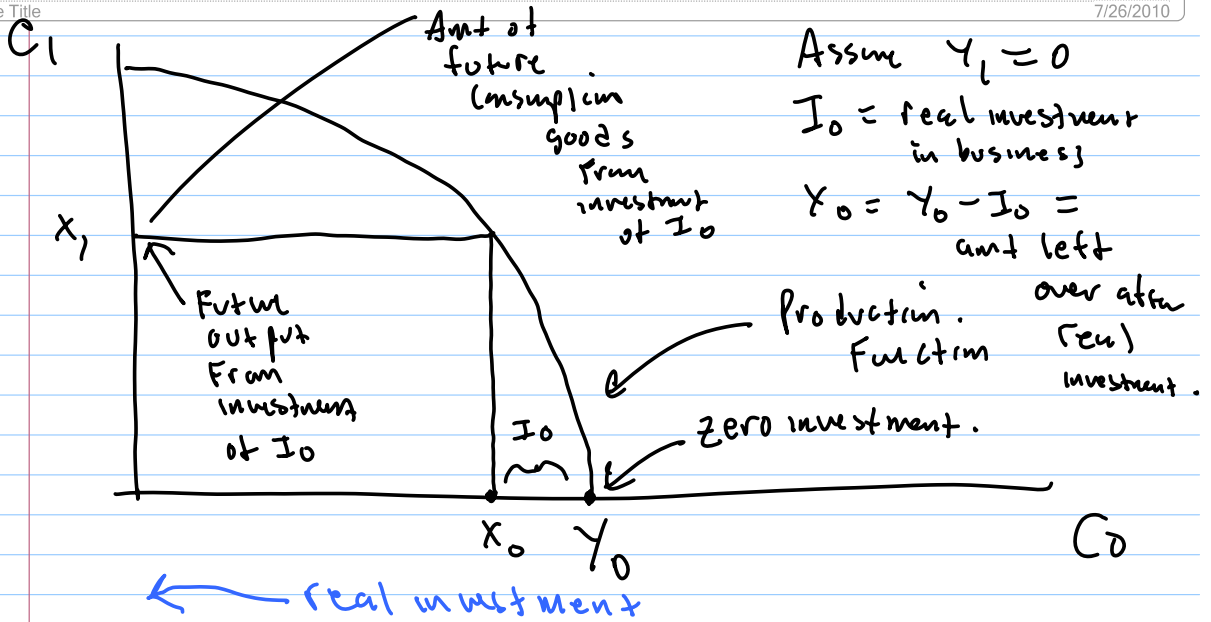


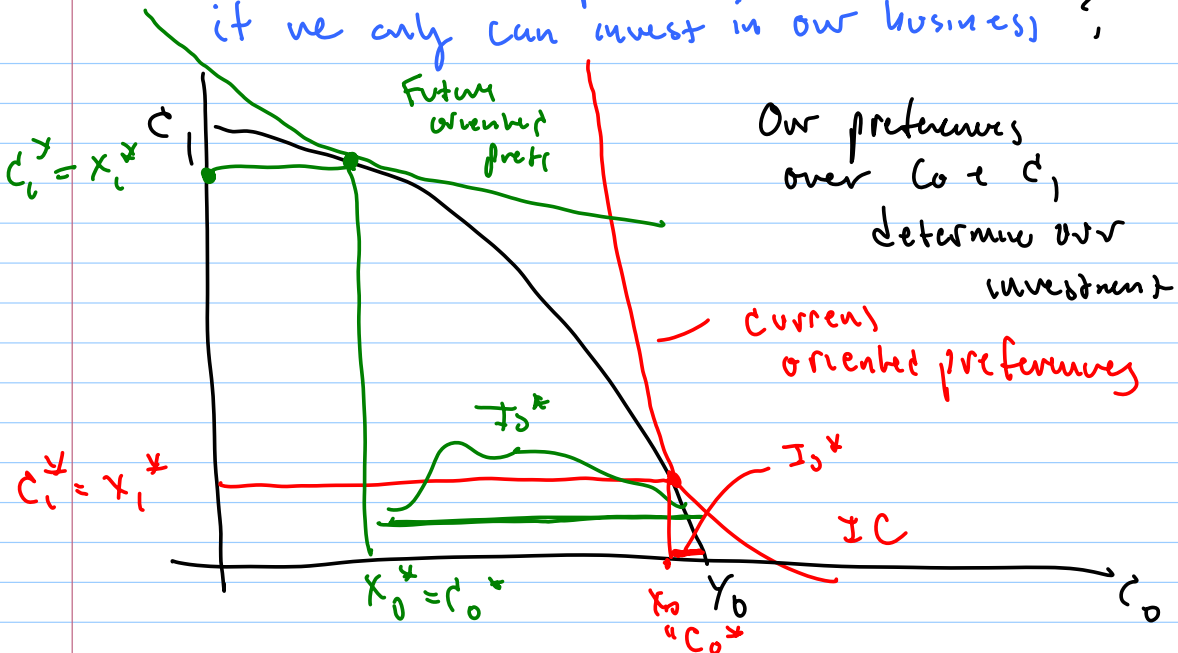
Exam 422 Lec 3

Note Title

7/26/2010

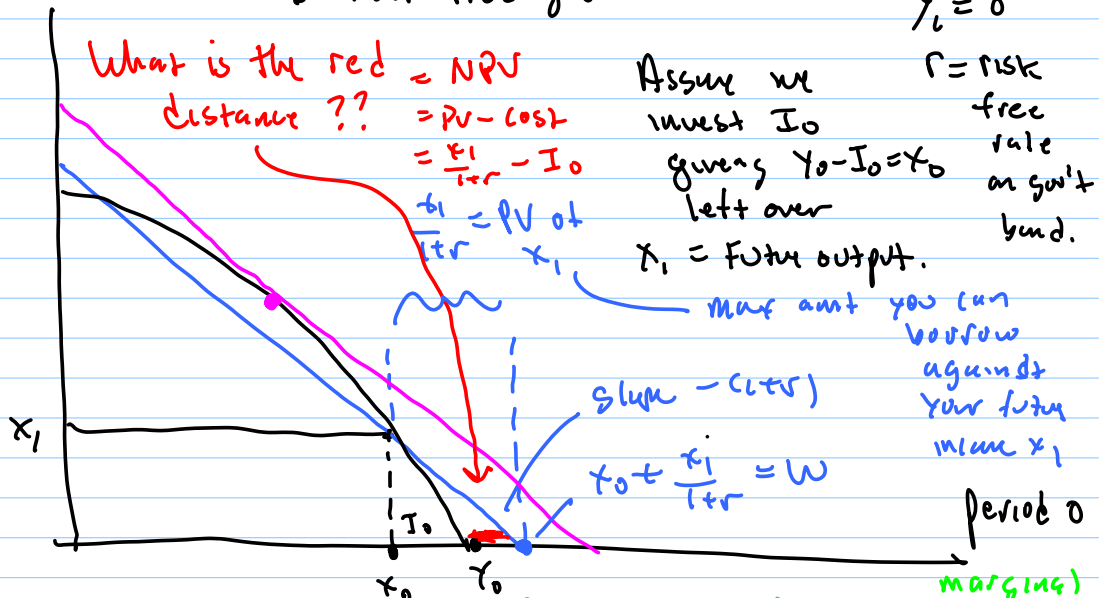


What determines optimal investment if we only can invest in our business?



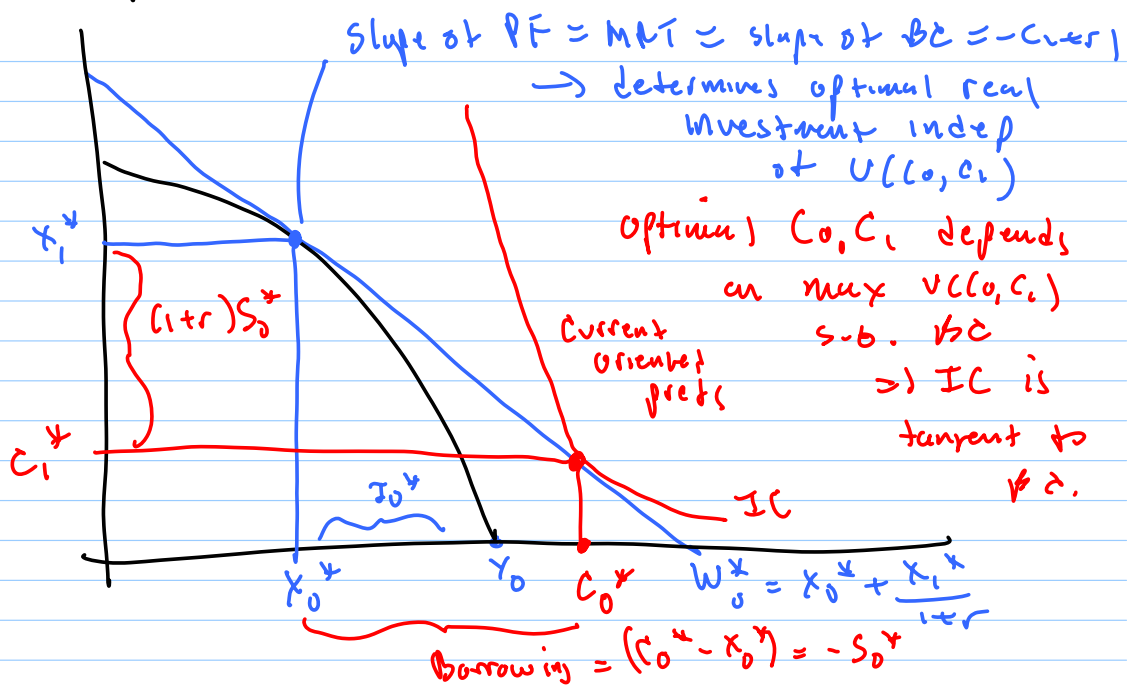
Period 2 Two types of investment

- real investment in business
- risk free gov't bond.



Note: At Y_0 , marginal return from investing in business > return from risk free bond

Optimal Consumption / Savings decision



Interest rate sensitivity of PV.

$$V_T = V_0 (1+r)^T$$

$$V_0 = \frac{V_T}{(1+r)^T} = V_T (1+r)^{-T}$$

$$\frac{dV_0}{dr} = -T V_T (1+r)^{-T-1}$$

$$= -T \underbrace{V_T (1+r)^{-T}}_{V_0} \cdot (1+r)^{-1}$$

$$= -T \cdot V_0 (1+r)^{-1}$$

$$\frac{dV_0}{V_0} = -T (1+r) dr$$

$$\Rightarrow \% \Delta PV = -T (1+r) \cdot \Delta r$$