Agenda

- Fiscal and Monetary Policy
- Multiplier and Accelerator
- Supply Side Economics
- Growth Accounting
- Balance of Payments Accounting
Fiscal Policy

Fiscal Policy – Changes in Government spending and Taxation

Effect on the National Income Accounting Framework

\( Y = C + I + G + (X-M) \):

- An increase in G increases Y
- A decrease in Taxes increases C
Monetary Policy

Monetary Policy – Changes in the money stock, credit or interest rates
In the US accomplished by three tools:
• Open market operations
• Changing reserve requirements
• Changing the discount rate

Short run (Keynesian) view:
• A decrease in Interest rates increases Investment

Long run (Classical) view:
• Monetary policy has no effect on Y (MV = PY)
Multiplier

\[ C = \bar{C} + C^*(1 - t)Y \]
\[ \bar{C} = \text{spending due to wealth effect} \]
\[ C^* = \text{propensity to consume} \]
\[ t = \text{tax rate} \]
\[ Y = \text{income} \]

Plug into the national Income accounting formula gives:

\[ Y = \frac{C + I + G + (X - M)}{1 - C^*(1 - t)} \]

Multiplier \( \sim 2.5 \) in the US

Example: increasing oil prices can be viewed as a tax increase
Accelerator

\[ I_t = \bar{I}_t + k(Y_{t-1} - Y_{t-2}) \]

\( \bar{I}_t \) = investment due to new technology
\( k \) = capital output ratio (avg. = 3, dependent on i)
\( t \) = period of time

If \( Y_{t-1} < Y_{t-2} \), then \( I \) goes to zero.

Example: interest rate decrease increases investment
Supply Side Economics

What Reagan believed:

• Savings (S) ↑ ⇒ Investment (I) ↑ ⇒ Output ↑ ⇒ Earnings (E) ↑ ⇒ Wages (W) ↑
• Work Effort ↑ ⇒ Output ↑ ⇒ Earnings (E) ↑ ⇒ Wages (W) ↑

Laffer Curve:
Growth Accounting

\[ O = A e^{\gamma t} K^\alpha L^{1-\alpha} \]

- **O** = Output (normally GDP)
- **A** = Total Factor Productivity (measure of the level of technology)
- **K** = Stock of Capital in the economy
- **L** = Labor
- **\( \alpha \)** = Share of capital paid to owners of capital (0.2 – 0.3 in US)
- **\( e^{\gamma t} \)** = Disembodied technological progress
Growth Accounting (2)

Per capita two possibilities for growth:
• Growth due to Technological Progress
• Growth due to accumulation of Capital

US: 80% technological progress, 20% capital accumulation

East Asian Question:
    Technological Progress or massive accumulation of capital and labor?
Balance of Payments Accounting

**Current Account**: transactions in goods and services (X-M)

**Capital Account**: transactions in financial assets

**Balance of payments** = current account + capital account

  = Use of funds + How they are financed

  = Change in Reserves (held in Central Bank)

Current Account Deficit financed by either:

- Capital Account surplus (inflow of funds from abroad)
- Payment of reserves (outflow of reserves from central bank)

Under a flexible exchange rate: $\Delta \text{ reserves} \sim 0$ (supply & demand)

So capital account surplus = current account deficit