

- 1)
 - a. During the Depression, the Federal Reserve enacted policies that reduced the money supply. Sketch a graph and on it indicate what this would do to the aggregate demand and aggregate supply curves in the short run if output were originally at its natural level. What would happen to output and the aggregate price level in the short run?
 - b. On the same graph, indicate what would happen to the short-run aggregate supply and aggregate demand curves over time if there were no further reductions in the money supply. Consequently, what would happen to output and price level over time?
 - c. What is the final effect of this policy on output and the price level in the long run?

- 2) Throughout much of the 1990s, the United States experienced declining energy prices. Assume that the U.S. economy was in long-run equilibrium before these declines began.
 - a. Use the aggregate demand-aggregate supply model to illustrate graphically the short-run AND long-run impact of this decline on output and prices.
 - b. If the Federal Reserve attempted to offset this deviation from the natural rate in the short run, should the money supply be increased or decreased? Illustrate graphically.

- 3) Let's examine how the goals of the Fed influence its response to shocks. Suppose Fed A cares only about keeping the price level stable, and Fed B cares only about keeping output and employment at their natural rates. Explain how each Fed would respond to:
 - a. an exogenous INCREASE in the demand for money.
 - b. an exogenous INCREASE in the price of oil.

- 4) Consider the impact of an increase in thriftiness in the Keynesian cross. Suppose the consumption function is $C = a + c(Y - T)$, where a is a parameter called *autonomous consumption* and c is the marginal propensity to consume.
- a.** What happens to equilibrium income when the society becomes more thrifty, as represented by a decline in a .
 - b.** What happens to equilibrium saving? Why do you suppose this result is called the *paradox of thrift*?
 - c.** Does this paradox arise in the classical model of Chapter 3? Why or why not?

- 5) Suppose that the money demand function is

$$(M/P)^d = 1,000 - 100r,$$

where r is the interest rate in percent. The money supply M is 1,000 and the price level P is 2.

- a.** Graph the supply and demand for real money balances.
 - b.** What is the equilibrium interest rate?
 - c.** Assume that the price level is fixed. What happens to the equilibrium interest rate if the supply of money is raised from 1,000 to 1,200?
 - d.** If the Fed wishes to raise the interest rate to 7 percent, what money should it set?
- 6) **a.** Suppose that there is a sudden increase in the demand for money – that is, at the same levels of r and Y people want to hold more money. What would happen to the money demand curve and the LM curve? Illustrate graphically.
- b.** Suppose that Congress decides to reduce the budget deficit by cutting government spending. What would happen to the Keynesian Cross and the IS curve? Illustrate graphically.

- 7) How would each of the following changes affect the shape of the IS curve?
- a.** the MPC gets bigger.
 - b.** investment becomes more sensitive to changes in the interest rate.