Balance of Payment

Current account and Financial Account

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BOP accounting

- BOP = CA + FA

- CA:
  a country’s net exports of goods and services and net int’l income receipts.

- FA:
  difference between sales of assets to foreigners and purchases of assets held abroad.
Current Account

current account = trade balance + income balance + net unilateral transfer

- trade balance = merchandise trade balance + services balance
- income balance = net investment income + net international compensation to employee
- net unilateral transfers = the difference between gifts received from the rest of the world and gifts made by one country to foreign countries.
collection of identities

- BOP = CA + FA
- CA = TB + IB + NUT
- FA = HAF - FAH
- TB = MTB + SB
- IB = NI\text{I} + \Delta W

Fundamental BOP Identity : CA = - FA
GDP v.s GNP

- GDP: \[ Q = C + I + G + X - M \]
- GNP: \[ Y = C + I + G + X - M + IB \]

\[ \Rightarrow \]

- \[ TB = Q - C - I - G \]
- \[ CA = TB + IB + NUT = Y - C - I - G \]
Two-Period Model

<table>
<thead>
<tr>
<th>t=0</th>
<th>Revenue</th>
<th>Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>t=0</td>
<td>$B_0^*$</td>
<td></td>
</tr>
<tr>
<td>t=1</td>
<td>$Q_1 + r_0 B_0^*$</td>
<td>$C_1 + (B_1^* - B_0^*)$</td>
</tr>
<tr>
<td>t=2</td>
<td>$Q_2 + r_1 B_1^*$</td>
<td>$C_2 + (B_2^* - B_1^*)$</td>
</tr>
</tbody>
</table>

\[ C_1 + \frac{C_2}{1 + r_1} = (1 + r_0) B_0^* + Q_1 + \frac{Q_2}{1 + r_1} \]

Note: NPG $B_2^* = 0$
Saving, Investment and Current Account

- Saving = GNP - Consumption, i.e. \( S = Y - C \)
- Absorption = Consumption + Investment

Hence, we have

- \( CA_t = TB_t + r_{t-1}B_{t-1}^* \)
- \( CA_t = B_t^* - B_{t-1}^* \)
- \( CA_t = Y_t - A_t \)
- \( CA_t = Y_t - C_t - I_t = S_t - I_t \)