

PROBLEM SET #5

1. Which of the following goods are tradeable? Explain briefly.

- a. Cars
- b. Vinny's Car Service
- c. Computers
- d. Software
- e. Health Check-up
- f. Airline Travel
- g. Haircuts

2. The share of exports and imports in GDP is much lower for the United States than it is for Belgium. Does this mean that the US economy is less open than the Belgian economy? Explain.

3. Ronald Reagan was President of the United States from 1981 to 1988. Suppose that you are German (living in Germany) and that at the time you were planning to complete a one year masters degree at MIT. Would you have been better off doing your MIT masters in the beginning, middle or end of the Reagan presidency?

4. Suppose that the interest rate in the US is 6%, the interest rate in Japan is 1%, and that the current nominal exchange rate is .01\$/yen. What is the expected rate of appreciation or depreciation of the dollar (state which)? How many dollars would a US resident expect to earn for each dollar invested in Japanese bonds for one year?

5. Please explain your answers to the following:

- a. Is it true that budget deficits lead to trade deficits?
- b. How can a government eliminate the trade deficit while *increasing* the level of output?
- c. How can a government eliminate the trade deficit while *decreasing* the level of output?

6. During a recession, should small or large countries be more interested in policy coordination? Explain.

7. Consider the following model of the goods market in an open economy:

$$\begin{aligned}C &= 400 + .5Y_D \\I &= 700 - 4,000i + .2Y \\G &= T = 200 \\X &= 100 + .1Y^* + 100\epsilon \\Q &= .1Y - 50\epsilon \\ \epsilon &= 2.0 \\Y^* &= 1,000 \\i &= 10\%\end{aligned}$$

Please show clearly your derivations for the following questions:

- a. Find equilibrium GDP [Hint: use (12.4)]
- b. Determine the value of C, I, G and Net Exports. Is the demand for domestic goods equal to the value you found in (a)?
- c. Suppose that G increases by 200. Calculate the new equilibrium GDP. What has happened to Net Exports as a result?
- d. Using the original assumptions for everything else, suppose that foreign output increases by 200. Find equilibrium GDP. What has happened to Net Exports? Why is the answer different than the one you obtained when government spending increased by the same amount?