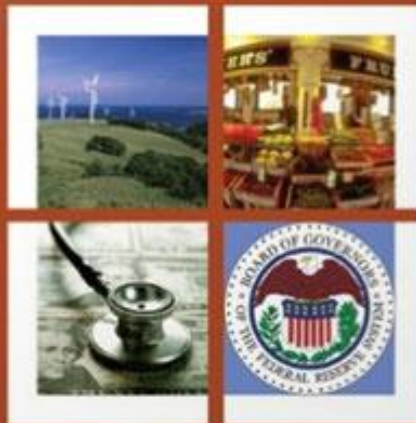


# SOLUTIONS MANUAL

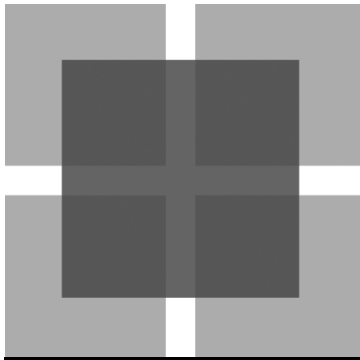
*Essential Foundations of*

## Economics



ROBIN BADE  
MICHAEL PARKIN

*Fifth Edition*



# The U.S. and Global Economies

## Chapter 2

### ANSWERS TO CHAPTER CHECKPOINT

#### ■ Study Plan Problems and Applications

1. Explain which of the following items are *not* consumption goods and services:
  - **A chocolate bar**  
A chocolate bar is a consumption good.
  - **A ski lift**  
A ski lift is not a consumption good. It is capital that produces a service for skiers.
  - **A golf ball**  
A golf ball is a consumption good.
2. Explain which of the following items are *not* capital goods:
  - **An auto assembly line**  
An auto assembly line is a capital good.
  - **A shopping mall**  
A shopping mall is a capital good.
  - **A golf ball**  
A golf ball is not a capital good. It is a consumption good.
3. Explain which of the following items are *not* factors of production:
  - **Vans used by a baker to deliver bread**  
Vans used to deliver bread are capital, so they are factors of production.
  - **1,000 shares of Amazon.com stock**  
1,000 shares of Amazon.com stock are not a factor of production. The shares represent partial ownership of Amazon.com and therefore are financial capital.
  - **Undiscovered oil**  
Undiscovered oil is not a factor of production because it is not used to

produce goods or services. Once it is discovered, it will become a factor of production.

Use the following information to work Problems 4 to 6.

**Why is income inequality in America so pronounced? Consider education**

**Outsourcing, immigration, and the gains of the super-rich are the most common reasons for the income inequality in America. Tyler Cowen disagrees: The problem is largely the lack of education. To date, outsourcing is not yet common enough to have much effect. Immigration doesn't account for much of the change in the wages paid to unskilled workers since 1950. Advances in technology raise the incomes of highly skilled workers. Inequality will be reduced if more people undertake education.**

Source, *The New York Times*, May 17, 2007

- 4. If outsourcing were to have a big effect on the personal distribution of income in Figure 2.1, how would the distribution have changed?**

The typical argument made about outsourcing is that lower-skilled jobs tend to be outsourced. If outsourcing had a big effect on the personal distribution of income, less of the nation's income would go to lower paid, lower skilled U.S. workers (because their jobs were outsourced). This change would make the distribution of income less equal.

- 5. Immigrants to the United States include unskilled workers from Mexico and skilled workers from countries such as India and China. How would each of these types of immigrants influence the personal distribution of income.**

The unskilled workers would probably decrease the fraction of income going to the poorest 20 percent because these immigrants lower the wage rate this group receives. The skilled workers likely would decrease the fraction of income going to the higher income groups because increased numbers of these immigrants lower the (already high) wage rates paid these (high) skilled workers.

- 6. Explain how more people undertaking education will change the personal distribution of income in the United States.**

If more people increase their education, then the personal distribution of income will become more equal. There will be fewer low-skilled workers, so the wages paid to low-skilled workers will rise. And there will be more high-skilled workers, so the wages paid to high-skilled workers will decrease. On both counts, the distribution of income will become more equal.

- 7. A Job Creation through Entrepreneurship Act, debated in the House of Representatives in 2009, would award grants to small business owners, some of which would be aimed at women, Native Americans, and veterans. The Act would provide \$189 million in 2010 and \$531 million be-**

tween 2010 and 2014. Explain how you would expect this Act to influence *what, how, and for whom* goods and services are produced in the United States.

The answer to the *what* question would change because more of the goods and services produced by the groups receiving the grants—small business owners, particularly women, Native Americans, and veterans—would be produced. If these groups of producers produced their goods and services using different technologies than the rest of the producers, then the question of *how* goods and services would change. *For whom* goods and services are produced would change because the producers receiving the subsidies would have larger profits and therefore be able to buy more of the goods and services produced.

8. Indicate on a graph of the circular flow model, the real or money flow in which the following items belong:

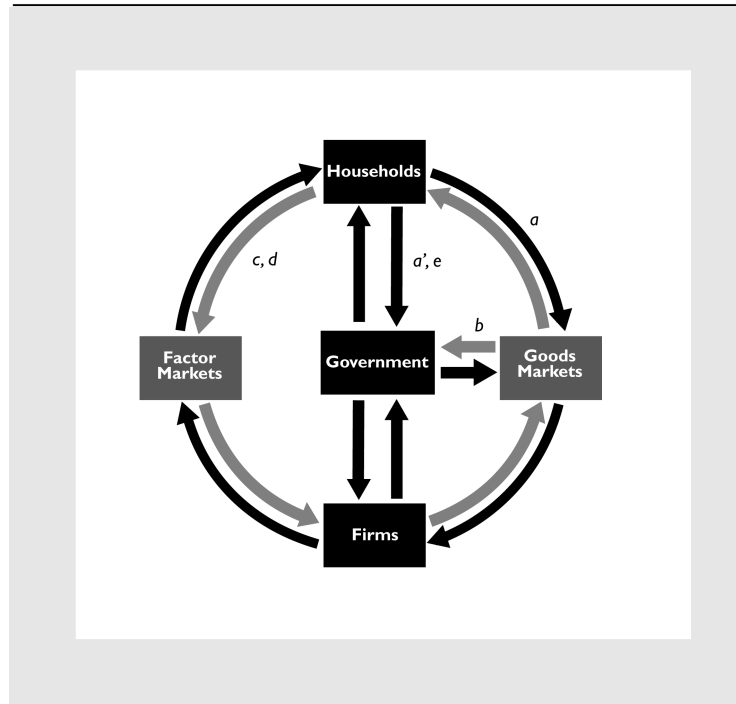
- You pay your tuition.

In Figure 2.1 the dark arrows represent money flows and the grey arrows represent flows of goods and services and factors. If you go to a private school, your tuition is a money flow from households to the goods market, labeled *a* in the figure. If you go to a state run school, your tuition is a money flow from households to the government, labeled *a'* in the figure.

- The University of Texas buys some Dell computers.

The purchase of computers by the state-run University of Texas represents a flow of computers from the goods market to the government, labeled *b* in the figure.

**FIGURE 2.1**  
Chapter Checkpoint Problem 8



- **A student works at FedEx Kinko's.**

The student working at FedEx Kinko's is a factor of production, so the flow is a flow of the services of factor of production from households to the factor markets, labeled  $c$  in the figure.

- **Donald Trump rents a Manhattan building to a hotel.**

Donald Trump's building in Manhattan is a factor of production, so the flow is the services from this factor of production from households to the factor markets, labeled  $d$  in the figure.

- **You pay your income tax.**

Your income tax payment is a money flow from households to the government and is labeled  $e$  in the figure.

## ■ Instructor Assignable Problems and Applications

### 1. Buzz surrounds Apple's iPhone. Can you explain:

- **Why doesn't Apple manufacture the iPhone at its own factory in the United States?**

Apple wants to manufacture the iPhone at the lowest possible cost. It would be more expensive for Apple to manufacture the iPhone at its own factory in the United States because Apple does not have the expertise possessed by its subcontractors and because the wages Apple would need to pay U.S. workers exceed the wages its subcontractors need to pay their workers.

- **Why doesn't Apple offer a cheaper version of the iPhone without a camera?**

Apple has determined that it is more profitable to include a camera in all iPhones than to sell a version without it. According to the table in the textbook, the camera's cost is only \$11. For Apple to sell an iPhone without a camera and make the same profit as it does with its current iPhones, Apple could cut the price by only \$11, which would bring Apple a vanishingly small increase in sales.

- **In view of the cost of producing an iPhone (in the table on p. 44), why do you think the price of an iPhone is so high? What other costs must be incurred to bring the iPhone to market other than the cost of manufacturing it?**

Major costs not included in the table are marketing and distribution costs as well as research and development costs. The marketing costs for the iPhone, such as advertising and other promotions, are high. The distribution costs of the iPhone also are high. Apple also incurs significant costs to develop and design their iPhones.

### 2. Explain which of the following items are *not* consumption goods and services:

- **An interstate highway**

An interstate highway is not a consumption good. It is part of the nation's capital that is used produce goods and services.

- **An airplane**

An airplane is not a consumption good. It is capital that produces transportation services.

- **A stealth bomber**

A stealth bomber is not a consumption good. It is capital that produces defense services.

### 3. Explain which of the following items are *not* capital goods:

- **An interstate highway**

An interstate highway is a capital good.

- **An oil tanker**  
An oil tanker is a capital good.
  - **A construction worker**  
A construction worker is not a capital good. A construction worker is a factor of production.
4. **Explain which of the following items are *not* factors of production:**
- **A garbage truck**  
A garbage truck is a piece of capital and a factor of production.
  - **A pack of bubble gum**  
A pack of bubble gum is not a factor of production. It is a consumption good.
  - **The President of the United States**  
The President of the United States is a worker and so is a factor of production.
5. **Explain which of the following pairs does not match:**
- **Labor and wages**  
Labor earns wages, so this pair matches.
  - **Land and rent**  
Land earns rent, so this pair matches.
  - **Entrepreneurship and profit**  
Entrepreneurship earns profit, so this pair matches.
  - **Capital and profit**  
Capital earns interest, so this pair does not match.
6. **Compare the scale of agricultural production in the advanced and developing economies. In which is the percentage higher? In which is the total amount produced greater?**
- Agriculture is a small part of total production in advanced economies. It is a much larger part in developing economies. Even though advanced economies devote only a small part of their total production to agriculture, they still produce about one third of the world's total production of food. The remaining two thirds is produced in the developing nations.
7. **Think about the trends in what and how goods and services are produced in the U.S. and global economies. Which jobs will grow fastest in the future? What will happen to the quality of labor over the next decade?**
- During the next decade, in general we can expect that jobs in the services will grow the fastest. For instance, we can expect jobs in the medical care field to increase. This prediction is based on the expectation that as our population ages, we will spend even more on health care. However, based on the fact that services have been growing over time, it seems likely that more and more people will find jobs providing services rather than

goods. In the next decades as technology advances, we will see more jobs that require a highly skilled labor force. These jobs might be providing goods, such as researchers for computer chip manufacturers, or they might be providing services, such as Internet search.

The quality of labor will continue to increase. The quantity of human capital will continue to grow as technology expands and as the delivery of education changes (i.e. more distance-based learning that provides more people greater access to education).

#### **8. China's prosperity brings income gap**

**A study by the Asian Development Bank [ADB] reports that China has the largest gap between rich and poor in Asia. Ifzal Ali, the ADB's chief economist claims it is not so much that the rich getting richer and the poor getting poorer, but that the rich are getting richer faster than the poor.**

*Source: Financial Times, August 9, 2007*

**Explain how the personal income distribution in China can be getting more unequal even though the poorest 20 percent are getting richer.**

The distribution of income in China can be getting more unequal even when the poorest 20 percent are getting richer because the richest 20 percent are getting richer even faster. Because the rich are getting richer faster, the fraction of the nation's total income received by the poorest 20 percent falls, which makes the personal income distribution more unequal.

#### **9. In the African nation of Senegal, to enroll in school a child needs a Birth Certificate that costs \$25. This price is several week's income for many families. Explain how this requirement is likely to affect the growth of human capital in Senegal. Predict the effects of this requirement on the human capital of girls and women and explain your prediction.**

Human capital growth depends, in part, on the extent of schooling: More schooling means more human capital. Because of Senegal's hefty fee for a required Birth Certificate, fewer children will enroll in school, thereby decreasing the growth of human capital in Senegal.

The birth certificate requirement decreases the number of children enrolled in school and thereby decreases their human capital. In many underdeveloped nations education of females takes second place to education of males. So it is extremely likely that in Senegal the expensive Birth Certificate requirement strikes particularly hard at females. The human capital of girls and women in Senegal probably is significantly lower as a result of this requirement.

#### **10. On a graph of the circular flow model, indicate in which real or money flow the following items belong:**

- **General Motors pays its workers wages.**

General Motors wage payment is a money flow that is a payment for



use of the services of a factor of production and so flows out of the factor market to households (it flowed into the factor market from General Motors, a firm). In Figure 2.2 the dark arrows represent money flows and the grey arrows represent flows of goods and services and factors. The flow of wage payments to households is labeled *a* in the figure in Figure 2.2.

- **IBM pays a dividend to its stockholders.**

IBM's dividend payment is a money flow that is a payment for

use of the services of a factor of production and so flows out of the factor market to households (it flowed into the factor market from IBM, a firm). The flow to households is labeled *b* in the figure.

- **You buy your groceries.**

Your purchase of groceries represents a money flow from households to the goods market, labeled *c* in the figure.

- **Chrysler buys robots.**

The robots are factors of production, so the flow is the services from these factors of production from the factor markets to firms, labeled *d* in the figure.

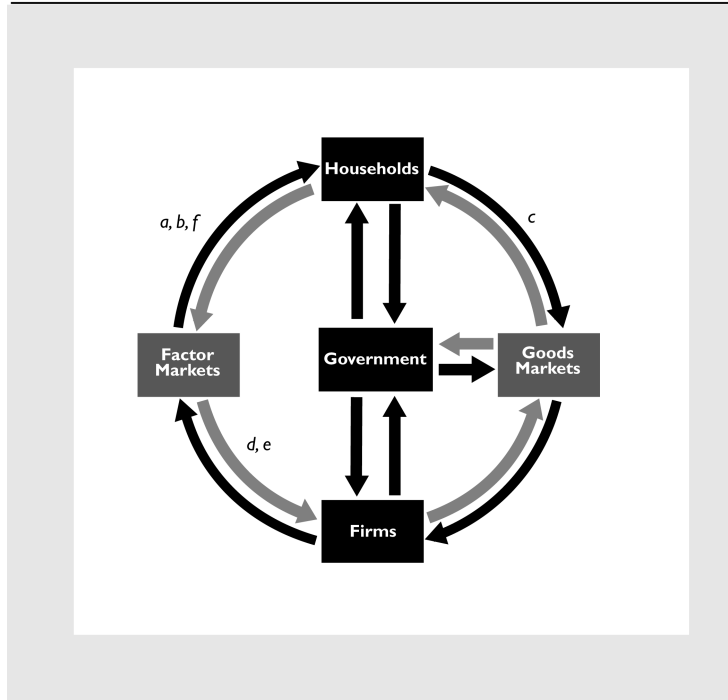
- **Southwest rents some aircraft.**

The aircraft are factors of production, so the flow is the services from these factors of production from the factor markets to firms, labeled *e* in the figure.

- **Nike pays Tiger Woods for promoting its golf ball.**

Tiger Woods is a factor of production, so the flow is a money flow from the factor markets to households in exchange for Mr. Woods' services of promoting the golf balls. The flow is labeled *f* in the figure.

**FIGURE 2.2**  
Chapter Checkpoint Assignable Problem 10



Use the following information to work Problems 11 and 12.

**Poor India makes millionaires at fastest pace**

India, with the world's largest population of poor people living on less than a dollar a day, also paradoxically created millionaires at the fastest pace in the world in 2007. Millionaires increased by 22.7 per cent to 123,000 (measured in dollars). In contrast, the number of Indians living on less than a dollar a day is 350 million and those living on less than \$2 a day is 700 million. In other words, there are 7,000 very poor Indians for every millionaire.

Source: *The Times of India*, June 25, 2008

11. How do you think the personal distribution of income in India is changing as the number of millionaires are growing at a "blistering pace"?

If the number of millionaires is growing more rapidly than the number of other income groups, it will be the case that the personal distribution of income in India is becoming less equally distributed.

12. Why might incomes of a \$1 a day and \$2 a day underestimate the value of the goods and services that these households actually consume?

The people living on \$1 and \$2 a day probably grow a lot of their food and produce a lot of their clothing and shelter. If these goods and services are not taken into account, their share of goods and services is understated. Including them raises the value of the goods and services these households actually consume.

Use the following information to work Problems 13 to 15.

According to the International Telecommunications Union the global economy has three cell phone users for every fixed line user. Two in every three cell phone users lives in a developing nation and Africa has the fastest growth rate in cell phone users. In 2000, 1 African in 50 had a cell phone. In 2008, that number was 14 in 50.

13. Describe the changes in *what* telecommunication services the global economy produces.

As the number of cell phone users increases, the global economy has been producing more cell phone telecommunication services. More cell phones are produced, fewer land phones are produced, and presumably more cell phone frequencies are used.

14. Describe the changes in *how* telecommunication services are produced in the global economy.

More telecommunication services are being produced using cell phones rather than fixed-line phones.

15. Describe the changes in *for whom* telecommunication services are produced in the global economy.

While the amount of telecommunication services has been rising throughout the world, it definitely has been increasing rapidly in Africa. So more telecommunication services are being produced for residents of Africa as well as the rest of the world.

16. The entire Arctic region is believed to be rich in oil and gas reserves and the cost of extracting these resources keeps falling. On August 5, 2007, a Russian submarine visited the sea bed 2.5 miles beneath the North Pole and planted its nation's flag. Canada, the United States, Russia, Norway, Iceland, and Denmark all claim to "own" seabed in the Arctic Circle. Describe the changes in *what, how, and for whom* arctic oil and gas might be extracted in the future.

If more oil and gas are extracted in the Arctic region, *what* is produced changes to feature more (Arctic) oil and gas being produced. *How* the oil and gas are produced also will change because Arctic oil and gas are produced using different methods than oil and gas produced in other areas of the world. *For whom* oil and gas are produced also changes because with the production in the Arctic region, more oil and gas will be produced, leading to more people being able to consume oil and gas. *For whom* is affected because the people and countries involved in producing the oil and gas will be able to consume more of the world's goods and services.