

# Lectures 21: Technological Progress and Unemployment

- $Y = F(K, A N)$  ... simplify to
- $Y = AN \quad \Rightarrow$
- $N = Y/A$
- Does employment rise or fall with an increase in  $A$ ? (Technological U – The Luddites -- France today)
  - The long run
  - The short run

# Back to AD/AS

- Figure 13-1
- In the short run, there could be insufficient demand...
- Figure 13-2: Does  $Y$  grow more or less than  $A$ ?
- Empirical evidence: Ambiguous

# Back to Price and Wage Setting

- Price setting

$$P = (1+\mu) W/A$$

- Wage setting

$$W = A^e P^e F(u,z)$$

# Back to the Natural Rate

- Natural: Expected = Actual

PS:  $W/P = A/(1+\mu)$

WS:  $W/P = AF(u,z)$

$$AF(u^n, z) = 1/(1+\mu)$$

Figure 13-4

# Sluggish A-expectations?

Figure 13-5 (sluggish  $A^e$  ?)

Figure 13-6

# The US During the 1990s

- Table 1 (page 276)
- Figure 13-2

# Inequality

- Tables 1 and 2 (page 279)
- Figure 13-7