**Exchange Rate Systems and Policies**

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**Exchange-Rate Systems**

- Some history
- What is “the international monetary system” today?
- Fixed versus floating exchange rates
- The balance of payments and the adjustment process
- The European Monetary System

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**History of the World**

- Gold, inflation and exchange rates: the first 100 years
- War, depression and competitive devaluation
- Bretton Woods
- 1971 and floating rates
- Currency blocs?

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**To Fix or To Float, That is the Question**

- Independent free float
- Managed float
- Frequent devaluations or revaluations
- Crawling peg
- Tied by formula to inflation index
- Basket peg
- Pegged to one currency
- Absolutely fixed to one currency

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**The Balance of Payments**

<table>
<thead>
<tr>
<th>Transylvania’s Balance of Payments</th>
<th>Credits</th>
<th>Debits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports (goods sold to foreigners)</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Imports (goods bought from foreigners)</td>
<td>-16</td>
<td></td>
</tr>
<tr>
<td>Services (tourism and interest paid/received)</td>
<td>2</td>
<td>-2</td>
</tr>
<tr>
<td>Aid (a “plug”)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Financial and real assets sold to foreigners (capital inflows)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Financial and real assets bought from foreigners (capital outflows)</td>
<td>-2</td>
<td></td>
</tr>
<tr>
<td>Government’s financial assets sold (foreign exchange reserves increased)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Government’s financial assets bought (foreign exchange reserves decreased)</td>
<td>-2</td>
<td></td>
</tr>
<tr>
<td>Overall Balance</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Total: 21.00  21.00

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**Trade**

- Absolute advantage
- Relative prices and comparative advantage
- “Too poor to trade” fallacy
- Infant industry argument?
**Capital Flows**

- As automatic, voluntary compensation for trade imbalances
- As autonomous, with trade compensating -- "tails wags dog"
- Round trip capital flows -- trade in intermediation and securities trading services

**Reserves**

- Intervention--how reserves accumulate
- Borrowed reserves--swap lines, SDRs, etc.

**Intervention**

When, why and how successful?

- The "Balance of Payments deficit"
  1. Trade deficit
  2. Current account deficit
  3. "Overall" deficit
- Deficit as the change in Office Reserves
- Question: can there be a balance of payments deficit when a country’s exchange rate is floating?
  
  Without government intervention, credit transactions must equal debit transactions so there cannot be a balance of payments deficit or surplus

**The External Deficit and The Internal Deficit**

\[ Y = C+G+(X-M) \]

How the Nation Spends its Production

\[ Y = C+G+T \]

How Individuals Allocate their Incomes

From these:

\[ X-M = C+G+T \]

In other words:

Current Account Surplus = Net Private Sector Savings

**Tools and Targets**

- Foreign-exchange intervention
- Money-market intervention (and interaction with monetary policy)
- Fiscal policy--the demand side
- Exchange controls and capital controls
- Tariffs and subsidies

**Disequilibrium and Adjustment**

- The adjustment process when the exchange rate is fixed
- The adjustment process when the exchange rate is floating
The European Monetary System

The ECU is a grab-bag of currencies...

<table>
<thead>
<tr>
<th>Currency</th>
<th>Fixed amount of currency in the ECU (July 1996)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEF/LUF</td>
<td>2.431</td>
</tr>
<tr>
<td>DKK</td>
<td>0.1976</td>
</tr>
<tr>
<td>FFR</td>
<td>1.332</td>
</tr>
<tr>
<td>DEM</td>
<td>0.6242</td>
</tr>
<tr>
<td>IRL</td>
<td>0.00855</td>
</tr>
<tr>
<td>LIT</td>
<td>151.8</td>
</tr>
<tr>
<td>HFL</td>
<td>0.2198</td>
</tr>
<tr>
<td>GBP</td>
<td>0.08794</td>
</tr>
<tr>
<td>DRA</td>
<td>1.440</td>
</tr>
<tr>
<td>ESP</td>
<td>6.885</td>
</tr>
<tr>
<td>ESC</td>
<td>1.393</td>
</tr>
</tbody>
</table>

Two rules:
- Parity grid rule: 2.25% (officially 15%) limit on exchange rate of each country against each other country.
  - Remedy if the limit is approached: intervention in the foreign exchange market.
- Divergence indicator rule: formula for limit on exchange rate of each country against ECU.
  - Remedy: economic policy changes to bring inflation and monetary conditions back into line with those of the other members.

European Monetary Union

- Stage 1: Financial integration
- Stage 2: Transition to Eurofed
- Stage 3: European currency (the "Euro") issued by Eurofed

1999: Six Convergence Criteria ("Maastricht Criteria")

- Price stability: No more than 1.5% over best 3's average
- Government deficit: Public deficit < 3% of GDP
- Public debt: 60% of GDP
- Exchange rate stability: 2 years within EMS bands (+/-15%)
- Long-term interest rates: No more than 2% over best 3's average
- Central bank independence

Europe 1999: Who’s In?

EMU: Who’s In?

**Implication of EMU**

- Only Eurofed creates money
- Central banks can no longer print money to finance public deficits
- Only a nation's creditworthiness determines ability to run a fiscal deficit

**The Baltics**

**Baltics: Exchange Rate Policies**

- Estonia: Currency Board vs Euro
- Latvia: Fixed vs SDR
- Lithuania: Currency Board vs US$

**Conclusion: Fixed Vs Floating Exchange Rates**

- The central issue in the choice between fixed and floating exchange rates is one of monetary and economic policy independence
- Factor include:
  - Openess
  - Size
  - Commodity concentration
  - Capital market integration
  - Relative inflation
- When monetary policies are similar and inflation rates converge, a fixed exchange-rate system is possible; otherwise not.

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