The Process

Comparative Advantage & Supply and Demand set relative prices of goods

The Combination Sets Exchange Rates

An Example

<table>
<thead>
<tr>
<th>Output Per Day of Work</th>
<th>T-shirts</th>
<th>Music CDs</th>
<th>Relative Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>20</td>
<td>10</td>
<td>2:1</td>
</tr>
<tr>
<td>Mexico</td>
<td>5</td>
<td>1</td>
<td>5:1</td>
</tr>
</tbody>
</table>

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 US Market for T-shirts

\[ \frac{p_{TS}}{p_{CD}} \]

\[ Q_d \]

\[ \frac{p_{TS}}{p_{CD}} \]

The Two Markets

\[ \frac{p_{TS}}{p_{CD}} \]

\[ Q_d \]

Equilibrium

\[ \text{Imports}_{US}^{T-shirts} p_{T-shirts} = \text{Imports}_{Mexico}^{CDs} p_{CDs} \]

Equilibrium (Cont)

\[ \text{Imports}_{US}^{T-shirts} p_{T-shirts} + \text{Imports}_{US}^{Tequila} p_{Tequila} = \]

\[ \text{Imports}_{Mexico}^{CDs} p_{CDs} + \text{Imports}_{Mexico}^{BigMacs} P_{BigMacs} \]

Equilibrium (Cont)

\[ \text{Imports}_{US}^{T-shirts} p_{T-shirts} + \text{Imports}_{US}^{Tequila} p_{Tequila} = \]

\[ \text{Imports}_{Mexico}^{CDs} p_{CDs} + \text{Imports}_{Mexico}^{BigMacs} P_{BigMacs} \]

Demand and Supply

\[ \frac{p_{TS}}{p_{CD}} \]

\[ Q_d \]

\[ \frac{p_{TS}}{p_{CD}} \]

\[ Q_d \]
Exchange Rate Basics

Demand and Supply

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

\[ 3p_{TS} = p_{CD} \]

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.

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$1 = 10 Pesos

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Determining Exchange Rates

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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

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