

**UNIVERSITY OF GHANA BUSINESS SCHOOL
(UNDERGRADUATE PROGRAM- MAIN & CITY CAMPUS)
2nd Semester 2018/2019**

UGBS 204: Macroeconomics and Business

3rd Tutorial set

Problem One:

- a) Deduce autonomous spending multiplier and autonomous tax multiplier from Keynesian closed economy model with the presence government.
- b) What is the Balanced Budget Multiplier?
- c) In ordinary language explain autonomous spending multiplier and autonomous tax multiplier
- d) Derive an expression for equilibrium income in an open economy with the presence of government.
- e) Derive the savings function.
- f) Distinguish between inflationary gap and recessionary gap.
- g) What is crowding out effect and its effects on the economy?

Problem Two

Assume the Ghanaian economy is closed (thus where there is no export and imports) with the information below.

$$C. = 400 + 0.8Y^d$$

$$\text{where } Y^d = (Y - T)$$

$$I = 150$$

$$G = 250$$

$$T = 200$$

- a) Explain the concepts of marginal propensity to consume(MPC) and marginal propensity to save(MPS)
- b) What is the MPC and MPS for this economy?
- c) Explain the concepts of the autonomous spending and tax multipliers.
- d) What is the autonomous spending multiplier for this economy?
- e) What is the tax multiplier for this economy?
- f) What is the equilibrium level of income for this economy?
- g) Suppose that the full employment level of output for this economy is 2000.

What sort of output gap is Ghana facing?

- h) Present the gap in a well labelled diagram
- i) What kind of policy can the government use to close this kind of gap? Explain with the aid of a diagram.

Problem three:

Assume that following relationships hold in the Ghanaian economy:

$$C = 100 + 0.6(Y - T)$$

$$I = 150$$

$$G = ?$$

$$T = 200$$

$$Y^e = 3500$$

- a. What is the MPC and MPS for this economy?
- b. What is the autonomous spending and tax multipliers for this economy?
- c. How much should government spend in order to attain the equilibrium income of 3500?
- d. Suppose that the full employment level of output for this economy is 4000.
What sort of output gap is Ghana facing?
- e. Provide a fiscal policy recommendation that could close the gap
- f. Suppose government spending is still 940, and it wants to reach the full employment level then by how much and in what direction should its spending change to close the gap?
- g. Suppose government wants to use taxes, then what should be the change in taxes to close the gap?
- h. Suppose government spending and taxes increases by 100, what would be the change in equilibrium income?
- i. Following from (h) what is the new equilibrium income if the old one was still 3500 for this economy?

