National Income and Balance of Payments Accounting

Chapter 13
Outline

• GNP
• Government budget
• National saving
• National wealth
• Balance of payments accounting
Gross National Product (GNP) Product Approach

GNP is the market value of all final goods and services produced by a nation’s factors of production within a given time period (usually a year)

- Market value
- Final goods and services (sum value added because it automatically excludes intermediate goods)
- Factors of Production include labor, capital, and land
- Within a given time period
- GNP is output produced by domestically-owned factors of production
- GDP is output produced within a nation
- \( \text{GNP} = \text{GDP} + \text{NFP} \) (net factor payments from abroad)
Expenditure Approach

$\text{GNP} = Y = C + I + G + \text{EX} - \text{IM}$

- Measures total spending on final goods and services produced within a nation during a specified period of time
- Consumption (C)
- Investment (I)
- Government purchases of goods and services (G)
- Exports (EX) – Imports (IM)
Current Account

- $Y - (C + I + G) = CA = EX - IM$
- $EX$ is exports of goods and services
- $IM$ is imports of goods and services
- Examples
  - receipt of interest is payment for export of capital services
  - Purchase of a camera made in China is an import
National Income Accounts: GNP

Government Budget Deficit

• Deficit = G − T
  − G = expenditures on current real goods and services
  − T = tax revenue net of transfer payments

• Government saving – negative of the deficit, i.e. government surplus
  \[ S_g = T - G \]
Saving

• Private Saving = private disposable income – consumption
  \[ S^p = Y - T - C \]

• Government Saving = net gov income – gov purchases of goods and services
  \[ S^g = T - G \]

• National Saving = Private saving + gov saving
  \[ S = S^p + S^g = Y - C - G \]
Uses of Saving

\[
S = S^p + S^g = Y - C - G
\]

\[
Y = C + I + G + EX - IM
\]

\[
S = I + EX - IM
\]

\[
CA = EX - IM
\]

\[
S = I + CA
\]
National Wealth

- Domestic physical assets (capital and land) plus net foreign wealth (foreign physical and financial assets minus foreign physical and financial liabilities)
- Wealth changes due to capital gains and losses
  - national saving ($I + CA$)
Fig. 13-2: U.S. Current Account and Net Foreign Wealth, 1976–2009
BOP Accounting
General Rules

• Transactions requiring payments to foreigners are debits (-)
  – Imports of goods, services, or assets
  – Payment of interest income

• Transactions resulting in receipts from foreigners are credits (+)
  – Exports of goods, services, or assets
  – Receipt of interest income
BOP Accounts

- Trade Account - net exports of goods and services
- Current Account – net exports of goods and services plus net factor payments plus unilateral transfers
  - Unilateral transfers = payments made in exchange for nothing (gift is a debit on CA – need to pay foreigners)
  - Interest receipt is payment for export of capital services
- Let EX be exports inclusive of factor payments
- Let IM be imports inclusive of factor payments
- $CA = EX - IM$
BOP Accounts (cont)

• Financial Account – net export of assets
  – Asset is a way of holding wealth
  – Assets include stocks, bonds, factories, gov. debt, money
  – Domestic resident purchases a German factory
    • net import of asset
    • requires payment to foreigners
    • resulting in a debit (-)

• Official Reserve Transactions (sub-account of financial account) net export of official reserve assets

• Capital Account – non-market asset transfers
  – US forgives a debt is a debit on capital account
  – Small and unimportant for US
## Double-Entry Bookkeeping

<table>
<thead>
<tr>
<th>Account</th>
<th>Credit</th>
<th>Debit</th>
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</thead>
<tbody>
<tr>
<td><strong>Current Account</strong></td>
<td></td>
<td>-1,000</td>
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<tr>
<td></td>
<td></td>
<td>(import of good)</td>
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<td></td>
<td></td>
<td>-200</td>
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<tr>
<td></td>
<td></td>
<td>(service import – restaurant meal)</td>
</tr>
<tr>
<td><strong>Financial Account</strong></td>
<td>+1,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(export of bank deposit)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>+200</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(export claim on Visa card)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>-95</td>
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<tr>
<td></td>
<td></td>
<td>(Purchase foreign bond)</td>
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<td></td>
<td>+95</td>
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<td>(check – export demand deposit)</td>
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</tbody>
</table>
Account Balances

- Balance on Current Account = -1,200
  Balance on Capital and Financial Account = 1,200
- Financial Account surplus represents a capital inflow which is used to finance the Current Account deficit
- Current account + financial account + capital account = 0
- Statistical discrepancy – accounts don’t actually sum to zero
- Official settlements balance – net exports of official reserve assets (foreign exchange reserves)
  - Sub-account of financial account
  - Net exports of foreign exchange reserves can finance a deficit on the sum of the current account, the capital account and the non-official portion of the financial account.