Lecture 3: Basic Aggregate Demand Model

• From Lecture 2
  – GDP
  – Inflation Rate
  – Unemployment Rate
  – Trade and Budget Deficits [*]
Deficits

• Expenditure > Income
• Trade Deficit :
  – Imports > Exports
  – U.S. today (FED, Treasury, Japan)
• Budget deficit
  – Gov. Expenditure > Gov. Revenue
• Why do we care? Smoothing; Argentina… the US
Basic Aggregate Demand Model

• Goal: Determine equilibrium output
• Short-run
• A bit more complex than standard micro demand and supply
  – Feedback
• Shortcuts (isolate one effect)
First Model: The Goods Market

Production → Income

Demand

Demand Determined Output

• Aggregate demand (Z):
  – \[ Z = C + I + G + (X-Q) \]

• Aggregate supply:
  – fixed P
  – as much as needed to satisfy demand

• Model:
  – behavioral equations
  – equilibrium conditions
Behavioral Equations

- $X-Q = 0$ (for now)
- $G$ and $I$: constant
- $C = c_0 + c_1 Y_D$; $c_0 > 0$; $0 < c_1 < 1$
- $Y_D = Y - T$, $T$ constant

$$Z = (c_0 - c_1 T + I + G) + c_1 Y$$
Equilibrium

\[ Z(Y) = Y \]

\[ Y^* = \left( \frac{1}{1-c_1} \right) \times (c_0-c_1^*T+I+G) \]

multiplier autonomous spending
Comparative Statics

Fiscal contraction; consumption boom (stock market)

\[ Y^* = \left( \frac{1}{1-c1} \right) \times (c0-c1*T+I+G) \]