



Slide 8-1

Key Issues

- What is the form and function of the foreign exchange market?
- What is the difference between spot and forward exchange rates?
- How are currency exchange rates determined?
- What is the role of the foreign exchange market in insuring against foreign exchange risk?
- What are the merits of different approaches toward exchange rate forecasting?
- Why are some currencies not always convertible into other currencies?
- How is countertrade used to mitigate problems associated with an inability to convert currencies?

McGraw-Hill/Irwin © 2004 The McGraw-Hill Companies, Inc., All Rights Reserved.

Slide 8-1

Foreign Exchange

- The foreign exchange market
 - Is the market where one buys (or sells) the currency of country A with (or for) the currency of country B
- A currency exchange rate
 - Is simply the ratio of a unit of currency of country A to a unit of the currency of country B at the time of the buy or sell transaction

McGraw-Hill/Irwin © 2004 The McGraw-Hill Companies, Inc., All Rights Reserved.

Slide 8-2

The Foreign Exchange Market

- Currency conversion in the foreign exchange market
 - Is necessary to complete private and commercial transactions across borders
 - A tourist needs to pay expenses on the road in local currency
 - A firm
 - Buys/sells goods and services in the other country's local currency
 - Uses the foreign exchange market to invest excess funds
- Is used to speculate on currency movements

McGraw-Hill/Irwin © 2004 The McGraw-Hill Companies, Inc., All Rights Reserved.

Slide 8-3

The Foreign Exchange Market

- Minimizes foreign exchange risk (unpredictable rate swings)
- There are different ways to trade currencies
 - Spot exchange rates: the day's rate offered by a dealer/bank
 - Forward exchange rates:
 - Agreed in advance rates to buy/sell a currency on a future date
 - Usually quoted 30, 90, 120 days in advance
- The market is "open" 24 hours...
- Arbitrage: buying low and selling high ... given slightly different exchange rate quotes in one location vs another (e.g., London vs Tokyo)

McGraw-Hill/Irwin © 2004 The McGraw-Hill Companies, Inc., All Rights Reserved.

Slide 8-4

Prices and Exchange Rates

- The law of one price:
 - In competitive markets free of transportation costs and trade barriers, identical products sold in different countries must sell for the same price when their price is expressed in the same currency
- Purchasing Power Parity (PPP):
 - If the law of one price holds for all goods and services, the PPP exchange rate can be found by comparing the prices of identical products in different countries
 - Changes in relative prices will change exchange rates...

McGraw-Hill/Irwin © 2004 The McGraw-Hill Companies, Inc., All Rights Reserved.

Slide 8-5

Money Supply and Currency Value

- Changes in relative prices in two countries will change the exchange rate of their currencies; the country with the highest price inflation should see its currency decline in value.
- Relative inflation rate levels and trends can predict relative exchange rate movements
- Inflation happens when the quantity of money in circulation rises faster than the stock of goods and services; money supply growth is related to currency value

McGraw-Hill/Irwin © 2004 The McGraw-Hill Companies, Inc., All Rights Reserved.

Slide 8-6

Interest Rates and Exchange Rates

- Interest rates reflect expectations about likely future inflation rates;
 - high interest rates reflect high inflation expectation
 - Fisher Effect: $i = r + I$
 - i : "nominal" interest rate in a country
 - r : "real" interest rate
 - I : inflation over the period the funds are to be lent
 - International Fisher Effect: $(S_1 - S_2) / S_2 \times 100 = i_s - i_j$
 - For any two countries the spot exchange rate should change in an equal amount but in the opposite direction to the difference in nominal interest rates between the two countries
 - S_1 : spot rate at time 1, S_2 : spot rate at time 2; i_s, i_j : nominal interest rates in the US and Japan

McGraw-Hill/Irwin © 2004 The McGraw-Hill Companies, Inc., All Rights Reserved.

Slide 8-7

Exchange Rate Forecasting

- The efficient market school
 - Prices reflect all available public information
- The inefficient market school
 - Prices do not reflect all available public information
- Approaches to forecasting future movements
 - Fundamental analysis: predictions with econometric models based on economic theory
 - Technical analysis: extrapolation/interpretation of past trends assuming they predict future

McGraw-Hill/Irwin © 2004 The McGraw-Hill Companies, Inc., All Rights Reserved.

Slide 8-8

Convertibility

- Convertibility and government policy
 - Currency freely convertible: residents/non-residents allowed to purchase unlimited amounts of a foreign currency with the local currency
 - Currency not freely convertible: residents/non-residents **not** allowed to purchase unlimited amounts of a foreign currency with the local currency
- Countertrade
 - Barter-like agreements by which goods and services can be traded for other goods and services
 - Used to get around the non-convertibility of currencies

McGraw-Hill/Irwin © 2004 The McGraw-Hill Companies, Inc., All Rights Reserved.