The Balance of Payments

Costas Arkolakis
teaching assistant: Yijia Lu

Economics 407, Yale

January 2011

Motivation: International Economics

- **Study large-scale economic problems in inderdependent 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 conjuction 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

- **Current Account**

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

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

Current Account and Trade Balance

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

Country	TB/GDP	CA/GDP
Argentina	6.8	3.1
China	5.5	7.1
Ireland	11.8	-2.0
Mexico	-1.7	-0.6
Philippines	-8.9	2.3
United States	-5.7	-6.2

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 (eg. copyrights etc)

National Accounting

- GDP=Gross National Expenditure + 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 Unil. Transfers

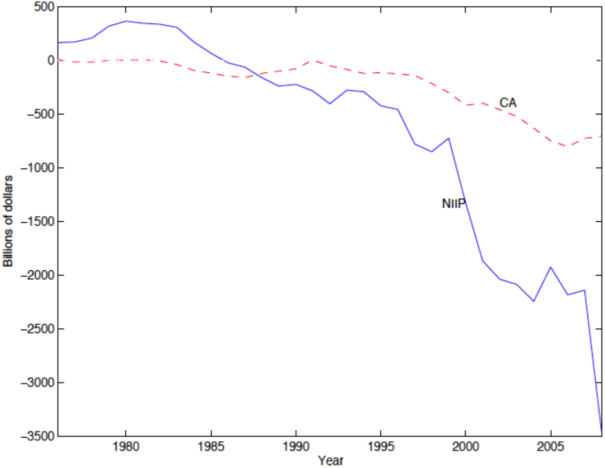
- GNDI=C+I+G+CA $\Longrightarrow$
  - National Saving=S$\equiv$GNDI-C-G=I+CA
  - Thus S=I+CA so that if CA>0 (CA Surplus) $\Longleftrightarrow$ S>I

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!

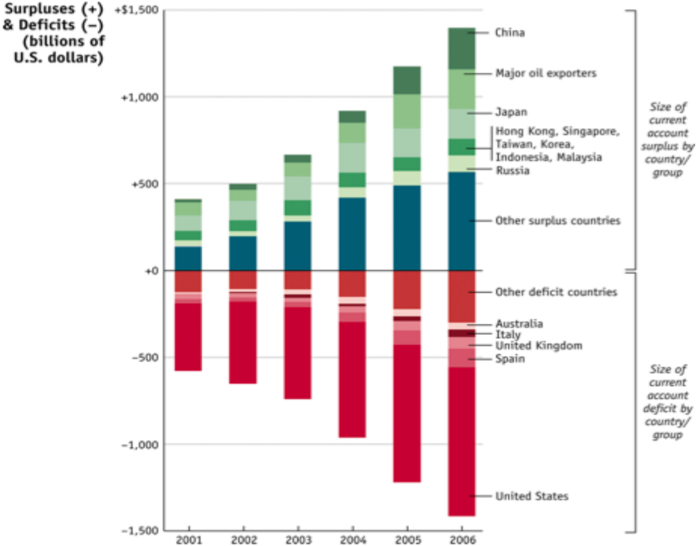


CA and NIIP for the US

- 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

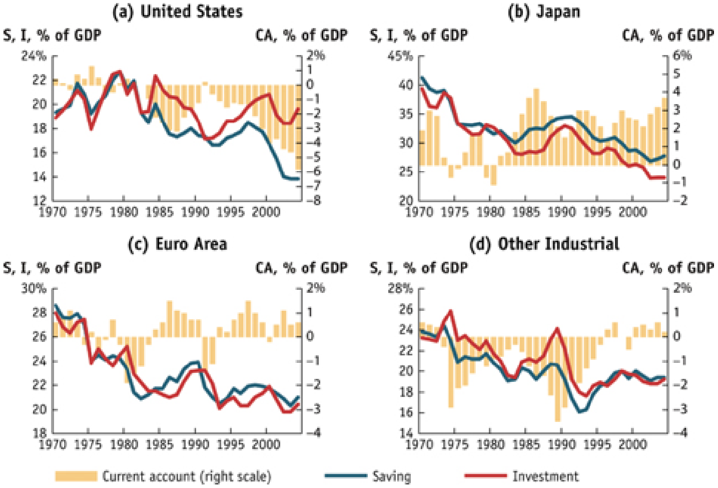
Global Imbalances over time

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

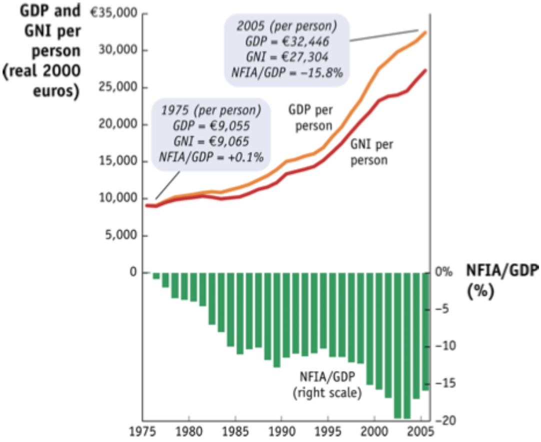


Figure: Source: Feenstra and Taylor 2010

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**!