



Learning Outcomes

- Understand the concept of exchange rate
- Explain how the exchange rate is determined
- Understand two main exchange rate regimes
- Explain the differences between the fixed and flexible exchange rate

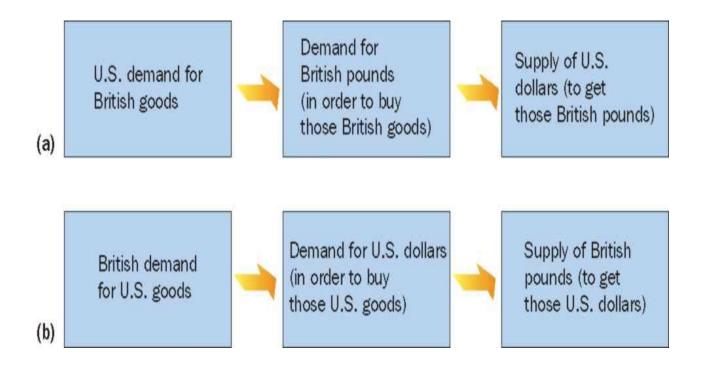


Foreign exchange market

- Exchange rate is the price at which one currency exchanges for another.
- Foreign Exchange Market The market in which currencies of different countries are exchanged.
- Currency depreciation would occur as increased domestic demand for foreign goods (import) bid up the price of the foreign currencies needed to buy them.
- Currency appreciation would occur as result of increased foreign demand (export) for the country's domestic assets.

P/s: Currency Appreciation/Depreciation - An increase/decrease in the value of one currency relative to other currencies.







Factors that affect equilibrium exchange rate

- Differences in income growth
- Differences in relative inflation rates
- Changes in real interest rate



Differences in income growth

- An increase in a nation's income will usually cause the nation's residence to buy more of both domestic and foreign goods
- Ceteris paribus, if one nation's income grows and another's lags behind, the currency of the higher growth rate country depreciates.
 The currency of the lower-growth-rate country will appreciate.



Differences in relative inflation rates

- Inflation increases the price of products.
- An increase in local price levels makes foreign goods relatively cheaper.
- As a result more of the foreign good will be demanded.
- Supply of local currency will increase (depreciating the currency) whereas demand for the foreign currency will decrease (appreciating the currency).



Changes in real interest rate

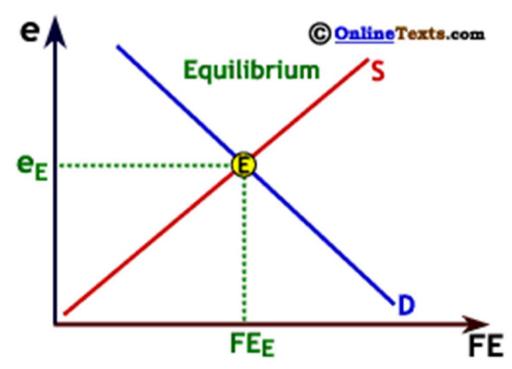
- Real interest rates determine the flow of capital from one country to another.
- When a country has a higher real interest rate, more of the country's currency will be demanded hence the currency will appreciate.



Flexible Exchange Rate Regimes

• Flexible exchange rate regimes let the forces of supply and demand for foreign exchange determine currency values.

Equilibrium Exchange Rate





Flexible Exchange Rate Regimes

- Advantages:
 - Trade imbalances are corrected automatically with no need for government intervention.
 - Example: Malaysia exports decline because China 's economy enters a recession. The supply curve for foreign exchange shifts to the left, increasing the Malaysia exchange rate, thereby weakening the U.S. dollar.



Flexible Exchange Rate Regimes

- Disadvantages:
 - Exchange rates can fluctuate wildly in short time intervals. Such fluctuations make international transactions riskier.
 - Some countries forego inflation-fighting credibility. In particular, economies with present or historically high inflation rates may need externally generated credibility to lower domestic inflation.
- Most wealthy nations adopt a flexible regime because these disadvantages are minimal.

Classification of exchange rate regimes

Continuum from flexible to rigid

	FLEXIBLE CORNER
1) Free float	2) Managed float
	INTERMEDIATE REGIMES
3) Target zone/band	4) Basket peg
5) Crawling peg	6) Adjustable peg
FIXED CORNER	
7) Currency board	8) Dollarization







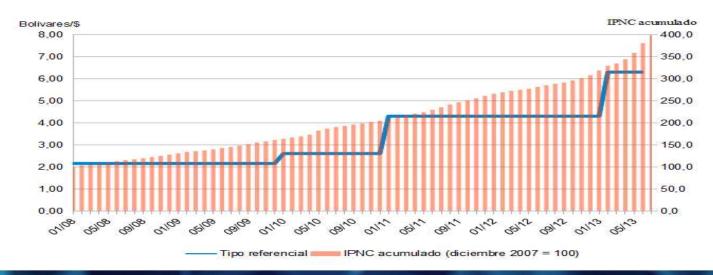
Intermediate Regime - Currency Baskets

- Some countries choose to peg to a "basket" of currencies rather that a single currency. This basket will have a price equal to a weighted average of the individual currencies
 - Malta: Euro (67%), USD21%), GBP (12%)
 - Iceland: Euro + 6 other countries
 - Jordan, Malaysia: USD
- Why peg to a basket?
 - Baskets of currency should exhibit less volatility that individual currencies.
 - The central bank has a wider choice of options for official reserves

Intermediate Regime - The Crawling Peg



- A crawling peg is a hybrid between fixed and flexible exchange rate regimes.
 - The government typically announces a range of exchange rates in which it will allow the currency to trade.
 - If the exchange rate moves outside one of the predefined bounds, the government intervenes to move the currency back into the acceptable range.





Part 2

- Continue by next week



Floating vs Fixed Exchange Rate

- Pure or clean float: The government allows the market to determine the exchange rate. The exchange rate is allowed to go to its equilibrium, driven by private supply and demand, at all times.
- Official intervention is the act of the monetary authority of a country entering the foreign exchange market with the intention of affecting supply and demand, and thus affecting the equilibrium value of the exchange rate driving the rate to a different value that would occur by private supply and demand.

Policies can also vary by the degree of commitment to the policy



Fixed Exchange Rate: This is simply a policy decision of the government or central bank and can be easily reversed (China).

Currency Boards: A currency board is a monetary authority separate from a country's central bank whose sole responsibility is maintaining convertibility of the country's currency. (Hong Kong)

Dollarization/Currency Union: foreign money replaces domestic money as official currency (Panama-Zimbabwe)

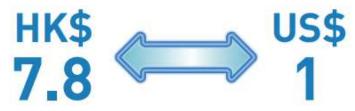


Currency Board

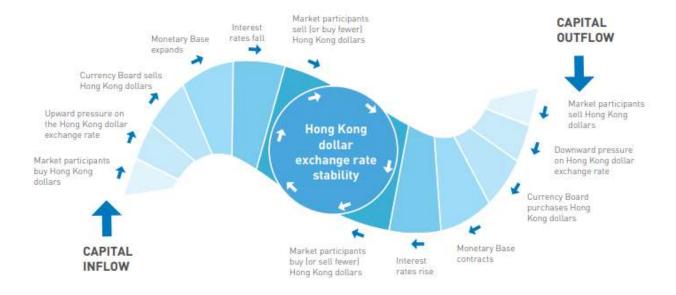
- 1) Monetary authority that issues notes convertible into a foreign anchor currency at a fixed rate (right to exchange domestic currency at this fixed rate whenever desired)
- 2) Anchor currency chosen for stability and acceptability
- 3) Government finance only by taxation and borrowing not by printing money
- 4) For currency board to works properly, there has to be long-term commitment to the system and automatic currency convertibility.
- 5) A currency board system can be credible only if the central bank holds sufficient official foreign exchange reserves.







Operation of the Currency Board











Dollarization

- 1) Partial dollarization indicates use of the U.S. dollar alongside domestic currency
- 2) Full dollarization indicates use of the dollar and elimination of domestic currency
- 3) Benefits:
 - a) lower inflation
 - b) decreased transactions costs
 - c) greater openness



Effects of Dollarization

U.S. monetary policy would not necessarily be appropriate for a foreign economy

Federal Reserve is not the lender of last resort for that economy

The International Trilemma

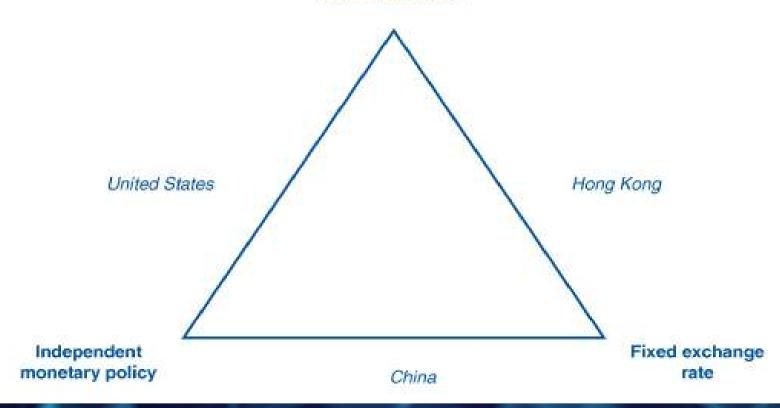
- The international "trilemma" is the impossibility of any nation to simultaneously maintain all of the following:
 - Independent control of domestic monetary policy
 - Fixed exchange rates
 - Free flows of capital with other nations
- The EU's common currency (the Euro) and free flows of capital between countries prevent individual EU countries from pursuing independent monetary policies
- The US has flexible exchange rates and free flows of capital, so it can run an independent monetary policy
 - But countries like Japan and China can buy USD to keep their own currencies undervalued to promote their exports

Impossible trinity



A country can choose any two of the three

Free capital flows





Revolution of Exchange Rate Regimes

Gold Standard

• The monetary authority in each country fixes the price of gold in terms of the domestic currency, standing ready to buy or sell any amount of gold at that price.

Bretton Woods

- The choice was a system of fixed but adjustable exchange rates, the adjustable peg. Therefore, the dollar was pegged to gold at the fixed parity of 35\$/ounce. Other countries were required to declare the par values or parities of their currencies in terms of gold or dollars.
- Hence, the dollar became the key and intervention currency.

Flexible

• The official price of gold was abolished and replaced with a market determined price. Currently, major industrial countries adopt a system of floating exchange rates, whereas major European countries are members of the European Monetary Union