CHAPTER 16
Extending the Analysis of Aggregate Supply

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Multiple Choice Questions

Short-run and long-run aggregate supply

1. In terms of aggregate supply, a period in which nominal wages and other resource prices are unresponsive to price-level changes is called the:
   A) long run.  B) short run.  C) immediate market period.  D) very long run.
   Answer: B

2. In terms of aggregate supply, a period in which nominal wages and other resource prices are fully responsive to price-level changes is called the:
   A) long run.  B) short run.  C) immediate market period.  D) very long run.
   Answer: A

3. In the extended analysis of aggregate supply, the short-run aggregate supply curve is:
   A) vertical and the long-run aggregate supply curve is horizontal.
   B) horizontal and the long-run aggregate supply curve is vertical.
   C) upward sloping and the long-run aggregate supply curve is vertical.
   D) horizontal and the long-run aggregate supply curve is upward sloping.
   Answer: C
4. In the extended analysis of aggregate supply, the long-run aggregate supply curve is:
   A) vertical and the short-run aggregate supply curve is horizontal.
   B) horizontal and the short-run aggregate supply curve is vertical.
   C) horizontal and the short-run aggregate supply curve is upward sloping.
   D) vertical and the short-run aggregate supply curve is upward sloping.
   Answer: D

5. In terms of aggregate supply, the short run is a period in which:
   A) the price level is constant.
   B) employment is constant.
   C) real output is constant.
   D) nominal wages and other resource prices are unresponsive to price-level changes.
   Answer: D

6. In terms of aggregate supply, the difference between the long run and the short run is that in the long run:
   A) the price level is variable.
   B) employment is variable.
   C) real output is variable.
   D) nominal wages and other input prices are fully responsive to price-level changes.
   Answer: D

7. The long-run aggregate supply curve is vertical:
   A) because the rate of inflation is steady in the long run.
   B) because resource prices eventually rise and fall with product prices.
   C) because product prices always increase at a faster rate than resource prices.
   D) only when the money supply increases at the same rate as real GDP.
   Answer: B

8. The short-run aggregate supply curve is upsloping because:
   A) of the interest rate effect.
   B) higher price levels create incentives to expand output when resource prices are unresponsive to price-level changes.
   C) of the net export effect.
   D) higher price levels create an expectation among producers of still higher price levels.
   Answer: B

9. Other things equal, an increase in the price level will:
   A) shift the aggregate supply curve to the right.
   B) shift the aggregate demand curve to the right.
   C) cause a movement up along a short-run aggregate supply curve.
   D) cause a movement down an aggregate demand curve.
   Answer: C
10. Other things equal, a decrease in the price level will:
   A) shift the aggregate supply curve to the left.
   B) shift the aggregate demand curve to the left.
   C) cause a movement up a short-run aggregate supply curve.
   D) cause a movement down an aggregate supply curve.
   Answer: D

Use the following to answer questions 11-14:

Suppose the natural level of real output (Q) for a hypothetical economy is $500, the price level (P) initially is 100, and that prices and wages are flexible both upward and downward. Use the following short-run aggregate supply schedules to answer the next question(s).

<table>
<thead>
<tr>
<th></th>
<th>AS(P_{100})</th>
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<th>AS(P_{125})</th>
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11. Refer to the information above. If the price level unexpectedly increases from 100 to 125, the level of real output in the short run will:
   A) rise from $500 to $560.
   B) fall from $500 to $440.
   C) fall from $560 to $500.
   D) rise from $440 to $500.
   Answer: A

12. Refer to the information above. In the long run, an increase in the price level from 100 to 125 will:
   A) increase real output from $500 to $560.
   B) decrease real output from $500 to $440.
   C) change the aggregate supply schedule from (a) to (c) and result in an equilibrium level of real output of $560.
   D) change the aggregate supply schedule from (a) to (b) and result in an equilibrium level of real output of $500.
   Answer: D

13. Refer to the information above. If the price level unexpectedly declines from 100 to 75, the level of real output in the short run will:
   A) rise from $500 to $560.
   B) fall from $500 to $440.
   C) fall from $560 to $500.
   D) rise from $440 to $500.
   Answer: B
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14. Refer to the information above. In the long run, a fall in the price level from 100 to 75 will:
   A) decrease real output from $500 to $440.
   B) increase real output from $500 to $620.
   C) change the aggregate supply schedule from (a) to (c) and produce an equilibrium level of real output of $500.
   D) change the aggregate supply schedule from (a) to (b) and produce an equilibrium level of real output of $500.
   Answer: C

15. The:
   A) short-run aggregate supply curve is downward sloping.
   B) short-run aggregate supply curve is vertical.
   C) long-run aggregate supply curve is vertical.
   D) long-run aggregate supply curve is upsloping.
   Answer: C

Use the following to answer questions 16-21:

16. Refer to the above diagram. Assume that nominal wages initially are set on the basis of the price level $P_2$ and that the economy initially is operating at its full-employment level of output $Q_f$. In the short run, an increase in the price level from $P_2$ to $P_3$ will:
   A) change aggregate supply from $AS_2$ to $AS_3$.
   B) increase real output from $Q_1$ to $Q_2$.
   C) change aggregate supply from $AS_2$ to $AS_1$.
   D) increase real output from $Q_1$ to $Q_2$.
   Answer: D
17. Refer to the above diagram. Assume that nominal wages initially are set on the basis of the price level $P_2$ and that the economy initially is operating at its full-employment level of output $Q_f$. In the long run, an increase in the price level from $P_2$ to $P_3$ will:

A) increase real output from $Q_f$ to $Q_2$.  
B) change aggregate supply from AS$_2$ to AS$_1$.  
C) decrease real output from $Q_2$ to $Q_1$.  
D) move the economy from $b$ to $d$.

Answer: D

18. Refer to the above diagram. Assume that nominal wages initially are set on the basis of the price level $P_2$ and that the economy initially is operating at its full-employment level of output $Q_f$. In terms of this diagram, the long-run aggregate supply curve:

A) is AS$_2$.  
B) is a vertical line extending from $Q_f$ upward through $e$, $b$, and $d$.  
C) may be either AS$_1$, AS$_2$, or AS$_3$ depending on whether the price level is $P_1$, $P_2$, or $P_3$.  
D) is a horizontal line extending from $P_2$ rightward through $f$, $b$, and $g$.

Answer: B

19. Refer to the above diagram. Assume that nominal wages initially are set on the basis of the price level $P_2$ and that the economy initially is operating at its full-employment level of output $Q_f$. In the short run, demand-pull inflation could best be shown as:

A) a move from $b$ to $c$ on AS$_2$.  
B) a move from $b$ to $c$ to $d$.  
C) a change of aggregate supply from AS$_2$ to AS$_3$.  
D) a move from $b$ to $d$.

Answer: A

20. Refer to the above diagram. Assume that nominal wages initially are set on the basis of the price level $P_2$ and that the economy initially is operating at its full-employment level of output $Q_f$. In the long run, demand-pull inflation could best be shown as:

A) a move from $b$ to $c$ on AS$_2$.  
B) a move from $b$ to $f$ to $d$.  
C) a change of aggregate supply from AS$_2$ to AS$_1$.  
D) a move from $b$ to $d$.

Answer: D

21. Refer to the above diagram. Assume that nominal wages initially are set on the basis of the price level $P_2$ and that the economy initially is operating at its full-employment level of output $Q_f$. In the short run, cost-push inflation could best be shown as:

A) a leftward shift of aggregate supply from AS$_2$ to AS$_3$.  
B) a move from $b$ to $c$ on AS$_2$.  
C) a move from $b$ to $c$ to $d$.  
D) a move from $b$ to $f$ to $d$.

Answer: A
22. Other things equal, the short-run aggregate supply curve shifts positions when:
A) the price level changes.  
B) the rate of inflation changes.  
C) nominal wages and other input prices change.  
D) aggregate demand changes.
Answer: C

Use the following to answer questions 23-26:

![Diagram of aggregate supply (AS) and aggregate demand (AD) curves]

23. Refer to the above diagram relating to short-run and long-run aggregate supply. The
A) short-run aggregate supply curve is A.  
B) short-run aggregate supply curve is B.  
C) long-run aggregate supply curve is B.  
D) long-run aggregate supply curve is D.
Answer: B

24. Refer to the above diagram. If the price level rises above $P_1$ because of an increase in aggregate demand, the:
A) economy will move up along curve B and output will temporarily increase.  
B) long-run aggregate supply curve C will shift upward.  
C) short-run aggregate supply curve B will automatically shift to the right.  
D) economy's output first will decline, then increase, and finally return to $Q_1$.
Answer: A

25. Refer to the above diagram. The long-run aggregate supply curve is:
A) A.  
B) B.  
C) C.  
D) D.
Answer: A

26. Refer to the above diagram. The short-run aggregate supply is:
A) A.  
B) B.  
C) D.  
D) not represented in the diagram.
Answer: B
Use the following to answer questions 27-31:

![Graph showing equilibrium points and aggregate supply curves]

27. Refer to the above diagram and assume the economy is operating at equilibrium point \( w \). In the short run, an increase in the price level from \( P_2 \) to \( P_3 \) would move the economy from point \( w \) to point:
   A) \( v \).  B) \( x \).  C) \( u \).  D) \( v \).
   Answer: B

28. Refer to the above diagram and assume the economy is operating at equilibrium point \( w \). In the long run, an increase in the price level from \( P_2 \) to \( P_3 \) would move the economy from point \( w \) to point:
   A) \( v \).  B) \( x \).  C) \( u \).  D) \( y \).
   Answer: C

29. Refer to the above diagram and assume the economy is operating at equilibrium point \( w \). In the short run, a decrease in the price level from \( P_2 \) to \( P_1 \) would move the economy from point \( w \) to point:
   A) \( v \).  B) \( x \).  C) \( t \).  D) \( y \).
   Answer: A

30. Refer to the above diagram and assume the economy is operating at equilibrium point \( w \). If wages and other resource prices are flexible downward, in the long run a decrease in the price level from \( P_2 \) to \( P_1 \) would move the economy from point \( w \) to point:
   A) \( v \).  B) \( x \).  C) \( t \).  D) \( y \).
   Answer: D

31. Refer to the above diagram. If drawn, the long-run aggregate supply curve would include points:
   A) \( v, w, \) and \( u \).  B) \( w, u, \) and \( y \).  C) \( t, w, \) and \( z \).  D) \( y, w, \) and \( x \).
   Answer: B
Extended AD-AS model

32. The extended AD-AS model:
   A) distinguishes between short-run and long-run aggregate demand.
   B) explains inflation but not recession.
   C) includes $G$ and $X_n$ whereas the simple AD-AD model does not.
   D) distinguishes between short-run and long-run aggregate supply.
   Answer: D

33. In the extended aggregate demand-aggregate supply model:
   A) long-run equilibrium occurs wherever the aggregate demand curve intersects the short-run aggregate supply curve.
   B) the long-run aggregate supply curve is horizontal.
   C) the price level is the same regardless of the location of the aggregate demand curve.
   D) long-run equilibrium occurs at the intersection of the aggregate demand curve, the short-run aggregate supply curve, and the long run aggregate supply.
   Answer: D

34. In the extended aggregate demand-aggregate supply model:
   A) long-run equilibrium occurs wherever the aggregate demand curve intersects the short-run aggregate supply curve.
   B) the long-run aggregate supply curve is horizontal.
   C) the level of real output is the same in the long run regardless of the location of the aggregate demand curve.
   D) the short-run aggregate supply curve is downsloping.
   Answer: C
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Use the following to answer questions 35-40:

35. Refer to the above diagram. The initial aggregate demand curve is AD$_1$ and the initial aggregate supply curve is AS$_1$. Demand-pull inflation in the short run is best shown as:
   A) a shift of the aggregate demand curve from AD$_1$ to AD$_2$.
   B) a move from d to b to a.
   C) a move directly from d to a.
   D) a shift of the aggregate supply curve from AS$_1$ to AS$_2$.
   Answer: A

36. Refer to the above diagram. The initial aggregate demand curve is AD$_1$ and the initial aggregate supply curve is AS$_1$. In the long run, demand-pull inflation is best shown as:
   A) a shift of aggregate demand from AD$_1$ to AD$_2$ followed by a shift of aggregate supply from AS$_1$ to AS$_2$.
   B) a move from d to b to a.
   C) a shift of aggregate supply from AS$_1$ to AS$_2$ followed by a shift of aggregate demand from AD$_1$ to AD$_2$.
   D) a move from a to d.
   Answer: A

37. Refer to the above diagram. The initial aggregate demand curve is AD$_1$ and the initial aggregate supply curve is AS$_1$. In the long run, the aggregate supply curve is vertical in the diagram because:
   A) nominal wages and other input prices are assumed to be fixed.
   B) real output level $Q_f$ is the potential level of output.
   C) price level increases produce perfectly offsetting changes in nominal wages and other input prices.
   D) higher than expected rates of actual inflation reduce real output only temporarily.
   Answer: C
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38. Refer to the above diagram. The initial aggregate demand curve is $AD_1$ and the initial aggregate supply curve is $AS_1$. Cost-push inflation in the short run is best represented as a:
   A) leftward shift of the aggregate supply curve from $AS_1$ to $AS_2$.
   B) rightward shift of the aggregate demand curve from $AD_1$ to $AD_2$.
   C) move from $d$ to $b$ to $a$.
   D) move from $d$ directly to $a$.
   Answer: A

39. Refer to the above diagram. The initial aggregate demand curve is $AD_1$ and the initial aggregate supply curve is $AS_1$. Assuming no change in aggregate demand, the long-run response to a recession caused by cost-push inflation is best depicted as a:
   A) move from $a$ to $d$ along the long-run aggregate supply curve.
   B) rightward shift of the aggregate supply curve from $AS_2$ to $AS_1$.
   C) move from $a$ to $c$ to $d$.
   D) leftward shift of the aggregate supply curve from $AS_1$ to $AS_2$.
   Answer: B

40. Refer to the above diagram. The initial aggregate demand curve is $AD_1$ and the initial aggregate supply curve is $AS_1$. If government offsets the decline in real output resulting from short-run cost-push inflation by increasing aggregate demand from $AD_1$ to $AD_2$:
   A) real output will rise above $Q_f$.
   B) the price level will rise from $P_1$ to $P_2$.
   C) it is possible that aggregate supply will shift rightward from $AS_2$ because nominal wage demands will rise.
   D) the price level will rise from $P_2$ to $P_3$.
   Answer: D

41. If government uses fiscal policy to restrain cost-push inflation, we can expect:
   A) the unemployment rate to rise.
   B) the unemployment rate to fall.
   C) the aggregate demand curve to shift rightward.
   D) tax-rate declines and increases in government spending.
   Answer: A

42. One policy dilemma posed by cost-push inflation is that:
   A) an increase in aggregate demand will increase inflation and the unemployment rate simultaneously.
   B) tax rates can be reduced without lowering tax revenues.
   C) the reduction of aggregate demand to restrain inflation will cause a further reduction in the real GDP.
   D) the adjustment of aggregate demand can neither increase real GDP nor reduce inflation.
   Answer: C
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43. If government uses its stabilization policies to maintain full employment under conditions of cost-push inflation:
   A) a deflationary spiral is likely to occur.  
   B) an inflationary spiral is likely to occur.  
   C) stagflation is likely to occur.  
   D) the Phillips Curve is likely to shift inward.
   Answer: B

Use the following to answer questions 44-49:

44. Refer to the above diagram and assume that prices and wages are flexible both upward and downward in the economy. In the extended AD-AS model:
   A) demand-pull inflation would involve a rightward shift of curve $A$, followed by a leftward shift of curve $C$.
   B) cost-push inflation would involve a rightward shift of curve $A$, followed by a leftward shift of curve $C$.
   C) recession would involve a leftward shift of curve $A$ followed by a leftward shift of curve $C$.
   D) recession would involve a rightward shift of curve $D$, followed by leftward shifts of curves $A$ and $C$.
   Answer: A

45. Refer to the above diagram and assume that prices and wages are flexible both upward and downward in the economy. In the extended AD-AS model:
   A) demand-pull inflation would involve a rightward shift of curve $A$, followed by a rightward shift of curve $C$.
   B) cost-push inflation would involve first a leftward shift of curve $C$, then a rightward shift of curve $C$.
   C) recession would involve a leftward shift of curve $A$ followed by a leftward shift of curve $C$.
   D) recession would involve a rightward shift of curve $D$, followed by leftward shifts of curves $A$ and $C$.
   Answer: B
46. Refer to the above diagram and assume that prices and wages are flexible both upward and downward in the economy. In the extended AD-AS model:
   A) demand-pull inflation would involve a rightward shift of curve $A$, followed by a rightward shift of curve $C$.
   B) cost-push inflation would involve a rightward shift of curve $A$, followed by a leftward shift of curve $C$.
   C) recession would involve a leftward shift of curve $A$ followed by a rightward shift of curve $C$.
   D) recession would involve a rightward shift of curve $D$, followed by leftward shifts of curves $A$ and $C$.
   Answer: C

47. Refer to the above diagram and assume that prices and wages are flexible both upward and downward in the economy. In the extended AD-AS model:
   A) demand-pull inflation would involve a rightward shift of curve $A$, followed by a rightward shift of curve $C$.
   B) cost-push inflation would involve a rightward shift of curve $A$, followed by a leftward shift of curve $C$.
   C) recession would involve a leftward shift of curve $A$ followed by a leftward shift of curves $C$ and $D$.
   D) recession could be caused by either a leftward shift of curve $A$ or a leftward shift of curve $C$.
   Answer: D

48. Refer to the above diagram and assume that prices and wages are flexible both upward and downward in the economy. In the extended AD-AS model:
   A) demand-pull inflation would involve a shift of curve $D$ to the right.
   B) cost-push inflation would involve a shift of curve $B$ downward.
   C) recession would involve a leftward shift of curve $A$.
   D) frictional unemployment would be zero in the long run.
   Answer: C

49. Refer to the above diagram. Assume both upward and downward price and wage flexibility in the economy. In the extended AD-AS model:
   A) demand-pull inflation would involve a rightward shift of curve $A$, followed by a rightward shift of curve $C$.
   B) cost-push inflation would involve a leftward shift of curve $C$, followed by an upward shift of curve $B$.
   C) recession would involve a leftward shift of curve $A$.
   D) a rightward shift of curve $D$ would be equivalent to an outward shift of the nation's production possibilities curve.
   Answer: D

**Phillips Curve**

50. The traditional Phillips Curve suggests a tradeoff between:
   A) price level stability and income equality.
   B) the level of unemployment and price level stability.
   C) unemployment and income equality.
   D) economic growth and full employment.
   Answer: B
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51. The basic problem portrayed by the traditional Phillips Curve is:
   A) that a level of aggregate demand sufficiently high to result in full employment may also cause inflation.
   B) that changes in the composition of total labor demand tend to be deflationary.
   C) that unemployment rises at the same time the general price level is rising.
   D) the possibility that automation will increase the level of noncyclical unemployment.
   Answer: A

52. The traditional Phillips Curve suggests that, if government uses an expansionary fiscal policy to stimulate output and employment:
   A) unemployment may actually increase because of the crowding-out effect.
   B) tax revenues may increase even though tax rates have been reduced.
   C) inflation may result.
   D) the natural rate of unemployment may fall.
   Answer: C

Use the following to answer questions 53-58:

53. Refer to the above diagram for a specific economy. The curve on this graph is known as a:
   Answer: B

54. Refer to the above diagram for a specific economy. Which of the following best describes the relationship shown by this curve?
   A) The demand for labor is large when the rate of inflation is small.
   B) When the rate of inflation is high, the rate of inflation is high.
   C) The rate of inflation and the rate of unemployment are inversely related.
   D) The rate of inflation and the rate of unemployment are directly related.
   Answer: C
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55. Refer to the above diagram for a specific economy. A reduction in structural unemployment or bottleneck problems in labor markets will:
   A) shift this curve to the right.  
   B) shift this curve to the left.
   C) move this economy southeast along the curve.  
   D) move this economy northwest along the curve.
   Answer: B

56. Refer to the above diagram for a specific economy. An increase in aggregate demand will:
   A) shift this curve to the right.  
   B) shift this curve to the left.  
   C) move this economy southeast along the curve.  
   D) move this economy northwest along the curve.
   Answer: D

57. Refer to the above diagram for a specific economy. Which of the following best describes a decision by policymakers that moves this economy from point b to point a?
   A) Policymakers have instituted an easy money policy and/or a budgetary deficit, thereby accepting more unemployment to reduce the rate of inflation.  
   B) Policymakers have instituted a tight money policy and/or a budgetary surplus, thereby accepting a higher rate of inflation to reduce unemployment.  
   C) Policymakers have instituted an easy money and/or a budgetary deficit, thereby accepting a higher rate of inflation to reduce unemployment.  
   D) Policymakers have instituted a tight money policy and/or a budgetary surplus, thereby accepting more unemployment to reduce the rate of inflation.
   Answer: C

58. Refer to the above diagram for a specific economy. The shape of this curve suggests that:
   A) the price level rises at a diminishing rate as the level of aggregate demand increases.  
   B) full employment and price stability are compatible goals only when aggregate demand is falling.  
   C) each successive unit of decline in the unemployment rate is accompanied by a smaller increase in the rate of inflation.  
   D) each successive unit of decline in the unemployment rate is accompanied by a larger increase in the rate of inflation.
   Answer: D

59. Stagflation refers to:
   A) an increase in inflation accompanied by decreases in real output and employment.  
   B) a decline in the price level accompanied by increases in real output and employment.  
   C) a simultaneous increase in real output and the price level.  
   D) a simultaneous reduction in real output and the price level.
   Answer: A

60. Inflation accompanied by falling real output and employment is known as:
   A) Laffer's law.  
   B) Okun's law.  
   C) stagflation.  
   D) the Phillips Curve.
   Answer: C
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61. Which of the following allegedly contributed to the stagflation in the mid-1970s?
   A) appreciation of the dollar       C) a dramatic increase in oil prices
   B) a sharp drop in the prices of farm products  D) rising productivity in manufacturing.
   Answer: C

62. Statistical data for the 1970s and 1980s suggest that:
   A) the Phillips Curve was stable.
   B) the Phillips Curve was unstable.
   C) low levels of unemployment were consistently associated with high rates of inflation.
   D) the inflation rate was highly stable.
   Answer: B

63. A rightward shift of the traditional Phillips Curve would suggest that:
   A) the productivity of labor increased.
   B) the rate of inflation is now higher at each rate of unemployment.
   C) cost-push inflation decreased.
   D) the rate of inflation is now lower at each rate of unemployment.
   Answer: B

64. A major adverse aggregate supply shock:
   A) automatically shifts the aggregate demand curve rightward.
   B) causes the Phillips Curve to shift rightward and upward.
   C) can be caused by rising productivity.
   D) can be caused by falling wages.
   Answer: B

65. Rightward and upward shifts of the Phillips Curve in the 1970s and early 1980s were caused by:
   A) adverse shocks to aggregate supply.       C) an increase in the misery index.
   B) adverse shocks to aggregate demand.       D) the Vietnam War.
   Answer: A

66. An adverse aggregate supply shock could result from:
   A) a sharp rise in productivity.       C) a decline in wages.
   B) a rapid rise in oil prices.        D) an appreciation of the dollar.
   Answer: B

67. An adverse aggregate supply shock:
   A) automatically shifts the aggregate demand curve rightward.
   B) causes the Phillips Curve to shift leftward and downward.
   C) can be caused by a boost in the rate of growth of productivity.
   D) can cause stagflation.
   Answer: D
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Type: F   Topic: 3   E: 300   MA: 300

68. The last few years of the 1990s in the United States were characterized by:

A) low inflation and high unemployment.  
B) stagflation.  
C) low inflation and low unemployment.  
D) a high misery index.

Answer: C

Long-run Phillips Curve

Type: A   Topic: 4   E: 300   MA: 300

69. Which of the following is a true statement?

A) Under normal conditions there is a short-run tradeoff between inflation and unemployment.
B) There is a long-run tradeoff between inflation and unemployment.
C) The short-run Phillips Curve is vertical.
D) The long-run Phillips Curve is horizontal.

Answer: A

Type: A   Topic: 4   E: 299   MA: 299

70. Which of the following is a true statement?

A) There is a long-run tradeoff between inflation and unemployment.
B) The short-run Phillips Curve is vertical.
C) The long-run Phillips Curve is horizontal.
D) Adverse aggregate supply shocks can simultaneously worsen unemployment and inflation.

Answer: D

Type: A   Topic: 4   E: 300   MA: 300

71. Which of the following is a true statement?

A) There is a long-run tradeoff between inflation and unemployment.
B) There is no tradeoff between inflation and unemployment in the long run.
C) The short-run Phillips Curve is horizontal.
D) The long-run Phillips Curve is horizontal.

Answer: B

Type: A   Topic: 4   E: 299   MA: 299

72. Which of the following is a true statement?

A) The short-run Phillips Curve is horizontal.
B) The long-run Phillips Curve is horizontal.
C) There is a long-run tradeoff between inflation and unemployment.
D) The short-run Phillips Curve is downward sloping.

Answer: D

Type: A   Topic: 4   E: 301   MA: 301

73. Which of the following is a true statement?

A) There is a long-run tradeoff between inflation and unemployment.
B) There is no tradeoff between inflation and unemployment in the short-run.
C) The short-run Phillips Curve is horizontal.
D) The long-run Phillips Curve is vertical.

Answer: D
Chapter 16: Extending the Analysis of Aggregate Supply

74. In the last half of the 1990s, the usual short-run tradeoff between inflation and unemployment did not arise because:
   A) the Fed held interest rates constant.
   B) the Federal government balanced its budget.
   C) the U.S. personal savings rate rose.
   D) productivity (and thus aggregate supply) grew faster than previously.
   Answer: D

75. Suppose that the CPI for a particular economy rose from 110 to 120 in year 1, 120 to 130 in year 2, and 130 to 140 in year 3. We could conclude that this economy is experiencing:
   A) accelerating inflation.  B) deflation.  C) disinflation.  D) a constant rate of inflation.
   Answer: C

76. Disinflation occurs when:
   A) the price level is falling.  C) a speculative investment "bubble" is bursting.
   B) investment plans exceed saving.  D) the inflation rate is declining.
   Answer: D

77. As distinct from reductions in the price level, reductions in the rate of inflation are referred to as:
   A) dollar depreciation.  B) stagflation.  C) deflation.  D) disinflation.
   Answer: D

78. When the actual rate of inflation is less than the expected rate:
   A) the unemployment rate will temporarily rise.
   B) firms will increase their output to recoup their falling profits.
   C) the unemployment rate will temporarily fall.
   D) firms will experience rising profits and thus increase their employment.
   Answer: A

79. When the actual rate of inflation exceeds the expected rate:
   A) the unemployment rate will temporarily rise.
   B) firms will experience rising profits and thus increase their employment.
   C) the actual rate of inflation will fall.
   D) nominal wages will decline.
   Answer: B
Use the following to answer questions 80-85:

![Graph](image)

80. The above diagram is the basis for explaining:
   A) the traditional Phillips Curve.
   B) the long-run Phillips Curve.
   C) how central planning can make full employment and price level stability compatible goals.
   D) new policies for eliminating unemployment.
   Answer: B

81. The natural rate of unemployment for this economy is:
   A) 3 percent. B) 5 percent. C) 6 percent. D) 4 percent.
   Answer: B

82. Refer to the above diagram. Assume the economy is initially at point $b_1$. With a time lag between price and nominal wage adjustments, an increase in aggregate demand will temporarily move the economy from:
   A) $b_2$ to $b_1$. B) $c_1$ to $b_2$. C) $b_1$ to $c_1$. D) $b_1$ to $b_2$.
   Answer: C

83. Refer to the above diagram and assume the economy is initially at point $b_1$. Which of the following movements is consistent with the traditional Phillips Curve?
   A) the movement from $b_1$ to $b_2$ C) the movement from $c_1$ to $b_2$
   B) the movement from $b_1$ to $c_1$ D) the movement from $b_2$ to $b_1$
   Answer: B

84. Refer to the above diagram and assume the economy is initially at point $b_1$. Point $c_1$ represents:
   A) a stable position because reality and expectations are consistent.
   B) a stable position because full employment and a constant annual inflation rate are represented.
   C) an unstable situation because government will undertake contractionary policies.
   D) an unstable situation because nominal wage rates will increase.
   Answer: D
85. Refer to the above diagram and assume the economy is initially at point \( b_1 \). The long-run relationship between the unemployment rate and the rate of inflation is represented by:

A) the line connecting \( b_1 \) and \( c_1 \).
B) the line through \( b_1, b_2, b_3, \) and \( b_4 \).
C) the line connecting \( c_1 \) and \( b_2 \).
D) any line parallel to the horizontal axis.

Answer: B

86. Government can push the unemployment rate below the natural rate only by:

A) instituting supply-side economic policies.
B) producing a higher rate of inflation than people expect.
C) balancing the federal budget.
D) achieving zero inflation.

Answer: B

87. In the long run:

A) attempts to "fine tune" the economy cause the rate of unemployment to accelerate.
B) there is no long-run inflation-unemployment tradeoff.
C) there is an inflation-unemployment tradeoff and the terms of that tradeoff have worsened in recent years.
D) there is an inflation-unemployment tradeoff, but the terms of that tradeoff have improved in recent years.

Answer: B
Use the following to answer questions 88-91:

![Graph of inflation rate vs. unemployment rate]

88. Refer to the above diagram. Assume that the natural rate of unemployment is 5 percent and that the economy is initially operating at point \( a \) where the expected and actual rates of inflation are each 6 percent. If the actual rate of inflation unexpectedly falls from 6 percent to 4 percent, then the unemployment rate will:
   A) temporarily fall from 5 percent to 4 percent.  
   B) permanently fall from 5 percent to 4 percent.  
   C) temporarily rise from 5 percent to 7 percent.  
   D) permanently rise from 5 percent to 7 percent.  
   Answer: C

89. Refer to the above diagram. Assume that the natural rate of unemployment is 5 percent and that the economy is initially operating at point \( a \) where the expected and actual rates of inflation are each 6 percent. In the long run, the decline in the actual rate of inflation from 6 percent to 4 percent will:
   A) reduce the unemployment rate.  
   B) reduce corporate profits in real terms.  
   C) have no effect on the unemployment rate.  
   D) reduce real domestic output.  
   Answer: C

90. Refer to the above diagram. Assume that the natural rate of unemployment is 5 percent and that the economy is initially operating at point \( c \) where the expected and actual rates of inflation are each 4 percent. If the actual rate of inflation unexpectedly rises from 4 percent to 6 percent, the economy will:
   A) move from \( a \) to \( b \) and eventually to \( c \).  
   B) move directly from \( c \) to \( b \).  
   C) remain at \( a \).  
   D) move from \( c \) to \( d \) and eventually to \( a \).  
   Answer: D

91. In the above diagram:
   A) any rate of inflation is consistent with the natural rate of unemployment in the long run.  
   B) inflation can occur but disinflation cannot occur.  
   C) unemployment rates exceeding the natural rate are permanent.  
   D) unemployment rates less than the natural rate are permanent.  
   Answer: A
Use the following to answer questions 92-95:

92. Refer to the above diagram. Point b on short-run Phillips Curve $PC_1$ represents a rate of:
   A) inflation below the natural rate.  
   B) inflation above the natural rate.  
   C) unemployment above the natural rate.  
   D) unemployment below the natural rate.  
   Answer: D

93. Refer to the above diagram. Point b would be explained by:
   A) an actual rate of inflation that exceeds the expected rate.  
   B) an actual rate of inflation that is less than the expected rate.  
   C) cost-push inflation.  
   D) an increase in long-run aggregate supply.  
   Answer: A

94. Refer to the above diagram. Point b would not be permanent because the:
   A) economy would move from b to a on $PC_1$.  
   B) short-run Phillips Curve would shift from $PC_1$ to $PC_2$ and unemployment would increase to the natural rate at c.  
   C) economy would immediately move from b to c to d.  
   D) economy would move from b directly to d.  
   Answer: B

95. Refer to the above diagram. The move of the economy from c to e on short-run Phillips Curve $PC_2$ would be explained by an:
   A) increase in aggregate demand in the economy.  
   B) increase in aggregate supply in the economy.  
   C) actual rate of inflation that is less than the expected rate.  
   D) actual rate of inflation that exceeds the expected rate.  
   Answer: C
Chapter 16: Extending the Analysis of Aggregate Supply

Taxation and aggregate supply

96. Which of the following is a tenet of supply-side economics?
   A) High marginal tax rates severely discourage work, saving, and investment.
   B) Increases in social security taxes and other business taxes shift the aggregate supply curve to the right.
   C) The Federal Reserve should adhere to a monetary rule that limits increases in the money supply to a 5 percent annual rate.
   D) Transfer payments increase incentives to work.
   Answer: A

97. The Laffer Curve is a central concept in:
   Answer: D

98. The above curve is known as the:
   Answer: C

99. Refer to the above diagram. Supply-side economists believe that tax rates are:
   A) such that an increase in tax rates will increase tax revenues.
   B) at some level below \( b \).
   C) at some level above \( b \).
   D) at \( d \).
   Answer: C

100. In the above curve, a decline in the tax rate from \( c \) to \( b \) would:
    A) greatly increase tax revenue. C) leave tax revenue about the same as before.
    B) greatly decrease tax revenue. D) shift the curve to the left.
    Answer: A
101. If the current tax rate is currently $c$ and the government wants to maximize tax revenue, it should:
   A) leave the tax rate at $c$.  
   B) increase the tax rate to $d$.  
   C) reduce the tax rate to $b$.  
   D) reduce the tax rate to $a$.  
   Answer: C

102. Supply-side economist Arthur Laffer has argued that:
   A) there is no empirically proven relationship between tax rates and incentives.  
   B) large reductions in personal and corporate income taxes will increase aggregate supply much more than aggregate demand.  
   C) the only way to eliminate inflation is to increase taxes to induce a recession severe enough to eliminate inflationary expectations.  
   D) large cuts in income taxes will increase aggregate demand more than aggregate supply.  
   Answer: B

103. A basic criticism of supply-side economics is that:
   A) empirical research clearly shows that incentives to work and invest vary directly with marginal tax rates.  
   B) lower taxes will increase aggregate supply much more than they will increase aggregate demand.  
   C) lower taxes will increase aggregate demand much more than they will increase aggregate supply.  
   D) higher taxes will reduce incentives to work, invest, and innovate.  
   Answer: C

104. Critics of supply-side economics:
   A) argue that a tax cut will increase aggregate supply by more than it increases aggregate demand.  
   B) contend that the relationship between tax rates and economic incentives is small and of uncertain direction.  
   C) believe that a decline in tax rates will increase tax revenues.  
   D) point out that tax cuts enable households to "buy more leisure" by working less.  
   Answer: B

Use the following to answer questions 105-106:

<table>
<thead>
<tr>
<th>Average Tax Rate (%)</th>
<th>Tax Revenue (billions of dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>$250</td>
</tr>
<tr>
<td>40</td>
<td>300</td>
</tr>
<tr>
<td>60</td>
<td>250</td>
</tr>
<tr>
<td>80</td>
<td>200</td>
</tr>
</tbody>
</table>

105. If graphed, the relationship shown above would depict this economy's:
   Answer: A
Chapter 16: Extending the Analysis of Aggregate Supply

106. In 1993 the Federal government boosted income tax rates. In the seven years that followed:
A) tax revenues fell slightly.  C) the unemployment rate increased.
B) productivity growth slowed.  D) tax revenues expanded rapidly.
Answer: D

Consider This Questions

107. (Consider This) The ideas of economist Arthur Laffer became the centerpiece for tax policy during the:
A) Ford administration.  C) Nixon administration.
B) Clinton administration.  D) Reagan administration.
Answer: D

108. (Consider This) Economist Arthur Laffer equated Robin Hood to:
A) government and equated the people passing through Sherwood Forest to taxpayers.
B) charitable organizations and equated the people passing through Sherwood Forest to poor people.
C) businesses and equated the people passing through Sherwood Forest to consumers.
D) government and equated the people passing through Sherwood Forest to importers of goods and services.
Answer: A

Last Word Questions

109. (Last Word) Which of the following is a reason why changes in the price of imported oil have less of an effect on the U. S. economy than in the 1970s and early 1980s?
A) The United States is now more reliant on domestic oil and less reliant on imported oil.
B) The amount of energy consumed in producing each dollar of GDP has greatly declined.
C) The United States has vastly expanded its hydroelectric capacity (dams and reservoirs).
D) The United States has greatly expanded its passenger train services.
Answer: B

110. (Last Word) In recent years:
A) significant changes in the price of oil have had much less effect on the U. S. economy than did similar changes in oil prices in previous decades.
B) large increases in the price of oil have reduced U. S. aggregate supply and caused cost-push inflation.
C) large decreases in the price of oil have increased U. S. aggregate supply and caused deflation.
D) the United States has become a net exporter of oil.
Answer: A
Chapter 16: Extending the Analysis of Aggregate Supply

111. (Last Word) Relative to previous decades, the U.S. economy is less affected by changes in the price of oil partly because:
   A) the composition of GDP has changed from larger, heavier items such as earth movers and steel products toward smaller, lighter items such as software and microchips.
   B) The United States is now more reliant on domestic oil and less reliant on imported oil.
   C) The United States has vastly expanded its hydroelectric capacity (dams and reservoirs).
   D) The ratio of passenger cars to passenger trucks has increased.
   Answer: A

True/False Questions

112. The short-run aggregate supply curve is vertical and the long-run aggregate supply curve is horizontal.
   Answer: False

113. The short-run aggregate supply curve shifts to the left when nominal wages rise in response to price level increases.
   Answer: True

114. The extended AD-AS model distinguishes between short-run and long-run aggregate supply
   Answer: True

115. In the extended AD-AS model, the long-run aggregate supply curve is vertical.
   Answer: True

Use the following to answer questions 116-119:

Answer the next question(s) on the basis of the following economic data for a hypothetical economy:

<table>
<thead>
<tr>
<th>Year</th>
<th>Average hourly wage rates</th>
<th>Index of industrial production</th>
<th>Unemployment rate</th>
<th>Price level index</th>
<th>Rate of increase in productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>$6.40</td>
<td>197</td>
<td>5.5%</td>
<td>130</td>
<td>3.0%</td>
</tr>
<tr>
<td>1998</td>
<td>6.72</td>
<td>199</td>
<td>5.8</td>
<td>133</td>
<td>2.9</td>
</tr>
<tr>
<td>1999</td>
<td>7.24</td>
<td>196</td>
<td>7.2</td>
<td>139</td>
<td>3.1</td>
</tr>
<tr>
<td>2000</td>
<td>8.02</td>
<td>192</td>
<td>8.3</td>
<td>147</td>
<td>2.8</td>
</tr>
</tbody>
</table>

116. The above data indicate that the economy has entered a period of demand-pull inflation.
   Answer: False
Chapter 16: Extending the Analysis of Aggregate Supply

117. Refer to the above data. It would be appropriate stabilization policy to raise interest rates, raise taxes, and reduce government expenditures.
Answer: False

118. Refer to the above data. There is evidence that cost-push inflationary pressure is present in this economy.
Answer: True

119. Refer to the above data. This economy has encountered stagflation.
Answer: True

120. Demand-pull inflation and cost-push inflation are identical concepts because both involve lower unemployment rates and rising prices.
Answer: False

121. The Phillips Curve suggests an inverse relationship between increases in the price level and the level of employment.
Answer: False

122. A shift in the Phillips Curve to the left will improve the inflation-unemployment choices available to society.
Answer: True

123. A rightward and upward shift of the Phillips Curve is consistent with the occurrence of stagflation.
Answer: True

124. The Laffer Curve shows the tradeoff between the price level and tax rates.
Answer: False

125. The Laffer Curve underlies the contention that lower tax rates need not reduce tax revenues.
Answer: True


CHAPTER 17

Economic Growth

<table>
<thead>
<tr>
<th>Topic</th>
<th>Question numbers</th>
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<tbody>
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<td>2. Growth record; growth accounting</td>
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<td>3. The New Economy</td>
<td>49-65</td>
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<tr>
<td>Consider This</td>
<td>70-71</td>
</tr>
<tr>
<td>Last Word</td>
<td>72-74</td>
</tr>
<tr>
<td>True-False</td>
<td>75-88</td>
</tr>
</tbody>
</table>

Multiple Choice Questions

Ingredients and graphical analysis

Use the following to answer questions 1-5:

Use the following list to answer the following questions:

1. Improvements in technology
2. Increases in the supply (stock) of capital goods
3. Purchases of rising output.
4. Obtaining the optimal combination of goods, each at least-cost production
5. Increases in the quantity and quality of natural resources
6. Increases in the quantity and quality of human resources

Type: A  Topic: 1  E: 308-309  MA: 308-309
1. Refer to the above list. As distinct from the demand and efficiency factors of economic growth, the supply factors of economic growth are:
   A) 2, 5, and 6 only.  B) 2, 4, 5, and 6 only.  C) 1, 2, 5, and 6 only.  D) 1, 3, 4 only.
   Answer: C

Type: A  Topic: 1  E: 308  MA: 308
2. Refer to the above list. As distinct from the supply factors and efficiency factor of economic growth, the demand factor of economic growth is:
   A) 1 only.  B) 4 only.  C) 1 and 3 only.  D) 3 only.
   Answer: D
3. Refer to the above list. As distinct from the supply factors and demand factor of economic growth, the efficiency factor of economic growth is:
   A) 1 only.  B) 4 only.  C) 1 and 3 only.  D) 3 only.
   Answer: B

4. Which set of items in the above list would shift an economy's production possibilities curve outward?
   A) 2, 5, and 6 only.  B) 2, 4, 5, and 6 only.  C) 1, 2, 5, and 6 only.  D) 1, 3, 4 only.
   Answer: C

5. Which set of items in the above list would shift an economy's long-run aggregate supply curve to the right?
   A) 1, 2, 5, and 6 only.  B) 2, 5, and 6 only.  C) 2, 4, 5, and 6 only.  D) 1, 3, 4 only.
   Answer: A

6. Which of the following is not a supply factor in economic growth?
   A) the stock of capital  C) the size and quality of the labor force
   B) technological advance  D) aggregate expenditures
   Answer: D

7. The achievement of full employment through time will:
   A) diminish labor productivity.  B) reduce the level of investment as a percentage of GDP.
   C) increase the realized rate of economic growth.  D) have no impact on the rate of economic growth.
   Answer: C

8. Economic growth can be portrayed as a:
   A) outward shift of the production possibilities curve.  B) inward shift of the production possibilities curve.
   C) movement from a point on to a point inside a production possibilities curve.  D) movement from one point to another point on a fixed production possibilities curve.
   Answer: A

9. Suppose that an economy's labor productivity and total worker-hours each grew by 3 percent between year 1 and year 2. We could conclude that this economy's:
   A) real GDP remained constant.  B) capital stock increased by 3 percent.
   C) production possibilities curve shifted inward.  D) long-run aggregate supply curve shifted to the right.
   Answer: D
10. Suppose that an economy's labor productivity and total worker-hours each grew by 4 percent between year 1 and year 2. We could conclude that this economy's:
   A) long-run aggregate supply curve shifted to the left.
   B) real GDP remained constant.
   C) production possibilities curve shifted outward.
   D) capital stock increased by 4 percent.
Answer: C

11. Suppose that an economy's labor productivity fell by 3 percent and its total worker-hours remained constant between year 1 and year 2. We could conclude that this economy's:
   A) real GDP declined
   B) capital stock increased.
   C) production possibilities curve shifted outward.
   D) long-run aggregate supply curve shifted to the right.
Answer: A

12. Suppose that an economy's labor productivity rose by 3 percent and its total worker-hours remained constant between year 1 and year 2. We could conclude that this economy's:
   A) capital stock increased.
   B) real GDP increased.
   C) production possibilities curve shifted inward.
   D) long-run aggregate supply curve shifted to the left.
Answer: B

Use the following to answer questions 13-16:

13. Curve AB is a:
   A) production possibilities curve and curve X is a long-run aggregate supply curve.
   B) consumer demand curve and curve X is a long-run aggregate supply curve.
   C) long-run aggregate supply curve and Y is potential real GDP curve.
   D) long-run aggregate supply curve and X is a production possibilities curve.
Answer: A
14. Refer to the above graphs. Growth of production capacity is shown by:
   A) the shift from $AB$ to $CD$ only.
   B) the shift from $X$ to $Y$ only.
   C) both the shift from $AB$ to $CD$ and the shift from $X$ to $Y$.
   D) both the shift from $AB$ to $CD$ and the shift from $Y$ to $X$.
   Answer: C

15. Refer to the above graphs. An increase in an economy's labor productivity would shift curve:
   A) $AB$ to $CD$ and shift curve $Y$ to $X$.
   B) $CD$ to $AB$ and shift curve $X$ to $Y$.
   C) $AB$ to $CD$ and shift curve $X$ to $Y$.
   D) $X$ to $Y$ while leaving curve $AB$ in place.
   Answer: C

16. Refer to the above graphs. An increase in the economy's human capital would shift curve:
   A) $AB$ to $CD$ and curve $Y$ to $X$.
   B) $CD$ to $AB$ and curve $X$ to $Y$.
   C) $X$ to $Y$ while leaving curve $AB$ in place.
   D) $AB$ to $CD$ and curve $X$ to $Y$.
   Answer: D

Use the following to answer questions 17-18:

17. Refer to the above diagram. Realized economic growth is best represented by a:
   A) shift in the production possibilities curve from $AB$ to $CD$.
   B) move from $X$ on $AB$ to $Y$ on $CD$.
   C) shift in the production possibilities curve from $CD$ to $AB$.
   D) move from $X$ to $Z$ along $AB$.
   Answer: B
18. Refer to the above diagram. The most likely cause of a shift from $AB$ to $CD$ would be a(n):
   A) increase in productivity.          C) decrease in the size of the labor force.
   B) increase in the price level.        D) recession.
   Answer: A

19. An outward shift of a nation's production possibilities curve:
   A) ensures the nation of an increase in real GDP per capita.
   B) ensures the nation of an increase in real GDP, but not of real GDP per capita.
   C) neither ensures a nation of an increase in real GDP nor of an increase in real GDP per capita.
   D) corresponds to a leftward shift a nation's long-run aggregate supply curve.
   Answer: C

20. Labor productivity is measured by:
   A) the ratio of capital to labor.       C) real output per capita.
   B) real output per worker hour.        D) the ratio of worker hours to real GDP.
   Answer: B

21. Which of the following would not be expected to increase labor productivity?
   A) technological advance
   B) the acquisition of more education and training by the labor force
   C) an increase in the size of the labor force
   D) the realization of economies of scale
   Answer: C

22. Labor productivity is defined as:
   A) total output/worker-hours.
   B) nominal GDP minus real GDP.
   C) the ratio of real capital to worker-hours.
   D) the annual increase in nominal GDP per worker.
   Answer: A

23. Which of the following is correct?
   A) total output = labor productivity/worker-hours
   B) labor productivity = worker-hours/total output
   C) total output = worker-hours $\times$ labor productivity
   D) worker-hours = labor productivity $\times$ total output
   Answer: C

24. If the number of worker-hours in an economy is 100 and its labor productivity is 5 units of output per worker-hour, the economy's real GDP:
   A) is $20.    B) is $500.    C) is $5000.    D) cannot be calculated.
   Answer: B
Chapter 17: Economic Growth

25. Suppose total output (real GDP) is $4000 and labor productivity is 8. We can conclude that:
   A) real GDP per capita must be $500.
   B) the price-level index must be greater than 100.
   C) nominal GDP must be $500.
   D) the number of worker-hours must be 500.
   Answer: D

26. Suppose total output (real GDP) is $10,000 and worker-hours are 20,000. We can conclude that:
   A) real GDP per capita must be $200,000.
   B) the price-level index must be less than 100.
   C) labor productivity must be 0.5.
   D) nominal GDP must be between $10,000 and $20,000.
   Answer: C

27. The percentage of the working-age population in the labor force (= employed + officially unemployed) is called the:
   A) labor force participation rate.
   B) employment-population ratio.
   C) work-activity rate.
   D) work-nonwork ratio.
   Answer: A

28. Other things equal, which of the following would decrease the rate of economic growth, as measured by changes in real GDP?
   A) An increase in the educational attainment of the labor force
   B) A permanent decrease in frictional unemployment
   C) An increase in the amount of capital per worker
   D) A decrease in the labor force participation rate.
   Answer: D

29. Other things equal, which of the following would increase the rate of economic growth, as measured by changes in real GDP?
   A) A decline in the average length of the work week.
   B) A decrease in the labor force participation rate.
   C) An increase in the size of the working age population.
   D) A decline in the amount of capital per worker.
   Answer: C
Use the following to answer questions 30-31:

Type: G  Topic: 1  E: 313-314  MA: 313-314
30. Refer to the above diagram. The shifts in long-run and short-run aggregate supply curves from $AS_1$ and $AS'_1$ to $AS_2$ and $AS'_2$ would most likely result from:
   A) an increase in the price level.  
   B) a reduction in aggregate demand.  
   C) an improvement in technology.  
   D) deterioration of the infrastructure.
   Answer: C

Type: G  Topic: 1  E: 313-314  MA: 313-314
31. Refer to the above diagram. Suppose that in a specific year the long-run and short-run aggregate supply curves shift from $AS_1$ and $AS'_1$ to $AS_2$ and $AS'_2$. If the aggregate demand curve also shifts rightward from $AD_1$ to $AD_2$, the rates of economic growth and inflation for the year will be:
   A) 4 percent each.  
   B) 6 percent and 5 percent, respectively.  
   C) 8 percent and 3 percent, respectively.  
   D) 5 percent and 8 percent, respectively.
   Answer: D

Type: A  Topic: 1  E: 311  MA: 311
32. In the aggregate demand-aggregate supply model, economic growth is represented by a:
   A) leftward shift of the long-run aggregate supply curve.  
   B) leftward shift of the aggregate demand curve.  
   C) rightward shift of the long-run aggregate supply curve.  
   D) rightward shift of the short-run aggregate supply curve resulting from a decline in the price level.
   Answer: C

Type: C  Topic: 1  E: 311  MA: 311
33. A rightward shift of a nation's long-run aggregate supply curve is equivalent to:
   A) a rightward shift of the nation's aggregate demand curve.  
   B) a downward shift of the nation's aggregate expenditures curve.  
   C) a rightward shift of the nation's investment demand curve.  
   D) an outward shift of the nation's production possibilities curve.
   Answer: D
34. An outward shift of an nation's production possibilities curve is equivalent to a:
   A) rightward shift of the nation's aggregate demand curve.
   B) downward shift of the nation's aggregate expenditure curve.
   C) rightward shift of the nation's long-run aggregate supply curve.
   D) rightward shift of the nation's investment demand curve.
   Answer: C

35. Which of the following, other things equal, would shift a nation's long-run aggregate supply curve to the right?
   A) a decrease in the total hours of work
   B) a decline in productivity
   C) an increase in the labor force participation rate
   D) an increase in net exports
   Answer: C

Growth record; growth accounting

36. Which of the following statements is correct?
   A) Between 1950 and 2000, U.S. real GDP grew at about 2.3 percent per year and real GDP per capita grew at about 3.5 percent per year.
   B) Between 1950 and 2000, U.S. real GDP grew at about 3.5 percent per year and real GDP per capita grew at about 2.3 percent per year.
   C) Between 1950 and 2000, U.S. real GDP and real GDP per capita both grew at approximately 4 percent per year.
   D) Between 1950 and 2000, U.S. real GDP and real GDP per capita both grew at approximately 1 percent per year.
   Answer: B

37. Empirical studies suggest that:
   A) labor productivity has declined throughout U.S. history.
   B) real GDP per capita in the United States grew about 2.3 percent per year between 1950 and 2000.
   C) the achieving of economies of scale is the most important factor in U.S. economic growth.
   D) the U.S.'s real GDP has grown the slowest of all industrialized nations, particularly since 1995.
   Answer: B

38. Between 1950 and 2000, the long-run average annual rate of growth of real GDP in the United States was about:
   A) 8.2 percent.  B) 5.1 percent.  C) 3.5 percent.  D) 1.8 percent.
   Answer: C

39. In the United States real GDP:
   A) has grown faster than real GDP per capita.
   B) has grown faster in recent years than has nominal GDP.
   C) per capita has grown faster than real GDP.
   D) and real GDP per capita have grown at nearly identical rates.
   Answer: A
Chapter 17: Economic Growth

40. The largest contributor to increases in the productivity of American labor is:
   A) the reallocation of labor from agriculture to manufacturing.
   B) improvements in labor quality.
   C) increases in the quantity of capital.
   D) technological advance.
   Answer: D

41. Which of the following statements is correct?
   A) The U.S. population has increased more rapidly than real GDP in recent decades.
   B) Improved education and training of labor is the most important source of U.S. productivity growth.
   C) The average American factory worker has about 16 years of formal education.
   D) The amount of real capital used per worker has increased historically in the United States.
   Answer: D

42. The historical reallocation of labor from agriculture to manufacturing in the United States has:
   A) been inflationary.
   B) had no effect on the average productivity of labor.
   C) increased the average productivity of labor.
   D) reduced the average productivity of labor.
   Answer: C

43. More than half the growth of real GDP in the United States is caused by:
   A) a falling price level.
   B) the reallocation of labor from manufacturing to agriculture.
   C) increases in the productivity of labor.
   D) the use of fewer inputs of labor.
   Answer: C

44. Which of the following is the largest contribution to the growth of labor productivity in the United States?
   A) technological advance
   B) education and training of labor
   C) economies of scale
   D) improved resource allocation
   Answer: A

45. A nation's infrastructure refers to:
   A) its ability to realize economies of scale.
   B) its stock of technological knowledge.
   C) public capital goods such as highways and sanitation systems.
   D) the productivity of its labor force.
   Answer: C
Economies of scale refer to:
A) the idea that proprietorships are less bureaucratic and therefore more efficient than corporations.
B) public investments in highways, schools, utilities, and such.
C) the fact that large producers may be able to use more efficient technologies than smaller producers.
D) the reallocation of labor from less-productive to more-productive uses.
Answer: C

Other things equal, if a full-employment economy reallocated a substantial quantity of its resources to capital goods, we would expect:
A) present consumption to rise.  C) a lower rate of growth of real GDP.
B) future consumption to fall.  D) labor productivity to rise.
Answer: D

Other things equal, in which of the following instances would the increase in labor productivity be the greatest?
A) the stock of real capital and inputs of labor increase proportionately
B) the increase in the stock of real capital exceeds the increase in inputs of labor
C) the increase in inputs of labor exceeds the increase in the stock of real capital
D) inputs of labor increase and the stock of real capital remains constant
Answer: B

The New Economy

If the secular trend of labor productivity is 3 percent per year, the number of years that it will take for the standard of living to double will be about:
A) 15 years.  B) 17 years.  C) 20 years.  D) 23 years.
Answer: D

If the secular trend of labor productivity rises from 2 percent per year to 4 percent, the number of years that it will take for the standard of living to double will decline by about:
A) 5 years.  B) 10 years.  C) 17 years.  D) 23 years.
Answer: C

The annual growth of U.S. labor productivity:
A) was greater between 1973 and 1995 than between 1995 and 2002.
B) was greater between 1995 and 2002 than between 1973 and 1995.
C) was negative in the late 1990s.
D) averaged nearly 5 percent in the 1990s.
Answer: B
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52. The New Economy is characterized by:
   A) a higher trend rate of saving.   C) a higher trend rate of productivity growth.
   B) a higher natural rate of unemployment.   D) the end of the business cycle.
   Answer: C

53. The view that the trend rate of U.S. productivity growth accelerated between 1995 and 2002 is closely associated with the:
   A) idea of the New Economy.  
   B) distinction between short-run and long-run aggregate supply.  
   C) idea of the invisible hand.  
   D) theory of comparative advantage.  
   Answer: A

54. Increases in the value of a product to each user, including existing users, as the total number of users rises are called:
   A) information cascades.  
   B) learning effects.  
   C) network effects.  
   D) scale economies.  
   Answer: C

55. Network effects are:
   A) rises in the value of a product to each user, including existing users, as the total number of users rises.
   B) reductions in per unit production cost as firms learn by doing.
   C) increases in demand resulting from products being mentioned positively in a television program.
   D) the change in real GDP resulting from a change in investment or government spending.
   Answer: A

56. All of the following are sources of increasing returns and economies of scale except:
   A) network effects.  
   B) spreading of development costs.  
   C) more specialized inputs.  
   D) coordination problems in large organizations.  
   Answer: D

57. All of the following are sources of increasing returns and economies of scale except:
   A) network effects.  
   B) the multiplier effect.  
   C) learning-by-doing.  
   D) simultaneous consumption.  
   Answer: B

58. The fundamental invention underpinning the New Economy is the:
   A) microchip.  
   B) fuel cell.  
   C) Internet  
   D) personal computer.  
   Answer: A

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59. All of the following are economic implications of the New Economy except:
   A) a lower natural rate of unemployment.  
   B) higher rates of productivity advance.  
   C) an end to the business cycle.  
   D) a greater rate of economic growth.
   Answer: C

60. Critics of the idea of the New Economy say that:
   A) it is too soon to judge whether the high productivity advances between 1995 and 2002 are permanent or
      transitory.
   B) the difficulties of the dot.com companies in 2001 disproves the idea of the New Economy.
   C) between 1995 and 2002 the economy moved below its natural rate of unemployment and paid the price
      in the form of accelerating inflation.
   D) the improved growth performance of the U.S. economy between 1995 and 2002 resulted from adroit
      monetary policy and not from increases in productivity.
   Answer: A

61. According to the adherents of the New Economy view, the above-normal economic growth in the United
    States between 1995 and 2002 was caused by:
   A) increases in the rate of personal saving.
   B) increased entrepreneurial activity, application of information technology, and global competition.
   C) rising Federal budget surpluses that reduced real interest rates.
   D) expansionary monetary policy.
   Answer: B

62. Proponents of the idea of a New Economy say that:
   A) the United States is entering an era of high structural unemployment due to rapid technological change.
   B) technological advance creates its own supply, which in turn creates its own demand.
   C) innovations in computers and communications, together with global capitalism, are greatly boosting
      U.S. productivity and the economy's potential economic growth rate.
   D) technological change will require more central planning and government regulation.
   Answer: C

63. Critics of the idea of a New Economy say that:
   A) it is too early to predict whether recent boosts in U.S. productivity are permanent or transitory.
   B) global capitalism is a media fiction, not an economic reality.
   C) the growth of service productivity is severely understated.
   D) many of the factors that slowed productivity in the 1973-1995 period have now reversed themselves.
   Answer: A
64. Between 1995 and 2002, the U.S. productivity rate:
   A) was slightly negative, mainly because of record levels of employment growth.
   B) picked up substantially compared to prior years, leading some economists to predict a long-lasting resurgence of productivity growth.
   C) slowed considerably relative to the high rates between 1990 and 1995.
   D) reached record low levels for the United States' economy, leading some economists to talk of "secular stagnation."
   Answer: B

65. The claim that innovations in information technology, together with global capitalism, are leading to a long-term increase in U.S. productivity growth is known as the:
   A) rational expectations theory.  
   B) theory of creative destruction.  
   C) new-Keynesian perspective.  
   D) New Economy view.  
   Answer: D

Growth debate

66. Which of the following is a true statement?
   A) Economists who support economic growth say that it is the most practical route to the higher standards of living that the vast majority of people desire.
   B) Adherents of the view that the United States has achieved a New Economy contend that the business cycle is dead.
   C) Most economists believe that increases in real GDP actually produce decreases in overall economic well-being because of spillover costs.
   D) Mainstream economists disagree as whether the rate or productivity growth was higher between 1995 and 2002 than between 1973 and 1995.
   Answer: A

67. Proponents of economic growth say that pollution:
   A) is an inevitable by-product of growth.
   B) occurs, not because of growth, but because common properties are treated as free goods.
   C) declines as a country moves from agriculture to industry.
   D) is detrimental to economic growth.
   Answer: B

68. Critics of economic growth:
   A) contend that growth and industrialization reduce pollution.
   B) argue that economic growth does not resolve socioeconomic problems such as income inequality.
   C) point out that growth results in greater economic security for workers.
   D) say that its benefits accrue nearly exclusively to white males.
   Answer: B
Proponents of economic growth make all of the following arguments except:
A) Growth is the basic means of improving living standards.
B) It is easier to reduce poverty when the economy is growing than when it is not.
C) There is a direct relationship between a growing real GDP and rising pollution.
D) Growth provides an economic environment favorable to education and self-fulfillment.
Answer: C

Consider This Questions

The main point of the Consider This box about hypothetical countries Alpha, Bravo, and Charlie is that over several decades differing:
A) inflation rates create large differences in real GDP per capita.
B) economic growth rates create large differences in real GDP per capita.
C) ratios of defense spending to GDP create large differences in real GDP per capita.
D) unemployment rates create large differences in real GDP per capita.
Answer: B

According to the Consider This box about hypothetical countries Alpha, Bravo, and Charlie, small differences in ______ make for large differences in ______ over several decades, assuming the same growth of population for each country.
A) inflation rates; unemployment rates  
B) unemployment rates; economic growth rates  
C) economic growth rates: real GDP per capita  
D) tax rates; real GDP per capita
Answer: C

The rapid rise in the number of women in the paid U.S. workforce over the past several decades has:
A) shifted the U.S. production possibilities curve inward (to the left).
B) moved the U.S. economy from a point inside its production possibilities curve to a point on the curve.
C) reduced income inequality in the United States.
D) shifted the U.S. production possibilities curve outward (to the right) and expanded real GDP.
Answer: D

Over the past several decades, the percentage of women in the paid U.S. workforce has:
A) increased in spite of declining wages for women.
B) decreased because relatively more women are staying home to raise their children.
C) increased due to higher wages, expanded job accessibility, changing preferences and attitudes, and other factors.
D) increased for unmarried women, but decreased for married women.
Answer: C
Chapter 17: Economic Growth

74. (Last Word) Rising wages for women in the United States have:
   A) increased the proportion of women working part time compared to working full time.
   B) increased labor costs and thus shifted the nation's production possibilities curve inward.
   C) increased average family size in the United States.
   D) increased the percentage of married women in the workforce.
   Answer: D

True/False Questions

75. In the United States, real GDP per capita has increased more rapidly than real GDP.
   Answer: False

76. A rightward shift of a nation's production possibilities curve is a necessary but not sufficient condition for economic growth.
   Answer: True

77. Economic growth can be shown as a movement from a point on one production possibility curve to a point on a curve located farther from the origin.
   Answer: True

78. A rightward shift of an economy's long-run aggregate supply curve is equivalent to a movement along an existing production possibilities curve.
   Answer: False

79. Growth of real GDP in the United States has averaged slightly more than 5 percent annually since 1950.
   Answer: False

80. Between 1929 and 2002, rising labor productivity contributed more to U.S. economic growth than did increases in inputs.
   Answer: True

81. Real GDP = worker-hours x labor productivity.
   Answer: True

82. Labor productivity = worker-hours/real GDP.
   Answer: False
83. Improvements in education and training explain about 80 percent of the historical growth of U.S. labor productivity.
   Answer: False

   Answer: False

   Answer: False

86. The New Economy of 1995-2002 was characterized by greater productivity growth and greater economic growth than in the immediately preceding two decades.
   Answer: True

87. According to proponents of the New Economy, the business cycle is dead.
   Answer: False

88. Critics of economic growth say studies show that people are not interested in achieving higher standards of living.
   Answer: False