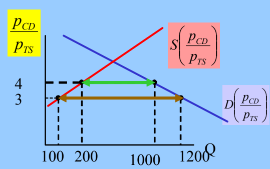
Exchange Rate Basics



The Process

Comparative Advantage & Supply and Demand set relative prices of goods → Domestic Prices are set via the Quantity Theory → The Combination Sets Exchange Rates

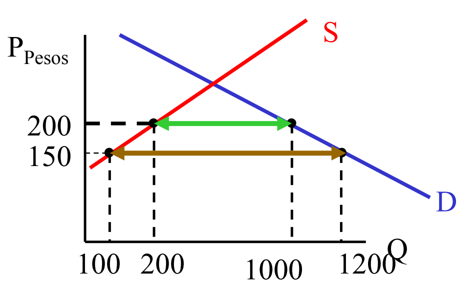
An Example

Output Per Day of Work			
	T-shirts	**Music CDs**	**Relative Cost**
United States	20	10	2:1
Mexico	5	1	5:1

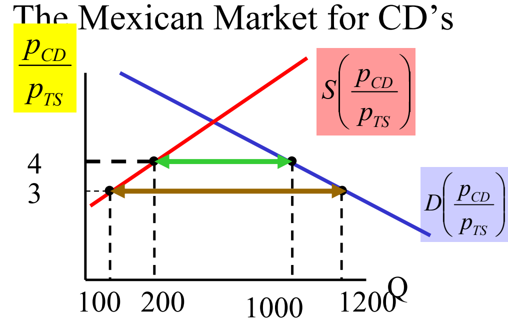
The price of a t-shirt

- With International Trade
  - The price of a Music CD, in terms of a T-shirt, the terms of trade, must be the same in both countries.
  - The price must be between 2 and 5 t-shirts; just what depends on supply and demand
  - **We will *assume* (so that we can get on with this example) that the actual price is 3:1.**

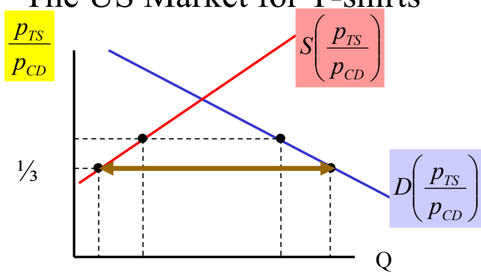
The Market for CD's



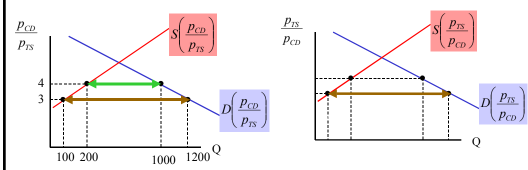
The Mexican Market for CD's



The US Market for T-shirts



The Two Markets

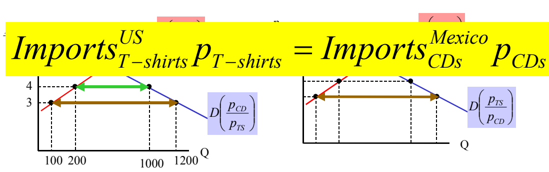


Mexican Demand for CD Imports

US Demand for T-shirt Imports

Equilibrium

$$Imports^{US}_{T-shirts}\, p_{T-shirts} = Imports^{Mexico}_{CDs}\, p_{CDs}$$

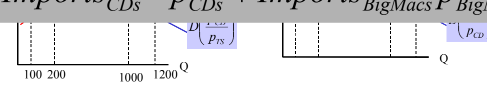


Mexican Demand for CD Imports

US Demand for T-shirt Imports

Equilibrium (Cont)

$$Imports^{US}_{T-shirts}\, p_{T-shirts} + Imports^{US}_{Tequila}\, p_{Tequila} =$$
$$Imports^{Mexico}_{CDs}\, p_{CDs} + Imports^{Mexico}_{BigMacs}\, p_{BigMacs}$$



Mexican Demand for CD Imports

US Demand for T-shirt Imports

Equilibrium (Cont)

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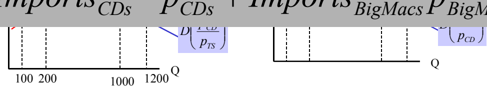
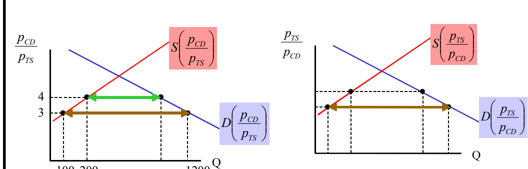


Other Countries, Other Goods

Mexican Demand for CD Imports

US Demand for T-shirt Imports

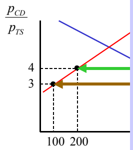
Demand and Supply



Mexican Demand for CD Imports

US Demand for T-shirt Imports

Demand and Supply



We will *assume* (so that we can get on with this example) that the actual price is 3:1

$$3p_{TS} = p_{CD}$$

Mexican Demand for CD Imports

US Demand for T-shirt Imports

Determining Exchange Rates

- Domestic monetary policies in the US mean that CDs cost $15 each.
- Domestic monetary policy in Mexico means that T-shirts cost 50 Pesos.

$$3p_{TS} = p_{CD}$$

Determining Exchange Rates

- Domestic monetary policies in the US mean that CDs cost $15 each. **(T-shirts = $5)**
- Domestic monetary policy in Mexico means that T-shirts cost 50 Pesos. **(CDs = 150P)**

$$3p_{TS} = p_{CD}$$

Determining Exchange Rates

- Domestic monetary policies in the US mean that CDs cost $15 each. **(T-shirts = $5)**
- Domestic monetary policy in Mexico means that T-shirts cost 50 Pesos. **(CDs = 150P)**

$1=10 Pesos

$$3p_{TS} = p_{CD}$$

The Process

Comparative Advantage & Supply and Demand set relative prices of goods → Domestic Prices are set via the Quantity Theory → The Combination Sets Exchange Rates

The Process

Comparative Advantage & Supply and Demand set relative prices of goods

Domestic Prices are

The

But there are numerous ways this process can work out.

Four Scenarios

- Floating Exchange Rates
  - Exchange rates are determined by supply and demand

Four Scenarios

- Floating Exchange Rates
- Fixed Exchange Rates
  - The government manages the exchange rate

Four Scenarios

- Floating Exchange Rates
- Fixed Exchange Rates
- Currency Boards
  - A form of fixed exchange rates

Four Scenarios

- Floating Exchange Rates
- Fixed Exchange Rates
- Currency Boards
- Monetary Unions
  - Several nations, one currency

End