

Answers to Questions: Chapter 7

1. Any international transaction that creates a payment of money to a U.S. resident generates a credit. Any international transaction that creates a payment of money to a foreigner by a U.S. resident is a debit.
2. The current account includes exports and imports, receipts and payments of investment income, and transfer payments. The capital account includes purchases of foreign assets by U.S. residents and purchases of U.S. assets by foreigners.
3.
 - a. Credit; current account; decreases U.S. balance of payments deficit.
 - b. Debit; capital account; increases U.S. balance of payments deficit.
 - c. Credit; capital account; decreases U.S. balance of payments deficit.
 - d. Debit; current account; increases U.S. balance of payments deficit.
4.
 - a. Net foreign investment position will improve by 100 billion dollars. Thus, it will be lower than \$600 billion.
 - b. The dollar appreciates; thus, U.S. foreign assets are worth less, so the net foreign investment position will worsen, and it will be more than \$600.
5. Equation 7-2 on page 195 explains how this possible. There is no change in the net international investment position if a current account deficit is offset by increased asset valuations. The dollar depreciation during this time period made U.S. foreign assets worth more.
6. Given that the United States' net borrowing from the rest of the world has become an ever larger percentage of GDP since 1990, our net investment income would be negative if the rate-of-return we paid on what we had borrowed was the same as or less than the rate-of-return we earned on those funds we had lent to the rest of the world. But the fact that net investment income is still positive means that we are earning a rate-of-return on our investments abroad that is sufficiently higher than we are paying to foreigners for the funds they have lent to us to overcome the fact that we are net borrowers from the rest of the world.
7. National saving is the sum of the saving done by households and businesses, denoted S and called private saving, and government saving, which is positive when there is a government surplus and negative when there is a government deficit. Therefore a rise in the government deficit reduces national saving.

Equation 7.5 on page 198 shows that foreign investment is the difference between domestic investment and national saving. Since a rise in the budget deficit reduces national saving, the rise requires either a decrease in domestic investment to match the

reduction in national saving or a rise in foreign investment if the reduction in domestic investment is less than the reduction in national saving.

8. The dollar has appreciated against a currency if the number of units of that currency a dollar can purchase has risen over the last year. If the number of units of a currency that can be bought with a dollar has fallen over the course of a year, then the dollar has depreciated against that currency.
9. The demand for a country's currency by foreigners (foreign exchange) is negatively sloped if the demand for that country's exports is negatively sloped.
10. The supply of a country's currency to foreigners (foreign exchange) is positively sloped if the demand by that country for imports is price elastic. For example, a depreciation of the foreign exchange rate of the dollar relative to the euro (euro/\$) will raise the dollar price of German goods. If the U.S. demand for German goods is price elastic, then each percentage-point rise in the dollar price will be accompanied by a greater than one percent reduction in quantity demanded of German goods. The total expenditure in dollars will fall. Thus, a decrease in the foreign exchange rate (euro/\$) is associated with a decrease in the quantity supplied of dollars, so the supply curve of dollars will be upward sloping. The foreign-exchange supply curve is negatively sloped if the demand for foreign goods is price inelastic. For example, a depreciation of the foreign exchange rate of the dollar relative to the mark (euro/\$) will raise the dollar price of German goods. If the U.S. demand for German goods is price inelastic, then each percentage-point rise in the dollar price will be accompanied by a smaller than one percent reduction in quantity demanded of German goods. The total expenditure in dollars will rise. Thus, a decrease in the foreign exchange rate (euro/\$) is associated with an increase in the quantity supplied of dollars, so the supply curve of dollars will be downward sloping.
11.
 - a. The demand for the Russian currency, the ruble, rises as other nations need to buy the ruble in order to pay for the oil that they import from Russia. This causes the ruble to be overvalued relative to its implied purchasing-power-parity value.
 - b. The demand for the dollar falls as Euro zone nations import a smaller amount of U.S. produced entertainment. This causes the value of the dollar to be undervalued relative to its implied purchasing-power-parity value.
 - c. The demand for the Indian currency, the rupee, rises as funds flow into the Indian stock market from abroad. This causes the rupee to be overvalued relative to its implied purchasing-power-parity value.
12. A "clean" flexible exchange rate system, in which the dollar and other currencies fluctuate freely, becomes "dirty" when central banks intervene in foreign exchange markets to maintain a preferred value for a currency. For example, central banks in Europe and Japan might intervene to support the dollar, fearing that a fall in exchange

rates would increase the competitiveness of U.S. exports in world markets and reduce American demand for imports. The Fed might also intervene to support the dollar to avoid the boost that higher import prices might give to U.S. inflation.

13. The Bank of China bought dollars during the period from 1995–2005 as needed in order to maintain an essentially fixed exchange rate between the dollar and the yuan. It did so in an effort to maintain a low exchange rate for the yuan so that the prices of Chinese made goods would remain low in the United States. Those low prices enabled Chinese economic growth to stay higher than it would have been if the yuan had risen in value relative to the dollar.
14. A country's foreign exchange rate and its net exports are inversely related. When a country's foreign exchange rate appreciates, the price of its exports rises in terms of foreign currencies. Similarly, the price of its imports falls in terms of its currency. Consequently, its firms export fewer goods and services, and its citizens import more goods and services, causing its net exports to fall. The reverse holds when the country's foreign exchange rate depreciates.
15. The demand for the country's currency rises as a result of the increase in its interest rate, since the return on assets of that country increases, or foreigners want to hold that currency. Other things being equal, that increase in demand results in a rise in the country's foreign exchange rate.
16. In order to pay for the exports, other countries need to purchase the country's foreign exchange, which increases the demand for the foreign exchange. The increase in demand is shown graphically by a shift to the right of the demand curve for the foreign exchange and results in a rise of the foreign exchange rate. If the country's policymakers wish to prevent the rise in the foreign exchange rate, they have to sell enough of the currency to provide an increase in the supply of the currency sufficient to match the increase in demand.
17. If the Japanese economy had been suffering from rising inflation over the past decade, then its government would have been taking steps to slow its growth. If that had been the case, the Japanese government would, in all likelihood, have welcomed an appreciation of the yen versus the dollar. That appreciation would have first, reduced the net exports of Japan, further slowing the growth of the Japanese economy, and second, put pressure on those Japanese companies facing competition from American firms to hold down price increases. Both effects of the yen's appreciation would have been desirable from the point of view of the Japanese government, given an objective of trying to reduce inflation. Hence, it would have been far less willing to finance the United States' current account deficit.

Alternatively, the Japanese government would have had to sell yen in order to prevent a rise in the value of the yen versus the dollar. But the sale of yen would have increased the money supply and resulted in an increase in real GDP. That increase in real GDP would have added to the inflationary pressures in the economy. As a result, it is unlikely that the Japanese government would have been unwilling to sell yen to maintain the value of the yen against the dollar.

18. The trilemma is that it is not possible for a country to maintain independent control of its monetary policy and fixed exchange rates and free flows of capital from other nations. The United States has dealt with the trilemma by attempting to maintain independent monetary policy and free flows of capital, but giving up fixed exchange rates in favor of flexible exchange rates. Ireland has dealt with the trilemma by maintaining fixed exchange rates as a Euro zone nation and free flows of capital, but it has given its authority over monetary policy to the European Central Bank.
19. Since the United States is a large open economy with flexible exchange rates, we know that policymakers must use monetary policy to reduce real GDP relative to natural real GDP in an effort to restrain a rise in inflation. In particular, monetary authorities need to reduce the real money supply, resulting in a rise in the interest rate relative to those in the rest of the world. The higher relative interest rate by itself will slow growth. In addition, the higher relative interest rate results in capital inflows. The capital inflows lead to an appreciation of the dollar which causes a fall in net exports. The fall in net exports causes an additional reduction in real GDP relative to natural real GDP.

On the other hand, Ireland has ceded control over domestic monetary policy to the European Central Bank. Therefore, it can only use fiscal policy to reduce real GDP relative to natural real GDP. We also know that fiscal policy is very powerful in a small open economy with fixed exchange rates.

20. A fiscal expansion increases interest rates, but, with perfect capital mobility, higher interest rates attract capital inflows. This increased demand for the country's currency would put upward pressure on its foreign exchange rate. To maintain the fixed exchange rate, therefore, the central bank must increase the money supply to bring down the interest rate and, thereby, the capital inflow. A fiscal contraction would produce lower interest rates, a capital outflow, an increased supply of the country's currency on the foreign exchange market, a tendency for the country's foreign exchange rate to fall, and an offsetting decrease in the money supply by the country's central bank to maintain the fixed exchange rate. Therefore, monetary policy must accommodate fiscal policy.
21. If actual real GDP is less than natural real GDP, then that requires that policymakers take steps to reduce actual real GDP relative to natural real GDP in order to reduce unemployment. In the case of fiscal policy, that would involve cutting taxes or raising

spending, steps that historically this economy's fiscal policymakers have been unwilling to take. That means in this economy, only monetary policymakers have the will to take actions that can permanently increase actual real GDP relative to natural real GDP. Monetary policy is incapable of permanently raising real output under a fixed exchange rate system in a large open economy; it can only do so under a flexible exchange rate system in the same type of economy. Therefore, this economy would be best advised to adopt a flexible exchange rate system so that it retains the ability to fight unemployment.

22. For a large country like United States, capital mobility is imperfect. A large country has substantial control over the domestic interest rate. Expansionary monetary policy under a flexible exchange rate will shift the LM curve toward right, leading to a decline in the domestic interest rate immediately. This, in turn depreciates the domestic currency (exchange rate depreciates), leading to an increase in net exports, thus shifting the IS curve to the right. Equilibrium income increases. This increase in income will be larger than in the case of small economy where capital mobility is perfect. This higher income in the new equilibrium position is accompanied by higher interest rate. This higher interest rate may cause decline in private investment in the domestic economy in future. On the other hand, expansionary fiscal policy is impotent in the flexible exchange rate regime just like in the case of small country. (See pages 221–22 in the textbook.)