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# GOVERNMENT

### OVERVIEW

1. Both consumers and business pay taxes. For consumers, taxes have the impact of reducing the amount of income they can spend. Income minus taxes is disposable income, which consumers can either spend or save.
2. Since consumers have less income after taxes, both consumption and saving are reduced at each level of income. The consumption function is reduced, and also aggregate demand.
3. Government expenditure has the same impact on the economy as consumption and investment; an increase in any stimulates the economy. An increase in government spending increases aggregate demand, a reduction decreases aggregate demand.
4. Equilibrium occurs at the level of income where the inflows equal the outflows,  $I + G = S + T$ .
5. The equilibrium price level and level of income are determined in the three sector economy by the intersection of aggregate demand,  $C + I + G$  at each price level, and aggregate supply.
6. If government spending increases, the aggregate demand curve will increase, causing price to rise. The level of income will rise if we are not at full employment. If taxes increase, aggregate demand will fall, causing price to fall and the level of income to fall.
7. Every dollar increase in spending causes the level of income to rise by a multiple. This income multiplier occurs because when a dollar is spent, the dollar becomes someone's income, and a part of that dollar is spent. This re-spending causes the initial dollar of spending to increase income by more than one dollar. The multiplier is the reciprocal of the marginal propensity to save.
8. Automatic stabilizers such as unemployment compensation and the progressive income tax structure help reduce the fluctuations in the business cycle.

### MATCHING

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|-------|----|-----------------------|----|--|
| _____ | 1. | disposable income     | a. | spending by the government for goods and services  |
| _____ | 2. | taxes                 | b. | mechanisms that automatically change aggregate demand in the right direction at the right time |
| _____ | 3. | government spending   | c. | the process by which a initial change in spending causes a greater increase in income          |
| _____ | 4. | equilibrium           | d. | payments by consumers and business to the government   |
| _____ | 5. | income multiplier     | e. | income after taxes   |
| _____ | 6. | automatic stabilizers | f. | a balance of forces  |

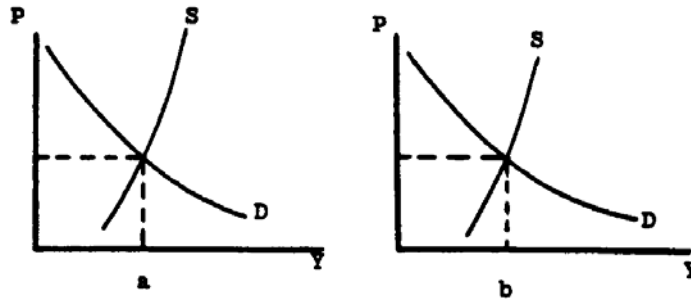
### TRUE-FALSE

- \_\_\_\_\_ 1. When taxes rise, the disposable income rises.
- \_\_\_\_\_ 2. If government spending rises, taxes must also rise.
- \_\_\_\_\_ 3. If saving plus taxes are greater than investment plus government spending, then the level of income will fall.
- \_\_\_\_\_ 4. Suppose that the MPC is  $\frac{3}{4}$ . Then the income multiplier will be 3.
- \_\_\_\_\_ 5. When government spending rises by \$1,000,000, then income will rise by more than that amount.

### PROBLEMS

1. a. Suppose that the marginal propensity to save is  $\frac{1}{4}$ . Find the income multiplier.
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- b. If government spending rises by \$100, by what amount does income rise?
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- c. If government spending falls by \$200, by what amount does income fall?
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2. a. If the MPS increases from  $1/5$  to  $1/4$ , what happens to the size of the income multiplier? \_\_\_\_\_
- b. If the marginal propensity to consume increases from  $3/4$  to  $4/5$ , what happens to the size of the income multiplier? \_\_\_\_\_
3. a. Suppose that government spending decreases. What will happen to the price level and the level of income? Use graph a to find the answer. \_\_\_\_\_



- b. Suppose that taxes decrease. What will happen to the price level and the level of income? Use graph b to find the answer. \_\_\_\_\_

#### IN THE NEWS

1. The Great Depression began in 1929. In 1932, Franklin Roosevelt was elected president and promised not to spend more than the tax collections. But in 1936, there was a veterans bonus and the budget was in deficit.
  - a. What would you expect to happen to the level of income because of the veterans bonus? \_\_\_\_\_
  - b. If Roosevelt had wanted to see the level of income go up by \$12 billion, and the marginal propensity to save was  $1/4$ , how much more would the government have to spend? Explain. \_\_\_\_\_
2. When the Kennedy administration took office in 1960, employment and output were down. After much effort, President Kennedy pressed for and got a tax cut.
  - a. Would the tax cut increase or decrease income? \_\_\_\_\_
  - b. What other alternative did the administration have to raise employment and output? \_\_\_\_\_
3. The Reagan administration considered lowering the tax rates because it was felt that the high tax rates caused people to work less. If people have to pay a large part of their extra earned income in taxes, they have less incentive to earn the money.
  - a. What effect does a decrease in taxes have on the income the consumer has to spend? \_\_\_\_\_
  - b. If the current administration wants to lower the amount you pay on your next dollar earned, how can I this change in tax rates cause the level of income to rise? \_\_\_\_\_

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4. During the Reagan administration, government spending was far in excess of tax collections. The rationale for the I: spending was to improve our defenses and yet not reduce our social programs. In addition, there was a reduction in tax rates.
- What impact would you expect the increase in government spending to have on the level of income? \_\_\_\_\_
  - What impact would you expect the decrease in taxes it to have on the level of income? \_\_\_\_\_
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- c. As government spending increases and tax rates fall, so that the government spends more than it collects, what is the impact on the government's budget? \_\_\_\_\_
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### PRACTICE TEST

Circle the correct answer.

- An increase in taxes will cause:
  - consumption to fall.
  - saving to fall.
  - saving to rise.
  - both a and b.
- If tax revenues are less than government spending, then:
  - a surplus budget results.
  - a deficit budget results.
  - a balanced budget results.
  - none of the above.
- An increase in government spending and aggregate demand will most likely:
  - raise price and income.
  - raise price and lower income.
  - lower price and raise income.
  - lower price and income.
- In a world with consumers, business, and government, the equilibrium level of income will be where:
  - $I + G = S + T$ .
  - $I + T = S + G$ .
  - $I + S = G + T$ .
  - none of the above.

5. The income multiplier is:
  - a. the reciprocal of the MPS.
  - b. the reciprocal of the MPC.
  - c. the reciprocal of G.
  - d. either a or b.

## ANSWERS

### Matching

1. e
2. d
3. a
4. f
5. c
6. b

### True-False

1. F
2. F
3. T
4. F
5. T

## Problems

1.
  - a. The income multiplier is the reciprocal of the MPS, so the multiplier is 4 when the MPS is  $1/4$ .
  - b. Income will go up by 400, found by multiplying the multiplier, 4, times the change in government spending, 100.
  - c. Income falls by 800, found by multiplying the multiplier, 4, times the change in government spending, 200.
2.
  - a. If the MPS increases from  $1/5$  to  $1/4$ , the multiplier will be smaller, 4 rather than 5.
  - b. When the MPC increases, the MPS decreases. The MPS, which is  $1 - MPC$ , goes from  $1/4$  to  $1/5$ . Thus the MPS decreases from  $1/4$  to  $1/5$ . The decrease in the MPS causes the multiplier to rise from 4 to 5.
3.
  - a. A decrease in government spending will cause aggregate demand to shift to the left. Thus both the level of income and price will fall.
  - b. If taxes decrease, then consumption will rise. This causes the aggregate demand to shift to the right, and the level of income and price level both rise as long as we are not at full employment. If we are at full employment, the level of income cannot rise.

## In the News

1. a. The veterans bonus was a form of government spending. Thus government spending went up so the aggregate I demand increased and the level of income should rise.  
b. with a MPS of  $1/4$ , the income multiplier is 4. That means for each dollar spent, income will go up \$4. To make the level of income go up \$12 billion, government should spend \$3 billion more.
2. a. A tax cut would have the effect of increasing income because a reduction in taxes causes more to be available for spending. More spending means more income.  
b. The government could have increased spending. An increase in government spending would be an increase in spending and an increase in spending would make income rise.
3. a. A decrease in taxes means that each individual can keep more in disposable income to spend or save.  
b. The decrease in taxes will cause the income available for consumption to rise and thus consumption will rise. That causes the level of income to rise if we are not at full employment.
4. a. The increase in government spending would cause the level of income to rise. More spending means more income.  
b. A decrease in taxes leads to an increase in spending and the level of income.  
c. When government spends more than it collects, the result is a deficit budget.

#### Practice Test

1.d., 2.b., 3.a., 4.a., 5.a.