

# International Trade and Exchange

# 19

- TARIFFS AND QUOTAS
- BALANCE OF PAYMENTS
- GOLD STANDARD
- EXCHANGE RATES
- MONETARY AND FISCAL POLICY IN AN OPEN ECONOMY

## THE BALANCE OF TRADE

In 2016 the United States was the world's second largest exporting nation, shipping \$2.2 trillion worth of goods and services abroad. However, in that same year, the United States imported \$2.7 trillion worth of goods and services. The fact that our imports exceeded our exports by \$500 billion is troubling to some people. Don't foreigners want our products? We buy their products, but they don't buy as many of ours. Won't this have adverse economic effects? Will we owe foreign nations money? Doesn't this cost American jobs?

A nation's balance of trade is equal to its exports minus its imports. Earlier we called this figure net exports. For the United States in 2016, the balance of trade was negative \$500 billion (= \$2.2 trillion - \$2.7 trillion). When the balance of trade is negative, it can be referred to as a *trade deficit*. The last time America had a trade surplus was 1975. Are these chronic trade deficits a problem, and what, if anything, can be done about them?

Trade deficits can indeed be symptomatic of underlying economic problems. For instance, if a nation's exports are of inferior quality or cost too much relative to the competition, then it may experience a trade deficit. Or a country might rely heavily on imports just to meet its subsistence needs while it has nothing to export. This dire situation would result in a trade deficit as well. Finally, a nation's currency may be overpriced for one reason or another. This would make it expensive for foreigners to buy their products. A trade deficit could be the result.

But there is a more likely explanation for the chronic trade deficits in the United States: We have higher incomes than our trading partners. We are doing so well that we can afford the best of everything no matter where in the world it might be produced. This makes America's imports swell. Unfortunately, many other countries are not doing as well. They cannot afford to buy our exports and our trade balance suffers. If this idea about the origin of our trade deficits is correct, then we should see smaller deficits, or even surpluses, when our economy is experiencing a recession. During the 1991-92 recession the trade deficit shrank to \$30 billion. The last trade surplus in the United States was in 1975 on the tail end of a severe 16-month recession.

## TRADE RESTRICTIONS

### Arguments for Trade Restrictions

Even if our trade deficits spring from the high standard of living we enjoy, they may still be problematic. When we buy foreign textiles, that means there is less demand for domestic textile workers. Imported textiles could mean unemployment for domestic textile workers.

Barriers to free trade across nations have been erected for a variety of reasons. One argument is to protect jobs from foreign competition. However, there is a steep price to pay for this protection. Everyone who buys textiles will be paying more for them because competition was thwarted. We know from our earlier analysis of comparative advantage that free trade enables the countries involved to consume more than under restricted trade.

Other reasons for trade restrictions include the infant industry argument, the diversity argument, and dumping. Infant industries are those that are just getting started. At this point they are in no condition to compete with foreign industries that have all the advantages of being well established. The argument is that these infant industries will be able to compete after they have developed. At that point, the trade restrictions could be dropped.

Another reason to protect an industry from foreign competition is for the sake of diversity. A nation should not rely too heavily on others. What if a war broke out? Do you think our enemies would continue to export to us? We need to encourage some industries despite their inefficiencies because diversity is healthy. Trade barriers can promote diversity.

*Dumping* is a technical term in international trade. It describes a situation where foreign producers are selling a product in the domestic market for less than it cost to produce it. The foreign firms would like to establish a foothold in our markets, so they are willing to absorb the loss. Domestic producers argue that prices will soon rise once the foreign firms have put them out of business. Trade barriers can be used to prevent dumping.

Table 19.1 lists major arguments for trade restrictions. Most economists think that the benefits of free trade outweigh all of these reasons for restricting the flow of goods and services between nations.

**Table 19.1 Arguments for Trade Restrictions**

- Promote domestic employment
- Infant industry argument
- Diversity of production
- Prevent dumping

### Instituting Trade Restrictions

There are a variety of ways to discourage or prevent imports from coming into a country. Quotas, tariffs, and licensing requirements are the most common.

#### 1. AN IMPORT QUOTA IS A LIMIT ON THE AMOUNT OF A PRODUCT THAT CAN BE IMPORTED.

When the import quota is set at zero, domestic producers are completely protected from foreign competition. Figure 19.1 shows the effects of an import quota on the domestic market for rice.

If free trade is allowed, then the price of rice will be  $P_1$ , the world price. If no trade in rice is allowed, then the price will be  $P_3$ , the domestic price in the absence of trade. If a quota allows in some rice, then the supply of rice curve will shift to the right by

that amount. As shown, compared to free trade, the quota raises the domestic price of rice and less rice is consumed. In addition, it can be shown that consumer surplus is reduced by the quota as is total surplus.

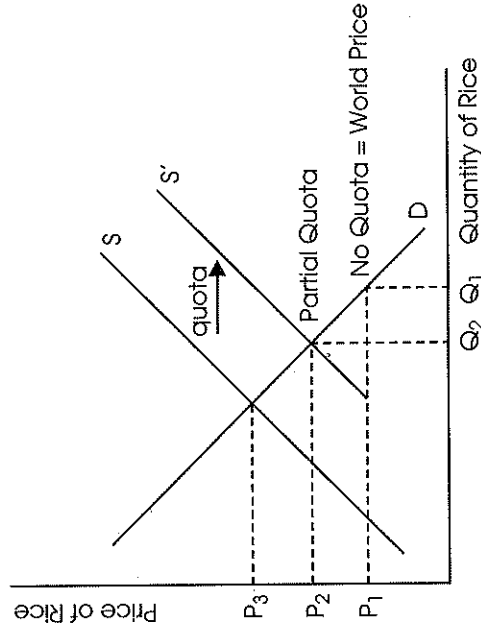


Fig. 19.1 A Quota on Rice Imports

**2. AN IMPORT TARIFF IS A TAX ON THE SPECIFIED IMPORTED PRODUCT.** The tariff serves to raise the price of the imported product in the eyes of domestic consumers. This gives the edge to domestic producers. Figure 19.2 shows the effects of an import tariff.

The price of rice would be  $P_1$  except that the tariff raises it to  $P_2$ . The higher price causes a decrease in the quantity of rice demanded and the amount actually bought and sold is now lower ( $Q_2$ ). The tariff, like the quota, raises the domestic price of rice and lowers the amount bought and sold. These higher prices and reduced amounts of consumption are the costs of trade restrictions.

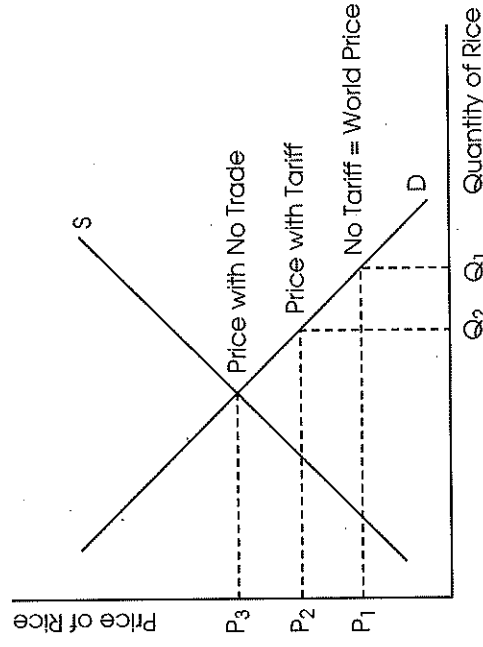


Fig. 19.2 A Tariff on Imported Rice

**3. CLEVER ADMINISTRATORS CAN STIFLE TRADE IN MANY WAYS ASIDE FROM QUOTAS AND TARIFFS.** Arcane rules and regulations are often developed with no other purpose in mind than to discourage competition. Governments may require businesspersons to obtain a license granting them the right to import a specific product. The government

**TIP**

Trade restrictions are bad for consumers because they raise prices and limit choices.

need only limit the number of licenses it grants and the amount to be imported by each license holder in order to restrict trade. The effects of licensing agreements and rules and regulations that stifle trade are shown in exactly the same manner as the import quota diagram in Figure 19.1.

Economists are generally against any trade restrictions. Comparative advantage suggests that free trade allows nations to consume more goods and services than if trade was restricted. Moreover, the arguments for trade restrictions are dubious while the costs in terms of higher prices and less consumption are more definite.

**TRADE RESTRICTIONS**

- Quotas
- Tariffs
- Licensing requirements

**THE BALANCE OF PAYMENTS**

The balance of payments is composed of the current account, the financial account, and the capital account. The current account is primarily net exports with some additional items. The financial account measures investment dollars flowing into the United States minus investments by U.S. entities abroad.

For 2016 the financial account balance is positive, meaning more investment dollars flowed into the United States than flowed out in foreign-asset investments. The capital account is mainly debt forgiveness. Table 19.2 delineates the balance of payments for the United States in 2016.

**Table 19.2 United States Balance of Payments for the in 2016 (Billions of \$)**

Current Account		-481.2
Balance of Trade		-501.2
Other Items		20.0
Financial Account		540.2
Foreign Purchases of U.S. Assets	759.4	
Minus U.S. Purchases of Foreign Assets	-331.0	
Other Items	111.8	
Capital Account		<u>-59.0</u>
		0

Source: Bureau of Economic Analysis

The current account, the financial account, and the capital account should sum to zero. This is an accounting necessity. When the current account is negative, as it was in 2016, this means that we have been spending more abroad than foreigners have been spending here, whether it is on goods and services, or investment payments or gifts and aid. This excess spending abroad puts dollars in foreign hands.

The financial account accounts for those dollars that were put in foreign hands. The financial account for 2016 indicates that most of the dollars that wound up in foreign hands were used to buy assets in the United States. Had foreigners not wanted to use their dollars to buy investments in the United States, they could have just held on to them. Even so, that is an investment—an investment in U.S. currency.

The financial account plus the capital account must be positive by the same magnitude that the current account is negative. This is because all the dollars that wind up overseas must be accounted for.

## EXCHANGE RATES

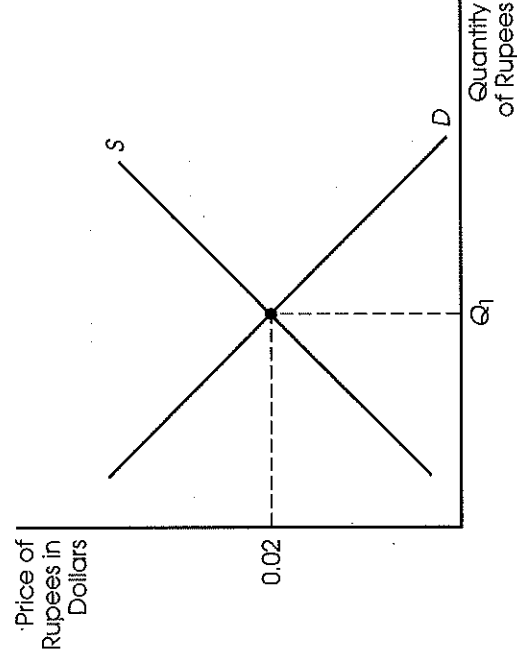
The exchange rate is the value of one country's currency in terms of another's. Exchange rates are determined, as we shall see, by supply and demand. Table 19.3 shows selected exchange rates.

**Table 19.3 Selected Exchange Rates on June 5, 2016**

One U.S. dollar equals:	
1.33	Australian dollars
0.77	British pound
1.35	Canadian dollars
5.48	Danish kroner
0.89	Euro
64.35	Indian rupees
110.47	Japanese yen
18.36	Mexican pesos
12.70	South African rands

Source: Federal Reserve Bank of New York

Let us consider the exchange rate between the U.S. dollar and the Indian rupee. One dollar was worth about 60 rupees in June 2016. This implies that one rupee is worth about  $1/60$  of a dollar, or less than 2 cents. Why isn't the rupee worth more or less? Because the supply and demand for rupees intersected at less than 2 cents per rupee. This is illustrated in Figure 19.3.



**Fig. 19.3 The Supply and Demand for Rupees**

The demand for rupees in the international market is downward sloping, which implies that the quantity of rupees demanded will be greater when the dollar price is lower. This makes sense: More people and firms would want to acquire rupees if they could get a lot of them for each dollar. The supply curve for rupees is upward sloping, which implies that the quantity of rupees supplied will be greater when the dollar price is higher. Again, this makes sense: More people would be willing to part with their rupees if they could get more cents for each one.

### Changing Rates

The exchange rate between the rupee and the dollar is changing constantly because the supply and the demand for rupees in terms of dollars are shifting constantly. If Americans began to appreciate Indian products more, then the demand for rupees would increase. That's because importers of Indian products would have to place bigger orders and pay for those orders in rupees.

When the demand for rupees increases, the demand curve for rupees shifts to the right as shown in Figure 19.4. The result is a rise in the dollar value of the rupee and an increase in the amount of rupees exchanged.

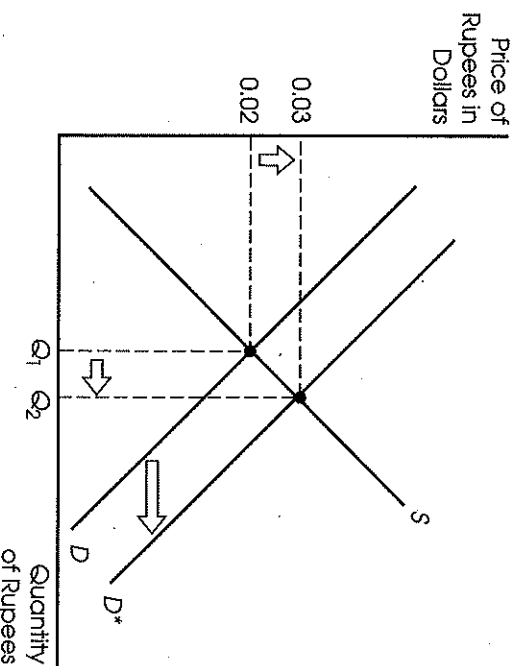


Fig. 19.4 An Increase in the Demand for Rupees

When the value of the rupee increases against the dollar as in Figure 19.4, this is known as an “appreciation” of the rupee. Or looked at from the other side, the dollar has “depreciated” vis-à-vis the rupee. Previously, a rupee cost 2 cents. Now a rupee costs 3 cents.

### Interest Rates

Changing tastes are just one of several factors that influence exchange rates between countries. Interest rates are another. If interest rates in India rise relative to interest rates in America, then it will be more rewarding to lend money in India. However, an American wanting to lend money in India must first turn her dollars into rupees. This increases the demand for rupees. The result will be the same as in Figure 19.4 where the demand for rupees shifts to the right. The rupee will appreciate and more rupees will be exchanged for dollars.

There is an additional curve shift that will occur with a change in interest rates. The supply of rupees will decrease as fewer Indian investors will want to place their funds overseas. The domestic return has become more attractive. If the supply curve is shifted to the left as well in Figure 19.4, it will serve to appreciate the rupee further.

### Political Stability

Political stability can also affect exchange rates. If the Indian government finds itself in turmoil with its credibility for maintaining peace and justice in question, fewer foreigners will want to invest in India. The demand for rupees would fall even if interest rates were relatively higher in India. This would shift the demand for rupees to the left. Moreover, Indian citizens will want to store more of their wealth abroad. Who knows what might happen to bank accounts and financial assets in a country where the government is losing control? When Indian citizens want to place some of their wealth in America, they typically start by trading their rupees for dollars. This is reflected in a shift to the right in the supply of rupees.

So political instability in India would decrease the demand for rupees and increase the supply. This is shown in Figure 19.5. The result is a significant depreciation of the rupee.

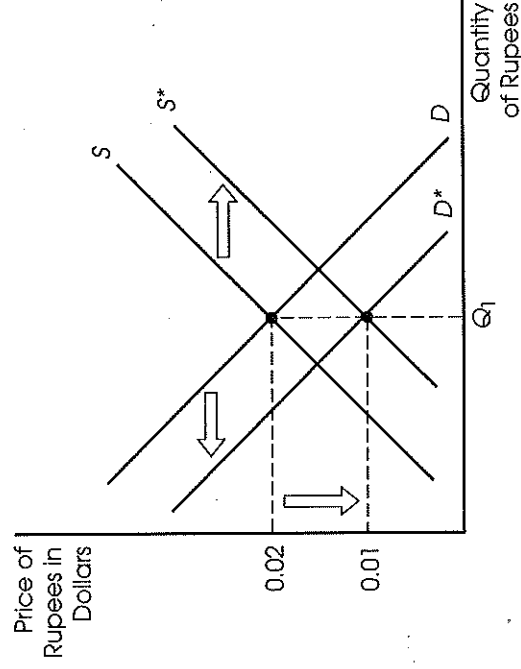


Fig. 19.5 A Decrease in the Demand and an Increase in the Supply of Rupees

### Relative Levels of Income

The relative levels of income in India and America will influence the exchange rate between dollars and rupees. If America is better off than India in terms of income, Americans will be able to afford more of the finer things India has to offer. And India will not be able to enjoy America's exports to the same extent because of her relatively lower standard of living. So if the standard of living in America advanced while India slipped into a recession, the situation would be just the opposite of that portrayed in Figure 19.5—the demand for rupees would increase because Americans could afford Indian exports. The supply of rupees would fall, not increase, since Indians would not be demanding as many American exports as before the recession.

## Relative Prices

Relative prices in India and America can also impact exchange rates. If prices rise in India while they hold steady in America, the value of the rupee will depreciate. This is because some Americans will balk at purchasing Indian products because of the higher prices, thus reducing the demand for rupees. And Indian citizens will buy more American products since the prices of these items have held steady. This will increase the supply of rupees. The situation is just as depicted in Figure 19.5.

Astute readers may take the analysis a step further. Once the value of the rupee depreciates, the higher-priced Indian products will appear cheaper to Americans and the lower-priced American products will appear more expensive to Indians. This is because the currencies must be exchanged to obtain each other's products. If you reasoned this way, congratulate yourself—you have outlined the theory of purchasing power parity. This theory states that the same product, say, a pencil, will cost the same if it is bought domestically or imported because exchange rates change to erase any price differential that may exist. It's an interesting theory, but the real world abounds with countereexamples.

## Speculation

Speculators have an important impact on exchange rates. Individuals and institutions buy and sell currencies with an eye toward making a profit. As with all financial transactions, these speculators want to “buy low and sell high.” If it is expected that the rupee will depreciate in the near future, speculators will try to sell their rupees now before the price falls. In Figure 19.6, this would increase the supply of rupees, shifting the supply curve to the right. Notice that the result is a depreciation of the rupee from 2 cents to 1 cent. Speculation often results in self-fulfilling prophecies.

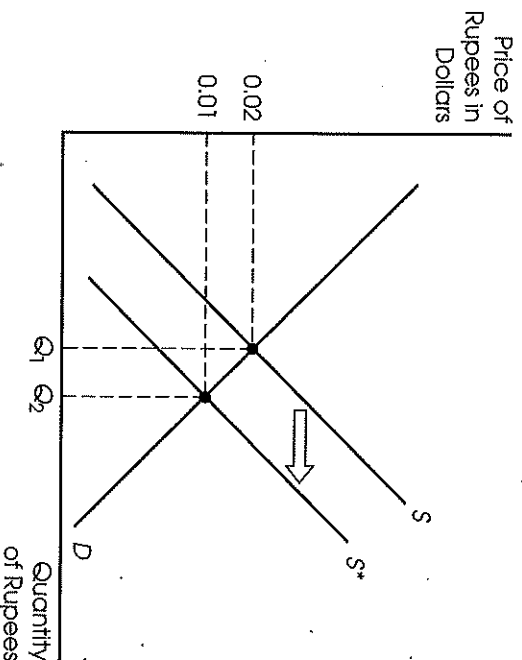


Fig. 19.6 An Increase in the Supply of Rupees

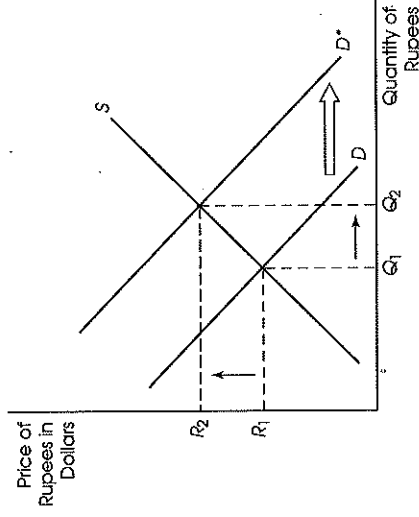
## Side-by-Side Foreign Exchange Graphs

At least two currencies will be affected by a change in any of the factors affecting foreign exchange rates: the currency under consideration and that of its trading partner or partners. In order to illustrate these effects, side-by-side exchange rate graphs may be used.

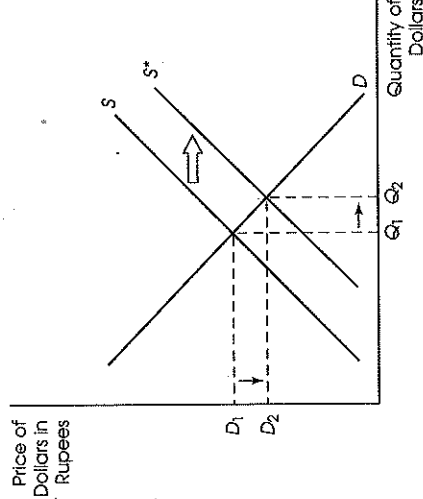


Consider a case where Americans suddenly develop a passion for India's exports. If we look at the market for rupees, we will see an increase in demand for rupees. This is shown in Figure 19.7. American importers will be required to obtain rupees in order to obtain the goods Americans desire from India.

The increase in the supply of dollars results in a depreciation of the dollar ( $D_1$  to  $D_2$ ) and an increase in the quantity of dollars traded ( $Q_1$  to  $Q_2$ ), as shown in Figure 19.8. Thus, we may conclude that when Americans increase their preference for Indians goods, the rupee will appreciate while the dollar depreciates. Figures 19.7 and 19.8 are often placed side-by-side to illustrate these simultaneous effects on the two currencies.



**Fig. 19.7 Market for Rupees:  
An Increase in the Demand for Rupees**



**Figure 19.8 Market for Dollars:  
An Increase in the Supply of Dollars**

The increase in the demand for rupees results in an appreciation of the rupee ( $R_1$  to  $R_2$ ) and an increase in the quantity of rupees traded ( $Q_1$  to  $Q_2$ ). However, if we look at the market for dollars, we would see an increase in the supply of dollars. American importers will be supplying more dollars on the foreign exchange market in order to obtain the rupees they want.

**Table 19.4 Determinants of Exchange Rates**

- Demand for a nation's exports (tastes)
- Relative interest rates
- Political stability
- Relative level of income
- Relative prices (theory of purchasing power parity)
- Speculation

### Exchange Rate Regimes

Before the Great Depression, most of the large economies of the world were on a gold standard. Essentially, the gold standard kept exchange rates between countries fixed. Since the dollar was worth a certain amount of gold and the franc was worth a given amount of gold, the value of the dollar versus the franc would be established. If the value of the franc appreci-

ated *vis-à-vis* the dollar, people could use their dollars to buy gold and then use that gold to buy francs, and then use those francs to buy more dollars than they started with.

Arbitrage of this sort kept exchange rates between nations fixed, but the gold standard was not without flaws. If tastes changed and Americans clamored for French products, the exchange rate did not rise to choke off some of this foreign demand. In such a situation the United States would develop a balance of payments deficit as French citizens and institutions piled up dollar holdings. Many historians and economists point to balance of payment crises caused by the gold standard as one of the central causes of the Great Depression.

Modern international exchange is no longer based on gold. The Bretton Woods regime replaced the fixed exchange rate system based on gold in 1944. In the Bretton Woods system the dollar was as good as gold. Countries pegged the value of their currencies to the dollar, and the United States stood ready to trade any dollar holdings of foreign governments to gold at \$35 an ounce. This system broke down in 1971 when the United States, running chronic trade deficits, could no longer support the \$35 an ounce price of gold.

### **Managed Float**

The current system for determining international exchange rates is referred to as a *managed float*. Supply and demand determine exchange rates between currencies as outlined above. But if exchange rates change in a manner deemed to be detrimental, nations will intervene. Intervention involves coordinated buying and selling of currencies in order to adjust their equilibrium values determined by supply and demand.

For example, because the United States runs chronic trade deficits there is an abundant supply of dollars in international markets. This tends to depress the value of the dollar. A depreciated dollar would lower America's demand for foreign products. This would help with our chronic trade deficits, but it would hurt the countries that export to us. If governments decide to support the dollar, they would intervene by buying dollars. This results in the dollar appreciating in value.

A managed float allows supply and demand to determine exchange rates within a range of values. Once exchange rates exceed that range, governments use their currency holdings to intervene.

## **MONETARY AND FISCAL POLICY IN AN OPEN ECONOMY**

Monetary and fiscal policy can be used to fight inflation or recession. However, our previous discussion of these policies ignored their effects on the exchange rate and the balance of trade. The impacts of monetary and fiscal policy in the context of an open economy are more complicated.

An expansionary monetary policy still stimulates the economy in the short run by increasing the quantity of output and putting upward pressure on prices. This will worsen the balance of trade since the increase in output means an increase in income. Rising incomes tend to drive imports, worsening the balance of trade. And rising prices tend to discourage exports, again, worsening the balance of trade.

Policymakers need to keep in mind the effects of monetary policy on imports and exports. In a closed economy, an increase in the money supply stimulates output and income in the short run. In an open economy these effects will be dampened because imports will rise. That is to say, some of the stimulatory effect will be spent overseas, and exports will fall because of the inflation resulting from the increase in the money supply.

### **TIP**

**Monetary and fiscal policies are less effective when exchange rates are perfectly flexible.**

The effects of an expansionary fiscal policy are tempered in the same way in the context of an open economy. An increase in government spending and a reduction in taxes will increase output and income in the short run, while putting upward pressure on prices. Higher levels of income tend to raise imports while higher prices tend to discourage exports. This worsens the balance of trade and implies that the effects of the fiscal policy will not be as pronounced.

Also notice that monetary and fiscal policies will affect exchange rates because these policies alter incomes and prices. Remember that exchange rates are impacted by the relative level of income and the relative level of prices in a nation.



## SUMMARY

- The United States has been importing more than it has been exporting since the mid-1970s. However, our trade deficits are more a symptom of how well off we are relative to our trading partners than a cause for alarm. Most economists agree that trade restrictions, such as import tariffs, quotas, and licensing agreements, are harmful. Free trade, where countries specialize according to the law of comparative advantage, benefits consumers in the countries involved.
- Nevertheless, most nations restrict trade in one way or another. The arguments for trade restrictions vary from promoting employment to preventing dumping. Infant industries and the benefits of a diverse manufacturing base are two more reasons put forward to justify trade restrictions. However valid the reason, economic analysis shows that the cost of restricting trade is higher prices to the consumer. In addition to this damage, there is another cost to trade restrictions. Since our trading partners will be exporting fewer goods and making less income, they will, in turn, purchase fewer of our exports. Domestic exporters are hurt by trade tariffs.
- A nation's balance of payments accounts for the funds that flow into and out of the country. If there is a deficit in the current account, there must be a corresponding surplus in the financial and capital accounts.
- The exchange rate is the price of one nation's currency in terms of another's. In today's world, exchange rates are determined by the supply and demand for a nation's currency—up to a point. Occasionally, nations will intervene in the market by supplying more or less of a particular currency or demanding more or less. Nations use their official reserves during these interventions in order to prop up or devalue a given currency. In other words, countries can adjust the position of the supply and demand curves for a currency, but only if they have the cooperation of the major trading nations. Without cooperation, no single nation has enough reserves to make much of an adjustment to the supply or demand curves of most currencies. This international monetary system, where supply and demand determine exchange rates with the occasional intervention by a consortium of trading partners, is known as a managed float.
- Exchange rates, therefore, are free to float about where supply and demand might take them—just so long as they don't go too far and trigger an intervention. Anything that can affect the supply or the demand for a nation's currency will affect its exchange rate. The demand for a nation's exports affects the demand for its currency, as do relative interest rates. Relative prices and income also affect exchange rates. And speculation can play a role. If market participants expect a particular currency to appreciate in the near future, they will try to buy as much as they can now. As we have seen, this increases the demand for the currency, which, in turn, causes it to appreciate, the fulfillment of a self-fulfilling prophecy.

- Exchange rates are affected when a country pursues monetary and fiscal policy because, in the short run, these policies affect income and prices. Moreover, the balance of trade will be affected by monetary and fiscal policy because imports and exports are impacted by changes in income and prices as well. The short-run effects of monetary and fiscal policy are not as pronounced in an open economy.

## TERMS

- Appreciation** the increase of the value of a currency in terms of another currency
- Balance of Payments** an accounting of the funds that flow into and out of a country comprised of the capital account, the current account, and the financial account
- Balance of Trade** a nation's exports minus its imports
- Capital Account** a portion of the balance of payments dealing with the transfer of assets
- Closed Economy** a hypothetical economy with no foreign trade
- Current Account** a portion of the balance of payments comprised of the trade balance and other items
- Depreciation** the decrease of the value of a currency in terms of another currency
- Dumping** the practice of foreign producers selling a product in the domestic market for less than it cost to produce it
- Exchange Rate** the value of one country's currency in terms of another's
- Financial Account** a portion of the balance of payments comprising net foreign purchases of U.S. assets and other items
- Gold Standard** a unit of currency that is equivalent to a stated amount of gold
- Import Quota** a limit on the amount of a product that can be imported
- Import Tariff** a tax on a specified imported product
- Infant Industries** those industries that are just getting started, perhaps requiring trade restrictions
- Intervention** situation in which a nation or group of nations use their official reserves to supply or demand a currency in order to alter the exchange rate
- Managed Float** an exchange rate regime where supply and demand determine exchange rates with occasional intervention when warranted
- Net Investment Income** amount U.S. citizens earned as interest and dividends from abroad minus how much was paid to foreigners in interest and dividends
- Net Transfers** money our government and citizens send as gifts or aid to foreigners minus how much foreigners send to us in gifts and aid
- Official Reserves** government's holdings of foreign currencies
- Open Economy** an economy with foreign trade
- Trade Deficit** excess of a nation's imports over its exports
- Trade Surplus** excess of a nation's exports over its imports

## FORMULAS

Balance of Payments = Current Account + Capital Account + Financial Account

## MULTIPLE-CHOICE REVIEW QUESTIONS

- When a country has a balance of trade deficit  
(A) it must make up the difference by shipping gold to its creditors.  
(B) its exports exceed its imports.  
(C) its currency will appreciate.  
(D) corrective actions must be taken.  
(E) its imports exceed its exports.
- A balance of trade surplus can be the result of  
(A) a loose monetary policy.  
(B) foreigners having no taste for this country's products.  
(C) an appreciation of the country's currency.  
(D) low levels of income relative to other nations.  
(E) high domestic prices.
- One strategy a corporation may use to gain market share in a foreign market is  
(A) raising the price of its product.  
(B) convincing its government to put an import tariff on the product.  
(C) convincing its government to place a quota on the product.  
(D) cornering.  
(E) dumping.
- Tariffs and quotas on imports  
(A) result in higher domestic prices.  
(B) promote trade between nations.  
(C) do not necessarily affect domestic prices.  
(D) affect domestic prices: the former raises them while the latter lowers them.  
(E) are ways to fight inflation.
- Tariffs and quotas on imports  
(A) result in lower domestic prices.  
(B) sometimes raise and sometimes lower the amount of the product sold domestically.  
(C) reduce the amount of the product sold domestically.  
(D) raise the amount of the product sold domestically.  
(E) do not affect domestic prices or quantities.
- Which of the following is NOT an argument for restricting trade?  
(A) To protect infant industry  
(B) To promote employment  
(C) To fight inflation  
(D) To promote a diversity of industries  
(E) To prevent dumping
- If the value of the U.S. dollar depreciates, *ceteris paribus*, then U.S.  
(A) imports will rise.  
(B) unemployment will rise.  
(C) net exports will fall.  
(D) exports will rise.  
(E) net exports will be unaffected.
- If a country has a negative value on its current account, then it must  
(A) pay that amount to its trading partners.  
(B) have a positive value of equal magnitude on its capital plus financial account.  
(C) depreciate its currency.  
(D) appreciate its currency.  
(E) send gold abroad.

9. With a managed float
- (A) countries occasionally intervene in foreign exchange markets.
  - (B) countries never have to intervene in foreign exchange markets.
  - (C) countries must constantly intervene to maintain the value of their currencies.
  - (D) exchange rates are fixed.
  - (E) each currency is worth a stated amount of gold.
10. Expansionary fiscal policy
- (A) increases unemployment in an open economy.
  - (B) lowers the nominal interest rate, which results in currency appreciation.
  - (C) is less effective in an open economy with floating exchange rates.
  - (D) will not affect the nominal interest rate.
  - (E) increases the nominal interest rate, which results in currency depreciation.
11. In the balance of payments, the trade balance
- (A) is ignored.
  - (B) appears in the capital account.
  - (C) appears in the current account.
  - (D) is included in the official reserves.
  - (E) is counted as part of "net transfers."
12. If interest rates rise in the United States relative to other nations, then
- (A) the value of the dollar will tend to appreciate.
  - (B) the value of the dollar will tend to depreciate.
  - (C) exchange rates will be affected but not the value of the dollar.
  - (D) the exchange rate will not be affected.
  - (E) the balance of trade will tend toward a surplus.
13. If prices rise in the United States relative to other countries, then
- (A) the value of the dollar will tend to appreciate.
  - (B) the value of the dollar will tend to depreciate.
  - (C) exchange rates will be affected but not the value of the dollar.
  - (D) the exchange rate will not be affected.
  - (E) the balance of trade will tend toward a surplus.
14. If the demand for dollars rises while the supply of dollars falls, then the
- (A) dollar will appreciate.
  - (B) dollar will depreciate.
  - (C) exchange rates will be affected but not the value of the dollar.
  - (D) exchange rate will not be affected.
  - (E) balance of trade will tend toward a surplus.
15. If the demand for our exports rises while our tastes for foreign goods falls off, then
- (A) the value of the dollar will tend to appreciate.
  - (B) the value of the dollar will tend to depreciate.
  - (C) exchange rates will be affected but not the value of the dollar.
  - (D) the exchange rate will not be affected.
  - (E) the balance of trade will tend toward a deficit.

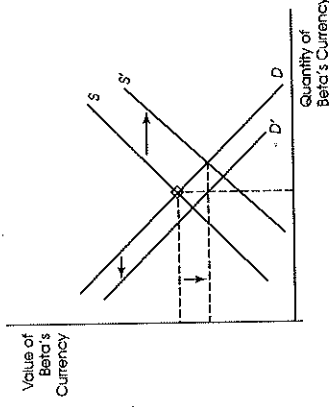
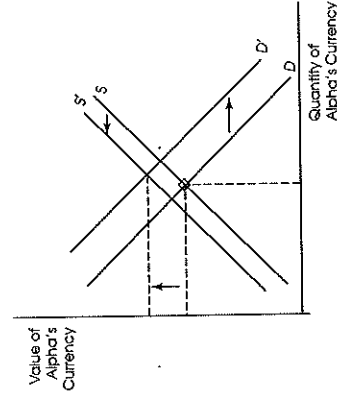
## FREE-RESPONSE REVIEW QUESTIONS

- Suppose two countries, Alpha and Beta, trade freely and allow investments to flow across their borders as well. Draw two graphs—one of the supply and demand for Alpha's currency and one of the supply and demand for Beta's currency. Be sure to label the axes of your graphs. Show how the value of each currency will be affected if the interest rate on investments in Alpha rises while the return on investments in Beta remains unchanged.
- Given your response above, how will the imports and exports of each country be affected?

## Multiple-Choice Review Answers

- |        |        |         |         |
|--------|--------|---------|---------|
| 1. (E) | 5. (C) | 9. (A)  | 13. (B) |
| 2. (D) | 6. (C) | 10. (C) | 14. (A) |
| 3. (E) | 7. (D) | 11. (C) | 15. (A) |
| 4. (A) | 8. (B) | 12. (A) |         |

## Free-Response Review Answers



- With higher returns in Alpha, the demand for Alpha's currency will rise. Foreigners will want to invest in Alpha and need its currency to do so. It also is possible that the supply of Alpha's currency will decline as more domestic investments are undertaken. These two shifts are shown in Figure 19.7. Alpha's currency will appreciate in value.  
With higher returns in Alpha, the supply of Beta's currency will rise. It also is possible that the demand for Beta's currency will decline as more of Alpha's investors undertake domestic investments. These two shifts are shown in Figure 19.8. Beta's currency will depreciate in value.

- Since Alpha's currency is appreciating, Alpha's exports will fall and its imports will rise. Alpha's net exports will fall. Since Beta's currency is depreciating, Beta's exports will rise and its imports will fall. Beta's net exports will rise.

These changes make sense. Alpha's current account is declining, but its financial account is rising. Beta's current account is improving, but its mirror image, the financial account, is worsening.

