Econ 3143, Fall 2020, AS3 (Chapter 16, 17, 18)

Textbook Questions

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3. 7th edition, Question 2 of Chapter 17 in the textbook. (Consider two fictional economies….)

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.

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4. 7th edition, Question 7 of Chapter 17 in the textbook. (Retrieve the most recent WEO and find the Balances on Current Account).

The International Monetary Fund provides a number of publications on its Web site (www.imf.org). Extract from the Statistical Appendix of the World Economic Outlook (WEO) the table titled “Balances on Current Account,” which lists current account balances around the world. Use the data for the most recent year to answer parts (a) through (c).

a. What is the sum of the world current account balances? Does the sum of the current account balances round the world equal zero as noted in the chapter? What are the sources of this discrepancy and what would it imply?

b. Compare the regions of the world in terms of borrowing and lending.

c. Egypt and Tunisia are two nations that have emerged from popular revolutions in 2010–2011. How do their current account balances reflect the economic impact of these uprisings?

d. The WEO usually provides projections for the following two years. What is the projected outlook in terms of regional borrowing/lending? How do you explain the projected changes for fuel and non-fuel export earnings?

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6. 7th edition Question 7 of Chapter 18 in the textbook. (Multipliers, Openness and fiscal policy)

Multipliers, openness, and fiscal policy

Consider an open economy characterized by the following equations:

$C = c0 + c1(Y - T)$

$I = d0 + d1Y$

$IM = m1Y$

$X = x1Y^*$

The parameters m1 and x1 are the propensities to import and export. Assume that the real exchange rate is fixed at a value of 1 and treat foreign income, Y*, as fixed. Also assume that taxes are fixed and that government purchases are exogenous (i.e., decided by the government). We explore the effectiveness of changes in G under alternative assumptions about the propensity to import.

a. Write the equilibrium condition in the market for domestic goods and solve for Y.

b. Suppose government purchases increase by one unit. What is the effect on output? (Assume that $0 < m1 < c1 + d1 < 1$. Explain why.)

c. How do net exports change when government purchases increase by one unit?

Now consider two economies, one with $m1 = 0.5$ and the other with $m1 = 0.1$. Each economy is characterized by $(c1 + d1) = 0.6$.

d. Suppose one of the economies is much larger than the other. Which economy do you expect to have the larger value of m1? Explain.

e. Calculate your answers to parts (b) and (c) for each economy by substituting the appropriate parameter values.

f. In which economy will fiscal policy have a larger effect on output? In which economy will fiscal policy have a larger effect on net exports?

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7. 7th edition, Question 8 of Chapter 18 in the textbook (Policy coordination and the world economy)

Policy coordination and the world economy

Consider an open economy in which the real exchange rate is fixed and equal to one. Consumption, investment, government spending, and taxes are given by

$$C = 10 + 0.8(Y - T),\ I = 10,\ G = 10,\ \text{and}\ T = 10$$

Imports and exports are given by $IM = 0.3\ Y$ and $X = 0.3\ Y^*$ where Y* denotes foreign output.

a. Solve for equilibrium output in the domestic economy, given Y*. What is the multiplier in this economy? If we were to close the economy—so exports and imports were identically equal to zero—what would the multiplier be? Why would the multiplier be different in a closed economy?

b. Assume that the foreign economy is characterized by the same equations as the domestic economy (with asterisks reversed). Use the two sets of equations to solve for the equilibrium output of each country. [Hint: Use the equations for the foreign economy to solve for Y* as a function of Y and substitute this solution for Y* in part (a).] What is the multiplier for each country now? Why is it different from the open economy multiplier in part (a)?

c. Assume that the domestic government, G, has a target level of output of 125. Assuming that the foreign government does not change G*, what is the increase in G necessary to achieve the target output in the domestic economy? Solve for net exports and the budget deficit in each country.

d. Suppose each government has a target level of output of 125 and that each government increases government spending by the same amount. What is the common increase in G and G* necessary to achieve the target output in both countries? Solve for net exports and the budget deficit in each country.

e. Why is fiscal coordination, such as the common increase in G and G* in part (d), difficult to achieve in practice?
