Economics for Managers

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Chapter 15:

International and Balance of Payments Issues in the Macro Economy

Exchange Rates

- ***Currency exchange rate***: how much of one currency can be exchanged for another or the price of one currency in terms of another
- Exchange rate can be defined as:
  - Units of foreign currency per dollar
  - Dollars per unit of foreign currency

Exchange Rates

- ***Currency appreciation*: one currency exchanged for more units of another currency or the value of R increases**

Exchange Rates

- ***Currency depreciation***: one currency exchanged for fewer units of another currency or the value of R decreases
- ***Real exchange rate***: nominal exchange rate times ratio of domestic price level to the foreign price level

Exchange Rates

- ***Nominal exchange rate***: value at which one currency can be exchanged for another, or R
- ***Balance of trade***: relationship between export and import spending (can be positive or negative)

Determinants of Exports and Imports

Table 15.3

Exports

$X = f(Y, Y^*, R)$

(0) (+) (-)

Imports

$M = f(Y, R)$

(+)(+)

Net Exports

$F = f(Y, Y^*, R)$

(-) (+) (-)

Positive and negative signs show whether variables are directly (+) or inversely (-) related

Net Exports

Net exports are:

- Negatively related to income in U.S.
- Positively related to income in the rest of the world
- Negatively related to R

Managerial Rule of Thumb: Currency Exchange Rates

- Managers are influenced by currency exchange rates because rates influence prices of both inputs and outputs if firms deal abroad
- Increase in one exchange rate hurts domestic firms that export to other countries but helps firms that import from abroad

Equilibrium in the Open Economy

- E = Y (shows aggregate expenditure must equal aggregate income)
- C + I + G + X = C + S + T (shows household spending on consumption, saving, and taxes)
- I + G + X = S + T + M (shows injections and leakages to and from circular flow of U.S. economy)
- X – M = (S – I) + (T – G) (shows net exports and trade balance)

Capital Flows

- *Capital outflow* (k_0): lending of a country's savings when the country has trade surplus and citizens purchase assets abroad
- *Capital inflow* (k_i): borrowing from another country when the country has trade deficit and citizens sell assets to foreigners
- *Net capital flow* ($K_N = k_i - k_0$): difference between the two

Balance of Payments

- ***Balance of payments (BP) accounting system***: yearly report of all transactions between residents of a country and residents all over the world
- Two sections:
  - Current account
  - Capital account

Current Account

- ***Current account***: measure of current flows of goods, services, investment income, and unilateral transfers
- ***Net investment income***: difference between interest income of residents and payments to foreigners
- ***Unilateral transfers***: flows of goods, services, and assets to other countries with nothing being received in return

Capital Account

- ***Capital account***: changes in assets held by U.S. residents in foreign countries and foreigners in the U.S.
- Includes both financial assets and real assets
- If rates are higher in U.S., capital flows to U.S.

Dollars in the Foreign Exchange Market

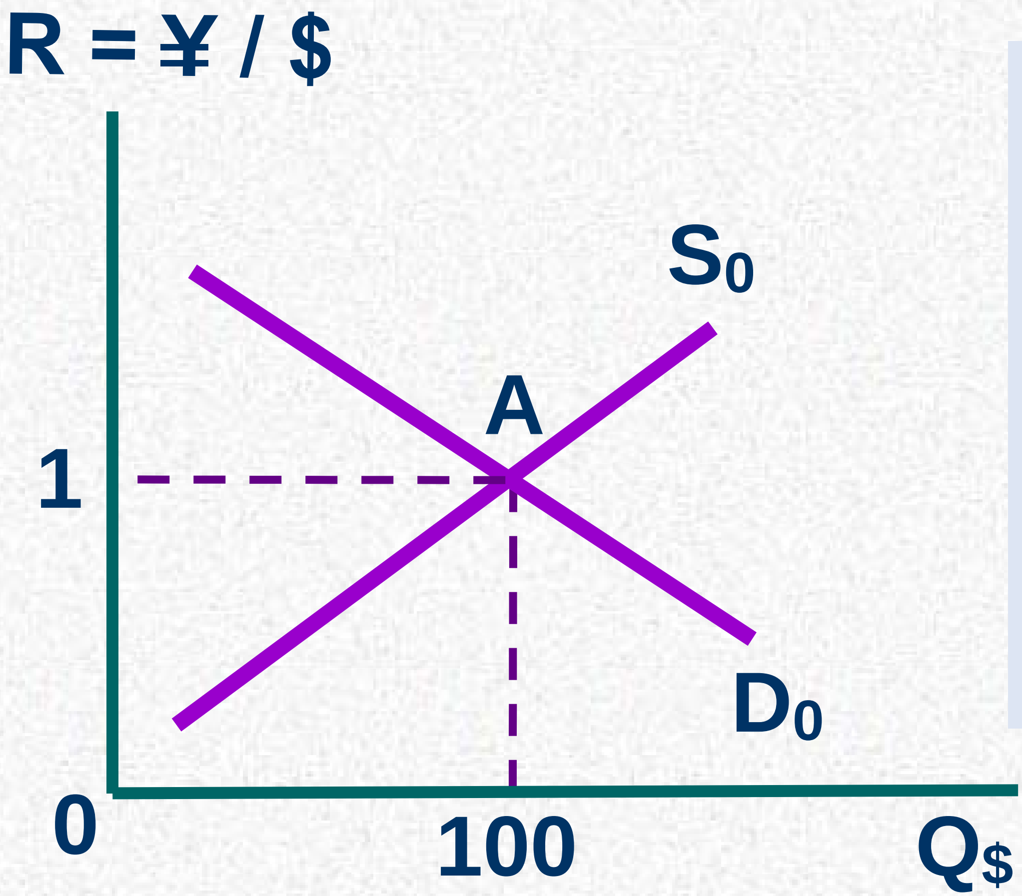
- Income side of international transactions revenue account: to pay for U.S. goods, other residents will demand \$ by supplying their own currency. Shown as $Q^d_{\$} = f\,(x, k_i)$
- Expense side: to pay for foreign goods, Americans will need their currency. Shown as $Q^S_{\$} = f\,(M, k_0)$

Dollars in the Foreign Exchange Market

- Hypothetical foreign exchange where R is price of $ in terms of yen and $Q_{\$}$ is quantity of dollars
- Demand for dollars is a function of price, everything else held constant
- As exchange rate decreases, U.S. exports become cheaper for foreigners

Foreign Exchange Market Initial Equilibrium

Figure 15.2



Equilibrium (point A) is where quantity demanded of dollars equals quantity supplied of dollars

$$BP = (X - M) + K = (100 - 100) + 0 = 0$$

Managerial Rule of Thumb: Foreign Exchange Market

Managers must

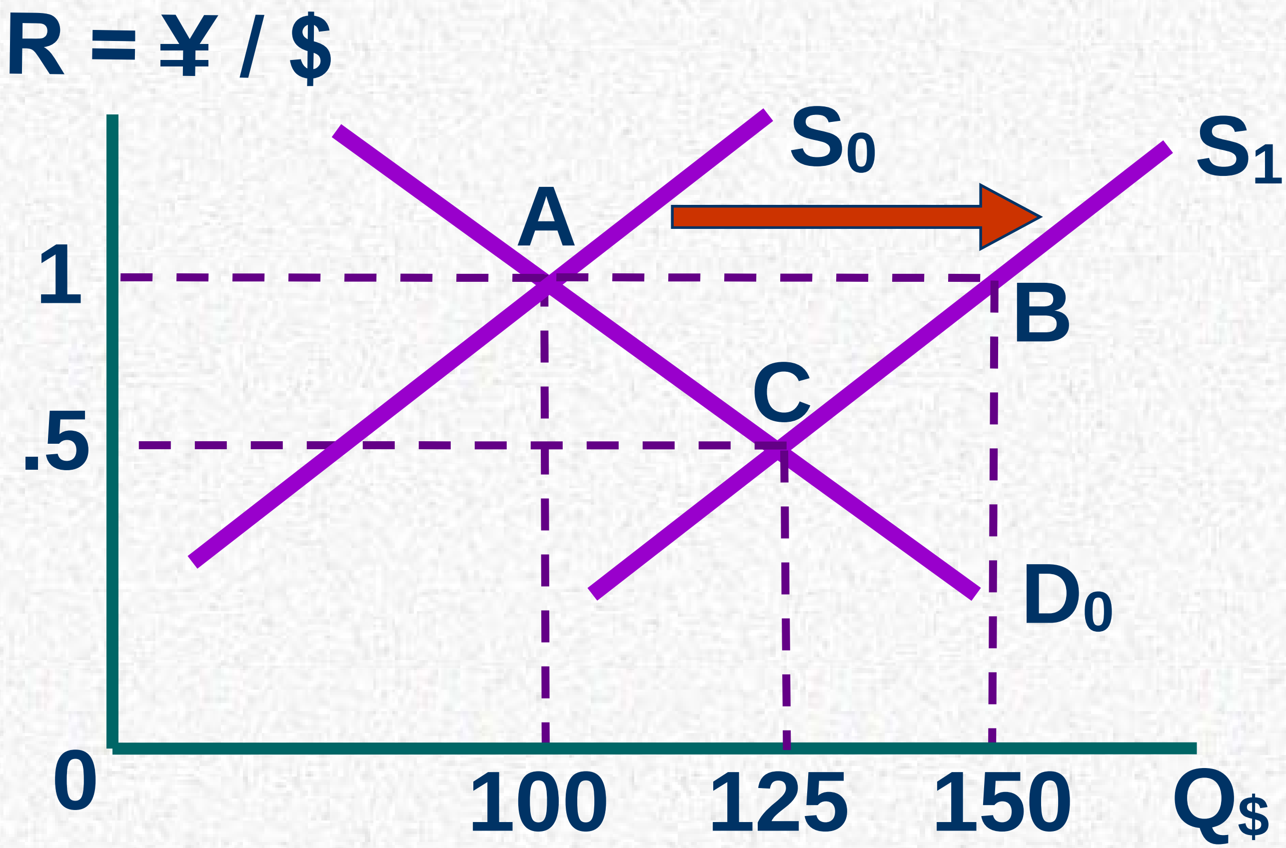
- Realize that foreign exchange markets are competitive
- Realize that exchange rates are constantly changing
- Realize rate exchanges influence costs of production and prices of products

Exchange Rate Systems

- ***Flexible exchange rate systems*: exchange rates determined by supply and demand**
- ***Fixed exchange rate systems*: central banks intervene in foreign exchange market to maintain or stabilize currency exchange rates**
  - **Managed floating**
  - **Currency boards**

Flexible Exchange Rate System

Figure 15.3



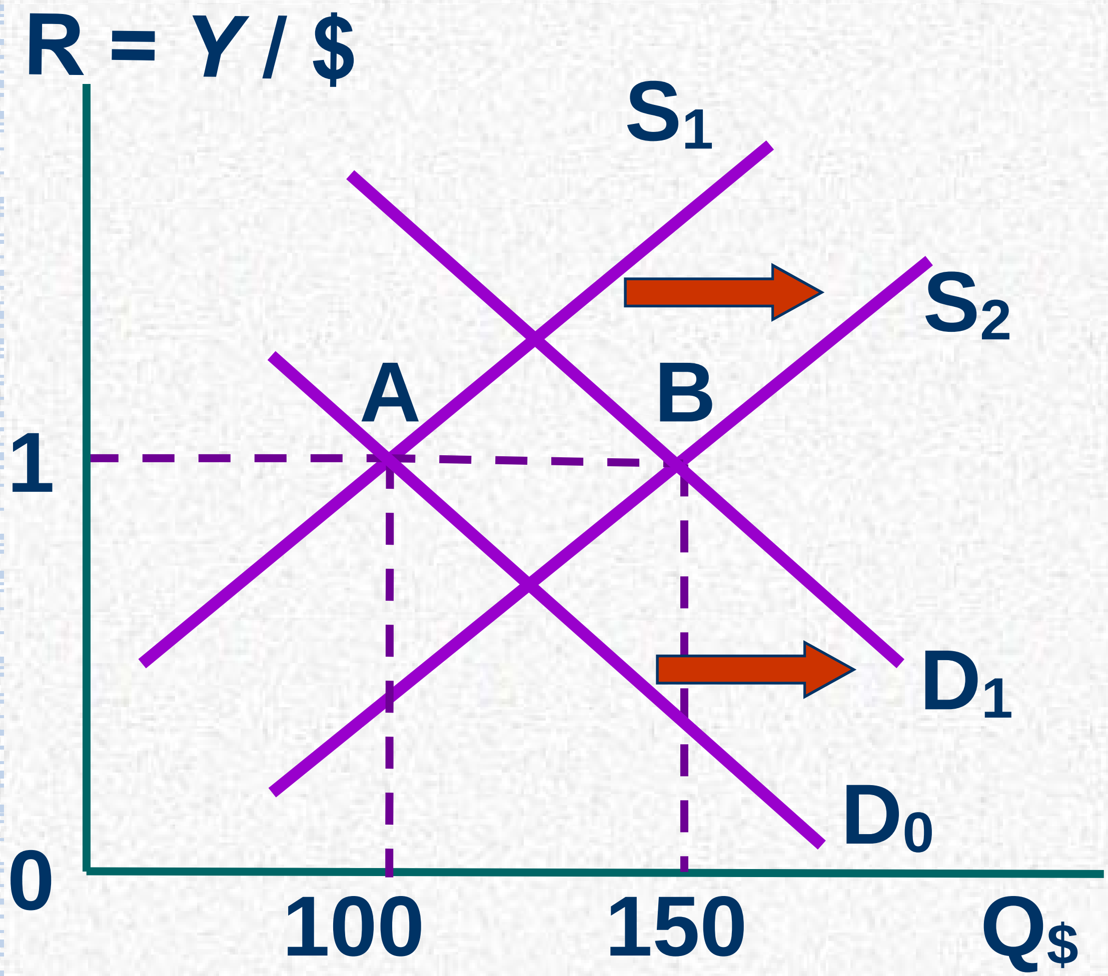
Change in behavior is shown on outward shift of supply curve

Fixed Exchange Rate System

- *Reserve assets* include
  - Gold certificates
  - Special drawing rights
  - Reserve position in the IMF
  - Holdings of foreign currencies
- Function of account is to accommodate payment imbalances arising from autonomous transactions

Federal Reserve Intervention

Figure 15.4



A shift from S_1 to S_2 results from increase in U.S. income. A shift from D_0 to D_1 results from sale of reserve assets by the Fed

Policy Examples of International Issues

- U.S. economy from 1995 to 2000
- Policies regarding the Euro from 1999 to 2003
- The impact of currency devaluations and the collapse of the Southeast Asian economies in 1997
- The debate over the weak Chinese yuan in 2003

U.S. Economy from 1995 to 2000

- U.S. economy had high GDP growth with low inflation and decreasing unemployment
- Driven by a bull stock market
- The Fed kept federal funds rate at 5.5%
- U.S. followed a flexible exchange rate policy

Effects of the Euro on Managerial Decisions

- Multinational companies can use currency gains in one part of the world to offset losses elsewhere
- Managers must be careful not to make wrong assumptions about international currency gains/losses
- Small firms have more difficulty in handling currency value changes

Weak Chinese Yuan in 2003

- Chinese central bank kept yuan at 8.28 to the dollar through controlled Shanghai foreign exchange market
- Weak yuan stimulated Chinese exports and hurt imports
- Not all U.S. companies expected to gain from the weak yuan

Summary of Key Terms

- BP accounting system and trade balance
- Capital account
- Capital inflow and capital outflow
- Currency appreciation and depreciation
- Currency exchange rate
- Current account
- Fixed and flexible exchange rates

Summary of Key Terms

- International Monetary Fund (IMF)
- Managed float
- Net capital flow
- Nominal exchange rate
- Real exchange rate
- Reserve assets

Summary of Key Terms

- Trade deficit
- Trade surplus
- Unilateral transfers
- World Bank