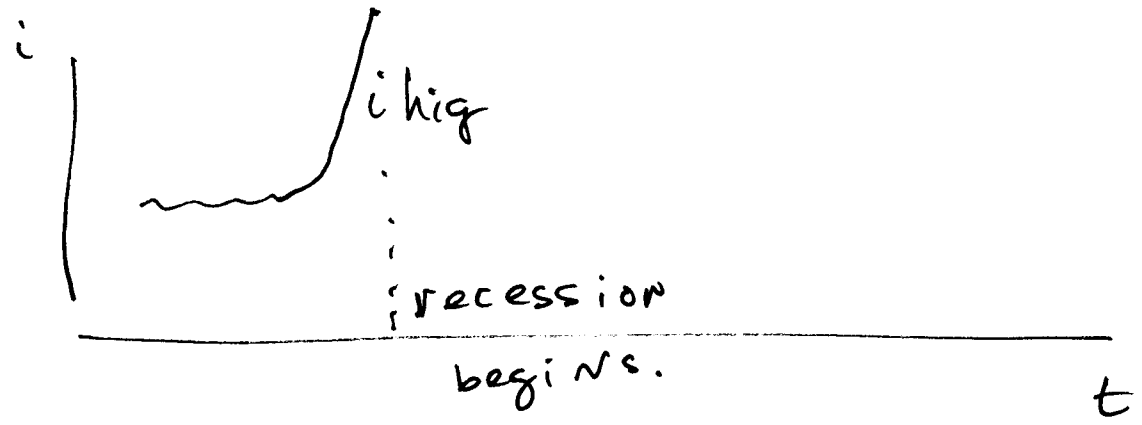
Econ 311

Outline

People talk about connection between Economy + interest rates. Totally missing from KC Model.

① Before every recession after WWII interest suddenly went very high.



"Fed caused ALL the recessions"

② 2001 recession Fed vigorously drove i down. Greenspan "saved the world".

Controversy: European Central Bank did not cut interest rates much during recession recession

Outline

1. Demand for Money.
   "transactions motive"

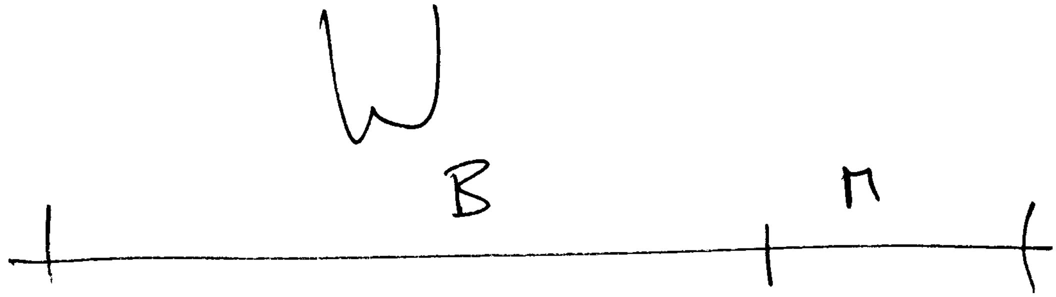
2. Supply of Money.
   (a) price of bond, payoff bond.
   (b) open market operations.

3. LM curve ("Liquidity demand = M curve")
   Money demand

   (a) Disequilibrium in asset markets
   (b) Shift in LM curve.

4. IS curve ("Investment = Saving")
   (a) Investment demand.
   (b) IS curve
   (c) Disequilibrium dynamics
   (d) Shift the curve.

5. Putting IS, LM together
   "IS-LM model".



M ~ no interest.

B ~ generate payments (equity, bonds, bank loans, ...)

<u>Money demand.</u>

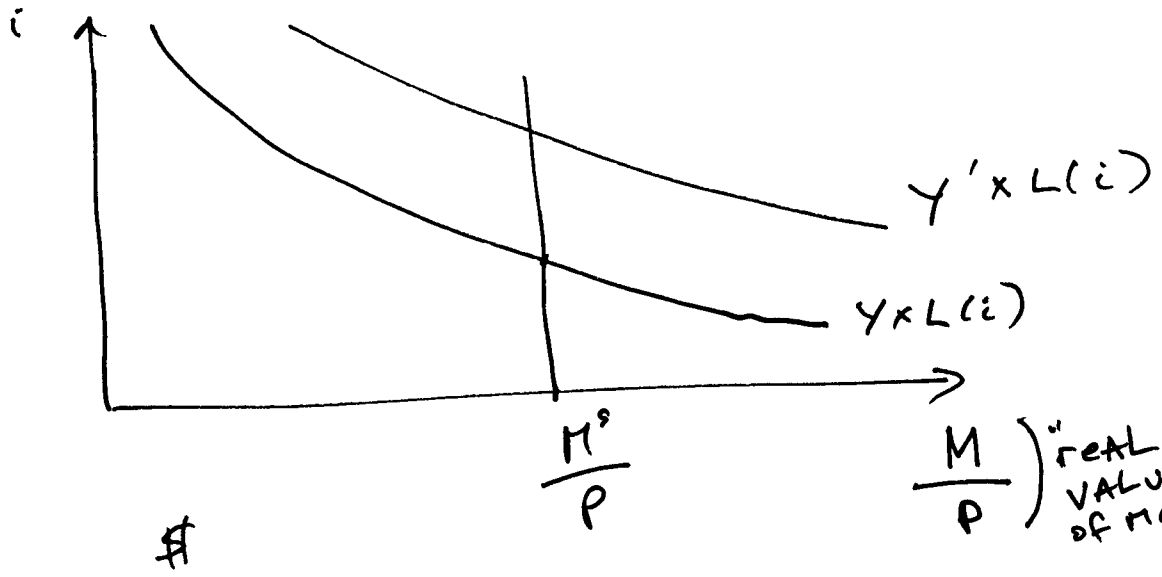
M is convenient for making transactions.

$$M^d = \underbrace{\#\text{transactions}}_{P \cdot Y} \times L(\underline{i})$$

$$= P \cdot Y \times L(\underline{i})$$

$$L(i) = \bar{L} - a i$$

($\bar{L} > 0$, $a > 0$)



$M^d = P \cdot Y \times L(i)$

$\left(\frac{M}{P}\right)^d = Y \times L(i)$

$Y' > Y$ more economic transactions, so for people to be content to hold M^s, Need i higher.

Money supply.

Bonds

B ~ entitles holder to payment, d.

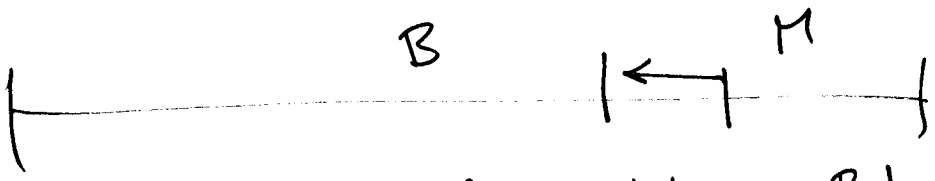
P_B ~ how much you pay for bonds

rate of return on bond

$$i = \frac{\text{what you get}}{\text{what you pay}} = \frac{d}{P_B}$$

$d = \$10$

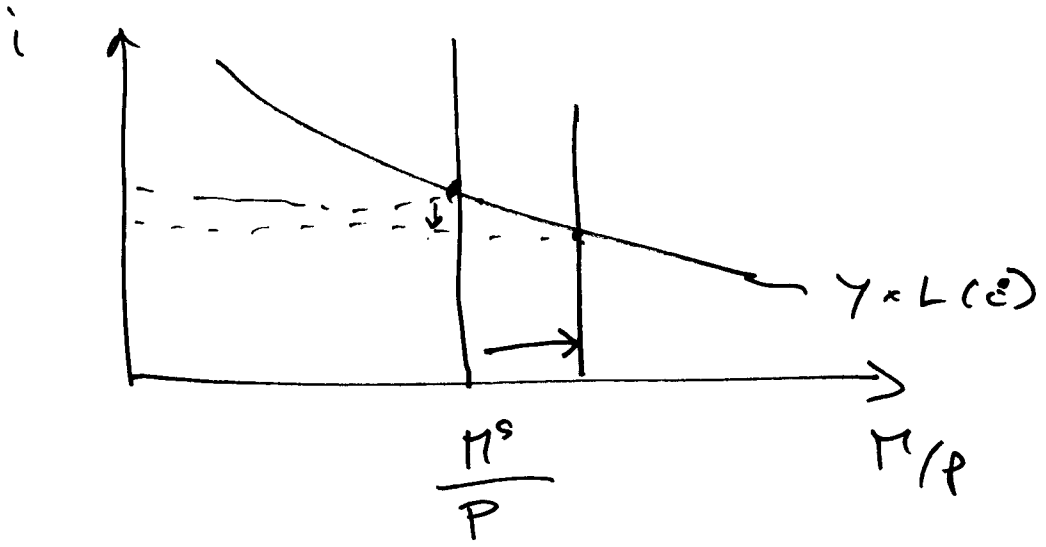
Pay ~ \$100



Buy bonds from the public B↓, M↑
in "open market operations"
Sell bonds to the public, B↑, M↓

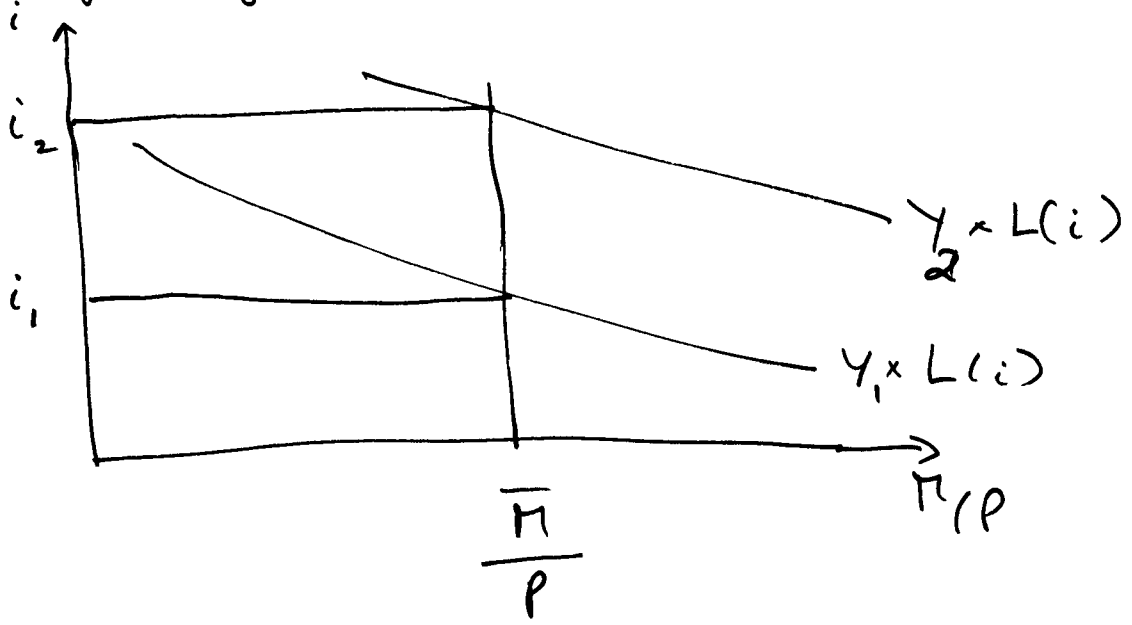
Fed goes & buys bonds $P_B \uparrow$, $i \downarrow$
increase M.

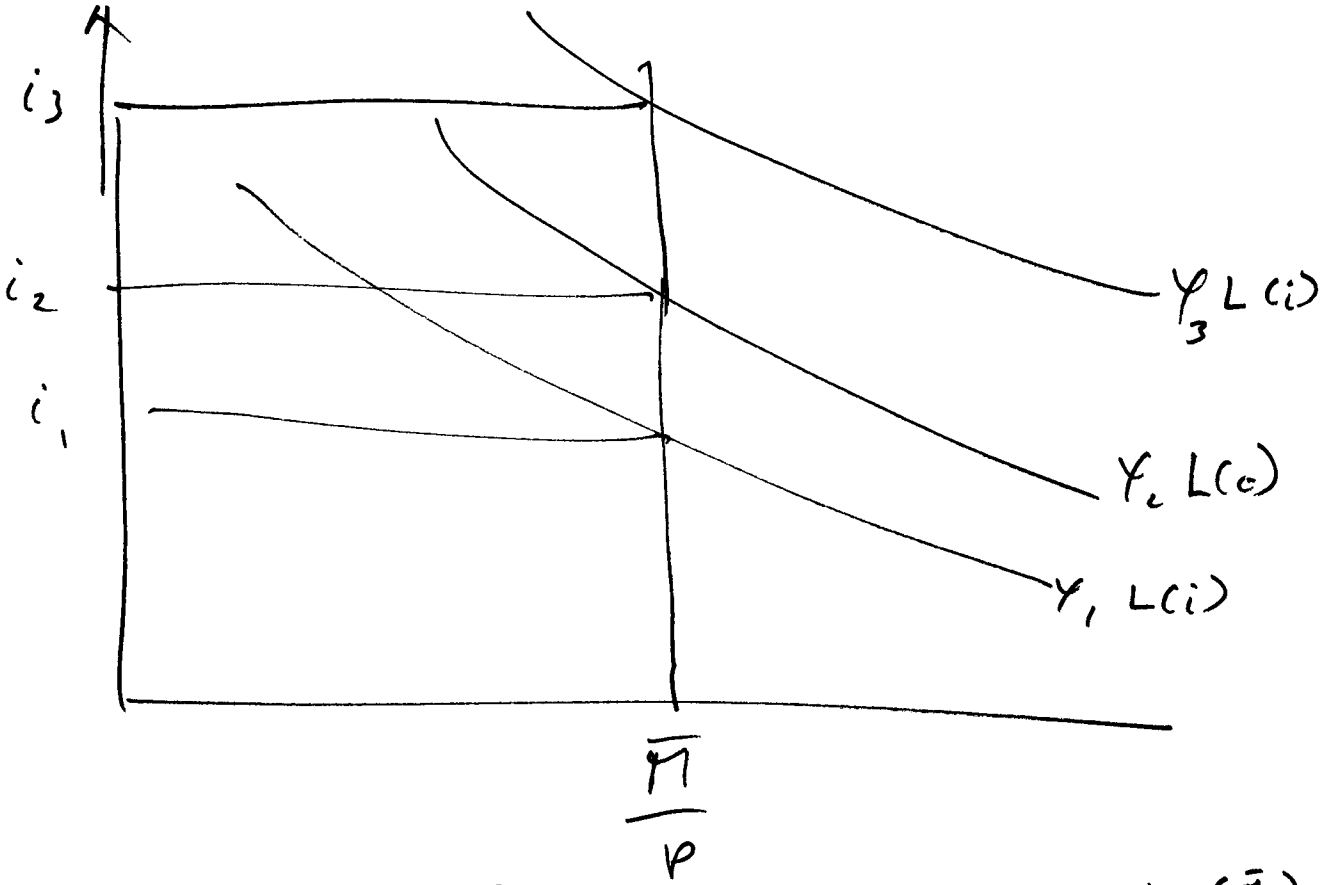
Fed decrease M sells bonds $P_B \downarrow$, $i \uparrow$

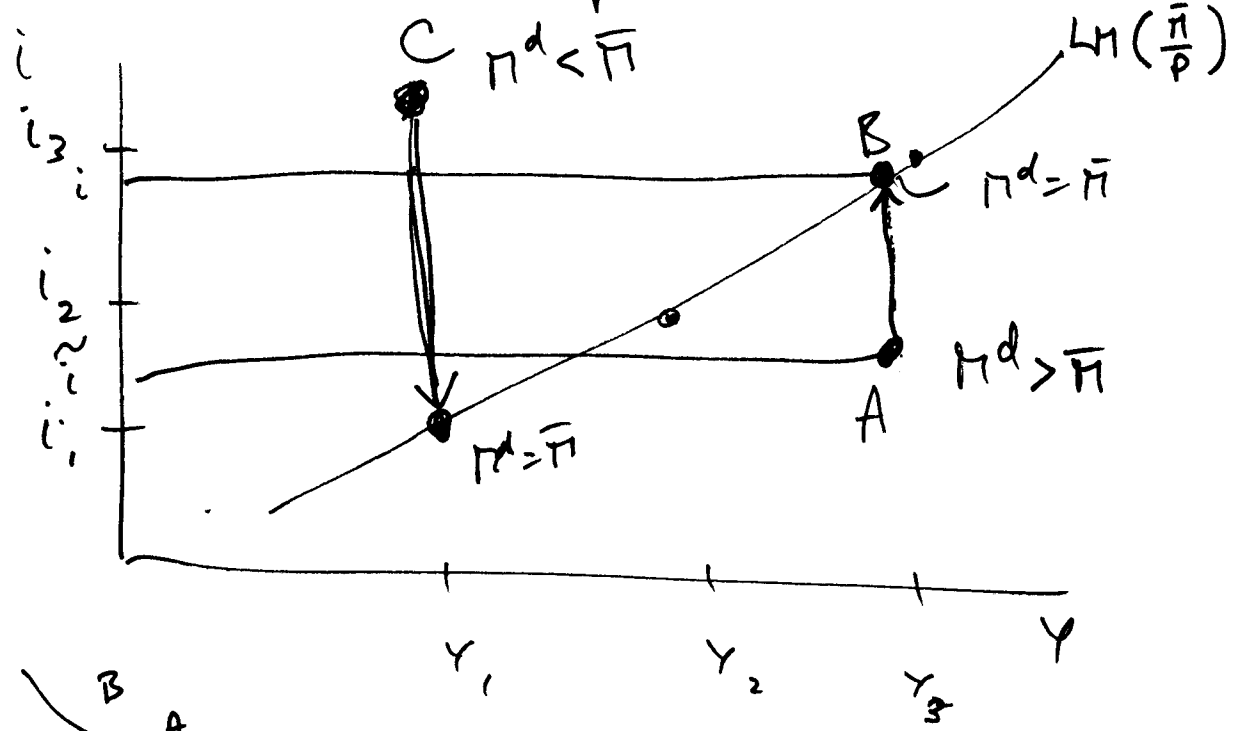


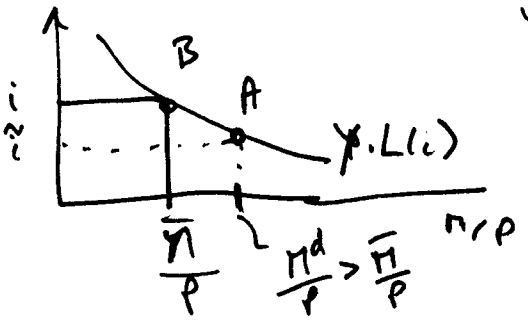
3. LM curve

Liquidity demand = M



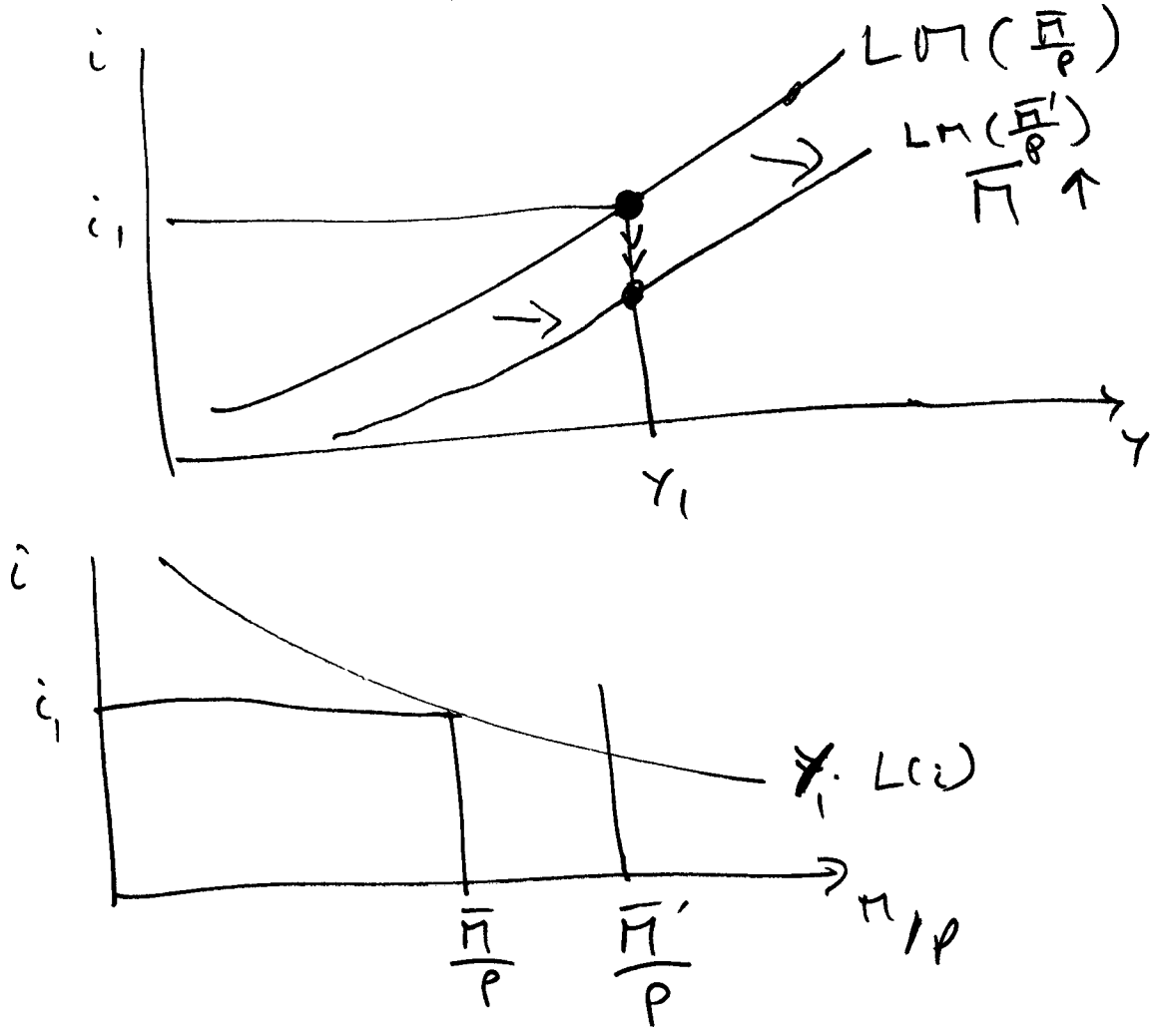






Disequilibrium Dynamics.

Shift in LM curve.



4. IS curve. "Moves

" Puts i in KC model & then graphs model in i/Y diagram"

(a) investment demand.

Firm MANAger.

Ohio ~ $100 oven expect $4/year increase in sales forever.

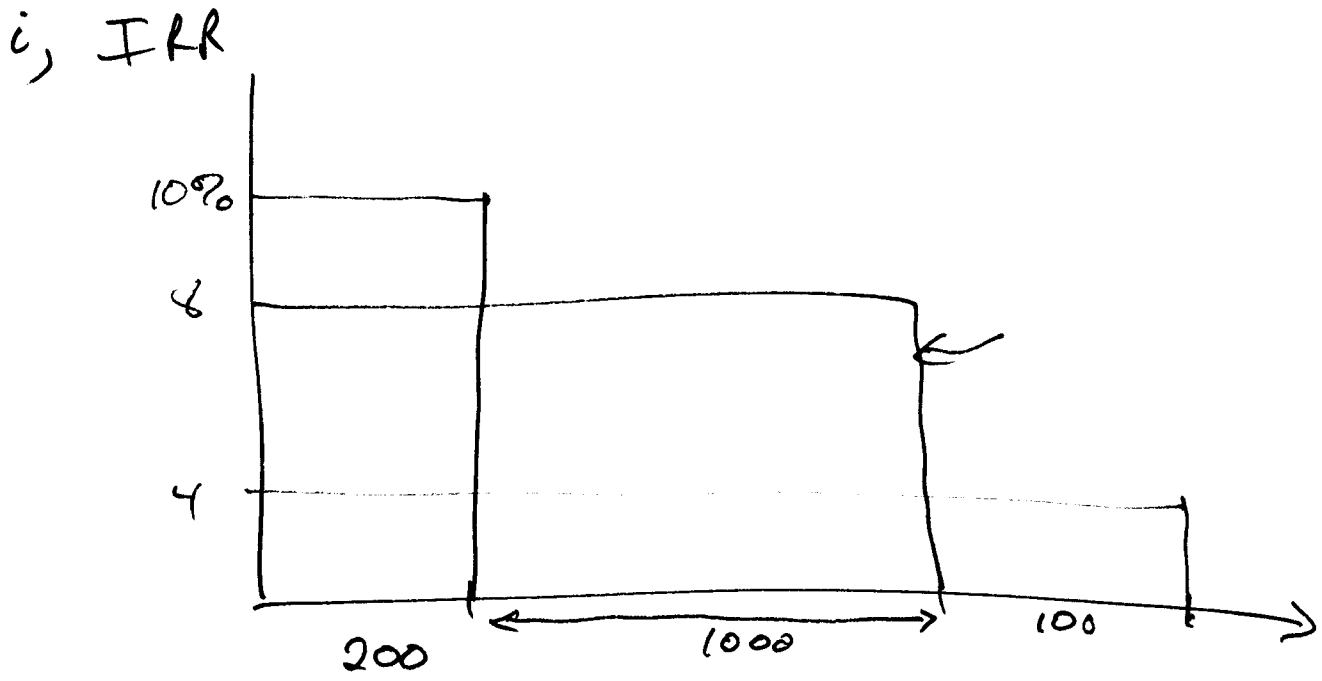
IRR (internal rate) 4% return.

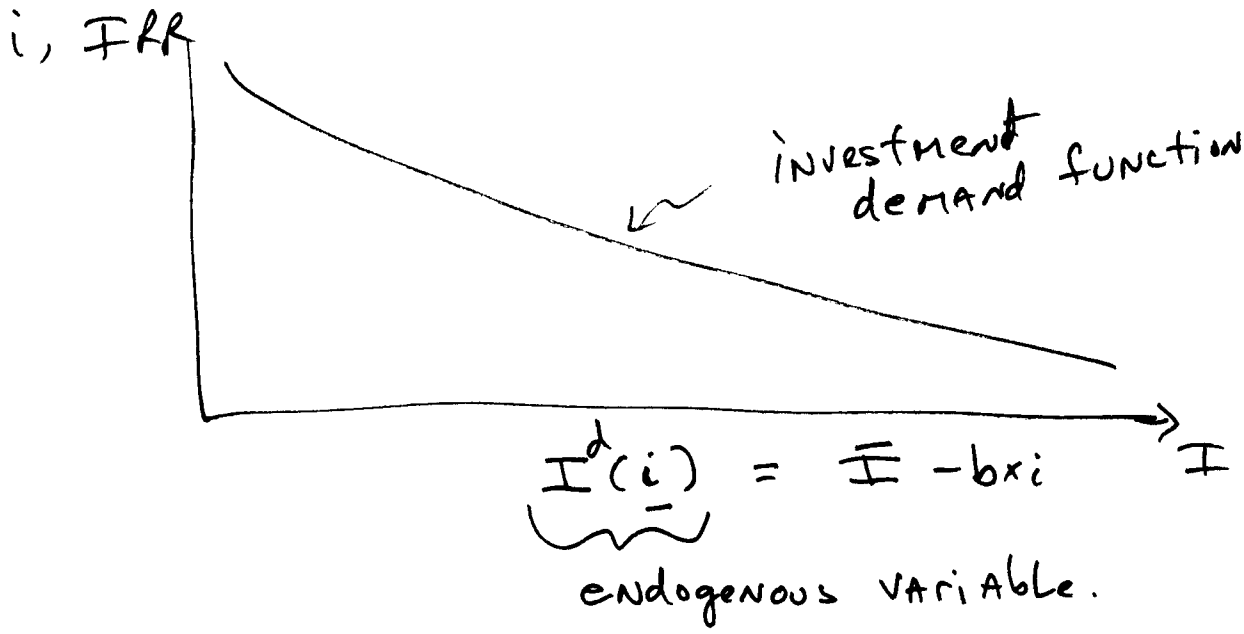
Illinois $1000 truck $80/year forever.

IRR 8%

Florida $200 pizza oven $20/year forever.

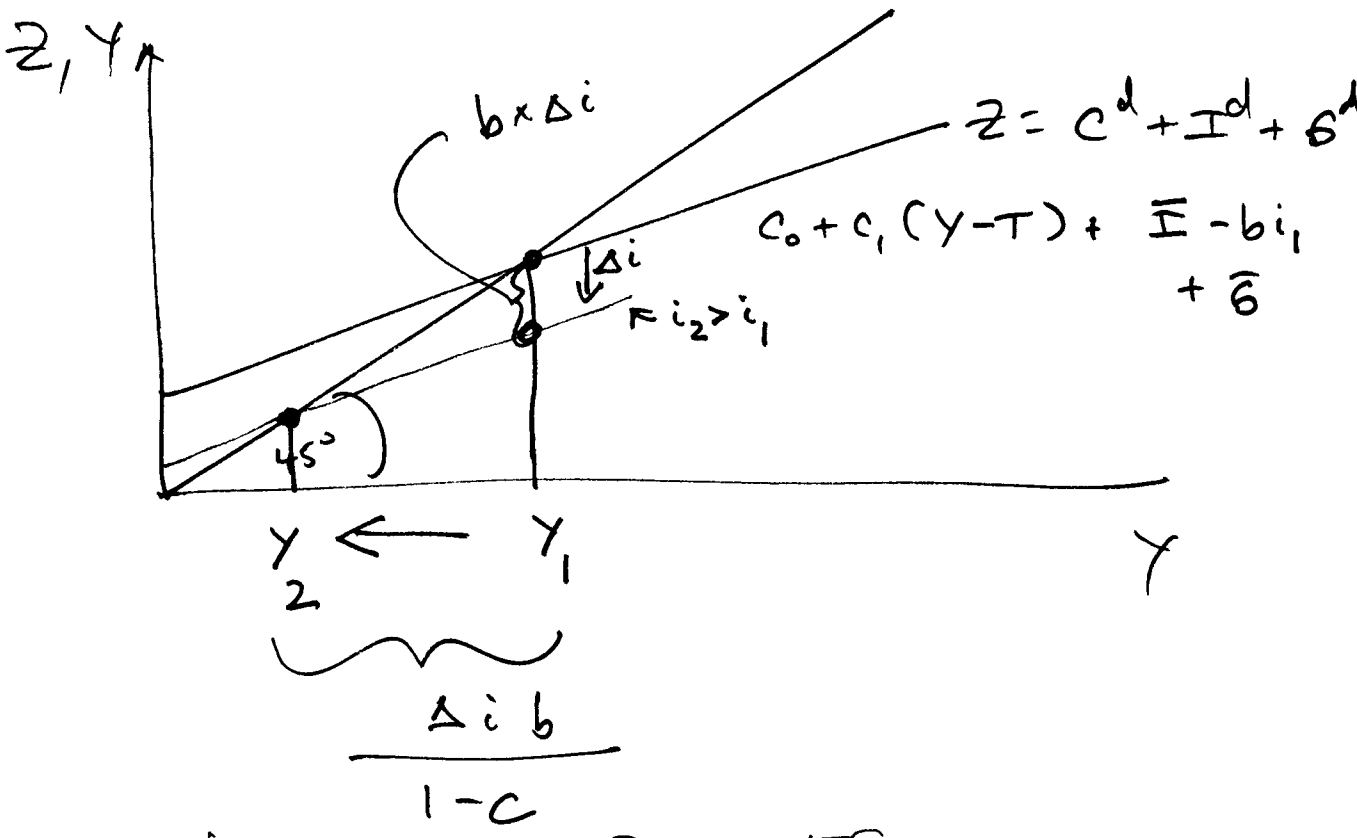
IRR 10%

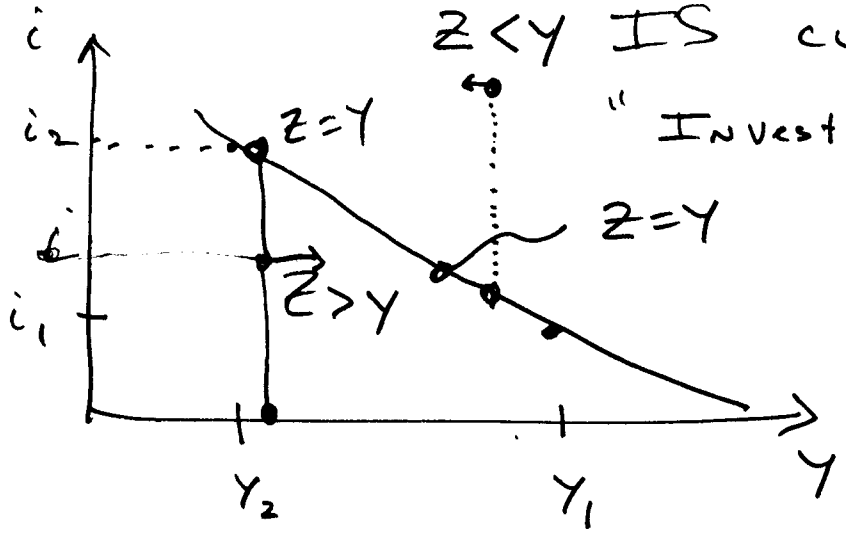




$I^d(i) = \bar{I} - bxi$

endogenous variable.

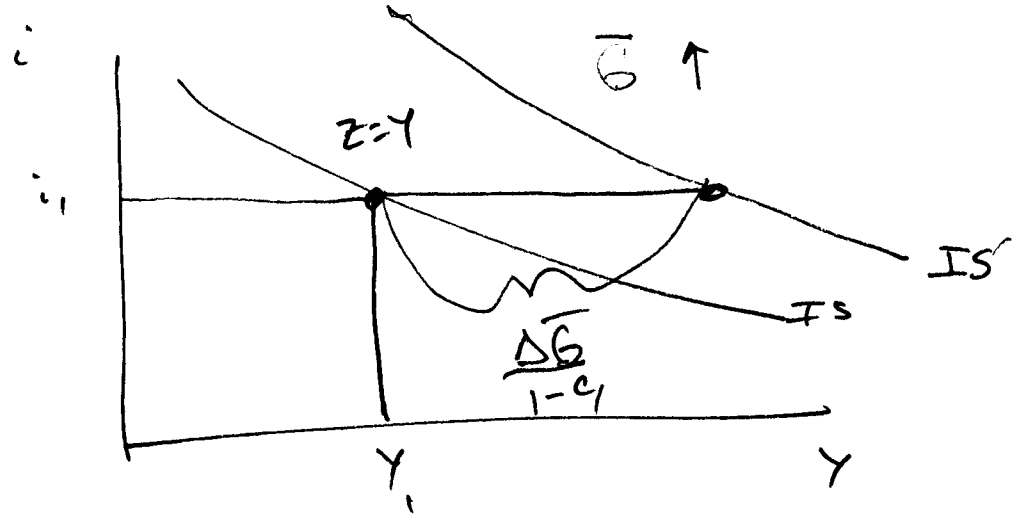




IS curve

"Investment = Saving"

Shift IS curve



$T\downarrow \Rightarrow$ right shift of $\frac{c_1 \Delta T}{1-c_1}$