ECON 402 Discussion: Week 6

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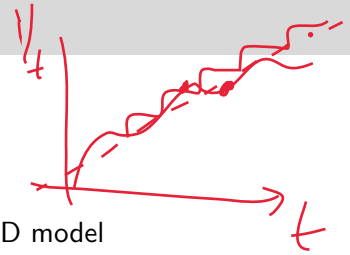
Announcements



- Exam 1 grades coming soon I promise!
- This week: business cycles and government policy via AS-AD model

- Topics today
  1. Introduction
  2. Business cycle fluctuations
  3. Aggregate Demand (AD) the easy way
  4. Aggregate Supply (AS) in short- and long-run
  5. AS-AD model

Introduction

- Aggregate supply-aggregate demand (AS-AD) model
- What happens to short-run equilibrium if price level P changes? How can firms do this? Why would they want to, and when would they prefer not to (making prices "sticky")?
- How could the demand side of the economy lead to inflation (increases the price level)?

Introduction

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- Two big changes
  1. Drop perfect competition to assume monopolistic competition in supply side
  2. Relate short-run model (variable r but fixed P) to long-run (variable P but fixed K and A) to very long-run (variable K and A)

Business cycle fluctuations

- Three main goals
  1. Explain sources of "fluctuations" in output around trend growth (aka recessions/booms)
  2. Explain cyclicality and correlations between variables
  3. Study the effects of government policies aimed at "smoothing" the business cycle

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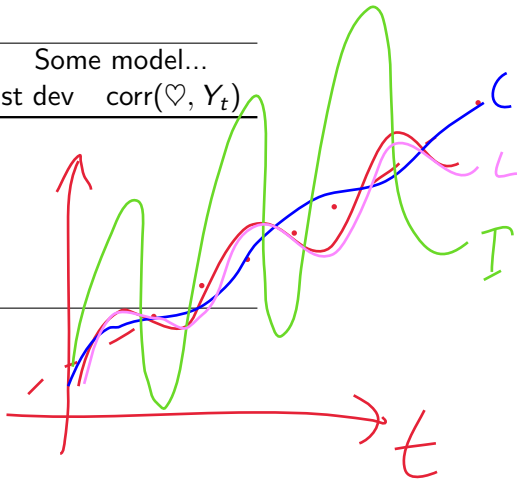
- Examples of government policies
  1. Fiscal policy = government spending G and taxation T (Congress)

  2. Monetary policy = regulate money supply M via changes to short-run interest rates r, driven the return Fed pays private banks to hold reserves, which affects rate at which banks lend to each-other (FFR), and hence rates they charge consumers and firms (other vibes: reserve requirements, bond purchases, etc.)

  3. Some other policy?

Business cycle fluctuations

	US data		Some model...	
$\heartsuit$	st dev	corr($\heartsuit$, Y_t)	st dev	corr($\heartsuit$, Y_t)
Y_t	1.7	1		
C_t	0.8	0.7		
I_t	8.2	0.9		
L_t	1.6	0.8		
A_t	-	-		



Aggregate Demand (AD) the easy way

- The aggregate demand (AD) curve plots all combinations of price level P and output Y that give rise to a short run equilibrium

$$M \cdot V = P \cdot Y$$

$$Y = \frac{MV}{P}$$

where M is money supply and V is the velocity of money

- AD curve shifts to the right given expansionary monetary policy (increase M) and fiscal policy (increase G or lower T, higher V)

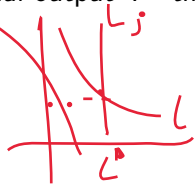
Aggregate Supply (AS) in short- and long-run

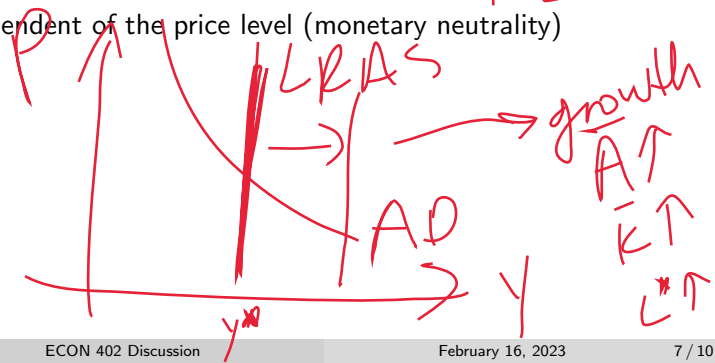
- Long-run aggregate supply (LRAS) curve plots the maximum potential output Y^* that given current resources used at normal capacity and technology

$$Y^* = F(\bar{K}, L^*; \bar{A})$$

where L^* represents equilibrium in the labor market

- LRAS is a real variable, so independent of the price level (monetary neutrality)





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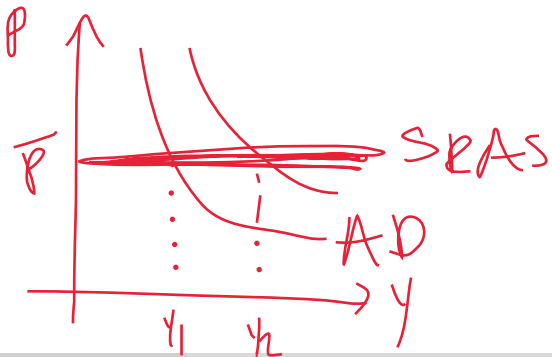

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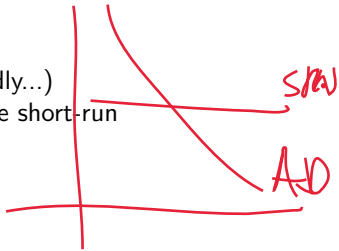
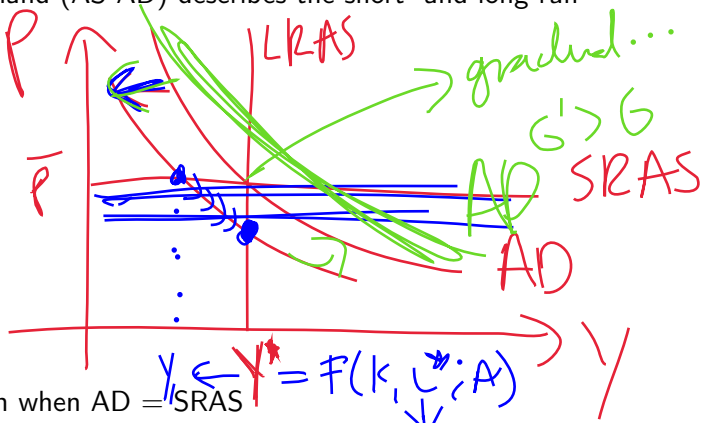
  - Other shifters: cost-push shocks, inflation expectations (supposedly...)
  - Can slope upward to allow for partial price adjustment even in the short-run



AS-AD Model

- Aggregate supply-aggregate demand (AS-AD) describes the short- and long-run equilibrium with three equations
  1. AD: $Y = \frac{M \cdot V}{P}$
  2. LRAS: $Y^* = F(K, L^*; A)$
  3. SRAS: $P = \overline{P}$



- Economy is always in equilibrium when AD = SRAS
- If this does not coincide with LRAS = AD = SRAS, then prices will adjust gradually (shifting SRAS) until all three curves intersect at same point

Example: recessions and what to do about them

1. Using the AS-AD model, illustrate what happens to the short- and long-run equilibrium when *something* causes AD to fall.

Example: recessions and what to do about them

1. Using the AS-AD model, illustrate what happens to the short- and long-run equilibrium when *something* causes AD to fall.
2. How can the government "speed up" the recovery with fiscal or monetary policy? Illustrate these responses graphically.