

Principles of Macroeconomics

Practice Final

I. Single Choice

1. If the central bank increases the interest rate on bank deposits at the central bank, banks will want to hold

- a. fewer reserves, so the reserve ratio will fall.
- b. fewer reserves, so the reserve ratio will rise.
- c. more reserves, so the reserve ratio will fall.
- d. more reserves, so the reserve ratio will rise.

2. If the reserve requirement is 10 percent, which of the following pairs of changes would both allow a bank to lend out an additional \$10,000?

- a. The central bank buys a \$10,000 bond from the bank or someone deposits \$10,000 in the bank.
- b. The central bank buys a \$10,000 bond from the bank or the central bank lends the bank \$10,000.
- c. The central bank sells a \$10,000 bond to the bank or someone deposits \$10,000 in the bank.
- d. The central bank sells a \$10,000 bond to the bank or the central bank lends the bank \$10,000.

3. Which of the following is not included in either M1 or M2?

- a. Large time deposit
- b. Small time deposits
- c. Demand deposits
- d. Money market mutual funds

4. When the central bank decreases the discount rate, banks will
- a. borrow more from the central bank and lend more to the public. The money supply increases.
 - b. borrow more from the central bank and lend less to the public. The money supply decreases.
 - c. borrow less from the central bank and lend more to the public. The money supply increases.
 - d. borrow less from the central bank and lend less to the public. The money supply decreases.
5. If the reserve ratio is 4 percent, then the money multiplier is
- a. 0.04.
 - b. 25.
 - c. 2.5.
 - d. 4.
6. Which of the following is not a function of money?
- a. Unit of account
 - b. Store of value
 - c. Medium of exchange
 - d. Protection against inflation
7. Changes in nominal variables are determined mostly by the quantity of money and the monetary system according to
- a. both the classical dichotomy and the quantity theory of money.
 - b. the classical dichotomy, but not the quantity theory of money.
 - c. the quantity theory of money, but not the classical dichotomy.

- d. neither the classical dichotomy nor the quantity theory of money.
8. When the price level rises, the number of dollars needed to buy a representative basket of goods
- a. increases, so the value of money rises.
 - b. decreases, so the value of money rises.
 - c. increases, and so the value of money falls.
 - d. decreases, so the value of money falls.
9. Suppose that monetary neutrality and the Fisher effect both hold. An increase in the money supply growth rate increases
- a. the inflation rate and the nominal interest rate by the same number of percentage points.
 - b. nominal interest rates but by less than the percentage point increase in the inflation rate.
 - c. the inflation rate but not the nominal interest.
 - d. neither the inflation rate nor the nominal interest rate.
10. If $M = 5,000$, $P = 5.5$, and $Y = 9,000$, what is velocity?
- a. 10
 - b. 2
 - c. 2.75
 - d. 0.55
11. The shoeleather cost of inflation refers to the
- a. redistributive effects of unexpected inflation.
 - b. time spent searching for low prices when inflation rises.
 - c. waste of resources used to maintain lower money holdings.
 - d. increased cost to the government of printing more money.

12. If the price level increased from 130 to 150, then what was the inflation rate?

- a. 1.2 percent
- b. 0.9 percent
- c. 15.4 percent
- d. 20.0 percent

13. The price level rises in the short run if

- a. aggregate demand or aggregate supply shifts left.
- b. aggregate demand shifts right or aggregate supply shifts left.
- c. aggregate demand shifts left or aggregate supply shifts right.
- d. aggregate demand or aggregate supply shifts right.

14. Aggregate demand includes

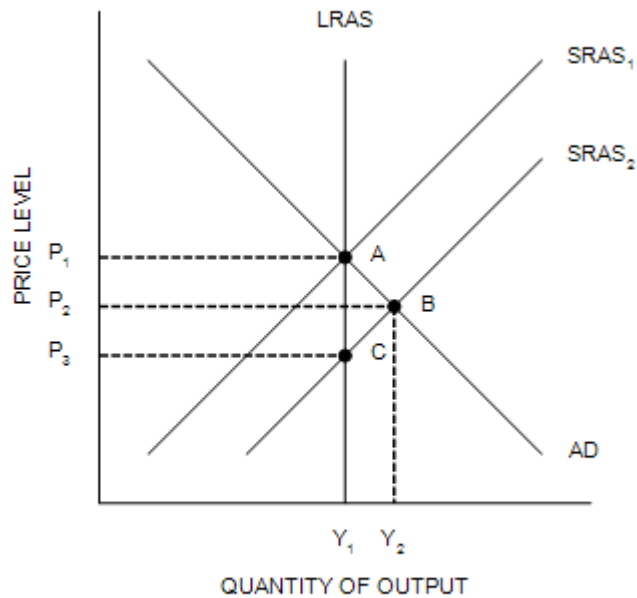
- a. the quantity of goods and services the government, households, firms, and customers abroad want to buy.
- b. neither the quantity of goods and services the government, households, nor firms want to buy nor the quantity of goods and services customers abroad want to buy.
- c. the quantity of goods and service the government wants to buy, but not the quantity of goods and services households, firms, or customers abroad want to buy.
- d. the quantity of goods and services households and firms want to buy, but not the quantity of goods and services the government wants to buy.

15. Which of the following is not a determinant of the long-run level of real GDP?

- a. The price level
- b. The amount of capital used by firms
- c. Available stock of human capital

- d. Available technology

Figure 1



16. **Refer to Figure 1.** Starting from point B and assuming that aggregate demand is held constant, in the long run the economy is likely to experience a

- a. falling price level and a falling level of output, as the economy moves to point C.
- b. falling price level and a rising level of output, as the economy moves to point A.
- c. rising price level and a falling level of output, as the economy moves to point A.
- d. rising price level and a rising level of output, as the economy moves to point C.

17. In which case can we be sure aggregate demand shifts left overall?

- a. People want to save more for retirement and the central bank increases the money supply.
- b. People want to save more for retirement and the central bank decreases the money supply.
- c. People want to save less for retirement and the central bank increases the money supply.
- d. People want to save less for retirement and the central bank decreases the money supply.

18. An increase in the expected price level shifts

- a. both the short-run and long-run aggregate supply curves to the left.
- b. the short-run aggregate supply curve to the left but does not affect the long-run aggregate supply curve.
- c. the long-run aggregate supply curve to the left but does not affect the short-run aggregate supply curve.
- d. neither the long-run aggregate supply curve nor the short-run aggregate supply curve to the left.

19. A goal of monetary policy and fiscal policy is to

- a. offset the shifts in aggregate demand and thereby eliminate unemployment.
- b. offset shifts in aggregate demand and thereby stabilize the economy.
- c. enhance the shifts in aggregate demand and thereby create fluctuations in output and employment.
- d. enhance the shifts in aggregate demand and thereby increase economic growth.

20. The multiplier effect states that there are additional shifts in aggregate demand from expansionary fiscal policy, because it

- a. reduces investment and thereby increases consumer spending.
- b. increases the money supply and thereby reduces interest rates.
- c. increases income and thereby increases consumer spending.
- d. decreases income and thereby increases consumer spending.

21. Initially, the economy is in long-run equilibrium. Aggregate demand then shifts leftward by \$50 billion. The government wants to increase its spending in order to avoid a recession. If the crowding-out effect is always one-third as strong as the multiplier effect, and if the MPC equals 0.6, then by how much do government purchases have to increase in order to offset the \$50 billion leftward shift?

- a. By \$90 billion
- b. By \$60 billion
- c. By \$20 billion
- d. By \$30 billion

22. According to liquidity preference theory, the money-supply curve would shift rightward

- a. if the money demand curve shifted right.
- b. if the central bank chose to increase the money supply.
- c. if the interest rate increased.
- d. if the price level increased.

23. The process of the investment accelerator involves

- a. positive feedback from aggregate demand to investment.
- b. negative feedback from aggregate demand to investment.
- c. positive feedback from aggregate supply to investment.
- d. negative feedback from aggregate supply to investment.

24. If the multiplier is 3, then the MPC is

- a. $1/3$.
- b. $3/4$.
- c. $4/3$.
- d. $2/3$.

25. According to the long-run Phillips curve, in the long run monetary policy influences

- a. both the inflation rate and the unemployment rate.
- b. the inflation rate but not the unemployment rate.

- c. the unemployment rate but not the inflation rate.
- d. neither the unemployment rate nor the inflation rate.

26. If the central bank keeps the money supply growth rate constant, but people raise their inflation expectations by 1 percentage point, then the short-run Phillips curve shifts

- a. right and the unemployment rate rises.
- b. right and the unemployment rate falls.
- c. left and the unemployment rate rises.
- d. left and the unemployment rate falls.

27. If inflation expectations rise, the short-run Phillips curve shifts

- a. right, so that at any inflation rate output is higher in the short run than before.
- b. left, so that at any inflation rate output is higher in the short run than before.
- c. right, so that at any inflation rate output is lower in the short run than before.
- d. left, so that at any inflation rate output is lower in the short run than before.

28. If a central bank attempts to lower the inflation rate but the public doesn't believe the inflation rate will fall as far as the central bank says, then in the short run unemployment

- a. rises. As inflation expectations adjust, the short-run Phillips curve shifts right.
- b. rises. As inflation expectations adjust, the short-run Phillips curve shifts left.
- c. falls. As inflation expectations adjust, the short-run Phillips curve shifts right.
- d. falls. As inflation expectations adjust, the short-run Phillips curve shifts left.

29. In the long run, policy that changes aggregate demand changes

- a. both unemployment and the price level.
- b. neither unemployment nor the price level.
- c. only unemployment.

- d. only the price level.

30. Proponents of rational expectations argued that the sacrifice ratio

- a. could be high because it was rational for people not to immediately change their expectations.
- b. could be high because people might adjust their expectations quickly if they found anti-inflation policy credible.
- c. could be low because it was rational for people not to immediately change their expectations.
- d. could be low because people might adjust their expectations quickly if they found anti-inflation policy credible.

II. Short Answer and Calculation

1. Explain why banks can influence the money supply if the required reserve ratio is less than 100 percent.
2. If the reserve ratio is 20 percent, how much money can be created from \$100 of reserves? Show your work.
3. Suppose a bank has \$3,000 in reserves, \$25,000 of deposits, and a 10 percent reserve requirement. What is the amount of excess reserves?
4. Economists argue that the move from barter to money increased trade and production. How is this possible?
5. If the inflation rate was 8%, and the tax rate was 20%, and you deposited money in a bank account that pays 12%, what is your after tax real interest rate? Show your work.
6. The nominal interest rate is 8 percent and the consumer price index rises from 140 to 147. What is the real interest rate?
7. If the price level this year was 140 and was 135 last year, what was the inflation rate to the nearest decimal?

8. Suppose the central bank sells government bonds. Use a graph of the money market to show what this does to the value of money.
9. Use sticky-wage theory to explain why an increase in the expected price level shifts the aggregate supply curve.
10. Suppose a boom in stock market prices helps make people feel wealthier. Using the model of aggregate demand and aggregate supply, identify the curves that are affected, and which way these curves would shift.
11. During periods of stagflation, what happens to output and prices in the economy?
12. Suppose that a decrease in the demand for goods and services pushes the economy into recession. What happens to the price level? If the government does nothing, what ensures that the economy still eventually gets back to the natural rate of output?
13. Suppose that the government increases expenditures by \$150 billion while increasing taxes by \$150 billion. Suppose that the MPC is .80 and that there are no crowding out or accelerator effects.
 - (1) What is the combined effects of these changes?
 - (2) Why is the combined change not equal to zero?
14. What is the value of the multiplier if the marginal propensity to consume is 0.5?
15. Suppose that there are no crowding-out effects and the MPC is .9. By how much must the government increase expenditures to shift the aggregate demand curve right by \$10 billion?
16. Explain why the interest rate is the opportunity cost of holding currency. What is the benefit of holding currency?
17. A central bank raises the money supply growth rate and keeps it higher. As the economy moves from the short-run equilibrium created by the increase in the money supply growth back to long-run equilibrium what happens to the unemployment rate?
18. Does a more steeply sloped Phillips curve make the sacrifice ratio smaller or larger than otherwise?

19. A central bank pledges to reduce the inflation rate from 10% to 3%. People reduce their inflation expectations to 5%, but the central bank reduces inflation to 3%. What happens to the unemployment rate?
20. The net exports of country A fall due to recessions in foreign countries.
- A. According to the aggregate demand and supply model, what happens to the price level and output in the short run?
 - B. According to the short-run Phillips curve what happens to inflation and unemployment in the short run?
 - C. If the central bank wanted to reverse the effects of this shock on output, what should it do?