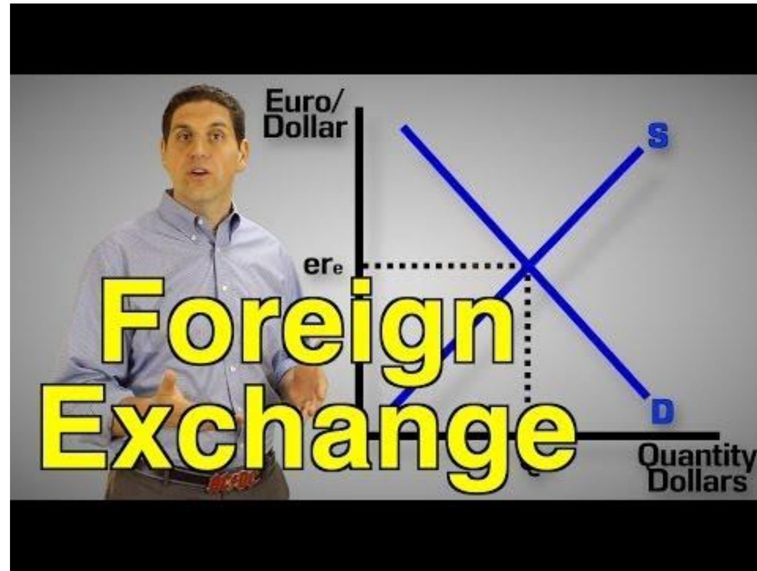
Exchange rates

What are exchange rates?

An exchange rate is the rate at which one currency will be exchanged for another. It is also regarded as the value of one country's currency in relation to another currency. Both freely floating exchange rate systems and exchange rate systems where the government intervenes will be examined in this unit.



Exchange Rates

In the FOREX market we only look at two countries/currencies at a time

Ex: US Dollars and Euros

We examine the price of one currency in terms of the other currency. Ex:$3 = €2

The Exchange Rate depends on which currency you are converting.

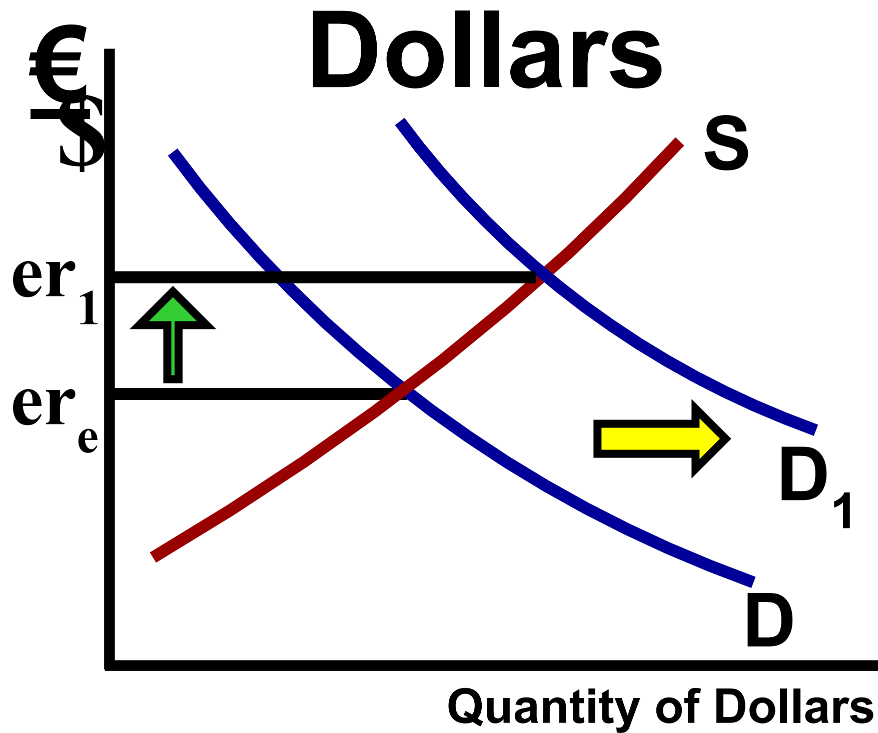
The price of one US Dollar in terms of Euros is

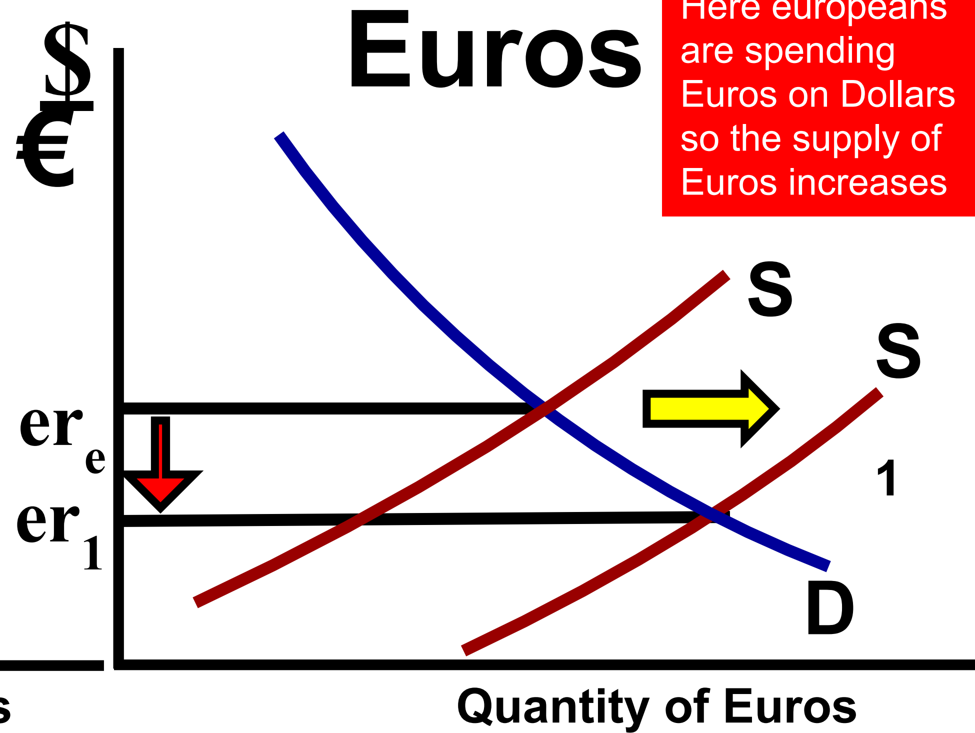
1 Dollar = €2/$3 = €.66

The price of one Euro in terms of Dollars is

1 Euro = $3/€2= $1.5

What happens if Europeans prefer vacationing in the United States?



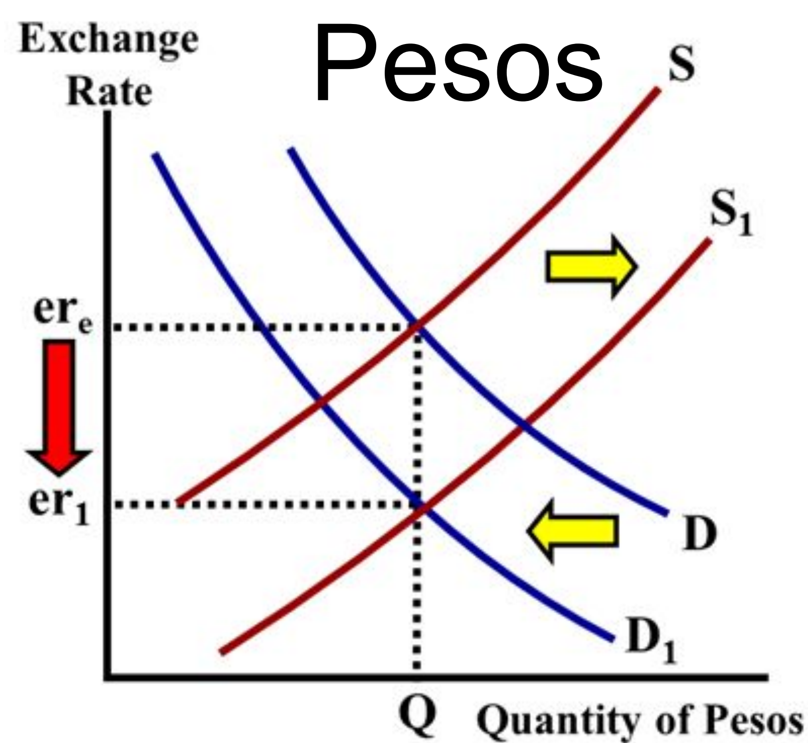


Here europeans are spending Euros on Dollars so the supply of Euros increases

The Dollar APPRECIATES

The Euro DEPRECIATES

What will happen to the international value of the Mexican peso if there is high inflation in Mexico?



The demand for pesos will decrease since Mexico's trading partners will not want to purchase higher priced Mexican products.

The supply will increase as Mexicans look to buy lower priced imports.

The peso DEPRECIATES

FOREX Shifters

Let’s use the example of the US Dollar and the British Pound

This is the easiest to remember, but if required to give a detailed answer you'll need to know more

Changes in Tastes-

Ex: British tourists flock to the U.S on holiday…

- Demand for U.S. dollars increases (shifts right)
- Supply of British pounds increases (shifts right)
  - Pound-depreciates
  - Dollar-appreciates

Currency Appreciation	Currency Depreciation
• Increase in relative interest rates • Increase in relative incomes abroad • Decrease in relative rates of inflation • Increased FDI • Currency speculators anticipate increase in UK interest rates	• Decrease in relative interest rates • Increase in relative incomes at home • Increase in relative rates of inflation • Decreased FDI • Currency speculators anticipate a decrease in UK interest rates

This is the easiest to remember, but if required to give a detailed answer you'll need to know more

Changes in Tastes-

Ex: British tourists flock to the U.S on holiday…

Demand for U.S. dollars increases (shifts right)

Supply of British pounds increases (shifts right)

Pound-depreciates

Dollar-appreciates

All things being equal, a currency will appreciate as a nation's exports increase

All things being equal, a currency will depreciate as a nation's imports increase

Practice

For each of the following examples, identify what will happen to the value of US Dollars and Japanese Yen.

1. American tourists increase visits to Japan.
2. The US government significantly decreases personal income tax.
3. Inflation in the Japan rises significantly faster than in the US.
4. Japan has a large budget deficit that increases Japanese interest rates.
5. The US suffers a larger recession.
6. The US Federal Reserve sells bonds at high interest rates.

How do these scenarios affect exports and imports?

	Shifter	Value of Dollar ($)	Value of Yen (¥)
1	Tastes	(S↑) Depreciates	(D↑) Appreciates
2	Income	(S↑) Depreciates	(D↑) Appreciates
3	Price Level	(D↑) Appreciates	(S↑) Depreciates
4	Interest Rate	(S↑) Depreciates	(D↑) Appreciates
5	Income	(S↓)Appreciates	(D↓) Depreciates
6	Interest Rate	(D↑) Appreciates	(S↑) Depreciates

Market for Dollars
Yuan
Dollar
S
ER1
Q1
Dollars
EXCHANGE RATE
REGIMES

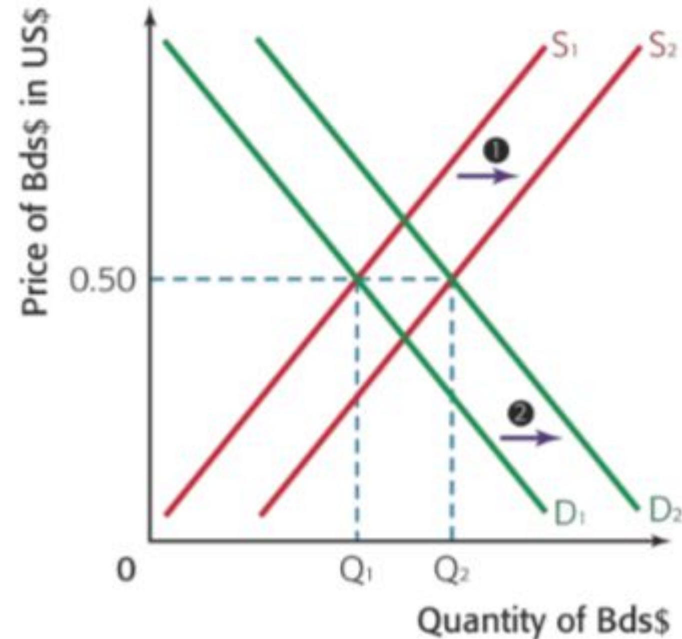
Fixed Exchange Rate

A fixed exchange rate is when a country ties the value of its currency to some other widely-used commodity or currency.

The example on the right is of the Barbados dollar which is fixed at a rate of $2BDs = $1USD. So $1Bds = 50c USD.

What has happened in the following diagram?

INCREASE IN SUPPLY OF $BD ON THE FOREIGN EXCHANGE MARKET

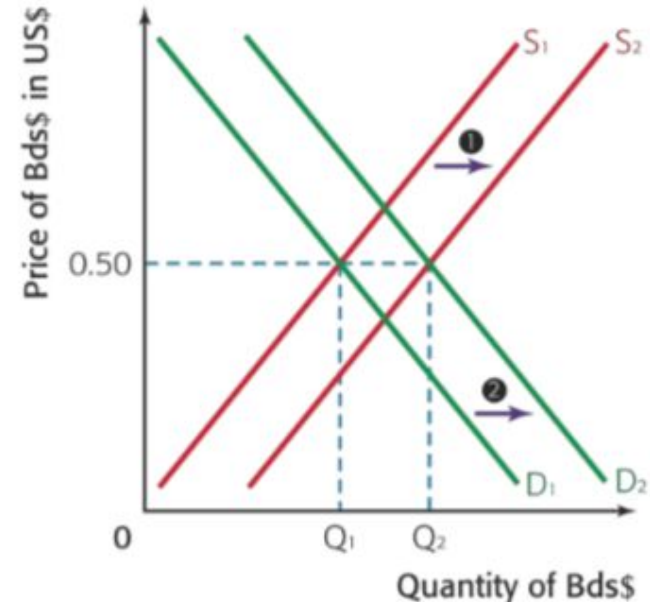


Fixed Exchange Rate

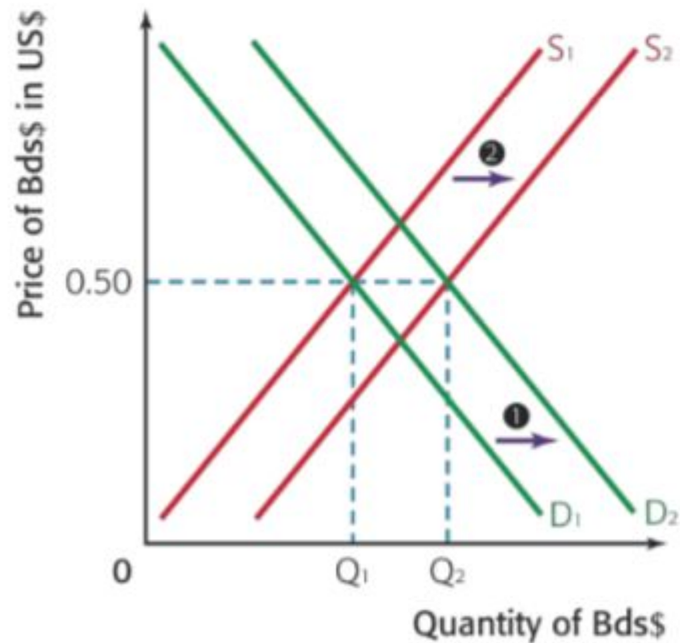
The diagram shows the situation where the supply of Barbadian dollars is increasing on the foreign exchange market. This may be caused, by Barbadians purchasing greater amounts of imports.

Without government intervention, the exchange rate will fall. To maintain its fixed exchange rate, the government needs to buy up the excess supply of its own currency on the foreign exchange market, thus shifting the demand curve from D1 to D2. It does this by using previously amassed reserves of foreign currencies.

INCREASE IN SUPPLY OF $BD ON THE FOREIGN EXCHANGE MARKET



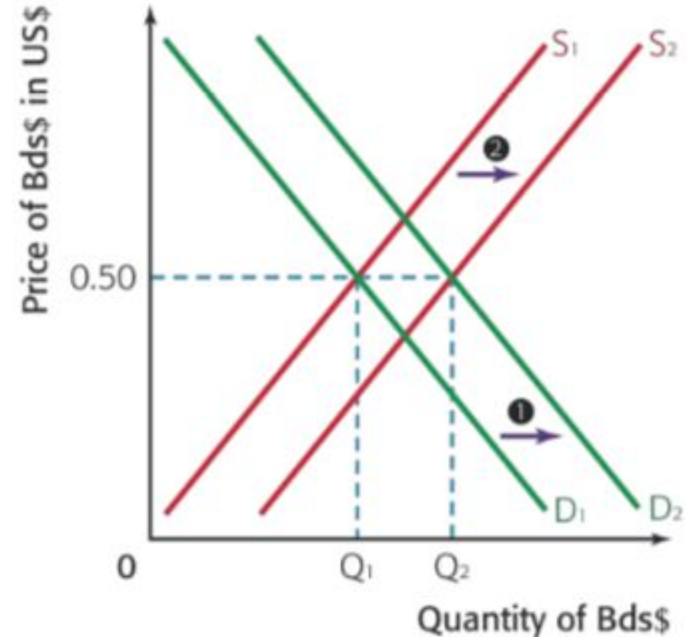
What could lead to an increase in demand for a currency?



What could lead to an increase in demand for a currency?

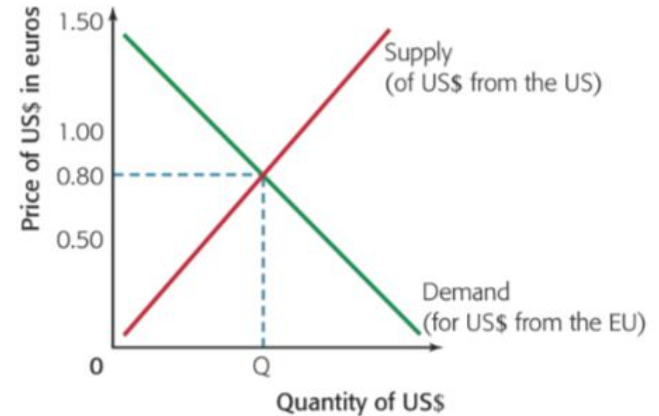
This may be caused, for example, by more foreigners wishing to visit Barbados for their holidays. The demand curve thus shifts from D1 to D2 and there is an excess demand for Barbadian dollars of Q1-Q2.

To maintain its fixed exchange rate, the Barbadian government needs to sell its own currency on the foreign exchange market in order to satisfy the excess demand, thus shifting the supply curve from S1 to S2



A Floating Exchange Rate

A floating exchange rate is a type of exchange-rate regime in which a currency's value is allowed to fluctuate in response to the supply and demand of the particular currency.



When the demand for currency exceeds the supply of that currency, it will increase in value relative to the other currency – an exchange rate **appreciation**.

When the supply of currency exceeds the demand for that currency, it will decrease in value relative to the other currency – an exchange rate **depreciation**.

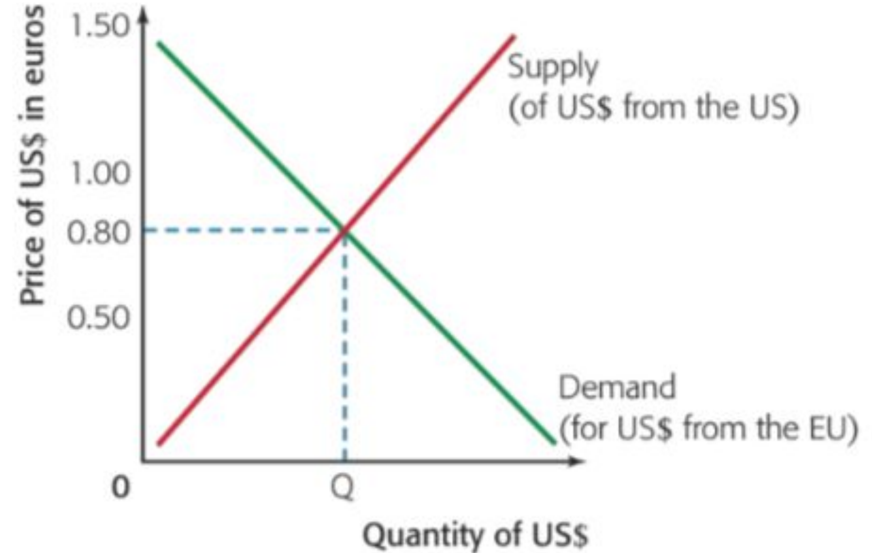
A Floating Exchange rate

An **appreciating** currency occurs when the

- Demand for a currency increases
- Supply of a currency decreases

A **depreciating** currency occurs when the:

- Demand for a currency decreases
- Supply of a currency increase



Consequences of overvalued or undervalued currencies

IMPORTANT: Use of the terms *overvaluation* and *undervaluation* suggests that there is a "proper" value for the exchange rate. This is easy to understand in the case of a fixed exchange rate system, but more complex in a floating system.

In a floating exchange rate system, the "proper" exchange rate can be said to be the rate that equalizes supply and demand for currencies in exchange. Under this notion, there can never be an over- or undervalued exchange rate. So we look at two indicators:

(1) the value that would satisfy purchasing power parity (PPP)

or

(2) the value that would generate current account balance.

What is PPP????

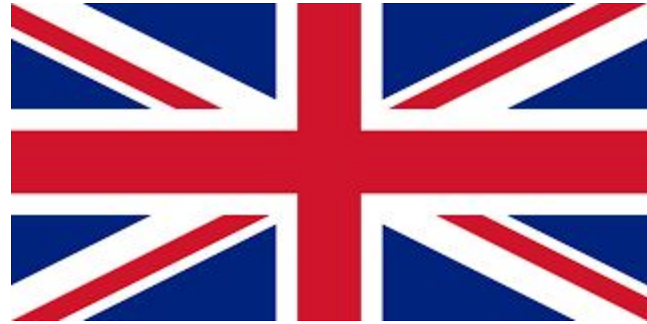
Purchasing power parity (**PPP**) is an economic theory that compares different countries' currencies through a "basket of goods" approach. According to this concept, two currencies are in equilibrium or at par when a basket of goods (taking into account the exchange rate) is priced the same in both countries.

Suppose a Big Mac costs £2 in the UK and $4 in the US. The correct exchange rate according to purchasing power parity would by £1 in $2. This would leave a customer indifferent to buying the good in the UK and buying it in the US.

What is the Current Account?

The current account is basically a country's trade balance. The trade balance is made up of:

- Trade in goods - UK (-ve)
- Trade in services - UK (+ve)
- Income - UK (+ve)
- Transfers - UK (-ve)



MEDCs - Generally run a trade deficit (*this is not as bad as it sounds*)

- 70% of USA's imports from Mexico are of inputs into US production which equals jobs!

LEDC's - Usually run a trade surplus

- Often selling raw materials to MEDC

+ And - of an ‘overvalued’ currency

Advantages:

- Downward pressure on inflation i.e. imported goods will be cheaper
- More imports can be bought
- High value of currency forces domestic producers to improve their efficiency to be more competitive in the international market.

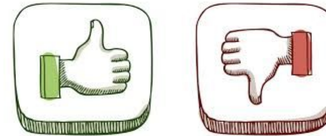
Disadvantages:

- Overvalued currency will make exports uncompetitive in the international market which will **hurt the export industries**
- Imports are relatively cheaper to buy due to overvalued currency. Consumers will go in for more imports which will damage to domestic industries

+ And - of an ‘undervalued’ currency

Advantages:

- If currency is undervalued, the exports will be cheaper and they will grow leading to **greater employment** in export industries
- Undervalued currency will make imports expensive for consumers, they will divert to domestic goods and thus **employment in domestic industries will increase.**



Disadvantages:

- Since imports get more expensive, inflation is a natural by-product of devaluation. If the country’s export sector relies heavily on imported inputs, then cost-push inflation will appear in the export sector as well, and to that extent, diminish the competitiveness of a country’s exports. Production suffers because imported inputs get costlier following devaluation.