Lectures 21: Technological Progress and Unemployment

- $Y = F(K, A, N)$ … simplify to
- $Y = AN$  =>
- $N = Y/A$

- 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

\[ P = (1+\mu) \frac{W}{A} \]

• Wage setting

\[ W = A^e P^e F(u,z) \]
Back to the Natural Rate

• Natural: Expected = Actual

PS: \[ \frac{W}{P} = \frac{A}{1+\mu} \]

WS: \[ \frac{W}{P} = AF(u,z) \]

\[ AF(u^n,z) = \frac{1}{1+\mu} \]

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