

$$SP = \frac{DIV^e}{(1+r)} + \frac{DIV_{+1}^e}{(1+r)(1+r_{+1}^e)} + \frac{DIV_{+2}^e}{(1+r)(1+r_{+1}^e)(1+r_{+2}^e)} + \dots + \frac{DIV_{+T}^e}{(1+r)(1+r_{+1}^e)(1+r_{+2}^e) \dots (1+r_{+T}^e)}$$

\_\_\_\_\_ + ...

\_\_\_\_\_ on

$$+ \frac{SP_{+T}^e}{(1+r)(1+r_{+1}^e)(1+r_{+2}^e) \dots (1+r_{+T}^e)}$$

What affects expectations?

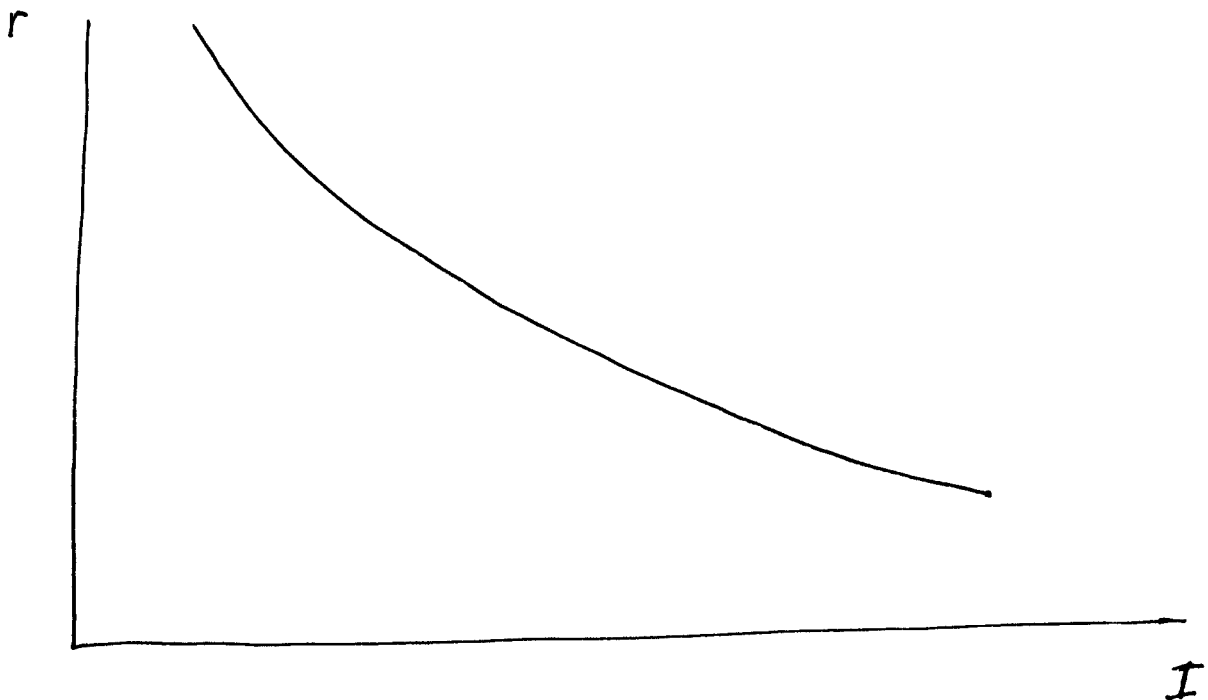
I depends on r

$$r \uparrow \Rightarrow I \downarrow$$

$$r \downarrow \Rightarrow I \uparrow$$

$$V_1 = -100 + \underbrace{\frac{25}{1.05} + \frac{30}{1.05^2} + \frac{35}{1.05^3} + \frac{22}{1.05^4}}_{99.4}$$

$$V_2 = -100 + \underbrace{\frac{25}{1.04} + \frac{30}{1.04^2} + \frac{35}{1.04^3} + \frac{22}{1.04^4}}_{101.7}$$



# IS-LM Model

IS

- (1)  $C = bY$  ,  $b > 0$
- (2)  $I = er$  ,  $e < 0$
- (3)  $Y = C + I + G$

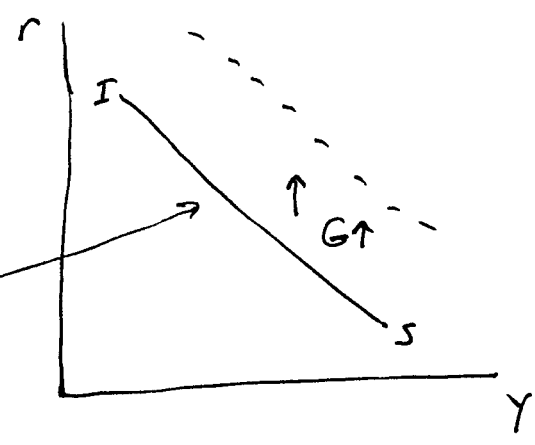
LM

- (4)  $M^d = gY + hr$  ,  $g > 0, h < 0$
- (5)  $M^s = M$
- (6)  $M^d = M^s$

$$Y = bY + er + G$$

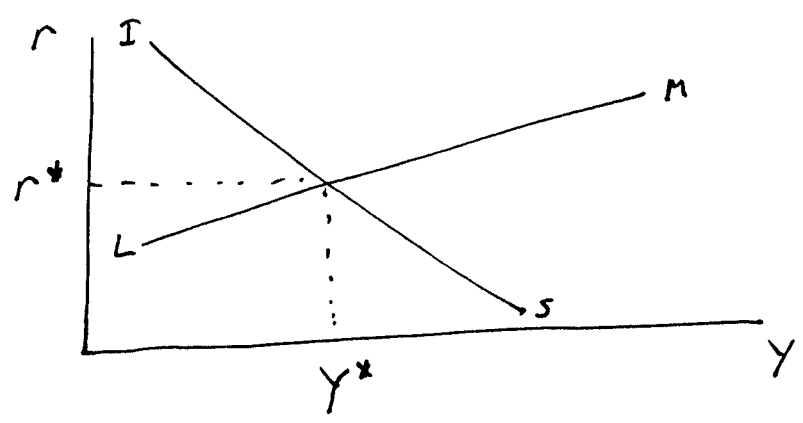
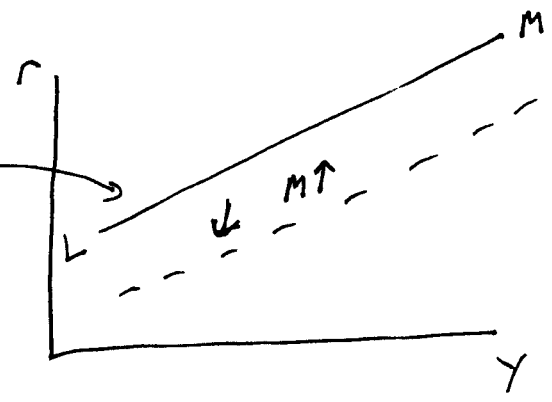
$$(1-b)Y = er + G$$

$$(3)' \quad Y = \frac{e}{1-b} r + \frac{1}{1-b} G$$



$$M = gY + hr$$

$$(6)' \quad Y = \frac{1}{g} M - \frac{h}{g} r$$



$$(IS) \quad Y = bY + e r + G$$

$$(LM) \quad r = -\frac{g}{h} Y + \frac{1}{h} M$$

$$Y = bY + e \left[ -\frac{g}{h} Y + \frac{1}{h} M \right] + G$$

$$(1 - b + \frac{eg}{h}) Y = \frac{e}{h} M + G$$

$$\left( \frac{h(1-b) + eg}{h} \right) Y = \frac{e}{h} M + G$$

$$(3)'' \quad Y = \left( \frac{e}{h(1-b) + eg} \right) M + \left( \frac{h}{h(1-b) + eg} \right) G$$

$$b = .8 \quad \frac{1}{1-b} = 5.0 \quad \frac{h}{h(1-b) + eg} = 2.5$$

$$g = .2$$

$$h = -.1$$

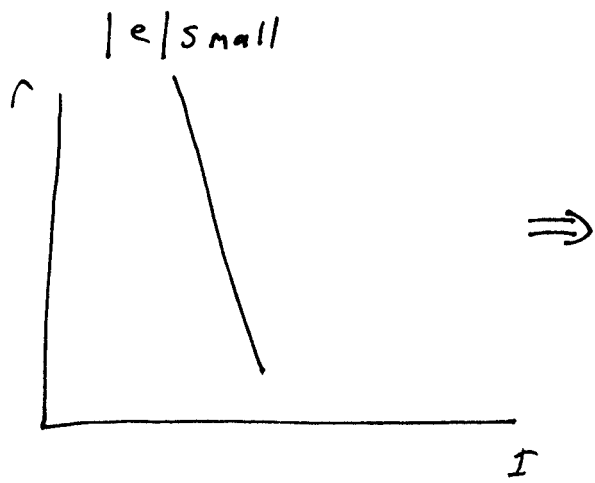
$$e = -.1$$

Endogenous :  $C, I, Y, M^d, M^s, r$

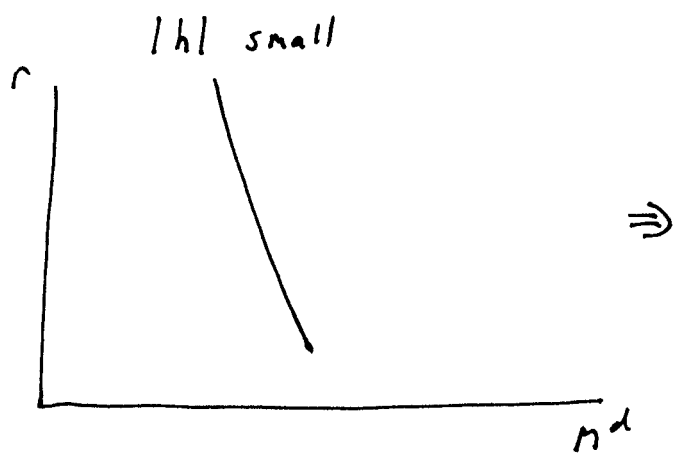
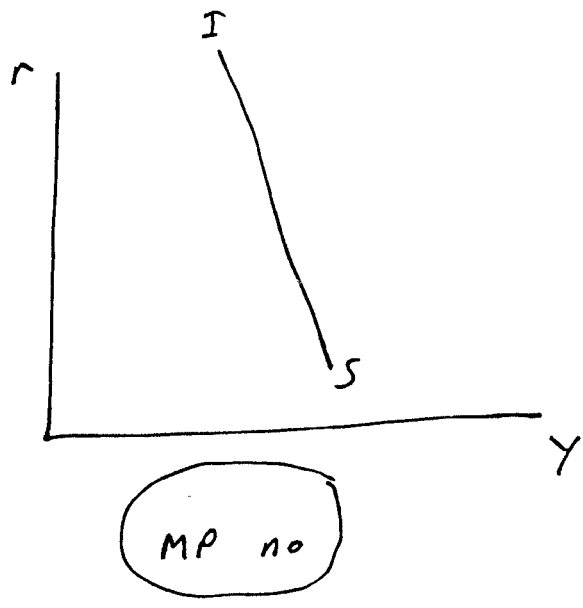
Exogenous :  $M, G$

(3)' is reduced form for IS

(3)'' is reduced form for IS-LM



$\Rightarrow$



$\Rightarrow$

