces is stronger.

TEACHING TIPS AND MODULES

Most of this chapter will be clear and make sense to the students. The important ideas—that competition forces capitalists to strategize and reinvest and that reinvestment promotes growth and change—are common sense.

One of the most fruitful approaches to this chapter is to provide instances from current or historical episodes in the development of an industry or set of industries. Examples abound and include competition in the information technology industry, the restructuring of the U.S. steel industry, the rush to office automation, the concentration in the auto industry, the food processing industry, the fast-food industry, and so on. Documentaries such as "Taken for a Ride" about the highway system and the concentration of the auto industry in the United States or "The Diamond Empire" about the De Beers monopoly are particularly useful. Another useful historical tale is Matthew Josephson's *The Robber Barons*, which documents the rise of the "Rockefeller empire" through dubious means.

Despite the simplicity of the chapter, there are nevertheless a couple of concepts that may require some elaboration.

1. Students sometimes find the presentation of the demand curve limiting the firm's profit-making options to be tricky. To supplement the explanation in the book, the instructor could provide the following logic: consider a firm that has 10 machines costing $100 each. The firm is making a profit of $100, but it is only using 8 machines. So $r = $100/$1,000 = 10\%$, and $u = 80\%$. So the firm has a rate of profit of 12.5% on the capital goods it actually uses and 10% overall. If it could use the last 2 machines and still obtain the same rate of profit per machine, it would have an overall profit rate of 12.5% and earn a profit of $125. Thus, it is in the interest of the firm to raise its capacity utilization rate. Unfortunately, it can only do this by lowering price.

2. The idea of investing defensively (or, as the best defense, offensively) in order to win in the next round of competition is one rarely found in neoclassical discussions of investment. This is because investment theories usually involve a given technology and firms are expected to have already optimized their use of the existing technology so that their only reason to invest is to increase the level of production (using the same technology).

3. There are opposing tendencies between competition and concentration. The idea of a process containing opposing tendencies within it is a favorite one among Marxists, and such a process (containing opposing tendencies) is referred to as a dialectical process. The outcome of such a process at a given point in time is not easily described in the terms of conventional economics because it may be an "out-of-equilibrium" outcome or it may be a temporary, perhaps unstable, equilibrium; the difficulty is that although competing firms may have chosen optimal strategies given the choices that currently face them, it is in the interest of every firm to change the game by a successful breakthrough, developing a new product or a new technique, or creating a new and better marketing strategy.

4. The book does not go into the other causes of monopoly. Students who are interested may want to explore the following reasons. Monopoly occurs because of integration. Horizontal integration occurs when two businesses in same industry at the same stage of production become one; vertical integration involves acquiring a business in the same industry but at a different stage in the supply chain. Monopoly power also comes from the ownership of patents and copyright protection or the exclusive ownership of assets (e.g., De Beers—diamonds). The government may also give legal monopoly power to some businesses through nationalization or government-awarded operating powers. Finally, monopoly situations can arise because of tacit and open collusion.

ACTIVITIES AND DISCUSSION

1. Use the following exercise from Andreas Ortmann and David Colander's Experiments in Teaching and in Understanding Economics (Burr Ridge, Ill.: Irwin, 1995, Experiment #4), which illustrates the tendency of collusive agreements to breakdown due to competitive behavior.

Each student faces a decision in which he or she must choose either "1" or "0" in a secret vote. The payoff to students depends on their individual choice and the aggregate number of "1s" chosen by the class and is shown in the payoff table below.

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	0	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80
0	50	54	58	62	66	70	74	78	82	86	90	94	98	102	106	110	114	118	122	126	130

The first row indicates the number of students (from 1 to 20) choosing the number 1. The second and third rows indicate the payoff to each student depending on whether they chose number 1 or number 0. Thus, choosing 1 is equivalent to colluding, and choosing 0 is regarded as cheating. Students are instructed not to talk with one another during the decision-making process. Each student records his/her choice on a piece of paper to be collected by the instructor. Not surprisingly, most students tend to choose 0 during this first stage. Students are then given a second chance to make a choice, but this time with the opportunity to openly discuss the decision with other participants. Because decisions are again made by secret ballot, any collusive agreements to choose 1 inevitably break down. Additional repetitions with or without anonymity can be run depending on class time.

2. Use the following game developed by David Hemenway, Robert Moore, and James Whitney ("The Oligopoly Game," Economic Inquiry 25 (October 1987): 727–730) to illustrate the difficulties in collusion. Students are given the following payoff matrix:

Other students

		Compete	Collude
You	Compete	10	40
	Collude	0	20

On the instructor's count, all students raise either an open hand (signaling to compete) or a fist (to collude). If more than half the students vote for "compete," then "compete" wins and each student records his/her score (and vice versa when "collude" wins). Play six rounds. If students vote to "compete" in all six rounds (the usual outcome), the highest possible score is 60 points. Here's the catch: a grade will be assigned to each student, based on the points made, > 100 = A+; 90–100 = A; 80–89 = B; 70–79 = C; 60–69 = D; < 60 = F. Thus, all students will receive a grade of D or worse.

After the initial shock, let students play a second round of six votes. Now they start down the collusion road until some student figures out that cheating "pays" (voting for "compete" when the others vote for "collude" gets you 40 rather than a mere 20 points); then collusion usually collapses.

Finally, you may tell students, after the fact, that the "grading" was merely a device to get them to take the game seriously.

Teaching Module 11.1:   Types of Competition

To Teach: Types of competition.

This exercise may be given as a class assignment or as homework (with some assistance from the instructor).

Ask students to consider any of the following firms: Intel, Ford, Visa, Microsoft, or Wal-Mart.

1. What is the market share of the firm you have chosen? Has it grown bigger or smaller since 2000?

2. What indications are there that the firm is trying to compete through price competition and through breakthroughs?

3. How much did each of these firms invest in their company in the last year?

4. Optional: Two of these companies (Visa and Microsoft) have been taken to court because of anti-trust violations. Using any available sources, briefly explain why.

Teaching Module 11.2:   Collusion

To Teach: Collusion can mitigate competitive pressures and raise profits.

Consider two firms, A and B, both of which have a choice of charging a high price (Pz) or a low price for a similar product. If Company A and Company B both charge a high price, they end up splitting the revenues from their market, earning $500,000 each. This is shown in the top left box in the grid below. If, however, either decides to cut prices while the other company does not cut its price, customers flock to the one with a lower price. If this is the case, the company that cut prices will get $750,000 while the company that did not gets $0. These situations are shown in the top right and bottom left boxes. Finally, if both companies decide to cut prices, they both get a profit of $100,000 because the price per unit is lower. Explain why it is in the interest of both firms to collude. Explain why this might be difficult to sustain.

Short Essay Questions

1. The text says that the economist Joseph Schumpeter understood breakthrough as creating temporary monopolies. What is meant by this?

2. Here are some interesting quotes by the great economists encountered in the previous chapters.

> *The outstanding fact is the extreme precariousness of the basis of knowledge on which our estimates of prospective yield have to be made. Our knowledge of the factors which will govern the yield of an investment some years hence is usually very slight and often negligible. If we speak frankly, we have to admit that our basis of knowledge for estimating the yield ten years hence of a railway, a copper mine, a textile factory, the goodwill of a patent medicine, an Atlantic liner, a building in the City of London amounts to little and sometimes to nothing; or even five years hence.*
> *– John Maynard Keynes*

Explain Keynes's comment in light of the discussion of expected profits on page 271.

> *People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices.*
> *– Adam Smith*

What tendency within capitalism is Smith referring to here? Explain why it may come about.

> *Competition acts, as is always the case when the general rate of profit is settled, as a practical freemasonry [or brotherhood] of the capitalist class, so that they each share in the common booty in proportion.*
> *– Karl Marx*

but in different circumstances:

[competition] now becomes a question of strength and cunning, and competition now becomes a struggle of enemy brothers.
– Karl Marx

What tendencies within capitalism is Marx referring to here? Explain in the context of this chapter how these may come about.

3. Think of some new products or techniques of production that have been developed over the last few years. What old products did the new products displace? Which companies are leading the development of new technology?

4. Why would the functioning of capitalism tend to result in the equalization of profit rates? What offsetting tendencies are there? Which tendencies will prevail?

5. What are the three major forms of capitalist competition? Discuss each, making specific reference to their impacts on the determinants of the profit rate.

6. In what ways do larger firms have an advantage over smaller firms in their ability to make profits?

Multiple Choice Questions

11.1 The idea that large firms are more likely to produce breakthroughs is associated with which economist?

   a) Joseph Schumpeter*
   b) Adam Smith
   c) John Maynard Keynes
   d) Ronald Coase

11.2 The profit rate will be higher when
   a) P_c is smaller*
   b) P_z is smaller
   c) e is smaller
   d) f is smaller

11.3 The profit rate will be higher when
   a) m is larger
   b) u is larger*
   c) P_m is larger
   d) w is larger

11.4 The interests of consumers, on the one hand, and suppliers of inputs, on the other
   a) Are protected by government regulations

b) Are directly opposed to one another
c) Coincide with a capitalist's interest in raising his or her profit rate
d) Place limits on a capitalist's freedom to raise his or her profit rate*

11.5 In order to raise the profit rate by increasing e or reducing m,
a) New government regulations are needed
b) New technology is needed*
c) The intensity of labor must increase
d) Capacity utilization must increase

11.6 What might prevent the capitalist from increasing profits by increasing e?
a) Competition
b) Consumer protests
c) Labor protests*
d) Monopoly

11.7 The quadrupling of oil prices after 1973 poured billions of dollars of profits into the accounts of oil companies. In addition,
a) The reinvested profits caused a boom for all other industries
b) It reduced the profits of the U.S. steel industry by increasing its costs*
c) It raised automakers' sales and profits
d) It increased profits in the steel industry by increasing demand for steel

11.8 Competition is rarely in equilibrium because
a) Most capitalists do not follow the rules of the game
b) Large firms have monopoly power
c) Firms are always cutting prices
d) Competitive pressure to reinvest disrupts equilibrium*

11.9 Which of the following is not one of the three main forms of competition?
a) Industrial espionage*
b) Monopoly power
c) Price competition
d) Breakthroughs

11.10 If r_u is the profit rate on capital goods in use and u is the capacity utilization ratio, then an increase in the firm's price for its product will
a) Raise r_u, lower u; and the profit rate will rise
b) Raise r_u, raise u; and the profit rate will rise
c) Raise m, lower u; and the profit rate can rise or fall*
d) Raise r_u, raise u; and the profit rate can rise or fall

11.11 One thing that is certain about competition in a capitalist system is that
a) At least a firm can count on getting the average profit rate, if not more
b) A firm that sticks to tried-and-true technology will not fail
c) Nothing is guaranteed; firms must constantly struggle*

d) A firm making above-normal profits will discourage others from entering the market

11.12 When a firm makes a breakthrough, it is most likely to
    a) Raise its price to earn greater profits
    b) Cut its price and earn less profits but gain greater market share
    c) Cut its price and still earn exceptional profits*
    d) Collude with other firms to increase profits for both

11.13 Shared monopoly refers to a situation in which
    a) Several firms have large shares of one market and do not directly collude*
    b) Several firms have large shares of one market and collude to control it
    c) One conglomerate firm controls several different markets
    d) One firm controls one market and is run by several partners

11.14 Shared monopoly is like a coalition; it holds together for all the following reasons except
    a) All partners have a common interest in keeping prices up
    b) The most powerful firm(s) can retaliate against mavericks
    c) A set of informal rules has developed
    d) There are no potential gains to firms from breaking the informal rules*

11.15 All of the following are examples of barriers to entry except
    a) Monopoly power*
    b) Exclusive marketing arrangements
    c) Requirement of a very large initial investment
    d) Technical secrets

11.16 All of the three main forms of competition generally involve
    a) Speedup of the pace of work
    b) Wage-cutting
    c) Price-cutting
    d) Investment*

11.17 In deciding whether to reinvest profits, every firm must compare the cost of the investment with
    a) The price of the product
    b) Total sales of the product
    c) The value of the capital stock
    d) The expected return from the investment*

11.18 If I = the number of dollars invested, then the total return from investment can be written
    a) r
    b) $I + r$
    c) $r + r(I)$

d) $I + r(I)$*

11.19 The total return from an investment consists of
    a) The repayment of interest and the profit earned
    b) The repayment of the investment and the profit earned*
    c) The repayment of interest and the profit on the interest
    d) The profit earned on the investment

11.20 The cost of each dollar used in investment is measured by
    a) The profit rate
    b) The interest rate*
    c) The cost of capital goods
    d) The lender's operating costs

11.21 The total cost of investment consists of
    a) The profit on investment, plus the interest earned
    b) The profit on investment, plus the cost of capital goods bought
    c) The opportunity cost of the money used, plus the cost of capital goods bought*
    d) The interest earned, plus the cost of capital goods bought

11.22 If i is the interest rate and I is the cost of the investment itself, we can write the cost of investment as
    a) i
    b) I
    c) $i + iI$
    d) $I + ii$*

11.23 The profits from investment can be written as
    a) $rI - Ii$*
    b) $rI + iI$
    c) $I + rI$
    d) rI

11.24 If the interest rate is less than the expected profit rate on an investment project, then the firm will
    a) Choose to invest*
    b) Need more information to decide whether to invest
    c) Not invest
    d) Invest but earn less than the average profit rate

11.25 Whether a firm invests depends on all of the following except
    a) Investors' optimism about the future
    b) The size of its workforce*
    c) The interest rate
    d) Whether its capacity utilization ratio is less than 1

11.26 The competitive scramble generally leads to
       a) Slow but steady equalization of profit rates among firms
       b) Rapid equalization of profit rates among firms
       c) Different firms often having very different profit rates*
       d) Variations in profit rates increasing over time

11.27 When a new firm enters a high-profit industry
       a) The output price falls because the supply curve shifts*
       b) The output price rises because the supply curve shifts
       c) The output price rises because the demand curve shifts
       d) The output price falls because the demand curve shifts

11.28 When a new firm enters a high-profit industry, generally
       a) Total investment declines in the industry
       b) Profit rates decline in the industry*
       c) Total sales decline in the industry
       d) Total output declines in the industry

11.29 Among the forces that tend to equalize profit rates is
       a) Breakthroughs
       b) Exit and entry of firms to and from different industries*
       c) Monopoly power
       d) Price-fixing

11.30 The relationship between competition and concentration is that
       a) Concentration generates competition
       b) Competition generates concentration
       c) Each generates the other*
       d) Each occurs independently of the other

11.31 Greater size almost always enhances a firm's ability to earn higher profit rates. All of the following are reasons for this except
       a) Greater size permits greater benefit from decreasing costs
       b) Greater size increases ability to achieve breakthroughs and monopoly power
       c) Greater size increases bargaining power with labor, finance, and government
       d) Larger firms usually pay lower wages*

11.32 Decreasing costs refers to a situation in which
       a) As the volume of production rises, the cost per unit falls*
       b) It is cheaper to produce a smaller number of units
       c) Prices of inputs are steadily declining
       d) The older a machine, the less it is worth

ADDITIONAL RESOURCES

Videos

Gibney, Alex. *Enron: The Smartest Guys in the Room.* 2005. (*The story behind the infamous Enron scandal*)

References

Hemenway, David, Robert Moore, and James Whitney. "The Oligopoly Game." *Economic Inquiry* 25 (October 1987): 727–730.

Josephson, Matthew. *The Robber Barons*. Harcourt, New York 1962.

CHAPTER 12: Wages and Work

How This Chapter Fits into the Text

It has been established in previous chapters that profit is the result of the capitalist's power to extract favorable exchanges in interactions with workers, the state, and suppliers of inputs (both domestic and foreign). Now we explore further just how the capitalist exercises this power in relation to workers through the labor discipline model. The system for controlling labor in the simple version of the model presented is just the wage level combined with the threat of unemployment. In the following chapter, other systems of controlling labor are explored.

MAIN POINTS

1. Work is not naturally boring, oppressive, or limiting (nor naturally exciting or liberating). What work is like depends on how the labor process and the society around it are organized.

2. The capitalist firm is a system of command, not of voluntary interactions like the marketplace. Employers exercise power over workers.

3. Because the capitalist system is founded on profit-making, there is an inherent conflict between workers and employers over wages and the pace of work. This can be seen in the determinants of the profit rate.

4. Capitalists extract labor from their employees because it cannot be secured by contract in a hierarchically organized firm.

5. Employers exert power over employees because of the threat of unemployment. There is almost always an excess supply of labor, so the labor market rarely clears.

6. Workers are involuntarily unemployed.

DETAILED OUTLINE

1. Work, Sloth, and Social Organization

Conventional economics views work as a disutility (a bad thing) and leisure as a good thing. Work has an opportunity cost—leisure.

Work (in the sense of exerting effort to accomplish something) is not intrinsically unpleasant; people sometimes enjoy working hard when, for instance, they are remodeling their own homes. So the reason people dislike work must have much to do with the way it is organized. Both the property rights determining who owns the product

of one's labor and the structure of control over the work process are relevant to how we feel about our jobs.

2. The Capitalist Firm as a Command Economy

The employer-worker relationship is not a market exchange but rather a command relation. Command relations are defined as relationships between superiors and subordinates in which the superior exerts power over the subordinate.

3. The Conflict between Workers and Employers

Employers and workers often have different and conflicting interests in how production is organized. Workers usually want as high as possible a wage (*w*) and work that is not too tiring (lower effort, *e*). Employers want higher profits, which is assisted by lower wages (*w*) and higher effort (*e*) and by higher output per hour of labor (*f*).

This conflict can be summarized by introducing the concept of unit labor cost (*ulc*). Unit labor cost is the labor portion of the average cost of producing each unit of the output. Algebraically it is given by

ulc = w/z = w/ef

Profit per unit of input (or the markup) varies inversely with the unit labor cost so capitalists want to reduce *ulc* in order to increase profits. Workers want higher wages and lower effort, which will increase *ulc*.

The relative bargaining strength of workers and employers determines *w* and *e*. The wage is higher, unit labor cost is higher, and profit rate is lower if workers are stronger at bargaining (perhaps because of collective bargaining and unionization). The wage is lower, unit labor cost is lower, and profit rate is higher if employers are stronger at bargaining.

4. Labor Discipline: Carrots and Sticks

Employers purchase labor time, not labor. The extraction of work from workers is the process of transforming the labor time that an employer has purchased into work done.

The process by which the capitalist obtains work from labor time is called extraction and not exchange because there is conflict and because no contract is reached. The relationship between employers and employees is often called labor-management relations. Management (supervisors, bosses, etc.) is the main way labor is extracted. (Management also performs other functions, like coordination.)

An incomplete labor contact is a contract between an employer and a worker that is incomplete in the sense that it specifies the wage rate but does not specify the exact tasks

to be performed or the amount of effort to be provided by the worker. It is hard to specify tasks exactly, and it is hard to monitor how much work has done.

Piece rates are not used often because employers care not only how much work is done but also how fast it is done, because other inputs (tools, machines) are in use.

5. The Labor Market, the Wage, and the Intensity of Labor

A labor market is a market in which workers sell their labor time in return for a wage. Employers are the demanders and workers are the suppliers of labor time. Although it is a voluntary market exchange, it is not without conflict.

Workers and capitalists bargain over wages, intensity of work, working conditions, and benefits. Employers have power in this bargain because of the fact that they own the capital goods used in production and can hire and fire workers. Workers have power when they are collectively organized.

The cost of job loss is the loss of income to a worker as a result of his or her quitting the job or being fired. The cost of job loss is determined in part by the alternatives available to the worker. Can the worker go into business for herself/himself? Can he or she get another job or live on unemployment benefits? The higher such a cost, the more power the employer has over the worker and, hence, the more likely the worker will be compelled to exert more effort.

When there is unemployment insurance and other such benefits (usually in advanced economies), we can express the cost of job loss in the following equation:

cjl = (*ww* – *ui*)(*ud*)

where *cjl* = cost of job loss, *ww* = weekly after-tax wages, *ui* = unemployment insurance benefits per week, and *ud* = expected number of weeks of unemployment.

How low could the wage on the current job be and still leave the worker as well off as losing the job, being unemployed, and eventually getting another job? The answer is the worker's fallback wage. This is defined as the wage at which an employee has no preference for keeping his or her current job as opposed to being fired or quitting. This varies with the employee's income prospects in the absence of the current job.

If the current wage equals the fallback wage, the worker will be indifferent to losing the job and will exert only minimal work effort. If the employer increases the wage, which has the effect of decreasing profits, it will also result in increased effort, which has the effect of increasing profit. So the employer must balance the positive effect of the higher wage on the intensity of work (*e*) against the negative cost of paying a higher wage rate (*w*). In terms of *ulc* = *w/z* = *w/ef*, this is a question of whether the denominator rises faster than the numerator. The employer seeks to minimize *ulc*.

The labor extraction curve describes relationships between effort and wages; more specifically, it traces the intensity of work that will be offered for each wage rate that the worker chooses to perform. The curve is concave, reflecting diminishing returns of effort to wages.

Figure 12.4 illustrates how the minimum unit labor cost (and the maximum profit) occurs when a ray from the origin is tangent to the labor extraction curve.

With more unemployment insurance, the labor extraction curve moves more to the right and as a result, unit labor cost is minimized at a higher wage.

The analysis shows that (a) wages can be too low from the standpoint of the employed (higher wages may elicit disproportionately higher effort), (b) unemployment insurance raises the power of workers through raising their fallback position, and (c) because minimizing *ulc* requires a wage that is higher than the fallback wage, there is involuntary unemployment (equilibrium without market clearing).

TEACHING TIPS AND MODULES

This chapter involves certain sophisticated ideas that may need to be expanded upon. These include the following:

1. The Difference between Labor and Labor Time

Students sometimes find the distinction between the two to be subtle. The instructor could explain that labor is a special product that needs at least some cooperation from the laborer. As such, when contracts are written, they are over labor time rather than labor. Because the product in the end needs labor to be expended in its production, the task of ensuring that labor is actually forthcoming is one of the key tasks of management, as that part of the contract is not enforceable in its absence.

2. The Labor Extraction Model

The origin of efficiency wage models was in the observation by the development economist Harvey Leibenstein in the 1950s that people whose nutritional level was low would be able to exert more work effort if they were better fed, and they would be better fed if their wages were higher. Thus, it might actually be in the interest of those who hired agricultural laborers to pay them higher wages (either in money or in food), because the additional effort that resulted would more than pay back the extra wages. This has been developed into a standard microeconomic tool by, among others, Bowles, 1985. The efficiency wage, or labor discipline, model used here is drawn from Bowles and uses a labor effort curve (or labor extraction function, the shape of which comes from workers' motivation to exert effort on the job). A worker's motivation is assumed to depend on how badly the worker wants to keep the job, which depends on how costly it would be to

the worker to lose the job. In other words, effort depends on the cost of job loss. Teaching Module 12.1, The Labor Extraction Model, can be used to teach this.

3. Unemployment in Equilibrium

This model explains how involuntary unemployment can exist in equilibrium. First, if everyone had a job, there would be no cost of job loss because any worker who was fired could walk across the street and get other work. If there were no cost of job loss, workers would only exert the minimum effort and employers would have reason to raise the wage—in order to try to create a cost of job loss. (Actually, the model implies that as the unemployment rate approaches zero, wages rise, choking off profits and leading to contraction of the economy.) Thus, if there is any positive cost of job loss, there must be some workers unemployed. Second, if all workers have the same effort function and if all employers know this function, then an unemployed person who offers to replace a currently employed worker, working just as hard but at a lower wage rate, will not be believed by the employer. The employer will assume that once the person gets on the job, she or he will work less hard at the lower pay rate. Hiring the unemployed at lower wages would actually result in a higher unit labor cost, so the employer is unwilling to do it.

Teaching Module 12.1:   The Labor Extraction Model

To Teach: The labor extraction model and its implications in detail.

The perspective of the worker:

Consider the kind of jobs you have had in the past. What have been pleasant aspects of the job? What have been unpleasant aspects? Did you have a manager or boss? What was his or her function at work? Would you have worked more intensely at higher wages? What would have been the case if no other job or income was available to you, would you have worked more intensely then? Note that if there is no other income or job available to you, your cost of job loss increases.

There are two types of lines drawn on the graph below, for two hypothetical types of workers. Line (I) reflects the labor extraction curve if workers produced the same quantity of output per hour. Line (II) represents the more realistic labor extraction curve in which workers will not produce unless they get the minimum wage and will then produce more but at a decreasing rate.
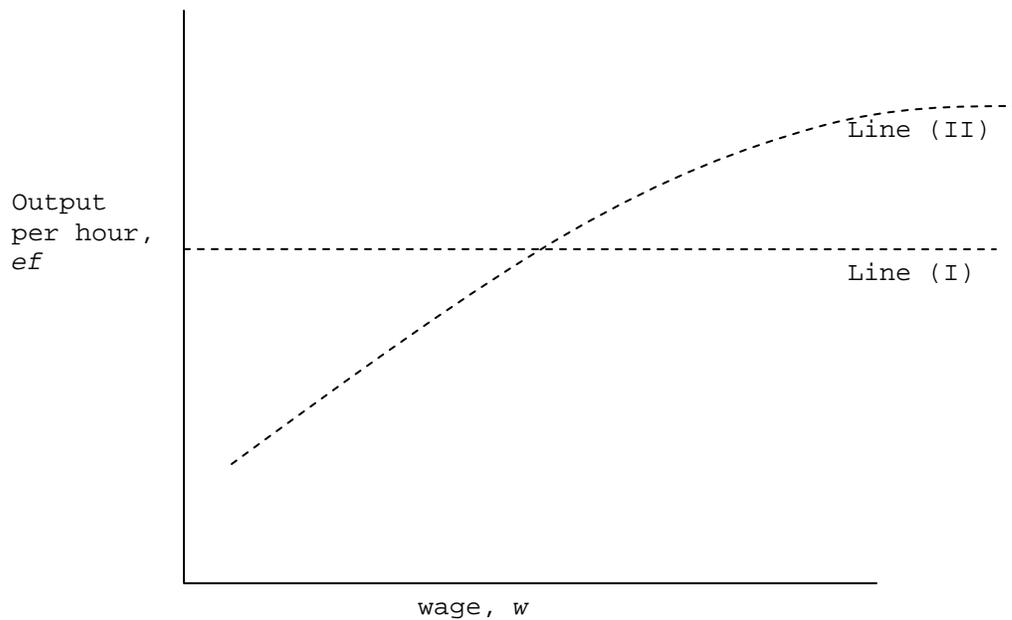
If workers behaved like in line (I), what would employers do to maximize profits? That is, what wage rate would they offer? (A: zero). Given this, what do you think is the more likely shape for the curve in real life?

The perspective of the employer:

Let us now take an example with numbers. Consider the following situation: suppose a technician makes printed circuit boards of the same quality for a company making computer chips. The employer knows from considerable past experience that the following relationship holds between the wage rate and the output per hour:

Fill in the column on unit labor cost. (This is filled in the example above for the benefit of the instructor.) Put a star next to the wage rate that minimizes unit labor cost.

Draw two separate graphs on graphing paper, one on top of the other. The top graph should show the relationship between wages on the horizontal axis and output per hour on the vertical axis (the labor extraction curve). The bottom graph should show the relationship between wages on the horizontal axis and unit labor costs on the vertical axis. If you have drawn them correctly, each of the two graphs should look like the mirror of the other.

Now, on the top graph draw the line from the origin of the highest slope (i.e., the steepest line) that can still touch the labor extraction curve. This should occur when the line from the origin is tangent to the curve. What is the wage rate at which this occurs? Is this the same wage rate that minimizes unit labor cost? Explain why this is the wage rate that the employer would offer.

Consider now the situation if there was an unemployed person coming into the market. He or she is identical in every respect to the current employees. The worker offers to work for less than the current wage (which was set by the employer at $9 per hour). The employer refuses to employ that person. Why might this be the case? (A: the person's output per hour is less than that undertaken by current workers, and as illustrated by the graphs, at lower wage levels, the unit labor of cost is higher. As a result, profits would be lower.) How is this vindication of the ideas of Keynes?

ACTIVITIES AND DISCUSSION

Play the following game developed by John Morgan to illustrate the effects of moral hazard as applied to labor markets. The game is available online at http://faculty.haas.berkeley.edu/rjmorgan/reciproc.htm

Students are divided into equal groups of firms and workers and participate in a two-stage game. In stage one, a double auction is used to allocate labor. Each firm can hire only one worker, and each worker can only work for one firm. A firm's profits are equal to $2(e - w)$, where e is the effort level put out by their worker and w is the wage. A worker's earnings are equal to $w - e$. In stage two, all employed workers simultaneously and privately choose their level of effort from the set $E = \{1, 2, 3, 4, 5\}$. Earnings are then calculated for all, and a new period begins. Given the moral hazard conditions, Morgan reports that involuntary unemployment and excess effort by workers are easily exhibited, along with an upward sloping wage-effort profile.

Short Essay Questions

1. Is work necessarily unpleasant? Do humans have an innate (natural) tendency to avoid work? What has been your experience with enjoying or hating work? Describe a pleasant work experience (paid or not). What was pleasant about it? Are "bad" working –work that is routine or meaningless—simply the result of modern industrial technology? What

sort of working conditions could you envision that would lead people to enjoy producing?

2. Define unit labor cost in words. Then, using the formula for unit labor cost, discuss the potential conflicts between capitalists and workers.

3. Discuss the idea that the fundamental problem of capitalist production is the extraction of work from workers. Use the terms incomplete contract and labor extraction.

4. Unlike other markets, the labor market tends not to clear; the result is excess supply, or involuntary unemployment. Explain the logic of this statement using the labor extraction model.

5. In the mid-1990s the United States passed what was called welfare reform, which involved the cutting of unemployment benefits. Using graphs and the labor extraction model, can you tell whether workers would support this policy? What about employers?

6. According to Coase, firms are mini-command economies. Using the idea of incomplete contracts and transactions costs, explain why.

Multiple Choice Questions

12.1 Another word for excess supply in the labor market is
      a) Full employment
      b) Layoff
      c) Unemployment*
      d) Labor extraction

12.2 According to conventional economists, work is
      a) Always pleasant
      b) Always unpleasant*
      c) Something that needs to be extracted
      d) None of the above

12.3 If I am working, an example of the opportunity cost I face is that
      a) It costs a lot to commute to work
      b) While I am working, I cannot go to the beach*
      c) When I am working, I have to pay union dues
      d) I eat out at restaurants more when I work full time

12.4 In terms of the profit rate determinants, workers want
      a) Both e and w to be high
      b) f to be high and w to be low
      c) Both e and w to be low
      d) e to be low and w to be high*

12.5 In order to raise profits, capitalists try to
     a) Increase e and f and reduce w*
     b) Increase e and w and reduce f
     c) Reduce e and f and increase w
     d) Reduce e and w and increase f

12.6 The unit labor cost is defined as
     a) The hourly wage divided by the output per hour*
     b) The hourly wage divided by the total number of units produced
     c) The hourly wage divided by the total number of employees
     d) The hourly wage divided by the value of the capital stock

12.7 If the B-E-R Company paid wages of $15 per hour and the average worker produced 5 units of the product per hour, the unit labor cost (ulc) would be
     a) $3*
     b) $0.33
     c) $5
     d) $15

12.8 Which best completes the following sentence? In general, the levels of e and w are determined in important measure by
     a) Government regulations and the agencies that enforce them
     b) Labor union contracts
     c) Bargaining strengths of workers and employers*
     d) The employers, through managers and supervisors

12.9 The only one of the following conditions of employment that cannot be precisely specified in a labor contract is
     a) The wage paid
     b) How hard and well the workers must work*
     c) The hours of work
     d) How disputes between workers and employer are handled

12.10 A union, no matter how strong, cannot successfully demand a wage that is
     a) Higher than federal law allows
     b) Higher than the output price*
     c) Higher than the workers' fallback wage
     d) Higher than the cost of job loss

12.11 Producers who own their own capital goods, such as a workers' cooperative,
     a) Will not work hard, because they cannot be fired
     b) Have reasons not to work hard, because there is no boss
     c) Have reasons to work hard, because they share the total product*
     d) Are forced to use hierarchical methods of control, just like capitalists

12.12 The process by which the capitalist obtains work from labor time is called
      a) Exchange
      b) Collective bargaining
      c) Coordination
      d) Extraction*

12.13 To the capitalist, the important difference between labor and other inputs into the production process is that
      a) Labor's performance is specified in a contract
      b) Labor comes only in human beings with a will of their own*
      c) Workers get tired as a result of working
      d) Labor's price is lower than the price of other inputs

12.14 Although piece rates are sometimes used, there are several reasons why they are not widely used. All of the following are problems for the capitalist in paying for work by piece rates except
      a) It is hard to specify tasks precisely
      b) Greater supervision is required than if a straight hourly wage were paid*
      c) In team production it is hard to know which worker did what
      d) The capitalist cares how fast the work is done because nonlabor inputs are tied up

12.15 When the cost of job loss is high, it implies that
      a) Unemployment insurance benefits are large
      b) No one stays unemployed for very long
      c) Employers have a lot of power over workers*
      d) Most people are organized into unions

12.16 The cost of job loss is an important influence on the determination of
      a) The efficiency of labor and the intensity of labor
      b) The amount of unemployment insurance and the wage rate
      c) The efficiency of labor and the wage rate
      d) The intensity of labor and the wage rate*

12.17 The workers' fallback wage is
      a) A current wage that would make the worker indifferent to being laid off*
      b) The wage in an alternative job
      c) The amount of unemployment insurance benefits
      d) The minimum amount the worker could live on

12.18 The employer's objective is to
      a) Maximize the intensity of labor, e
      b) Minimize the wage, w
      c) Minimize the unit labor cost, w/ef*
      d) Maximize the output per worker

12.19 Unemployed workers cannot go to an employer and get a job by offering to work for less than $w*$, because if the employer hired them at a wage lower than $w*$, then
    a) Would be lower, but ulc would be higher*
    b) Would be lower, but ulc would be lower still
    c) Would be lower, but e would be much higher
    d) Would be lower, but f would be much higher

12.20 An important difference between the labor market and the beer market is that
    a) The labor market is never in equilibrium
    b) There is competition in the labor market
    c) In equilibrium, there is excess supply in the beer market
    d) In equilibrium, there is unemployment in the labor market*

ADDITIONAL RESOURCES

On the Labor Extraction Model

The entire June 1990 issue (vol. 18, no. 2) of the journal *Politics and Society* is devoted to presentation and critique of a model very similar to the one presented in the text. The issue contains a good general introduction to the model (Samuel Bowles and Herbert Gintis, "Contested Exchange: New Microfoundations for the Political Economy of Capitalism") and a variety of critiques by economists and others, together with Bowles and Gintis's reply.

Akerlof, George A., and Janet L. Yellen, eds. *Efficiency Wage Models of the Labor Market*. Cambridge: Cambridge University Press, 1986. A general introduction to efficiency wage models, of which the labor extraction (or labor discipline) model is one type. The introduction gives an overview of the topic.

Bowles, Samuel. "The Production Process in a Competitive Economy: Walrasian, Neo-Hobbesian, and Marxian Models." *American Economic Review* 75 (1) (1985): 16–36. A somewhat terser introduction to the labor discipline model, which also explores several related issues and implications of the model.

———. "The 'Reserve Army Effect' on the Wage in a Labor Discipline Model." In *Making Economies More Efficient and More Equitable: Factors Determining Income Distribution,* ed. Toshiyuki Mizoguchi, 385–405. Oxford: Oxford University Press, 1991. A brief introduction to the labor extraction model.

Weiss, Andrew. *Efficiency Wages: Models of Unemployment, Layoffs, and Wage Dispersion*. Princeton, N.J.: Princeton University Press, 1990.

Leibenstein, Harvey (1957). "The Theory of Underemployment in Backward Economies." Journal of Political Economy, vol. 65.

CHAPTER 13: Technology, Control, and Conflict in the Workplace

How This Chapter Fits into the Text

Chapter 13 completes the discussion of the ways in which employers exercise control in the individual firm and the ways in which workers resist that control. Several different forms of control are discussed. The chapter is nontechnical and is a good opportunity to introduce some narrative history and some stories of workplace struggles, using films or videos or autobiographical accounts. It completes the microeconomics portion of the text.

MAIN POINTS

1. The control of the workplace is an important consideration of the vertical dimension of the capitalist economy

2. Control of the workplace determines work intensity and the wage.

3. Several different forms of control can coexist in capitalist society.

DETAILED OUTLINE

1. Employers establish systems of control in the workplace (a particular form of social organization of the labor process) designed to extract work from workers at a minimum unit labor cost.

2. Existing technology helps shape how employers organize production; moreover, the causation goes both ways: conflict between workers and employers helps shape technology.

3. In the conflict between workers and employers over work intensity, e, and the wage, w, workers' strategies include organizing labor unions.

4. Employers seek to organize labor processes in the most profitable way. Profitability is not the same thing as efficiency, and when they conflict, employers are pressed by competition to choose profitability.

5. Markets and hierarchies are mutually reinforcing systems that are both essential for the capitalist system.

6. The democratic worker-owned firm is an alternative to the employer firm.

TEACHING TIPS AND MODULES

This is usually a fairly enjoyable chapter to teach. Students who have worked are often aware of the social organization of the workplace and have a lot to contribute to this discussion. However, certain topics may be difficult and/or contentious.

1. In discussing profitability and efficiency, we may divide the determinants of the profit rate into three categories:

(a) Those over which the individual employer has some control and that affect both profitability and efficiency: the quantity of material inputs used per hour of labor, m; the quantity of capital goods in use per hour of labor, *cg in use*; and the output per unit of labor effort, e

(b) Those that the individual employer can influence but that affect only profitability, not efficiency: the intensity of work, e, and the wage, w

(c) Those over which, in a competitive market, the individual employer has no control: prices, Pz, Pm, and Pc, and the capacity utilization ratio, u.

The crux of the text's argument is that when the determinants in category (b) are involved, it is possible for employers to increase profitability without increasing efficiency.

Consider the example of speedup through use of an assembly line. The intensity of work, e (labor effort exerted per hour or "work done" per hour), rises as workers are compelled to step up their pace. This increase in e by itself raises profitability without affecting efficiency of labor, f, at all. If other profit rate determinants remain unchanged, then the conclusion is obvious that profitability can rise while efficiency (of labor) stays the same.

But the text considers the case in which f rises through speedup while, at the same time, efficiency falls. If by "efficiency" is meant efficiency of labor, then this means that output (say, the number of windshields correctly installed) per unit of work effort (e) falls. It is implicitly assumed that this occurs without any change in the quantity of materials used up or the wear and tear on machines, so we have just an increase in f and a lesser decrease in f, resulting in an increase in ef, the output per hour of labor and, thereby, an increase in profitability.

In order to compare two production processes using the concept of "efficiency in general," we need (a) to start from a single reference point on a production function (a given level of production using given inputs) and (b) to have a situation in which the changes in quantities of inputs used all move in the same direction. For example, if production process A is in use for producing cars and process B uses more aluminum and less steel to make the same car, we cannot say that one method is more efficient than the other. This is because the only way to make aluminum and steel commensurable is to use their prices to compare them—but if we use prices, we are comparing profitability, not efficiency.

On the other hand, if two production processes for making cars were identical, except that the first used less aluminum and less steel than the second, we would have no problem saying that the first was more efficient. The fact that the differences in inputs used in the two processes both move in the same direction (the first uses both less aluminum and less steel) makes it possible to compare their efficiency apart from the price structure of inputs.

In the assembly line example, two situations are theoretically possible. On the one hand, it is possible that the assembly line may use more of every single input to produce a car—more components because more get damaged with the breakneck pace of work, more hand tools, more energy, and more labor effort per car. The process would still increase profitability if—as is possible—the increased intensity of labor compensated for all these increased inputs. In such a case, we could say that the assembly line process, though more profitable, was unambiguously less efficient in both senses—both "efficiency in general" and efficiency of labor.

It is much more likely in practice, however, that the assembly line process will use more of some inputs and less of others, so we can only say that the assembly line is less efficient in the sense that the efficiency of labor has declined, that is, there is less output per unit of labor effort.

This limitation on the usefulness of the concept of "efficiency in general" is a good reason for the instructor to explain the idea of profitability vs. efficiency in terms of the efficiency of labor, not "efficiency in general."

What about the example of deskilling? Deskilling reduces the wage, w, increasing profitability. Even if (as may occur) f falls, profitability may increase as long as f does not fall too much. Here again, the distinction between profitability and efficiency will be clear to students if it is efficiency of labor, f, and not "efficiency in general," that is used to explain it.

What happens if deskilling actually involves changes in a number of inputs—an increase in the number of computers, for example—and a decrease in the number of mechanical measuring devices? Once again (because some inputs have increased, others decreased), we have no way to compare the "efficiency in general" of the deskilled production process with the former process without using the prices of inputs, which would be a comparison of profitability, not efficiency.

2. Capitalism and Discrimination

The text raises the question whether capitalism tends to erode discrimination or to maintain and intensify it. The answer given is that both opposing tendencies exist and that we cannot say in general that one tendency predominates. Students are often unsatisfied with the inconclusiveness of this answer, wanting something more definite.

The teaching module Capitalism and Discrimination is designed to help the instructor give this topic the extra attention it may need.

ACTIVITIES AND DISCUSSION

1. The text briefly examines the process of deskilling. In particular, it focuses on the separation of conception from execution. How does the process of deskilling impact unit labor costs and, hence, capitalists' profits?

Answer: Deskilling rids the capitalists of workers who may, through their monopoly on certain skills, be able to resist wage cuts and speedups. It makes these workers replaceable and allows the introduction of technical control of the labor process. Further, separating conception from execution creates two groups of workers—white collar and blue collar—who define their interests as different and sometimes antagonistic. This helps keep workers divided and reduces their bargaining power.

2. Some people present a relatively positive image of unions, indicating that they are often formed by workers seeking to collectively defend their interests against those of an employer. At the same time, many people in our society argue strongly against unions, claiming that they are responsible for inflation and low productivity and are bureaucratic and unresponsive to their membership. What is your image of, and experience with, unions? Do you think their effects on society are generally positive or generally negative?

3. The text argues that workers react defensively to new technologies. Why defensively? What is it about new technologies that lead workers to fear their introduction? Why are workers generally on the defensive rather than the offensive?

Answer: Generally, new technologies are introduced with an eye toward decreasing unit labor costs through increasing efficiency, labor intensity, deskilling (with an attendant wage reduction), and labor control. Each of these can have negative consequences for workers. Workers are on the defensive because it is capitalists who invest and therefore initiate new technologies; workers react to these initiatives.

Teaching Module 13.1:   Capitalism and Discrimination

To Teach: Capitalism contains both a tendency to erode discrimination, by hiring the cheapest worker available of comparable productivity, and a tendency to perpetuate discrimination, as a way to divide and rule the workforce.

1. Racial and gender inequality persists in our capitalist society. Why? Does the functioning of capitalism tend to erode or reproduce discrimination?

2. Some economists have argued that capitalism tends to erode all forms of discrimination because of the horizontal dimension of capitalism—the competition of the marketplace.

(a) Suppose employers are prejudiced and seek to employ only white or male labor. What then happens to the price of that labor, the wage? Because there is a high demand for white workers (or male workers), their wage increases. And the wage (the price of labor) paid to the group suffering discrimination decreases.

(b) Given equal skills between the two groups, what will the smart employer do? (Put prejudice aside and hire blacks and women.) Why? Because this will lower labor costs and allow the smart employer to price his product below that of his prejudiced competitors, thereby increasing market share and walking off with all the profits. Competition will eventually force the employer's competitors to follow suit; if they don't, they will go out of business. Thus (so the argument goes), competition makes individual prejudice irrelevant.

(c) And what happens in the process? The demand for white labor decreases so that the wage paid to white workers falls, whereas the demand for black labor increases so that the wage paid to black workers rises. The process will go on until racial inequality of incomes is eliminated.

3. To see the benefits to employers of ending racial discrimination, let's look at U.S major league baseball teams, which had no black players before 1947 and were fully integrated by 1970. About one-third of the 16 teams in the National and American Leagues integrated rapidly between 1947 and 1959, one-third integrated very little or not at all during those years, and the remaining third integrated but at a relatively slow pace.

(a) If integration means hiring the best players (initially at a lower salary, because demand for their services has in the past been weak), then which group of teams should have improved their win record the most over this period? Which group of teams should have a deteriorating record of wins?

(b) The teams that integrated rapidly improved their record the most:

Group 1: Milwaukee, Los Angeles, San Francisco, Cleveland, Chicago White Sox	Each team had between 18 and 25 new black starters during these years
Group 2: Pittsburgh, Cincinnati, Chicago Cubs, Baltimore, Kansas City	Each team had between 5 and 12 new black starters during these years
Group 3: St. Louis, Philadelphia, Washington, Detroit, Boston, New York	Each team had between 0 and 2 new black starters during these years

Teams in Group 1, the group that integrated most rapidly, won an average of 7.2 more games per year during 1951–1959 than they did during 1947–1950. Teams in Group 2, that integrated more slowly, did only slightly better during the later period than they did in the earlier period at .9 games per year. Teams in Group 3, which hardly integrated at all until after 1959, won an average of 6.6 *fewer* games during 1951–1959 than they did during 1947–1950.

4. So if ending discrimination benefits employers in this way, why hasn't discrimination ended? There is a powerful competing tendency that we can see if we connect the horizontal and vertical dimensions of capitalism.

5. First, looking at just the vertical relationship of class, we can see that employers as a class benefit from discrimination and inequality. How so? Let's focus on unemployment.

> (a) We've argued that unemployment is essential on a macro level to maintaining a positive rate of profit. Note that the most severe burdens of unemployment (in terms of both levels and volatility) fall upon the least politically powerful members of our society. This "disorganizes" potential political resistance to unemployment.

> (b) The racial and sexual aspects of unemployment allow employers another benefit: a pool of low-wage workers who can be called into capitalist production in periods of expansion and then forced back into the ghetto or the home during the subsequent economic contraction. (The film *Rosie the Riveter* gives an excellent account of this process with respect to women during and after World War II.) This pool also can be (and has been) used to break strikes.

6. Does the individual employer also benefit? Yes.

> (a) Suppose Employer A is a nondiscriminating employer and has been for a long time. This means that all A's employees—white or minority, male or female— make similar wages, have similar levels of seniority (similar unemployment experiences), and are randomly distributed in the different jobs in the plant (the

ratio of black to white unskilled workers matches the ratio of black to white skilled workers).

(b) Now suppose Employer B is a discriminating employer. B pays white and minority workers different wages, gives them different jobs in the plant, and lays off the minority workers more often during slow times (implying different levels of seniority). B's female workforce is segregated from the male workforce—they constitute the clerical staff and/or occupy different positions in the manufacturing process.

(c) Now which employer has the competitive edge? Each has an advantage and a disadvantage.

Employer A can assign people to wherever their productivity is highest and does not have to maintain a division of labor—but cannot divide and conquer.

Employer B can fight workers' demands for wage increases and their threat to strike for their demands by threatening to replace white with minority workers. If the white workers give in, hostility and distrust may spread through the plant.

(d) This is no fairy tale. Employers have indeed replaced white workers who strike with minorities who are hungry for the jobs given the high levels of unemployment in their communities. Occupational segregation by race and sex has often been an active strategy to impede workshop unity.

Teaching Module 13.2: Labor Market Discrimination

To Teach: Economic inefficiencies resulting from discriminatory hiring practices.

(Reference: Anderson, Donna M. and Haupert, Michael J. "Employment and Statistical Discrimination: A Hands-On Experiment." Working Paper, University of Wisconsin-La Crosse, October 1997.

Abstract: Students play the role of employers who must hire 8 workers from a pool of 20 applicants. Applicants differ according to their productivity, which ranges from 0 to 10 units of production. The labor pool contains two types of workers, pink and blue, whose characteristics can be observed at zero cost by each employer. What cannot be observed at zero cost is the actual level of production of each worker. Employers do have, however, summary statistical information concerning the worker pool. Each employer is given a deck of cards, 10 of which are pink and 10 of which are blue. The productivity of each applicant is written on the back of the cards. The deck is shuffled and represents the order in which the applicants are interviewed. The students are divided into equal numbers of three market types representing different distributions of worker productivity. Three rounds are played. In the first round, the cost of interviewing equals 2 units of production. The second round has a cost of .5 units of production, while the third round

has a cost of 2 units of production and a requirement that employers hire an equal number of pink and blue workers.

Variations: In order to generate wage gaps, allow employers to pay workers what employers think workers are worth. Another extension is to generate occupational segregation by requiring employers to hire workers into one of two jobs: a low-paying and a high-paying job.

Short Essay Questions

1. The text describes three systems of control of the labor process. Name them and discuss each, paying special attention to how each can bring down unit labor costs. How do employers decide what kind of technical change to introduce? Are all technical changes that employers introduce necessarily more efficient? Why or why not? Include in your answer a discussion of the relevant determinants of the profit rate.

2. What are the advantages and disadvantages of worker-owned, democratically run firms? Why are there not more of them in employer economies?

3. Some argue that market competition tends to erode racial and sexual discrimination, while others argue that capitalism tends to perpetuate racial and sexual discrimination. What is the logic of these two different arguments? What is your assessment of these arguments?

4. The text briefly examines the process of deskilling. In particular, it focuses on the separation of conception from execution. How does the process of deskilling impact unit labor costs and hence employers' profits? The following is excerpted from an interview in 2005 of a union activist, Dave Brown, conducted by Labor Notes—a labor organization.

Brown says of his workplace: "Racism is always apparent in the plant, either between workers or from management. It's a normal thing in the South: higher paying jobs going to white workers. In our division they'll say that no jobs are available, or fire a Black person, and then turn around and hire a white person … [T]hree or four years ago, I was in the position of getting a technician job. There was a white person with a bad attendance record and only eight years in the plant, whereas at that point I had 13 years of seniority. They said that he was the better employee for the job. It doesn't matter if you're outspoken or not, Black workers will get passed over for jobs. Discrimination and anti-worker practices are not just based on skin color—bosses just use racism to keep whites and Blacks divided. Employers don't want workers to see this. I try to show how bosses screw workers and use racism as a kind of smokescreen to hide the fact that they're out to divide and exploit workers—regardless of their race." In the context of this and using this statement, explain how employers may (a) benefit from discrimination and (b) lose from discrimination.

5. The text presents a relatively positive image of unions, indicating that they are often formed by workers seeking to collectively defend their interests against those of an employer. At the same time, many people in our society argue strongly against unions, claiming that they are responsible for inflation and low productivity and are bureaucratic and unresponsive to their membership. What is your image of, and experience with, unions? Do you think their effects of society are generally positive or generally negative? In what ways?

6. The text argues that workers react defensively to new technologies. Why defensively? What is it about new technologies that lead workers to fear their introduction? Why are workers generally on the defensive rather than the offensive?

7. In a 2004 report, two researchers who studied U.S. outsourcing wrote: "There has been a major increase in production shifts out of the US in the last three years particularly to Mexico, China, India, and other Asian countries. There were 69 announced or confirmed production shifts to Mexico, followed by 58 shifts to China, 31 to India, 39 to other Asian countries, 35 to other Latin American and Caribbean countries, 23 shifts to other countries including Eastern and Western Europe and Canada. This compares to 2001, where during the same three month time period we found only 25 shifts to China, 30 to Mexico, and 1 to India." Why do you think firms are following this strategy? What is this strategy called? What do you think this is doing to workers in these firms? What about the owners of the firm?

8. Consider any cooperative firms that you know. Write a short essay on why the firm came into being. What are its advantages? What are its disadvantages?

9. In what ways do markets and hierarchies support each other?

10. Think of some of the jobs you have held or know of. In what ways has work been socially organized?

Multiple Choice Questions

13.1 The conflict between employers and workers
      a) Is mainly between the working class and the employer class
      b) Is mainly between a single firm and the union to which its workers belong
      c) Is mainly between the individual worker and the employer he or she works for
      d) Occurs on three levels: worker vs. boss, firm vs. union, and class vs. class*

13.2 In capitalism,
      a) Profitability ensures efficiency; they never conflict
      b) Profitability is the same as efficiency
      c) Profitability differs from efficiency, and sometimes they conflict*
      d) Profitability differs from efficiency, and they always conflict

13.3 A lockout at a factory means that
    a) The factory closes permanently
    b) Workers lock the factory doors to exclude management
    c) Management locks the factory with the workers inside
    d) Management locks the doors of the factory to exclude workers*

13.4 Strategies that employers use to gain compliance from workers include all of the following except
    a) Runaway shops
    b) Slowdowns*
    c) Lockouts
    d) Parallel plants

13.5 For employers, the purpose of parallel plants is to
    a) Try out different production technologies
    b) Shift production to one plant when the other is on strike*
    c) Try out different systems of control
    d) Increase total output

13.6 By social organization of the workplace we mean
    a) Whether workers belong to a union
    b) The ethnic and gender composition of the workforce
    c) Work rules, job definitions, and structure of supervision*
    d) How often management throws parties

13.7 Job ladders and seniority rewards are part of a system of control usually referred to as
    a) Simple control
    b) Technical control
    c) Bureaucratic control*
    d) The drive system

13.8 Relying on supervisors to bully, charm, cajole, or motivate workers to work hard is part of a system of control often known as
    a) Simple control*
    b) Technical control
    c) Bureaucratic control
    d) Hierarchy

13.9 If an employer pays close to the minimum wage, this is a clue that the system of control in use is
    a) Inadequate
    b) Simple control*
    c) Bureaucratic control
    d) Technical control

13.10 One example of technical control is
 a) A McDonald's restaurant
 b) An assembly line*
 c) a Labor union
 d) a seniority system

13.11 Under bureaucratic control, high and rising wages are not a problem for the employer because
 a) Employees are satisfied and want to stay on the job
 b) In these firms, maximum output is not a high priority
 c) Output price rises as fast as wages
 d) An even greater increase in work effort reduces ulc*

13.12 Technical change may raise the profit rate by, for example,
 a) Reducing e or f
 b) Reducing m*
 c) Raising w
 d) Raising ulc

13.13 Suppose the employer can assign a research team to one of two projects. Project A would maintain the employer's control of the work pace and would reduce input materials by a small amount. Project B would reduce the employer's control of the work pace but would also reduce input materials by a large amount. The employer would probably
 a) Choose A: maintaining control over profits is crucial*
 b) Choose A: too large a reduction in inputs will affect product quality
 c) Choose B: lower materials costs mean more profit
 d) Choose B: less supervision means lower ulc and more profit

13.14 The introduction of the assembly line had all of the following effects on the labor process except
 a) Reduced workers' mobility in the plant and so their ability to organize resistance
 b) Controlled the pace of work, making speedup easier to implement
 c) Traded reduced output for greater control*
 d) Allowed a small group of workers to bring production to a halt

13.15 Of the statements below about skilled and unskilled workers, the one that is false is
 a) Skilled workers are generally harder to replace
 b) Skilled workers are in a weak position to resist speedup*
 c) Skilled workers demand and get higher wages
 d) Skilled workers have more control over their pace of work

13.16 All of the following are ways for employers to accomplish deskilling of work except
 a) Separate conception from execution

b) Pay low wages*

c) Divide up tasks and assign only a few to each worker

d) Choose new technology that requires less skill

13.17 Union membership has recently been

a) Rising in the public sector but declining overall*

b) Rising in the public sector but unchanged overall

c) Declining in the public sector but rising in the private sector

d) Declining in both the public and the private sectors

13.18 Capitalism

a) Tends to weaken discrimination

b) Tends to strengthen discrimination

c) Contains opposing tendencies to strengthen and to weaken discrimination*

d) Coexists with discrimination but does not strengthen or weaken it

13.19 When firms compete with each other to minimize costs by hiring the best person at the lowest wage, this can

a) Weaken discrimination by reducing unemployment among blacks and women*

b) Weaken discrimination by increasing unemployment among blacks and women

c) Strengthen discrimination by increasing unemployment among blacks and women

d) Strengthen discrimination by reducing unemployment among blacks and women

13.20 Technology

a) Gives employers flexibility in organizing work

b) Places some limits on how employers can organize work*

c) Dictates the social organization of the workplace

d) Is independent of the social organization of the workplace

13.21 Technical change can improve the efficiency of production by

a) Reducing m and P_c, increasing e

b) Reducing m and P_m, increasing e

c) Reducing m and cg in use, increasing e*

d) Reducing m and cg in use, increasing d

13.22 An increase in the efficiency of labor, e, means more output for a certain amount of labor input (work effort). A general increase in efficiency means

a) More sales revenue for a given amount of labor input

b) More sales revenue for a given total wage cost

c) More physical output for a given quantity of all inputs*

d) More sales revenue for a given quantity of all inputs

13.23 Compared to the old technology, a new technology that keeps w unchanged and raises d proportionately more than e, so that de rises (without making any other changes in the determinants of the rate of profit), is

       a) More profitable but less efficient*
       b) More efficient but less profitable
       c) Equally profitable but less efficient
       d) Equally efficient but less profitable

13.24 In a democratic firm

       a) There is no hierarchy—no managers and no supervisors
       b) All decision are made by majority vote
       c) Workers have little incentive to increase output
       d) Management is elected by a majority vote of workers*

13.25 One disadvantage that a democratic, worker-owned firm faces is that

       a) In investing it has a tendency to take too many risks
       b) Banks will be reluctant to lend to it*
       c) Many nonmember workers will want to join it
       d) Its workers are generally less satisfied than in employer owned firms

13.26 In a democratic firm, workers

       a) Have most of their savings in the firm*
       b) Avoid tying up most of their savings in the firm because it is too risky
       c) Have incomes from stock dividends that are independent of the productivity of the firm
       d) Are generally less productive than in employer owned firms

ADDITIONAL RESOURCES

This third edition of *Understanding Capitalism* does not contain a separate chapter explicitly comparing capitalism with other possible economic systems such as socialism. If the instructor wishes to include such a topic in the course syllabus, this is one appropriate place to introduce it. Showing the film *Mondragon Experiment* is one way to make real the idea of worker-owned cooperative firms, and this could be extended into a discussion of how the organization of work and the experience of work would be different under a system of public ownership of all property or a decentralized system of cooperative worker-owned production.

Comparison with Conventional Approaches: How Employers Control Workers

Neoclassical economics as conventionally taught is not concerned with the question of how employers exercise control over workers because in their view power is not present in the employer–employee relationship. Rather, when workers exchange work for the wage payment, neoclassical economists view this as a purely voluntary market exchange, one from which either party (employer or worker) could withdraw at any time. As Paul

Samuelson a well known economist has put it, it makes no difference whether capital hires workers or workers hire capital.

In sharp contrast, political economy holds that it matters very much that capital hires workers and not the other way around. This is because employers need to adopt strategies for extracting work from workers because they have minds of their own. But if workers hire capital (e.g., if a workers' cooperative leases a computer or rents tools), the workers need not strategize to find ways to extract work from the rented or leased equipment. It is logical, and central, to a political economy approach, therefore, to study how power is exercised to extract work from workers.

Discrimination

Because the neoclassical view excludes power from consideration and views the sale of labor as a market exchange with no coercion on either side, it concludes that "you get what you pay for," that is, workers are paid whatever they are worth. In other words, if the wage is determined in the neoclassical model (and not according to the labor discipline model), then the wage equals the marginal revenue product of labor. To the neoclassical economist, this means that there can be no discrimination; if a black person is paid a lower wage, that person must, according to the theory, be less productive. Why? Because (the story goes) if the person is as productive as, or more productive than, a higher-paid white person, then a nondiscriminatory employer (who may even be from the discriminated-against group itself) will hire the same individual at a wage higher than he/she is now being paid, up to the marginal revenue product of labor.

Thus, the labor discipline model and the view of capitalism as characterized by command and not just competition are both linked to the view expressed in this chapter (and Chapter 14) that discrimination based on race and gender indeed exists.

References

Anderson, Donna M., and Michael J. Haupert. "Employment and Statistical Discrimination: A Hands-On Experiment." Working Paper, University of Wisconsin-La Crosse, October 1997.

Foner, Phillip S. *Organized Labor and the Black Worker 1619–1973*. New York: International Publishers, 1974.

CHAPTER 14: The Mosaic of Inequality

How This Chapter Fits into the Text

This chapter is the first in the macroeconomics section of the book. It addresses a central concern of some of the thinkers of Chapter 3—the question of the distribution of society's resources. In some ways it is a stand-alone chapter, but it also links the microeconomics and core macroeconomics sections beginning in chapter 15 by looking closely at the evolution of U.S. inequality in the last few decades in this chapter and uneven development between countries in the next (Chapter 15: Progress and Poverty on a World Scale).

MAIN POINTS

1. People's well-being depends on other things than simply income, including health, their material comfort, and their access to social environments, which contribute to their whole human development. The economy influences their income and material comforts directly while shaping their social environment.

2. Inequality of both income and wealth has increased sharply from the 1970s to date.

3. There is significant intergenerational transmission of income (children of families with high incomes are much more likely to have high incomes than the children of poor families).

4. There is significant racial and gender inequality in the U.S. economy.

5. Jobs in the U.S. economy remain highly segmented: "women's work" tends to be less well paid, but even when doing the same jobs, women earn less.

DETAILED OUTLINE

1. Measuring Well-Being and Inequality

Well-Being and the Economy (see Figure 14.1, page 347)

Well-being includes, besides necessities, health care; amenities, luxuries; the respect of others and a sense of belonging; time and energy to enjoy life; freedom; and the chance to make choices that allow one to become what one wants to become. Some important factors include the quality of work experience and the quality of the natural environment.

Organization of the economy affects all of these. It affects health by rationing access to health care; there is often damage to health from working and environmental effects on health. It affects freedom because laws and income both affect freedom to make choices.

It affects respect by determining relative income, and it affects the sense of belonging, especially through existence of or lack of community at the workplace.

Per capita income is often used to measure a country's living standard. But this has problems. It fails to value leisure. It fails to value access to noncommodities like schools and police. Finally, price does not always measure contribution to well-being: the $2.50 that a poor family spends on milk may be "worth" more to them than the $10.00 that a rich family spends on shrimp. So redistributing income may raise total well-being.

2. Growing Inequality

Income inequality has grown over the last three decades.

The income share of the top 1% has increased over the last three decades (see Figure 14.2, page 350).

A U.S. CEO's pay in relation to an average worker's wage has increased substantially (see Figure 14.3, page 351).

The income share of the lowest quintile has fallen since 1967, while the share of the highest has risen (see Figure 14.4, page 352).

The average income of the top quintile has risen faster than the average income of the bottom fifth (see Figure 14.5, page 353).

3. Wealth Inequality

Wealth refers to the assets that a person, household, or family owns. The composition of wealth holdings differs according to the level of income—the rich have most of their assets in business and corporate stock, while the poor have most of their equity in their residence (see Figure 14.6, page 354).

Net worth is the sum of all a person's assets minus his or her outstanding debts. U.S. nonhome net worth differs significantly across groups—whites, men, the educated, and the income rich have substantially more wealth (see Figure 14.7, page 356).

There has been an increase in the concentration of wealth—the top 10% have more of the total wealth in the country in 2001 than in 1983 and the bottom 60% have less (see Figure 14.8, page 357).

The concentration of wealth allows the rich more security (see Figure 14.9, page 358).

4. Unequal Chances

The children of the rich are more likely than the children of the poor to become (or remain) rich. The children of the poor are more likely to remain or become poor than the

children of the rich. Several factors, including education, personality traits, networks, and health may cause this transmission (see Figure 14.10, page 360).

5. Race and Inequality

Racial discrimination is not a thing of the past. A recent experiment shows that labor market discrimination on the basis of African-American "sounding" names is still prevalent (see Figure 14.11 and Figure 14.12).

6. Women's Work, Women's Wages

There has been slow progress toward a color-blind and gender-blind economy. African Americans still have lower median incomes than whites, and women have lower median incomes than men (see Figure 14.13, page 366).

"Women's occupations" tend to be lower paid than "men's occupations." The most sex-segregated jobs show this pattern (see Figure 14.14, page 367). Even within the same occupation, women are often paid less than men (see Figure 14.15, page 370).

7. Conclusion

Several factors have been behind the observed increase in all measures of inequality over the last three decades.

The assets that high-income people have a lot of—education and wealth—have become more highly remunerated (so-called skill-biased technical change).

Wealth has become more unequally held.

More than in the past, high-income men are married to high-income women. This is because today, more than in the past, high-income men tend to be married to highly educated women.

The strength of trade unions has declined and has reduced the bargaining power of workers (see Figure 7.1 on page 166).

Generally accepted norms of fair pay seem to have eroded (Figure 14.2).

The decline in the minimum wage has allowed low wages to fall even lower (see Figure 7.1).

The shrinkage of the manufacturing sector of the economy (see Figure 7.7) has destroyed many well-paying skilled jobs.

The growth of the service and sales sectors of the economy has generated a "twin peaks" distribution of jobs (see Figure 7.7).

Workers in the United States are competing with workers in the rest of the world (see Figure 7.4). This and the recent immigration of people willing to work at low wages and who are not in a position to bargain aggressively with their employers due to their lack of citizenship and often illegal status have put downward pressure on wages.

TEACHING TIPS AND MODULES

Difficult Points

This is not a complex chapter, but it has a lot of information. Certain topics may need particular attention.

1. The difference between wealth inequality and income inequality: One way of teaching this is to use a chart showing how saved income becomes wealth.

2. Inequality has an effect on well-being: This is a contentious point at times, with some believing that only absolute income matters and that relative income does not. One way to teach this is to include a discussion on relative income in the Teaching Module Well-Being below.

3. Racial and gender inequality: Some students often consider racial discrimination to be a thing of the past. Although Figure 14.13 may not dispel this notion, the experiment by Bertrand and Mullainathan (Figures 14.11 and 14.12) that is explained in the text does a very good job. As such, it is important to teach this section in order.

ACTIVITIES AND DISCUSSION

1. A good source of information on inequality and its consequences is Barbara Ehrenreich's Nickel and Dimed: On (Not) Getting By in America (see Suggested Readings section in the text). Sections from this book could be assigned reading.

2. The paper by Bertrand and Mullainathan, "Are Emily and Brendan More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination" (American Economic Review 94 (4) (2004): 991–1013), is a very readable paper, and students can look at the data more carefully if this is available to them. Experience suggests that this is an activity that is enjoyed very much.

3. The Bureau of Labor Statistics reports noted in the text are easily accessible; students may want to access this information and make charts for themselves.

4. For Figures 14.2 to 14.15, explain what each figure represents. Try to come up with some explanations for what you see.

Teaching Module 14.1:   Well-Being

To Teach: Many factors influence well-being directly or indirectly, as shown in Figure 14.1, page 347; economic institutions are key determinants of well-being.

The following exercise is designed to review the causal relationships that explain differences in well-being among countries and that help us determine how to improve well-being.

1. We are aware that there are huge differences among the countries of the world in income and in well-being as measured by other categories. The text has discussed myriad factors that help determine well-being, and provides a chart describing the causal relationships among some of these factors. Among these factors, productivity is key, and the text discussed at length the factors that affect productivity.

2. Give these instructions to students. Let's break down into groups of about five. Each group is a world government, deciding how to increase living standards in the world in the quickest possible way, with a budget of $5 trillion, or about $1,000 per person. The money can be spent on education, health, roads and bridges, or anything else, or it can be simply given out to people for them to spend. As a world government, each group has the power to change economic institutions (whether this costs money or not).

In order to use the money in the most effective way, you want to develop your own causal diagram (or web or flowchart) of the factors that can bring about increases in well-being. You may include all kinds of factors, but among other things, we are interested in how economic institutions influence well-being, so you should circle each economic institution that you find yourself writing down as an influencing factor.

The diagram can include more than shown in Figure 14.1. It may include political as well as economic factors (such as how democratic the political process is), if you think these are relevant.

3. Now ask students to fill in factors that influence these factors. For example (ask students) what factors affect health?

(Possible answers: working conditions on the job; the pollution level; availability and cost of health services; money available to buy health care, if the system is private; the government's public health and sanitation practices or programs; add each of these factors to the flow diagram with a cause-effect arrow.)

4. Ask students: And what factors affect these factors?

(They may say: working conditions are affected by what laws are on the books and whether they are enforced; the level of unionization of the workforce; the strength of unions, which in turn, is based on the level of unemployment; and so on. Add in these factors as well, with arrows.)

5. Ask students: Which of these factors would we consider to be an economic institution? (Answers might be: labor unions; laws; public health programs; and so forth. More generally, markets and private property are both economic institutions that may have a place in these diagrams, though these may not occur to students. Instruct students to circle each economic institution on their group's diagram.)

6. Now have the small groups take about 15 minutes to continue the process. Of course, this process is endless, so ask them to focus next on per capita income and its causal factors, being sure to include productivity and its causes, as well as investment (domestic private investment, domestic public investment, and foreign investment).

7. Finally, ask each group to take about 10 minutes to make its decisions about how to spend its $5 trillion to raise living standards. Have each group put its program on the board, together with the key elements of its diagram, and explain the program.

8. Then have a general class discussion based on the following questions:
What do you think should be the highest priorities for a government of a poor country with the interest of its people at heart? (There is no right answer, but students may mention raising the level of education and other public investments.)

Teaching Module 14.2:   The Job Auction Game

To Teach: Fairness in job allocation.

Play the job auction game that follows. (Notice that, as written, this is not intended as a handout, because it gives away the expected result of the game.)

This game illuminates the unfairness of the fact that good jobs go along with high pay. Think about whether the following way of organizing a society is fairer than the way our society is organized.

Each member of society, upon reaching adulthood, is given a bank account equal to the expected average lifetime income for that economy. Then a number of jobs exactly equal to the number of adults is auctioned off to the highest bidders, each adult using their bank accounts to bid for the jobs. (If special training is required for the job, it will be provided by the employer or at public expense.) The jobs do not have salaries, but the resulting income of each of the members will be whatever remains in their account after they have acquired a job. Everyone must acquire some job. (We assume that no interest is paid on the bank account and that there is no inflation. Also, all jobs have complete job security.) It should emphasized that the only relevant factor in the bidding is how pleasant or unpleasant the job is (and perhaps the status attached to it)—not the income it would earn in the U.S. economy or the avenues of advancement to which it might lead.

Ask: Is it fair to allocate jobs and income this way—or fairer than the present system?

Now carry out this in-class exercise.

1. Put a list of jobs on the board. The distribution of jobs could be approximately that of the U.S. economy projected for the next decade: with 15 students, there would be 2 managers, 1 engineer, 1 social service worker such as a health care worker (not a doctor), 3 clerical workers, 3 sales workers, 3 industrial workers, 1 agricultural worker, and 1 service sector worker (such as in fast foods). Be much more specific than this about each job.

2. Announce the average annual income and the resulting size of the bank account with which each student begins. (If you want to use present value of expected income, calculate the present value of an income stream of $1 for 40 years at the discount rate you choose; multiply this by the expected income.)

3. Accept written bids for each job in turn, starting with the most desirable. To acquire a job, one has to bid part of one's bank account. Negative bids can be accepted; these would indicate how much one would have to be paid to take the job.

4. Using an assistant or two, collect the bids for the first job and (using a pocket calculator) calculate the average annual income for the job, from all the bids received. (Remember, the income is the remainder in the lifetime bank account, divided by 40 to get annual income.) Do this for each job; then list on the board the jobs, from most desirable to least desirable as indicated by the bids.

5. Now compare the actual incomes of these jobs (the most recent Statistical Abstract of the United States will be helpful here) to the average bids. You should find that many jobs that are high-paying in the U.S. get the lower incomes in the bidding exercise because they are intrinsically more pleasant and bidders are therefore willing to bid more (accept a lower lifetime income) to get them.

Teaching Module 14.3:   Wealth Distribution

To Teach: How initial property distribution can affect final wealth patterns.

Use Stanley, Denise L. "Wealth Distribution and Imperfect Factor Markets: A Classroom Experiment." *Journal of Economic Education* 32 (4) (Fall 2001): 344–355; dstanle1@utk.edu

The game makes direct use of the Parker Brothers Monopoly game. But unlike the commercial game, each student is assigned to one of four initial endowment levels of real estate. In addition, student players are given differential earned incomes per turn, and different credit rules apply to different players as well. Follow-up discussion includes computation of Gini coefficients before and after the game. At present, the game is a zero-sum game and ends when one player goes bankrupt.

Teaching Module 14.4: Labor Market Discrimination (Same as Teaching Module 13.2)

To Teach: Economic inefficiencies resulting from discriminatory hiring practices.

Abstract: Students play the role of employers who must hire 8 workers from a pool of 20 applicants. Applicants differ according to their productivity, which ranges from 0 to 10 units of production. The labor pool contains two types of workers, pink and blue, whose characteristics can be observed at zero cost by each employer. What cannot be observed at zero cost is the actual level of production of each worker. Employers do have, however, summary statistical information concerning the worker pool. Each employer is given a deck of cards, 10 of which are pink and 10 of which are blue. The productivity of each applicant is written on the back of the cards. The deck is shuffled and represents the order in which the applicants are interviewed. The students are divided into equal numbers of three market types representing different distributions of worker productivity. Three rounds are played. In the first round, the cost of interviewing equals 2 units of production. The second round has a cost of .5 units of production, while the third round has a cost of 2 units of production and a requirement that employers hire an equal number of pink and blue workers.

Variations: In order to generate wage gaps, allow employers to pay workers what employers think workers are worth. Another extension is to generate occupational segregation by requiring employers to hire workers into one of two jobs: a low-paying and a high-paying job.

Short Essay Questions

1. If you had to develop a measure of well-being, what factors would you include and why?

2. What has happened to income inequality within the United States over the last 30 years? What factors do you think may have been important in this process?

3. Do the percentages in Figure 14.10 surprise you? How does this square with the idea of the American dream?

4. What evidence does the book provide for the assertion that there is substantial gender and racial disparities in the labor market? Should anything be done about this?

5. What evidence does the book provide for the assertion that there is substantial and growing wealth inequality in the United States?

Multiple Choice Questions

14.1 All of the following are reasons to suggest that measuring living standards by the average level of income may not be completely appropriate except
      a) Income measures do not take leisure into account
      b) Income does not measure unequal access to goods and services
      c) Income is not a good approximation of well-being*
      d) Income may not measure nonmarket commodities

14.2 In which years of the last century was the income share of the top 1% in the US the highest?
      a) 1900
      b) 1933*
      c) 1980
      d) 1998

14.3 The income share of the top 1%
      a) Has risen in the last 20 years*
      b) Has fallen in the last 20 years
      c) Is higher than ever before
      d) Is lower than in the 1950s

14.4 The income share of the lowest quintile in 2001
      a) Was 20% of national income
      b) Was more than the share of the second lowest quintile in 1967
      c) Was higher than the lowest quintile's income share in 1967
      d) Was lower than the lowest quintile's income share in 1967*

14.5 The average real income of the bottom fifth in 2001
      a) Was virtually unchanged since 1967*
      b) Grew faster than the real income of the top fifth since 1967
      c) Was above $20,000
      d) None of the above

14.6 Wealth is
      a) The flow of income to a person
      b) The assets owned by a person, family, or household*
      c) The income and assets of a person
      d) Assets – income

14.7 Most of the wealth of the top 1% of wealth holders is in
    a) Residences
    b) Bank accounts
    c) Corporate stocks*
    d) Other assets

14.8 Most of the wealth of the middle 60% of wealth holders is in
    a) Residences*
    b) Bank accounts
    c) Corporate stocks
    d) Other assets

14.9 For which of the following groups is the mean non-residence net worth the highest?
    a) Female householders
    b) Male householders
    c) College graduates*
    d) Hispanics

14.10 Wealth concentration as measured by the percentage of total wealth owned by the top 1%
    a) Fell since 1980
    b) Rose since 1980*
    c) Rose since 1929
    d) Has not changed

14.11 Someone whose parents are in the poorest 10% of the population has a ____% chance of being in the richest 10% when he or she becomes an adult
    a) 10
    b) 20
    c) 5
    d) 1*

14.12 All of the following may be reasons for the intergenerational transmission of income except:
    a) High-income parents teach their children personality traits that lead to success
    b) Children of high-income parents are healthier on average
    c) Government taxes the poor more than the rich*
    d) It includes income received by the self-employed producer

14.13 Which of the following may be evidence of racial discrimination in the labor market?
    a) An experiment suggests that people with "white-sounding" names receive more interview callbacks than people with "black-sounding" names*
    b) Black people use more welfare
    c) Many employers are "equal opportunity" employers

d) White men make more than white women

14.14 Jobs that have predominantly female employees
     a) Are jobs not requiring much physical effort
     b) Are better paid than jobs with predominantly male employees
     c) Are jobs that can be done at home
     d) Are not as well paid as jobs with predominantly male employees*

14.15 In the same occupation
     a) Men tend to earn the same amount as women
     b) Men tend to earn less than women
     c) Men tend to earn more than women*
     d) Men work harder than women

ADDITIONAL RESOURCES

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CHAPTER 15:   Progress and Poverty on a World Scale

How This Chapter Fits into the Text

Chapters 15–20 provide a political economy approach to macroeconomics. The main idea of Chapter 15 is that the benefits of capitalism have fallen very unequally on the people of the world. The chapter also analyzes the determinants of productivity in a country and the role of the state in growth.

Most of the chapter is considerably less technical than Chapters 16–18. One of its purposes is to encourage students to take an international standpoint (think globally) in viewing macroeconomic issues, such as unemployment, and normative issues, such as fairness of economic outcomes.

MAIN POINTS

1. There are huge differences in living standards among countries, and these differences have been increasing over time. One way to view uneven economic development is as a difference in productivity level; differences in rates of productivity growth among nations are part of the explanation for uneven development.

2. The most important differences between countries are the institutions, especially economic institutions, present in these countries.

3. Nations that had a head start in economic development often have an advantage over newcomers.

4. A way for poor countries to improve their living standards is by using their surplus to invest in modern technology, new knowledge, and in capital goods. The capitalist economies that have succeeded in substantially raising productivity are those in which the government has taken a significant role in guiding the economy.

5. Capitalism provides incentives for rapid increases in output. However, it is not a sufficient condition for growth.

6. Advanced capitalist economies have required significant government intervention to raise productivity.

7. International investment may make development either less uneven or more uneven because it often results in the transfer of some of the surplus product from one country to another—either from rich to poor or poor to rich.

DETAILED OUTLINE

1. Introduction

An important fact about the world has been the simultaneous growth of the wealth of nations and of inequality among nations. The relationship between inequality across countries and their respective growth is not easily answered (see box "The cheap banana and the runaway shop: are *we* rich because *they* are poor?" on page 376).

2. Poverty and Progress

A striking feature of the world is inequality. There are huge income differences among countries: United States, Bangladesh, and the Congo are examples.

There are also huge differences that exist in the quality of life. Figure 15.1 (page 379) illustrates this with respect to calorie consumption, child mortality, life expectancy, and education.

There is inequality both within peoples across countries (Figure 15.2, page 380) and among countries (Figure 15.3, p. 381).

Nevertheless, average living standards are improving in the world (Figure 15.4, page 382).

3. Productivity and Income

A country's culture and its natural resource supply do not adequately determine its wealth. Resources can help, but they do not guarantee wealth. Congo has great mineral wealth but is very poor. Denmark and Japan, with few resources, are rich. Culture can make a difference; however, relative national incomes change much faster than culture, so culture cannot be the main explanation.

The central factors that determine productivity are

The skills and motivation of workers and managers (depends on education and the system of rewards)

The technology used in production (depends on the use of surplus to invest in new productive facilities, the state of knowledge, the skills of workers, and the incentive to innovate)

The infrastructure of the economy (depends on investment, especially government investment; see the definition page 384).

The scale of production (economies of scale) (depends on the size of population and per capita income; see the definition on page 384). This is summarized in Figure 15.5 on page 385.

4. Capitalism and Uneven Development

Uneven development is defined as the rapid growth in some places and slow growth or decline in others.

The richest and poorest countries are both capitalist.

The histories, role of government, and other factors differ widely among rich countries and among poor countries.

Capitalism and the Growth of Productivity

Capitalism brought huge increases in productivity. Incentives are one reason; private property and insecurity provide this incentive. Capitalists have to reinvest surplus in order to maintain profits and their privilege. Workers have to work hard to keep their jobs; unemployment is a constant threat. Under capitalism, institutions affect productivity. Countries differ by level of productivity (see Figure 15.6 on page 390).

Countries that started developing late are at a disadvantage in the game of capitalist competition, though sometimes latecomers succeed, for example, Japan and South Korea.

Small countries, and poor countries, have small home markets, limiting the possibility of scale economies. Late-developing countries have only a small surplus and so have few resources for investment and the education of the workforce.

Late-developing countries have a learning barrier; many high-skill practices can only be learned on the job. There is a vicious circle in that poor countries need modern equipment in order to learn how to use it.

Another reason for uneven development is that the poor can least afford to risk innovation. If resources are few, countries find it hard to divert them from current uses (like luxury consumption); it is easier to invest resources when their total quantity is growing.

There is cumulative causation in uneven development. Winners of each round of competition have an advantage in the next.

Governments of rich countries adopt policies that impede development in poor countries by (a) enhancing the privilege and power of elites, which impedes progress, and (b) pressurizing the governments of poor countries to adopt policies favoring profit-making by multinational enterprises; these policies may not help development.

5. Government and the Development Process

The government can help overcome obstacles to development. For example, the government can impose tariffs to protect infant industries (in the United States, Alexander Hamilton advocated tariffs on manufactured goods from Britain); repress

workers, keep wages low, and force companies to reinvest profits (this was done in South Korea; the government channeled investment funds through banks and directly invested in industries like steel); lead in technology transfer; and provide health and education to raise productive capacity of the workforce.

6. Investment and Production on a World Scale

A multinational corporation is a firm earning profits throughout the world by locating its facilities where the combination of wages, materials costs, markets, government policies, and local markets for the relevant outputs yields the highest profits. Overseas production and profits are increasingly important to multinational corporations (MNCs) and to the United States as a whole.

Low wages are an attraction to MNCs, especially if productivity is fairly high. But most U.S. investments go to developed countries (Figure 15.9, page 400), even though their wages are sometimes higher than U.S. wages. This is because (a) MNCs want to be close to larger markets, (b) productivity is high in rich countries, (c) transportation and communications infrastructure are good in rich countries, (d) rich countries' governments treat corporations well, and (e) there is little risk.

7. Conclusion

Several factors go into differential growth and uneven development. Questions remain unanswered as to the determinants of growth.

TEACHING TIPS AND MODULES

Difficult Points

The material presented in this chapter is mainly descriptive, so there are not usually many difficulties posed. However, the chapter has an exceptionally large number of figures, rich with statistical information. The instructor may wish to assign activities that will encourage students to study these and other such figures carefully. A sample set of questions is included below, under Activities and Discussion.

Some topics that have been mentioned before can be supplemented and dealt with in greater detail. For example, the idea is presented that capitalism has contradictory effects on development. On the one hand, it contains incentives for productivity growth in the insecurity it forces upon capitalists who must invest in order to win the competitive battle and workers who must work hard enough to keep their jobs and avoid the cost of being unemployed. On the other hand, capitalism provides advantages to corporations in richer countries that allow them to keep their dominant position in the competitive battle. This can be fruitfully linked to the box "The cheap banana and the runaway shop: are *we* rich because *they* are poor?"

One common misconception is that population is the most important obstacle to development; although this notion has had much less currency given China's and India's rise in the world economy, it is still cited. Cogent arguments can be made that (1) population increase in developed countries has a vastly greater environmental impact than population increase in poor countries because so many more resources per person are used up in developed countries, and (2) population growth means not only more mouths to feed but also more hands available to work to feed them. This perspective on the population issue is elaborated in Betsy Hartmann's *Reproductive Rights and Wrongs* together with extensive information on the coercive measures that various governments have taken in the name of controlling population growth.

From the text discussion of the relationship between surplus product, productivity, and development, students could draw two mistaken conclusions. The first is that surplus product produced in a country automatically accrues to the country and is available to be used in that country's development (in fact, it may leave as repatriated profits, capital flight, etc.). The second is that the only way for surplus product to become available to a country for development is for the surplus product to be produced in that country (instead, surplus can be brought in as loans, grants, direct foreign investment, etc.).

Not all the surplus product produced in a country, therefore, will necessarily be plowed back into that country's development. But the reverse is also true: not all the surplus product that goes into a country's development need originate in that country. Surplus product may be transferred INTO a poor country as well as OUT of it.

ACTIVITIES AND DISCUSSION

See Figure 15.1, page 379, in the text.

1. From the data given, can you conclude that the higher a country's per capita income, the higher its life expectancy? (No) Make a guess about some possible reasons why a country might be an exception to this rule.

2. From the data given, can you conclude that the higher a country's per capita income, the lower its rate of child (under age 5) mortality? (No, not always.) What countries are exceptions to this rule? Make a guess about reasons why these exceptions might occur.

3. Choose 10 countries that you would like to study in greater detail. Go to the World Bank's world development indicators website and gather the following information for the latest year available:

A. GDP per capita

B. Education

C. Health indicators

Do these indicators tend to go together? In that case, can you say which causes which?

Short Essay Questions

1. It is sometimes said that "them that has, gets." To what extent does this statement correctly apply to the economic development of countries? Are there exceptions to the rule, and if so, what explains these exceptions? Look up the world development indicators of the World Bank for data.

2. Is there a trade-off between equality and growth? Why or why not?

3. Define productivity, and discuss the ways in which capitalism promotes the growth of productivity.

A. Why might capitalism not promote productivity growth at the same rate in all capitalist countries? In other words, how can we explain uneven development?

B. Which countries were leaders in productivity growth over the period 1950–2000 in the data given in the text?

C. In a capitalist country, how might government intervention increase the rate of productivity growth?

4. If wages are much lower in poor countries, why have multinational corporations not moved all their production to these countries? Discuss the various factors that influence corporate decisions about where to locate their production operations. Illustrate your points by discussing the actual distribution of U.S. foreign investment in the world.

Multiple Choice Questions

15.1 An example of a country that was relatively rich in the past and is now quite poor is
    a) Venezuela
    b) Bangladesh*
    c) Sweden
    d) United States

15.2 Of the seven countries represented in Figure 15.1, the one with the highest real per capita income in 1999 was
    a) Japan
    b) Sweden
    c) United States*
    d) Mexico

15.3 All of the following phrases that compare the quality of life in Kenya to the quality of life in the United States are true except
　　a) Less women have access to education in Kenya
　　b) Life expectancy is greater in Kenya*
　　c) A far smaller fraction of people go to school in Kenya
　　d) A far smaller percentage of babies survive to age 5 in Kenya

15.4 The richest 20% in India have an average income
　　a) Less than that of the poorest 20% in the United States*
　　b) Greater than that of the poorest 20% in the United States
　　c) Less than that of the poorest 20% in Brazil
　　d) As high as the middle 20% in the United States

15.5 All of the following changes have occurred in the world standard of living in the last two or three decades except
　　a) GNP per capita has risen
　　b) Education levels have risen
　　c) Under age 5 mortality has fallen
　　d) Life expectancy has fallen*

15.6 The term uneven development means that productivity growth is faster
　　a) In the cities than in the countryside
　　b) In some countries, at some times, than in other countries, at some times*
　　c) In poor countries than in rich ones
　　d) In rich countries than in poor ones

15.7 Although culture can affect a country's wealth, for example through attitudes about the importance of saving, culture cannot be the main explanation for why rich countries are rich. This is because
　　a) Rich countries all have abundant natural resources
　　b) Relative national incomes change more quickly than cultures change*
　　c) The U.S. was formed from many cultures
　　d) The rate of population growth is more important than culture

15.8 Some people think that countries get rich if they have abundant natural resources. All of the following provide evidence against this viewpoint except
　　a) Denmark is rich
　　b) Democratic Republic of the Congo is poor
　　c) Saudi Arabia is rich*
　　d) Japan is rich

15.9 The fact that Germany, Japan, the United States, the Democratic Republic of the Congo, and Bangladesh are all capitalist countries shows that
　　a) If a country is capitalist, its productivity will eventually catch up to the rich countries
　　b) Rich capitalist countries help poor ones to catch up

c) Uneven development refers to the gap between capitalist and noncapitalist countries
d) Being capitalist does not necessarily make a country rich*

15.10 Choose the most appropriate answer: Communication and transportation are elements of
    a) Government investment
    b) A capitalist economy
    c) The surplus product
    d) Infrastructure*

15.11 Which of the following usually leads to greater productivity?
    a) Workforce skills
    b) The scale of production
    c) The state of knowledge
    d) All of the above*

15.12 The scale of production in a country depends on all of the following except
    a) The wage rate*
    b) Its per capita income
    c) The size of its population
    d) Its success in exporting to other countries

15.13 The importance of the surplus product in increasing productivity is indicated by all of the following except
    a) It is used for military spending to secure sources of cheap raw materials*
    b) It is used to educate the workforce
    c) It is needed for investment in new capital goods
    d) It is used in building infrastructure

15.14 Of the 11 countries of Europe, Asia, and North America shown in the bar graph in Figure 15.6 ("Average annual growth of real GDP per worker, 1950-2000"), the two countries with the highest rates of productivity growth were
    a) South Korea and Japan*
    b) United States and Canada
    c) Germany and Japan
    d) Norway and Sweden

15.15 Of the 11 countries of Europe, Asia, and North America shown in the bar graph in Figure 15.9 (Growth rate of real GDP per worker, 1950–2000), the country with the lowest rates of productivity growth was
    a) The United Kingdom
    b) Italy
    c) Sweden
    d) United States*

15.16 For countries trying to develop, all of the following create the problem of limited market size (which is an obstacle to taking advantage of economies of scale) except
    a) Small population
    b) Low income level
    c) Small land area*
    d) Tariffs imposed by rich countries

15.17 All of the following are obstacles to the economic growth of poor countries except
    a) They produce only a small surplus
    b) They lack experience with modern technology
    c) Because they are poor, they take excessive risks with new technologies*
    d) It is hard to shift resources from current uses if resources are not growing

15.18 The South Korean government overcame obstacles to development in all of the following ways except
    a) Repressed unions to keep wages low
    b) Adopted a laissez-faire policy*
    c) Built a steel mill
    d) Forced companies to reinvest profits in South Korea

15.19 In its early history, which form of government intervention did the United States adopt in order to encourage development of its own economy?
    a) Through banks, channeled private investment to key industries
    b) Required companies to reinvest profits in the United States
    c) Provided health care to raise workers' productive capacity
    d) Imposed tariffs to protect infant industries*

15.20 From 1948 to 1989, the percentage of U.S. corporate profits that were earned abroad
    a) Fell
    b) Rose*
    c) Rose then fell
    d) None of the above

15.21 As Figure 15.7 shows
    a) China grew the fastest
    b) Botswana grew faster than Nigeria.*
    c) Mexico did not grow.
    d) India grew slower than Nigeria

15.22 As Fig. 15.8 shows, the hourly wage in Singapore
    a) Grew rapidly*
    b) Stagnated
    c) Fell
    d) Grew slower than the hourly wage in Mexico

15.23 As indicated in the pie chart in Figure 15.9, of all U.S. direct foreign investment,
    a) More than 50% is in Europe*
    b) 50% is in China
    c) 25% is in developing countries
    d) Almost none is in developed countries

15.24 When U.S. corporations decide where to invest,
    a) Proximity to markets is not an important factor
    b) Labor cost is not an important factor
    c) Political risk is not a very important factor
    d) Low wages are not the decisive factor*

15.25 On the whole, the capitalist economies that have been most successful in raising productivity have been those in which
    a) The government plays an important role in the economy*
    b) The government owns and runs most industrial enterprises
    c) The government is not involved in the economy at all
    d) The government has only a limited role in the economy

ADDITIONAL RESOURCES

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CHAPTER 16: Aggregate Demand, Employment, and Unemployment

How This Chapter Fits into the Text

Chapters 16–18 focus on the central macroeconomic issues of employment and price stability. Chapter 16 presents a simple macroeconomic model that resembles aggregate supply/aggregate demand analysis, with two key differences: (1) employment is central to the analysis and appears as one of the axes in most of the graphs, and (2) prices do not enter into the model in this chapter.

The chapter focuses on two key points: employment is dependent on the level of demand for output in the society, and governments can reduce fluctuations in the level of total demand. This is a good place to explain that the analysis is mostly associated with Keynes. Along with more standard material on aggregate demand, Chapter 16 introduces the idea of wage-led vs. profit-led employment.

MAIN POINTS

1. Aggregate demand for goods and services does not always equal the aggregate supply of goods and services.

2. When aggregate demand does equal aggregate supply, that is, when goods markets clear, macroeconomic equilibrium occurs, and there is no hiring and firing of workers.

3. When goods markets clear, the labor market generally will not clear (there is unemployment), yet the economy is in macroeconomic equilibrium.

4. A main influence on the level of demand is the distribution of income between profits and wages.

5. It is possible for an economy to be in a wage-led employment situation, in which a wage increase raises aggregate demand and employment, because a wage increase expands consumer demand more than it reduces investment demand by cutting into profits. Equally, it is possible that a wage increase can lower the level of total demand for goods and services.

6. The economy experiences business cycles, with unemployment high during recessions. Government countercyclical policies can dampen business cycles.

DETAILED OUTLINE

1. Introduction

Idle tools exist alongside idle workers and unmet needs. This occurs because under capitalism commodities are produced not to meet a need but to make a profit. Production only happens if it is profitable. The economy tends to oscillate between good times (booms) in which employment is higher and bad times when employment is lower. There are long swings in capitalism.

2. Aggregate Supply and Aggregate Demand

A macroeconomic equilibrium occurs when demand equals supply in product markets and there are no forces tending to change the situation apart from accidental or external sources.

Full employment is said to exist when everyone seeking work finds it. When not everybody who wants a job can get it, there is unemployment, or an excess supply of labor. The equilibrium level of employment is that amount of employment that corresponds to a macroeconomic equilibrium. (See the box, "Counting the unemployed," pages 409–411.)

The sale of output generates profit and wage incomes; in fact, total incomes equal aggregate supply. But spending may be less than the income generated or—with borrowing—may be more than the income generated, so aggregate demand (AD) need not equal aggregate supply (AS).

Excess supply ($AS > AD$) means that goods will be unsold, and firms will lower prices and lay off workers. Unemployment will in turn increase. In a situation of excess demand ($AS < AD$), the opposite will occur.

Two effects occur when workers are laid off: lower supply (less production) and lower demand (because laid off workers lose wages, they will consume less).

A question ensues: Will a reduction in employment caused by excess supply in the product market tend to eliminate excess supply by reducing supply? Or will it make the excess supply worse by reducing demand?

Aggregate supply is defined as the total supply of goods and services produced during the year; $AS = yN$, where y is net output per hour and N is total hours of employment. (See box, "Measuring total output," pages 412–413, for a discussion of GNP, GDP, and other measures.)

Aggregate demand is the total demand for goods and services during a year. It is the sum of consumption spending (C, the total amount of money spent by households on consumer goods), investment (I, the total money spent by businesses on capital goods), government spending (G, the money spent by the government on products and services), and net exports (X, total exports less total imports). In this chapter, we focus only on C and I.

The demand for consumption goods, *C*, is determined by the level of income and the distribution of income, because those who receive profits save more than those who receive wages. *C* is larger when more goes to wages.

Saving is defined as income minus consumption. There are three components to a nation's savings: household savings, retained earnings by corporations, and government savings.

The basic Keynesian model we use in this chapter can be laid out as follows:

(a) Total wage income = wN.

(b) Total profit income = $N(y - w)$.

(c) The proportion of wages spent on consumption: $C = cwN$.

(d) Assume that investment, *I*, is fixed to be I.

(e) $AD = C + I = cwN + I$

(f) Figure 16.4 depicts the *AD* curve in (Y, N) space. The slope of *AD* curve is *cw*.

(g) If $AS = AD$ in macroeconomic equilibrium, then $AS = cwN + I$.

(h) The macroeconomic equilibrium is depicted in Figure 16.5. The figure also depicts the movements toward equilibrium from a situation of excess demand and excess supply.

(i) A reduction in employment will tend to eliminate excess supply by reducing supply.

(j) However, there is unemployment, generally, at equilibrium. This is because employers will not hire at below the going wage, even if the unemployed are willing to work at a lower wage, because employers know the quality and quantity of work will markedly suffer (see Chapter 12).

3. Unemployment and Government Fiscal Policy

Keynes suggested governments could reduce unemployment.

Deficit spending occurs when the government finances its purchases by borrowing from the public.

Fiscal policy (changing government spending and taxation) can help regulate output and employment.

To add to the model, assume that government borrows an amount, B, to finance spending. $B = G - T$, where T = taxes. Now aggregate demand is $AD = cwN + I + B$ (see Figure 16.6, page 424).

As Figure 16.6 and the corresponding text shows, a rise in B increases equilibrium employment.

Equation 16.8, page 425, provides an explicit expression for equilibrium employment in this case: $N^* = (I + B)/(y - cw)$.

Increasing government spending has a more than proportional impact on the economy. The concept of a multiplier is that money is spent, and then a fraction of that is spent again for consumption, and a fraction of that fraction, which becomes the income for someone else, is spent as consumption, and so forth.

The employment effect is the change in the number of hours employed that results from the direct and indirect effects of a change in business investment or government spending.

The employment multiplier is the hours of new employment directly and indirectly created by an additional dollar of investment or government spending. (Note to instructor: Unlike the output multiplier [see box on page 429], it is not a pure number. Its units are hours of employment [or number of jobs] per dollar of increased investment or government deficit spending.)

Three conclusions can be had from this discussion. First, the private economy generally will not necessarily provide jobs for all, because AS may be lower than AD. Second, government spending can increase the employment level (but not bring full employment as explained in Chapter 17). Third, increased investment or government spending has not only a direct effect but a larger effect through the multiplier.

4. The Business Cycle and Built-in Stabilizers

The business cycle is a periodic expansion and contraction of output and employment usually taking place over a period of 3–10 years. Figures 16.1 and 16.2 can be looked at here. A business cycle expansion is characterized by rising employment and income, while a business cycle contraction (sometimes called a recession) yields the opposite.

In a business cycle, the multiplier multiplies downturns as well as upturns.

Countercyclical policies are policies aimed at dampening the business cycle and are of two types: those that anticipate changes in investment and those that deliberately adjust government spending to counteract business cycles. Business cycles are hard to anticipate, and it is often hard to act fast. Built-in stabilizers are defined as automatic changes in government spending and taxation that dampen the cycle without conscious policy decisions.

The business cycle has been less severe since these policies were adopted after World War II.

5. Investment, Aggregate Demand, and Monetary Policy

Government monetary policy refers to government influences on the rate of interest that affects investment and thereby employment.

Total demand for investment goods = depreciation + net investment.

Most investment is done by businesses. Investment decisions are based on expected profit rate and interest rate (see Chapter 11). The expected profit rate, in turn, depends on the level of demand in the future and the cost of production (which depends on the wage rate, materials cost, work intensity, etc.) as well as the business climate.

The investment function can be written in our model as

$$I = I + jR = I + jN(y - w)$$

The profit effect of investment is the amount by which investment will increase for each $1 increase in total profits (this is j in the equation above).

The business climate refers to the political, ideological, psychological, and other influences on the expected profit rate. It is sometimes called the investment climate.

The interest rate (see Chapter 11) determines the cost of borrowed funds for investment.

Monetary policy can be used to raise the employment level (Figure 16.9, page 438), through the Federal Reserve System's lowering of interest rates, which increases investment and employment.

6. Wages, Aggregate Demand, and Unemployment

According to the conventional view, unemployment is good because it will drive down wages and bring full employment. However, this view is wrong because (i) the fact there is unemployment will not necessarily drive down wages (chapter 12 provides the microfoundations of this argument: a wage rate can be too low, from the employer's standpoint, and work intensity may drop more than the drop in wages) and (ii) if wages fall, the result might be more, not less, unemployment (the wage rate helps determine the level of demand, and higher wages create more consumer demand).

A wage increase has a positive effect on employment (see the graph in Figure 16.10, page 442, by rotating the consumption curve—and therefore AD—upward, this raises N^*).

This is an incomplete argument because raising wages will also lower investment (from equation 16.9) and shift the *AD* curve downward. The instructor may want to show this situation superimposed on Figure 16.10. The new *AD* curve will be below the *AD* curve shown in the figure, and thus the effect on equilibrium employment will be ambiguous.

Using the equations in the chapter: if $c > j$, wage increase raises employment and one has a wage-led employment situation. If $c < j$, wage increase lowers employment and one has a profit-led employment situation.

A wage-led employment situation is more likely when most wage earners are poor, as well as during a recession.

A profit-led employment situation is more likely when businesses are able easily to relocate to other countries, as well as toward the end of a business cycle expansion.

7. Conclusion

Employment can be increased by deficit spending, by lowering interest rates, or, in a wage-led employment situation, by raising wages.

But full employment is hard to reach; Chapter 17 explains why.

TEACHING TIPS AND MODULES

This chapter covers vast ground and takes at least two to three classes. Particular points that may need emphasis and care are as follows:

1. What is referred to in this text as an aggregate supply curve differs fundamentally from what is called an aggregate supply curve in conventional texts graphed with price on the vertical axis and quantity on the horizontal axis. What is called an aggregate supply curve in this text is conventionally called an aggregate production function with constant returns to scale and with labor as the only explicit variable input. Because *AS* is proportional to employment *N*, *N* can be placed on the horizontal axis in some of the graphs that follow, in which, conventionally, output appears on the horizontal axis. Although in conventional macroeconomic models the *AS* curve is upward sloping and the *AD* curve is downward sloping (because price is plotted against quantity), here both curves slope upward because they are expressed as a function of employment. Again, in conventional terms, what we are seeing is an aggregate demand curve plotted on the same graph with an aggregate production function. A student may notice that the technology assumed in this chapter exhibits constant returns to scale ($AS = yN$). Strictly speaking, this is inconsistent with the analysis in Chapter 9 that economies of scale exist. However, it is adopted in order to simplify this introductory presentation of macroeconomic theory (the curve would still slope upward under other assumptions).

2. The employment multiplier is the change in employment, *N* (the horizontal axis in Figure 16.7, page 428) that results from a change in investment, *I*, or government deficit spending, *B* (the vertical distance between *AD* [original] and *AD* [new]). It should be emphasized that the quantity on the horizontal axis (employment) is being seen as a function of a quantity represented on the vertical axis (aggregate demand). The employment multiplier is determined by the slopes of both the *AS* and the *AD* curve.

3. The investment curve moves from being exogenous (*I*) to a function of employment in equation 16.9. This needs to be made clear to students.

4. Wage-led and profit-led expansion is sometimes a tricky concept. It should be made clear that either could prevail in an economy at different times.

Teaching Module 16.1:   Macroeconomics Comes to Grainland

To Teach: The model of Chapter 16.

The exercise below can be given as homework and worked through in class as a basis for discussion. Note that questions 5.1, 5.2, and 5.3 are meant to provoke thought, and students' answers may differ depending on what additional assumptions they make.

In Grainland 150 people would like to be employed (this is the supply of labor). In order to make profits, capitalists hire some of these workers to produce grain. Those who are not hired producing grain are unemployed. Each employed worker produces 4 bushels of grain per year. The price of a bushel is $1. Workers are paid a wage of $2 per year. The workers, being quite poor, spend all their wages buying grain to eat. The capitalists, however, spend only half their profits on their consumption. There is no trade with other countries.

1. A macroeconomic disequilibrium

To begin with, we will ignore the government so that there are no taxes and government spending. In this case, aggregate demand will depend on the above information and how much the capitalists decide to invest. If they invest $100 and if 125 workers are employed,

1.1. How many bushels will be produced? _____

1.2. What will be the aggregate supply in dollars? $_____

1.3. What will be the demand for consumer goods

       (a) By workers? (Hint: all their wages) $_____

       (b) By capitalists? (Hint: half their profits) $_____

1.4. What is the total amount of savings? (Hint: half of profits) $_____

1.5. What is the investment shortfall (savings minus investment)? $_____

1.6. What will aggregate demand be? $_____

1.7. Will aggregate demand equal aggregate supply? _____

1.8. Would you expect capitalists to continue to hire the same number, more, or fewer workers? _____

2. A laissez-faire unemployment equilibrium.

If instead of 125 workers, 100 are employed and investment remains at $100,

2.1. How many bushels will be produced? _____

2.2. What will be the aggregate supply in dollars? $_____

2.3. What will be the demand for consumer goods

      (a) By workers? $_____

      (b) By capitalists? $_____

2.4. What is the total amount of savings? $_____

2.5. What is the investment shortfall (savings minus investment)? $_____

2.6. What is the sum of $C + I$?

2.7. Will aggregate demand equal aggregate supply? _____

2.8. Would you expect capitalists to continue to hire the same number, more, or fewer workers? _____

2.9. If you have answered question 2.8 correctly, you will see why this situation is termed an unemployment equilibrium. What is the unemployment rate? _____

3. A Keynesian employment policy

The 50 unemployed have nothing to live on; prudence and compassion alike dictate that something be done about their plight. The unemployed propose that unemployment insurance be paid to each of them at a level equal to half the wage (or $1 per year), and that this be financed by government borrowing to cover the deficit created by this

spending. (To keep things simple, we assume that workers are either employed all year or unemployed all year and that government borrowing does not raise interest rates and crowd out private investment.) Using the data from the situation described as the unemployment equilibrium above (investment = $100; employment = 100), the aggregate supply is unchanged, but what happens to aggregate demand, which is now increased by the unemployed spending their unemployment insurance checks (they, like the workers, do not save; they consume all their income)?

3.1. What will be the demand for consumer goods

       (a) By employed workers? $_____

       (b) By unemployed workers? $_____

       (c) By capitalists? $_____

3.2. What is the total amount of savings? $_____

3.3. What is the investment shortfall (savings minus investment)? $_____

3.4. What is the government deficit (taxes, which are zero, minus expenditures)? $_____

3.5. What will aggregate demand be? $_____

3.6. Will aggregate demand equal aggregate supply? _____

3.7. Would you expect capitalists to continue to hire the same number, more, or fewer workers? _____

3.8. To think about: How might the borrowing to cover the government deficit alter the interest rate? How might this influence the level of investment?

4. A welfare state unemployment equilibrium

If employment has now expanded to 125 workers, aggregate supply will be as in your answers to the macroeconomic disequilibria above. Without unemployment insurance, in that case, aggregate demand fell short of aggregate supply. In order to see whether there will now be enough demand to employ 125 workers, the following questions must be answered.

4.1. What will be the demand for consumer goods

       (a) By employed workers? $_____

       (b) By unemployed workers? $_____

(c) By capitalists? $_____

4.2. What will aggregate demand be? $_____

4.3. What is the total amount of savings? $_____

4.4. What is the investment shortfall (savings minus investment)? $_____

4.5. What is the government deficit (taxes, which are zero, minus expenditure)?
$_____

4.6. Will aggregate demand equal aggregate supply? _____

4.7. Would you expect capitalists to continue to hire the same number, more, or fewer workers? _____

5. To think about: There is still unemployment, though less than before; the unemployed have something to live on. See if you can answer the following questions. (In some cases you may conclude that the question cannot be answered without additional information. In that case, point out what additional information you would need in order to answer the question.)

5.1. What would be the effects on aggregate demand if the unemployment insurance were raised to $2 (the same as the wage)? If nothing else in the example changes, how many would be employed?

5.2. What effects would raising the unemployment benefit to $2 have on the cost of job loss? What are the effects on work intensity (work done per hour) and on profits?

5.3. If the government borrowed an additional $10 and hired 10 unemployed as soldiers at $2 a year, while continuing to pay benefits of $1 to the remaining unemployed, how would this alter aggregate demand and employment? (Assume the wage is still $2 and investment is still $100.)

5.4. If a new farming method allowed 5 bushels to be produced per year, would this increase, decrease, or leave unchanged the level of employment

        (a) Assuming no change in wages and no change in investment?

        (b) Assuming no change in wages and whatever change in investment you think would be likely under these circumstances?

        (c) Assuming that workers gained a wage increase equal to the increase in output (wages rose from $2 to $3)?

ANSWERS

1.1. 500
1.2. $500
1.3. (a) $250 (b) $125 (if all goods are sold)
1.4. $125
1.5. $25
1.6. $C + I = \$375 + \$100 = \$475$
1.7. No
1.8. Fewer, because AS > AD

2.1. 400
2.2. $400
2.3. (a) $200 (b) $100 (if all goods are sold)
2.4. $100
2.5. $0
2.6. $C + I = \$300 + \$100 = \$400$
2.7. Yes
2.8. Same
2.9. 33.33%

3.1. (a) $200 (b) $50 (c) $100
3.2. $100
3.3. $0
3.4. $50 (surplus is -$50)
3.5. C+I=$350+$100=$450
3.6. No
3.7. More
3.8. Raise the interest rate, discourage investment

4.1. (a) $250 (b) $25 (c) $125 (if all goods are sold)
4.2. $500
4.3. $125
4.4. $25
4.5. $25
4.6. Yes
4.7. Same

5.1. Probably no one would want to work, assuming people prefer to work on their own projects (fixing a motorcycle or car, making clothes, building bookshelves) than to work at a job. (It would be interesting to find out from class discussion whether students think is true.)

5.2. Cost of job loss = 0; work intensity = 0 under the same assumption as for 5.1; profits would probably be negative, assuming firms have some fixed costs.

5.3. Initially, aggregate demand would increase by $10, with no increase in aggregate supply, so there would be a new equilibrium with $N = 130$ and $AD = 520. This is because $AS = 4N$ and $AD = (2)(N + 10) + (1)(150 - N - 10) + (.5)(4 - 2)N + 100 = 2N + 260$.

5.4. (a) This would decrease the level of employment because aggregate supply would increase, and aggregate demand would increase by a lesser amount when capitalists consumed part their increased profits. The new employment level would be $[150 + 100]/[5 - (1 + 2.5 - 1)] = 100$.

(b) If investment rose, the level of employment would be higher than if investment did not rise. It would take an increase in investment from $100 to $162.50 to keep employment at 125 after the productivity increase: $[150 + 162.5]/[5 - (1 + 2.50 - 1)] = 125$.

(c) In this case, a wage increase equal to the increase in net output, y, would prevent employment from falling, because we can rewrite the denominator of the expression for N as $.5 (y - w) + ui$. This holds for this case because f is assumed to be .5.

Teaching Module 16.2:   Employment and Prices

To Teach: The relationship between employment, wages, prices, and output.

Use the exercise "Employment and Prices in a Simple Macro-Economy" by Jacob K. Goeree and Charles A. Holt. This is available at
http://www.people.virginia.edu/~cah2k/macrotr.pdf

Teaching Module 16.3:   Labor Market Experiment

To Teach: The impact of search costs, unemployment compensation, and education on the labor market.

Use the exercise by Michael J Haupert, "Labor Market Experiment," *Journal of Economic Education* 27 (4) (Fall 1996): 300–308. This is available at
http://www.marietta.edu/~delemeeg/games/games111-120.htm#g111

ACTIVITIES AND DISCUSSION

Why does it matter whether employment situations are wage-led or profit-led? How might this affect government policy? If the employment situation were always wage-led, do you think the government would adopt a policy of frequent wage increases (say, in the minimum wage)? What is the relationship between supply-side economics and the view that the economy is in a profit-led employment situation? How is the move to end the

estate tax related to trickle-down theory? What do you think will happen to employment once these measures are enacted?

Short Essay Questions

1. "Unemployment exists because wages are too high. If we want to end unemployment, workers are just going to have to accept lower wages." Comment on the likely effects of a cut in wages on the levels of employment and unemployment.

2. In Europe, unemployment rates over the last two decades have been much higher than in the United States. Using Bureau of Labor Statistics data (www.bls.gov), find the average unemployment rate in the United States, France, Germany, Spain, and Italy over the last 10 years. Some economists suggest that cutting wage costs in Europe will reduce unemployment. Others suggest that it will do nothing of the sort and may even lead to long-term lower levels of employment. Using the models from this and/or previous chapters, explain both of these ideas. What other information might you need to tell which theory is correct?

3. What sorts of government policies or programs are capable of stabilizing employment and dampening the business cycle? How do these policies work?

4. How does the level of investment help determine the equilibrium level of employment? In turn, what factors influence the level of investment?

5. How might cutting taxes affect unemployment if (i) tax cuts go to wage earners and (ii) tax cuts go to businesses?

6. Explain, using words, algebraic equations, and graphs, how the employment multiplier works.

Multiple Choice Questions

16.1 If you need a bookshelf and you have the tools and lumber and the time to do it, nothing stops you from making the bookshelf yourself. But in the economy, the reason that idle productive capacity can exist and not be used to give employment to unemployed workers is that
        a) There are more unemployed workers than there is idle capacity
        b) Skills of unemployed workers do not match the skills demanded
        c) Production occurs not in order to meet a need but only if it is profitable*
        d) Capitalists deliberately lay off workers in order to keep labor in a weak position

16.2 A situation such that the only forces tending to bring about change are external forces or accidental forces is
        a) A macroeconomic equilibrium

b) An equilibrium*
c) Stagnation
d) Impossible

16.3 A macroeconomic equilibrium is a situation in which there is no excess demand or excess supply in
a) Product markets*
b) The money market
c) Any market
d) The economy

16.4 In macroeconomic equilibrium, generally speaking,
a) The labor market clears, but product markets do not
b) Product markets clear, but the labor market does not*
c) The labor market and product markets clear
d) Neither the labor market nor product markets clear

16.5 If each worker produces $30 of net output in an hour and gets $15 in wages and if out of the $15 in profits from each worker the capitalist spends half, then
a) There is excess supply in the labor market
b) There is excess demand in the labor market
c) There is excess supply in the product market*
d) There is excess demand in the product market

16.6 When there is excess supply in the product market,
a) Firms will hire more workers
b) Firms will lay off workers*
c) There will be no effect on employment
d) Cannot be determined from the information given

16.7 When firms lay off workers, the effect on the product market will be to
a) Increase demand
b) Leave demand at the same level
c) Reduce demand*
d) Cannot be determined from the information given

16.8 Multiplying the number of hours of labor employed (N) by output per hour (y) gives us
a) Consumption
b) Investment
c) Aggregate demand
d) Aggregate supply*

16.9 Total income (the sum of all the profits received by capitalists plus all the wages received by workers)
a) Always exceeds aggregate supply

b) Usually does not equal aggregate supply
c) Always equals aggregate supply*
d) Usually exceeds aggregate supply

16.10 The distribution of income influences the level of demand for consumer goods because
    a) The more income people get, the more they spend on consumer goods and services
    b) Lower-income people pay a smaller percentage of their income in taxes
    c) $1 spent by the rich means more aggregate demand than $1 spent by the poor
    d) People who receive profits save more than do wage earners*

16.11 Saving
    a) Is only done by households
    b) Comes only from profits
    c) Is only done by firms
    d) Can be done either by households or by firms*

16.12 The expression $N(y - w)$ refers to
    a) Total income
    b) Total profits*
    c) Aggregate supply
    d) Aggregate demand

16.13 The expression CWN is a way of writing
    a) Total consumption*
    b) Investment
    c) Aggregate supply
    d) Aggregate demand

16.14 If $C = CWN$, then for every additional hour of labor hired, the demand for consumer goods rises by
    a) C
    b) w
    c) CW*
    d) CN

16.15 In general, at what level of employment does equilibrium exist—in which aggregate supply equals aggregate demand?
    a) At all levels of employment
    b) At some level of employment less than full employment*
    c) At full employment
    d) Not at any level of employment

16.16 Fill in the blanks with the best choice below: The intersection of the *AS* curve and the *AD* curve is the level of _____ and _____ that makes $yN = CWN + I$.

        a) Employment, output*
        b) Price, quantity
        c) Wages, profits
        d) Supply, demand

16.17 The basic idea of Keynesian macroeconomic policy is that unemployment occurs because of

        a) Excessively high wages
        b) Firms using profitability as a criterion for hiring decisions
        c) Too much government intervention in the economy
        d) Insufficient spending by consumers and firms*

16.18 When the government finances its purchases by borrowing from the public, this is called

        a) Taxation
        b) Savings
        c) Deficit spending*
        d) Printing money

16.19 The business cycle usually refers to the expansion and contraction of output and employment over a period of about

        a) 1 to 2 years
        b) 2 to 3 years
        c) 4 to 10 years*
        d) 15 to 30 years

16.20 If the employment multiplier is .07 and aggregate demand falls by $1 million, change in employment will be

        a) −70,000 hours*
        b) −70 jobs
        c) About −14 million jobs
        d) About −14 million hours

16.21 Fluctuation in output and employment will be larger when _____ is larger.

        a) Deficit spending
        b) The unemployment insurance benefit
        c) The multiplier*
        d) Investment

16.22 If investors decided to invest $1 billion less and the government decided to spend $1 billion more (financed by deficit spending), then

        a) Aggregate demand would rise
        b) Aggregate demand would not change*

c) Aggregate demand would fall

d) Cannot be determined without more information

16.23 Suppose workers spend 80% of their wages on consumption goods and services, the wage is $10 per hour, and workers produce net output worth $25 per hour. If the government increases its spending by $1 million, by how many hours will employment increase?

      a) About 59,000 hours*

      b) About 17,000 hours

      c) About 1,470,000 hours

      d) Insufficient information to determine the answer

16.24 Unemployment compensation and income taxes are both

      a) Components of aggregate demand

      b) Monetary policies

      c) Means of increasing demand for labor

      d) Built-in stabilizers*

16.25 Government policies that influence the rate of interest in order to regulate the level of investment, output, and employment are termed

      a) Countercyclical policies

      b) Built-in stabilizers

      c) Fiscal policies

      d) Monetary policies*

16.26 Investment includes all of the following except

      a) Buying stocks and bonds*

      b) Purchasing machinery for a factory

      c) Building an office building

      d) Building a factory

16.27 All of the following contribute to domestic aggregate demand except

      a) Purchase of luxury goods made in the United States

      b) Investment in building a new office building

      c) Lending money to U.S. residents*

      d) Purchase of a domestic car by a worker

16.28 When thinking of making an investment, a business will consider the alternative of paying off existing debts rather than building more production capacity. It is more likely to choose to pay off debt if

      a) Capacity utilization is high

      b) The profit rate is high

      c) Interest rates are low

      d) Interest rates are high*

16.29 The level of investment is directly influenced by all of the following except

a) Interest rate
b) Business climate
c) Profit rate
d) Wage rate*

16.30 Higher wages have two different effects; they
    a) Reduce the employment level and increase aggregate demand
    b) Increase output but lower the employment level
    c) Increase aggregate demand but lower profits and investment*
    d) Reduce profits and investment but increase government spending

16.31 If the fraction of the wage spent on consumer goods is less than the profit effect on investment, then which kind of employment situation do we have?
    a) A wage-led employment situation
    b) A profit-led employment situation*
    c) We need to know the level of employment to decide
    d) We need to know the level of government deficit spending to decide

16.32 What we mean by a wage-led employment situation is that an increase in wages
    a) Increases profits
    b) Reduces profits
    c) Increases employment*
    d) Reduces employment

16.33 In a wage-led employment situation, an increase in profits (at the expense of wages)
    a) Will increase employment
    b) Will reduce employment*
    c) Will increase aggregate demand
    d) Will not affect investment

16.34 A wage-led employment situation is more likely when
    a) Wages are low and employment is low*
    b) Wages are low and employment is high
    c) Wages are high and employment is low
    d) Wages are high and employment is high

16.35 The idea that the government can help smooth business cycles is associated with
    a) Marx
    b) Keynes*
    c) Schumpeter
    d) Smith

ADDITIONAL RESOURCES

References

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Heilbroner, Robert. *Beyond Boom and Crash.* New York: Norton, 1978.

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Terkel, Studs. *Hard Times: An Oral History of the Great Depression*. New York: Pantheon, 1970.

CHAPTER 17: The Dilemmas of Macroeconomic Policy

How This Chapter Fits into the Text

Chapter 17 continues the search, begun in Chapter 16, for a way to reach full employment. From Chapter 16, students now know that the government can achieve higher employment levels through deficit spending and lowering interest rates. They also have been introduced, though briefly, to one obstacle to achieving full employment: capitalism needs unemployment to maintain power over workers, so capitalists will sometimes influence the government to create more unemployment, not less.

Chapter 17 explains that there are several more obstacles to full employment, even when a government genuinely seeks to achieve it. One obstacle is that in economies with significant international trade, the additional aggregate demand created by additional deficit spending or investment may not create much employment at home. This is because when people and businesses buy imported goods with their new incomes instead of domestic goods, they provide employment for workers abroad instead of at home. This reduces the effectiveness of a single country's macroeconomic policy designed to raise employment.

Another obstacle is that government spending may crowd out private investment, as borrowing to finance deficit spending raises the interest rate, which discourages investment spending. The higher exchange rate caused by higher interest rates also reduces the effectiveness of such policies by reducing net exports.

The only solution to unemployment is fundamental institutional change. One fundamental institutional change that could help achieve full employment is international coordination of macroeconomic policies so that expansionary policies can be pursued simultaneously and therefore more effectively.

MAIN POINTS

1. A low unemployment rate causes a high-employment profit squeeze by shifting the balance of power toward workers and against employers, raising wages and unit labor costs. High levels of demand also raise materials costs. Both kinds of cost increases reduce profits.

2. If there is much trade and increased incomes are likely to go toward buying imported goods, then macroeconomic policies designed to raise the employment level will be less effective.

3. Monetary and fiscal policies can both contribute to job creation, but they may work at cross purposes because of crowding out: government borrowing to finance deficit spending often keeps interest rates high.

4. High employment levels and a dampening of the business cycle are possible—but only if institutions and policies undergo fundamental change.

DETAILED OUTLINE

1. Introduction

Unemployment imposes two types of costs on society: waste in the form of goods and services that could have been produced and were not and personal insecurity and hardship—for the unemployed and those threatened with unemployment.

Some of the insecurity of unemployment can be mitigated through insurance—like unemployment compensation (regular payments to some unemployed workers from a government insurance fund or one to which employers contribute).

Such solutions are not implemented because capitalism needs unemployment, unless it has some other means of motivating workers to work hard.

Some countries (e.g., see Sweden and Japan in Figure 17.1, p. 447) do achieve low unemployment by mutually beneficial understandings between workers and employers.

2. The High-Employment Profit Squeeze

The distribution of income between profits and wages influences the employment level, but also, employment level influences distribution of income between profits and wages.

The summary of the high-employment profit squeeze is as follows: at high levels of employment, wages rise, unit labor cost rises, and materials cost rises. Prices are raised but cannot be raised enough to cover the rise in cost, so profits decline.

A high-employment labor cost push occurs when, under conditions of high employment or low unemployment, workers demand higher wages, safer working conditions, and fight speedup (see Figure 17.2).

The materials cost push occurs because increased output means more demand for materials. This results in a shift in the demand curve for materials and a rise in their price.

The high-employment profit squeeze occurs when the high demand for labor creates both labor and material cost increases, which in turn, reduce profits. Firms raise prices to cover higher cost, but if competition is great, prices cannot be raised enough to cover the cost increase; a profit squeeze results. Thus, when employment rises, unit costs rise slowly at first and then accelerate, and profits are reduced (see Figures 17.3 and 17.4).

The analysis suggests two obstacles to full employment

(a) High-employment profit squeeze lowers investment and aggregate demand.
(b) Profit receivers are powerful and oppose policies that result in low profits.

3. Exports, Imports, and Aggregate Demand

Net exports are total exports minus total imports. This can be added to the macroeconomic model of Chapter 16 (see equation 17.1, page 459).

$$AD = C + I + B + X$$

The demand for exports and imports is determined by several factors including the following:

Incomes here and abroad. When household and firm incomes rise, they buy more imported goods. So as employment rises, net exports, X, fall. Also, when incomes abroad rise, more U.S. exports are sold abroad, so net exports rise.

Prices here and abroad. If U.S. prices are low relative to foreign prices, exports will be high and imports low, so net exports will be high. The real price of imports is given in equation 17.2 as (P_{im}/P_z). If it rises, net exports will rise.

The foreign exchange rate. This is defined as the amount of the foreign currency that a dollar will buy. It is sometime known as or the value of the dollar (v) and is given in equation 17.3 as $P_{im} = (P_{imf}/v)$.

4. International Trade and Macroeconomic Policy

Promoting net exports may be seen as a good way to promote domestic employment. Such a strategy might include policies such as tariffs or quotas to restrict imports, such as "Buy American" campaigns; export subsidies; or gaining preferential treatment for U.S. goods abroad. Such policies worked well in nineteenth-century United States and Germany and in South Korea and Japan in more recent times.

There are limits to the effectiveness of such policies. First, other countries may retaliate. Second, not all countries can be net exporters. Third, two countries expanding exports to each other may not have any increase in net exports and, therefore, no increase in employment. (Note to instructor: That is, no employment increase due to expanding aggregate demand. Of course, there may be efficiency gains from trade, and the efficiency gains may or may not lead to greater employment.) Fourth, near full employment, when a country's prices rise, it loses competitiveness, imports rise, and exports fall; then jobs are created abroad, not at home.

But the policies may succeed if the country implementing them is powerful enough to prevent retaliation or if the country can produce more cheaply than other countries or all countries together adopt deficit spending policies.

In global markets there is a coordination problem arising from the fact that every country wants others to import its product.

5. Monetary and Fiscal Policy at Odds

The problem with deficit spending is that it requires borrowing money. Under such conditions all borrowers find it harder to get credit—for buying a car, a house, new machinery—and interest rates rise, crowding out some private investment. If the government prints money rather than borrowing, it causes inflation.

What determines the interest rate? (The supply and demand for loanable funds [see Figure 17.5, page 467].) Demand comes from consumers wanting to buy a car or house, businesses wanting to invest; and governments wanting to spend more than tax revenue. Supply comes from domestic lenders, foreign banks, and other foreign lenders. Demand and supply are both influenced by expectations, therefore, by political instability, inflation, uncertainty, and widely fluctuating exchange rates. For example, government borrowing shifts the demand curve for loanable funds to the right, raising the interest rate, or else it increases the number of would-be borrowers who cannot get loans.

Borrowing and the Exchange Rate

Government borrowing raises interest rates. High interest rates attract loanable funds from outside the United States. Foreigners (banks, individuals) buy dollars in order to lend them in the United States (by buying Treasury bills, etc.), so the value of the dollar rises.

The Conflict between Monetary and Fiscal Policy

The conflict can be summarized as follows: The positive effects on aggregate demand and employment probably outweigh negative effects at low levels of government borrowing, but if this is done a lot, then the negative effects from crowding out and a rising exchange rate outweigh the positive.

6. Institutions for Achieving Full Employment

There are two fundamental reasons for the persistence of unemployment:

(a) The private and uncoordinated nature of economic decision making. Keynes suggested a solution in government policy.

(b) The class nature of the production process: Workers do not own what they produce, so they have little incentive to work hard or well, except the threat of unemployment. Unemployment benefits business (and business does not want to change the class nature of the production process).

Unemployment can be eliminated by the fist or by the handshake. Here's how the handshake could work:

In Sweden consultations between unions and businesses determined pay and amount of work done without relying on workers' fear of job loss. They negotiated an agreement that workers would still have jobs and the same wages even in a recession. In return unions did not demand wages that would price Swedish products out of the world market.

It is possible to have worker-owned, democratically run firms. In such a situation class conflict is changed and regulated and there is a solution to the problem of motivation to work hard. But at a high employment level there would still be the problem of inflation.

For the handshake to work, employers have to grant job security. Built-in stabilizers and other countercyclical policies help. International coordination (an international handshake) is needed among countries pursuing high-employment policies. Part of the handshake must be adequate programs, and funds are needed to support worker retraining and adjustment when industry demands new skills.

7. Conclusion

In the United States today, lower unemployment rates would be possible if the government adopted policies to achieve them. Workers do not have much bargaining power, so wages rise less even when unemployment falls. This is because

> (a) Union membership is down and unions are weak

> (b) Labor market segmentation means the cost of job loss for primary labor market workers is quite high, even when unemployment is low, because they are likely to fall into the secondary market

ACTIVITIES AND DISCUSSION

Have students look up data on (a) the multilateral trade-weighted value of the dollar and (b) net exports, from 1980 to the most recent year available. This information is available, for instance, in the Economic Report of the President.

Ask students to plot both on the same graph and draw conclusions about the effect of the exchange rate on the level of net exports.

TEACHING TIPS AND MODULES

This chapter is somewhat dense because it tackles both domestic and international constraints to full employment. Three broad themes are evident: the high-employment

profit squeeze as an obstacle to achieving full employment; the limitations on government policy aimed at reducing unemployment; and trade, competition, exchange rates, and employment.

Any or all of these themes can be expanded upon, and certain technical elements such as the determination of interest rates, exchange rates, and their effects often require an entire lecture. Although these are not difficult points, they do require careful explanation. Because this is the only chapter that addresses broad trade concerns, this might be a fruitful topic to explore in greater detail (see Teaching Module 17.1).

Teaching Module 17.1:   Competitive Tariffs

To Teach: Competitive tariffs.

Countries A and B are each other's only trading partners. Both countries have the option of trading freely or imposing a tariff on the other's products. If one imposes a tariff on the other country's products, the price of that country's product becomes higher and, as a result, less people at home will import that product. As a result of this, there will be more consumption of domestic goods and a greater level of employment (let's say each $100 represents a job). Let us assume the following hypothetical set of figures in the table below (A is the row player and B is the column player).

	Tariff	No Tariff
Tariff	$80,000, $80,000	$100,000, $50,000
No Tariff	$50,000,$100,000	$90,000, $90,000

1. In the absence of coordination, what will happen?

2. Starting from a situation of both countries not having tariffs (the bottom right panel), if Country A imposes a tariff, what should Country B do?

3. Explain why coordination between the countries may be useful to achieve more employment and output for both.

(Note to instructor: The quantities mentioned here could be replaced by prices to show the effect of competitive devaluations. It is useful to also mention that although this situation seems fanciful, it was precisely to avoid problems like this that the Bretton Woods Twins were created.)

Short Essay Questions

1. In his first term, President Bush raised steel tariffs to protect domestic steelworkers. China is one of the biggest steel exporters in the world. What would happen to the level of employment in the United States and China if U.S. consumers reduced their purchases of steel from China and the Chinese, in retaliation, reduced their purchases of U.S.-made steel?

2. In 2005, after a long period of pressure from the United States, China appreciated the value of its currency upward. Why do you think that there was so much pressure on China to do so?

3. Why is there a high-employment profit squeeze?

4. Despite low levels of unemployment, wages in the 1990s boom did not rise very quickly until the very end. This was unlike other expansionary periods. Explain why globalization and greater mobility of firms abroad could be reasons for this.

5. Deficit spending by the government is one tool for raising the employment level. What limits are inherent in this tool? Discuss both the domestic effects and the effects through trade. How could the limits be partly overcome?

6. What factors determine the level of net exports, and how do they determine it?

7. What policies would a government adopt that was trying to raise the employment level by increasing net exports? What limitations exist on the effectiveness of such policies? In what situation, or for what kinds of countries, are such policies most likely to work?

8. How does the government budget deficit affect the workings of the economy? In your answer indicate how (and by what means) a reduction in the deficit would influence the level of investment. Give at least two reasons why a reduction in the deficit would be desirable. Indicate what undesirable effects might result from a significant reduction in the deficit.

9. Keynes believed that unemployment could be eliminated in a capitalist economy. Explain his reasoning and discuss some of its shortcomings.

10. The United States is running a current account deficit at the moment (it imports more than it exports). What do you think this means for the rest of the world?

Multiple Choice Questions

17.1 The high-employment profit squeeze happens because
      a) Unit labor cost and unit materials cost rise*
      b) The efficiency and intensity of labor increase
      c) The cost of job loss rises
      d) The level of investment falls

17.2 The materials cost push (increase in materials prices) that occurs as unemployment falls occurs because
   a) The supply curve for raw materials inputs shifts, creating excess supply
   b) The supply curve for raw materials inputs shifts, creating excess demand
   c) The demand curve for raw materials inputs shifts, creating excess supply
   d) The demand curve for raw materials inputs shifts, creating excess demand*

17.3 When unit labor cost and unit materials cost rise, the reason why firms may not be able to raise their price, *Pz*, enough to maintain unit profits is
   a) At a higher price per unit, the profit per unit may fall
   b) Competing firms, such as in other countries, may not face the same cost increases*
   c) At a lower rate of capacity utilization, unit profits may fall
   d) The government is likely to impose price controls

17.4 All of the following are added together to make up aggregate demand except
   a) Net exports
   b) Investment
   c) Employment*
   d) Consumption

17.5 As employment rises and unemployment falls,
   a) The profit rate falls steadily
   b) The profit rate rises steadily
   c) The profit rate falls, reaches a minimum, and then rises
   d) The profit rate rises, reaches a maximum, and then falls*

17.6 When imports rise and nothing else changes,
   a) Net exports are unaffected
   b) Net exports rise
   c) Net exports fall*
   d) We need to know the level of exports to know what happens to net exports

17.7 The level of net exports is determined by
   a) Incomes and prices in the United States
   b) Aggregate demand in the United States and abroad
   c) Investment in the United States and abroad
   d) Incomes and prices (in the same currency) in the United States and abroad*

17.8. Which of the following is likely to happen when U.S. employment and income rise?
   a) Prices of U.S. goods rise, exports fall, imports rise, net exports fall*
   b) Prices of U.S. goods fall, exports fall, imports rise, net exports fall
   c) Prices of U.S. goods rise, exports rise, imports fall, net exports rise
   d) Prices of U.S. goods fall, exports rise, imports fall, net exports rise

17.9 Which of the following is likely to happen when employment and income in other countries grow?

        a) U.S. exports fall, U.S. imports rise, net exports fall
        b) U.S. exports fall, U.S. imports fall, net exports fall
        c) U.S. exports rise, U.S. imports rise, net exports rise
        d) U.S. exports rise, U.S. imports fall, net exports rise*

17.10 A term that means the same thing as the relative price of foreign and domestic goods is

        a) Net exports
        b) The foreign exchange rate
        c) The real price of imports*
        d) The value of the dollar

17.11 An increase in v, the value of the dollar, with Pz unchanged, will

        a) Raise P_{im} and P_{imf}
        b) Raise P_{im}, leave P_{imf} unchanged
        c) Lower P_{im}, lower P_{imf}
        d) Lower P_{im}, leave P_{imf} unchanged*

17.12 If the value of the dollar increases, we can expect that

        a) U.S. exports rise, U.S. imports fall, net exports fall
        b) U.S. exports fall, U.S. imports rise, net exports fall*
        c) U.S. exports rise, U.S. imports fall, net exports rise
        d) U.S. exports fall, U.S. imports rise, net exports rise

17.13 The problem created by increasing imports is that it causes

        a) The value of the dollar to decline
        b) A decline in aggregate demand and employment*
        c) Prices of domestic goods to rise
        d) An increase in exports to pay for the imports

17.14. It is not feasible for all countries to maintain positive and growing net exports because

        a) One country will retaliate against another by raising tariffs
        b) Total net exports in the world add up to zero*
        c) Employment will not rise in any country
        d) Uneven development prevents it

17.15 In an interdependent world with substantial international trade—and without tariffs or other restrictions—if one country adopts a policy of deficit spending to try to expand employment, all of the following are likely to result except

        a) Recession*
        b) Inflation
        c) Little job creation
        d) Increased imports

17.16 A policy of promoting exports and discouraging imports in order to increase employment is more likely to be effective if
    a) The country can maintain high prices for its goods
    b) The country is powerful and can prevent retaliation*
    c) The government pursues a policy of high interest rates
    d) The value of the dollar is high

17.17 The term crowding out refers to
    a) Imports displacing domestic production
    b) Domestic production displacing imports
    c) Spending by families and businesses displacing government spending
    d) Government spending displacing spending by families and businesses*

17.18. Why do we say that although monetary policy and fiscal policy can both be effective at job creation, they may work at cross purposes?
    a) Deficit spending drives up interest rates*
    b) They are contradictory in a profit-led employment situation
    c) A lower unemployment rate gives workers bargaining power
    d) Higher taxes reduce profits

17.19 Which of the following is not likely to result from government borrowing to finance deficit spending?
    a) Businesses have trouble getting loans to buy machinery
    b) Consumers have a hard time getting car loans
    c) The cost of imports to buyers in the United States rises*
    d) The value of the dollar rises

17.20 What phrase best fills the blank? The interest rate is determined by the intersection of the supply and demand curves for _____.
    a) Capital goods
    b) Net exports
    c) Loanable funds*
    d) The product market

17.21 One factor that would increase the supply of loanable funds in the U.S. is
    a) A high interest rate, attracting foreign lenders*
    b) A low interest rate, attracting foreign borrowers
    c) More consumers wanting to buy houses
    d) More businesses wanting to invest in new plants

17.22 Unemployment in a capitalist economy ensures that workers work hard and well for fear of getting fired. Another solution to the motivation problem would be
    a) Higher unemployment benefits
    b) Worker-owned firms*
    c) Assembly lines

d) Coffee

17.23 High employment levels and a dampening of the business cycle are possible but not without
    a) A change in $(c - f)$
    b) Permanently lower interest rates
    c) An increase in unemployment compensation payments
    d) Fundamental changes in institutions and policies*

17.24 In Sweden, when the employment level was high, the unions had the power to gain much higher wages, but they generally did not use it. This was because
    a) The government prevented them from doing so
    b) They were afraid they might price Swedish goods out of the world market*
    c) The union leaders were bribed by Swedish capitalists
    d) The higher cost of job loss would not have maximized profits

ADDITIONAL RESOURCES

References

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CHAPTER 18:   Inflation

How This Chapter Fits into the Text

The distribution of income, especially between profits and wages, is a central theme in the political economy approach. In Chapter 18, inflation is described and explained as the result of unsettled conflicts over the distribution of income.

Different groups or classes have differing and sometimes opposing interests with regard to inflation. Businesses and families both dislike inflation because it makes planning difficult. Moreover, inflation helps debtors and hurts creditors, so banks dislike it. There is generally a trade-off between unemployment and inflation (though with structural inflation both can rise at once). Average real wages tend to fall as unemployment rises so that most workers, if they realize the trade-off exists, will prefer inflation to unemployment, and most capitalists prefer unemployment to inflation.

MAIN POINTS

1. The amount of inflation varies over the business cycle and between business cycles.

2. Cyclical inflation is the more rapid inflation that typically takes place toward the end of a business cycle expansion. It occurs because of the labor cost push and the materials cost push when unemployment is low.

3. Structural inflation occurs when the price level increases rapidly throughout the course of a business cycle. It occurs because governments, businesses, and households are living beyond their means and are able to borrow more so as to spend more than their incomes.

4. The unemployment-inflation trade-off describes the tendency during a business cycle for inflation to rise when unemployment falls and for inflation to fall when unemployment rises.

5. Inflation is costly because it makes economic outcomes unpredictable. Controlling inflation is costly because it implies high unemployment and lost output, or there are government price controls that produce arbitrary and unpredictable effects as well as inefficiencies.

6. Different classes have different interests with respect to inflation, because inflation affects income distribution. The rich generally benefit from lower inflation and more unemployment; the rest of the population generally benefits from less unemployment and more inflation. Higher levels of unemployment create greater income inequality.

DETAILED OUTLINE

1. Inflation

Inflation is defined as a general increase in prices, often measured by the Consumer Price Index (CPI), which is a measure of the average prices a family pays for the goods and services it buys. The rate of inflation is the percentage rate of change in prices. Deflation refers to a general fall in prices. Inflation is especially a twentieth-century phenomenon (see Figure 18.1, "Inflation in the U.S., 1665 to 2003," page 480).

2. Too Much Money Chasing Too Few Goods

Inflation is "too much money chasing too few goods." In our model this occurs if *AD* > *AS*, which occurs when borrowers borrow more this year than is produced this year.

3. Two Types of Inflation

Cyclical inflation refers to the price increases that typically accelerate toward the end of the business cycle expansion (see top left panel of Figure 18.3). When high employment levels occur in an expansion, *ulc* and *umc* rise, creating both profit squeeze and inflation (prices rise but not enough to cover increased costs).

Pz = ulc + umc + up (equation 18.1).

The inflation-unemployment trade-off describes the tendency during a business cycle for inflation to rise when unemployment falls and for inflation to fall when unemployment rises. Figure 18.2 depicts this.

Stagflation occurs when there is a combination of slower economic growth and generally rising prices

Structural inflation occurs when the price level increases rapidly throughout the course of a business cycle. It occurs when there is political conflict and an unresolved conflict over income distribution. This is a more fundamental conflict than that which gives rise to cyclical inflation. It occurs because the claims on goods by various sectors exceed supplies at going prices.

Political stalemate is defined as a situation when no major economic actor (e.g., banks, large corporations, unions, political parties, government) can impose its will on others.

Economic stagnation + political stalemate = structural inflation. The stalemate is why *AD* is high, and stagnation is why *AS* is so low.

The conflict over income distribution can be resolved if one group becomes powerful enough to win it. For example, if it is politically possible to impose high interest rates, this will discourage borrowing and this will reduce *AD*. In the 1980s inflation and inflationary pressures declined because real wages declined (the businesses won the conflict over income distribution).

4. Why Worry about Inflation?

The real wage is defined as the wage corrected to take into account the effects of inflation.

There are three main reasons to care about inflation.

(1) The distribution of income changes: people on fixed incomes lose purchasing power, and debtors gain because they pay back an amount worth less than the amount originally borrowed. Creditors (banks, lenders), by contrast, lose.

(2) Inflation has a negative effect on real income.

(3) Inflation makes planning difficult, resulting in poor planning, mistaken planning, or no planning—and, therefore, in inefficiencies and waste.

Inflation, however, avoids more unemployment, and in an expansion, people's incomes tend to rise faster than the inflation rate (unless they are on fixed incomes) so that their real incomes rise. So inflation is another obstacle to full employment policies.

Class interests with respect to inflation: Workers lose from unemployment so may prefer less unemployment and more inflation if they could make the trade-off. Inflation erodes the value of the assets of the wealthy. Creditors (banks and other lenders) lose. Workers with secure jobs and people on fixed incomes may prefer unemployment (of others) to inflation.

The shape and position of the inflation-unemployment trade-off curve are very important in debates about inflation and unemployment.

4. Conclusion

Where business is powerful, governments (such as the United States and United Kingdom in the 1980s) tend to choose higher unemployment over inflation.

ACTIVITIES AND DISCUSSION

1. Look up the CPI over the last 50 years for the United States from the Bureau of Labor Statistics Web site. Plot the CPI and the rate of inflation. What decade saw the most inflation? What decade saw the least?

2. Look up the unemployment rate over the last 50 years from the bureau of labor statistics website. Plot the unemployment rate. Is there any relationship between inflation (see question 1) and unemployment?

TEACHING TIPS AND MODULES

Difficult Points

This chapter has little that is technically difficult. The concept of competing claims among various groups, none of which is able to dominate, may need to be illustrated with concrete historical examples in order for the students to grasp it firmly. The U.S. experience of the 1970s and 1980s is a good example.

The conventional view of inflation generally recognizes an unemployment-inflation trade-off (at least in the short run) in the form of the Phillips curve. Political economists recognize the same trade-off, but they view that trade-off in terms of opposing interests of capitalists and workers. In the political economy view, inflation is caused by the competing claims of different groups: bankers, capitalists, government, and labor when none of these groups has the power to dominate the others.

In contrast, the standard view of inflation treats it as caused by impersonal forces, not social groups. Conventional approaches do recognize that inflation has differential impacts on different groups, and that those, like the elderly, on fixed incomes get hurt. But in discussing the costs of inflation, conventional approaches often place much heavier emphasis on the loss of efficiency and the misallocation of resources brought about by inflation. Class conflict or conflict among interest groups plays no part in the conventional analysis.

Another sometimes unclear concept is that of a price index. This can be illustrated using Teaching Module 18.1, Calculating the CPI.

Teaching Module 18.1:   Calculating the CPI

To Teach: Calculating the CPI for Grainland.

In Grainland, there are two different commodities: plows and cows. At the beginning of the year, a plow cost $10 and a bushel of grain cost $1. There were a total of 1,000 plows and 10,000 bushels of grain. The Office of Grain Statistics gives you the following formula for calculating the Consumer Price Index (CPI) of Grainland stating that this is for the base year:

CPI = [price of plow in current year X quantity of plows in the first (or base) year + price of a bushel of grain in current year X quantity of bushels of grain in the first (or base) year]/ [price of plow in base year X quantity of plows in the first (or base) year + price of a bushel of grain in base year X quantity of bushels of grain in the first (or base) year] X 100

So the CPI in the base year (this year) is:

($10 X1,000 + $1 X10,000)/($10 X 1,000 + $1 X 10,000) X 100 = 100

A year later you go back to Grainland and find that plows each cost $20 and a bushel of grain now costs $2. What is the CPI now? What is the rate of inflation?

What if the next year, plows cost $60 and grain cost $0.50? What would the CPI be? What is the rate of inflation?

Answer: ($20 X 1,000 + $2 X 10,000)/($10X 1,000 + $1 X 10,000) X 100 = 200
Rate of inflation = (200 – 100)/100 = 100%

Answer: ($60 X 1,000 + $0.50 X 10,000)/ ($10 X 1,000 + $1 X 10,000) X 100 = 325
Rate of inflation = (320 – 100)/100 = 220%

Teaching Module 18.2:   Inflation

To Teach: The actual levels of inflation and the trade- off.

Using a table of the Consumer Price Index for the last several decades or the Bureau of Labor Statistics inflation calculator available at http://data.bls.gov/cgi-bin/cpicalc.pl, ask students to compute the inflation rate for each year during a given business cycle and then to write a short essay discussing the relationship between inflation and the unemployment rate over the course of the business cycle.

Teaching Module 18.3:   Inflation and Unemployment

To Teach: Differing preferences for inflation and unemployment.

In a recent paper, Jayadev (2006) reviews evidence from 20 countries about individuals' preferences between inflation and unemployment. More than 10,000 people in these countries were asked whether they thought the government should pay more attention to combating inflation or unemployment. The table below summarizes his results. Do not worry about the column called z-statistic (it is an indication of whether all the results are statistically significant [they are]). Focus instead on the column called coefficients. What the numbers say is that an individual who is in the bottom fifth of the income distribution is about half (.56) as likely as someone in the richest fifth of the income distribution to prefer that government focus on keeping inflation down. As the table suggests, the richer one is, the more likely he or she is to say that the government should keep inflation rather than unemployment down. Using the ideas in this chapter, give some indications why this may be the case (Hint: Think of whom unemployment hurts and whom inflation hurts).

Short Essay Questions

1. Define inflation and explain why it occurs. In your answer, distinguish between cyclical and structural inflation. Why did the United States experience rapid inflation during the period 1973–1981?

2. How is inflation harmful, and whom does it harm? Why might some people prefer inflation to the alternative? What are the costs of unemployment?

3. Why is inflation an obstacle to full-employment policies?

4. In his book on Alan Greenspan entitled *Maestro*, Bob Woodward writes about the experiences of the U.S. economy in the 1990s:

"The old belief held that with such a low unemployment rate workers would have the upper hand and demand higher wages. Yet the data showed that wages weren't rising that much. It was one of the central economic mysteries of the time. Greenspan hypothesized at one point to colleagues within the Fed about the "traumatized worker"—someone who felt job insecurity in the changing economy and so was accepting smaller wage increases. He had talked with business leaders who said their workers were not agitating and were fearful that their skills might not be marketable if they were forced to change jobs" (p. 168).

Explain how the idea of the traumatized worker may help explain the fact that despite low unemployment, inflation did not rise in the 1990s.

Multiple Choice Questions

18.1 When the CPI increases, the economy is experiencing
        a) Expansion
        b) Contraction
        c) Inflation*
        d) Unemployment

18.2 The CPI is the
        a) Commodity Products Index
        b) Consumer Products Index
        c) Common Price Index
        d) Consumer Price Index*

18.3 If some prices are rising while others are falling,
        a) We cannot say whether inflation is occurring
        b) Inflation and deflation are both occurring
        c) Neither inflation nor deflation is occurring
        d) We decide whether inflation is occurring by looking at the price index*

18.4 Choose the best answer: Inflation is the result of unsettled conflicts over
        a) The level of government spending
        b) The level of prices
        c) The distribution of income*
        d) The rate of taxation

18.5 During the business cycle, the rate of inflation typically is highest
        a) Toward the beginning of the expansion
        b) Toward the end of the expansion*
        c) During the contraction phase
        d) At the bottom of the recession

18.6 If a typical family bought their usual goods and services during a month last year for $1,000 and this year it cost them $1,100 to buy the same goods and services, then the rate of inflation is
        a) 100%
        b) 11%
        c) 10%*
        d) 1%

18.7 In the United States, inflation became common
        a) Beginning in the eighteenth century
        b) Beginning in the nineteenth century, especially after the War of 1812
        c) Beginning in the nineteenth century, especially after the Civil War
        d) Beginning in the twentieth century, especially after the Great Depression*

18.8 A rapid increase in the price level throughout the course of the business cycle indicates

a) Cyclical inflation
b) Structural inflation*
c) Inflation-unemployment trade-off
d) Stagflation

18.9 The expression "too much money chasing too few goods" refers to the fact that
a) When there is excess supply, prices fall
b) When there is excess demand, prices rise*
c) When there is inflation, supply expands
d) When there is inflation, demand contracts

18.10 Whether demanders want to purchase more or less than suppliers have to sell at current prices depends on
a) Demanders' spending decisions and the availability of money and credit*
b) Whether dollars are in the hands of households or firms
c) The level of capacity utilization
d) Whether banks will lend to farmers

18.11 To say there is an inflation-unemployment trade-off, means
a) Unemployment and inflation rise and fall together
b) Stagflation occurs in every business cycle
c) Inflation falls when unemployment rises*
d) The inflation-unemployment graph moves outward over time

18.12 Cyclical inflation occurs because of
a) Rise in *umc* and rise in *ulc* during the business cycle*
b) Rise in P_m and rise in P_c during the business cycle
c) Rise in *ulc* and rise in K during the business cycle
d) Rise in K and rise in P_c during the business cycle

18.13 The price of a good equals the unit labor cost plus the unit materials cost plus the
a) Unit capital cost
b) Unit profit*
c) Unit wage
d) rate of inflation

18.14 What period in the United States experienced both high unemployment and high inflation, called stagflation?
a) The 1950s and early 1960s
b) The 1960s and early 1970s
c) The 1970s and early 1980s*
d) The 1980s and early 1990s

18.15 Structural inflation, like cyclical inflation, is a result of
a) The government's macroeconomic policy
b) Unresolved conflict over the distribution of income*

c) Changes in the level of investment

d) Fluctuation in output over the course of the business cycle

18.16 If at current prices there is an excess of claims on goods over goods, the possible outcomes include all of the following except

a) Demand for goods rises*

b) The supply of goods increases

c) Claims on goods are reduced

d) Prices rise until the value of goods equals the claims on them

18.17 A typical situation in which structural inflation occurs is

a) Economic stagnation and capitalist hegemony

b) Economic stagnation and labor union dominance

c) Economic stagnation and political stalemate*

d) Economic stagnation and government inaction

18.18 If prices rise and the same amount of real goods and services are produced, then

a) Everyone is worse off

b) Everyone is better off

c) Debtors are better off and creditors are worse off*

d) Debtors are worse off and creditors are better off

ADDITIONAL RESOURCES

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CHAPTER 19:   Government and the Economy

How This Chapter Fits into the Text

Chapter 19 completes the macroeconomics section of the text. It describes the importance of government in the economy by assessing its economic activities and its role in the capitalist economy. It discusses the relationship between democracy and the capitalist economy and the way in which each sphere affects and shapes the other. In doing so it describes the political business cycle.

MAIN POINTS

1. Government is organized according to a different set of rules from the rules of the capitalist economy.

2. Because of its size, the government has an important effect on the economy—on all three dimensions: horizontal (between buyers and sellers), vertical (between employers and workers), and time.

3. Over time the government has grown and become more important as part of the economy, partly because of tensions within capitalism.

4. Government activities affect the profit rate, which is a large part of the reason why there is conflict over government policies.

5. The capitalist economy places limits on what the government can do. Large businesses use some of their money to set political agendas and influence candidates through campaign contributions. They also have political power because their investments determine where jobs and income will grow or decline.

DETAILED OUTLINE

1. The Rules of Government Organization

Activities or relationships organized through the government tend to be compulsory, collective, and (in some countries) democratically determined. Compulsory relationships exist when a person cannot choose whether to enter the relationship. Collective activities are activities whose benefits or burdens extend, potentially at least, to all citizens. There is therefore the concept of citizen rights—which are the basis for a claim to share some of the benefits of society. Because government is compulsory and collective, citizens are entitled to services by right.

2. A democratic government is a way of organization of the government based on the accountability of officials by election with equal voting rights and with some guaranteed

civil liberties and personal freedoms. This does not mean that everyone has an equal say in society (see box "Democratic government: fair game or stacked deck?" on page 497). Democratic governments have not always followed the rules of democracy. In the U.S., one problem is that there is currently low voting compared to both earlier periods and other democracies (see Figures 19.1 and 19.2, respectively, pages 498 and 499). The relatively poor and disadvantaged vote less (see Figure 19.3, page 500).

Rules of democratic government and rules of capitalist economy coexist. Services can be provided by either the government or the market.

3. The Economic Activities of the Government

The government is a rule enforcer: it has the power to impose penalties on rule violators. The imposition of rules has uneven effects—for example, in preventing only poor people from sleeping in public spaces. Equally, some groups with power who benefit from the rules may seek to ensure that the government enforces those rules. Guard labor is the labor used to maintain the existing structure of power and ownership (see box "Guard labor" on pages 502–503).

The government is a rule maker: it has the power to alter old rules and create new ones. Important historical examples include the imposition of tariffs to stimulate U.S. industry, the changing of property rights to divert rivers to help textile farmers, and the protection of union organizing.

The government is an economic actor. It is (1) a producer (health, education, postal service, police, fire, etc.); (2) a microeconomic regulator (imposing taxes, subsidies, regulating quality standards, regulating wages and prices); (3) a macroeconomic regulator (using fiscal and monetary policy to correct business cycles); and (4) a distributor affecting income distribution (in all the above ways as well as through taxes, government spending and transfers, and monetary policy).

4. The Expansion of Government Economic Activity

In the U.S., government spending is a smaller percentage of GDP than in many countries (see Figure 19.4, page 507). However, state and local employment have grown over time as have federal expenditures. There are many reasons for this. Following capitalism, there has been a number of capital/worker, capital/capital, and capital/citizen conflicts that have provoked demands for government involvement.

Some of these expansions of government activity are because of the following:

A. Economic concentration: With the growth of large corporations, there was a demand for laws that favored them. Sometimes they wanted protection from competitive pressures; consumers and workers wanted protection from large corporations.

B. International expansion: With increased U.S. interests abroad, there was a demand for larger military forces to protect these interests.

C. Economic instability: The Great Depression and business cycles caused employers and workers both to call for government to help stabilize the economy.

D. Income support: With the erosion of family, neighborhood, and private support systems, there was the expansion of government unemployment benefits, welfare, and Social Security to support the poor and elderly.

E. Changing pattern of family life: With more female labor participation and changing gender roles, there was an increase in the need for governmental support for working families.

F. Environmental and worker protection: With the increasing conflict in many arenas between profitability and environmental health, there were public demands for government intervention in the natural environment. Equally, there have been demands for laws that promote public safety, product safety, and occupational health and safety.

G. Protection from discrimination: Following the Civil Rights Act of 1964, there has been insistence on laws preventing discrimination.

Government employment is relatively small; the investment decisions that crucially determine the course of the economy are still largely in private capitalist hands.

5. Government and the Profit Rate

The after-tax profit rate is defined as the profit rate made by firms after they have paid any required taxes. See Equation 19.1 on page 514 to relate this to the discussion on profit rates in Chapters 9–12. Profit rates may affect a company, an industry, or the whole economy. Profit rate determinants and how government policies might raise the profit rate are discussed on page 515 (see Table 19.1, "Government Policies and the After-Tax Profit Rate," page 515).

It is important to note within this section that

A. There is a conflict between employers and workers—what raises profit rates can hurt workers.

B. Some policies are self-contradictory or ineffective.

C. There can be conflicting policy goals among different capitalists.

D. There are conflicting interests among workers, too.

Government officials need to get reelected and, therefore, to appeal to voters. All of this means a constant tug-of-war among government, workers, and business.

The political business cycle occurs when recession and/or expansions are in part intentionally created by government economic policy to generate a business cycle for their own or others' interests.

6. The Limits of Democratic Control of the Capitalist Economy

There are limits of control by the government on the capitalist economy. There are two types of power that are typical in a capitalist democracy: the power of capital vs. the power of the citizenry (see definitions on page 520).

Sources of the power of capital: The wealthy buy influence through campaign contributions, advertising, and hiring lawyers and expert witnesses to testify and influence legislation. Capitalists own mass communications media and influence public opinion. Capitalists control investment and therefore control the fate of the economy; if they do not like government policy, they can carry on a capital strike (stop investing).

Capital strike occurs when, as a result of a negative business climate, many individual capitalists decide to reduce their investments or not invest at all.

Capitalism may undermine sovereignty (defined on page 522) and citizen power. The example of Anystate and MNC Enterprises in the text illustrates this effect.

ACTIVITIES AND DISCUSSION

1. Some theorists and philosophers have argued that capitalism promotes and helps maintain democracy. In your opinion, in what ways is this true? In what ways is this false?

2. Imagine that in all future elections, 100% of the population over 18 years of age were to vote. How do you think laws and government programs would change?

3. Imagine a world in which all issues were really decided by one-person one-vote, with no opportunities for the wealthy (individuals or corporations) to exercise influence out of proportion to their numbers (say, e.g., lobbying was effectively outlawed, campaign contributions were limited to $10 per person, and media access was provided in exactly equal amounts to all candidates). How do you think laws and government programs would be different in such a world?

4. In the text, we have focused most on the conflicts between capital and labor over the direction of government economic policy. What about other social conflicts? How has the movement against racism changed government policy? the women's movement? the

environmental movement? the peace movement? What has been the effect of these groups and their actions on the after-tax profit rate?

TEACHING TIPS AND MODULES

This is a somewhat difficult chapter to teach given that it attempts several things. It wishes to get students to think about the rules of organization in a society; to understand the relationship between democracy and capitalism; and to understand the functions of government, the limits on the activities of government, and the unequal control over government.

Conventional texts often have much to say about the effects of government policy but little or nothing to say about the class interests that influence government policy. The literature on rent seeking is the closest in spirit to the approach of this chapter. This position also differs from the views of an old Marxist position that might contend that the economy and economic relations determine the nature and policies of the state.

This chapter suggests, in contrast, that the state is not class-neutral. We also contend that the state is a site of struggle and that although capitalists tend to win in political struggles, they do sometimes lose, and not every government action serves capitalist interests.

Difficult Points

The most difficult idea in the chapter is to explain the notion of a differing set of rules for democracy and the capitalist economy. There is a long-standing belief that there is equivalence between capitalism and democracy. There are several ways to teach that there is no necessity for capitalism to be in harmony with democracy and that, in fact, capital's unequal economic power may limit democracy. The first is to appeal to historical episodes of the coexistence of capitalism and oppressive regimes. Another way to teach this is to expand upon the concept of "capital strike." In the era of globalization and outsourcing, the underlying (and sometimes apparent) threat of capital strike is present and can be recognized by the student. Refer back to the box on page 317 "Hardball: owners, workers, and taxpayers in the global economy." The point becomes clear: the control of investment is concentrated in the hands of a few, and it is impossible to have one-person one-vote rule in the capitalist economy; instead, we obtain the rule of one-class one-veto. These contrasts can also be taught with Teaching Module 19.1, Voting with Your Votes vs. Your Dollars.

Teaching Module 19.1:   Voting with Your Votes vs. Your Dollars

To Teach: The differing rules by which some kinds of decisions are made in a capitalist economy.

Lead a class discussion by using some of the following questions.

1. The members of a football team are employed by the owner of a stadium. The players are paid from the proceeds of ticket sales. The head coach will soon retire. How should the new coach be selected? He or she should be

(a) Appointed by the owner

(b) Elected by the players

(c) Elected by those who attend the remaining games under the outgoing coach

2. A hospital serving your town must close half its facilities due to lack of funds; 50 of the 100 patients must be discharged. There are no other hospitals nearby. How should it be determined which patients will be discharged?

(a) The hospital's doctors should select the ones that need treatment the most.

(b) A meeting should be held of all the patients; each should explain to the other their need to remain in the hospital. Then each patient should vote, listing the 50 who should remain; the others will be discharged.

(c) All patients should be asked to submit bids, indicating how much money they are willing to pay to stay in the hospital; the 50 highest bidders will be allowed to stay, and the money collected will be given to the United Fund.

3. In 1960 four students entered a Woolworth's lunch counter in North Carolina and asked for cups of coffee. They were refused because they were black. With which of these positions do you agree?

(a) Private ownership is nothing if it is not the right to exclude others from your property. The owners of Woolworth's chose to exclude these students; whatever their reason, they were within their rights.

(b) Racial discrimination in a setting open to the public is a violation of the dignity of people of color; the right not to be discriminated against should have priority over property rights.

4. A company in your town is considering manufacturing a new chemical that is known to cause cancer in rats. The production of the chemical is legal; there are no laws against it. Who should make the decision whether to go ahead with production of the new chemical?

(a) The owner of the company

(b) The employees of the company, by majority vote

(c) The people of the town, by majority vote

5. A large shopping mall has a central plaza where people often gather. A number of people go there to hand out pamphlets; some are advocating the end of apartheid, others are seeking converts to their religion. The mall owner asks the police to prevent the distribution of pamphlets in the mall, claiming the right to govern the use of the property. Do you agree with the owner?

6. A chemical plant is planning to move to Germany because the country is offering it several tax concessions. This will cause the town and the state that it leaves to fall into a recession because it is a large firm. Who should be allowed to make this decision?

(a) The owner of the company

(b) The owners and employees of the company, by majority vote

(c) The people of the town, by majority vote

Teaching Module 19.2:   Fighting over the Government

To Teach: Political decisions are often contentious and settled by coalitions and lobbies.

This module also tests the knowledge of the class in terms of their understanding of the class effects of macroeconomic policy. Given the complexity of this module, it will take substantial setup time and may run one or two class sessions.

Divide the class into five groups—industrial capitalists, financial capitalists, employed workers, the unemployed and social welfare recipients, and government officials. The groups need not be the same size; indeed, the government group should be small. You may subdivide each group—for example, have industrial capitalists from different industries, e.g., information technology, auto, oil. The government officials should be both elected and unelected—a few congressional people, the president, and the chair of the Federal Reserve constitute an adequate group of government officials.

Present the class with a concrete and current macroeconomic problem—such as Social Security, the budget deficit, or the trade deficit. Ask each the capitalist and worker groups to come up with a short-range plan to address the problems in a way, of course, that would benefit their own interests. The plan should detail fiscal and monetary policy, at least, and discuss trade and industrial policy, etc., as appropriate. Have them pay special attention to the divisions within their groups. Bring all the groups together and have them present their plans to the government officials.

Because it is likely that the plans will reflect divergent interests and needs, break the class back into the groups. In this second phase, allow deal making. Each group should attempt to form coalitions with other groups. Subgroups can break off—say, autoworkers and

auto capitalists—and form new groups. Everyone can bargain with the government officials. Draw the class back together, and see if a general macroeconomic policy can be decided on. Political stalemate may leave you without a plan. This is a permissible and realistic outcome.

Things to watch for:

Let the Fed know how important s/he is. S/he can contract the economy at any time. This is one-class one-veto at the national economic policy-making level. The other government officials face the constraint of needing to secure the popularity of the electorate. Draw out the distinctions between financial and industrial capital. Students often do not see the possible conflicts around interest rates, economic expansion, etc. The distinctions among workers are also important and should be drawn out.

Short Essay Questions

1. How does the government affect the profit rate? Give examples of the ways in which the government can alter each of the determinants of the profit rate. Why is it not always possible for the government to adopt policies that will ensure a high profit rate?

2. Describe the various means through which capitalists influence the government to adopt the policies they favor. What are some examples of such policies?

3. Describe the major trends in guard labor over the last century in the United States.

4. Consider the box about media ownership on page 279. What effect do you think this media concentration has on the power of corporations to influence policy?

5. Toyota announced that it will move its plant to Canada from the U.S. South. This is partly because Canada has a public health system and the corporation will not have to pay health care benefits to its union members. Explain the concept of capital strike using this scenario, and suggest any solutions.

Multiple Choice Questions

19.1 Government is organized according to a set of rules that is different from the set of rules governing the capitalist economy. The rules of government in the U.S. include all of the following elements except
      a) Government ownership of enterprises*
      b) Compulsory relationship
      c) Democratic process (if not necessarily democratic outcome)
      d) Collective activities

19.2 The citizen's relationship to the government

a) Is compulsory, not chosen*

b) Is a matter of choice, like a voluntary market exchange

c) Is determined by the rules of the game of the economy

d) Is set forth in a contract

19.3 Schools, the postal service, the police, and the military are all examples of the government's role as

a) Microeconomic regulator

b) Macroeconomic regulator

c) Producer*

d) Distributor

19.4 When the government buys up certain agricultural products to keep their prices from falling, it is acting both as

a) A producer and a distributor

b) A producer and a macroeconomic regulator

c) A distributor and a microeconomic regulator*

d) A microeconomic regulator and a macroeconomic regulator

19.5 Average voter turnout in the United Statesin 2004 was

a) More than in the late nineteenth century

b) Less representative of society

c) Less than in the late nineteenth century*

d) Higher than most other countries

19.6 Which of the following groups was best represented in the 2000 election?

a) Hispanics

b) The employed

c) The unemployed

d) Individuals with family income of over $75,000*

19.7 The government has expanded its activities during the twentieth century for all of the following reasons except

a) Revenues from corporate taxes have grown faster than GNP*

b) The power of citizens over corporations has grown

c) Because of wars and the Cold War, the growth is entirely in military spending

d) Conflicts among business, workers, and citizens provoked demand for government involvement

19.8 All of the following are causes of the very substantial expansion in government activity over the twentieth century except

a) Economic concentration

b) International expansion

c) Higher profit rates*

d) Economic instability

19.9 If the government wants to deliberately create a recession in order to increase the power of capitalists over workers, it may do all of the following except
   a) Restrict credit
   b) Cut government spending
   c) Lower the interest rate*
   d) Raise business or personal taxes

19.10 To say there is a political business cycle means that
   a) Campaign spending stimulates the economy
   b) Expansionist policies are pursued just before an election to favor incumbents*
   c) The business cycle affects the fate of politicians
   d) The business cycle only happens because politicians create it

19.11 Which of the following is not a common economic activity of the government?
   a) Rule enforcer
   b) Rule maker
   c) Economic actor
   d) Profit rate maximizer*

19.12 All of the following are ways the government might raise the profit rate by affecting the particular determinant of the profit rate named except
   a) Raise f by subsidizing research in applied science
   b) Raise P_c by granting tax credits for investment*
   c) Raise c_u by macroeconomic policy, maintaining predictable and growing levels of aggregate demand
   d) Reduce P_m by using U.S. power to gain access to cheap raw materials

19.13 All of the following are ways the government might raise the profit rate by affecting the particular determinant of the profit rate named except
   a) Reduce w by maintaining enough unemployment to depress wages
   b) Raise e by not enforcing occupational safety standards
   c) Raise atr by reducing the tax rate
   d) Increase m by supporting research in improved technology*

19.14 A capital strike occurs if
   a) Labor refuses to work
   b) A capitalist refuses to invest*
   c) The state refuses to reduce taxes
   d) The state taxes more or else borrows more and pays higher interest rates

19.15 The ability of citizens to influence government is sometimes called
   a) The power of capital
   b) Democracy
   c) Communism
   d) The power of the citizenry*

ADDITIONAL RESOURCES

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CHAPTER 20: The Future of Capitalism

How This Chapter Fits into the Text

This chapter completes the book by considering the durability of capitalism. In doing so, it asks whether capitalism is an evolutionary universal, as supposed by Parsons, or whether changes in science and technology will mean that a different system will come to surpass it, reflecting the ideas of Marx. It considers the challenges afforded to capitalism and society in general from limits to growth and the growth of the new economy and weightless economy. The chapter ties in the contradictions faced by the systems of property in capitalism and the market as a principle of organization (as outlined in the microeconomics section) when confronted with the phenomenon of the new economy.

MAIN POINTS

1. Changes in technology, especially the information revolution, and the accelerating impact of humans on our natural environment will confront us with unprecedented challenges.

2. It is likely that in response to these challenges new institutions may arise.

3. These new institutions will certainly include some variants of Parson's evolutionary universals, but at the same time, they will exhibit truly novel features.

DETAILED OUTLINE

Talcott Parsons considered capitalism (in combination with democracy) an evolutionary universal (see Parson's own definition on page 530 in the box "Evolutionary universals or social revolution?"). Marx thought capitalism would pass and be replaced by communism. This has not come to pass; indeed, capitalism has been resilient. Future technological changes could either support the institutions of capitalism or undermine them.

1. The Limits to Growth are as follows:

Land and resources have not been a constraint to growth—yet.

There is increasing concern about the impacts of economic growth on environmental health, especially because of global warming.

Several factors could diminish the environmental impact of growth: first, there could be a shift away from manufacturing; second, there could be production of more environmentally friendly manufacturing; and third, there could be a change in lifestyle and the amount of work. Policies for all of these could be enacted.

Europe currently has a lower impact on the environment than the United States. Europeans have lower income but more leisure time than Americans—perhaps because of lower levels of inequality (see Figure 20.1 on page 534).

2. From Grain and Steel to Information and Ideas

While the previous section addressed some of the constraints to capitalism, this section deals with the opportunities afforded by the "information revolution."

Recent technological advances have made information a much easier commodity to store and to transmit (see Figure 20.2 on page 536). Investment in information processing equipment and software has surpassed that of investment in goods-producing equipment (see Figure 20.3 on page 537).

The information sector in the U.S. economy has been growing as a result of these changes (see Figure 20.4 on page 538). Part of this has been because of increased R & D (see Figure 20.5 on page 539).

Because most of the goods production for developed countries is done elsewhere, the majority of national income is from producing services, and the information sector is becoming larger. Some economists say that in advanced economies, a "weightless economy" is coming into being. Land, labor, and capital may be being replaced by brains, information, and reputation.

3. The New Economy

Many features of the new economy are very different from the old economy. First, in the new economy, it is hard to write contracts because the idea of a commodity is very different. Second, the new economy is potentially less competitive because prices tend not to equal marginal costs. This and other factors in the new economy lead to large market failures.

$P > MC$ because of widespread increasing returns to scale in the new economy. "First copy" costs of an information product are substantially higher than the marginal cost of the second copy. Examples include music CDs, software, generic drugs, and so on. Firms must price higher than marginal cost to make profits (to cover the cost of the first copy). Because, as a result, average cost falls with increasing production, there are substantial returns to scale and market failures.

Network externalities, or demand side increasing returns, are a common feature of the new economy. They exist when a rise in profitability results from the fact that a commodity becomes demanded (and purchased) by greater numbers of people. In this case large scale is helpful because of the fact that the goods value increases with the number of people using it (think, e.g., of Microsoft Windows).

Serial monopoly occurs because of the advantage that large firms have over small firms in the cases where network externalities and increasing returns to scale exist.

Incomplete contracts that are common in the new economy also lead to market failures. Enforcing intellectual property rights is difficult at the consumer end (think, e.g., of the difficulties faced by the music and entertainment industries from piracy and file sharing). If these rights are not enforced, however, it is difficult for the innovating firms to make profits, thereby eliminating the profit motive.

4. The Weightless Economy and the Invisible Hand

The imperatives and features of the new economy militate against the institutions of the old economy, even with competition. The rules of the old economy lead to inefficient outcomes in the new economy.

A comparison with another form of organization that is similar in key respects to the new economy—the hunter-gatherer society—suggests some solutions to these contradictions. The lessons to learn are that competition for individual gain are not the only way to organize society, that extreme inequalities make cooperation difficult, and that contracts are only one way to facilitate human cooperation—trust and moral norms are other possibilities.

Thus, there is potential for a third way of social organization—through the community.

The tensions between the economic fundamentals of the new economy and the legal relations of private property will have to be resolved, most likely by developing new institutions (see box "Fugitive resources" on page 549).

5. Conclusion

Capitalism has created a much more dynamic and richer world. However, new institutions may be required for further progress. Capitalism has also created elites who may be loath to tamper with systems that have delivered much to them. However, if this does not occur, there may be a world that is economically inefficient, with environmental crisis and large-scale inequality.

ACTIVITIES AND DISCUSSION

1. The contrasting systems of property rights within the computer software/OS industry for Linux and Microsoft provides an extremely good starting point to discuss the contradictions between information technology and private property rights in terms of efficiency.

Eric Raymond's The Cathedral and the Bazaar is a good source for information on the open-source industry. Two questions may be asked to open discussion. In what ways do the property rights for using Linux and Microsoft differ? In what ways is Linux more efficient and why? Why is Microsoft more popular if Linux is less prone to viruses?

2. The following questions may be asked to generate discussion on intellectual property rights. It is particularly useful to connect this to issues like the AIDS epidemic as it brings to light the crucial inefficiencies often associated with knowledge as a commodity: Why do we have intellectual property rights? What may justify the fact that for years, Africans who have AIDS have not had access to AIDS drugs until the explicit disregarding of intellectual property rights? Why might an intellectual property right be socially inefficient? What would happen to the production of new drugs if intellectual property rights are abandoned? What solutions can you think of to this problem? Several sorts of public intervention are usually suggested at this point.

3. Consider the Internet. What kind of things can you think of that you are able to look up and use now that you were not able to do before? What kinds of things are not available on the Internet that you might want to obtain? What do these changes say about information as a commodity?

4. Students may enjoy looking at P. Lyman, H. R. Varian, J. Dunn, A. Strygin, and K. Swearingen (2000), "How Much Information?" School of Information Management and Systems at University of California at Berkeley. This is available from http://www.sims.berkeley.edu/how-much-info/summary.html Students can be asked to report interesting findings from the Web site.

TEACHING TIPS AND MODULES

Difficult Points

1. Change in society: The chapter implicitly takes the position that change in the institutional features of society can be generated by changes in the technological features of production. This can be a subtle and difficult concept to teach. One way to teach this is to speak briefly about the various theories about change in society and the historical materialist conception. This could be done with reference to Cohen's "Karl Marx's Theory of History" (cited below in full).

2. The similarities between the problems faced by hunter-gatherer societies and companies in the new economy can be difficult to grasp. Teaching Module 20.1, Software and Hunter Gatherers, provides a comparison between the two.

Teaching Module 20.1:   Software and Hunter-Gatherers

To Teach: The similarities and contrasts between hunter-gatherer problems and those of a typical software company.

Present and discuss the following table.

Short Essay Questions

1. In what ways might the environmental impacts of capitalism be reduced?

2. What does it mean that "information is a fugitive resource"? What does this say about the current system of property rights as information becomes a more important commodity?

3. In what ways (and why) does the text suggest that the information sector has grown?

4. If you had to design a system whereby life-saving drugs were to be researched, designed, and produced, what would this system look like?

Multiple Choice Questions

20.1 An evolutionary universal is
    a) An institution that is everywhere
    b) An institution that is inevitable
    c) An institution that is durable*
    d) An institution that is responsible for evolution

20.2 The idea that capitalism is an evolutionary universal is associated with
    a) Talcott Parsons*
    b) Karl Marx
    c) Ronald Coase
    d) John Maynard Keynes

20.3 According to Marx, which of the following was likely to occur?
    a) Capitalism would endure
    b) Capitalism would be superseded because of scientific development*
    c) Capitalism would survive financial crises
    d) Communism would be Soviet-style

20.4 Which of the following are ways in which environmental impacts of capitalism could be reduced?
    a) Environmentally friendly technology
    b) Reduce work hours
    c) Trade emissions permits
    d) All of the above*

20.5 In what ways has the information sector grown?
    a) Storing information is cheaper
    b) More information can be and is transmitted
    c) There is more investment in computers
    d) All of the above*

20.6 Which of the following is a feature of the weightless economy?
    a) More goods are produced than services
    b) Information technology is a small part of national income
    c) Most of the input in production is information and ideas*
    d) Services are provided within the family unit

20.7 All of the following are reasons why the new economy has substantial market failure except
    a) Information is difficult to come by*
    b) Increasing returns to scale in new economy industries
    c) Network externalities
    d) Incomplete contracts

20.8 What might occur if intellectual property rights are not enforced?
     a) The profit motive to invest will disappear*
     b) Prices will rise
     c) The good or service will not be produced
     d) All of the above

20.9 The hunter-gatherer society examples in the text suggest which of the following?
     a) Extreme inequalities between people make cooperation difficult
     b) Contracts are not the only way to facilitate exchange
     c) Competition for individual gain is not the only way to organize society
     d) All of the above*

20.10 Which of the following are ways in which economic activities can be successfully coordinated?
     a) Market competition
     b) Government regulation
     c) Community interactions
     d) All of the above*

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