

## Lecture 13 - Recommended Problems

François Geerolf  
UCLA

Intermediate Macroeconomics, Econ 102

### ☆☆☆ Chapter 17, Problems 2

Consider two fictional economies, one called the domestic country and the other the foreign country. Given the transactions listed in (a) through (g), construct the balance of payments for each country. If necessary, include a statistical discrepancy.

- a. The domestic country purchased \$100 in oil from the foreign country.
- b. Foreign tourists spent \$25 on domestic ski slopes.
- c. Foreign investors were paid \$15 in dividends from their holdings of domestic equities.
- d. Domestic residents gave \$25 to foreign charities.
- e. Domestic businesses borrowed \$65 from foreign banks.
- f. Foreign investors purchased \$15 of domestic government bonds.
- g. Domestic investors sold \$50 of their holdings of foreign government bonds.

### ☆☆☆ Chapter 17, Problem 4

Consider a world with three equal-sized economies (A, B, and C) and three goods (clothes, cars, and computers). Assume that consumers in all three economies want to spend an equal amount on all three goods. The value of production of each good in the three economies is given in the table below.

	A	B	C
Clothes	10	0	5
Cars	5	10	0
Computers	0	5	10

- a. What is GDP in each economy? If the total value of GDP is consumed and no country borrows from abroad, how much will consumers in each economy spend on each of the goods?
- b. If no country borrows from abroad, what will be the trade balance in each country? What will be the pattern of trade in this world (i.e., which good will each country export and to whom)?

- c. Given your answer to part (b) will country A have a zero trade balance with country B? with country C? Will any country have a zero trade balance with any other country?
- d. The United States has a large trade deficit. It has a trade deficit with each of its major trading partners, but the deficit is much larger with some countries (e.g., China) than with others. Suppose the United States eliminates its overall trade deficit (with the world as a whole). Do you expect it to have a zero trade balance with every one of its trading partners? Does the especially large trade deficit with China necessarily indicate that China does not allow U.S. goods to compete on an equal basis with Chinese goods?

## ☆☆ Chapter 17, Problem 7

Retrieve the most recent World Economic Outlook (WEO) from the Web site of the International Monetary Fund (<http://www.imf.org>). In the Statistical Appendix, find the table titled “Balances on Current Account,” which lists current account balances around the world. Use the data for the most recent year available to answer parts (a) through (c).

- a. Note the sum of current account balances around the world. As noted in the chapter, the sum of current account balances should equal zero. What does this sum actually equal? Why does this sum indicate some mismeasurement (i.e., if the sum were correct, what would it imply)?
- b. Which regions of the world are borrowing and which are lending?
- c. Compare the U.S. current account balance to the current account balances of the other advanced economies. Is the United States borrowing only from advanced economies?
- d. The statistical tables in the WEO typically project data for two years into the future. Look at the projected data on current account balances. Do your answers to parts (b) and (c) seem likely to change in the near future?

## ☆ Chapter 17, Problem 8

**Saving and investment throughout the world.** Retrieve the most recent World Economic Outlook (WEO) from the Web site of the International Monetary Fund (<http://www.imf.org>). In the Statistical Appendix, find the table titled “Summary of Net Lending and Borrowing,” which lists saving and investment (as a percentage of GDP) around the world. Use the data for the most recent year available to answer parts (a) and (b).

- a. Does world saving equal investment? (You may ignore small statistical discrepancies.) Offer some intuition for your answer.
- b. How does U.S. saving compare to U.S. investment? How is the United States able to finance its investment? (We explain this explicitly in the next chapter, but your intuition should help you figure it out now.)
- c. From the FRED economic database download real GDP (variable GDPC1) and real GNP (variable GNPC96) for the years 1947 to the latest data. Calculate the percentage

difference between GNP and GDP in the United States. Which is larger? Why is that the case?