

# AN INTRODUCTION TO THE FOREIGN EXCHANGE MARKET AND THE BALANCE OF PAYMENTS

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## FUNDAMENTAL QUESTIONS

1. How do individuals of one nation trade money with individuals of another nation?

People trade one currency for another in **foreign exchange markets**. It is not necessary for large traders to go to a specific place to conduct such transactions. They call a bank that deals in foreign currency and ask the bank to convert some of their dollars to the currency they want. The amount of foreign currency exchanged for dollars depends on the **exchange rate**—the price of one country's money in terms of another.

2. How do changes in exchange rates affect international trade?

If the dollar appreciates against a foreign currency, you will get more of that currency per dollar. If the dollar depreciates against a foreign currency, you will get less of that currency per dollar. If a country's currency appreciates in value, international demand for its products falls, all other things being equal. This is because that country's goods become more expensive in terms of other currencies. If a country's currency depreciates, the prices of its goods and services in terms of other countries' currencies fall and international demand for its products increases.

3. How do nations record their transactions with the rest of the world?

The record of a nation's transactions with the rest of the world is called its **balance of payments**. The balance of payments is divided into two categories: the **current account** and the **capital account**. The current account is the sum of the balances for merchandise, services, investment income, and unilateral transfers. The capital account records the transactions necessary to move these into and out of the country. The net balance in the balance of payments must be zero, so a **deficit** (or surplus) in the current account must be offset by a **surplus** (or deficit) in the capital account. A country becomes a larger net debtor (or smaller net creditor) if it shows a deficit in its current account (or surplus in its capital account).

## Key Terms

foreign exchange  
foreign exchange market  
exchange rate  
balance of payments

double-entry bookkeeping  
current account  
surplus  
deficit

balance of trade  
capital account

## Quick-Check Quiz

### Section 1: The Foreign Exchange Market

- The foreign exchange market, like the New York Stock Exchange, is located in a specific building in New York City. (true or false?) \_\_\_\_\_
- Most foreign exchange transactions involve the movement of currency. (true or false?) \_\_\_\_\_
- As a country's currency depreciates, international demand for its products \_\_\_\_\_ (rises, falls), all other things being equal.
- If one U.S. dollar sells for 90.00 yen, then the price of the Japanese yen in terms of dollars is
  - \$.01111.
  - \$.1111.
  - \$1.1111.
  - \$90.00.
  - \$.90.
- Suppose that a cassette recorder costs 226.44 Norwegian krone and that the current exchange rate between the U.S. dollar and the Norwegian krone is \$.1590. What is the price of the cassette recorder in U.S. dollars?
  - \$1,424.15
  - \$36.00
  - \$181.15
  - \$283.05
  - \$212.99
- Suppose that the exchange rate between the U.S. dollar and the Australian dollar is \$.7985 (1AUD = \$.7985). If the exchange rate tomorrow is \$.7975, then the Australian dollar has \_\_\_\_\_ against the U.S. dollar. Australian goods will be \_\_\_\_\_ in the United States.
  - appreciated; more expensive
  - appreciated; less expensive
  - depreciated; more expensive
  - depreciated; less expensive
  - depreciated; the same price as before

7. If a Malaysian ringgit is equivalent to \$.2632 U.S. dollars, then \$1 is equal to \_\_\_\_\_, and an opal ring costing 950 ringgits would have a U.S. dollar value of \_\_\_\_\_.
- 3.80; 3,609.42
  - 3.80; 250.04
  - .26; 3,609.42
  - .26; 250.04
  - 1; 950
8. If the U.S. dollar drops to .9222 euros from .9374 euros, then
- the dollar has appreciated against the euro, and the prices of German cars will increase in the United States.
  - the dollar has appreciated against the euro, and the prices of German cars will decrease in the United States.
  - the dollar has depreciated against the euro, and the prices of German cars will increase in the United States.
  - the dollar has depreciated against the euro, and the prices of German cars will decrease in the United States.
  - the dollar has depreciated against the euro, and the prices of American cars will increase in Germany.
9. The great majority of transactions in the foreign exchange market involve
- foreign coins.
  - foreign paper money.
  - bank deposits denominated in foreign currency.
  - foreign currency.
  - items b and c above.
10. If the price in U.S. dollars for one Brazilian real is .3503 U.S. dollars, then the price in Brazilian reals for one U.S. dollar is
- 1 Brazilian real.
  - .3503 Brazilian real.
  - 2.85 Brazilian reals.
  - 3.503 Brazilian reals.
  - 1.3503 Brazilian reals.

## Section 2: The Balance of Payments

1. Which of the following is *not* included in the current account?
- merchandise balances
  - service balances
  - unilateral transfer accounts
  - purchases of stocks and bonds
  - All of the above are included in the current account.

2. If a Japanese investor bought the Epic Center office building in Wichita, Kansas, the transaction would be recorded as a \_\_\_\_\_ in the \_\_\_\_\_ account.
  - a. credit; current
  - b. debit; current
  - c. credit; investment income
  - d. credit; capital
  - e. debit; capital
3. Since 1985, the United States has had a \_\_\_\_\_ (deficit, surplus) in its current account.
4. Trade involving financial assets and international investment is recorded in the \_\_\_\_\_ account.
  - a. current
  - b. merchandise
  - c. capital
  - d. services
  - e. income
5. If export goods exceed import goods, the (merchandise, services, unilateral transfers) account will show a (deficit, surplus).
  - a. merchandise; deficit
  - b. merchandise; surplus
  - c. services; deficit
  - d. services; surplus
  - e. unilateral transfers; surplus
6. Which account contains all of the activities involving goods and services?
  - a. merchandise
  - b. services
  - c. unilateral transfers
  - d. current
  - e. capital
7. In the terminology of the balance of payments, *capital* refers to all of the following except
  - a. bank deposits.
  - b. purchases of stocks.
  - c. purchases of bonds.
  - d. loans.
  - e. purchases of equipment.
8. A country with a deficit in its current account
  - a. exports more goods and services than it imports.
  - b. is running a deficit in its capital account.
  - c. is a net lender to the rest of the world.
  - d. is a net borrower from the rest of the world.
  - e. is running a surplus in its merchandise account.

9. The net balance in the balance of payments
- is positive if a country is a net creditor to the rest of the world.
  - is negative if a country imports more goods and services than it exports.
  - is negative if the country is a net debtor to the rest of the world.
  - is positive if a country exports more goods and services than it imports.
  - must be zero.
10. The United States
- has always run a surplus in its merchandise account.
  - typically runs a surplus in its unilateral transfers account.
  - typically runs a deficit in its services account.
  - was an international creditor from the end of World War I until the mid-1980s.
  - had large capital account deficits in the 1980s.

Use the following table to answer questions 11 and 12.

International Transactions in Petuniahill	Millions of Dollars
Merchandise exports	479,814
Service exports	181,452
Net unilateral transfers	-33,880
Service imports	158,039
Merchandise imports	572,139
Net income	9,394
U.S. purchases of foreign assets	203,096
Foreign purchases of U.S. assets	242,232
Statistical discrepancy	89,482

11. What is the merchandise balance for Petuniahill?
- 92,325
  - 23,413
  - 1,366,958
  - 93,398
  - It cannot be determined from the information given.
12. What is the current account balance for Petuniahill?
- 92,325
  - 23,413
  - 1,366,958
  - 93,398
  - It cannot be determined from the information given.

## Practice Questions and Problems

### Section 1: The Foreign Exchange Market

- \_\_\_\_\_ is another expression for foreign money.
- A global market in which people trade one currency for another is called a(n) \_\_\_\_\_.
- A(n) \_\_\_\_\_ is the price of one country's money in terms of another.
- A rise in the value of a currency is called \_\_\_\_\_, and a decrease in the value of a currency is called \_\_\_\_\_.
- What is the price of 1 U.S. dollar given the following exchange rates?
  - 1 Canadian dollar = \$.86610 \_\_\_\_\_
  - 1 Swiss franc = \$.70597 \_\_\_\_\_
  - 1 euro = \$.9222 \_\_\_\_\_
  - 1 Japanese yen = \$.00677 \_\_\_\_\_
  - 1 British pound = \$1.8155 \_\_\_\_\_
- A 35-mm camera manufactured in the United States costs \$150. Using the exchange rates listed in the table below, what would the camera cost in each of the following countries?

Country	U.S. Dollar Equivalent	Currency per U.S. Dollar
Britain (pound)	1.4559	.6869
Canada (dollar)	.6610	1.5129
Mexico (peso)	.1033	9.678
Pakistan (rupee)	.0463	21.61
Philippines (peso)	.04413	22.66

- Britain \_\_\_\_\_
  - Canada \_\_\_\_\_
  - Mexico \_\_\_\_\_
  - Pakistan \_\_\_\_\_
  - Philippines \_\_\_\_\_
- Suppose the dollar ended at 1.4165 Swiss francs today, well above yesterday's 1.4045 francs.
    - The dollar has \_\_\_\_\_ (appreciated, depreciated) against the franc.
    - Swiss goods are now \_\_\_\_\_ (more expensive, cheaper) in the United States.
    - As a result of the change in exchange rates, U.S. exports to Switzerland will \_\_\_\_\_ (increase, decrease), all other things being equal.

8. You read in the paper that the euro is expected to depreciate against the dollar. Therefore, the price of a Finnish sweater sold in the United States will \_\_\_\_\_ (increase, decrease) and the price of U.S. blue jeans sold in Finland will \_\_\_\_\_ (increase, decrease).

## Section 2: The Balance of Payments

- The \_\_\_\_\_ is a record of a country's trade in goods, services, and financial assets with the rest of the world.
- \_\_\_\_\_ record activities that bring payments into a country, and \_\_\_\_\_ record activities that involve payments to the rest of the world.
- \_\_\_\_\_ means that for every transaction there is a credit entry and a debit entry.
- When exports exceed imports, the merchandise account shows a \_\_\_\_\_.
- The balance on the \_\_\_\_\_ account is frequently referred to as the balance of trade.
- A net \_\_\_\_\_ owes more to the rest of the world than it is owed.
- The sum of the balances in the merchandise, services, income, and unilateral transfers accounts is called the \_\_\_\_\_ account.
- Use the table below to calculate the current account, capital account, and statistical discrepancy for the mythical country of Dimmenland.

Account	Credit	Debit	Net Balance
Merchandise	412.68	212.89	199.79
Services	142.52	108.37	34.15
Income	114.24	91.12	23.12
Unilateral transfers			-100.32
Current account			_____
Capital account	170.36	322.36	_____
Statistical discrepancy			_____

- Refer to problem 8. Dimmenland is running a \_\_\_\_\_ (deficit, surplus) in its current account and a \_\_\_\_\_ (deficit, surplus) in its capital account. Dimmenland is becoming a greater net \_\_\_\_\_ (debtor, creditor) to the rest of the world.
- Net exports is the sum of the merchandise and services balances. Refer to problem 8. Calculate Dimmenland's net exports. If consumption = 2,490, investment = 58.48, and government spending = 540.12, what is Dimmenland's GDP? \_\_\_\_\_

## Thinking About and Applying the Foreign Exchange Market and the Balance of Payments

### I. The Balance of Payments as an Indicator

A surplus in the merchandise account means that a nation is exporting more goods than it is importing. This is often interpreted as a sign that a nation's producers can produce at a lower cost than their foreign counterparts. A trade deficit may indicate that a nation's producers are less efficient than their foreign counterparts.

In 1993, the U.S. Department of Commerce announced that the United States was a debtor nation. Can you explain why many analysts viewed the U.S. balance of payments accounts with concern?

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### II. The Balance of Payments and Exchange Rates

If U.S. residents lend and invest less in foreign countries than foreigners lend and invest in the United States, the capital account will be in surplus. If U.S. purchases of foreign stocks and bonds exceed foreign purchases of U.S. stocks and bonds, then more funds are leaving the country than entering it, and the capital account will be in deficit. Pretend that you are willing to sell your stereo system to a French resident. Would you prefer to be paid in U.S. dollars or euros? Since you can't easily spend euros in this country, you would prefer to be paid in U.S. dollars. So if the French buy more U.S. goods and services, they will need dollars to pay for them and the dollar will appreciate against the euro. Similarly, if U.S. investors demand more French bonds and stocks, the euro will appreciate.

In view of what you have read about U.S. and foreign lending, what impact will a capital account surplus have on a domestic currency? If U.S. federal budget deficits continue, what will be the impact on the dollar?

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### III. The Current Account

Martin Rabblrouser has gotten his accounts all jumbled again. Please place these accounts under their proper heading.

travel and tourism	merchandise	income
unilateral transfers	insurance premiums	services
royalties	transportation costs	

Current Account

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  - d. \_\_\_\_\_
4. \_\_\_\_\_

### IV. Japan's Trade Surplus

At one time, the *Wall Street Journal* reported that U.S. and Japanese negotiators would meet in Washington to discuss a "framework accord" aimed at opening Japanese markets. "Mr. Bentsen [Treasury Secretary] and other U.S. officials increasingly blame Japan for much of what ails the world's economy. Mr. Bentsen said Japan's huge trade surplus hurts world growth and he continued his call on Japan to step up government spending or cut taxes to strengthen its economy. . . ."

From what you know about the balance of payments, is Mr. Bentsen referring to a surplus in Japan's current account or in its capital account? Is Japan a net lender to or a net borrower from the rest of the world?

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## Chapter 7 Homework Problems

Name \_\_\_\_\_

1. If you hear the following on the evening news: "In foreign exchange markets today, the dollar appreciated compared to the euro," what happened?
2. If you hear the following on the evening news: "In foreign exchange markets today, the dollar depreciated compared to the Japanese yen," what happened?
3. If you hear the following on the evening news: "Last month, the U.S. balance of trade ran a \$50 billion deficit," what happened?
4. What is the difference between the balance of trade and the balance on the current account?

5. Suppose the exchange rate between the U.S. dollar and the euro changed from 1.5 euros per dollar to 2.0 euros per dollar.
- Did the dollar appreciate or depreciate, relative to the euro?
  - Did the euro appreciate or depreciate, relative to the dollar?
  - Suppose you are a wheat farmer in the United States, where your wheat sells for \$4.00 per bushel. When the exchange rate changed, what happened to the price that a German buyer had to pay in euros for your wheat? Will German buyers want to buy more or less wheat after the exchange rate changed than they bought before?
  - Suppose you are a car dealer in the United States selling BMWs made in Germany. The German price for your best-selling model BMW is 60,000 euros. When the exchange rate changed, what happened to the price that you have to pay in dollars for the BMW? As an importer, will you be better off or worse off as a result of the exchange rate change?

If your instructor assigns these problems, write your answers above, then tear out this page and hand it in.

## Answers

### Quick-Check Quiz

#### *Section 1: The Foreign Exchange Market*

1. false; 2. false; 3. rises; 4. a; 5. b; 6. d; 7. b; 8. c; 9. c; 10. c

If you missed any of these questions, you should go back and review Section 1 of Chapter 7.

#### *Section 2: The Balance of Payments*

1. d; 2. d; 3. deficit; 4. c; 5. b; 6. d; 7. e; 8. d; 9. e; 10. d; 11. a; 12. d

If you missed any of these questions, you should go back and review Section 2 of Chapter 7.

### Practice Questions and Problems

#### *Section 1: The Foreign Exchange Market*

- Foreign exchange
- foreign exchange market
- exchange rate
- appreciation; depreciation
- $1/.86610 = \text{CAD}1.154601$
  - $1/.70597 = \text{CHF}1.4164907$
  - $1/.9222 = \text{EUR}1.084$
  - $1/.00677 = \text{JPY}147.71048$
  - $1/1.8155 = \text{GBP}.5508124$
- $\$150 \times \text{GBP}.6869 = \text{GBP}103.04$
  - $\$150 \times \text{CAD}1.5129 = \text{CAD}226.94$
  - $\$150 \times \text{MXP}9.678 = \text{MXP}1,451.70$
  - $\$150 \times \text{RS}21.61/\$ = \text{RS}3,241.5$
  - $\$150 \times 22.66 \text{ pesos}/\$ = 3,399 \text{ pesos}$
- appreciated
  - cheaper
  - decrease
- decrease; increase

#### *Section 2: The Balance of Payments*

- balance of payments
- Credits; debits
- Double-entry bookkeeping
- surplus
- merchandise
- debtor
- current

8. Current account = merchandise balance + services balances + income + unilateral transfers =  $199.79 + 34.15 + 23.12 - 100.32 = 156.74$   
 Capital account = capital credits - capital debits =  $170.36 - 322.36 = -152$   
 Current account + capital account + statistical discrepancy = 0  
 $156.74 + -152 + \text{statistical discrepancy} = 0$   
 Statistical discrepancy = 4.74
9. surplus; deficit; creditor
10. Net exports = merchandise balance + services balance =  $199.79 + 34.15 = 233.94$   
 GDP =  $C + I + G + X = 2,490 + 58.48 + 540.12 + 233.94 = 3,322.54$

## Thinking About and Applying the Foreign Exchange Market and the Balance of Payments

### I. *The Balance of Payments as an Indicator*

A merchandise deficit such as the United States had in 1993 may indicate that domestic producers have higher costs than their foreign competitors. Many analysts viewed the 1993 current account deficit as a sign that U.S. manufacturers had lost their competitive edge.

### II. *The Balance of Payments and Exchange Rates*

A capital account surplus means that there are more foreign purchases of U.S. stocks and bonds than U.S. purchases of foreign stocks and bonds. Foreign purchasers therefore need to acquire U.S. dollars, so the dollar will appreciate. U.S. federal budget deficits may signal higher domestic interest rates. Foreign investors will be attracted to the high U.S. interest rates, and the dollar will appreciate.

### III. *The Current Account*

#### Current Account

1. merchandise
2. unilateral transfers
3. services
  - a. travel and tourism
  - b. royalties
  - c. insurance premiums
  - d. transportation costs
4. income

### IV. *Japan's Trade Surplus*

Mr. Bentsen refers to a surplus in Japan's current account, meaning that Japan exported more goods and services than it imported. Japan is a net lender to the rest of the world.