

Tutorial 5 (Macroeconomics): The Government and Fiscal Policy

- 1) You are given the following income-expenditures model for the economy of Vulcan.

$$C = 200 + .8Y_d$$

$$T = 50$$

$$G = 100$$

$$I = 140$$

- What is the equilibrium level of income in Vulcan?
 - At the equilibrium level of income, what is the amount of consumption?
 - What is the value of the government spending multiplier in this economy?
 - If government spending increases to 150, what is the new level of equilibrium income?
- 2) Determine the impact of an increase in taxes of \$20 billion when the MPS is .25. Determine the impact of a decrease in taxes of \$10 billion when the MPS is .2.
- 3) Determine the net impact upon the nation's economy that results from equal increases in spending and taxes of \$10 billion when the MPC is .8.
- 4) The MPC in Montavada is .75.
- If taxes were reduced by \$1,000 in Montavada, by how much would equilibrium output change?
 - If government spending were increased by \$1,000 in Montavada, by how much would equilibrium output change?
 - Explain why a tax cut of \$1,000 would have less effect on the economy of Montavada than an increase in government spending of \$1,000.
- 5) Assume an economy is represented by the following:

$$C = 100 + .5Y_d \quad G = 2000$$

$$I(\text{planned}) = 200 \quad T = 2000$$

- Suppose actual output is 3000. What is the level of planned expenditures at this level of output? What is the level of unplanned changes in inventories?
- Calculate the equilibrium level of output.
- Based on your analysis in Part (a), calculate the levels of consumption and saving that occur when the economy is in equilibrium.

- d) Now suppose that G decreases by 100 and T simultaneously decreases by 100. Calculate the new equilibrium level of income. Given your answer, what is the size of the balanced budget multiplier?
- 6) Assume the following behavioral equations for a macroeconomy:
 $C = 100 + .9Y_d$, $I = 50$, $T = 100$ and $G = 40$
 Calculate the equilibrium level of output.
- 7) Explain why an increase in the budget deficit must be accompanied by an increase in saving if private investment remains unchanged. Assume that the economy is in equilibrium.
- 8) Suppose that the $MPS = .2$ and the government is interested in raising the level of output in the economy by \$100 billion. Calculate how much the government would have to spend to achieve this objective.
- 9) Assume that the government spending multiplier is equal to 4. Calculate the tax multiplier from this information.

Model for the Falkland Island Economy
$C = 100 + .8Y_d$ $G = 800$ $T = 500$ $I = 200$

- 10) Given the above model for the Falkland Island economy calculate the level of savings when the economy is in equilibrium.
- 11) What would be the effect of a cut in taxes of \$100 billion on the economy if the marginal propensity to consume were .9? Explain why this policy is much different from simply having the government initiate a \$100 billion spending program. Support your answer with specific calculations.