

8. Would each of the following groups be happy or unhappy if the U.S. dollar appreciated? Explain.
- Dutch pension funds holding U.S. government bonds
 - U.S. manufacturing industries
 - Australian tourists planning a trip to the United States
 - An American firm trying to purchase property overseas
9. What is happening to the U.S. real exchange rate in each of the following situations? Explain.
- The U.S. nominal exchange rate is unchanged, but prices rise faster in the United States than abroad.
 - The U.S. nominal exchange rate is unchanged, but prices rise faster abroad than in the United States.
 - The U.S. nominal exchange rate declines, and prices are unchanged in the United States and abroad.
 - The U.S. nominal exchange rate declines, and prices rise faster abroad than in the United States.
10. A can of soda costs \$0.75 in the United States and 12 pesos in Mexico. What would the peso-dollar exchange rate be if purchasing-power parity holds? If a monetary expansion caused all prices in Mexico to double, so that soda rose to 24 pesos, what would happen to the peso-dollar exchange rate?
11. Assume that American rice sells for \$100 per bushel, Japanese rice sells for 16,000 yen per bushel, and the nominal exchange rate is 80 yen per dollar.
- Explain how you could make a profit from this situation. What would be your profit per bushel of rice? If other people exploit the same opportunity, what would happen to the price of rice in Japan and the price of rice in the United States?
 - Suppose that rice is the only commodity in the world. What would happen to the real exchange rate between the United States and Japan?
12. A case study in the chapter analyzed purchasing-power parity for several countries using the price of Big Macs. Here are data for a few more countries:

Country	Price of a Big Mac	Predicted Exchange Rate	Actual Exchange Rate
Indonesia	14,600 rupiah	_____ rupiah/\$	9,541 rupiah/\$
Hungary	529 forints	_____ forints/\$	204 forints/\$
Czech Republic	56.30 korunas	_____ korunas/\$	24.5 korunas/\$
Canada	3.27 C\$	_____ C\$/\$	1.24 C\$/\$

- For each country, compute the predicted exchange rate of the local currency per U.S. dollar. (Recall that the U.S. price of a Big Mac was \$3.06.)
- According to purchasing-power parity, what is the predicted exchange rate between the Hungarian forint and the Canadian dollar? What is the actual exchange rate?
- How well does the theory of purchasing-power parity explain exchange rates?

- ners. If we subsidize U.S. exports instead, we can reduce the deficit by increasing our competitiveness." Using a three-panel diagram, show the effect of an export subsidy on net exports and the real exchange rate. Do you agree with the senator?
8. Suppose that real interest rates increase across Europe. Explain how this development will affect U.S. net capital outflow. Then explain how it will affect U.S. net exports by using a formula from the chapter and by drawing a diagram. What will happen to the U.S. real interest rate and real exchange rate?
 9. Suppose that Americans decide to increase their saving.
 - a. If the elasticity of U.S. net capital outflow with respect to the real interest rate is very high, will this increase in private saving have a large or small effect on U.S. domestic investment?
 - b. If the elasticity of U.S. exports with respect to the real exchange rate is very low, will this increase in private saving have a large or small effect on the U.S. real exchange rate?
 10. Over the past decade, some of Japanese saving has been used to finance American investment. That is, the Japanese have been buying American capital assets.
 - a. If the Japanese decided they no longer wanted to buy U.S. assets, what would happen in the U.S. market for loanable funds? In particular, what would happen to U.S. interest rates, U.S. saving, and U.S. investment?
 - b. What would happen in the market for foreign-currency exchange? In particular, what would happen to the value of the dollar and the U.S. trade balance?
 11. In 1998, the Russian government defaulted on its debt payments, leading investors worldwide to raise their preference for U.S. government bonds, which are considered very safe. What effect do you think this "flight to safety" had on the U.S. economy? Be sure to note the impact on national saving, domestic investment, net capital outflow, the interest rate, the exchange rate, and the trade balance.
 12. Suppose that U.S. mutual funds suddenly decide to invest more in Canada.
 - a. What happens to Canadian net capital outflow, Canadian saving, and Canadian domestic investment?
 - b. What is the long-run effect on the Canadian capital stock?
 - c. How will this change in the capital stock affect the Canadian labor market? Does this U.S. investment in Canada make Canadian workers better off or worse off?
 - d. Do you think this will make U.S. workers better off or worse off? Can you think of any reason the impact on U.S. citizens generally may be different from the impact on U.S. workers?

- b. "The long-run aggregate-supply curve is vertical because economic forces do not affect long-run aggregate supply."
- c. "If firms adjusted their prices every day, then the short-run aggregate-supply curve would be horizontal."
- d. "Whenever the economy enters a recession, its long-run aggregate-supply curve shifts to the left."
6. For each of the three theories for the upward slope of the short-run aggregate-supply curve, carefully explain the following:
- How the economy recovers from a recession and returns to its long-run equilibrium without any policy intervention.
 - What determines the speed of that recovery.
7. Suppose the Fed expands the money supply, but because the public expects this Fed action, it simultaneously raises its expectation of the price level. What will happen to output and the price level in the short run? Compare this result to the outcome if the Fed expanded the money supply but the public didn't change its expectation of the price level.
8. Suppose that the economy is currently in a recession. If policymakers take no action, how will the economy change over time? Explain in words and using an aggregate-demand/aggregate-supply diagram.
9. The economy begins in long-run equilibrium. Then one day, the president appoints a new chairman of the Federal Reserve. This new chairman is well-known for his view that inflation is not a major problem for an economy.
- How would this news affect the price level that people would expect to prevail?
 - How would this change in the expected price level affect the nominal wage that workers and firms agree to in their new labor contracts?
 - How would this change in the nominal wage affect the profitability of producing goods and services at any given price level?
 - How does this change in profitability affect the short-run aggregate-supply curve?
 - If aggregate demand is held constant, how does this shift in the aggregate-supply curve affect the price level and the quantity of output produced?
- f. Do you think this Fed chairman was a good appointment?
10. Explain whether each of the following events shifts the short-run aggregate-supply curve, the aggregate-demand curve, both, or neither. For each event that does shift a curve, draw a diagram to illustrate the effect on the economy.
- Household wealth rises as the stock market booms.
 - The price of crude oil rises.
 - A series of tornadoes flattens several factories in the Midwest.
11. For each of the following events, explain the short-run and long-run effects on output and the price level, assuming policymakers take no action.
- The stock market declines sharply, reducing consumers' wealth.
 - The federal government increases spending on national defense.
 - A technological improvement raises productivity.
 - A recession overseas causes foreigners to buy fewer U.S. goods.
12. Suppose that firms become very optimistic about future business conditions and invest heavily in new capital equipment.
- Draw an aggregate-demand/aggregate-supply diagram to show the short-run effect of this optimism on the economy. Label the new levels of prices and real output. Explain in words why the aggregate quantity of output *supplied* changes.
 - Now use the diagram from part (a) to show the new long-run equilibrium of the economy. (For now, assume there is no change in the long-run aggregate-supply curve.) Explain in words why the aggregate quantity of output *demand* changes between the short run and the long run.
 - How might the investment boom affect the long-run aggregate-supply curve? Explain.
13. In economy A, all workers agree in advance on the nominal wages that their employers will pay them. In economy B, half of all workers have these nominal wage contracts, while the other half have indexed employment contracts, so their wages rise and fall automatically with the price level. According to the sticky-wage theory

- on output and the price level. Explain in words why the policy has the effect that you have shown in the graph.
6. In the early 1980s, new legislation allowed banks to pay interest on checking deposits, which they could not do previously.
 - a. If we define money to include checking deposits, what effect did this legislation have on money demand? Explain.
 - b. If the Federal Reserve had maintained a constant money supply in the face of this change, what would have happened to the interest rate? What would have happened to aggregate demand and aggregate output?
 - c. If the Federal Reserve had maintained a constant market interest rate (the interest rate on nonmonetary assets) in the face of this change, what change in the money supply would have been necessary? What would have happened to aggregate demand and aggregate output?
 7. Suppose economists observe that an increase in government spending of \$10 billion raises the total demand for goods and services by \$30 billion.
 - a. If these economists ignore the possibility of crowding out, what would they estimate the marginal propensity to consume (*MPC*) to be?
 - b. Now suppose the economists allow for crowding out. Would their new estimate of the *MPC* be larger or smaller than their initial one?
 8. Suppose the government reduces taxes by \$20 billion, that there is no crowding out, and that the marginal propensity to consume is $3/4$.
 - a. What is the initial effect of the tax reduction on aggregate demand?
 - b. What additional effects follow this initial effect? What is the total effect of the tax cut on aggregate demand?
 - c. How does the total effect of this \$20 billion tax cut compare to the total effect of a \$20 billion increase in government purchases? Why?
 9. Suppose government spending increases. Would the effect on aggregate demand be larger if the Federal Reserve took no action in response or if the Fed were committed to maintaining a fixed interest rate? Explain.
 10. In which of the following circumstances is expansionary fiscal policy more likely to lead to a short-run increase in investment? Explain.
 - a. When the investment accelerator is large or when it is small?
 - b. When the interest sensitivity of investment is large or when it is small?
 11. For various reasons, fiscal policy changes automatically when output and employment fluctuate.
 - a. Explain why tax revenue changes when the economy goes into a recession.
 - b. Explain why government spending changes when the economy goes into a recession.
 - c. If the government were to operate under a strict balanced-budget rule, what would it have to do in a recession? Would that make the recession more or less severe?
 12. Some members of Congress have proposed a law that would make price stability the sole goal of monetary policy. Suppose such a law were passed.
 - a. How would the Fed respond to an event that contracted aggregate demand?
 - b. How would the Fed respond to an event that caused an adverse shift in short-run aggregate supply?

In each case, is there another monetary policy that would lead to greater stability in output?
 13. Go to the website of the Federal Reserve, <http://www.federalreserve.gov>, to learn more about monetary policy. Find a recent report, speech, or testimony by the Fed chairman or another Fed governor. What does it say about the state of the economy and recent decisions about monetary policy?