

## ECO 209Y MACROECONOMIC THEORY Problem Set 9

1. Consider an open economy with fixed prices, flexible exchange rates, and imperfect capital mobility. This economy is characterized by the following behavioural equations:

$C = 60 + 0.8 YD$	$P^f = 2$
$I = 200 - 20 i + 0.1 Y$	$P = 1$
$G = 300$	$L = 0.2 Y - 10 i$
$TA = 0.25 Y$	$M/P = 200$
$TR = 50$	$CF = 10 (i - i^*)$
$X = 250 + 100 eP^f/P$	$i^* = 6$
$Q = 400 - 50 eP^f/P + 0.1 Y$	

- a) What is the equation for the IS curve in this model?
  - b) What is the equation for the LM curve in this model?
  - c) What is the equation for the BP curve in this model?
  - d) What are the equilibrium values of  $Y$ ,  $i$  and  $e$  in this economy?
  - e) What are the balances in the current and capital accounts in the above equilibrium?
  - f) Suppose now that the central bank fixes the exchange rate at  $e = 1$ . What are the new equilibrium values of  $Y$  and  $i$  in this economy? [Note: A graphical analysis of this situation will give you a hint as to how to answer this question.]
  - g) What are the balances in the current and capital accounts in this new equilibrium?
2. Your country is in a recession. You feel that a policy of domestic currency depreciation (i.e., exchange rate appreciation) will stimulate aggregate demand and bring the country out of recession.
    - a) What can be done to trigger this domestic currency depreciation?
    - b) How might other countries react?
  3. Suppose you expect the U.S. dollar to depreciate by 5 percent over the next year. Assume that the Canadian interest rate is 4 percent. What interest rate would be needed on U.S. government bonds for you to be willing to buy those bonds today and then sell them in a year's time?
  4. How does a protectionist measure, such as the levying of tariffs on foreign goods, affect the trade balance, the exchange rate, and the level of domestic output if there is perfect capital mobility and flexible exchange rates?