Chapter 8  
Business Cycles

■ Multiple Choice Questions

1. One of the first organizations to investigate the business cycle was  
   (a) the Federal Reserve System.  
   (b) the National Bureau of Economic Research.  
   (c) the Council of Economic Advisors.  
   (d) the Brookings Institution.  
   Answer: B  
   Level of difficulty: 1  
   Section: 8.1

2. The trough of a business cycle occurs when _____ hits its lowest point.  
   (a) inflation  
   (b) the money supply  
   (c) aggregate economic activity  
   (d) the unemployment rate  
   Answer: C  
   Level of difficulty: 1  
   Section: 8.1

3. The low point in the business cycle is referred to as the  
   (a) expansion.  
   (b) boom.  
   (c) trough.  
   (d) peak.  
   Answer: C  
   Level of difficulty: 1  
   Section: 8.1

4. When aggregate economic activity is increasing, the economy is said to be in  
   (a) an expansion.  
   (b) a contraction.  
   (c) a peak.  
   (d) a turning point.  
   Answer: A  
   Level of difficulty: 1  
   Section: 8.1
5. When aggregate economic activity is declining, the economy is said to be in
   (a) a contraction.
   (b) an expansion.
   (c) a trough.
   (d) a turning point.
   Answer: A
   Level of difficulty: 1
   Section: 8.1

6. Peaks and troughs of the business cycle are known collectively as
   (a) volatility.
   (b) turning points.
   (c) equilibrium points.
   (d) real business cycle events.
   Answer: B
   Level of difficulty: 1
   Section: 8.1

7. Who officially determines whether the economy is in a recession or expansion?
   (a) The President of the United States
   (b) The U.S. Congress
   (c) The Federal Reserve Board of Governors
   (d) The National Bureau of Economic Research
   Answer: D
   Level of difficulty: 1
   Section: 8.1

8. Research on the effects of recessions on the real level of GDP shows that
   (a) recessions cause only temporary reductions in real GDP, which are offset by growth during the expansion phase.
   (b) recessions cause large, permanent reductions in the real level of GDP.
   (c) recessions cause both temporary and permanent declines in real GDP, but most of the decline is temporary.
   (d) recessions cause both temporary and permanent declines in real GDP, but most of the decline is permanent.
   Answer: C
   Level of difficulty: 1
   Section: 8.1

9. The tendency of many different economic variables to have regular and predictable patterns across industries over the business cycle is called
   (a) persistence.
   (b) comovement.
   (c) periodicity.
   (d) recurrence.
   Answer: B
   Level of difficulty: 1
   Section: 8.1
10. The tendency for declines in economic activity to be followed by further declines, and for growth in economic activity to be followed by more growth is called
   (a) persistence.
   (b) comovement.
   (c) periodicity.
   (d) recurrence.
   Answer: A
   Level of difficulty: 1
   Section: 8.1

11. The longest contraction in American history occurred
   (a) during the 1870s.
   (b) in the years right before World War I began.
   (c) during the 1930s.
   (d) during the 1970s.
   Answer: A
   Level of difficulty: 1
   Section: 8.2

12. The long boom occurred in the
   (a) 1920s and 1930s.
   (b) 1940s and 1950s.
   (c) 1960s and 1970s.
   (d) 1980s and 1990s.
   Answer: D
   Level of difficulty: 1
   Section: 8.2

13. By 1937, when a new recession began in the midst of the Great Depression,
   (a) GDP had almost recovered to its 1929 level, but unemployment was still above the 1929 level.
   (b) unemployment had almost fallen back to its 1929 level, but GDP had yet to recover to its 1929 level.
   (c) neither GDP nor unemployment had returned to near their 1929 levels.
   (d) both GDP and unemployment had returned to near their 1929 levels.
   Answer: A
   Level of difficulty: 1
   Section: 8.2

14. The worst recessions after World War II occurred
   Answer: C
   Level of difficulty: 1
   Section: 8.2
15. The longest economic expansion in the United States occurred during the
   (a) 1940s.
   (b) 1960s.
   (c) 1980s.
   (d) 1990s.
   Answer: D
   Level of difficulty: 1
   Section: 8.2

16. Christina Romer’s criticism of the belief that business cycles had moderated since World War II depended on the fact that
   (a) estimates of the timing of business cycles since World War II had been inaccurate.
   (b) misuse of historical data had caused economists to understate the size of cyclical fluctuations in
       the post–World War II era.
   (c) economists had ignored the roles of the government and international trade in mitigating
       economic fluctuations prior to World War II.
   (d) economists had left out important components of GDP, such as wholesale and retail distribution,
       transportation, and services, in their pre–World War II estimates.
   Answer: D
   Level of difficulty: 1
   Section: 8.2

17. The NBER’s Business Cycle Dating Committee picks recession dates by looking at many variables,
   the four most important of which are industrial production, manufacturing and trade sales, nonfarm
   employment, and real personal income. These variables are known as
   (a) leading indicators.
   (b) coincident indicators.
   (c) lagging indicators.
   (d) recession indicators.
   Answer: B
   Level of difficulty: 1
   Section: 8.2

18. The recession of 2001 began in _____ and ended in _____.
   (a) March; November
   (b) February; December
   (c) April; October
   (d) February; October
   Answer: A
   Level of difficulty: 1
   Section: 8.2
19. According to research by Stock and Watson, the recent decline in volatility in many macroeconomic variables was a
   (a) sudden drop that occurred around 1984.
   (b) gradual decline throughout the 1980s.
   (c) sudden drop that occurred around 1990.
   (d) gradual decline throughout the 1990s.
   Answer: A
   Level of difficulty: 1
   Section: 8.2

20. Stock and Watson found that monetary policy was responsible for about _____ % of the reduction in output volatility that occurred in the mid-1980s.
   (a) 0 to 10
   (b) 10 to 20
   (c) 20 to 30
   (d) 30 to 40
   Answer: C
   Level of difficulty: 1
   Section: 8.2

21. An economic variable that moves in the same direction as aggregate economic activity (up in expansions, down in contractions) is called
   (a) procyclical.
   (b) countercyclical.
   (c) acyclical.
   (d) a leading variable.
   Answer: A
   Level of difficulty: 1
   Section: 8.3

22. An economic variable that moves in the opposite direction as aggregate economic activity (down in expansions, up in contractions) is called
   (a) procyclical.
   (b) countercyclical.
   (c) acyclical.
   (d) a leading variable.
   Answer: B
   Level of difficulty: 1
   Section: 8.3

23. An economic variable that doesn’t move in a consistent pattern with aggregate economic activity is called
   (a) procyclical.
   (b) countercyclical.
   (c) acyclical.
   (d) a leading variable.
   Answer: C
   Level of difficulty: 1
   Section: 8.3
24. A variable that tends to move in advance of aggregate economic activity is called
   (a) a leading variable.
   (b) a coincident variable.
   (c) a lagging variable.
   (d) an acyclical variable.
   Answer: A
   Level of difficulty: 1
   Section: 8.3

25. A variable that tends to move at the same time as aggregate economic activity is called
   (a) a leading variable.
   (b) a coincident variable.
   (c) a lagging variable.
   (d) an acyclical variable.
   Answer: B
   Level of difficulty: 1
   Section: 8.3

26. A variable that tends to move later than aggregate economic activity is called
   (a) a leading variable.
   (b) a coincident variable.
   (c) a lagging variable.
   (d) an acyclical variable.
   Answer: C
   Level of difficulty: 1
   Section: 8.3

27. Diebold and Rudebusch showed that the composite index of leading indicators did not improve forecasts of industrial production because
   (a) the index is not produced in a timely manner.
   (b) the government manipulates the index so it never predicts a recession.
   (c) the index is not designed for forecasting.
   (d) data on the components of the index are revised.
   Answer: D
   Level of difficulty: 1
   Section: 8.3

28. Which of the following macroeconomic variables is procyclical and coincident with the business cycle?
   (a) Residential investment
   (b) Nominal interest rates
   (c) Industrial production
   (d) Unemployment
   Answer: C
   Level of difficulty: 2
   Section: 8.3
29. Which of the following macroeconomic variables is procyclical and leads the business cycle?
   (a) Business fixed investment
   (b) Residential investment
   (c) Nominal interest rates
   (d) Unemployment
   Answer: B
   Level of difficulty: 2
   Section: 8.3

30. Which of the following macroeconomic variables is acyclical?
   (a) Real interest rates
   (b) Unemployment
   (c) Money supply
   (d) Consumption
   Answer: A
   Level of difficulty: 1
   Section: 8.3

31. Which of the following macroeconomic variables is procyclical and lags the business cycle?
   (a) Business fixed investment
   (b) Employment
   (c) Stock prices
   (d) Nominal interest rates
   Answer: D
   Level of difficulty: 2
   Section: 8.3

32. Which of the following macroeconomic variables would you include in an index of leading economic indicators?
   (a) Employment
   (b) Inflation
   (c) Real interest rates
   (d) Residential investment
   Answer: D
   Level of difficulty: 2
   Section: 8.3

33. Which of the following macroeconomic variables would you exclude from an index of leading economic indicators?
   (a) Money supply
   (b) Industrial production
   (c) Inventory investment
   (d) Residential investment
   Answer: B
   Level of difficulty: 2
   Section: 8.3
34. Industries that are extremely sensitive to the business cycle are the  
   (a) durable goods and service sectors.  
   (b) nondurable goods and service sectors.  
   (c) capital goods and nondurable goods sectors.  
   (d) capital goods and durable goods sectors.  
   Answer: D  
   Level of difficulty: 1  
   Section: 8.3

35. You want to invest in a firm whose profits show large fluctuations throughout the business cycle.  
   Which of the following would you invest in?  
   (a) A corporation that depends heavily on business fixed investment  
   (b) A corporation that depends heavily on consumer services  
   (c) A corporation that depends heavily on consumer nondurables  
   (d) A corporation that depends heavily on government purchases  
   Answer: A  
   Level of difficulty: 1  
   Section: 8.3

36. Which of the following statements is true?  
   (a) Employment and unemployment are both coincident with the business cycle.  
   (b) Employment and unemployment are both procyclical.  
   (c) Employment is procyclical and unemployment is coincident with the business cycle.  
   (d) Employment is procyclical and unemployment is countercyclical.  
   Answer: D  
   Level of difficulty: 1  
   Section: 8.3

37. Which of the following statements is true?  
   (a) Both nominal and real interest rates are procyclical and leading.  
   (b) Both nominal and real interest rates are procyclical and lagging.  
   (c) Nominal interest rates are procyclical and real interest rates are countercyclical.  
   (d) Nominal interest rates are procyclical and real interest rates are acyclical.  
   Answer: D  
   Level of difficulty: 1  
   Section: 8.3

38. Using the seasonal business cycle as your guide, during which quarter would you be most likely to  
    expect an increase in your corporation’s sales?  
   (a) The first quarter of the year (January–March)  
   (b) The second quarter of the year (April–June)  
   (c) The third quarter of the year (July–September)  
   (d) The fourth quarter of the year (October–December)  
   Answer: D  
   Level of difficulty: 1  
   Section: 8.3
39. Which of the following macroeconomic variables is the most seasonally procyclical?
   (a) Expenditure on services
   (b) The unemployment rate
   (c) Expenditure on durable goods
   (d) The real wage
   Answer: C
   Level of difficulty: 2
   Section: 8.3

40. Which of the following macroeconomic variables doesn’t vary much over the seasons?
   (a) The nominal money stock
   (b) The unemployment rate
   (c) The real wage
   (d) Average labor productivity
   Answer: C
   Level of difficulty: 2
   Section: 8.3

41. What are the two main components of business cycle theories?
   (a) A description of shocks and a model of how the economy responds to them
   (b) A model of how people decide to spend and a description of the government’s role in the economy
   (c) A model of how equilibrium is reached and a description of the government’s role in the economy
   (d) A description of shocks and a description of the government’s role in the economy
   Answer: A
   Level of difficulty: 1
   Section: 8.4

42. Economists use the term shocks to mean
   (a) unexpected government actions that affect the economy.
   (b) typically unpredictable forces that have major impacts on the economy.
   (c) sudden rises in oil prices.
   (d) the business cycle.
   Answer: B
   Level of difficulty: 1
   Section: 8.4

43. Wars, new inventions, harvest failures, and changes in government policy are examples of
   (a) the business cycle.
   (b) economic models.
   (c) shocks.
   (d) opportunity costs.
   Answer: C
   Level of difficulty: 1
   Section: 8.4
44. The three main components of the aggregate demand-aggregate supply model include
(a) \( AD, SRAS, LM \)
(b) \( SRAS, LRAS, IS \)
(c) \( AD, IS, LM \)
(d) \( AD, SRAS, LRAS \)
Answer: D
Level of difficulty: 1
Section: 8.4

45. The \( AD, SRAS, \) and \( LRAS \) curves each show a relationship between which two economic variables?
(a) The aggregate price level and output
(b) The aggregate price level and the interest rate
(c) Output and unemployment
(d) Output and the interest rate
Answer: A
Level of difficulty: 1
Section: 8.4

46. When plotted with the aggregate price level on the vertical axis and output on the horizontal axis, which of the following curves slopes downward?
(a) \( SRAS \)
(b) \( AD \)
(c) \( LRAS \)
(d) None of the above
Answer: B
Level of difficulty: 1
Section: 8.4

47. When plotted with the aggregate price level on the vertical axis and output on the horizontal axis, which of the following curves is vertical?
(a) \( SRAS \)
(b) \( AD \)
(c) \( LRAS \)
(d) None of the above
Answer: C
Level of difficulty: 1
Section: 8.4

48. When plotted with the aggregate price level on the vertical axis and output on the horizontal axis, the long-run aggregate supply curve
(a) slopes upward.
(b) slopes downward.
(c) is vertical.
(d) is horizontal.
Answer: C
Level of difficulty: 1
Section: 8.4
49. A decrease in government spending on the park system would cause
   (a) the aggregate demand curve to shift to the right.
   (b) the aggregate demand curve to shift to the left.
   (c) a movement down and to the right along the aggregate demand curve.
   (d) a movement up and to the left along the aggregate demand curve.
   Answer: B
   Level of difficulty: 1
   Section: 8.4

50. A decline in the stock market, which makes consumers poorer, would cause
   (a) the aggregate demand curve to shift to the right.
   (b) the aggregate demand curve to shift to the left.
   (c) a movement down and to the right along the aggregate demand curve.
   (d) a movement up and to the left along the aggregate demand curve.
   Answer: B
   Level of difficulty: 1
   Section: 8.4

51. In the short run, an increase in export sales would cause output to _____ and the price level to _____.
   (a) rise; rise
   (b) rise; stay constant
   (c) fall; stay constant
   (d) fall; rise
   Answer: B
   Level of difficulty: 2
   Section: 8.4

52. In the long run, an increase in consumer spending would cause output to _____ and the price level to _____.
   (a) rise; rise
   (b) rise; stay constant
   (c) stay constant; stay constant
   (d) stay constant; rise
   Answer: D
   Level of difficulty: 2
   Section: 8.4

53. In the long run, an increase in government purchases of military equipment would cause output to _____ and the aggregate price level to _____.
   (a) stay constant; fall
   (b) fall; fall
   (c) fall; stay constant
   (d) stay constant; rise
   Answer: D
   Level of difficulty: 2
   Section: 8.4
54. According to classical macroeconomists, prices adjust _____ to shocks, so the government should _____.
   (a) slowly; do little
   (b) rapidly; do little
   (c) rapidly; fight recessions
   (d) slowly; fight recessions
   Answer: B
   Level of difficulty: 1
   Section: 8.4

55. According to Keynesian macroeconomists, prices adjust _____ to shocks, so the government should _____.
   (a) slowly; do little
   (b) rapidly; do little
   (c) rapidly; fight recessions
   (d) slowly; fight recessions
   Answer: D
   Level of difficulty: 1
   Section: 8.4

56. In the long run, an increase in productivity would cause output to _____ and the aggregate price level to _____.
   (a) fall; rise
   (b) fall; fall
   (c) rise; fall
   (d) rise; rise
   Answer: C
   Level of difficulty: 2
   Section: 8.4

57. In the long run, a reduction in labor supply would cause output to _____ and the aggregate price level to _____.
   (a) fall; rise
   (b) fall; fall
   (c) rise; fall
   (d) rise; rise
   Answer: A
   Level of difficulty: 2
   Section: 8.4

58. The key difference between classical and Keynesian macroeconomists is their differing beliefs about
   (a) the slope of the aggregate demand curve.
   (b) the speed at which prices adjust.
   (c) the natural rate of unemployment.
   (d) the full-employment level of output.
   Answer: B
   Level of difficulty: 1
   Section: 8.4
## Essay Questions

1. Describe the major features of the business cycle. Be sure to discuss what variables are affected by the cycle, a description of the key features that are apparent in the data, how variables are related to one another, how regular the cycle is, and how predictable the cycle is.

   **Answer:** The business cycle is defined as a fluctuation of aggregate economic activity. There are recurrent but not periodic movements of aggregate activity, with many variables moving in the same direction at the same time (comovement). Increases in aggregate economic activity are expansions, while reductions in aggregate economic activity are contractions, or recessions. Both expansions and contractions exhibit persistence, so once an expansion or contraction begins, it tends to last some time.

   Level of difficulty: 1  
   Section: 8.1

2. When a recession occurs, do economists expect it to be a temporary phenomenon? Or is there some degree of permanence? What is the empirical evidence?

   **Answer:** Recent research suggests that recessions may contain permanent components. Some economists argued that only the 1973–1975 recession led to a permanent change in the U.S. economy, because it changed the economy’s use of oil permanently. Other studies suggest that perhaps 30% of changes in real output are permanent and 70% are temporary for the postwar United States.

   Level of difficulty: 1  
   Section: 8.1

3. How has the severity and duration of business cycles changed over time in the United States?

   **Answer:** Though it is a controversial subject, it appears that business cycles have become less severe over time. Recessions have certainly been shorter since World War II than they were before 1929. There is some disagreement about how severe they were before 1929, with Christina Romer arguing that measurement problems in the old data misled economists about how severe those recessions were. But others find that the old data is just about right and conclude that the business cycle is much less severe today.

   Level of difficulty: 1  
   Section: 8.2

4. What are some of the problems with using the leading indicators to forecast recessions? If you were a policymaker, would you rely on them?

   **Answer:** Although the leading indicators seems to be useful for forecasting the future state of the economy, there are a number of problems in using them. First, the data are usually revised, sometimes substantially, so a signal from the leading indicators may be reversed later. Second, they sometimes give incorrect signals. Third, they don’t provide much information on the severity or exact timing of the coming recession. Finally, structural changes in the economy mean the set of indicators must be revised periodically. Policymakers should use the leading indicators as additional information, but should not rely on them alone.

   Level of difficulty: 1  
   Section: 8.3
5. Suppose the economy is initially in long-run equilibrium. For each of the shocks listed below, explain the short-run effects on output and the price level.
(a) A stock market crash reduces consumers’ wealth.
(b) Businesses decide to hold larger inventories.
(c) The government cuts defense spending.
(d) Foreign countries buy more U.S. goods.

**Answers:**
(a) Output declines and the price level is unchanged.
(b) Output rises and the price level is unchanged.
(c) Output declines and the price level is unchanged.
(d) Output rises and the price level is unchanged.

Level of difficulty: 2  
Section: 8.4

6. Suppose the economy is initially in long-run equilibrium. For each of the shocks listed below, explain the long-run effects on output and the price level.
(a) Labor supply decreases.
(b) The government shuts down the Bureau of Economic Analysis.
(c) Productivity increases.

**Answers:**
(a) Output declines and the price level rises.
(b) Output is unchanged and the price level falls.
(c) Output rises and the price level falls.

Level of difficulty: 2  
Section: 8.4

7. For each outcome below, tell what type of shift must have taken place in either the aggregate demand curve or the long-run aggregate supply curve.
(a) In the short run, the price level is unchanged and output rises.
(b) In the long run, the price level declines and output is unchanged.
(c) In the long run, the price level rises and output declines.

**Answers:**
(a) The aggregate demand curve shifts to the right.
(b) The aggregate demand curve shifts to the left.
(c) The long-run aggregate supply curve shifts to the left.

Level of difficulty: 2  
Section: 8.4