The Balance of Payments

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Motivation: International Economics

- **Study large-scale economic problems in interdependent countries**
  - Dependence through trade and capital flows
  - International Finance mostly interested in the second whereas international trade in the first

- **This class will study important large-scale economic problems**
  - Focus on capital flows, but need to be understood in conjunction with trade flows
  - Today, setting up the proper language: National Income Accounts
Balance of Payments Accounting

- Balance of Payment: records a country’s international transactions
  - Current Account
  - Financial Account
  - Capital Account
Balance of Payments

- **Balance of Payment**
  - Current Account Balance + Financial Account Balance + Capital Account Balance = 0
    - Fundamental balance of payments identity
    - An implication of the double-entry book-keeping methodology
    - Example of double-entry methodology: An export transaction is recorded in 2 countries (once with plus –export– and once with a minus –import–)
Balance of Payments Accounting

- **Balance of Payment**: records a country’s international transactions
  - **Current Account**: trade balance and income from abroad
    - (Exports-Imports+International income receipts-payments to foreigners)
    - (e.g. Japanese TV imported)
  - **Financial Account**: sales of assets
    - Sales of assets to foreigners-purchases of assets located abroad
    - (e.g. purchasing a residence abroad)
  - **Capital Account**: capital transfers
    - (e.g. charity gifts)
Current Account

• **Trade Balance**
  • **Merchandise**: exports - imports of goods
  • **Services**: exports - imports of services

• **Income Balance**
  • **Net investment income**: net income receipts from assets
  • **Net international compensation to employees**: net compensation of employees

• **Net Unilateral Transfers**
  • Gifts from foreign countries minus gifts to foreign countries
Current Account: Examples (from the perspective of the US)

- **Trade Balance**
  - Merchandise: imports of Nokia phones from Finland (-) export of ipods to France (+)
  - Services: Drinks in Paris Bar (-) German tourist watching Broadway (+)

- **Income Balance**
  - Fage yogurts US subsidiary makes profits and rebates them to Greece (-) Dividends for US Bondholders of German stocks (+)

- **Net Unilateral Transfers**
  - Charity gift to Haiti (-) Greek sends money to relative in the US (+)
Current Account

**Figure:** US Current Account, 2007. Source Bureau of Economic Analysis

<table>
<thead>
<tr>
<th>Item</th>
<th>Billions of dollars</th>
<th>Percentage of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Account</td>
<td>-731.2</td>
<td>-5.3</td>
</tr>
<tr>
<td>Trade Balance</td>
<td>-700.3</td>
<td>-5.1</td>
</tr>
<tr>
<td>Merchandise Trade Balance</td>
<td>-819.4</td>
<td>-5.9</td>
</tr>
<tr>
<td>Services Balance</td>
<td>119.1</td>
<td>0.9</td>
</tr>
<tr>
<td>Income Balance</td>
<td>81.7</td>
<td>0.6</td>
</tr>
<tr>
<td>Net Investment Income</td>
<td>88.8</td>
<td>0.6</td>
</tr>
<tr>
<td>Net International Compensation to Employees</td>
<td>-7.0</td>
<td>-0.1</td>
</tr>
<tr>
<td>Net Unilateral Transfers</td>
<td>-112.7</td>
<td>-0.8</td>
</tr>
<tr>
<td>Private Remittances and Other Transfers</td>
<td>-72.1</td>
<td>-0.5</td>
</tr>
<tr>
<td>U.S. Government Transfers</td>
<td>-40.6</td>
<td>-0.3</td>
</tr>
</tbody>
</table>
### Current Account and Trade Balance

**Figure:** Trade Balance and Current Account as a Fraction of GDP. Source, IMF

<table>
<thead>
<tr>
<th>Country</th>
<th>TB/GDP</th>
<th>CA/GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>6.8</td>
<td>3.1</td>
</tr>
<tr>
<td>China</td>
<td>5.5</td>
<td>7.1</td>
</tr>
<tr>
<td>Ireland</td>
<td>11.8</td>
<td>-2.0</td>
</tr>
<tr>
<td>Mexico</td>
<td>-1.7</td>
<td>-0.6</td>
</tr>
<tr>
<td>Philippines</td>
<td>-8.9</td>
<td>2.3</td>
</tr>
<tr>
<td>United States</td>
<td>-5.7</td>
<td>-6.2</td>
</tr>
</tbody>
</table>
Financial Account

- Differences between sales of assets to foreigners and purchases of assets held abroad
  - US government assets abroad, US private assets (direct investment, securities etc)
Capital Account

- Capital transfers that result in a change in the stock of assets
  - mostly capital transfers (e.g. debt forgiveness)
  - other minor items non-financial non-produced (e.g. copyrights etc)
National Accounting

- \( \text{GDP} = \text{Gross National Expenditure} + \text{Trade Balance} \)
National Accounting

- GDP = Gross National Expenditure + Trade Balance
- GNI (Gross National Income) = GDP + Income Balance
National Accounting

- GDP = Gross National Expenditure + Trade Balance
- GNI (Gross National Income) = GDP + Income Balance
- GNDI (Gross National Disposable Income) = GNI + Net Unil. Transfers
National Accounting and Current Account

- GDP = Gross National Expenditure + Trade Balance
- GNI (Gross National Income) = GDP + Income Balance
- GNDI (Gross National Disposable Income) = GNI + Net Unilateral Transfers

\[ \text{GNDI} = C + I + G + CA \quad \implies \]

- National Saving = \( S \equiv \text{GNDI} - C - G = I + CA \)
- Thus \( S = I + CA \) so that if \( CA > 0 \) (CA Surplus) \( \iff S > I \)
Current Account and Saving

- CA Surplus means the country saves more than investment needs.

- CA Deficits means that it saves less than investment needs.
  - Wealth decreases
  - Analogy to household

- Non-zero CA implies changes in the Net International Investment Position (NIIP) of a Country.
  - NIIP = foreign assets owned by US residents - US assets owned by foreigners
  - CA is a flow, NIIP is a stock. Thus, CA = ΔNIIP
CA and NIIP for the US

- A dramatic change in the NIIP of the US
  - Fueled by large imports from China etc
  - Suprisingly, it could be much more than that if the value of US owned domestic assets did not appreciate so much!

Figure: US CA and NIIP at market value. Source: Schmitt-Groche and Uribe 2010
CA and NIIP for the US

- A dramatic change in the NIIP of the US
  - In the past, many cases of large CA deficits proved not sustainable
    - In fact, cases like Asian countries in 80s, Latin American countries in 90s experience large reversals in the international capital flows
  - Vivid debate of whether the US CA deficit is sustainable
  - Of the increase in CA deficit reveals increasing discrepancy between S,I
Global Imbalances over time

Figure: Current Account Imbalances. Source Feenstra and Taylor, International Macroeconomics, 2010
Global Imbalances over time

Figure: Current Account, Saving and Investment as a Fraction of GDP. Source: Feenstra and Taylor 2010.
Irish Tiger or Tortoise?

- Examples where GNI $<<$ GDP
- remember: GNI = GDP + Income Balance
- Profits shipped to foreigners a large part of GDP

Figure: Source: Feenstra and Taylor 2010
KEY QUESTION: US CA and China

- What are the implications of the rise of the Chinese economy for the US CA?

- A large part of US Trade deficit is accounted by Chinese imports
  - In 2008 US trade balance with China was -$268 Billion! (census.gov)
    - (more than 1/3 of the total US deficit)
  - In 1985 the same statistics was a mere -$6 Million!