Monetary and Fiscal Policy

Part A
Tools of Monetary and Fiscal Policy

Both monetary and fiscal policy can be used to influence the inflation rate and real output. Indicate what effect each specific policy has on inflation and real output in the short run (nine to 18 months).

Figure 43.1

Monetary Policy	Inflation	Real Output
1. (A) Buy government securities		
(B) Sell government securities		
2. (A) Decrease the discount rate		
(B) Increase the discount rate		
3. (A) Decrease reserve requirement		
(B) Increase reserve requirement		

Fiscal Policy	Inflation	Real Output
4. (A) Increase government spending		
(B) Decrease government spending		
5. (A) Increase taxes		
(B) Decrease taxes		

Part B
Lags in Policy Making

As the economic situation changes, policy makers must decide when to take action and which policy action to take. Then they must implement the policy. The economy then responds to the policy. The amount of time it takes policy makers to recognize and take action is called the *inside lag*. The amount of time it takes the economy to respond to the policy changes is called the *outside* or *impact lag*. The inside lag is estimated to be short for monetary policy but long for fiscal policy. The inside lag is long for fiscal policy because the legislative branch must come to agreement about the appropriate action. The outside lag, however, is long and variable for monetary policy but very short for fiscal policy.

6. Explain why the inside lag can be short for monetary policy but the outside lag is long and variable.

Activity written by Rae Jean B. Goodman, U.S. Naval Academy, Annapolis, Md.

7. Explain why the outside lag is short for fiscal policy.

8. Explain why lags are important to the discussion of stabilization policy.

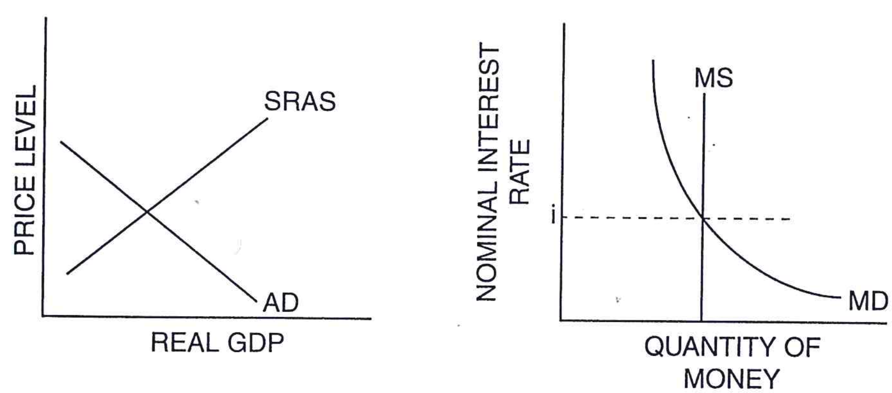
Crowding-Out: A Graphical Representation

Monetary policy and fiscal policy do not exist in separate airtight compartments. Monetary policy and fiscal policy can reinforce or accommodate each other, or they can work at cross-purposes. This activity assumes no changes in the foreign exchange rate, imports or exports.

For example, an expansionary fiscal policy will increase aggregate demand. The expansionary fiscal policy should also increase the demand for money. If the Fed does not increase the money supply, interest rates will rise. Because the government is borrowing money to finance its expansionary fiscal policy, consumers and businesses will be crowded-out of the financial markets. This could lower consumer and investment spending and slow down the economic expansion. On the other hand, if the Fed increases the money supply, interest rates should not rise as much. Of course, increasing the money supply will increase the price level further.

Part A
Using Aggregate Demand and Aggregate Supply Analysis

Figure 44.1
Crowding-Out Using Aggregate Demand and Aggregate Supply Analysis



1. Assume fiscal policy is expansionary and monetary policy keeps the stock of money constant at MS. Shift one curve in each graph to illustrate the effect of the fiscal policy.

   (A) Which curve did you shift in the short-run aggregate demand and aggregate supply graph? What happens as a result of this new curve?

   (B) In the money market graph, which curve did you shift to demonstrate the effect of the fiscal policy? What happens as a result of this shift?

Adapted from Phillip Saunders, *Introduction to Macroeconomics: Student Workbook*, 18th ed. (Bloomington, Ind., 1998). Activity revised by Rae Jean B. Goodman, U.S. Naval Academy, Annapolis, Md.

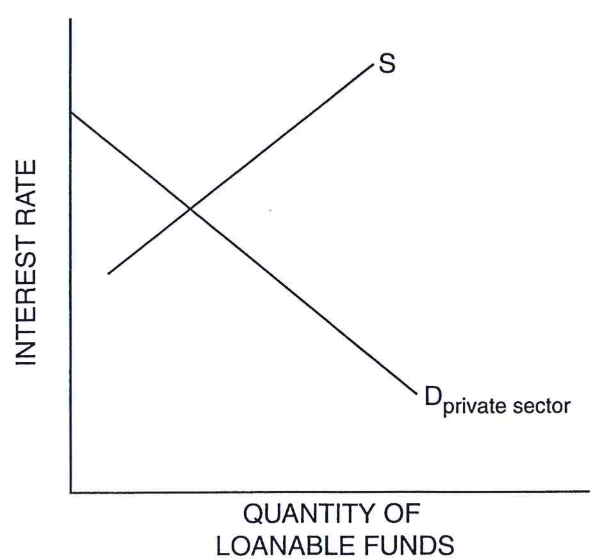
(C) Given the change in interest rates, what happens in the short-run aggregate supply and aggregate demand graph?

(D) How could a monetary policy action prevent the changes in interest rates and output you identified in (B) and (C)? Shift a curve in the money market graph, and explain how this shift would reduce crowding-out.

Part B
Using the Loanable Funds Market

The loanable funds market provides another approach to looking at the effects of increases in the budget deficit. The *demand* for funds in the loanable funds market comes from the private sector (business investment and consumer borrowing), the government sector (budget deficits) and the foreign sector. The *supply* of funds in the loanable funds market comes from private savings (businesses and households), the government sector (budget surpluses), the Federal Reserve (money supply) and the foreign sector.

Figure 44.2
Loanable Funds Market



2. Shift one of the curves on Figure 44.2 to indicate what occurs in the loanable funds market if government spending increases without any increases in tax revenue or the money supply.

   (A) What happens to the interest rate as a result of this expansionary fiscal policy? Explain.

   (B) Indicate on the graph the new quantity of private demand for loanable funds.

   (C) An accommodating monetary policy could prevent the effects you described in (A) and (B). Shift a curve in the diagram to show how the accommodating monetary policy would counteract the effects of crowding-out. Explain what would happen to interest rates and the level of private demand for loanable funds as a result of this new curve.

Part C
Applications

3. Indicate whether you agree (A), disagree (D) or are uncertain (U) about the truth of the following statement and explain your reasoning. "Exhaustion of excess bank reserves inevitably puts a ceiling on every business boom because without money the boom cannot continue."

Answer the questions that follow each of the scenarios below.

4. The Federal Reserve Open Market Committee wishes to accommodate or reinforce a contractionary fiscal policy.

   (A) Would the Fed buy bonds, sell bonds or neither?

   (B) What effect would this policy have on bond prices and interest rates?

   (C) What effect would this policy have on bank reserves and the money supply?

   (D) What effect would this policy have on the quantity of loanable funds demanded by the private sector?

   (E) What effect would the change in interest rates you identified in (B) have on aggregate demand?

5. The Federal Reserve Open Market Committee wishes to accommodate or reinforce an expansionary fiscal policy.

   (A) Would the Fed buy bonds, sell bonds or neither?

   (B) What effect would this policy have on bond prices and interest rates?

   (C) What effect would this policy have on bank reserves and the money supply?

   (D) What effect would this policy have on the quantity of loanable funds demanded by the private sector?

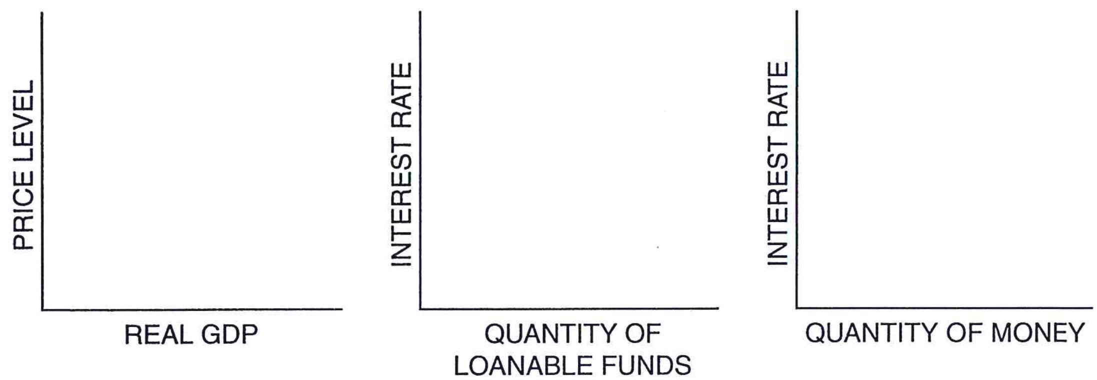
   (E) What effect would the change in interest rates you identified in (B) have on aggregate demand?

Graphing Monetary and Fiscal Policy Interactions

Illustrate the short-run effects for each monetary and fiscal policy combination using aggregate demand and supply curves, the money market and the loanable funds market. Once again, assume that there are no changes in the foreign sector. Circle the appropriate symbols (↑ for increase, ↓ for decrease, and **?** for uncertain), and explain the effect of the policies on real GDP, the price level, unemployment, interest rates and investment.

1. The unemployment rate is 10 percent, and the CPI is increasing at a 2 percent rate. The federal government cuts personal income taxes and increases its spending. The Fed buys bonds on the open market.

Figure 45.1
Expansionary Monetary and Fiscal Policy



(A) Real GDP ↑ ↓ **?** Explain.

(B) The price level ↑ ↓ **?** Explain.

(C) Unemployment ↑ ↓ **?** Explain.

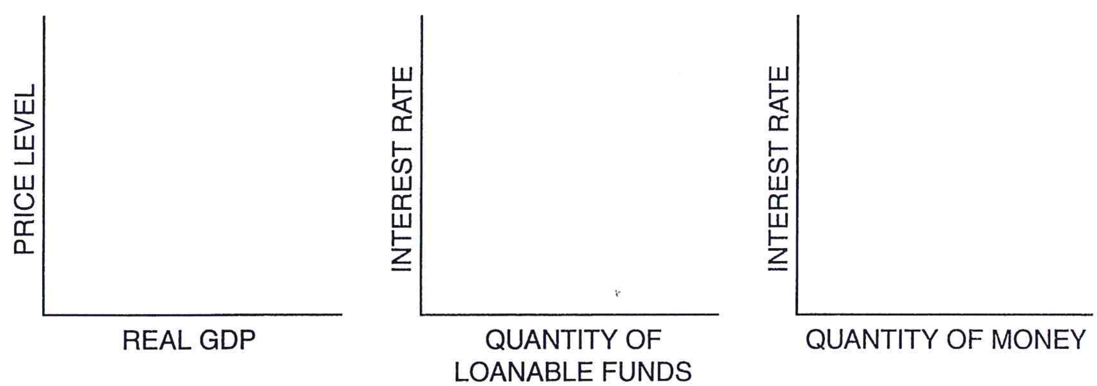
Activity written by John Morton, National Council on Economic Education, New York, N.Y., with modifications by Rae Jean B. Goodman, U.S. Naval Academy, Annapolis, Md.

(D) Interest rates ↑ ↓ ? Explain.

(E) Investment ↑ ↓ ? Explain.

2. The unemployment rate is 6 percent, and the CPI is increasing at a 9 percent rate. The federal government raises personal income taxes and cuts spending. The Federal Reserve sells bonds on the open market.

Figure 45.2
Contractionary Monetary and Fiscal Policy



(A) Real GDP ↑ ↓ ? Explain.

(B) The price level ↑ ↓ ? Explain.

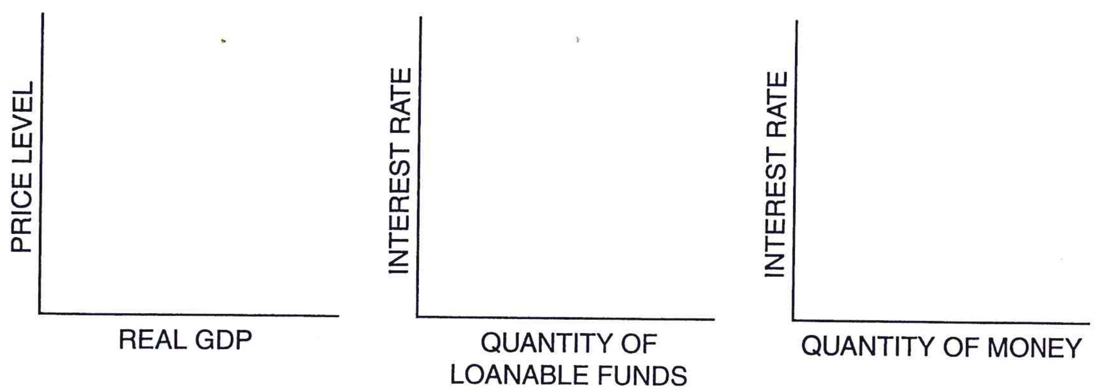
(C) Unemployment ↑ ↓ ? Explain.

(D) Interest rates ↑ ↓ ? Explain..

(E) Investment ↑ ↓ ? Explain.

3. The unemployment rate is 6 percent, and the CPI is increasing at a 5 percent rate. The federal government cuts personal-income taxes and maintains current spending. The Fed sells bonds on the open market.

Figure 45.3
Contractionary Monetary Policy and Expansionary Fiscal Policy



(A) Real GDP ↑ ↓ ? Explain.

(B) The price level ↑ ↓ ? Explain.

(C) Unemployment ↑ ↓ ? Explain.

(D) Interest rates ↑ ↓ ? Explain.

(E) Investment ↑ ↓ ? Explain.