Trade and the Balance of Payments

I. Significance of Trade
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   A. Bretton Woods, GATT and the WTO
   B. Regional Trading Blocs (EU, NAFTA)
IV. The Future of Trade
V. Balance of Payments
   A. Components and Imbalances
   B. Relevance
### Growth in World Trade

#### Trade in Goods (% of GDP)

<table>
<thead>
<tr>
<th>Country</th>
<th>1990</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>15.8</td>
<td>20.0</td>
</tr>
<tr>
<td>Japan</td>
<td>17.1</td>
<td>22.1</td>
</tr>
<tr>
<td>France</td>
<td>37.1</td>
<td>44.7</td>
</tr>
<tr>
<td>Canada</td>
<td>43.7</td>
<td>61.0</td>
</tr>
<tr>
<td>Germany</td>
<td>46.0</td>
<td>59.4</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>41.2</td>
<td>38.1</td>
</tr>
<tr>
<td>Netherlands</td>
<td>87.6</td>
<td>117.0</td>
</tr>
<tr>
<td>South Korea</td>
<td>53.4</td>
<td>70.4</td>
</tr>
<tr>
<td>Poland</td>
<td>43.9</td>
<td>67.7</td>
</tr>
<tr>
<td>Mexico</td>
<td>32.1</td>
<td>58.5</td>
</tr>
<tr>
<td>India</td>
<td>13.1</td>
<td>25.0</td>
</tr>
<tr>
<td>Nigeria</td>
<td>67.5</td>
<td>48.2</td>
</tr>
<tr>
<td><strong>WORLD</strong></td>
<td><strong>32.5</strong></td>
<td><strong>44.9</strong></td>
</tr>
</tbody>
</table>

*Source: World Bank, 2006 Development Indicators*
Productivity and Factors of Production

PRODUCTIVITY

- Literally: Ratio of inputs to outputs
- Generally: How much of something you can produce with a given amount of resources

Basic inputs or FACTORS OF PRODUCTION

- Land
- Labor
- Capital [Machinery and Materials]
Absolute v. Comparative Advantage

Absolute Advantage: Having higher productivity in the production of a product than any other country.

Comparative Advantage: The ability of one economic actor to produce some particular good or service at a lower opportunity costs than other economic actors can.
Hypothetical Example

TWO COUNTRIES: Brazil and US
TWO PRODUCTS: Steel and Coffee
### Comparative Productivity and Opportunity Costs

<table>
<thead>
<tr>
<th>OUTPUT PER WORKER (1000 Each Country)</th>
<th>Steel</th>
<th>Coffee</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.01</td>
<td>0.02</td>
</tr>
</tbody>
</table>

#### Opportunity Cost Ratios:

- **US**: 1 steel = 1 coffee
- **Brazil**: 1 steel = 2 coffee

A country has a comparative advantage in producing the product with the *lowest opportunity cost*. 
# Gains from Trade

## Table 41-5  
**International specialization according to comparative advantage and the gains from trade (hypothetical data; in tons)**

<table>
<thead>
<tr>
<th>Country</th>
<th>(1) Outputs before specialization</th>
<th>(2) Outputs after specialization</th>
<th>(3) Amounts exported (−) and imported (+)</th>
<th>(4) Outputs available after trade</th>
<th>(5) = (4) − (1) Gains from specialization and trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>18 steel</td>
<td>30 steel</td>
<td>−10 steel</td>
<td>20 steel</td>
<td>2 steel</td>
</tr>
<tr>
<td></td>
<td>12 coffee</td>
<td>0 coffee</td>
<td>+15 coffee</td>
<td>15 coffee</td>
<td>3 coffee</td>
</tr>
<tr>
<td>Brazil</td>
<td>8 steel</td>
<td>0 steel</td>
<td>+10 steel</td>
<td>10 steel</td>
<td>2 steel</td>
</tr>
<tr>
<td></td>
<td>4 coffee</td>
<td>20 coffee</td>
<td>−15 coffee</td>
<td>5 coffee</td>
<td>1 coffee</td>
</tr>
</tbody>
</table>
Hecksher-Ohlin Theory

Q: How do you know in what products your country will have a comparative advantage?

Factor Intensities:
- Simple Manufacturing → Labor
- High-Tech Manufacturing → Capital

Country Factor Endowments:
- Brazil → Labor
- US → Capital
H-O Theory: “Each nation has a comparative advantage in the production of those goods that use intensively those factors that they possess in relative abundance.”

- Brazil → Labor → Simple Manufacturing
  EX: Shoes
- US → Capital → High-Tech Manufacturing
  EX: Computers

So Brazil should produce shoes to trade for American computers (and vice versa)
Stolper-Samuelson Theory

Q: Which groups in a society gain from free trade (and vice versa)? Cui bono?

Free trade benefits the owners of (relatively) abundant factors of production.

Free trade harms the owners of (relatively) scarce factors of production.
EXAMPLE: United States

- Land → Abundant
- Labor → Scarce (relative to other countries)
- Capital → Abundant

**Q: Which groups in the US should favor/ oppose free trade?**

- Capital intensive (e.g., computers) and land intensive (e.g., agriculture) should favor free trade.
- Labor intensive (e.g., textiles) should oppose free trade.
Changing World Trading System

- Repeal of the British Corn Laws (1846) and growth of world trade
- WW I and collapse of trade (Smoot-Hawley Tariff - 1930)
- Bretton Woods Conference (1944)
- World Trade Organization (WTO)
  - International Trade Organization (ITO) – FAILED
  - General Agreement on Tariffs and Trade (GATT)
- Four Principles of GATT:
  - Liberalization (Free Trade)
  - Non-Discrimination (‘Most-Favored-Nation’, now ‘Normal Trade Relations – NTR)
Current World Trading System

World Trade Organization
- Dispute resolution mechanism
- Seattle 1999 – RIOTS!
- Doha, Qatar November 2001 (“Development Round”)

Regional Trading Blocs
- EU, NAFTA, APEC, Mercosur, Etc.
Types of Regional Trade Regimes

- **Free Trade Area**: No internal tariffs (NAFTA)
- **Common Market**: No internal tariff; common external tariff (EU pre-1992)
- **Single Market**: Same as common market plus common coordinated economic regulation (EU post-1992)
- **Monetary Union**: Common currency (EU post-1999)
Balance of Payments: Current Account

Current Account (Goods & Services)
- Merchandise Trade
- Service Trade
- Investment Income (interest, NOT capital principal)
- Government Transfers and Sales

Exports = CREDIT  Imports = DEBIT
Balance of Payments: Capital Account

Capital Account (Investment)

- **Exports** (investment sent abroad)
- **Imports** (investment from abroad)
- **Foreign Currency Reserves** (in Central Bank)
- **Statistical Discrepancy** (because of inexact measurement or illegal transactions)
Imbalances in Components

Each component can either be in **surplus**, **deficit**, or **equilibrium**

- Current Account Surplus = Net Exporter
- Current Account Deficit = Net Importer
- Capital Account Surplus = Net borrower
- Capital Account Deficit = Net lender
Balance of Payments

- Components may be in surplus or deficit, but TOTAL always sums to ZERO
- Balance of payments always in balance
- Deficit in one component must ALWAYS be offset by a surplus in another component
- EVERYTHING MUST BE PAID FOR!!
### US Balance of Payments, 2006

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount (Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merchandise Trade</td>
<td>-$838,271</td>
</tr>
<tr>
<td>Service Trade</td>
<td>+$79,749</td>
</tr>
<tr>
<td>Investment Income</td>
<td>+$36,640</td>
</tr>
<tr>
<td>Government Transfers and Sales</td>
<td>-$89,595</td>
</tr>
<tr>
<td><strong>CURRENT ACCOUNT BALANCE</strong></td>
<td>-$811,477</td>
</tr>
<tr>
<td>Capital Exports</td>
<td>-$1,055,176</td>
</tr>
<tr>
<td>Capital Imports</td>
<td>+$1,859,597</td>
</tr>
<tr>
<td>Foreign Currency Reserves</td>
<td>+$2,374</td>
</tr>
<tr>
<td>Statistical Discrepancy</td>
<td>-$17,794</td>
</tr>
<tr>
<td><strong>CAPITAL ACCOUNT BALANCE</strong></td>
<td>+789,001</td>
</tr>
</tbody>
</table>
Current Account and GDP