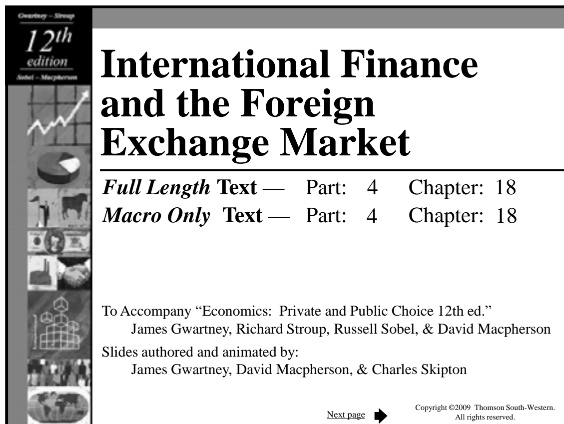
12th
edition
International Finance and the Foreign Exchange Market
Full Length Text — Part: 4 Chapter: 18
Macro Only Text — Part: 4 Chapter: 18
To Accompany "Economics: Private and Public Choice 12th ed."
James Gwartney, Richard Stroup, Russell Sobel, & David Macpherson
Slides authored and animated by:
James Gwartney, David Macpherson, & Charles Skipton
Next page
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Foreign Exchange Market
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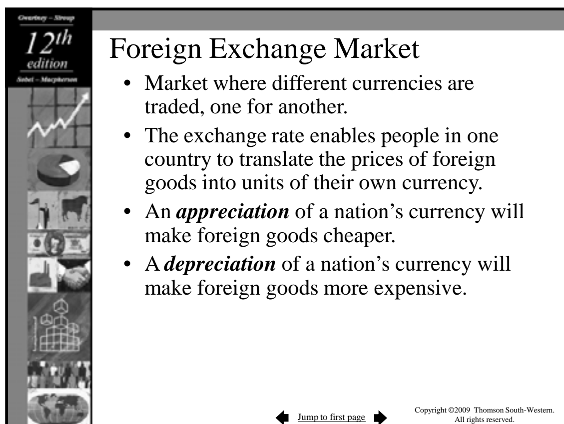
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Foreign Exchange Market
• Market where different currencies are traded, one for another.
• The exchange rate enables people in one country to translate the prices of foreign goods into units of their own currency.
• An appreciation of a nation's currency will make foreign goods cheaper.
• A depreciation of a nation's currency will make foreign goods more expensive.
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Determinants of the Exchange Rate

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Determinants of the Exchange Rate

- Under a ***flexible rate system***, the exchange rate is determined by supply and demand.
  - The ***dollar demand for foreign exchange*** originates from U.S. purchases for foreign goods, services, and assets *(real and financial)*.
  - The ***supply of foreign exchange*** originates from sales of goods, services, and assets from Americans to foreigners.
  - The foreign exchange market brings the quantity demanded and quantity supplied into balance.
    - This also brings the purchases of Americans from foreigners into equality with the sales of Americans to foreigners.

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Foreign Exchange Market Equilibrium

- The dollar price of the English pound is measured on the vertical axis. The horizontal axis indicates the flow of pounds in exchange for dollars.
- The ***demand*** and ***supply*** of pounds are in equilibrium at the exchange rate of ***$1.80 = 1 English pound***.
- At this price, quantity ***demanded*** equals quantity ***supplied***.
- A higher price of pounds (like $2.00 = 1 pound), would lead to an ***excess supply of pounds*** ... causing the dollar price of the pound to fall (***depreciate***).
- A lower price of pounds (like $1.60 = 1 pound), would lead to an ***excess demand for pounds*** … causing the dollar price of the pound to rise (***appreciate***).

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Changes in the Exchange Rate

- Factors that cause a currency to ***depreciate***:
  - a rapid growth of income *(relative to trading partners)* that stimulates imports relative to exports
  - a higher rate of inflation than one's trading partners
  - a reduction in domestic real interest rates *(relative to rates abroad)*
  - a reduction in the attractiveness of the domestic investment environment that leads to an outflow of capital

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Foreign Exchange Market Equilibrium

- Other things constant, if incomes increase in the United States, U.S. imports of foreign goods and services will grow.
- The increase in imports will increase the ***demand*** for pounds (in the foreign exchange market) causing the dollar price of the pound to rise from $1.80 to $2.00.

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Inflation with Flexible Exchange Rates

- If prices were stable in England while the price level in the U.S. increased by 50 percent …the U.S. ***demand*** for British goods (and pounds) would increase … as U.S. exports to Britain would be relatively more expensive they would decline and thereby cause the ***supply*** of pounds to fall.
- These forces would cause the dollar to ***depreciate*** relative to the pound.

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Changes in the Exchange Rate

- Factors that cause a currency to ***appreciate***:
  - a slower growth rate relative to one's trading partners
  - a lower inflation rate than one's trading partners
  - an increase in domestic real interest rates *(relative to rates abroad)*
  - an improvement in the attractiveness of the domestic investment environment that leads to an inflow of capital

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Questions for Thought:

1. Other things constant, which of the following would cause the U.S. dollar to depreciate?
   a. less rapid growth of income than our trading partners
   b. a lower rate of inflation than our trading partners
   c. an outflow of capital because of fear that the U.S. stock market will perform poorly in the future
   d. an increase in the quantity of drilling equipment purchased in the United States by Pemex, the Mexican oil company, as a result of a Mexican oil discovery

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Questions for Thought:

1. Other things constant, which of the following would cause the U.S. dollar to depreciate?
   e. an increase in the U.S. purchase of crude oil from Mexico as a result of the development of Mexican oil fields
   f. higher real interest rates in Europe, inducing many Americans to move their financial investments from U.S. to European banks
   g. an economic boom in Mexico, inducing Mexicans to buy more U.S. made automobiles, trucks, electric appliances, and personal computers

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Questions for Thought:

2. “The number of euros that a U.S. dollar would purchase fell from 1.00 in August of 2002 to 0.85 in August of 2004. This indicates that the euro appreciated relative to the dollar during this period.”
   -- Is this statement *true*?
3. “Under a flexible exchange rate system, the equilibrium exchange rate will tend to bring the value of goods imported into balance with the value of goods exported.”
   -- Is this statement *true*?

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International Finance and Alternative Exchange Rate Regimes

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Three Major Types of Exchange Rate Regimes

- There are three major types of exchange rate regimes:
  - flexible rates;
  - fixed-rate, unified currency; and,
  - pegged exchange rates.
- We have discussed ***flexible exchange rate*** regimes extensively.
- We will now explain the nature and operation of the other two major regimes.

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Fixed Rate, Unified Currency Regime

- ***Fixed rate, unified currency regime***: a system where currencies are linked to each other at a fixed rate.
  - A single central bank conducts the monetary policy that influences the value of the unified currency relative to other world currencies.
- The linkage may be either through the use of the same currency or through a currency board that agrees to trade the currencies, one for another, at a fixed rate.

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Fixed Rate, Unified Currency Regime

- Some examples of ***fixed rate, unified currency*** systems --
  - The U.S., Panama, Ecuador, El Salvador, and Hong Kong all of which use currencies that are unified with the U.S. dollar.
  - The 12 countries of the European Monetary Union all use the euro, which is managed by the European Central Bank. Several other countries, including Estonia, Bulgaria, Latvia, Lithuania, and Bosnia and Herzegovina use a currency board to link their domestic currencies to the euro. Thus, the euro is a unified currency in all of these countries.

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Fixed Rate, Unified Currency Regime

- Countries such as El Salvador & Hong Kong, that link their currency to the dollar at a fixed rate, are no longer in a position to conduct monetary policy. They merely accept the monetary policy of the Federal Reserve.
  - The same can be said for the 12 countries of the European Monetary Union and the other countries that link their currency to the Euro, all of whom accept the monetary policy of the European Central Bank.

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Pegged Exchange Rate Regimes

- ***Pegged exchange rate*** system: a system where the country commits to using monetary and fiscal policy to maintain the exchange-rate value of the domestic currency at a fixed rate or within a narrow band relative to another currency (or bundle of currencies).
- Unlike the case of a currency board, however, countries with a pegged exchange rate continue to conduct monetary policy.

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When Pegged Regimes Lead to Problems

- A nation can either:
  - follow an independent monetary policy, allowing its exchange rate to fluctuate, or,
  - tie its monetary policy to the maintenance of the fixed exchange rate.
- It cannot, however:
  - maintain currency convertibility at a fixed exchange rate while following a monetary policy more expansionary than that of the country to which its currency is tied.

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When Pegged Regimes Lead to Problems

- Attempts to peg rates and follow a monetary policy that is too expansionary have led to several financial crises—a situation where falling foreign reserves eventually force the country to forego the pegged rate.
- The experiences of Mexico in 1989-1994 and of Brazil, Thailand, South Korea, Indonesia, and Malaysia in 1997-1998 illustrate this point very clearly.

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Questions for Thought:

1. Can a nation fix its exchange rate to another currency such as the dollar and at the same time follow an independent monetary policy? Why or why not?
2. If a country operates under a currency board regime, the country commits itself to …
   - a. an expansionary monetary policy in order to maintain the convertibility of its currency.
   - b. issuing its currency at a fixed rate in exchange for an equivalent amount of another designated currency and investing the funds in bonds and liquid assets which provide 100% backing for the currency units issued.
   - c. raising taxes in order to maintain the convertibility of its currency.

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Balance of Payments

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Balance of Payments

- ***Balance of payments***: accounts that summarize the transactions of a country’s citizens, businesses, and governments with foreigners
- Any transaction that creates a demand for foreign currency *(and a supply of the domestic currency)* in the foreign exchange market is recorded as a debit item. ***Example:*** Imports
- Transactions that create a supply of foreign currency *(and demand for the domestic currency)* on the foreign exchange market are recorded as a credit item. ***Example:*** Exports

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Balance of Payments

- Under a *pure flexible rate system*, the foreign exchange market will bring the quantity demanded and the quantity supplied into balance, and as a result, it will also bring the total debits into balance with the total credits.

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Balance of Payments

- ***Current account transactions***: all payments *(and gifts)* related to the purchase or sale of goods and services and income flows during the current period
- Four categories of ***current account*** transactions:
  - Merchandise trade *(import and export of goods)*
  - Service trade *(import and export of services)*
  - Income from investments
  - Unilateral transfers *(gifts to and from foreigners)*

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Balance of Payments

- ***Capital account transactions***: transactions that involve changes in the ownership of real and financial assets
- The ***capital account*** includes both
  - direct investments by foreigners in the U.S. and by Americans abroad, and,
  - loans to and from foreigners.
- Under a pure flexible-rate system, official reserve transactions are zero; therefore:
  - a current-account deficit implies a capital-account surplus.
  - a current-account surplus implies a capital-account deficit.

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U.S. Balance of Payments, 2006*

	Debits	Credits	Balance deficit (-) / surplus (+)
Current account:			
1. U.S. merchandise exports		+ 1023.1	
2. U.S. merchandise imports	- 1861.4		
3. Balance of merchandise trade (1 + 2)			- 838.3
4. U.S. service exports		+ 422.6	
5. U.S. service imports	- 342.8		
6. Balance on service trade (4 + 5)			+ 79.8
7. Balance on goods and services (3 + 6)			- 758.5
8. Income receipts of Americans from abroad		+ 650.4	
9. Income receipts of foreigners in the U.S.	- 613.8		
10. Net income receipts (8 + 9)			36.6
11. Net unilateral transfers			- 89.6
12. ***Balance*** on current account (7 + 10 + 11)			***- 811.5***

Source: http://www.economagic.com/. * Figures are in Billions of Dollars

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U.S. Balance of Payments, 2006*

	Debits	Credits	Balance deficit (-) / surplus (+)
Current account:			
12. ***Balance*** on current account (7 + 10 + 11)			***- 811.5***
Capital account:			
13. Foreign investment in the U.S. (capital inflow)		+ 1419.3	
14. U.S. investment abroad (capital outflow)	-1045.7		
15. ***Balance*** on capital account (13 + 14)			***+ 373.6***
Official Reserve Transactions:			
16. U.S. official reserve assets	-2.4		
17. Foreign official assets in the U.S.		+ 440.3	
18. ***Balance***, Official Reserve Account (16 + 17)			***+ 437.9***
17. ***Total*** (12 + 15 + 18)			***0.0***

Source: http://www.economagic.com/. * Figures are in Billions of Dollars

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Capital Flows and the Current Account

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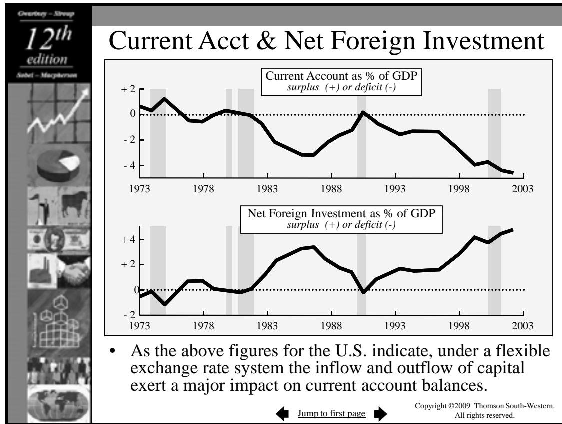

Are Trade Deficits Bad?

- With flexible exchange rates, an inflow of capital implies a ***trade*** (current account) ***deficit***; an outflow of capital implies a ***trade*** (current account) ***surplus***.
- While the term “deficit” generally has negative connotations, this is not necessarily true for a trade deficit.
  - If a nation’s investment environment is attractive, it is likely to result in a net inflow of capital, which will tend to cause a trade deficit.
  - Similarly, rapid economic growth will tend to stimulate imports, which is likely to result in a trade deficit.

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Trade Deficits: Points to Ponder

- Although they often cause trade *(and current account)* deficits, both rapid growth and a healthy investment environment are signs of a strong economy, not a weak one.
- A trade deficit *(or surplus)* is an aggregate that reflects the voluntary choices of individuals and businesses. In contrast with a budget deficit, no legal entity is responsible for the trade deficit.
- The trade deficits of the U.S. during the 1980s and 90s were largely the result of rapid growth and a favorable investment climate.

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Should Trade Between Countries Balance?

- Political leaders often imply that U.S. exports to a country, China or Japan for example, should be approximately equal to our imports from that country.
  - ***This is a fallacious view.***
- Under a flexible exchange rate system, overall purchases from foreigners will balance with overall sales to foreigners, but there is no reason why bilateral trade between any two countries will balance.

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Should Trade Between Countries Balance?

- Rather than balance, economics indicates that a country will tend to experience …
  - ***trade surpluses*** with trading partners that buy a lot of goods that it supplies at a low cost, and,
  - ***trade deficits*** with trading partners that are economical suppliers of goods that can be produced domestically only at a high cost.

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Questions for Thought:

1. Since the early 1980s, the United States has persistently run
   a. a current account deficit and a capital account surplus.
   b. both a current account deficit and a capital account deficit.
2. “Under a pure flexible exchange rate system, a nation that has a current account deficit will also have a capital account surplus.”
   -- Is this statement *true*? Explain.

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Questions for Thought:

3. "Countries that offer attractive investment opportunities relative to those available elsewhere will often experience an inflow of capital and a trade deficit."
-- Is this statement *true*?
   a. No; if a country's investment environment is attractive, this will generally lead to an outflow of capital.
   b. No; if the investment environment of a country is attractive, it will generally run a trade surplus.
   c. Yes; the statement is true.

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Questions for Thought:

4. "If other countries did not impose trade barriers that limit our exports, the flexible exchange rate system of the United States would bring U.S. exports to a specific country *(Japan, for example)* into balance with U.S. imports from that country."
-- Is this statement *true*?
5. Will a healthy economy run a balance of trade surplus? Does a balance of trade deficit indicate that a nation is in financial trouble? Can a country continue to run a trade deficit? Why or why not?

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Questions for Thought:

6. In recent years, U.S. imports from China have been substantially greater than U.S. exports to China. This bi-lateral trade deficit is:
   a. proof that the Chinese treat U.S. produced goods unfairly.
   b. surprising, because the flexible exchange rates of the U.S. should bring its bilateral trade with another country into balance.
   c. not surprising, because there is no reason why bi-lateral trade between two countries should be in balance.

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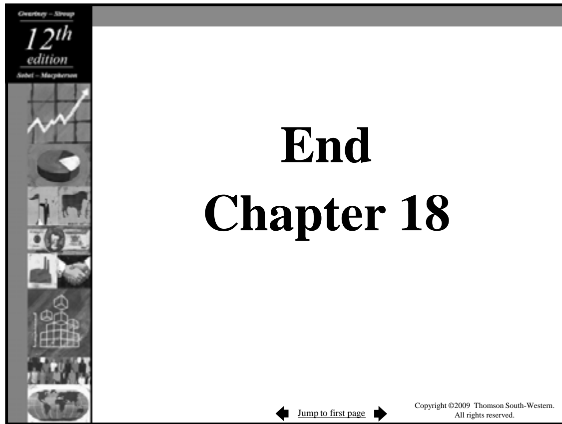
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End
Chapter 18
Jump to first page
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