

Imbalance of Payments

The place is New York City. The store is McDonald's. A visitor from Japan tries to buy a Big Mac with several yen. The store refuses. McDonald's wants dollars. Somewhere, somehow, this tourist needs to exchange yen for dollars to buy lunch.

The tourist's plight is no different from the situation Boeing faces when it sells airplanes to France. Indeed, whether the product is one Big Mac or 20 airplanes, when people from different nations exchange goods, they also have to exchange currencies. And whether the goods are Big Macs or airplanes, nations like to keep track of currency transactions with other nations. They record purchases of imports, sales of exports, investments in other nations and foreign investment in the domestic country. A record of foreign transactions, called the *balance of payments*, is essential for making sense of a nation's position in the global economy.

There are three accounts within the balance of payments: *current*, *capital* and *official transactions* (or *reserve*) *accounts*. Market transactions determine the first two; the third is an offsetting account the government controls.

The current account records a nation's exports and imports of goods, services (such as travel to other countries, shipping and insurance), net investment income (U.S. earnings on investment abroad *minus* foreign earnings from capital invested in the U.S.) and net transfers (foreign aid, pensions paid to U.S. citizens living abroad and funds immigrants send to family abroad).

The capital account records the flows of money from the purchase and sale of real and financial assets domestically and abroad. A real asset might be a hotel building in Tokyo, while a financial asset might be shares of stock in a Swedish company. Foreign investors may buy similar assets in the U.S. When these real and financial assets are bought and sold, nations use or earn foreign exchange.

When classifying a transaction, consider whether a country uses (loses) or earns (gains) foreign currency. For the current and capital accounts, if the international transaction *uses* foreign currency to complete the transaction, it is a *debit* (*negative*). If it *earns* foreign currency, it is a *credit* (*positive*).

The official transactions account is a counterbalancing account: A country uses foreign assets or currency to offset a balance of payments deficit, and this is recorded as a credit (positive). Similarly, when there is a balance of payments surplus, the earned foreign currency is recorded as a debit (negative).

Part A

To make sure you understand the components of the current account, the capital account and the difference between a credit (transaction that earns foreign exchange) and a debit (transaction that uses foreign currency), identify each of the following transactions on the U.S. balance of payments. Complete Figure 52.1 by putting check marks in the appropriate boxes for credit or debit and for capital or current account. The first one has been done for you.



Figure 52.1
Transactions on the U.S. Balance of Payments

	Credit +	Debit -	Current Account	Capital Account
1. Harley Davidson USA purchases \$25 million in production machinery from a Japanese company.		✓		✓
2. André Prenoor, U.S. entrepreneur, invests \$50 million to develop a theme park in Malaysia.				
3. A Chinese company sells \$1 million worth of berets to the U.S. Army.				
4. BMW pays \$1 million to a U.S. shipper for transporting cars from Germany to the United States.				
5. Each month, Ima Grent, who recently arrived in the United States, sends half her paycheck to her sister in Poland.				
6. Bank of America pays \$5 million in interest to French depositors.				
7. Senor Ramos from Spain buys a shopping center in Florida.				
8. A Brazilian investor buys five \$10,000 U.S. Treasury bonds.				
9. German tourists spend \$3 million in the United States; U.S. tourists spend \$5 million in Germany.				
10. Brit-Disz, a London record store, spends \$10,000 on CDs by the Generic Gurls, a U.S. kiddy-pop group.				
11. Sam Boney, U.S. ice-rink magnate, buys stock in a Chilean ice-rink chain.				

Part B

We can investigate an important balance of payments identity. In the absence of any governmental or central bank intervention, *the current account balance and the capital account balance must sum to zero*. If a nation imports more than it exports (current account deficit), a surplus in the capital account must necessarily offset the deficit because, by definition, goods must either be paid for or the payment is owed. The foreign currency used to buy imports had to come from somewhere (in addition to currency earned from exports); and in this simplified situation, only a capital account surplus could supply the needed foreign currency. In other words, *the excess spending on imports must have found its way back into the United States in the form of foreign investment, a capital account credit*.

12. Analyze the data in Figure 52.2. Compute the missing figures, and answer the questions that follow.



Figure 52.2

2002 Balance of Payments, Z-Land

Current Account

Z-Land exports of goods	\$ +300	
Z-Land imports of goods	-400	
Z-Land exports of services	+150	
Z-Land imports of services	-120	
Balance of trade		_____
Net investment income	+10	
Net transfers	-14	
Balance on current account		_____

Capital Account

Z-Land capital going abroad	-110	
Foreign capital coming into Z-Land	+160	
Balance on capital account		_____

Balance on Current Account

Plus Balance on Capital Account _____

Official Reserves Account

Official reserves transactions balance _____

Total \$ 0

13. Does Z-Land have a current account deficit or surplus? How do you know?

14. Without central bank intervention, does Z-Land carry a balance of payments surplus or deficit? How do you know?

15. If Z-Land runs a balance of payments deficit, how can this difference be made up? If it carries a balance of payment surplus, what will happen?

Exchange Rates

People, firms and nations exchange products for money and use the money to buy other products or to pay for the use of resources. Within an economy, prices are stated in the domestic currency, such as U.S. dollars or European euros. Buyers use their currency to purchase goods. International markets are different. Producers in other countries who export goods want to be paid in their own currencies so they can carry out transactions. As a result, a *foreign exchange market* develops where national currencies can be exchanged. Such markets serve the need of all international buyers and sellers. The equilibrium prices in these markets are called *exchange rates*. An exchange rate is the rate at which the currency of one nation is exchanged for the currency of another.

Figure 53.1 shows the exchange rates for selected countries for May and August of the same year.



Figure 53.1
Exchange Rates

	Cost of Foreign Currency in U.S. Dollars (U.S. dollars / foreign currency)		Cost of U.S. Dollar in Foreign Currency (foreign currency / U.S. dollars)	
	May	Aug.	May	Aug.
British pound	1.4	1.8	0.71	0.56
Canadian dollar	0.64	0.63	1.5625	1.5873
European euro	0.87	0.91	1.149	1.099
Swedish krona	0.094	0.093	10.638	10.753
Japanese yen	0.0083	0.0090	120.482	111.111
Mexican peso	0.1101	0.1502	9.083	6.658

Part A

Using the data in Figure 53.1, calculate the cost of the following products in U.S. dollars. To solve, divide the cost of the product in the foreign currency by the cost of the U.S. dollar in the foreign currency.

	May	Aug.
1. A dinner for two that costs 500 Mexican pesos		
2. A hotel room that costs 30,000 Japanese yen		
3. A BMW that costs 85,000 euros in Germany		
4. A pound of Swedish meatballs that costs 30 krona		
5. A pair of pants that costs 72 pounds in London		
6. A leather jacket that costs 1,800 Canadian dollars		

Activity written by Sarah Franklin, Plano Senior High School, Plano, Texas; Nancy Griffin and Ruth Kramp, Plano East Senior High School, Plano, Texas; and James Spellicy, Lowell High School, San Francisco, Calif.

7. Using the exchange table in Figure 53.1, calculate how much foreign tourists would have to pay in their own currency for an American meal that costs \$60.00. To solve, divide the cost in U.S. dollars by the cost of the foreign currency in U.S. dollars.

	May	Aug.
British pound		
Canadian dollar		
European euro		
Swedish krona		
Japanese yen		
Mexican peso		

8. Did the value of the dollar appreciate (strengthen) or depreciate (weaken) against the following currencies between May and August? (Put an X in the appropriate column.)

	Appreciate	Depreciate
British pound		
Canadian dollar		
European euro		
Swedish krona		
Japanese yen		
Mexican peso		

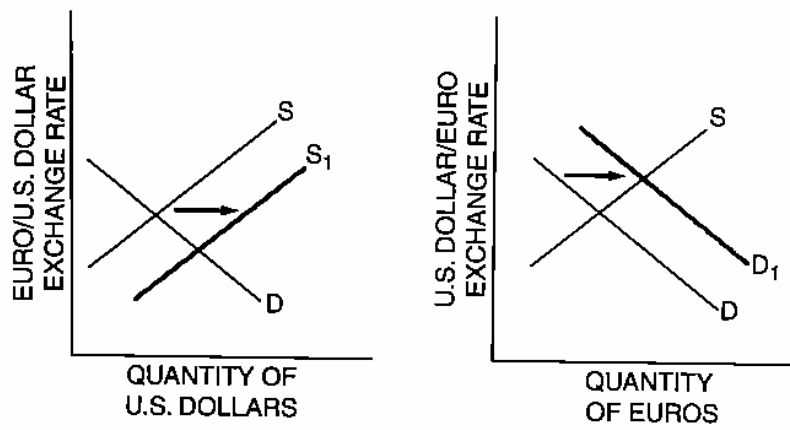
Part B

When Americans buy more foreign goods, U.S. dollars are sold in the international currency market to purchase foreign currencies that are used to pay producers in their own domestic currencies. Supply and demand graphs are used to demonstrate such transactions. If the demand for a currency increases, the currency appreciates (strengthens) in value. Currencies sold to purchase other monies depreciate (weaken) in value.

Consider the following situations. In each case, an underlying event causes a change in the supply and demand for currencies. Indicate the impact of each scenario on each currency. The first example is done for you as a model.

9. The prices of U.S. goods rise relative to the prices of German goods.

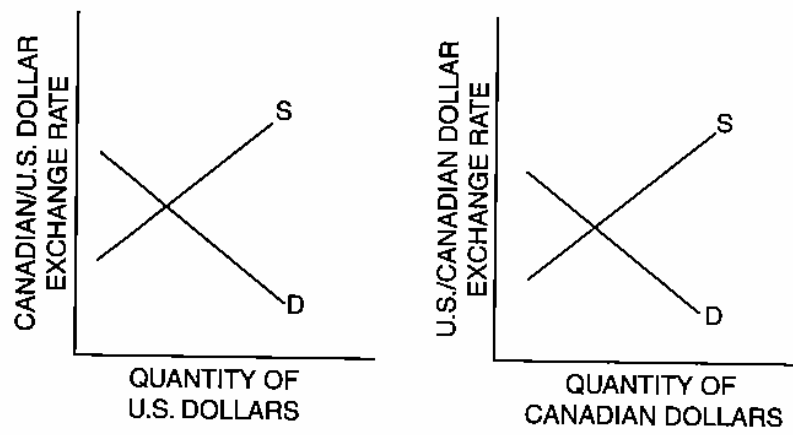
***** Figure 53.2
Prices of U.S. Goods Increase



Rationale: Americans will demand less expensive German goods, thereby increasing the demand for euros and supplying more dollars to the foreign exchange market. The U.S. dollar depreciates. The euro appreciates.

10. Interest rates in the United States rise faster than interest rates in Canada.

***** Figure 53.3
Interest Rates in the United States Increase

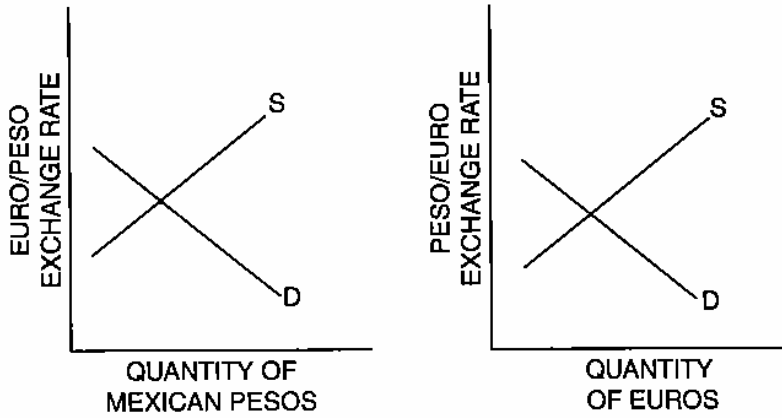


Rationale:

11. French tourists flock to Mexico's beaches.



Figure 53.4
French Tourists Visit Mexico

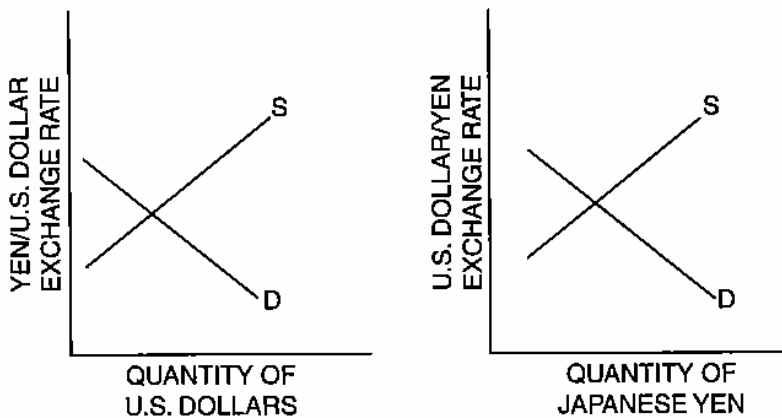


Rationale:

12. Japanese video games become popular with U.S. children.



Figure 53.5
U.S. Children Want Videos Produced in Japan



Rationale:

How Monetary and Fiscal Policies Affect Exchange Rates

Changes in a nation's monetary and fiscal policies affect its exchange rates and its balance of trade through the interest rate, income and the price level. Changes in the value of a country's currency may affect the balance of trade and aggregate demand. The value of real output and price levels may also be affected. Domestic policies influence currency values, and currency values influence domestic policies. The complexity of the connection leads to careful evaluation of any change in domestic policy goals. Policy makers cannot ignore the international effects of changes in monetary and fiscal policies.

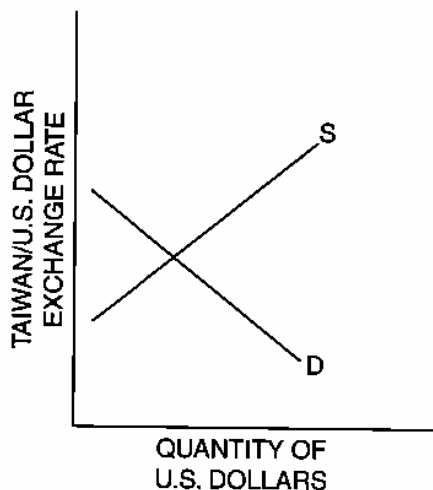
A series of situations is presented below. In each case:

- Evaluate the expected effects on exchange rates in the United States and the other country. Use the currency graphs provided to reflect changes in the currency values.
 - Analyze the impact of the currency changes on the U.S. economy as it applies to net exports, balance of trade, aggregate demand and price levels. *Work out the situations in the short run only.*
1. The U.S. government initiates a personal income tax reduction plan, leaving every tax-paying American with more disposable income.
 - (A) What will happen as a result to trade between the United States and Taiwan?

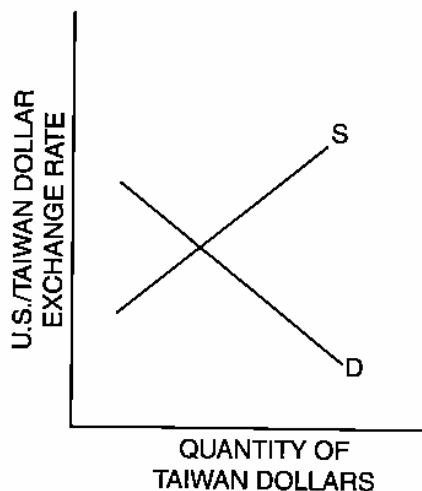


Figure 54.1
U.S. Government Reduces Taxes

Graph A



Graph B



Activity written by James Spellicy, Lowell High School, San Francisco, Calif.

(B) In Graph A, what happens to the U.S. dollar? _____

(C) In Graph B, what happens to the Taiwanese dollar? _____

(D) As a result of the fiscal policy,

- (i) U.S. aggregate demand shifts (*left / right*).
- (ii) Price levels in the United States (*rise / fall*).
- (iii) U.S. imports (*increase / decrease*). Explain why.

(iv) U.S. exports (*increase / decrease*). Explain why. _____

2. Japan's fiscal policies lead to an increase in Japan's real GDP.

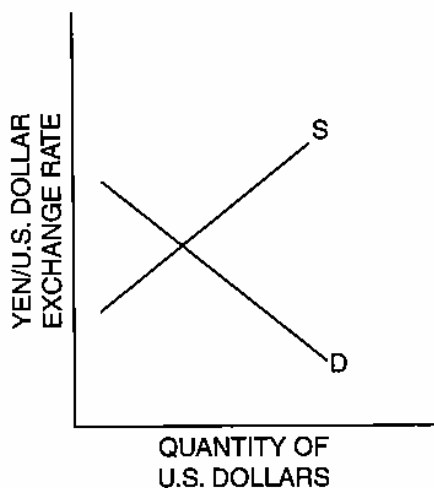
(A) What will happen as a result to trade between the United States and Japan?



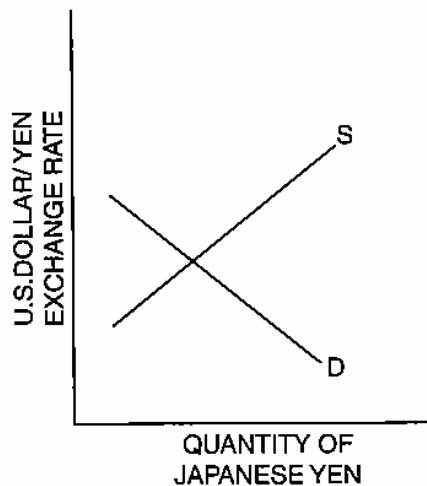
Figure 54.2

Japan's Real GDP Increases

Graph A



Graph B



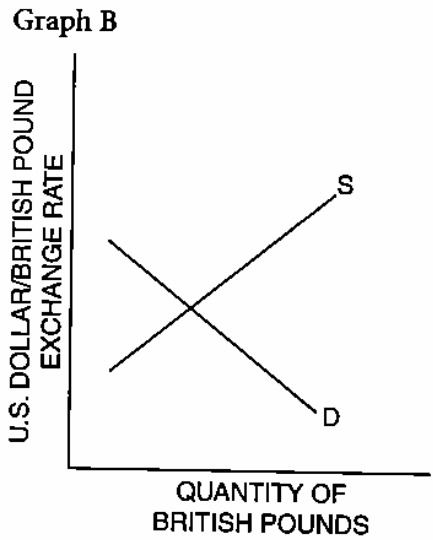
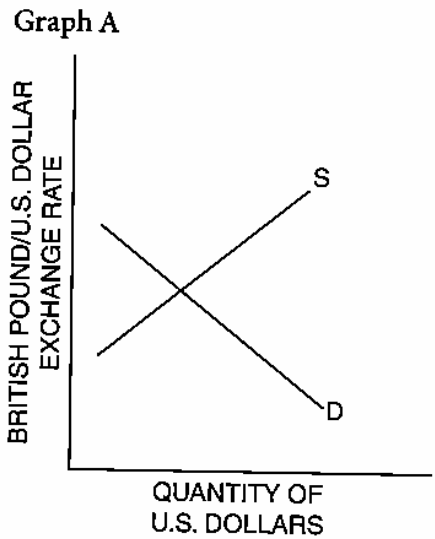
(B) In Graph A, what happens to the U.S. dollar? _____

(C) In Graph B, what happens to the Japanese yen? _____

- (D) As a result of the changing value of the U.S. dollar,
- (i) U.S. exports (*increase / decrease*). Explain why.
 - (ii) U.S. imports (*increase / decrease*). Explain why.
 - (iii) U.S. aggregate demand shifts (*left / right*).
 - (iv) Price levels in the United States (*rise / fall*).

3. The U.S. federal budget deficit increases, which causes the interest rate to rise. (Assume trade with Great Britain.)
- (A) What will happen as a result to trade between the United States and Great Britain?

***** Figure 54.3
Interest Rates in the United States Increase



- (B) In Graph A, what happens to the U.S. dollar? _____
- (C) In Graph B, what happens to the British pound? _____

(D) As a result of the changing value of the U.S. dollar,
 (i) U.S. exports (*increase / decrease*). Explain why.

(ii) U.S. imports (*increase / decrease*). Explain why.

(iii) U.S. aggregate demand shifts (*left / right*).

(iv) Price levels in the United States (*rise / fall*).

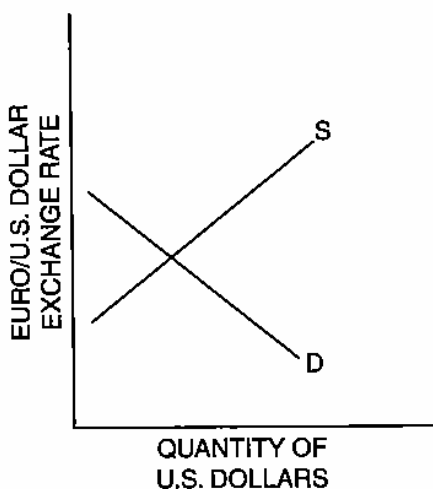
4. Europe's interest rates are increasing, while the U.S. interest rate remains relatively constant.

(A) What will happen as a result to trade between the United States and Europe?

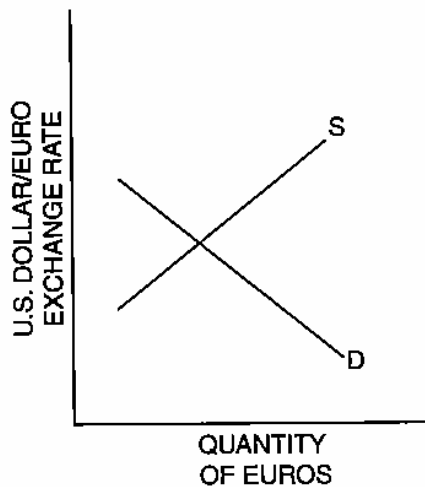


Figure 54.4
 Interest Rates in Europe Increase

Graph A



Graph B



(B) In Graph A, what happens to the U.S. dollar? _____

(C) In Graph B, what happens to the European euro? _____

(D) As a result of the changing value of the U.S. dollar,
 (i) U.S. exports (*increase / decrease*). Explain why.

(ii) U.S. imports (*increase / decrease*). Explain why.

(iii) U.S. aggregate demand shifts (*left / right*).

(iv) Price levels in the United States (*rise / fall*).

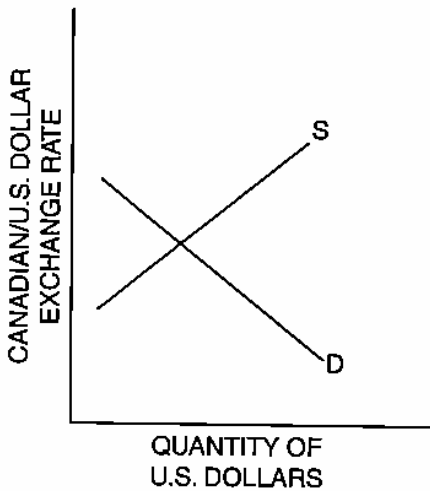
5. There is a rapid increase in the Canadian price level while the U.S. price level remains relatively constant.

(A) What will happen as a result to trade between the United States and Canada?

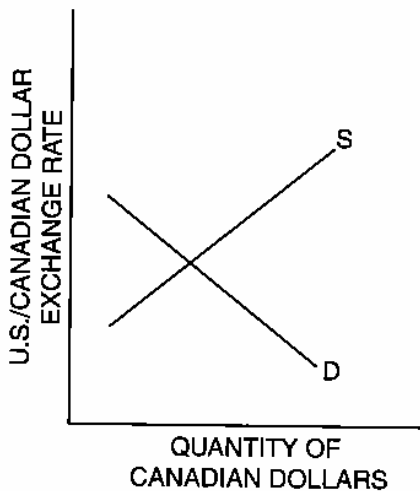


Figure 54.5
 The Price Level in Canada Increases

Graph A



Graph B



(B) In Graph A, what happens to the U.S. dollar? _____

(C) In Graph B, what happens to the Canadian dollar? _____

(B) Explain the effects of the tariff on the price and quantity of bicycles available to U.S. consumers.

(C) What are the effects of the tariff on

(i) foreign bicycle manufacturers?

(ii) domestic bicycle manufacturers?

(iii) U.S. consumers?

4. The table below shows how much wine and cheese Germany and France can produce in a day.

	Wine	Cheese
Germany	25 liters	30 kilos
France	50 liters	40 kilos

(A) Which country has an absolute advantage in wine production? Why?

(B) Which country has an absolute advantage in cheese production? Why?

(C) Which country has a comparative advantage in wine production? Why?

- (D) Which country has a comparative advantage in cheese production? Why?
- (E) Based on the data above and considering comparative advantage only, what should France import? What should France export?
- (F) Based on the data above and considering comparative advantage only, what should Germany import? What should Germany export?
5. For each of the following situations, explain the effect of the event on the value of the U.S. dollar in relation to the Mexican peso. Draw a supply and demand graph to illustrate each situation.
- (A) Americans increase their demand for Mexican tomatoes.
- (B) Inflation in Mexico rises at a higher rate than in the United States.

- (C) Americans increase their investments in Mexico because they feel the Mexican economy will be strong.
- (D) Interest rates rise in the United States and have become relatively higher than Mexican interest rates.
- (E) Mexico becomes a much more popular tourist destination for Americans.
6. Explain three effects of a new law that would forbid U.S. citizens and businesses from trading with any other country.
7. Assume that the United States increases its federal budget deficit, which causes interest rates to rise.
- (A) What would be the effect of this on the international value of the dollar? Why?
- (B) What would be the effect of this on the U.S. balance of trade? Why?

(C) Would the budget deficit and higher interest rates tend to increase or decrease aggregate demand? Why?

8. How could a nation have a negative balance of trade and still not have a deficit in its balance of payments?