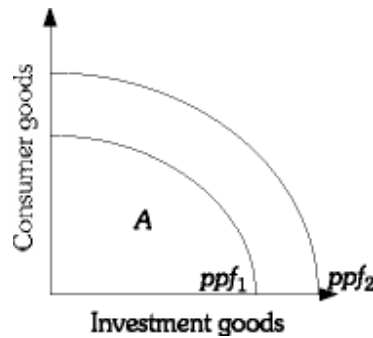


Tutorial 4A: Long-Run Growth
Tutorial 4B: Aggregate Expenditure and Equilibrium Output

Tutorial 4A

- 1) Answer the following questions by analyzing the following production possibilities frontier.



- (a) Explain what is happening in the economy at Point A. How can the economy move to a point on ppf_1 ?
- (b) Why will producing investment goods today cause different results for the future of the economy than focusing more on consumer goods today?
- (c) How would any nation move to higher and higher production possibilities frontiers? For example, moving from ppf_1 to ppf_2 .

Tutorial 4B

- 1) Using mathematics to explain the relationship among the MPC, MPS, and income changes.
- 2) Why doesn't equilibrium exist at aggregate output level 200 in Table 5.1? Why doesn't equilibrium exist at aggregate output level 1000 in Table 5.1?

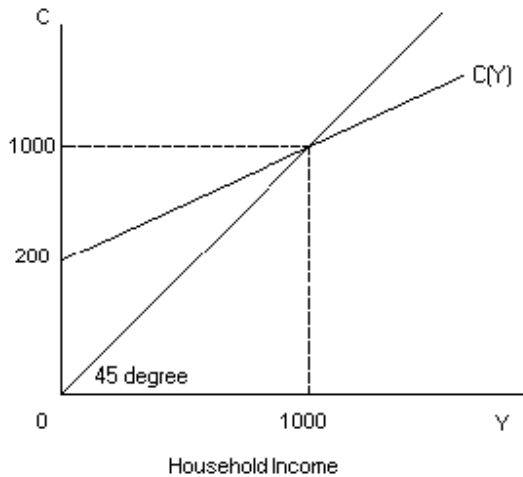
Table 5.1

All Figures in Billions of Dollars		
Aggregate Output	Aggregate Consumption	Planned Investment
200	300	50
400	450	50
600	600	50
800	750	50
1,000	900	50

- 3) The consumption function for Outland is $C = 300 + .6Y$. Planned Investment in Outland is 100.
- Graph Outland's aggregate expenditure function.
 - What is the equilibrium level of output in Outland?
 - What is the value of the multiplier in Outland?
 - If investment increases by \$50, what is the new equilibrium level of output in Outland?
- 4) Assume consumption is represented by the following: $C = 400 + .75Y$. Also assume that planned investment (I) equals 100.
- Given the information, calculate the equilibrium level of income.
 - Given the information, calculate the level of consumption and saving that occurs at the equilibrium level of income.
 - Suppose planned investment increases by 100. Calculate the new equilibrium level of income. Given your answer, what is the size of the multiplier for this economy?
 - Will the level of saving and consumption change as the economy adjusts to this change in planned investment? Explain.
- 5) Assume consumption is represented by the following: $C = 200 + .75Y$. Also assume that planned investment (I) equals 300.
- Given the information, calculate the equilibrium level of income.
 - Given the information, calculate the level of consumption and saving that occurs at the equilibrium level of income.
 - Now suppose that individuals decide to increase their saving so that autonomous consumption falls by 100. The consumption function is now $C = 100 + .75Y$. Calculate the new equilibrium level of income, the new level of consumption, and the new level of saving.
 - Based on your analysis in Part (c), did the level of saving change as a result of this increased desire to save? Explain.
- 6) Assume consumption is represented by the following: $C = 200 + .9Y$. Also assume that planned investment (I) equals 300.
- Now, suppose the level of income is equal to 4000. What is the level of planned aggregate expenditures at this level of income? What is the value of any unplanned changes in inventories?
 - Given the information, calculate the equilibrium level of income.
 - Given the information, calculate the level of consumption and saving that occurs at the equilibrium level of income.
 - Suppose planned investment falls by 100. Graphically illustrate using the AE - Y graph the effects of this reduction in planned investment on the economy. Also, calculate the new level of equilibrium income.
- 7) Determine the impact of an increase in government spending of RM10 billion when the marginal propensity to consume is 0.8. Determine the impact of a decrease in government spending of RM5 billion when the marginal propensity to save is 0.25.

8) Assume a consumption function of the form $C = 200 + .8Y$. Derive the saving function and write out the algebraic representation.

9)



Assume the above consumption function for a hypothetical economy. Write out the algebraic equation for this function.

10) Draw a consumption table where autonomous consumption is \$200 and the marginal propensity to consume is .8. Make sure to start with an income level of \$0 and increase by \$100 each time up to an income level of \$400. Without completing the table any further determine the level of income where consumption and income are equal. Prove this algebraically.

Income	Consumption
\$0	\$200
\$100	280
\$200	360
\$300	440
\$400	520

11) Assume a two sector economy where $C = \$100 + .9Y$ and $I = \$50$. Calculate the equilibrium level of output for this hypothetical economy. What would the level of consumption be if the economy were operating at 1400? What would be the amount of unplanned investment at this level? In which direction would you expect the economy to move to at \$1400 and why?