

- 2nd Degree Price Discrimination

- Willingness to pay is unobservable
- Know that buyer have different willingness to pay

- Tools for the firm

- Two-part tariff
- Multi-part tariff
- Menu Price or Price schedule
- Bundling or Tie in Sale

- Nonlinear Pricing

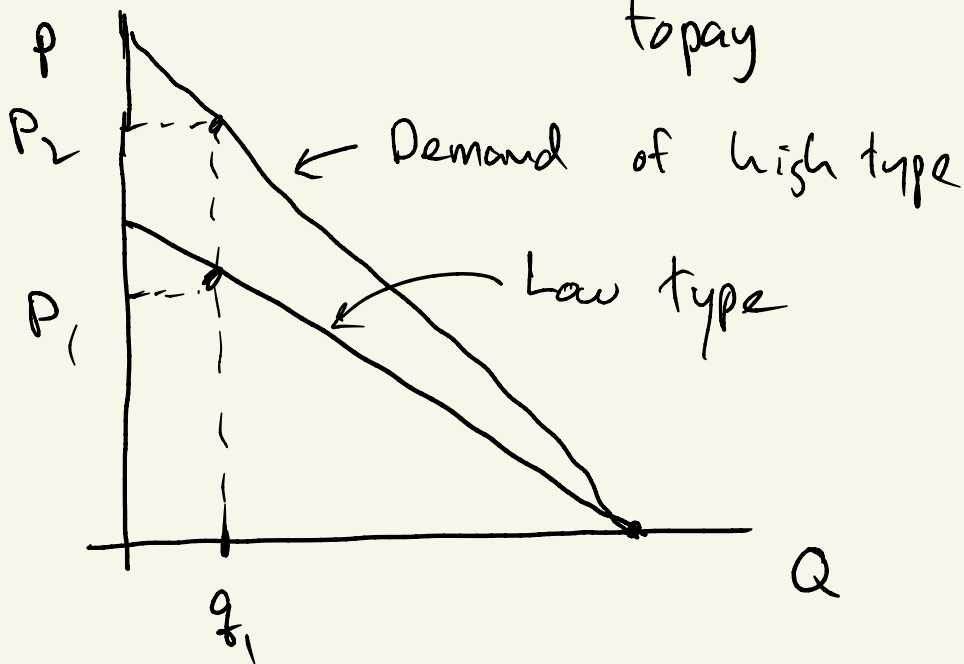
Firm charge	or lump-sum	and per unit
Play Station 4.		
Theme Park		
Nepresso/ Printer.		
Football game	membership Fee	ticket

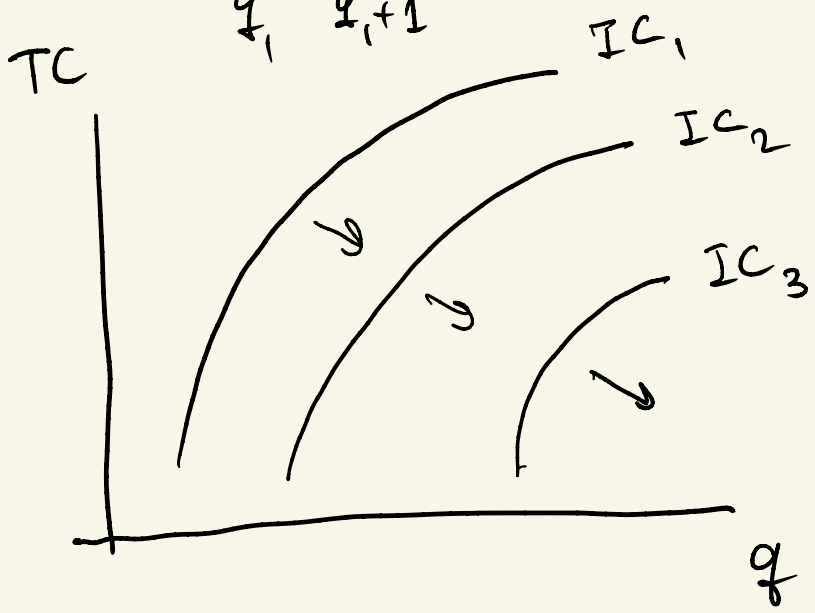
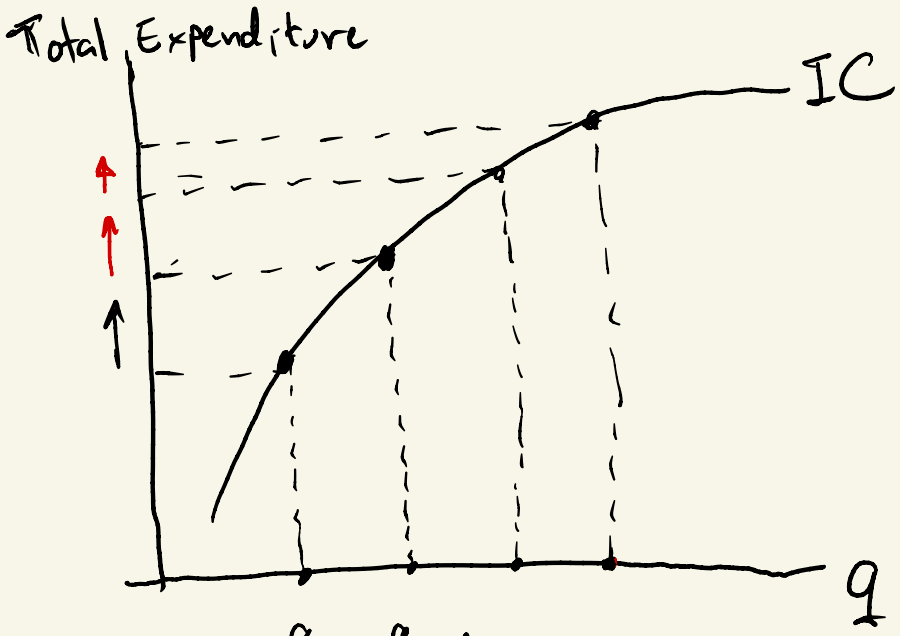
A Single two-part tariff

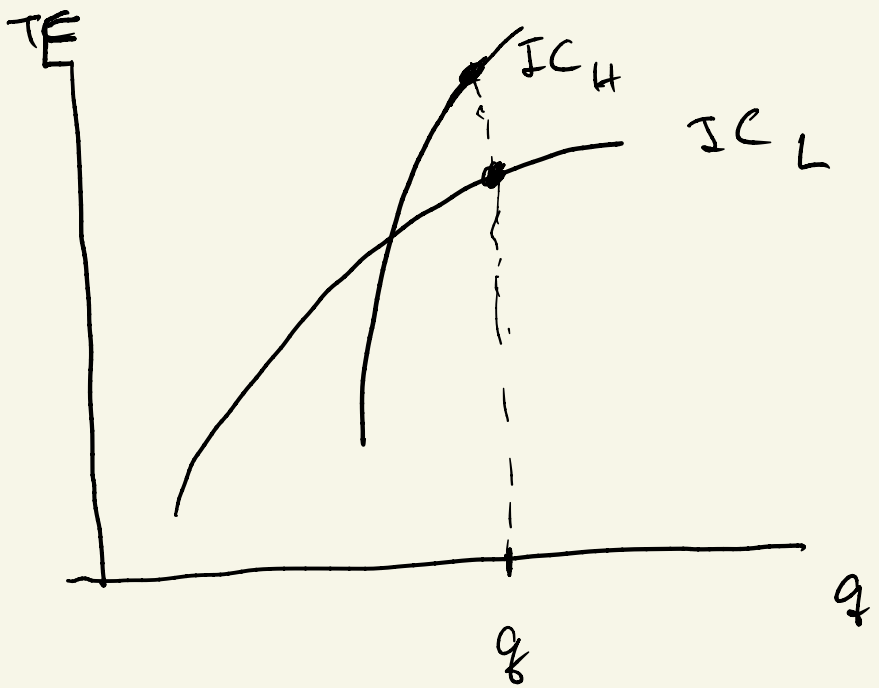
- 2 types of consumers

1. High type \Rightarrow Higher willingness to pay

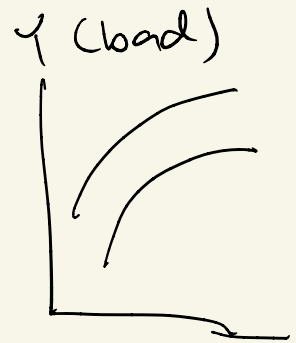
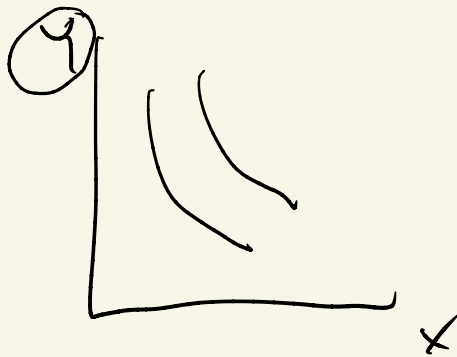
2. Low type \Rightarrow Lower willingness to pay








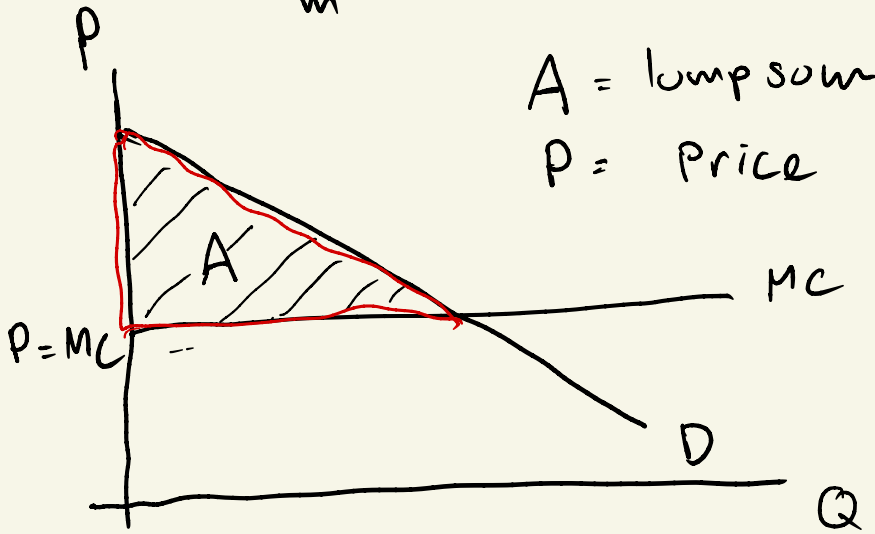
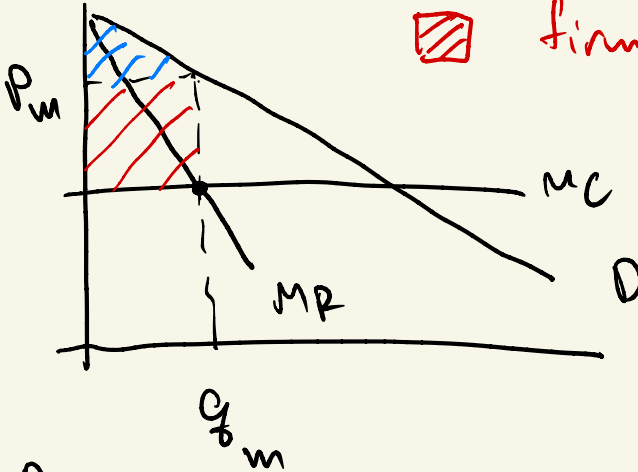
- The firm can increase their profit by offering two-part tariff




Ex : 1 group of consumer.

 Consumer surplus

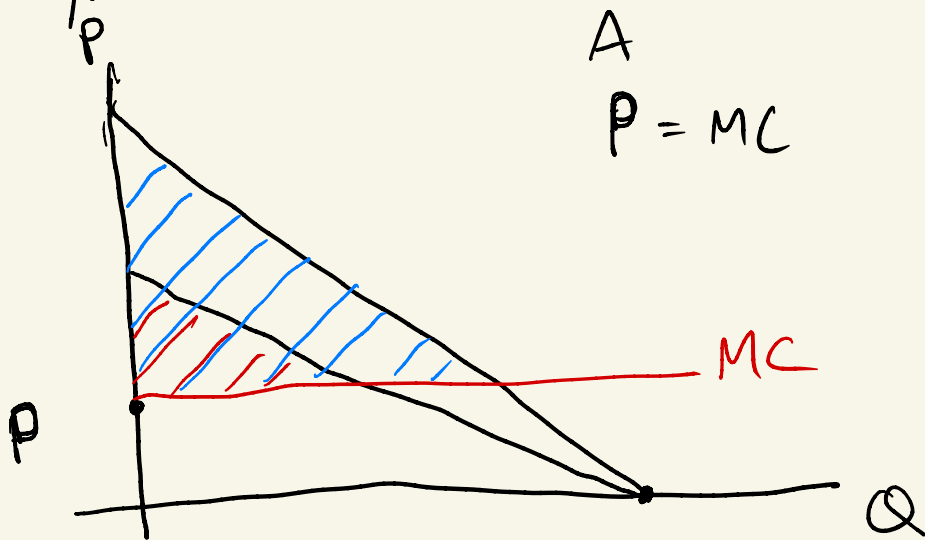
 firm II



A = lump sum
P = Price

 = firm II

2 Types of Consumer



= Surplus of H



= Surplus of L

Option 1 $A =$  $\Rightarrow \pi = 2 \times$ 




Option 2 $A =$  $\Rightarrow \pi =$ 


Ex: Optimal A depends on relative size of two types of consumer

If L-type population is α

H type population is $1-\alpha$

Total population is 1

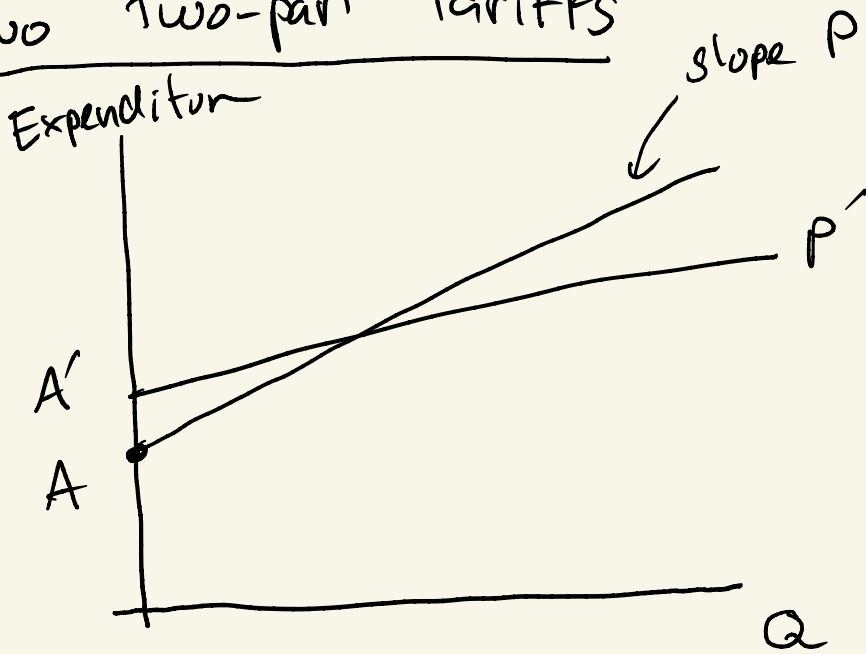
- Π from selling to both high & low type = α  + $(1-\alpha)$ 
= 
(option 1)

- Π from selling to H type only = $(1-\alpha)$  (option 2)

If α is very high option 1 might be better than option 2

- Firm could do better by charging two two-part tariffs

Two two-part tariffs



Two-Part tariff (A, P)

Total expenditure


$$E = A + pQ$$

Single Two part tariff

- 2 group of consumer
H, L

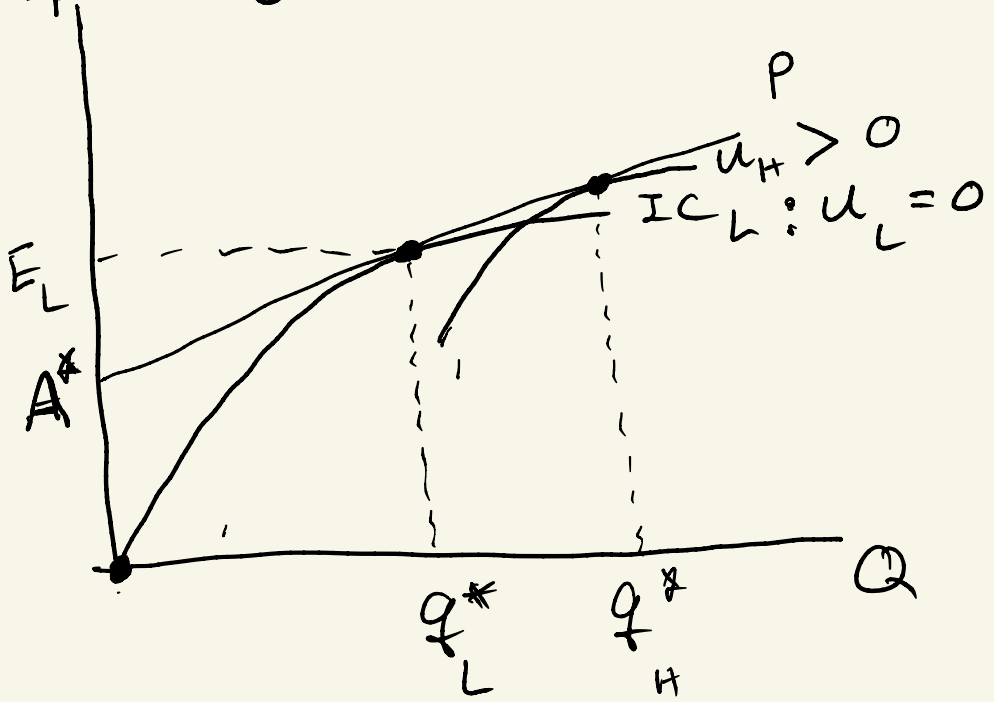
- firm choose option 1

→ serve both groups of consumers

→ $P = MC$, $A =$ 

- Consumer with L willingness to pay will receive zero surplus and H type receive positive surplus

Expenditure on Q



Church & Ware ch 5

↳ In moodle after the class