

# Firms

$$Y = f(k, j) \quad k \geq k' \\ j \geq j'$$

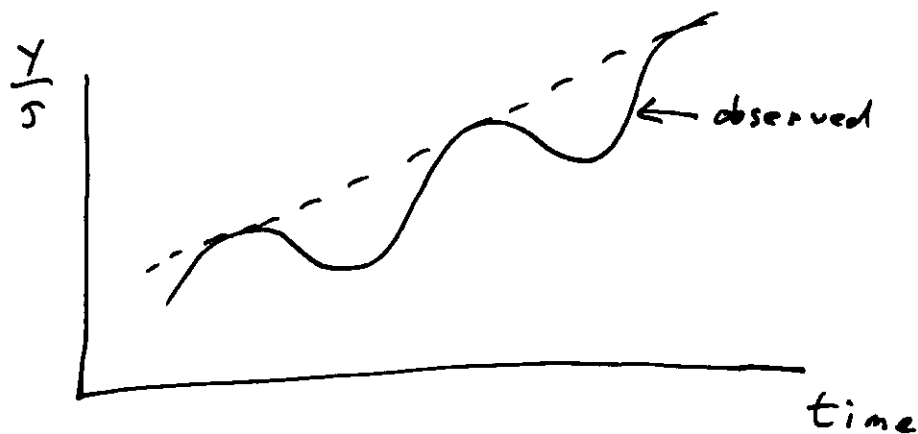
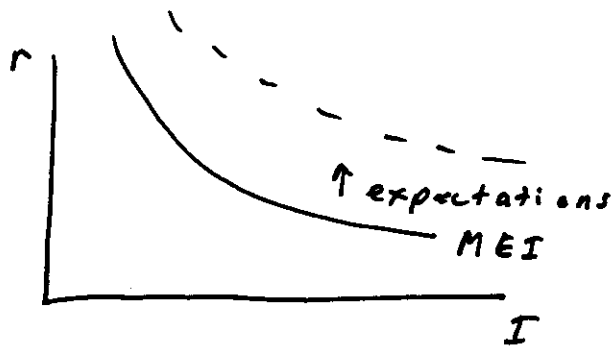
$$\text{Excess } L = j - j'$$

$$\text{Excess } k = k - k'$$

$$k = k_t + I - \text{DEP}$$

$$I = g_1(r, w, y^e, k_t - k_t')$$

$$j = g_2(r, w, y^e, j_t - j_t')$$



$$V = V_{-1} + Y - X$$

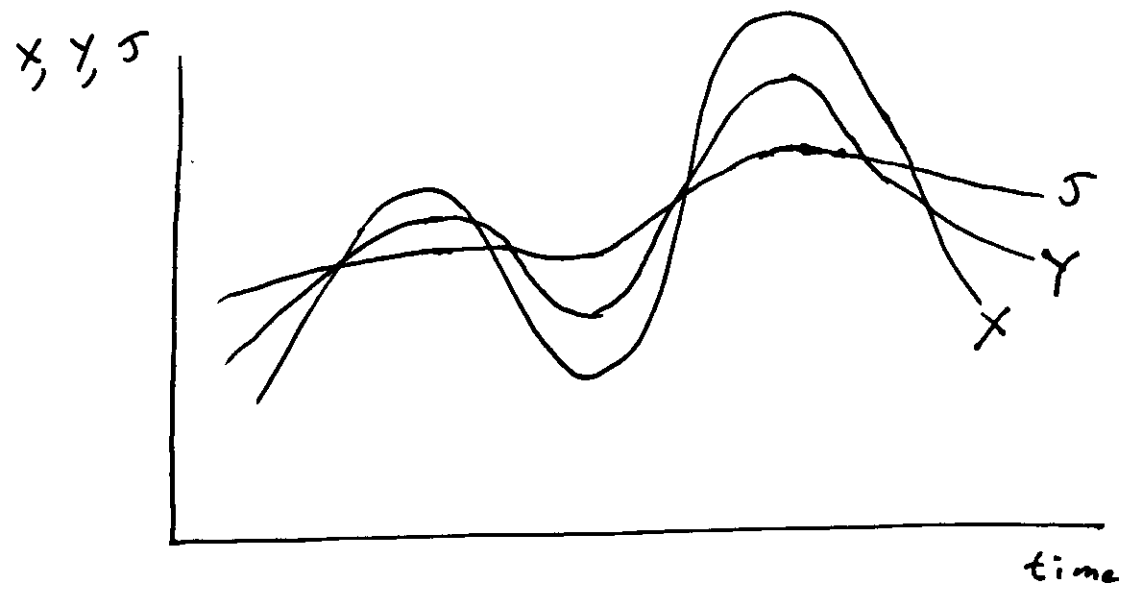
$$V^e = V_{-1} + Y - X^e$$

If  $X < X^e$ , then  $V > V^e$   
 $\quad \quad \quad > \quad \quad \quad <$

$$IV = V - V_{-1} \quad (\text{some may be unexpected})$$



$$Y = f(X_t^e, X_{t+1}^e, X_{t+2}^e, \dots, V_{-1})$$



STOCK MARKET: -\$1000 billion, Aug 1987 - Oct 1987

$$\frac{1}{20}(-1000) = -50 \quad ; \quad \frac{-50}{4000} = -1.25\% \quad ; \quad -50(1.7) = -70 \quad ; \quad \frac{-70}{4000} = -1.75\%$$