

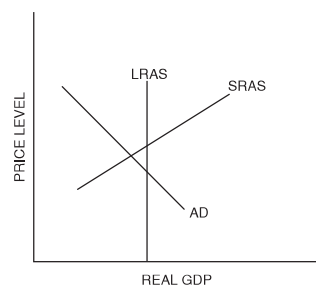
## Monetary Policy

Monetary policy is the action of the Federal Reserve (the Fed) to prevent or address extreme economic fluctuations. The Fed uses its monetary policy tools to influence equilibrium interest rates in the money market through its control of bank reserves. The Fed lowers interest rates through expansionary monetary policy to prevent or address recessions, and it raises interest rates through contractionary monetary policy to prevent or address inflation. Monetary policy is transmitted to the economy through changes in aggregate demand. Monetary policy will have both short-run and long-run effects in the economy. In the following figures, long-run aggregate supply, short-run aggregate supply, and demand curves are represented by LRAS, SRAS, and AD.



Figure 4-7.1

### Effects of Monetary Policy in the Economy (Recession)

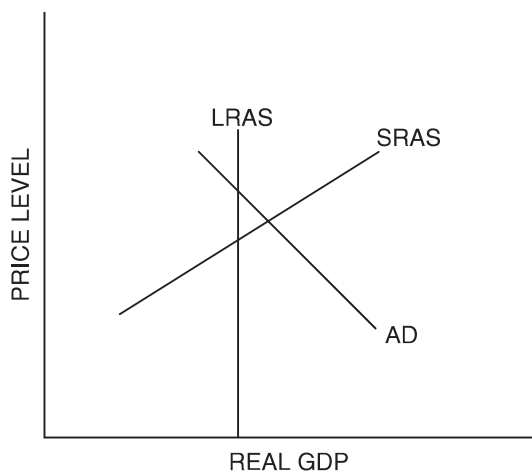


1. Suppose that initially the economy is at the intersection of AD and SRAS in Figure 4-7.1.
  - (A) What monetary policy can the Fed implement to move the economy to full-employment?
  - (B) If the Fed is going to use open market operations, it should (*buy / sell*) Treasury securities.
  - (C) The effect will (*increase / decrease*) Treasury security (bond) prices.
  - (D) In the short run, what is the effect on nominal interest rates? Explain.
  - (E) In the short run, what happens to real output? Shift the curve on the graph to show how the Fed's action results in a change in real output and explain why the shift occurs.
  - (F) In the short run, what happens to the price level? Explain how the Fed's action results in a change to the price level.



Figure 4-7.2

**Effects of Monetary Policy in the Economy (Inflation)**



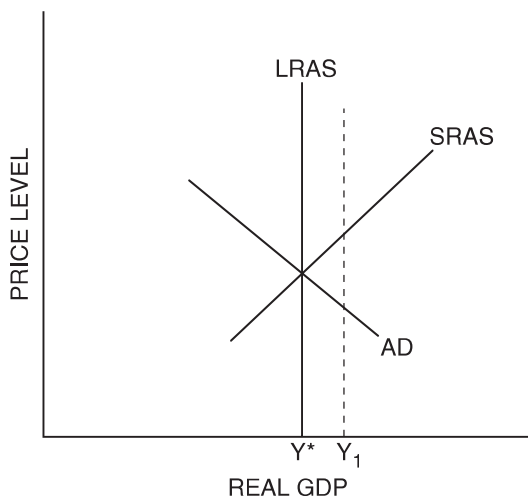
2. Suppose that initially the economy is at the intersection of AD and SRAS in Figure 4-7.2.
  - (A) What monetary policy can the Fed implement to move the economy to full-employment?
  - (B) If the Fed is going to use open market operations, it should (*buy / sell*) Treasury securities.
  - (C) The effect will (*increase / decrease*) Treasury security (bond) prices.
  - (D) In the short run, what is the effect on nominal interest rates? Explain.
  - (E) In the short run, what happens to real output? Shift the curve on the graph to show how the Fed's action results in a change in real output and explain why the shift occurs.
  - (F) In the short run, what happens to the price level? Explain how the Fed's action results in a change to the price level.

3. In the situation shown in Figure 4-7.3, suppose that the monetary authorities decide to maintain the level of employment represented by the output level  $Y_1$  by using expansionary monetary policy.



Figure 4-7.3

**Monetary Policy in the Long Run**



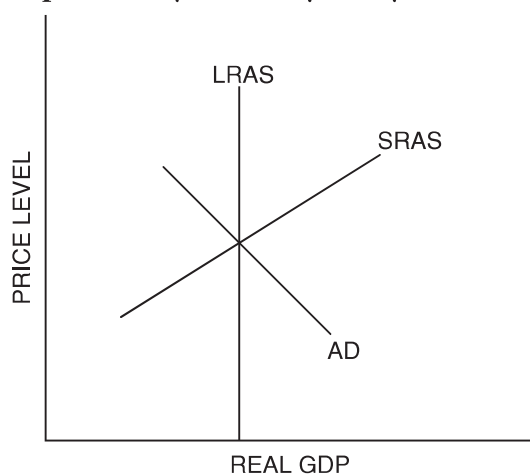
- (A) Explain the effect of the expansionary monetary policy on the price level and output in the short run.
- (B) Explain the effect on the price level and output in the long run.
- (C) Explain what you think will happen to the nominal rate of interest and the real rate of interest in the short run as the Fed continues to increase the money supply. Explain why.
- (D) Explain what you think will happen to the nominal rate of interest and the real rate of interest in the long run. Explain why.

4. Many economists think that moving from short-run equilibrium to long-run equilibrium may take several years. List three reasons why the economy might not immediately move to long-run equilibrium.
  
5. Briefly summarize the long-run impact of an expansionary monetary policy on the economy.



Figure 4-7.4

**Expansionary Monetary Policy**



6. Suppose that initially the economy is at the intersection of AD and SRAS as shown in Figure 4-7.4. Now, the Fed decides to implement expansionary monetary policy to increase the level of employment.
  - (A) In the short run, what happens to real output? Explain why.
  
  - (B) In the short run, what happens to the price level? Explain why.

(C) In the short run, what happens to employment and nominal wages? Explain why.

(D) In the short run, what happens to nominal interest rates and real interest rates?

(E) In the long run, what happens to real output? Explain why.

(F) In the long run, what happens to the price level? Explain why.

(G) In the long run, what happens to employment and nominal wages? Explain why.

(H) In the long run, what happens to the nominal interest rate and the real interest rate?