CHAPTER 38

Exchange Rates, the Balance of Payments, and Trade Deficits

In the last chapter you learned *why* nations engage in international trade and *why* they erect barriers to trade with other nations. In Chapter 38 you will learn *how* nations using different currencies are able to trade.

The means nations use to overcome the difficulties that result from the use of different currencies is fairly simple. When the residents of a nation (its consumers, business firms, or governments) wish to buy goods or services or real or financial assets from, make loans or gifts to, or pay interest and dividends to the residents of other nations, they *buy* some of the currency used in that nation. They pay for the foreign money with some of their own currency. In other words, they exchange their own currency for foreign currency.

When the residents of a nation sell goods or services or real or financial assets to, receive loans or gifts from, or are paid dividends or interest by the residents of foreign nations and obtain foreign currencies, they *sell* this foreign currency—often called foreign exchange—in return for some of their own currency. That is, they *exchange* foreign currency for their own currency.

The market in which one currency is sold and is paid for with another currency is called the ***foreign exchange market.*** The price that is paid (in one currency) for a unit of another currency is called the foreign exchange rate. And like most prices, the foreign exchange rate for any foreign currency is determined by the demand for and the supply of that foreign currency.

As you know from Chapter 37, nations buy and sell large quantities of goods and services across national boundaries. But the residents of these nations also buy and sell such financial assets as stocks and bonds and such real assets as land and capital goods in other nations, and the governments and individuals in one nation make gifts (remittances) to other nations. At the end of a year, nations summarize their foreign transactions with the rest of the world. This summary is called the nation's ***balance of payments:*** a record of how it obtained foreign currency during the year and what it did with this foreign currency.

Of course, all foreign currency obtained was used for some purpose—it did not evaporate—consequently the balance of payments *always* balances. The balance of payments is an extremely important and useful device for understanding the amounts and kinds of international transactions in which the residents of a nation engage. It also allows us to understand the meaning of a balance of payments deficit or surplus, the causes of these imbalances, and how to deal with them.

Probably the most difficult section of this chapter is concerned with ***balance of payments deficits and surpluses.*** A balance of payments deficit (surplus) is found when the receipts of foreign currency are less (greater) than the payments of foreign currency and the nation must reduce (expand) its official reserves to make the balance of payments balance. Pay particular attention to the way in which a ***flexible or floating exchange-rate system*** and a ***fixed exchange-rate system*** will correct balance of payments deficits and surpluses and the advantages and disadvantages of these two alternative methods of eliminating imbalances.

As examples of these two types of exchange-rate systems, the third section of the chapter examines the ***gold standard,*** the ***Bretton Woods system,*** and the ***managed floating exchange-rate system.*** In the first two systems exchange rates are fixed, and in the third system exchange rates are fixed in the short run (to obtain the advantages of fixed exchange rates) and flexible in the long run (to enable nations to correct balance of payments deficits and surpluses).

The final section of the chapter examines the U.S. ***trade deficits*** in the 1990s. As you will learn, these deficits were the result of several factors—differences in national growth rates and a declining saving rate—that contributed to imports rising faster than exports. They also have several implications—increased current consumption at the expense of future consumption and increased U.S. indebtedness to foreigners.

■ CHECKLIST

When you have studied this chapter you should be able to

☐ Explain how U.S. exports create a foreign demand for dollars that in turn generates a supply of foreign currencies.
☐ Describe how U.S. imports create a domestic demand for foreign currencies that in turn generates a supply of dollars.
☐ Give a definition of a nation's balance of payments.
☐ Use the items in the current account to calculate the balance on goods, balance on goods and services, and balance on the current account when given the data.
☐ Describe how balance is achieved in the capital account.
☐ Explain the relationship between the current account, capital account, and official reserves account.

☐ Indicate how the official reserves account is used to determine whether there is a balance of payment deficit or surplus.
☐ Use a supply and demand graph to illustrate how a flexible exchange-rate system works to establish the price and quantity of a currency.
☐ Describe the depreciation and appreciation of a nation's currency under a flexible exchange-rate system.
☐ Identify the five principal determinants of the demand for and supply of a particular foreign currency and explain how they alter exchange rates.
☐ Explain how flexible exchange rates eventually eliminate balance of payments deficits or surpluses.
☐ List three disadvantages of flexible exchange rates.
☐ Use a supply and demand graph to illustrate how a fixed exchange-rate system functions.
☐ Discuss the objectives and limitations of using official reserves, trade policies, exchange controls, and domestic macroeconomic adjustments to maintain a fixed exchange rate.
☐ Identify three different exchange-rate systems used by the world's nations in recent years.
☐ List three conditions a nation had to fulfill if it were to be on the gold standard.
☐ Explain how the gold standard worked to maintain fixed exchange rates.
☐ Give reasons for the collapse of the gold standard.
☐ Explain how the Bretton Woods system attempted to stabilize exchange rates and to establish orderly changes in exchange rates for correcting balance of payment deficits.
☐ State reasons for the demise of the Bretton Woods system.
☐ Describe the current system of managed floating exchange rates.
☐ Discuss the pros and cons of the system of managed floating exchange rates.
☐ Describe the causes of recent trade deficits in the United States.
☐ Explain the economic implications of recent trade deficits in the United States.

■ CHAPTER OUTLINE

1. Trade between two nations differs from domestic trade because the nations use different currencies. This problem is resolved by the existence of ***foreign exchange markets,*** in which the currency used by one nation can be purchased and paid for with the currency of the other nation.

a. U.S. exports create a foreign demand for dollars, and the satisfaction of this demand increases the supply of foreign currencies in the foreign exchange market.

b. U.S. imports create a domestic demand for foreign currencies, and meeting this demand decreases the supplies of foreign currencies in the foreign exchange market.

2. The ***balance of payments*** for a nation is an annual record of all its transactions with the other nations in the world; it records all the payments received from and made to the rest of the world.

a. The ***current account*** section of a nation's balance of payments records its trade in currently produced goods and services. Within this section

(1) the ***balance on goods*** of the nation is equal to its exports of goods less its imports of goods;

(2) the ***balance on goods and services*** is equal to its exports of goods and services less its imports of goods and services; and

(3) the ***balance on the current account*** is equal to its balance on goods and services plus its net investment income (dividends and interest) from other nations and its net private and public transfers to other nations. This balance may be either a surplus or a deficit.

b. The ***capital account*** of a nation's balance of payments records foreign purchases of real and financial assets in the United States. This item earns the United States some foreign currencies, so it is entered as a plus (+) in the capital account. U.S. purchases of real and financial assets abroad draw down U.S. holdings of foreign currencies, so this item is entered as a minus (−) in the capital account. The nation has a surplus in its capital account if foreign purchases of U.S. assets are greater than U.S. purchases of assets abroad. The nation has a deficit in its capital account if foreign purchases of U.S. assets are less than U.S. purchases of assets abroad.

c. The ***official reserves*** account consists of the foreign currencies owned by the central bank. These reserves *decrease* when they are used to finance a net deficit on the combined current and capital accounts. In this case, the official reserves show as a plus (+) in the balance of payments account. The reserves *increase* when a nation has a net surplus on its current and capital account. In this case, they show as a minus (−) in the balance of payments account. The three components of the balance of payments—the current account, the capital account, and the official reserves account—must equal zero.

d. A nation has a ***balance of payments deficit*** when imbalances in the combined current and capital accounts lead to a decrease in official reserves. A ***balance of payments surplus*** arises when imbalances in the combined current and capital accounts result in an increase in official reserves.

3. There are both a flexible or floating exchange system and a fixed exchange-rate system that nations use to correct imbalances in the balance of payments. If nations use a ***flexible or floating exchange system,*** the demand for and the supply of foreign currencies determine foreign exchange rates. The exchange rate for any foreign currency is the rate at which the quantity of that currency demanded is equal to the quantity of it supplied.

a. A change in the demand for or the supply of a foreign currency will cause a change in the exchange rate for that currency. When there is an increase in the

price paid in dollars for a foreign currency, the dollar has *depreciated* and the foreign currency has *appreciated* in value. Conversely, when there is a decrease in the price paid in dollars for a foreign currency, the dollar has *appreciated* and the foreign currency has *depreciated* in value.

b. Changes in the demand for or supply of a foreign currency are largely the result of changes in tastes, relative incomes, relative price levels, relative interest rates, and speculation.

c. Flexible exchange rates can be used to eliminate a balance of payments deficit or surplus.

(1) When a nation has a payment deficit, foreign exchange rates will increase, thus making foreign goods and services more expensive and decreasing imports. These events will make a nation's goods and services less expensive for foreigners to buy, thus increasing exports.

(2) With a payment surplus, the exchange rates will increase, thus making foreign goods and services less expensive and increasing imports. This situation makes a nation's goods and services more expensive for foreigners to buy, thus decreasing exports.

d. Flexible exchange rates increase the uncertainties exporters, importers, and investors face, thus reducing international trade. This system also changes the terms of trade and creates instability in domestic economies.

4. If nations use a ***fixed exchange-rate system,*** the nations fix (or peg) foreign exchange rates. The governments of these nations must intervene in the foreign exchange markets to prevent shortages and surpluses caused by shifts in demand and supply.

a. One way a nation can stabilize foreign exchange rates is for its government to sell its reserves of a foreign currency in exchange for its own currency (or gold) when there is a shortage of the foreign currency. Conversely, a government would buy a foreign currency in exchange for its own currency (or gold) when there is a surplus of the foreign currency; however, currency reserves may be limited and inadequate for handling large and persistent deficits or surpluses, so it may use other means to maintain fixed exchange rates.

b. A nation might adopt trade policies that discourage imports and encourage exports.

c. A nation might impose exchange rate controls and rationing, but these policies tend to distort trade, lead to government favoritism, restrict consumer choice, and create black markets.

d. Another way a nation can stabilize foreign exchange rates is to use monetary and fiscal policy to reduce its national income and price level and raise interest rates relative to those in other nations. These events would lead to a decrease in demand for and increase in the supply of different foreign currencies.

5. In their recent history, the nations of the world have used three different exchange-rate systems.

a. Under the ***gold standard,*** each nation must define its currency in terms of a quantity of gold, maintain a fixed relationship between its gold and its money supply, and allow gold to be imported or exported without restrictions.

(1) The potential gold flows between nations would ensure that exchange rates remained fixed.

(2) Payment deficits and surpluses would be eliminated through macroeconomic adjustments. For example, if a nation had a balance of payments deficit and gold flowing out of the country, its money supply would decrease. This event would increase interest rates and decrease total spending, output, employment, and the price level. The opposite would happen in the other country because it would have a payments surplus. The changes in both nations would eliminate any payments deficit or surplus.

(3) During the worldwide depression of the 1930s nations felt that remaining on the gold standard threatened their recoveries, and the policy of devaluating their currencies to boost exports led to the breakdown and abandonment of the gold standard.

b. From the end of World War II until 1971, under the ***Bretton Woods system,*** nations were committed to the adjustable-peg system of exchange rates. The ***International Monetary Fund (IMF)*** was created to keep this exchange rate system feasible and flexible.

(1) The adjustable-peg system required the United States to sell gold to other member nations at a fixed price and the other members of the IMF to define their monetary units in terms of either gold or dollars (which established fixed exchange rates among the currencies of all member nations) and required the other member nations to keep the exchange rates for their currencies from rising by selling foreign currencies, selling gold, or borrowing on a short-term basis from the IMF.

(2) The system also provided for orderly changes in exchange rates to correct a fundamental imbalance (persistent and sizable balance of payments deficits) by allowing a nation to devalue its currency (increase its defined gold or dollar equivalent).

(3) The other nations of the world used gold and dollars as their international monetary reserves in the Bretton Woods system. For these reserves to grow, the United States had to continue to have balance of payments deficits, but to continue the convertibility of dollars into gold it had to reduce the deficits, and, faced with this dilemma, in 1971 the United States suspended the convertibility of the dollar, brought an end to the Bretton Woods system, and allowed the exchange rates for the dollar and the other currencies to float.

c. Exchange rates today are allowed to float in the long term to correct balance of payments deficits and surpluses, but there can be short-term interventions by governments to stabilize and manage currencies. This new system of ***managed floating exchange rates*** is favored by some and criticized by others.

(1) Its proponents contend that this system has *not* led to any decrease in world trade, and has enabled the world to adjust to severe economic shocks throughout its history.

(2) Its critics argue that it has resulted in volatile exchange rates that can hurt those developing nations

that are dependent on exports, has *not* reduced balance of payments deficits and surpluses, and is a "nonsystem" that a nation may use to achieve its own domestic economic goals.

6. The United States had large and persistent ***trade deficits*** in the past decade, and they are likely to continue.

a. These trade deficits were the result of several factors:

(1) more rapid growth in the domestic economy than in the economies of several major trading partners, which caused imports to rise more than exports;

(2) a decline in the rate of saving and a capital account surplus, which allowed U.S. citizens to consume more imported goods.

b. The trade deficits of the United States have had two principal effects: They increased current domestic consumption (allowing the nation to operate outside its production possibilities frontier), and they increased the indebtedness of U.S. citizens to foreigners. A possible implication of these persistent trade deficits is that they will lead to permanent debt and more foreign ownership of domestic assets, or lead to large sacrifices of future domestic consumption.

■ HINTS AND TIPS

1. The chapter is filled with many new terms, some of which are just special words used in international economics to mean things with which you are already familiar. Other terms are new to you, so you must spend time learning them if you are to understand the chapter.

2. The terms ***depreciation*** and ***appreciation*** can be confusing when applied to foreign exchange markets.

a. First, know the related terms. "Depreciate" means decrease or fall, whereas "appreciate" means increase or rise.

b. Second, think of depreciation or appreciation in terms of quantities:

(1) what *decreases* when the currency of Country A *depreciates* is the *quantity* of Country B's currency that can be purchased for *1 unit* of Country A's currency;

(2) what *increases* when the currency of Country A *appreciates* is the *quantity* of Country B's currency that can be purchased for *1 unit* of Country A's currency.

c. Third, consider the effect of changes in ***exchange rates:***

(1) when the exchange rate for Country B's currency *rises*, this means that Country A's currency has *depreciated* in value because 1 unit of Country A's currency will now purchase a smaller quantity of Country B's currency;

(2) when the exchange rate for Country B's currency *falls*, this means that Country A's currency has *appreciated* in value because 1 unit of Country A's currency will now purchase a larger quantity of Country B's currency.

3. The meaning of the balance of payments can also be confusing because of the number of accounts in the balance sheet. Remember that the balance of payments must always balance and sum to zero because one account in the balance of payments can be in surplus, but it will be offset by a deficit in another account. However, when people talk about a balance of payments surplus or deficit, they are referring to the sum of the current and capital account balances. If the total is positive, there is a balance of payments surplus, but if it is negative, there is a balance of payments deficit.

■ IMPORTANT TERMS

balance of payments
current account
balance on goods and services
trade deficit
trade surplus
balance on current account
capital account
balance on the capital account
official reserves
balance of payments deficit
balance of payments surplus
flexible or floating exchange-rate system
fixed exchange-rate system
purchasing-power-parity theory
exchange controls
gold standard
devaluation
Bretton Woods system
International Monetary Fund (IMF)
managed floating exchange rate