

Lecture 3: Basic Aggregate Demand Model

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

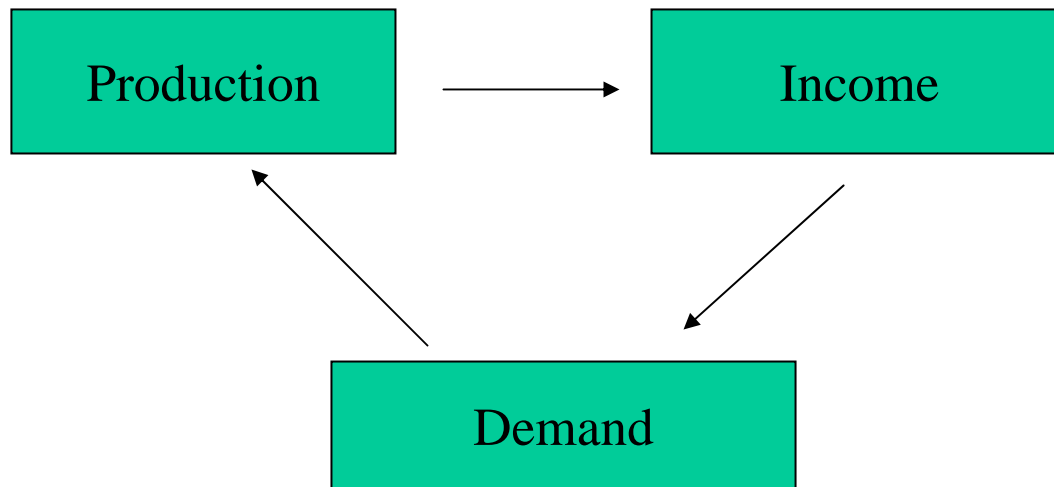
Deficits

- 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



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

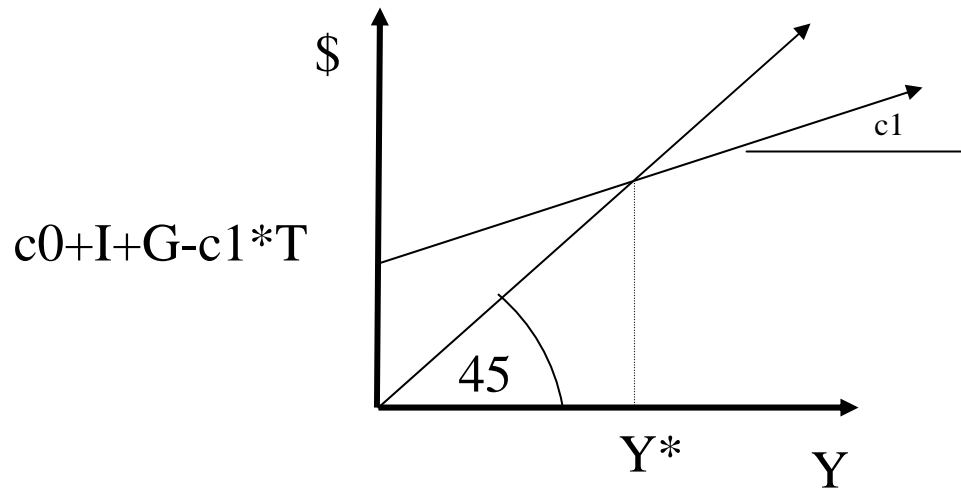
Behavioral Equations

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

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

Equilibrium

$$Z(Y) = Y$$

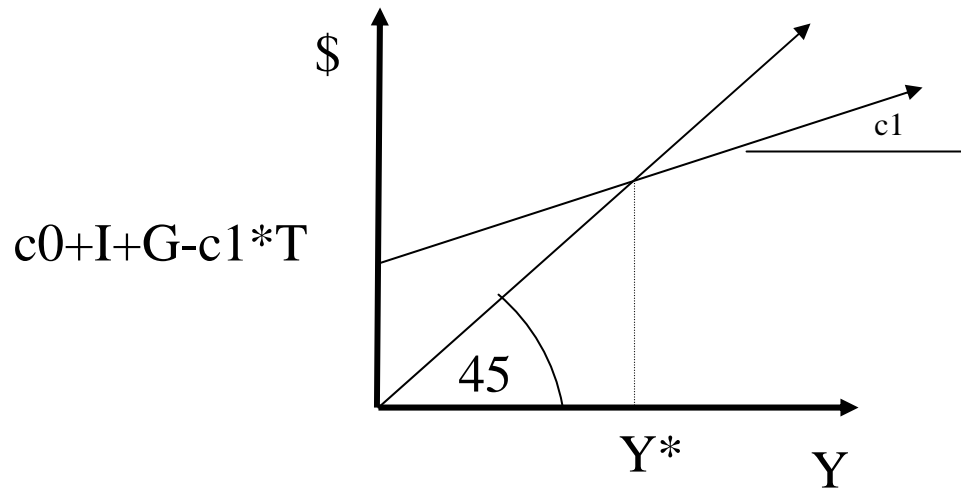


$$Y^* = \underbrace{(1 / (1 - c_1))}_{\text{multiplier}} * \underbrace{(c_0 - c_1 * T + I + G)}_{\text{autonomous spending}}$$

multiplier autonomous spending

Comparative Statics

Fiscal contraction; consumption boom (stock market)



$$Y^* = (1 / (1 - c1)) * (c0 - c1 * T + I + G)$$