Lecture 15: Aggregate Supply-Aggregate Demand

- Current Events
- Aggregate Supply
- Aggregate Demand

The Natural Rate of Unemployment

• "Long Run"

$$P = P^{e}$$

• The wage and price setting relationships:

$$\frac{W}{P} = F(u,z)$$

$$\frac{\mathbf{P}}{\mathbf{W}} = 1 + \mu$$

=>

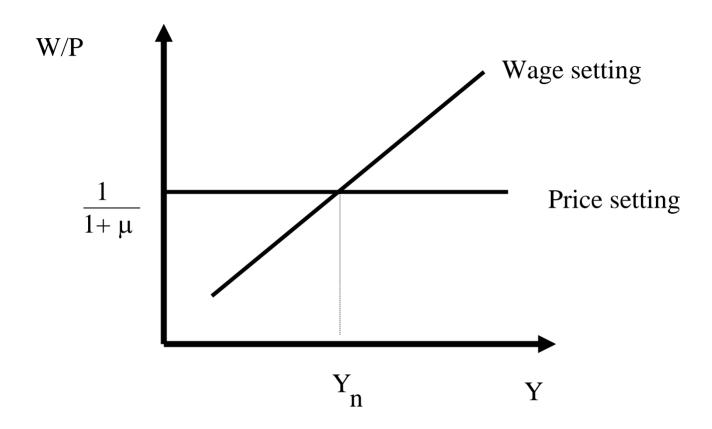
The natural rate of unemployment

$$F(u,z) = \frac{1}{1+\mu}$$

From u_n to Y_n

$$u = \frac{U}{L} = \frac{L - N}{L} = 1 - \frac{N}{L} = 1 - \frac{Y}{L}$$

$$F(1 - Y_n/L, z) = \frac{1}{1 + \mu}$$



z, markup

[note: A=1 again]

Aggregate Supply

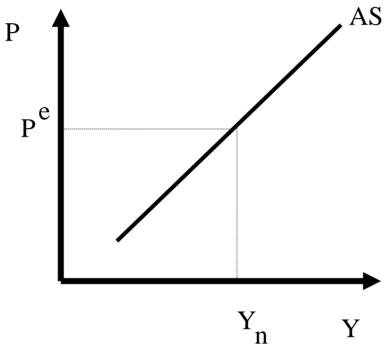
$$W = P^{e}F(1-Y/L,z)$$

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

$$=>$$

$$P = P^{e}(1+\mu)F(1-Y/L,z)$$

$$\mathbf{P} = \mathbf{P}^{e} (\mathbf{1} + \mathbf{\mu}) \mathbf{F} (\mathbf{1} - \mathbf{Y}/\mathbf{L}, \mathbf{z})$$



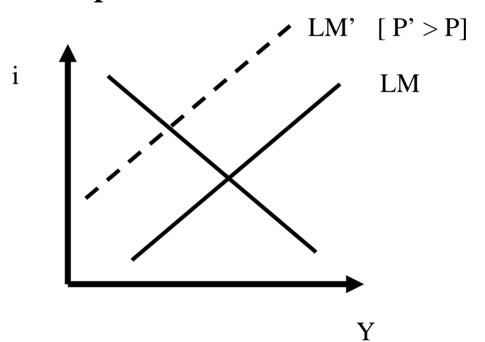
 $P^{e}(t) = P(t-1)$ [for now] =>

AS: $P(t) = P(t-1) (1+\mu) F(1-Y(t)/L,z)$

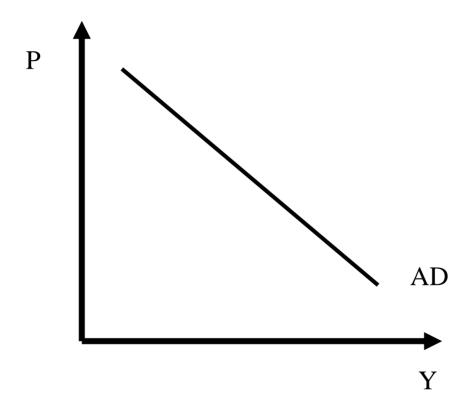
Aggregate Demand

IS:
$$Y = C(Y-T) + I(Y,I) + G$$

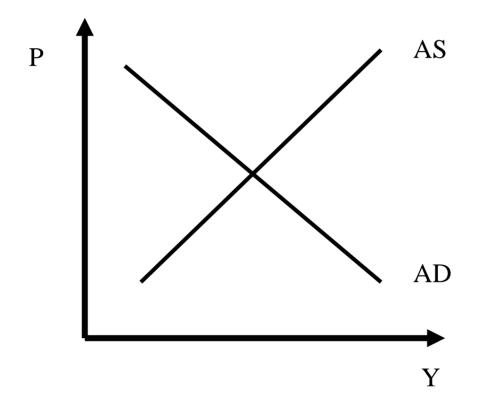
$$LM: \quad \frac{M}{\mathbf{P}} = Y L(i)$$



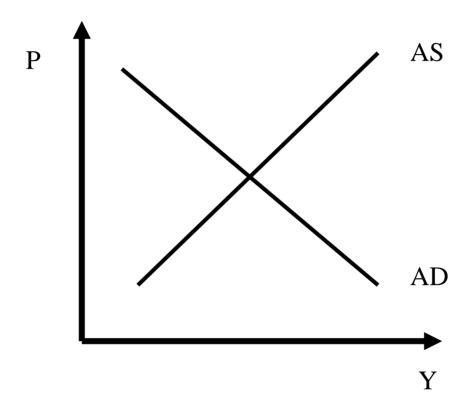
AD:
$$\mathbf{Y} = \mathbf{Y}(\mathbf{M/P}, \mathbf{G}, \mathbf{T})$$



Aggregate Demand - Aggregate Supply



AD-AS: Canonical Shocks



Monetary expansion; fiscal expansion; oil shock (figs 7-9/7-10/7-11)