The World Economy: Exchange Rate

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Exchange Rate

- The rate one currency exchanged for another
- The price of one currency in term of another
- A UK firm export disc to a US firm
  - Price in £ : 100
  - Exchange rate: £1=$1.5
  - Price in $: 150

Purchasing power parity (PPP)

- The exchange rate adjusts so that an identical good in two different countries has the same price when expressed in the same currency.
- Example: A chocolate bar that sells for C$1.50 in Canada should cost US$1.00 in the U.S. when the exchange rate between Canada and the U.S. is 1.50 CDN/USD. (Both chocolate bars cost US$1.00.)

Purchasing power parity (PPP)

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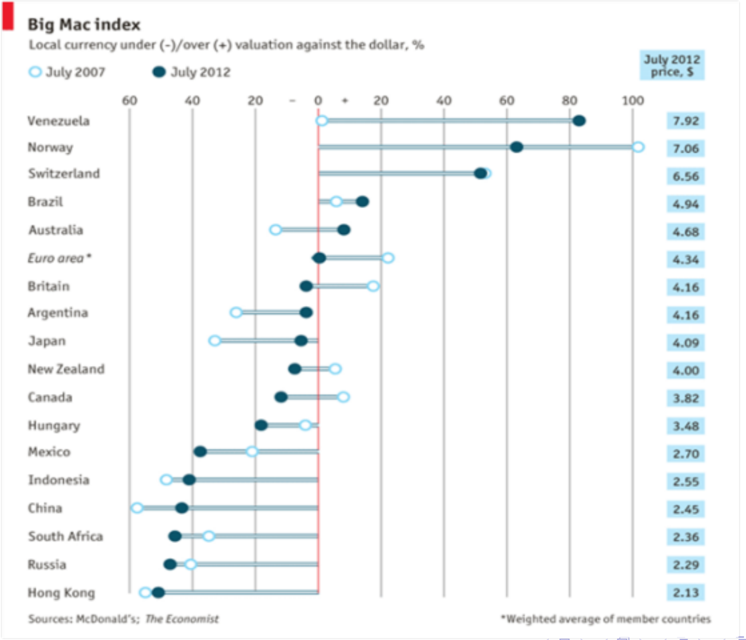

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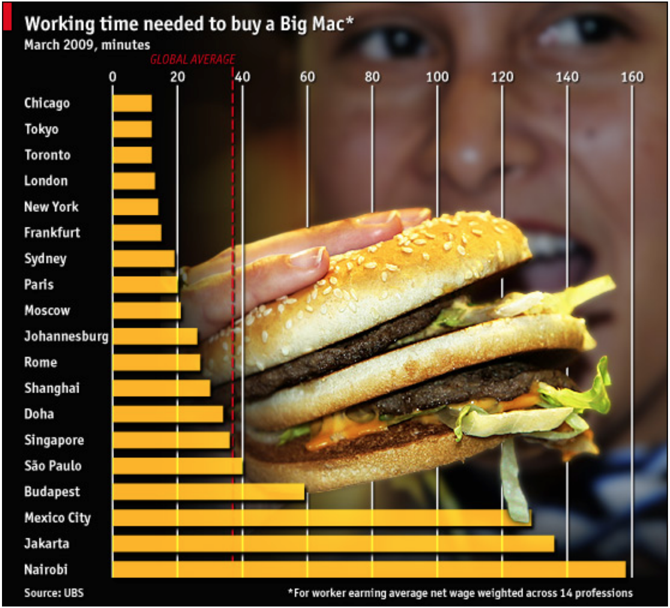

Criticism of PPP

- Theoretical movement in the long term
- Exchange rate is also affected by capital flows, speculation, interest rate, and market confidence
- There are goods or services not traded internationally

Exchange Rate

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- Scenario 1:
  - currency appreciation Change in exchange rate: £1=$2
  - Price in $: 200
  - Impact on the US firm: more expensive, may buy from somewhere else
- Scenario 2:
  - currency depreciation Change in exchange rate: £1=$1
  - Price in $: 100
  - Impact on the US firm: cheaper, may buy more from the UK company

Exchange rate and interest rate

- A relative increase in interest rate will attract investors
- Investor will demand this currency to invest
- An increase in demand means appreciation of the currency
- A strong currency means cheaper imports and expensive exports
- More attractive to acquire foreign assets

Impact of currency appreciation

- Cheaper imports and expensive exports, may lead to deterioration in Trade in Goods
- Inflation may be lower due to price reduction by domestic firms
- Lower cost of imported raw materials (oil)
- Increase in investment overseas by domestic companies (manufacturing firms)
- Increase in investment from overseas due to higher profit in home currency

Impact of currency depreciation

- Cheaper exports and expensive imports, may lead to an improvement Trade in Goods
- Export sector of the economy will benefit
- May lead to an increase in investment in foreign markets due to high profit in home currency

Small vs. large change in exchange rates

- Minor fluctuation will cause few problems, since some accounts in BoP will offset each other
- Large fluctuation over a short period of time will cause the perception that a country has serious (economic) problems
- Balance of trade may deteriorate quickly, reduction from foreign investment, and capital flight (Asian Financial Crisis 1997)

Small vs. large change in exchange rates

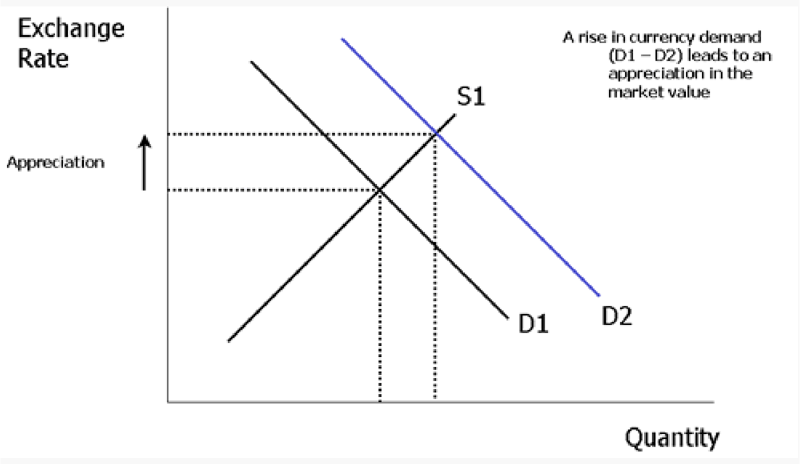
Floating exchange rate

- The exchange rate is determined by supply and demand in the market with no government intervention.

Example

- UK residents wants to buy American products: Supply: pounds Demand: dollars
- US residents wants to buy British products: Supply: pounds Demand: dollars

Floating exchange rate



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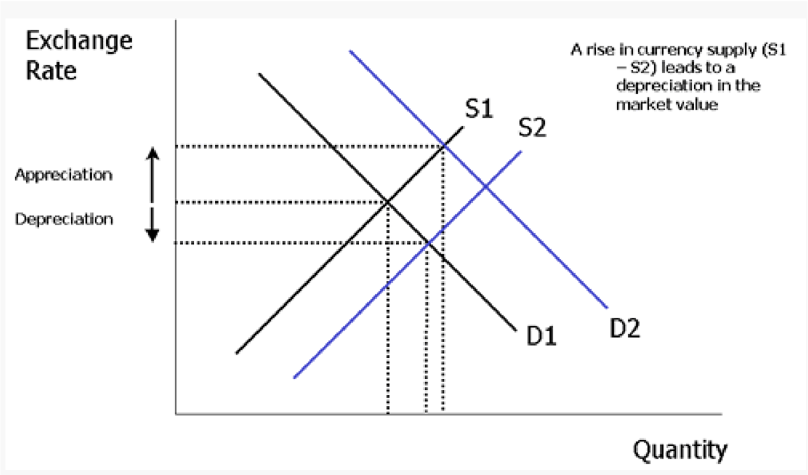


Who demand the currency

- Business
- Individual
- Speculators and arbitrager (hot money, short term, large scale, threat to financial security & stability)

Advantage of a floating rate

- Automatic correcting mechanism for balance of payments to balance trade,
- no government intervention needed to maintain the value
- No large reserve necessary to protect against speculation
- Less likely to become a speculation target
- Flexibility for government/central bank to set interest rate

Disadvantage of a floating rate

- Uncertainty. Businesses not only have to pay attention to the price level, but the exchange rate we well.
- Complexity for business planning: futures and forward market
- Unstable external demand due to price fluctuation caused by exchange rate.
- Not effective when dealing with inflation

Fixed exchange rates

- The government, or the central bank, intervenes in the currency market so that the exchange rate stays close to an exchange rate target.
- The government, or the central bank, stands ready to buy or sell home currency or reserves.

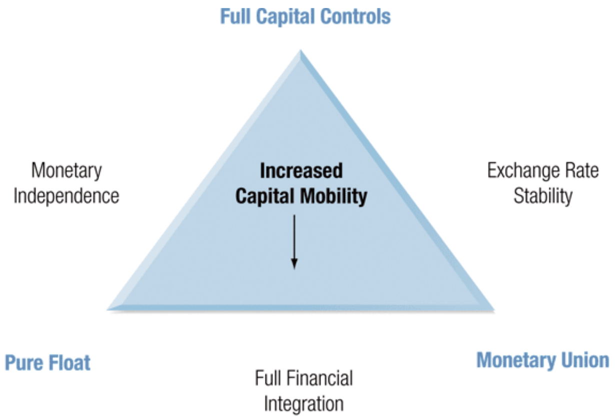
Advantage of fixed rates

- Certainty/Predictability for business and encouraging long term investment
- Invite less speculative attack if the value is set appropriate and capital control is in place
- Discipline for domestic firm to manage cost to remain competitive in the international market
- Discipline for government to manage inflation/price level, therefore, low interest rate

Disadvantage of fixed exchange rates

- Difficult to deal with balance of payments problem and other economic problems (unemployment/inflation) .
- Reserves may be exhausted while defending the rate, and government may be forced to borrow.
- Actions (tariffs/quota) needed to address trade imbalance

The Impossible Trinity



Economic and financial theory clearly states that a country cannot be on all three sides of the triangle at once. It must give up one of the three "attributes" if it is to achieve one of the states described by the corners of the triangle.

Source: Adapted from Lars Oxelheim, *International Financial Integration*, Springer-Verlag, 1990, p. 10.

Revalue or devalue

- Actions are needed when a fixed exchange rate cannot be maintained.
- Persistent surplus in current account: revalue, increase the value of a currency to make exports less competitive and imports more competitive.
- Persistent deficit in current account: devalue, decrease the value of a currency to make exports more competitive and imports less competitive.

Policies under a fixed exchange rate

- Persistent surplus
  - Encourage domestic consumption
  - Make exports Less competitive with higher price
  - Reduce restrictions on imports
- Persistent deficit
  - Discourage domestic consumption
  - Place restrictions on imports

Criteria to join the euro

- Government budget deficit must not exceed 3% of GDP
- Government debt must not be more than 40% of GDP
- A stable inflation rate.
- A stable long-term interest rate.
- A stable exchange rate.

Possible benefits to join the Euro

- Reduce cost – no need to exchange currency.
- Easy to compare price.
- Reduce exchange rate uncertainty.
- Transparency – reduce the scope for price discrimination and help keep prices low.
- Keeps interest rates lower due to commitment to low inflation rate.
- Increased foreign investment due to reduction of uncertainty.

Possible problems to join the Euro

- Transitional cost due to change of the system.
- Loss of independent monetary policy.
- Inability to devalue independently.
- Misalignment of exchange rate – exchange rate and interest rate may not benefit UK.
- Differences in rate regimes – fixed vs. variable.

Effects of fixed exchange rate on economic agents

- Considerable degree of certainty - certainty.
- Central bank must maintain the exchange rate.
- Speculation (short) could devalue the pound.
- Excessive supply of pound could lead to inflation.
- Reserve needs to be used to absorb the excess.
- Increase of deposits in the central bank will reduce lending.
- Increase of interest rate will discourage borrowing.

Effects of floating exchange rate on economic agents

- Automatically adjust the currency to keep the balance of payments in equilibrium.
- Uncertainty - difficult for all economic agents to forecast interest rate and exchange rate.
- Concerns about the actions of the Central Bank.