

## 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 11th ed."  
James Gwartney, Richard Stroup, Russell Sobel, & David Macpherson  
Slides authored and animated by:  
James Gwartney, David Macpherson, & Charles Skipton

[Next page](#) ➡

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---

---

---

---

---

---



## Foreign Exchange Market

◀ [Jump to first page](#) ▶

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---

---

---

---

---

---



## 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.

◀ [Jump to first page](#) ▶

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---

---

---

---

---

---

## Determinants of the Exchange Rate

[Jump to first page](#)
Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---

---

---

---

---

---

## 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 American purchases for foreign goods, services, and assets (*real or 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.
    - As it does so, it brings the purchases by Americans from foreigners into equality with the sales of Americans to foreigners.

[Jump to first page](#)
Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---

---

---

---

---

---

### 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  $\$1.50 = 1$  English pound.
- At this price, quantity *demand* equals quantity *supplied*.
- A higher price of pounds (like  $\$1.80 = 1$  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  $\$1.20 = 1$  pound), would lead to an *excess demand for pounds* ... causing the dollar price of the pound to rise (*appreciate*).

[Jump to first page](#)
Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---

---

---

---

---

---

### 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

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---

---

---

---

---

---

---

---

### 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 \$1.50 to \$1.80.

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---

---

---

---

---

---

---

---

### 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.

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---

---

---


---

---

---

---

---



### 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

◀ [Jump to first page](#) ▶ Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



### 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

◀ [Jump to first page](#) ▶ Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



### 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

◀ [Jump to first page](#) ▶ Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



**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*?
4. "A '*stronger*' dollar benefits all Americans."  
What is meant by a "stronger dollar"? Would all Americans benefit from it?

[Jump to first page](#) Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



**International Finance and Alternative Exchange Rate Regimes**

[Jump to first page](#) Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



**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.

[Jump to first page](#) Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



### 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.

◀ [Jump to first page](#) ▶ Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---

---

---

---

---

---



### 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 of which use the euro, which is managed by the European Central Bank
- 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 that accept the monetary policy of the European Central Bank.

◀ [Jump to first page](#) ▶ Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



### 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.

◀ [Jump to first page](#) ▶ Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



### 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.

[Jump to first page](#) Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



### When Pegged Regimes Lead to Problems

- Attempts to peg rates and follow a monetary policy that is too expansionary have led to several recent 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.

[Jump to first page](#) Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



### Balance of Payments

[Jump to first page](#) Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



### 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

◀ [Jump to first page](#) ▶ Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



### 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.

◀ [Jump to first page](#) ▶ Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



### 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*)

◀ [Jump to first page](#) ▶ Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



### 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.

◀ [Jump to first page](#) ▶

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---

---

---

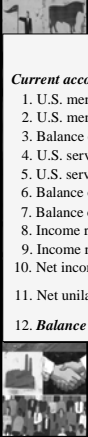
---

---

---

---

---



### U.S. Balance of Payments, 2003\*

	Debits	Credits	Balance deficit (-) / surplus (+)
<b>Current account:</b>			
1. U.S. merchandise exports		+ 713.1	
2. U.S. merchandise imports	- 1260.7		
3. Balance of merchandise trade (1 + 2)			- 547.6
4. U.S. service exports		+ 307.4	
5. U.S. service imports	- 256.3		
6. Balance on service trade (4 + 5)			+ 51.1
7. Balance on goods and services (3 + 6)			- 496.5
8. Income receipts of Americans from abroad		+ 294.4	
9. Income receipts of foreigners in the U.S.	- 261.1		
10. Net income receipts (8 + 9)			33.3
11. Net unilateral transfers			- 67.4
12. <b>Balance on current account (7 + 10 + 11)</b>			<b>- 530.6</b>

Source: <http://www.economicpic.com/> \* Figures are in Billions of Dollars

Continued on next page ...

◀ [Jump to first page](#) ▶

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---

---

---

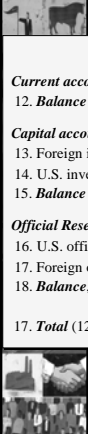
---

---

---

---

---



### U.S. Balance of Payments, 2003\*

	Debits	Credits	Balance deficit (-) / surplus (+)
<b>Current account:</b>			
12. <b>Balance on current account (7 + 10 + 11)</b>			<b>- 530.6</b>
<b>Capital account:</b>			
13. Foreign investment in the U.S. (capital inflow)		+ 580.6	
14. U.S. investment abroad (capital outflow)	- 297.1		
15. <b>Balance on capital account (13 + 14)</b>			<b>+ 283.5</b>
<b>Official Reserve Transactions:</b>			
16. U.S. official reserve assets	- 1.5		
17. Foreign official assets in the U.S.		+ 248.6	
18. <b>Balance, Official Reserve Account (16 + 17)</b>			<b>+ 247.1</b>
17. <b>Total (12 + 15 + 18)</b>			<b>0.0</b>

Source: <http://www.economicpic.com/> \* Figures are in Billions of Dollars

◀ [Jump to first page](#) ▶

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---

---

---


---

---

---

---

---



## Capital Flows and the Current Account

◀ [Jump to first page](#) ▶

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

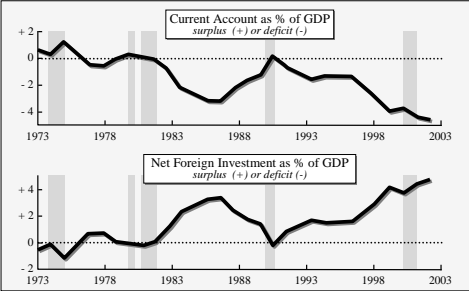
---

---

---



## Leading Trading Partners of the U.S.



• Under a flexible exchange rate system the inflow and outflow of capital will exert a major impact on the current account and trade balances.

• The figures for the U.S. (above) illustrate this linkage.

◀ [Jump to first page](#) ▶

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



## Are Trade Deficits Bad?

- 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.

◀ [Jump to first page](#) ▶

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



### 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.

◀ [Jump to first page](#) ▶

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



### 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.

◀ [Jump to first page](#) ▶

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



### 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.

◀ [Jump to first page](#) ▶

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



**Questions for Thought:**

1. During the last two decades, the U.S. 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.

[Jump to first page](#) Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



**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.

[Jump to first page](#) Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



**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*?

[Jump to first page](#) Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



**Questions for Thought:**

5. 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.

[◀ Jump to first page ▶](#)

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



**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.

[◀ Jump to first page ▶](#)

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---


---

---

---

---

---



**End  
Chapter 18**

[◀ Jump to first page ▶](#)

Copyright ©2006 Thomson Business and Economics. All rights reserved.

---

---

---

---

---

---

---

---