Econ 434 Professor Ickes

Fall 2005

Review Question: Volume I

1. Carefully explain why the discovery of oil in Norway led to several periods of deficit in Norway's current account followed by periods of surplus in the current account.

2. What is meant by the term domestic absorption (A)? Why is the current account equal to the difference between national income and A? Why is the current account also equal to the difference between savings and investment? Explain. Why is the current account also equal to the change in net foreign assets? Explain.

3. How can a higher growth rate of productivity in Japan relative to the US explain the increase in the real value of the yen?

4. Suppose that the price level in the home country is given by $P = P_n^{\alpha} P_t^{1-\alpha}$, where P_t is the price of traded goods, and α is the share of non-traded goods in the domestic price index, and similarly $P^* = P_n^{*\alpha} P_t^{*1-\alpha}$ for the foreign country. Suppose that tradables have a common price of 1 in both countries. Show how the ratio of home to foreign prices depends on the relative price of non-traded goods (e.g., derive a simple expression for this).

   (a) Let $\widehat{P}$ be the growth rate of the price level and let $\widehat{P}^*$ be the growth rate of the foreign price level. If α is constant, when will $\widehat{P} > \widehat{P}^*$?

   (b) Let $\widehat{A}_T$ be productivity growth in tradable goods in the home country and let $\widehat{A}_N$ be productivity growth in the non-traded goods sector (and $\widehat{A}_T^*$, $\widehat{A}_N^*$ for the foreign country). Suppose that $\widehat{A}_T - \widehat{A}_T^* > \widehat{A}_N - \widehat{A}_N^*$. What would you expect to happen to $\widehat{P} - \widehat{P}^*$? Why?

   (c) Is the condition $\widehat{A}_T - \widehat{A}_T^* > \widehat{A}_N - \widehat{A}_N^*$ more likely to hold in richer countries or poorer countries? What then would you expect to happen to a country's real exchange rate as it gets richer?

5. If a country currently has negative net foreign assets what does the intertemporal budget constraint imply about the future? Explain. Why does the intertemporal budget constraint imply only weak restrictions on the current account? Explain.

6. What role does the rate of interest and the growth rate of the economy play in determining current account stability? Explain. How does the sustainability of any given path change if the rate of interest increases? How does it change if the growth rate increases? Explain.

7. What is the role of valuation effects in current account stability? What is the source of these effects? Can an economy reasonably rely on them for an indefinite period of time? Explain.

8. Consider the two-country model of interest-rate determination with savings and investment. Suppose that at the initial world interest rate the home country has a current account surplus. Draw the savings-investment diagram and the equilibrium world interest rate for both countries. Now suppose that preferences in the home country shift so that savings declines

at every interest rate (in the home country). What happens to the equilibrium world interest rate? What happens to the equilibrium levels of savings and investment in the home country? What happens to savings and investment in the foreign country?

9. Consider a small economy with a tradables and non-tradable sector. Capital is mobile internationally and between sectors, labor is also mobile between sectors. The economy is competitive, so factors are paid their marginal products. Suppose that TFP in non-traded goods rises?
   (a) What happens to the relative price of non-traded goods? What happens to the capital-labor ratio in the non-traded goods sector?
   (b) How does this compare to what would happen if there had been an increase in TFP in traded goods?

10. Use the two-country model of interest rate determination to examine the implications (what happens to the interest rate and current account balances of each country) of:
    (a) current account imbalances caused by a glut of foreign savings
    (b) current account imbalances caused by a decline in domestic savings
    (c) current account imbalances caused by a dearth of foreign investment

11. Can we have a situation where the steady-state current account balance is equal to zero and the steady-state trade balance is positive? Explain.

12. Country X had a current account deficit of \$1 billion and a nonreserve capital account surplus of \$500 million in 2000.
    (a) What was the balance of payments of X in that year? What happened to the country's net foreign assets?
    (b) Assume that foreign central banks neither buy nor sell X's assets. How did the central bank of X's foreign reserves change in 2000? How would this official intervention show up in the balance of payments accounts of X?
    (c) How would your answer to (b) change if you learned that foreign central banks had purchased \$600 million of X's assets in 2000? How would these official purchased enter foreign balance of payments accounts?

13. Consider the economy of Macronesia (which is small despite its name). Here people have access to world capital markets but they choose neither to borrow or lend. In a two-period diagram draw production opportunities and indifference curves for Macronesia, and draw the world interest rate. Label the consumption point as A.
    (a) Imagine that a great innovation is discovered which will greatly increase future income in Macronesia. How does the production opportunities set shift? What would happen to consumption if Macronesia did not have access to world capital markets? Label this consumption point B.
    (b) What happens to the autarky rate of interest in Macronesia? Explain.

(c) If Macronesia has access to the world capital markets what happens to production and consumption? Explain. Label the new consumption point C.

(d) Suppose Macronesia was a large economy. What would happen to the world interest rate given this discovery?

14. From 1990 through 1996 Thailand experienced large current account deficits of approximately 8 to 9% of GDP. Subsequently, the current account has gone into a surplus of about 8% of GDP. Why has this shift been associated with a sharp recession in Thailand?

15. College students typically run current account deficits. After graduation their current accounts eventually go into surplus. Given the experience of Thailand (discussed in the previous question) does this mean that college graduates go into recessions? What is the key difference in the two situations? Explain