

Unemployment and Inflation

PURPOSE

The purpose of this chapter, which is the second of the four chapters focused on efficiency and stability issues, is to help students to consider the topics of unemployment and inflation, their causes, their types, and their effects. This is done in the context of an introduction to the macroeconomy.

Some instructors object to analyzing the problems of unemployment and inflation without a simultaneous consideration of aggregate demand and aggregate supply. I prefer to consider unemployment and inflation first, because I think these concepts are more concrete to students than the more abstract notions of aggregate demand and supply. I believe this chapter prepares the students well for the next chapter covering macroeconomic policy in the context of aggregate demand and aggregate supply. It also presents a second opportunity to use the concept of a price floor, this time in the context of the minimum wage. It also provides the opportunity to discuss the currently controversial topic of immigration. Note that while the topic of the consumer price index is discussed in this chapter, the more technical construction of the CPI is left for Appendix 14–1.

LEARNING OBJECTIVES

The learning objectives for this chapter are:

1. to introduce the student to the concepts of unemployment and inflation.
 2. to clarify for the student the meaning of the labor force participation rate, the unemployment rate, the consumer price index, and the inflation rate.
 3. to help the student compare the different labor force participation rates for men and women at different time periods.
 4. to help the student consider the likelihood of unemployment for people in different racial, ethnic, gender, and age groups.
 5. to help the student assess the employment effects of immigration and the minimum wage.
 6. to help the student consider the effects of inflation on different groups of people.
 7. the reasons for unemployment and inflation, and the severity of their effects on the economy.
 8. to establish for the student the macroeconomic context within which to analyze policies to reduce unemployment and inflation that are discussed in Chapter 15.
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LECTURE SUGGESTIONS

- In my experience, students really need to have the concepts of unemployment and labor force clarified for them, for rarely do they know these basic elements in the calculation of the unemployment rate or labor force participation rate. For example, many students feel that the unemployment rate refers to the share of the total population without jobs.
- In calculating the unemployment rate and the labor force participation rate, I have deliberately ignored the distinction between the civilian and noncivilian labor force. You, on the other hand, may want to discuss these with students. It is interesting for them to realize that someone in the armed services is assumed to be employed (so unemployment rates are lower in times of war).

- This normally “dry” labor market material can be made more relevant for students if discussed in the context of the controversial issues of immigration and the minimum wage.
- When analyzing the impact of immigration and the minimum wage on labor markets, it is important to emphasize that we are looking at specific low-skill labor markets. The effects would be far less significant if we were analyzing the United States labor market as a whole. Students also need to realize that many immigrants are highly skilled and educated.
- Students often become confused with graphs of price ceiling and price floors (and in this case, the minimum wage) because they want to shift a curve. Remind them that they *do not* shift a curve, and that *to be effective*, the minimum wage must be *above* the market equilibrium wage. (The current federal minimum wage would not be effective in most labor markets in the nation.) Also remind them to show the quantity of labor demanded and supplied along the quantity axis (not inside the graph somewhere!).
- The primary purpose of defining the CPI is to calculate the inflation rate. (This is why I placed its construction in Appendix 14–1.) I do find that some students face difficulty when they try to translate the inflation rate represented by a decimal into one represented as a percent. They simply lack the basic mathematics involved in this simple procedure. That’s why I like to go through several examples with them. (The same is true when calculating an unemployment rate and a labor force participation rate.)
- Most people tend to feel they are harmed by inflation and believe their purchasing power obviously goes down during a period of inflation. We as instructors need to clarify this misconception for our students. You may also want to talk to them about the effects of inflation on owners of various assets.
- At one time, an issue involving the nation’s budget deficit was how to calculate the cost of living adjuster built into social security benefits. Because the CPI is considered to overstate the rate of inflation, the COLA is overstated as well. Much analysis went into calculating the savings that would accrue to the government if the CPI and COLA were adjusted downward. In the end, the CPI was left alone, for now.
- As in other chapters with numerical data, I usually encourage students to know “ballpark numbers” for important statistics (such as the current inflation rate), trends (such as the rise in labor force participation rates), and comparisons (such as which minority group has the highest unemployment rate). You may wish to encourage the same.
- The discussion of structural unemployment is particularly important in the context of international trade. Students learned that unemployment can occur in certain segments of the labor force due to changes in trade relations. This translates into nationalistic-populist rhetoric about trade restrictions. We need to assure our students that our country does benefit from free trade and that any structural unemployment that results from our trade relations should be dealt with in the ways discussed in this chapter and not with trade protections.

ADDITIONAL DISCUSSION AND ACTION QUESTIONS

Some of the following additional discussion questions may be helpful in preparing lectures.

1. Consider the population of a small country, assuming that the number of people in each category is as follows:

total population = 1,200	people working full time for pay = 420
children under age 16 = 200	people working part time for pay = 120
elderly retired people = 300	people not working but seeking employment = 60
full-time students = 20	people not working but have given up seeking employment = 50
full-time homemakers = 30	

Calculate the labor force participation rate (60%). Calculate the unemployment rate (10%). How does the unemployment rate understate the problem of unemployment? Is there any reason to think that the unemployment rate might overstate the problem of unemployment (e.g. people say they are looking for jobs, but they really are not)?

2. Looking into the future, consider a country with the following data:
 - Year 2012 CPI = 102
 - Year 2011 CPI = 100
 Calculate the inflation rate for the year 2012 (2%).
3. Identify the following unemployment situations as frictional, structural, or cyclical unemployment:
 - a. Jobs are available in the sunbelt area of the United States, but an unemployed worker living in Iowa cannot move to the sunbelt because of family responsibilities. (structural)
 - b. Demand for output in the United States has fallen due to falling incomes that result from job layoffs caused by recession. (cyclical)
 - c. A middle-aged man returns to the labor force after staying home to care for his children when they were young and experiences a short delay in finding a job. (frictional)
 - d. An unemployed mother lives in the central city of Chicago, and lacks transportation to take her to the suburbs where jobs are available. (structural)
 - e. A college student graduates from college, and finds that it takes a few months before finding a job. (frictional)

SOME ANSWERS AND COMMENTS ON THE TEXT DISCUSSION QUESTIONS

1. Macro: unemployment, inflation, budget deficits, national debt, government spending, government taxes, macroeconomic policy. Micro: market structure, income distribution and poverty, environment, crime, social security, housing, healthcare, agriculture, discrimination, and education. (Some of these, as well as international topics, overlap.) The forest consists of the trees.
2. Women's labor force participation rates are affected by a number of factors. Women have been attracted into the labor force in rising numbers since World War II. More and different jobs have recently become available for women, which has increased their likelihood of working. Women, however, are still the primary caregivers in most U.S. homes, and many choose to be full time homemakers, especially when their kids are young.

Labor statistics from developing countries are difficult to rely on, partly because different countries calculate them differently. People in developing countries have told me things like "Poor people cannot afford to be unemployed. If they are unemployed, they die." (If this is correct, then people find some kind of job or another.) I have also been told that only the rich can afford to be unemployed. These are people who are looking only for "desirable jobs" and can afford to remain unemployed in the meanwhile. On the other hand, informal labor (prevalent in developing countries) is not always tabulated. This will distort the employment statistics. Finally, while there is variation, the population of children (outside the formal labor force) is very high compared to the adult population. And, because child labor laws are often nonexistent or not enforced in developing countries, many children work. All of these factors make comparisons between countries difficult.
3. Students may choose to answer. Perhaps you want to relay your experience of seeking your first teaching job!
4. Student activity.
5. Student activity.
6. As new jobs are being created, discouraged workers may see their acquaintances taking new jobs and also decide to look for jobs themselves. As these discouraged workers re-enter the labor market and discover there are still not enough jobs to go around to all, they are now counted in the statistics as unemployed, thereby raising unemployment rates. The opposite may be true during a period of job loss.
7. The effects of unemployment on the individual (and family) may include job loss, benefit loss, health deterioration, loss of experience, loss of self-esteem, and so on. The effect on the economy is forgone output, and the effects on society seem to be greater violence, alcoholism, mental illness, and so on. The individual and social effects are certainly more concrete than the effect on the economy.

8. Student answers will vary, but as always look for the economic reasoning that underlies their answers. Structural unemployment can be reduced with programs for training and retraining, education, childcare, affirmative action, transportation, and relocation. You probably know of others.
9. Student activity.
10. Policy may be inappropriate if unemployment and inflation rates are inaccurate. Double check the BLS website to verify student answers. Do the students understand the numerator and the denominator that constitute full employment?
11. Student activity.
12. Answers will vary, but make sure students understand the basis for their answers.
13. Student answers will vary.

SUGGESTED TEST QUESTIONS

Multiple-Choice Questions

1. Which of the following is a *microeconomic* topic?
 - a. inflation
 - b. total GDP
 - c. the overall economy
 - d. an individual market**
2. The unemployment rate is calculated as:
 - a. the percentage of the labor force that is unemployed.**
 - b. the percentage of the population that is unemployed.
 - c. all people without jobs, as a percentage of the labor force.
 - d. all people without jobs, as a percentage of the population.
3. The labor force participation rate is calculated as:
 - a. the percentage of the population age 16 or older that is unemployed.
 - b. the percentage of the population age 16 or older that is in the labor force.**
 - c. the percentage of the entire population that is unemployed.
 - d. the percentage of the labor force age 16 or older that is employed.
4. The unemployment rate understates the true problem of unemployment because of:
 - a. the limited hours for some part-time workers.
 - b. the plight of discouraged workers.
 - c. the plight of people who have given up looking for a job.
 - d. All of the above**
5. Unemployment rates are above the national average for:
 - a. Hispanics.
 - b. African Americans.
 - c. teens.
 - d. All of the above**
6. A young woman experiences a short delay in finding a better job after she quits an unsatisfactory job. This type of unemployment is:
 - a. frictional.**
 - b. structural.
 - c. cyclical.
 - d. None of the above

7. A middle-aged autoworker is laid off from his job after improved technology (robotics) reduces the need for workers. This type of unemployment is:
- frictional.
 - structural.**
 - cyclical.
 - None of the above
8. Which of the following *would not* be used to reduce structural unemployment?
- retraining assistance
 - relocation assistance
 - policies to expand GDP**
 - policies to expand education
9. Full employment means:
- no cyclical unemployment.**
 - no frictional unemployment.
 - no structural unemployment.
 - no unemployment at all.
10. According to the text, which of the following is true about immigration?
- It is controversial.
 - We are a nation of immigrants.
 - We benefit from cultural diversity.
 - All of the above**
11. Large-scale immigration of low-skill immigrants can result in:
- a lower wage in low skill labor markets.
 - higher overall employment in low skill labor markets.
 - lower employment of native-born workers in low skill labor markets.
 - All of the above**
12. What is the effect of a minimum wage in a low-skill labor market?
- a higher wage
 - a higher quantity of labor supplied
 - a lower quantity of labor demanded
 - All of the above**
13. The consumer price index (CPI) is generally assumed by economists to:
- overstate the inflation rate.**
 - understate the inflation rate.
 - measure inflation extremely accurately.
 - None of the above
14. Inflation may cause:
- menu costs.
 - uncertainty and inefficiency.
 - redistribution of purchasing power.
 - All of the above**
15. Hyperinflation refers to:
- extremely low inflation.
 - extremely high inflation.**
 - inflation caused by hyperbole.
 - inflation caused by normal, everyday conditions in the economy.

16. The direct exchange of goods and services for other goods and services refers to:
- cost of living adjustment.
 - barter.**
 - hyperinflation.
 - purchasing power.
17. The 2017 U.S. inflation rate was:
- between 2% and 3%.**
 - between 6% and 7%.
 - approximately 12%.
 - over 20%.
19. Which racial/ethnic group has the highest unemployment rate?
- African Americans**
 - Hispanics
 - Asian Americans
 - Whites
20. Which of the following is true about the United States labor force participation rate since 1964?
- It has increased overall.
 - It has increased for women.
 - It has decreased for men.
 - All of the above**
21. Which type of inflation can result from rising energy prices that cause production cost increases?
- profit–push inflation
 - demand–pull inflation
 - cost–push inflation**
 - None of the above

True-and-False Questions

- The problem of unemployment for the macroeconomy is the reduction in output that results. (T)
- Frictional unemployment is assumed to be fairly normal and temporary. (T)
- Because of its short duration, structural unemployment is assumed not to be very serious. (F)
- Cyclical unemployment results from a drop in economic activity in our economy as a whole. (T)
- Full employment means there is no unemployment. (F)
- Since 1964, the United States labor force participation rate has decreased. (F)
- According to the official definition of unemployment, unemployed people include those who have given up seeking employment. (F)
- The labor force is defined to include unemployed people. (T)
- Discouraged workers are defined as people who are easily discouraged and quit their jobs. (F)
- The type of unemployment caused by recession is cyclical unemployment. (T)
- The appropriate policy for structural unemployment is to expand the number of jobs in the economy overall. (F)
- A minimum wage in a low-skill occupation will cause a shortage of labor. (F)
- U.S. labor force participation rates are currently higher for men than for women. (T)
- The 2017 unemployment rate was between 4% and 5% percent. (T)

15. The consumer price index (CPI) overstates the inflation rate due to its failure to fully account for changes in our purchases and changes in quality. (T)
16. Inflation may cause inefficiency and redistribution of purchasing power. (T)
17. Demand-pull inflation occurs when any sectors of the economy increase their demand for goods and services. (T)
18. Cost-push inflation occurs when there are increases in the costs of production, such as rising energy costs. (T)
19. The purchasing power of Social Security recipients suffers as a result of inflation. (F)
20. Purchasing power depends on both prices and incomes. (T)
21. The unemployment rate for teens (age 16–19) is very high. (T)
22. The United States labor force participation rate is over 60 percent. (T)
23. The Earned Income Tax Credit could be used to supplement the earnings of low-wage workers, but it would greatly discourage people from seeking a job. (F)
24. The quotations that open the chapter show both Presidents Obama and Trump announcing positive labor market situations. (F)
25. When we take into account various economic variables, we conclude that immigration presents very positive effects on our economy and people. (T)
26. Since 1960, U.S. unemployment rates have generally ranged above 10 percent. (F)
27. In the long run we can expect immigration to reduce economic growth. (F)
28. Inflation in one country has no international effect. (F)
29. Unemployment rates for some countries listed in the text are can be relatively high, but never exceed 20%. (F)
30. Inflation rates for some countries listed in the text have inflation rates above 300%. (T)

Short-Answer Questions

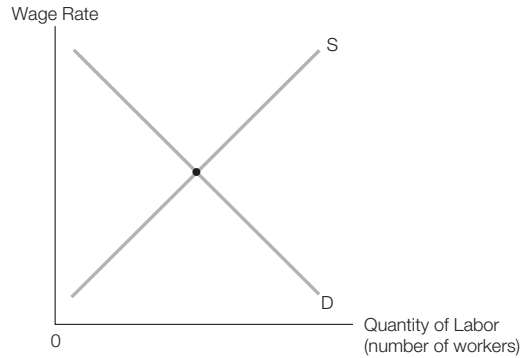
1. Consider the population of a (very) small country and calculate its labor force participation rate (**50%**) and unemployment rate (**5%**). Assume that the number of people in each category is as follows:

total population = 240	people working full time for pay = 75
children under age 16 = 40	people working part time for pay = 20
elderly retired people = 65	people not working but seeking employment = 5
full-time students = 10	people not working but have given up seeking employment = 5
full-time homemakers = 20	
2. Looking into the future, consider a country with the following data:

year 2012 CPI = 110
year 2011 CPI = 100

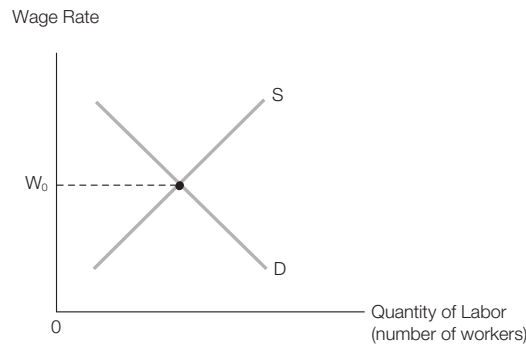
Calculate the year 2012 inflation rate (**10%**).

3. Consider the graph of a low-skill labor market, where D is the demand for low-skilled workers by business firms, and S is the supply of native-born U.S. workers who offer their labor services in the low-skill labor market. Show the shift that occurs with large-scale immigration of low-skilled workers into the United States. (**Supply shifts forward**) What is the effect on the wage rate? (**decrease**) On overall employment? (**increase**) On employment of native-born U.S. workers? (**decrease**)



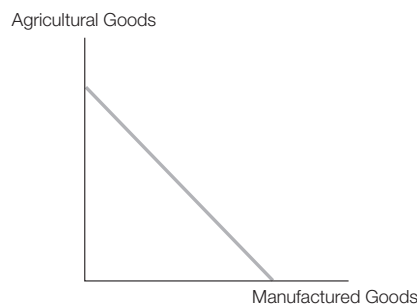
A Low Skill Labor Market

4. Consider the graph of a low-skill labor market, where D is the demand for low-skilled workers and S is the supply of low-skilled workers. The equilibrium wage rate is W_0 . Label an effective minimum wage W_M along the wage axis. (**It must lie above the equilibrium wage to be effective.**) Label the new quantity demanded of labor (Q^D) and the new quantity supplied of labor (Q^S) along the employment axis. What is the economic problem that results? (**surplus of labor, i.e., unemployment**)



A Low Skill Labor Market

5. Label a point U (representing unemployment) in the production possibilities graph below. What is the problem it creates for the economy as a whole? (**forgone output**)



Production Possibilities Graph for Agricultural and Manufactured Goods

Critical Thinking Question

If you were a policymaker, what types of strategies and policies would you devise to deal with unemployment in the United States? Keep in mind the different types of unemployment and the different unemployment rates for different groups of people.

INTERNET RESOURCES

<http://stats.bls.gov>

(This website for the Bureau of Labor Statistics site provides an overview and a keyword search for information.)

<http://stats.bls.gov/data/>

(This Bureau of Labor Statistics site may provide you more direct historical statistics on unemployment and consumer prices through the most requested series.)

<http://www.census.gov>

(The website of the United States Census Bureau provides data on prices and many other variables.)

<http://www.worldbank.org>

(This site provides labor market and inflation statistics for the countries of the world.)