Determining Comparative Advantage

Nations trade on the basis of comparative advantage, but how do we determine who has a comparative advantage? To do this, we need to calculate each country's or person's opportunity costs for both activities. The way we calculate opportunity cost depends crucially on how the productivity data are expressed.

There are two ways to measure productivity: We can calculate output over a given period of time, or we can measure it by the amount of inputs (usually time) necessary to do an activity. Examples of output are tons per acre, miles per gallon, words per minute, apples per tree and televisions produced per hour. Examples of input are number of hours to do a job, number of gallons of paint to paint a house, number of acres to feed a horse and number of pitches to throw a strike. We are going to work through two examples that measure productivity differently.

Part A

Productivity Measures and Example Problems

Output Method

	Tons Produced per Hour	
	Fish (A)	Cheese (B)
Ted	60	25
Nancy	45	40

For Ted, the opportunity cost of producing fish in terms of cheese is 60 fish = 25 cheese; therefore 1 fish = 5/12 cheese. On the other hand, 1 cheese = 12/5 fish. Similarly we can calculate the opportunity costs for Nancy. We summarize the opportunity cost information in the table below.

	Opportunity Cost (B / A) Fish	Opportunity Cost (A / B) Cheese
Ted	5/12 (0.42) cheese	12/5 (2.4) fish
Nancy	8/9 (0.89) cheese	9/8 (1.125) fish

Ted should produce fish because his opportunity cost in terms of cheese is less than Nancy's opportunity cost. Nancy should produce cheese because her opportunity cost in terms of fish is less than Ted's opportunity cost to produce cheese. Ted producing fish and Nancy producing cheese yields the most fish and cheese per hour of any combination of production.

Written by Jim Charkins, California State University, San Bernardino, Calif. Activity adapted by Jerry De Young, Riverbank School, Riverbank, Calif., and Ike Brannon, Joint Economic Committee, U.S. Senate, Washington, D.C.

Input Method

	Acres Required to Produce One Bushel	
	Apples (A)	Pears (B)
Tony	5	2
Chris	6	3

For the input method, the opportunity cost of producing one apple in terms of pears requires that we initially convert the input (acres) into output. For Tony, 5 acres = 1 apple; therefore, 1 acre = ⅕ apple. Also 2 acres = 1 pear; therefore, 1 acre = ½ pear. Now you can use the same method as for the output method: ⅕ apple = ½ pear; therefore 1 apple = 5/2 pear. Likewise 1 pear = 2/5 apple. We summarize the opportunity costs in the following table.

	Opportunity Cost (B / A) Apples	Opportunity Cost (A / B) Pears
Tony	5/2 (2.5) pears	2/5 (0.40) apples
Chris	6/3 (2) pears	3/6 (0.50) apples

Tony has the comparative advantage in producing pears. To produce one bushel of pears, Tony must give up 0.40 bushels of apples, whereas Chris has to give up half (0.50) of a bushel of apples. Thus, the opportunity cost of a bushel of pears is lower for Tony than for Chris, and so Tony should produce pears. Conversely, Chris should produce apples because he has the lower opportunity cost in terms of forgone bushels of pears.

Part B
Practice Problems

First decide whether the problem is an output or input problem; underline *output* or *input*. Then in the space below the table, calculate the opportunity cost of each product and indicate the product with the lower opportunity cost for each person, firm or country. The first one is completed for you.

1. Anna and Barry can grow the following amounts of potatoes and cabbage with the same amount of labor. Type of problem: (*output* / *input*)

	Potatoes	Cabbage
Anna	100	200
Barry	120	150

For Anna, the opportunity cost of one potato is two cabbages; for Barry, the opportunity cost of one potato is 1.25 cabbages. Barry has to give up fewer cabbages than does Anna to grow one potato. Thus, the opportunity cost of potatoes is lower for Barry than for Anna, so Barry should grow potatoes. Conversely, to grow one cabbage, Anna must give up one-half potato and Barry must give up 0.80 potato. Thus, the opportunity cost of growing cabbages is lower for Anna than it is for Barry, so Anna should grow cabbages.

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umber caught per day. Type of problem: *(output / input)*

	Deer	Antelope
Henry	4	6
John	24	12

ays to produce one unit of each. Type of problem: *(output / input)*

	Cars	Planes
XYZ Corp.	8	10
OKFX Corp.	15	12

res to produce 100 bushels. Type of problem: *(output / input)*

	Corn	Rice
India	9	3
China	8	2

5. To produce the following from one ton of olives. Type of problem: *(output / input)*

	Cans of Olives	Bottles of Olive Oil
Zaire	60	10
Colombia	24	8

6. Why should a person, firm or country produce the product that has the lower opportunity cost and trade for the other product?

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5. To produce the following from one ton of olives. Type of problem: *(output / input)*

	Cans of Olives	Bottles of Olive Oil
Zaire	60	10
Colombia	24	8

6. Why should a person, firm or country produce the product that has the lower opportunity cost and trade for the other product?

Economic Efficiency and Gains from Trade

The following comparative advantage problems illustrate how two nations can trade even if one is more efficient at producing both products. The country that is more efficient in the production of a good is the country that can produce the good with the least input. In other words, if the United States can produce a ton of oats in three hours and Scotland can produce a ton of oats in four hours, the United States is more efficient in the production of oats. In the language of economics, the United States would have an *absolute advantage* in the production of oats.

A nation has a *comparative advantage* in the good in which it has the lower opportunity cost. The nation should specialize in the good for which it has the lower opportunity cost and trade for the good for which the other country has the lower opportunity cost. A nation with an absolute advantage in the production of both goods will have a comparative advantage in the production of only one of these goods.

Terms of trade is the exchange rate between two commodities, for example, two bananas for 30 grapes. The *gains from trade* are the additional amount of commodities a country has after specialization and trade in comparison with the combination before specialization and trade. For example, a country may gain five bananas relative to the total amount of bananas it had when producing only with its own resources.

ity written by John Morton, National Council on Economic Education, New York, N.Y.

Underline the correct words in parentheses and complete the questions.

1. The following table gives the number of hours it takes in the United States and Scotland, using the same amount of resources, to produce a ton of oats or one bagpipe.

	Oats	Bagpipe
United States	3 hours	2 hours
Scotland	4 hours	5 hours

(A) *(The United States / Scotland)* has an absolute advantage in the production of oats.

(B) *(The United States / Scotland)* has an absolute advantage in the production of bagpipes.

(C) *(The United States / Scotland)* has a comparative advantage in the production of oats because

(D) *(The United States / Scotland)* has a comparative advantage in the production of bagpipes because

(E) Based only on the data above and comparative advantage considerations, the United States should specialize in *(oats / bagpipes)*.

(F) Based only on the data above and comparative advantage considerations, Scotland should specialize in *(oats / bagpipes)*.

(G) Why will both Scotland and the United States be better off if they specialize and trade?

(H) Suppose that Scotland and the United States agree to specialize according to comparative advantage and to the following terms of trade: 1 ton of oats for 1 bagpipe. In a production period there are 60 hours, and before specialization Scotland produced 7.5 tons of oats and six bagpipes. After specialization and trade with the United States, Scotland wants to maintain the six bagpipes. How many tons of oats will it have? What are its gains from trade?

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The following table gives the number of hours it takes in the United States and Canada, using the same amount of resources, to produce a ton of wheat or one bolt of cloth.

	Wheat	Cloth
United States	1 hour	2 hours
Canada	3 hours	4 hours

(A) *(The United States / Canada)* has an absolute advantage in the production of wheat.

(B) *(The United States / Canada)* has an absolute advantage in the production of cloth.

(C) *(The United States / Canada)* has a comparative advantage in the production of wheat because

(D) *(The United States / Canada)* has a comparative advantage in the production of cloth because

(E) Based only on the data above and comparative advantage considerations, the United States should specialize in *(wheat / cloth)*.

(F) Based only on the data above and comparative advantage considerations, Canada should specialize in *(wheat / cloth)*.

(G) Why will both Canada and the United States be better off if they specialize and trade?

(H) Suppose that Canada and the United States agree to specialize according to comparative advantage and to the following terms of trade: three tons of wheat for two bolts of cloth. In a production period, there are 60 hours; and before specialization, Canada produced nine tons of wheat and 8.25 bolts of cloth. After specialization and trade with the United States, Canada wants to maintain the nine tons of wheat for each production period. How many bolts of cloth will it have? What are its gains from trade?

3. The following table gives the number of hours it takes in the United States and Japan, using the same amount of resources, to produce one computer or one auto.

	Computer	Auto
United States	2 hours	5 hours
Japan	1 hour	4 hours

(A) *(The United States / Japan)* has an absolute advantage in the production of computers.

(B) *(The United States / Japan)* has an absolute advantage in the production of autos.

(C) *(The United States / Japan)* has a comparative advantage in the production of computers because

(D) *(The United States / Japan)* has a comparative advantage in the production of autos because

(E) Based only on the data above and comparative advantage considerations, the United States should specialize in *(computers / autos)*.

(F) Based only on the data above and comparative advantage considerations, Japan should specialize in *(computers/autos)*.

(G) Why will both Japan and the United States be better off if they specialize and trade?

(H) Suppose that Japan and the United States agree to specialize according to comparative advantage and to the following terms of trade: three computers for one auto. In a production period there are 60 hours; and before specialization, Japan produced 40 computers and five autos. After specialization and trade with the United States, Japan wants to maintain the five autos for each production period. How many computers will it have? What are its gains from trade?

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Part A

Quotas

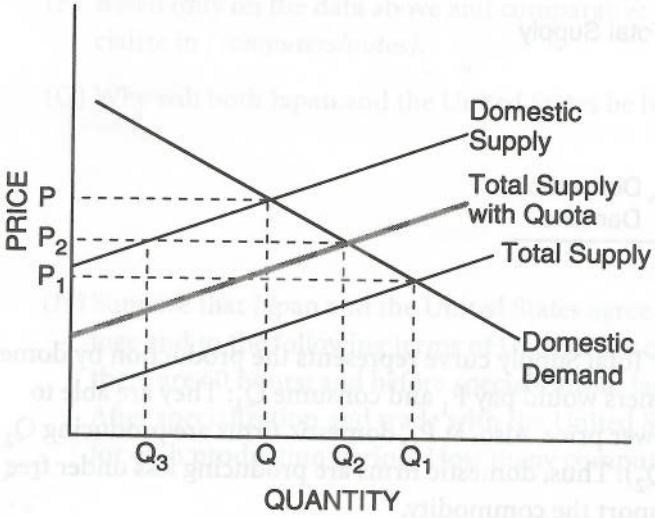
Instead of permitting free trade or imposing a complete ban, a nation may decide to set a quota to limit the number of imports. Import quotas are sometimes referred to as *voluntary export restraints* (VERs) because the two countries have agreed that the exporting nation will not export more than a certain amount.

We can see the effect of an import quota by looking at Figure 51.2. Here the domestic price would be P and the quantity would be Q if there were a complete import ban. If there were free trade, the price would be P_1 and the quantity demanded by domestic consumers would be Q_1.

Notice that under free trade, the entire market is supplied by foreign producers as the market is drawn in Figure 51.2. This does not have to be the case; it depends on the costs of the domestic industry and the domestic industry's ability to sell at the lower price.

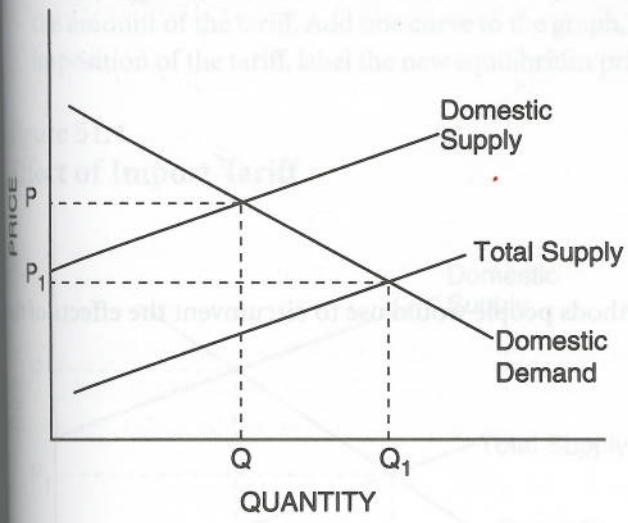
Suppose the importing nation imposes a quota, or VER, of X amount; the Total Supply with Quota curve represents the new supply curve. Total Supply with Quota is the domestic supply curve plus X amount at every price level ($X = Q_2 - Q_3$). The domestic price has risen from P_1 to P_2, and consumers are able to purchase less of the commodity. Equilibrium quantity has decreased from Q_1 units to Q_2 units. However, domestic producers are now producing Q_3 units, and foreign producers are supplying $X = Q_2 - Q_3$.

Figure 51.2
Effects of Import Quota



1. Use Figure 51.3 to demonstrate what will happen to the domestic price, domestic production and the amount of imports if a quota is removed. The Domestic Supply and Total Supply curves on the graph are without any barriers to trade imposed. Be sure to show on the graph the supply curve with the quota. It is not on the graph now.

Figure 51.3
Eliminating a Quota



2. Write a paragraph summarizing the advantages and disadvantages of a quota to the domestic economy. Be sure to discuss the impact on domestic consumers, domestic producers and foreign producers.

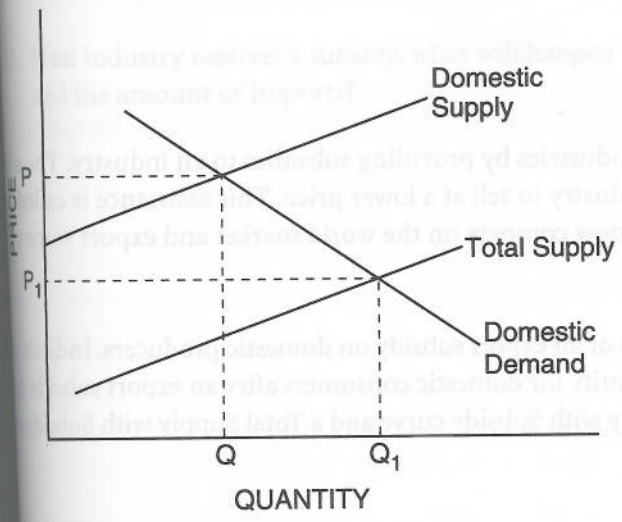
3. If a quota is imposed, explain the methods people would use to circumvent the effects of the quota.

Part B
Tariffs

A tariff is a tax on an import. The imposition of a tax increases the cost of each unit, which is represented by a decrease in supply. This would result in an increase in equilibrium price and a decrease in equilibrium quantity.

4. Modify Figure 51.4 to show the effect of an import tariff of $T per unit. Be sure to show on the graph the amount of the tariff. Add one curve to the graph, and label it Total Supply with Tariff. After the imposition of the tariff, label the new equilibrium price P_T and the equilibrium quantity Q_T.

Figure 51.4
Effect of Import Tariff



5. What is the effect of the tariff on the equilibrium price and quantity for domestic consumers compared with the free trade levels?

6. What are the similarities between the effects of a quota and those of a tariff?

7. What is the primary difference between the effects of a quota and those of a tariff?

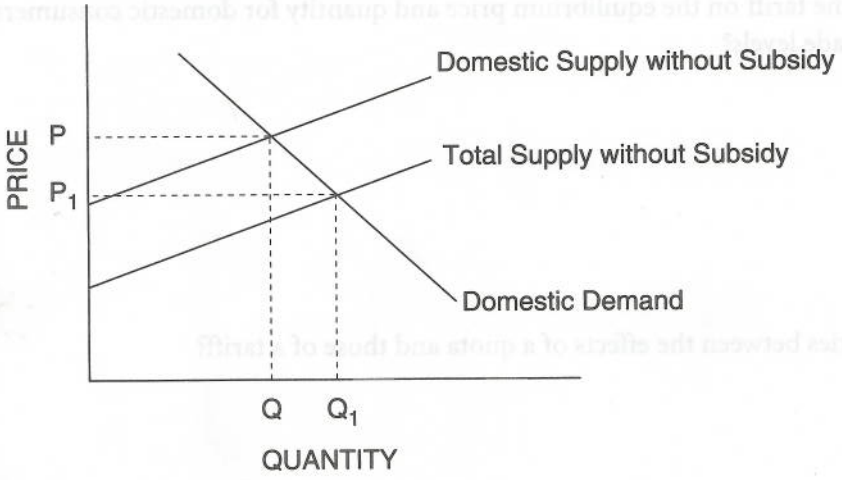
8. Suppose a country can impose either a quota that raises the domestic price to P_2 as in Figure 51.2 or a tariff that raises the domestic price to P_2. Explain whether domestic consumers would prefer a tariff or a quota and why.

Part C
Export Subsidies

Nations may choose to assist domestic industries by providing subsidies to an industry. The subsidies would lower the costs and permit the industry to sell at a lower price. This assistance is called an *export subsidy* because the industry can now compete on the world market and export some of its product to other nations.

9. Modify Figure 51.5 to show the effects of an export subsidy on domestic producers. Indicate as P_S and Q_S the equilibrium price and quantity for domestic consumers after an export subsidy. Add two curves to the graph: a Domestic Supply with Subsidy curve and a Total Supply with Subsidy curve.

Figure 51.5
Effects of a Subsidy



According to Figure 51.5 with your modification, what would be the equilibrium price and quantity for

(A) a completely closed economy (no imports and no subsidy)? _____

(B) an open economy (completely free trade) with no export subsidy? _____

(C) an open economy with a domestic export subsidy? _____

10. What is the effect of an export subsidy on the equilibrium price and quantity for domestic consumers relative to the free trade equilibrium without a subsidy?

11. If an industry receives a subsidy, what will happen at the equilibrium to domestic production and the amount of imports?

Part D
Applications

12. One of the goals of the European Union is the elimination of trade barriers among the member nations. If this goal is achieved, which groups of people will benefit and which will not benefit?

13. Identify the arguments frequently used to impose some type of trade barrier. Discuss the pros and cons of three arguments.

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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.

Written by Karl Ochi, George Washington High School, San Francisco, Calif.

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.*

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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		

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.

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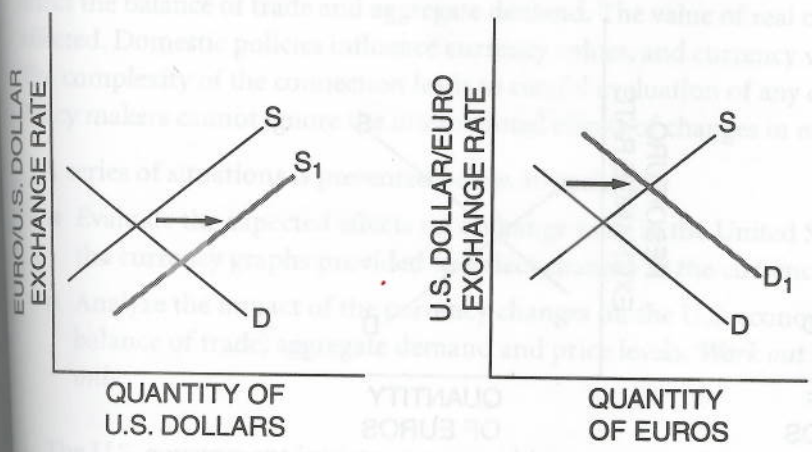
9. The prices of U.S. goods rise relative to the prices of German goods.

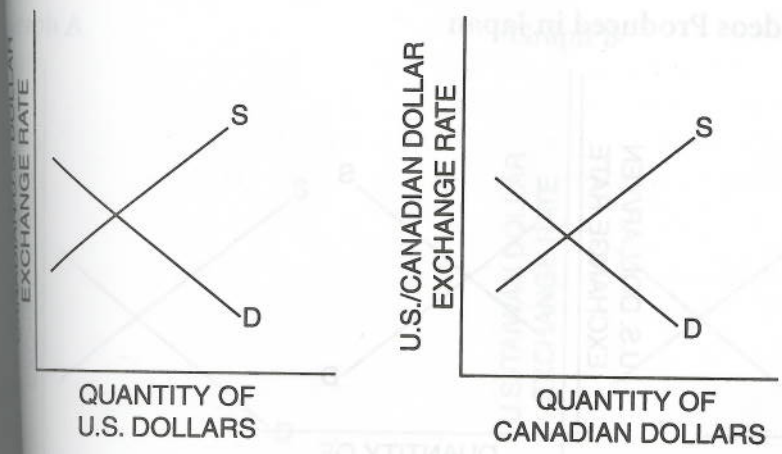
Figure 53.2
Prices of U.S. Goods Increase



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.

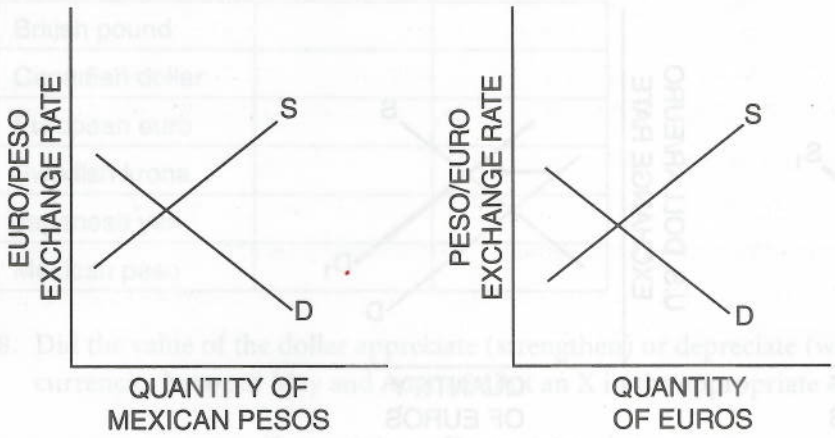
Figure 53.3
Interest Rates in the United States Increase



Rationale:

11. French tourists flock to Mexico's beaches.

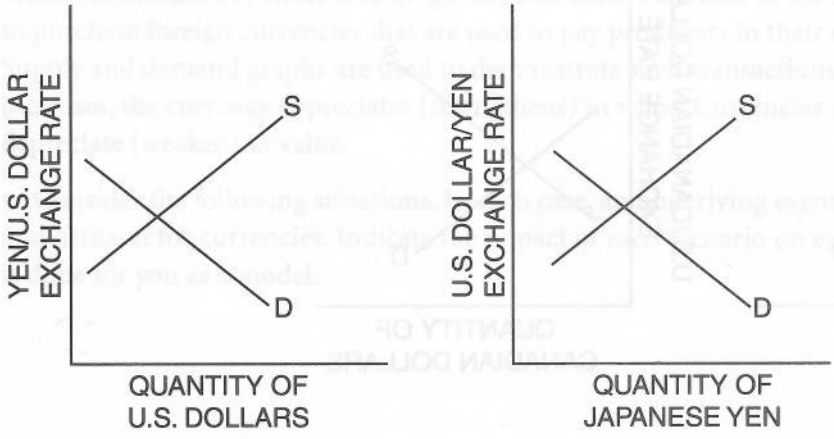
Figure 53.4
French Tourists Visit Mexico



Rationale:

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

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



Rationale:

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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.

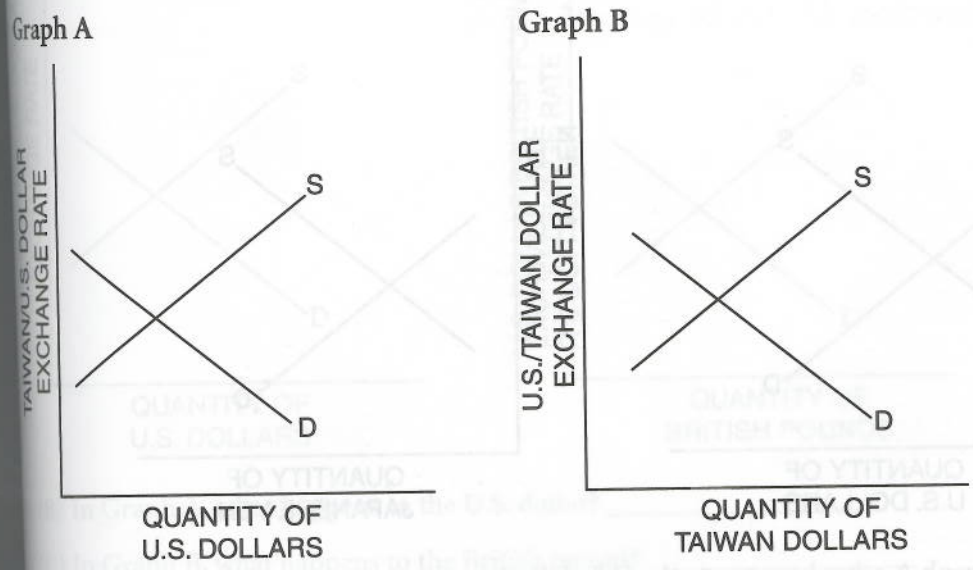
A series of situations is presented below. In each case:

- 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



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*).

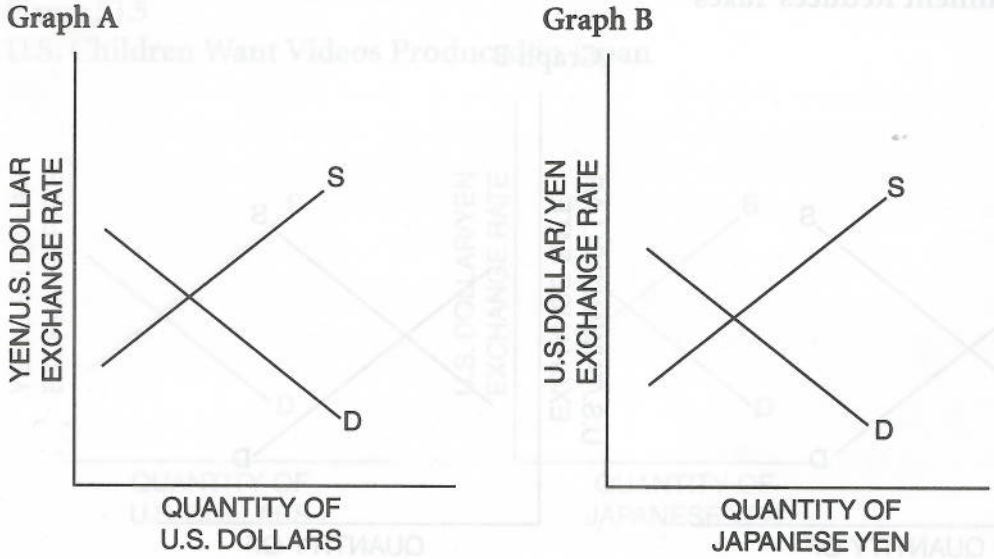
(iii) U.S. imports (*increase / decrease*). Explain why.

(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



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

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

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(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.

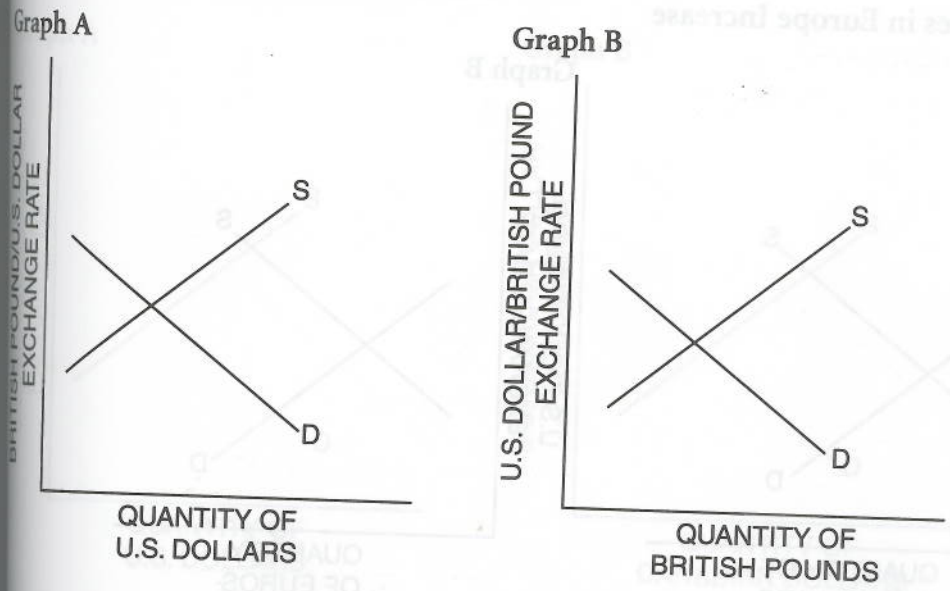
(iii) U.S. aggregate demand shifts *(left / right)*.

(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.

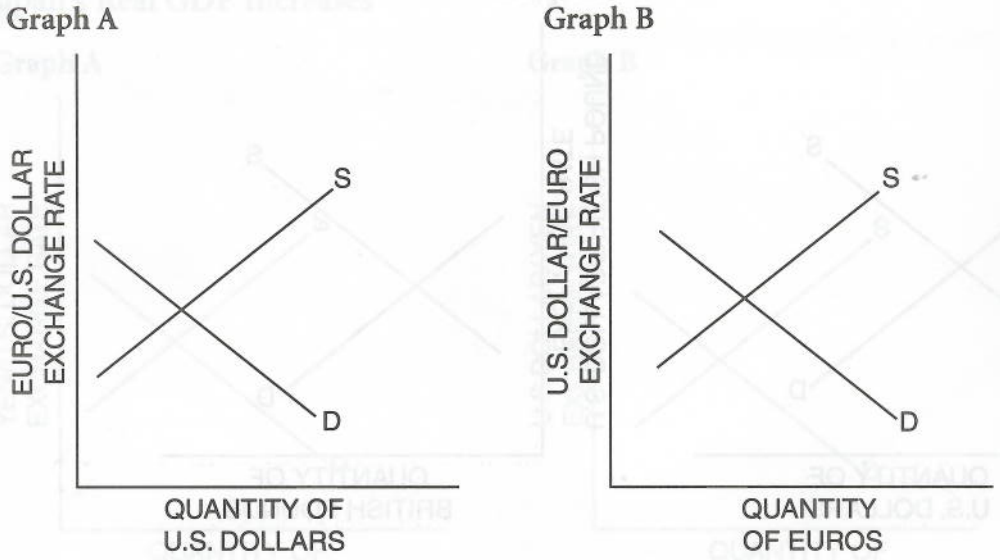
(iii) U.S. aggregate demand shifts *(left / right)*.

(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



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

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

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(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.

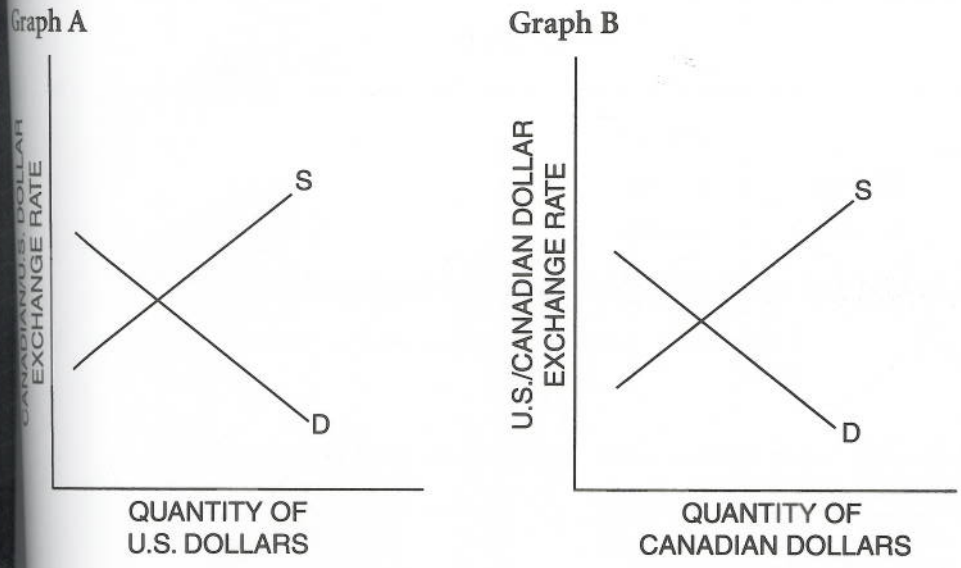
(iii) U.S. aggregate demand shifts *(left / right)*.

(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



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

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

(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)*.

The International Way of Thinking

1. True, false or uncertain, and explain why? "Nations do not trade; people trade."

2. Use one example from your own life when you specialized in doing something in which you had a comparative advantage and traded for something in which someone else had a comparative advantage.

3. Assume the U.S. government has placed a high tariff on imported bicycles.

   (A) Use a supply and demand graph to show the effect of the tariff on the U.S. market for bicycles.

(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?

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(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?

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(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?