Fiscal Policy

Introduction and Description

Fiscal policy is one of the two demand management policies available to policy makers. Government expenditures and the level and type of taxes are discretionary fiscal policy tools. This lesson explores the effects of these tools on the economy, the existence of embedded tools and alternative ways to analyze fiscal policy.

Activity 30 provides the students with practice at manipulating the tools of fiscal policy and analyzing scenarios to determine appropriate fiscal policy. The students continue with fiscal policy analysis in Activity 31 and distinguish between discretionary fiscal policy tools and automatic stabilizers. The students analyze fiscal policy in the Keynesian and aggregate demand and aggregate supply models in Activity 32. Activity 33 serves as an excellent unit review by having the students analyze economic observations and scenarios.

Objectives

1. Explain the impact of government spending changes on the economy.
2. Explain the effect of changes in taxes on the economy.
3. Describe the embedded fiscal policy tools and explain how the tools adjust the economy.
4. Explore the alternative methods of analyzing fiscal policy effects.

Time required

Four class periods or 180 minutes

Materials

Activities 30, 31, 32 and 33

Procedure

1. Tell the students that the two primary fiscal policy tools are government spending and taxes. Government spending affects the economy directly by increasing the demand for goods and services. As soon as the government increases its spending, it initiates a multiplier process (practiced in Activity 21) that results in a greater increase in total spending than the initial increase in government spending. The increase in government spending increases aggregate demand, shifting the AD curve to the right. In the short run, the usual effects are an increase in real GDP and the price level.
2. Have the students work through the effects of a decrease in government spending.
3. Explain that changes in taxes do not directly change real GDP. Changes in taxes affect the disposable income of households or businesses. These changes are felt through consumption spending and investment spending. An increase in taxes decreases disposable income. A decrease in disposable income decreases consumption, but by less than the increase in taxes. Some of the additional tax bill is paid from savings. The multiplier process applies to the increase in taxes, and real GDP decreases by more than the tax increase.
4. Have the students complete Activity 30. Review the answers to the questions.
5. Besides the direct fiscal policy tools of government spending and taxes, there are many tools embedded in the economy that respond to the different phases of the business cycle. These tools are called automatic stabilizers. They are automatic because they adjust without an action by Congress or the president. They serve as stabilizers because they limit the increase in real GDP during expansions and reduce the decrease in real GDP during a recession.
6. Give examples of automatic stabilizers and explain how they work:

(A) Income tax system. As an individual's nominal income increases, he or she moves into higher tax brackets and pays more taxes, thus limiting the increase in disposable income and consumption.

(B) Unemployment compensation. As the economy slows and unemployment increases, the income of the unemployed does not fall to zero, which would have a significant negative effect on the economy. Unemployment compensation provides a base level of income, and the negative impact on real GDP is lessened.

(C) Stock and bond returns. Many corporations establish the dividends they pay on shares of stock and maintain this payout for several years. Thus dividends do not follow the swings of the business cycle. Bond payments are established at the time the bond is issued and remain throughout the life of the bond.

7. Have the students complete Activity 31. Review the answers with the students.
8. Review both the aggregate demand and aggregate supply model and the simple Keynesian model for analyzing the effect of discretionary fiscal policy.
9. Have the students complete Activity 32. Review the answers with the students.
10. Have the students complete Activity 33 as review for the unit test. Review the answers with the students.

The Tools of Fiscal Policy

Part A

Decide whether each of the following fiscal policies of the federal government is expansionary or contractionary. Write *expansionary* or *contractionary*, and explain the reasons for your choice.

1. The government cuts business and personal income taxes and increases its own spending. *Expansionary. The decrease in personal income taxes increases disposable income and thus increases consumption spending. The business tax cut increases investment spending, and the increase in government spending increases government demand.*

2. The government increases the personal income tax, Social Security tax and corporate income tax. Government spending stays the same. *Contractionary. Business income and personal disposable income decrease because of the tax increases, thus reducing consumption and investment spending. Government demand is unchanged.*

3. Government spending goes up while taxes remain the same. *Expansionary. Higher government spending without a corresponding rise in tax receipts increases aggregate demand in the economy.*

4. The government reduces the wages of its employees while raising taxes on consumers and businesses. Other government spending remains the same. *Contractionary. Reduction in government spending results in a decrease in AD. Increases in taxes on consumers reduce disposable income and consumption, and increased business taxes will reduce investment. The decrease in both consumption and investment will reduce aggregate demand.*

Part B

Test your understanding of fiscal policy by completing the table in Figure 30.1. Your choices for each situation must be consistent — that is, you should choose either an expansionary or contractionary fiscal policy. (Fiscal policy cannot provide a solution to one of the situations.) Fill in the spaces as follows:

Column A: Objective for Aggregate Demand
Draw an up arrow if you wish to increase aggregate demand.
Draw a down arrow if you wish to decrease aggregate demand.

Column B: Action on Taxes
Draw an up arrow if you wish to increase taxes.
Draw a down arrow if you wish to decrease taxes.

Column C: Action on Government Spending
Draw an up arrow if you wish to increase government spending.
Draw a down arrow if you wish to decrease government spending.

Column D: Effect on Federal Budget
Write *toward deficit* if your action will increase the deficit (or reduce the surplus).
Write *toward surplus* if your action will reduce the deficit (or increase the surplus).

Column E: Effect on the National Debt
Draw an up arrow if you think the national debt will increase.
Draw a down arrow if you think the national debt will decrease.

Figure 30.1
Effects of Fiscal Policy

	(A) Objective for Aggregate Demand	(B) Action on Taxes	(C) Action on Government Spending	(D) Effect on Federal Budget	(E) Effect on the National Debt
1. National unemployment rate rises to 12 percent.	↑	↓	↑	*Toward deficit*	↑
2. Inflation is strong at a rate of 14 percent per year.	↓	↑	↓	*Toward surplus*	↓
3. Surveys show consumers are losing confidence in the economy, retail sales are weak and business inventories are increasing rapidly.	↑	↓	↑	*Toward deficit*	↑
4. Business sales and investment are expanding rapidly, and economists think strong inflation lies ahead.	↓	↑	↓	*Toward surplus*	↓
5. Inflation persists while unemployment stays high.	*Fiscal policy is unable to provide a solution to the situation of high inflation and unemployment: stagflation.*				

Discretionary and Automatic Fiscal Policy

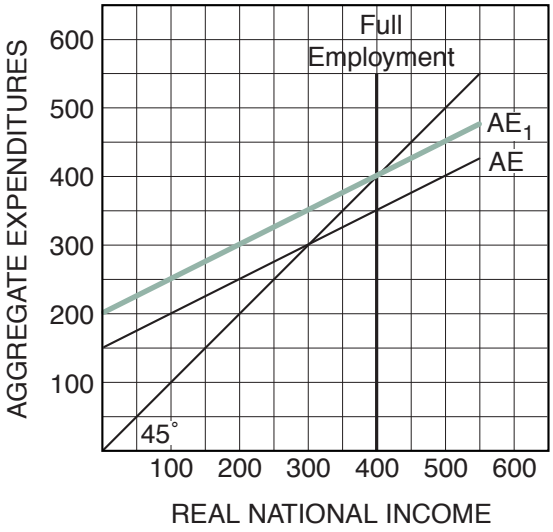
Listed below are several economic scenarios. For each scenario, indicate whether it represents an automatic (A) or discretionary (D) stabilizer and whether it is an example of expansionary (E) or contractionary (C) fiscal policy. A sample has been completed for you.

Economic Scenarios	Automatic (A) or Discretionary (D)	Expansionary (E) or Contractionary (C)
Sample: Recession raises amount of unemployment compensation.	A	E
1. The government cuts personal income-tax rates.	*D*	*E*
2. The government eliminates favorable tax treatment on long-term capital gains.	*D*	*C*
3. Incomes rise; as a result, people pay a larger fraction of their income in taxes.	*A*	*C*
4. As a result of a recession, more families qualify for food stamps and welfare benefits.	*A*	*E*
5. The government eliminates the deductibility of interest expense for tax purposes.	*D*	*C*
6. The government launches a major new space program to explore Mars.	*D*	*E*
7. The government raises Social Security taxes.	*D*	*C*
8. Corporate profits increase; as a result, government collects more corporate income taxes.	*A*	*C*
9. The government raises corporate income tax rates.	*D*	*C*
10. The government gives all its employees a large pay raise.	*D*	*E*

Two Ways to Analyze Fiscal Policy

In Figure 32.1, assume an estimated full-employment national income of $400 billion for the economy and a horizontal SRAS.

Figure 32.1
Aggregate Expenditure Function
for a Hypothetical Economy



1. What will be the actual national income level in equilibrium? *$300 billion*

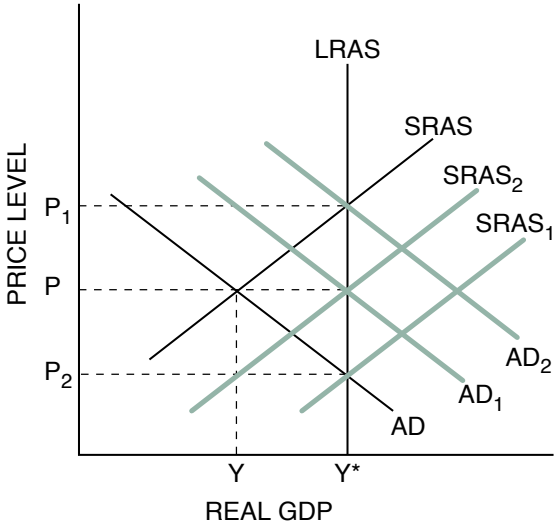
2. Given a marginal propensity to consume of 0.50, how much of an increase in aggregate expenditure would be needed to move the economy to full employment? (Hint: Calculate the MPC from the diagram using the rise divided by the run. Then calculate the multiplier that will operate on any change in AE.) *$50 billion*

3. How much will GDP increase if aggregate expenditure increases by $50 billion? Why?
$100 billion because the multiplier is 2

4. What fiscal policy measures are available to deal with this situation? *Decrease in taxes or increases in government spending will help an economy reach the full-employment level of income.*

5. Draw in a new AE curve showing the elimination of the gap between the current equilibrium income and the full-employment level of income through the use of fiscal policy. Explain completely the policy you employed. *The new curve is AE_1 and results from either an increase in government spending or a decrease in taxes.*

Figure 32.2
Diagram of a Persistent Gap



6. Assume a persistent gap between current equilibrium income, Y, and full-employment income, Y*, as shown in Figure 32.2.

   (A) If the government decided not to implement any fiscal policy, the unemployment of resources would eventually lead to a decrease in factor prices. Show diagrammatically that this could eliminate the gap. Label the new curve $SRAS_1$. The new price level would be ___P_2___ .

   (B) A second possibility would be to depend on a smaller shift of aggregate supply and have a modest shift in aggregate demand by a discretionary fiscal stimulus so that the price level was maintained at P. Show these two changes in the graph. Label the curves $SRAS_2$ and AD_1.

   (C) A third possibility is that government would seek changes in taxes and/or expenditures that would rapidly bring the economy to full employment. Show this diagrammatically. Label the curve AD_2.

7. Assume that a hypothetical economy is currently at an equilibrium national income level of $1 trillion, but the full-employment national income is $1.2 trillion. Assume the government's budget is currently in balance at $200 billion and the marginal propensity to consume is 0.75. Fill in the answer blanks or underline the correct words in parentheses.

   (A) The gap between the equilibrium income and full employment is ___*$200 billion*___.

   (B) The value of the multiplier is ___*4*___ .

   (C) Aggregate expenditures would have to be *(*<u>*increased*</u> */ decreased)* by ___*$50*___ billion to eliminate the gap.

   (D) The government could attempt to eliminate the gap by holding taxes constant and *(*<u>*increasing*</u> */ decreasing)* expenditures by___*$50*___billion.

   (E) Alternatively, the government could attempt to eliminate the gap by holding expenditures constant and *(increasing /* <u>*decreasing*</u>*)* its tax receipts by ___*$66.7*___ billion.

Analyzing the Macroeconomy

Answer the following questions. In some cases, you may also want to include a graph to show your analysis.

1. True, false or uncertain, and explain why? "Regardless of our current economic situation, an increase in aggregate demand will always create new jobs." *False. At a level higher than full-employment output, workers will push for higher wages, which will shift the SRAS curve leftward; output and employment will decrease, and the price level will rise. Thus, as aggregate demand increases, an increase in output cannot be sustained and only prices increase.*

2. True, false or uncertain, and explain why? "In the long run, when nominal wages increase, everyone has more money to spend; therefore, the economy as a whole benefits." *False. If prices rise and the real wage is maintained, then there will be no change in the standard of living.*

3. True, false or uncertain, and explain why? "When unemployment rises, the price level falls. When unemployment falls, the price level rises. It is impossible to have a rising price level with rising unemployment." *False. The first sentence assumes a decrease in AD, which does lead to a decrease in prices and increase in unemployment. The second sentence refers to an increase in AD, which leads to an increase in prices and output, and a decrease in unemployment. However, if SRAS decreases, then the price level rises, output decreases and unemployment increases. The third sentence refers to a movement along the AD curve.*

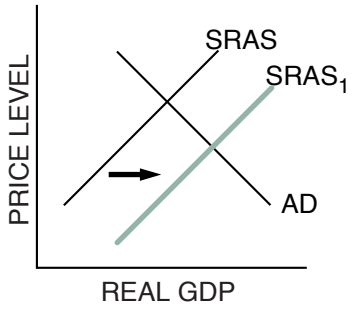
4. True, false or uncertain, and explain why? "Our economy is able to adjust to a long-run equilibrium after a decrease in aggregate demand because prices and wages are sticky." *False. Sticky wages and prices make it more difficult for the economy to respond to a decrease in aggregate demand.*

5. True, false or uncertain, and explain why? "If we are in a recession, as long as we continue to increase aggregate demand, we can achieve full employment without driving up the inflation rate." *False. As aggregate demand increases and the economy starts to approach full employment, there will be a tendency for the price level to rise. The underlying cause is that less productive resources are being used.*

6. True, false or uncertain, and explain why? "When the economy experiences an increase in aggregate demand, it will discover that its production possibilities curve has shifted outward."
False. The nation's production possibilities curve shifts outward when it finds more resources or develops new technologies. These are the same elements that will cause the LRAS to shift outward.

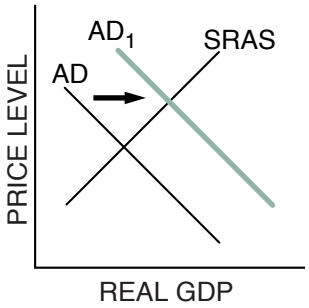
7. Use short-run AD and AS analysis to illustrate the results of the following events. Then explain why these changes have taken place. Each answer should be accompanied by a clearly labeled diagram.

(A) There is a 25 percent decrease in the price of crude oil.



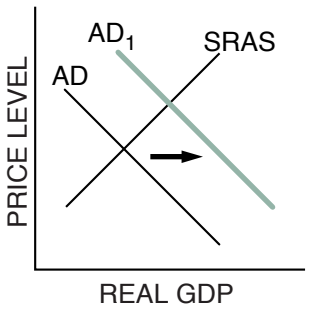
Lower energy cost increases AS.

(B) Price levels in Germany, Japan and Great Britain rise considerably, while price levels in the United States remain unchanged.



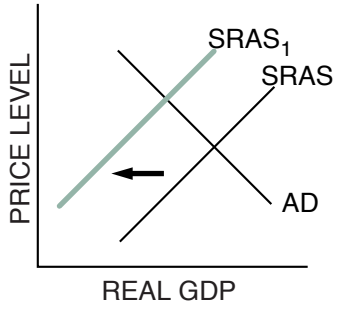
More goods will be exported because they are less expensive when compared to foreign goods.

(C) The federal government launches a major new highway-construction program.



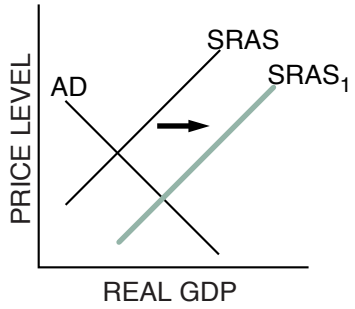
Increased government spending increases AD.

(D) An insidious computer virus causes all IBM computers in the United States to crash.



Capital is destroyed decreasing AS.

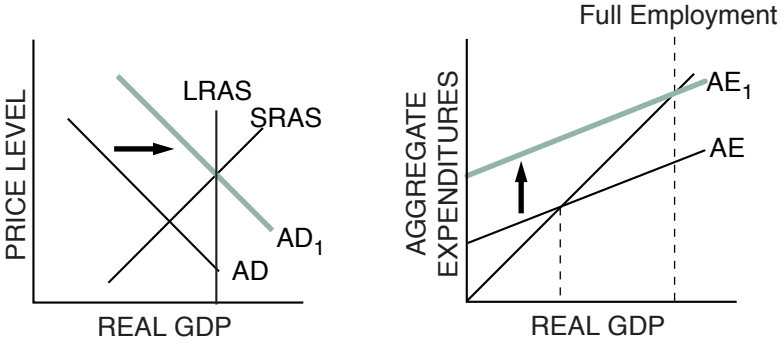
(E) There is an increase in worker productivity.



Higher productivity increases output using the same resources.

8. Illustrate the following fiscal policy using both the AD and AS model and the Keynesian aggregate expenditure model. In other words, draw two graphs for the fiscal policy change and give a brief explanation of each graph. In your explanation, be sure to emphasize the line of reasoning that generated your results; it is not enough to list the results of your analysis.

   Fiscal Policy: At less than full employment, the federal government decreases taxes while holding government spending constant.



Lower taxes increase disposable income which increases consumption spending. Higher consumption spending increases AD or AE.