National Income and Balance of Payments Accounting

Chapter 12
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
- GNP = GDP + NFP (net factor payments from abroad)
Expenditure Approach

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

- 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

Figure 12-1
U.S. GNP and Its Components

America's $11.1 trillion 2003 gross national product can be broken down into the four components shown.

Government Budget Deficit

• Deficit = $G - T$
  – $G$ = expenditures on current real goods and services
  – $T$ = tax revenue
• 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)

Source: Bureau of Economic Analysis, US Department of Commerce
US Current Account As a Percentage of GDP, 1960–2004

Source: Bureau of Economic Analysis, US Department of Commerce

Figure 12-2
A string of current account deficits in the 1980s reduced America’s net foreign wealth until, by the early 21st century, the country had accumulated a substantial net foreign debt.

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