

Econ 116b
Problem Set 8

Balance of Payments

List the following transactions in the current account and capital account of the United States. Denote under which category they are listed and whether they are a credit or a debit.

1. A U.S. citizen buys \$1,000 of French wine.
2. A Chinese company buys a solar power plant in the United States for one billion dollars.
3. An immigrant worker in the United States wires \$200 to his family in his home country.
4. A U.S. investment bank earns \$15,000 in interest on U.K. bonds.
5. The U.S. government sends \$1,000,000 in aid to Nigeria.

Fixed Exchange Rate Analysis

1. Explain carefully the intuition behind the trade feedback effect.
2. Explain carefully the intuition behind the price feedback effect.
3. Why is it not sensible to say that the U.S. federal government budget deficit causes the U.S. trade deficit?

Two Countries Linked Together, Fixed Exchange Rate

Consider a world of two countries, A and B. Each country is characterized by the following equations (i either equals A or B):

$$C_i = b_i Y_i$$

$$IM_i = m_i Y_i$$

Investment and government spending are exogenous and taxes are zero. The equilibrium condition is:

$$Y_i = C_i + I_i + G_i + EX_i - IM_i$$

where by definition $EX_A = IM_B$ and $EX_B = IM_A$.

1. Derive the reduced form equation for Y_A assuming that Y_B is exogenous. Also, derive the reduced form equation for Y_B assuming that Y_A is exogenous.
2. Assume that $m_A = .4$, $m_B = .1$, $b_A = .9$, $b_B = .9$, $I_A = 50$, $I_B = 100$, $G_A = 50$, and $G_B = 100$. What are the equilibrium levels of output in the two countries? (Note that when solving you get two (easy to solve) equations in two unknowns, Y_A , and Y_B .) What are the two countries' current accounts?
3. Show that in equilibrium investment equals saving in both countries. (Hint: recall how we derived this for a closed economy. In an open economy we also need to account for foreign saving.)
4. Say G_B increases from 100 to 200. What are the new equilibrium levels of output, Y_A and Y_B ? What is the government spending multiplier for B? Explain carefully why Y_A has also increased.
5. If B's exports were exogenous (i.e., did not depend on what country A did), what is the government spending multiplier for B? Explain carefully why the multiplier has changed in this case.