

## Chapter 8

# The Structure of the United States Economy

*Macroeconomics In Context (Goodwin, et al.)*

### Chapter Overview

This chapter will help you put macroeconomics in its “real world” context. The chapter will provide you with some basic economic literacy, such as understanding the different sectors in the U.S. economy, and the major industries within those sectors. It examines the historical trends within these sectors, providing an overview of the changing economic landscape of the U.S. economy. It also investigates several economic debates, such as the loss of manufacturing jobs and the rising costs of health care.

### Chapter Objectives

After reading and reviewing this chapter, you should be able to:

1. Explain what is meant by the primary, secondary, and tertiary sectors of an economy.
2. Describe the relative magnitude of these sectors in the United States, and how this has changed over time.
3. Describe some major characteristics of agriculture, energy, and other primary sector industries in the United States.
4. Describe some major characteristics of construction, textile manufacturing, and automobile manufacturing industries in the United States.
5. Discuss various explanations given for the decline in manufacturing employment in the United States.
6. Describe some major characteristics of service industries in the United States, especially health care, education, financial and insurance, and retail services.

### Key Terms

primary sector  
secondary sector  
tertiary sector  
financial assets

### Active Review

*Fill in the Blank*

1. The harvesting of forest products would be a component of the \_\_\_\_\_ sector.

2. Whereas the extraction of oil would fall under the \_\_\_\_\_ sector, the refining of petroleum would fall under the \_\_\_\_\_ sector.
3. Utilities, such as electricity production, are a component of the \_\_\_\_\_ sector.
4. Marketing and retailing are a component of the \_\_\_\_\_ sector.
5. The tertiary sector is also called the \_\_\_\_\_ sector.
6. The sector that dominates the U.S. economy, comprising 75% of all output, is the \_\_\_\_\_ sector.
7. While the U.S. has less than \_\_\_\_\_ percent of the world's population, it uses about \_\_\_\_\_ percent of the world's energy.
8. By 2006, the U.S. imported \_\_\_\_\_ percent of its oil, most of it from the countries of \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
9. Stocks, bonds, and money mutual funds are examples of \_\_\_\_\_ assets.
10. Much of the non-monetized economic activity in the core sphere, if counted, would be part of the \_\_\_\_\_ sector.

*True or False*

11. The rudimentary processing of raw materials would fall under manufacturing in the secondary sector.
12. The products produced in the primary sector are generally sold to consumers in households.
13. The primary sector is no longer of great importance to the U.S. economy, given that it represents only about 3% of the U.S. private economy and employs only 1% of U.S. workers.
14. About 60% of the U.S. fishery stocks are being harvested at or over the maximum sustainable level.
15. Between 1995 and 2002 China lost 14.9 million manufacturing jobs, more than the entire current United States manufacturing workforce of less than 14 million.

*Short Answer*

16. Briefly define the primary, secondary, and tertiary sectors.
  
17. How have the shares of the U.S. private economy attributed to each of the three sectors in the U.S. changed over the last few decades of the 20<sup>th</sup> century?
  
18. How have employment patterns in these three sectors changed since the 1960s?
  
19. What factor(s) explains the relative decline of the primary sector in the U.S.?
  
20. What are the current threats to agricultural productivity in the U.S.?
  
21. How does agriculture, an activity primarily in the primary sector, spill over into the secondary and tertiary sectors?
  
22. Where does the U.S. get its oil from (as of 2006)?
  
23. Why is the manufacturing sector in the U.S. losing jobs?
  
24. Critics of the service sector complain that service jobs pay poorly. Is this true?
  
25. (In Appendix) What are the four categories of the tertiary sector in the alternative categorization developed by the authors of the textbook? What kinds of activities are included in each?



2. Suppose the simple economy of Peaceland, above, has decided to cut out some of the activities of the “middlemen” – the people and organizations that are involved in moving products from the producer to the final consumer. They have set up Fair Trade initiatives and have established local farmers’ markets, in order to encourage more of the value of the product to flow directly to the producer, rather than flowing into the pockets of the middlemen. Suppose the table below represents the simple economy of Peaceland after these changes.

Industry	Value Added (in millions of dollars)	Percent of GDP
Agriculture	21	5.6
Transportation	25	6.7
Trade	30	8
Health care and social assistance	21	5.6
Education	24	6.4
Construction	44	11.7
Arts and Recreation	11	2.9
Diplomacy & peacekeeping	80	21.3
Textile manufacturing	65	17.3
Waste management and environmental stewardship	54	14.4
Economy Total	375	100%

Determine the size of the primary, secondary, and tertiary sectors, in terms of percent of GDP. How have the respective sizes changed compared to your answer in problem 1?

3. The oil (petroleum) industry plays an important role in our economy. Using the supply and demand model (that you learned about in Chapter 4), determine how each of the following events would affect the price of oil on the world market. Identify if the event would cause a shift in supply or a shift in demand (*ceteris paribus*), in which direction, and whether the equilibrium price of oil would increase or decrease.

- a. OPEC engages in an oil embargo in 1973

- b. Consumers in the U.S. and Europe start driving more fuel efficient cars in the late 1970s and early 1980s
- c. Saudi Arabia departs from the OPEC agreement and increases its supply of oil in the early 1980s
- d. Consumers in the U.S. start driving more fuel inefficient SUVs and light trucks with low gas mileage in the 1990s
- e. The economies of China and India grow more rapidly in the early 2000s and consumers buy and drive more cars.
- f. Oil production in Iraq, one of the three countries with the largest reserves of oil, is disrupted after the U.S.-led war, invasion and occupation.

### Self Test

1. How large is the U.S. economy?
  - a. The largest in the world.
  - b. The second largest in the world, after China.
  - c. The third largest in the world, after China and India.
  - d. The fourth largest in the world, after China, India and Japan.
  - e. The fifth largest in the world, after China, India, Japan, and Germany.
2. Which of the following would be a primary sector activity?
  - a. Utilities
  - b. Construction
  - c. The selling of houses
  - d. A household growing food in their garden
  - e. A household whose members clean their house
3. Which of the following would *not* be an activity in the primary sector?
  - a. Agriculture
  - b. Commercial fishing
  - c. Mining
  - d. The timber industry
  - e. The food processing industry

4. Maria is a farmworker. Jose is a medical doctor. Robin is a construction worker. Which of them works in the secondary sector?
- Maria
  - Jose
  - Robin
  - All of them do.
  - None of them do.
5. Which of the following would *not* be an activity of the secondary sector?
- Automobile manufacturing
  - Utilities
  - Construction
  - Food processing
  - Transportation of goods to market
6. Sami works on an oil rig. Luis works at an oil refinery. Indira works as a gas station attendant. Which of them works in the tertiary sector?
- Sami
  - Luis
  - Indira
  - All of them do
  - None of them do
7. Which of the following would *not* be an activity of the tertiary sector?
- Cooking home-cooked meals
  - Home construction and renovation
  - Education
  - Services provided by the Red Cross
  - Firefighting services
8. Which of the following best characterizes the historical trends of the secondary sector and its share of the U.S. private economy?
- The share of the secondary sector continued to grow steadily throughout the 20<sup>th</sup> century.
  - The share of the secondary sector started to decline in the early 1980s with the growth of globalization.
  - The share of the secondary sector started to decline in the late 1960s.
  - The share of the secondary sector started to decline in the Great Depression of the 1930s.
  - None of the above.

9. Which of the following best captures how employment is distributed among the sectors?
- a. 50% of all workers are employed in the tertiary sector, while 20% are in the primary sector.
  - b. 75% of all workers are employed in the tertiary sector, while 15% are in the primary sector.
  - c. 83% of all workers are employed in the tertiary sector, while only 10% are in the primary sector.
  - d. 83% of all workers are employed in the tertiary sector, while only 1% are in the primary sector.
  - e. none of the above.
10. Which of the following is *not* one of the trends in agriculture in the U.S.?
- a. The total farm population has declined.
  - b. The total number of farms has decreased.
  - c. The average farm size has decreased.
  - d. Output per acre has increased.
  - e. Output per worker has increased.
11. Which of the following is *not* one of the characteristics of agriculture in the U.S.?
- a. Farms occupy about 42% of the land area in the U.S.
  - b. There are about 2 million farms in the U.S.
  - c. About 92% of the farms are small family farms.
  - d. Large corporate farms account for almost half of the value of agricultural output.
  - e. Almost all farm receipts come from selling crops.
12. Which of the following about energy in the U.S. is *false*?
- a. As of 2005, the U.S. is the world's largest consumer of energy.
  - b. As of 2005, the U.S. is the world's largest producer of energy.
  - c. The U.S. has one of the highest per capita energy usage rates in the world.
  - d. The U.S. has one of the highest energy efficiency rates (energy used per dollar of GDP) in the world.
  - e. The U.S. is heavily dependent on carbon-based fossil fuels for its energy use.

13. Which country or region has the largest supply of known oil reserves, and is expected to supply an increasing share of U.S. oil imports in the future?
- a. Canada
  - b. Mexico
  - c. The Middle East
  - d. Nigeria
  - e. Venezuela
14. The largest manufacturer of goods (measured in value-added) in the world is
- a. China
  - b. India
  - c. Japan
  - d. Germany
  - e. The U.S.
15. Which of the following regarding trends in the housing and construction industry is *false*?
- a. The average size of new family homes has doubled in size from 1970 to 2005, while the number of people living in them has decreased.
  - b. The percentage of Americans who own their own homes has increased between 1970 and 2005.
  - c. The construction industry is very sensitive to the business cycle.
  - d. Housing prices have increased at a faster rate than the rate of inflation.
  - e. The bursting of the housing bubble in 2007 did not affect other sectors of the economy.
16. Which of the following regarding trends in manufacturing is *true*?
- a. The value of manufacturing output has remained fairly constant since 1960.
  - b. Employment in manufacturing has declined by about 30% since 1980, employing about 10% of all workers today.
  - c. The number of workers in manufacturing declined from about 20 million in 1980 to about 14 million today.
  - d. All of the above
  - e. B and C only

17. Which of the following explanations for the decline in employment in U.S. manufacturing is *true*?
- a. Americans are demanding fewer manufactured goods.
  - b. Americans are demanding more manufactured goods produced abroad.
  - c. Advances in productivity have enabled more output to be produced by fewer and fewer workers.
  - d. All of the above
  - e. B and C only
18. What factor helped boost employment in U.S. automobile manufacturing, after the employment decline in the 1970s?
- a. Foreign producers have a cost disadvantage of shipping their products to the U.S.
  - b. The greater productivity of skilled workers enabled U.S. workers to compete against lower skilled low wage workers abroad.
  - c. Foreign companies increasingly located production facilities in the U.S.
  - d. Falling gas prices after the 1970s oil price shocks shifted demand back to larger U.S. made vehicles.
  - e. All of the above.
19. Which of the following about the service sector is *false*?
- a. The average pay of service sector jobs is less than the average pay of manufacturing jobs.
  - b. Trade in services is expanding rapidly, and increased more rapidly than trade in goods between 1980 and 2004.
  - c. Most service jobs can not be off-shored to low-wage nations, and will remain in the U.S.
  - d. The U.S. currently exports more services than it imports.
  - e. None of the above.
20. Which of the following services is a U.S. export?
- a. A U.S. citizen uses the financial services of a bank in Switzerland.
  - b. A German tourist comes to Disneyland for summer entertainment.
  - c. An American student studies abroad at a British university.
  - d. An American obtains medical attention in Mexico for a lower price than attainable in the U.S.
  - e. None of the above.

## Answers to Active Review Questions

1. primary
2. primary, secondary
3. secondary
4. tertiary
5. service
6. tertiary
7. five, twenty-five
8. 60, Canada, Saudi Arabia, and Mexico.
9. financial
10. tertiary
11. False. It would fall under the primary sector.
12. False. They are generally sold as inputs to manufacturers.
13. False. The primary sector still plays an important role in the economy.
14. True.
15. True.
16. The primary sector involves the extraction and simple processing of raw materials which are sold as inputs into the production process. The secondary sector transforms these inputs into final products to consumers. The tertiary sector involves the provision of services, rather than tangible goods.
17. While the tertiary sector's share of the private economy has grown over the last decades of the 20<sup>th</sup> century, both the primary and secondary sectors have declined.
18. Since the 1960s, employment in the secondary sector started to decline, as employment in the primary sector continued its decline. Employment in the tertiary sector increased.
19. Primarily it has been due to technological improvements, which has allowed the products of the primary sector to be obtained with fewer workers.
20. The threats include: the depletion of groundwater supplies, and soil depletion.
21. Much of the processing of food is a manufacturing activity in the secondary sector. The marketing, retailing, and provisioning of food in restaurants are service sector activities in the tertiary sector.
22. As of 2006, the U.S. produces about 40% of its own oil, and imports about 60% from: Canada, Saudi Arabia, Mexico, Venezuela, and Nigeria.
23. The U.S. manufacturing sector is losing jobs for two reasons: manufactured products can be produced more cheaply abroad, and productivity advances (automation) is reducing the overall employment in manufacturing.
24. Yes, on average the pay of service sector jobs are lower than manufacturing, for instance. However, some service sector workers (such as doctors and lawyers) are paid very well.
25. (In Appendix) The four categories are: ownership transactions (e.g. homeownership and activities involved in ownership transfers such as: transportation, warehousing, wholesale and retail trade, and real-estate rental and leasing) managing the system (information, finance and insurance, and professional, scientific, and technical services, etc.), private social services (education, health care, and social services), and entertainment (which includes accommodation and food services).

26. (In Appendix) As our economy has become so much more complex, the service sector has grown to organize and manage this huge complex system, e.g. making connections between buyers and sellers, collect and processing information, etc.

### Answers to Problems

1.

a. For the Primary sector:

Industry	Value Added (in millions of dollars)	Percent of GDP
Agriculture	21	5.3
<b>Primary Sector Total</b>	21	5.3%

b. For the Secondary sector:

Industry	Value Added (in millions of dollars)	Percent of GDP
Construction	44	11.0
Textile manufacturing	65	16.3
<b>Secondary Sector Total</b>	109	27.3%

c. For the Tertiary sector:

Industry	Value Added (in millions of dollars)	Percent of GDP
Transportation	34	8.5
Trade	50	12.5
Health care and social assistance	21	5.3
Education	20	5
Arts and Recreation	11	2.8
Diplomacy & peacekeeping	80	20
Waste management and environmental stewardship	54	13.5
<b>Tertiary Sector Total</b>	270	67.6%

2. Now the primary sector is 5.6% of GDP, the secondary sector is 29%, and the tertiary sector is 64.5%. The tertiary sector has declined while the primary and secondary sectors have increased in size (as percent of GDP).

3.

- a. Supply shifts left; the oil price rises.
- b. Demand shifts left; the oil price falls.
- c. Supply shifts right; the oil price falls.
- d. Demand shifts right; the oil price rises.
- e. Demand shifts right; the oil price rises.
- f. Supply shifts left; the oil price rises.

### Answers to Self Test Questions

1. A
2. D
3. E
4. C
5. E
6. C
7. B
8. C
9. D

10. C
11. E
12. D
13. C
14. E
15. E
16. D
17. E
18. E