

EXPECTED INFLATION in IS/LM MODEL.

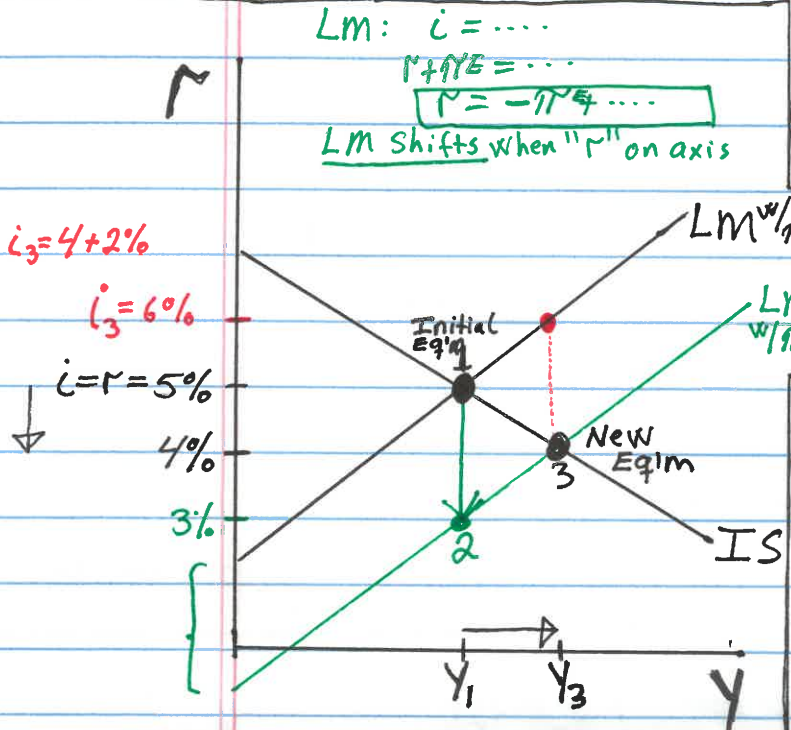
[For math, see handout on web]

LM curve: $i = \dots$ b/c Money demand depends i

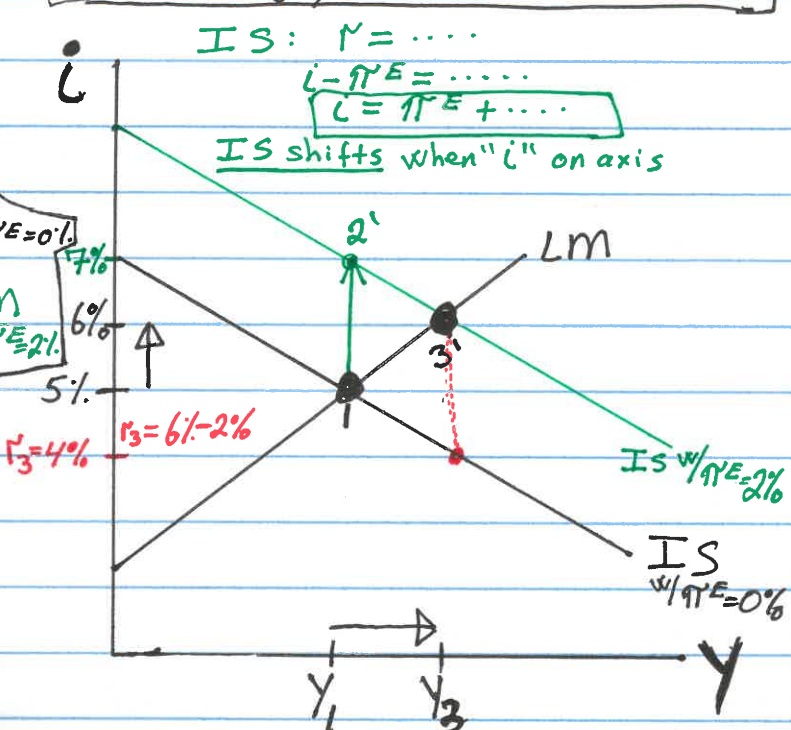
IS curve: $r = \dots$ b/c Investment depends on r

Fisher equation: $i = r + \pi^E$

Real interest on vertical axis



Nominal (i) interest rate on vertical axis



At point 1: $\pi^E = 0\% \rightarrow i = r$

say $i = r = 5\% \ \& \ Y = Y_1$

IF $\pi^E = 2\%$: LM shifts down by 2% (pt. 1 to pt. 2)

New eq'm at pt. 3: $r = 4\% \ \& \ Y = Y_3$

Fisher equation in first difference:

$$\Delta i = \Delta r + \Delta \pi^E$$

$$\Delta i = -1\% + 2\%$$

$$\rightarrow \Delta i = 1\%: \text{New } i = 6\%$$

$$\text{New } r = 4\%$$

IS shifts up by 2% (pt. 1 to 2')

New eq'm at pt. 3': $i = 6\% \ \& \ Y = Y_3$
 or $i \uparrow$ by 1% ($\Delta i = 1\%$)

$$\Delta i = \Delta r + \Delta \pi^E$$

$$1\% = \Delta r + 2\%$$

$$\rightarrow \Delta r = -1\%: \text{New } r = 4\%$$

$$\text{New } i = 6\%$$