The Balance of Payments

Agenda

• The Balance of Payments
  ➢ Policy Analysis
  ➢ Capital Mobility

The Balance of Payments

• The supply and demand for a country’s currency can be summarized in its Balance of Payments
  ➢ A record of the economy’s international transactions

• The Balance of Payments consists of 3 parts
  ➢ The current account (C/A),
  ➢ The (private) capital account (K/A), and
  ➢ The official transactions account (OT/A)

The Balance of Payments

• The Current Account Balance includes:
  ➢ Net Exports of Goods and Services,
  ➢ Net Investment Income, and
  ➢ Net Transfer Payments

  ➢ Alternatively, currency inflows minus currency outflows

• For most countries, net exports account for most of the current account balance.

The Current Account

The Balance of Payments

• The Current Account Balance is given by:
  ➢ \( \frac{C}{A} = X - M \) - Imports
    ➢ Exports: \( X = X_0 + x*Y_f - \varphi*er \)
    ➢ Imports: \( M = M_0 + m*Y + \psi*er \)
  
  ➢ \( \frac{C}{A} = X_0 + x*Y_f - \varphi*er - M_0 - m*Y - \psi*er \)
  
  ➢ \( \frac{C}{A} = X_0 - M_0 + x*Y_f - m*Y - (\varphi + \psi)*er \)

The Balance of Payments

• The (Private) Capital Account Balance is
  ➢ Net purchases of domestic assets by foreign (private) residents MINUS
  ➢ Net purchases of foreign assets by domestic (private) residents

  ➢ Alternatively, currency inflows minus currency outflows
The Balance of Payments

• The (Private) Capital Account Balance is given by:
  - $K/A = \text{capital inflows} - \text{capital outflows}$
    - Capital inflows $= KI_0 + \mu \ast (R - R_w)$
    - Capital outflows $= KO_0 - \gamma \ast (R - R_w)$
  - $K/A = KI_0 + \mu \ast (R - R_w) - KO_0 + \gamma \ast (R - R_w)$
  - $K/A = KI_0 - KO_0 + (\mu + \gamma) \ast (R - R_w)$

The Capital Account

The Balance of Payments

• The (Private) Balance of Payments (BoP):
  - The Balance of Payments $= \text{the Current Account} + \text{the (Private) Capital Account}$
    - The current account is “financed” by the capital account.
    - The current account and the capital account are related but not mathematically identical.

The Balance of Payments

• When the (Private) Balance of Payments is in equilibrium (BoP):
  - The Balance of Payments $= \text{the Current Account} + \text{the (Private) Capital Account} = 0$
    - The can be represented by the BP line.

The Balance of Payments

• The BP line is the combinations of $Y$ and $R$ that establish equilibrium in the Balance of Payments for a given exchange rate
  - If $Y$ increase, $M$ increases and the C/A deteriorated
  - This must be offset by a higher $R$, which will increase capital inflows, increasing the $K/A$
Capital Mobility

- The slope of the BP line reflects the degree of capital mobility into a country.
  - The more responsive capital inflows are to changes in R, the flatter the BP line.
  - The greater the marginal propensity to import, the steeper the BP line.

- A flat BP line indicates either:
  - C/A is not very responsive to changes in Y or
  - K/A is very responsive to changes in R.

- A steep BP line indicates either:
  - C/A is very responsive to changes in Y or
  - K/A is not very responsive to changes in R.

Capital Mobility

- The slope of the BP line indicates the degree of capital mobility in a country
  - Horizontal: perfect capital mobility
    - Domestic R = World R
  - Vertical: complete capital immobility
    - Domestic R completely independent of world R
  - Upward sloping: partial capital mobility
    - Domestic R differs from the world R

The Balance of Payments

- What happens if we are off the BP line?

  R

  B

  BP

  A

  Y

  The Balance of Payments Surplus or Deficit

  - BoP Surplus exists when credits > debits
    - Above the BP line
      - Either Y too low or R too high.
      - And the domestic currency appreciates.
  - BoP Deficit exists when credits < debits
    - Below the BP line
      - Either Y too high or R too low.
      - And the domestic currency depreciates.
The Balance of Payments

• How is a Private Balance of Payments surplus or deficit financed?
  - Changes in the central bank foreign exchange reserves, i.e., in the OT/A.
  - This is foreign exchange intervention
    - Non-sterilized intervention
      - Affects the domestic money supply.
    - Sterilized intervention
      - Does not affect the domestic money supply.

The Balance of Payments

• Policies that Shift the BP Line
  - Exchange rate policies
    - Lower exchange rate, BP line shifts outward
  - Import controls
    - Fewer imports, BP line shifts outward
  - Export drives
    - More exports, BP line shifts outward
  - Capital outflow controls/capital inflow controls
    - Fewer capital outflows, BP line shifts outward
    - Fewer capital inflows, BP line shifts inward