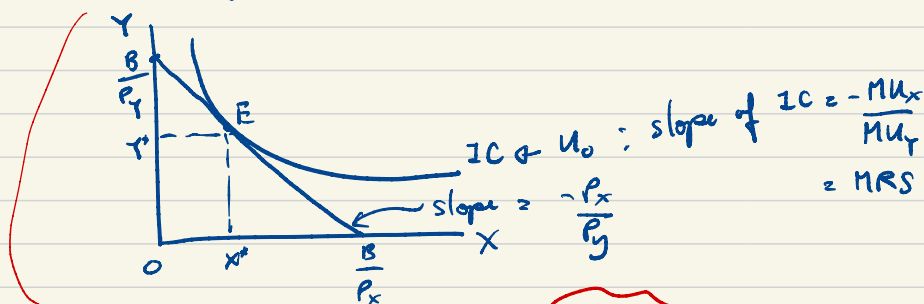


Materials covered on final exam

- Consumer Behavior.
 - IC & Budget line
(price of consⁿ goods are given.)
 - Utility maximization condⁿ.



$$\cdot MRS = -\frac{P_X}{P_Y} \Leftrightarrow$$

$$\frac{MU_X}{MU_Y} = \frac{P_X}{P_Y}$$

$$\cdot P_X \cdot X + P_Y \cdot Y = B$$

- Applications :

- What if price of good changes?

↳ BL?

↳ (X^*, Y^*) ?

↳ income & substitution effects

• Production Theory $\begin{matrix} \swarrow & \searrow \\ \text{Production} & \text{Cost} \end{matrix}$

$\wedge$

SR LR

- SR Production : $Q = f(L, \bar{K})$

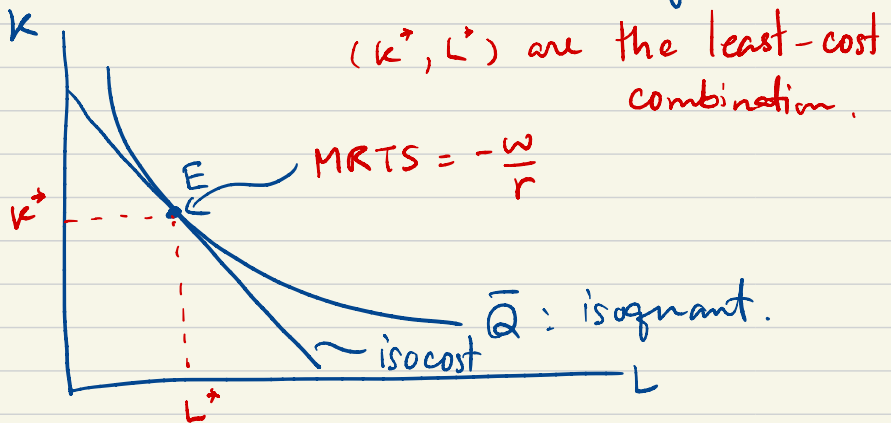
• TP, AP, MP

• TC, AVC, AFC, MC

• What happens to costs if something changes?

- LR production : $Q = f(K, L)$

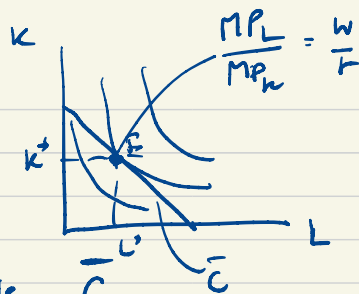
- TC, AC, MC ; isocost



- Output maximization.

$$\text{Max}_{K,L} Q(K,L)$$

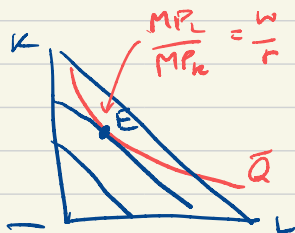
$$\text{s.t. } \underline{WL + rK = \bar{C}}$$



- Cost-minimization

$$\text{Min}_{K,L} C = WL + rK$$

$$\text{s.t. } Q(K,L) = \bar{Q}$$



- Least-cost combination

(i.e. (K^*, L^*) for different Q)

Derive LRTC, LRAC

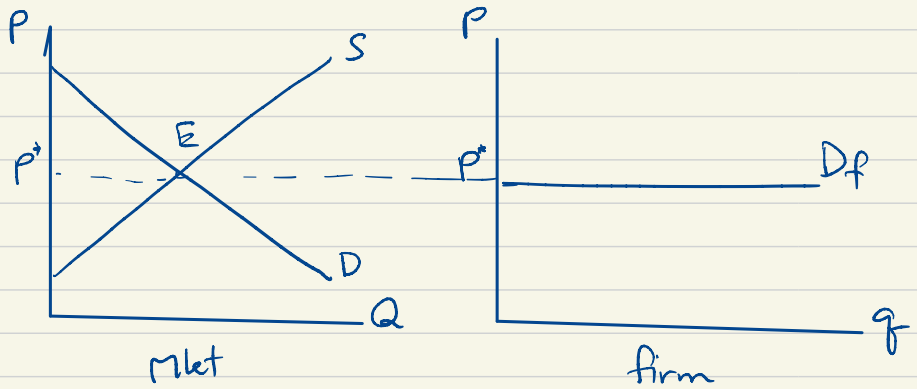
$$\text{LRAC} = \frac{\text{LRTC}}{Q}$$

- Market Structure
 $\swarrow$ competitive market
 $\searrow$ monopoly

• Firm's Objective:

$$\text{Max}_Q \pi(Q) = P \times Q - TC(Q)$$

• P is fixed in perfect competition

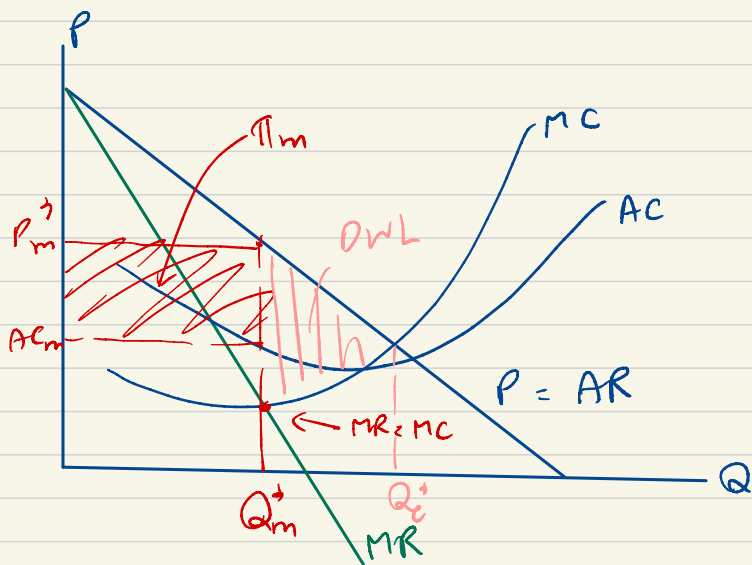


- π -max condⁿ for perfectly comp're firm:

$$P = MC$$

- In Long-run, $\underbrace{P^* = LRMC}_{\rightarrow \text{Allocative efficiency}} = \underbrace{\min LRAC}_{\text{Productive efficiency}} = P^*$

- Monopolist : face entire demand



π -max : $MC = MR$

$$\left. \begin{array}{l} P_m > P_c \\ Q_m < Q_c \end{array} \right\} \text{Allocative Inefficient.}$$

- Ideal price : $P = LRMC$
- Fair price : $P = LRAC$