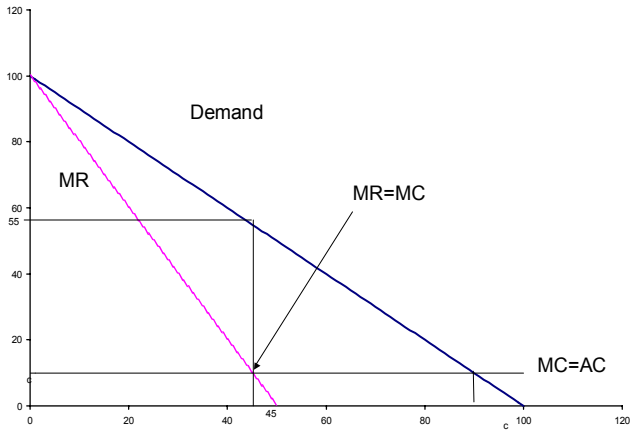
Overview: Pricing with Market Power I

- Price Discrimination
  - Object and Requirements
- Types of Price Discrimination
  - Perfect Price Discrimination
  - Observable Market Segments
  - Consumer Self Selection

The Monopoly Picture (again)



Price Discrimination

- Idea: Capture Consumer Surplus as Profits
- Some Considerations:
  - May be seen as unfair
  - May be seen as anti-competitive (illegal in some B2B transactions : Robinson-Patman Act discussed later)
  - But may be necessary for viability of some products
  - Discounts for people who would otherwise not buy
  - Often improves efficiency

Requirements for Price Discrimination

- Market power
- Resale must be difficult
- Knowledge of consumers' preferences

Types of Price Discrimination

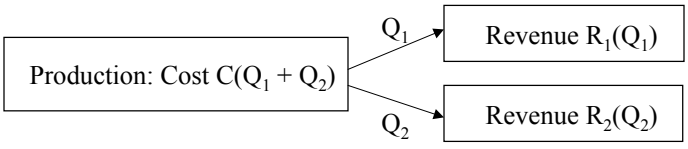
- Perfect Price Discrimination
  (Customized Pricing)
- Pricing to Observable Market Segments
- Consumer Self-Selection

Perfect Price Discrimination

- Charge reservation price for each unit
  = price at each P=P(Q) (each point on Demand)
- Producer captures all consumer surplus.
  (No deadweight loss.)
- Difficult to capture all surplus in practice
- Examples

Observable Market Segments

- Price by identifiable customer group:Age,...



- Profits = $R_1(Q_1) + R_2(Q_2) - C(Q_1+Q_2)$
  - Choose Q_1 and Q_2 to maximize profits, I.e.
    - $MR_1 = MC$
    - $MR_2 = MC$
  - So
    - $MR_1 = MC = MR_2$

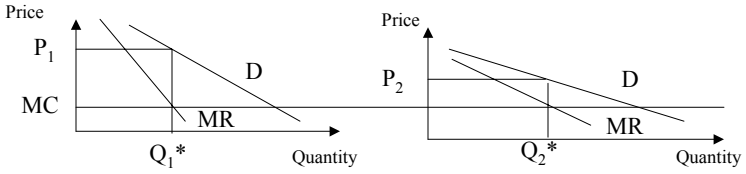
Observable Market Segments - II

- Charge higher prices to less elastic consumers

  With $R_1(Q_1) = P_1(Q_1)\, Q_1$; $R_2(Q_2) = P_2(Q_2)\, Q_2$

  - $MR_1 = P_1 (1 + 1/\varepsilon_1)$
  - $MR_2 = P_2 (1 + 1/\varepsilon_2)$
  - $MC = MR_1 = MR_2 \Rightarrow P_2 / P_1 = (1 + 1/\varepsilon_1) / (1 + 1/\varepsilon_2)$

- When MC constant:



Pricing to Segments in Practice

- How can it be done?
  - Identify (easily verifiable) groups with different elasticities
- Examples

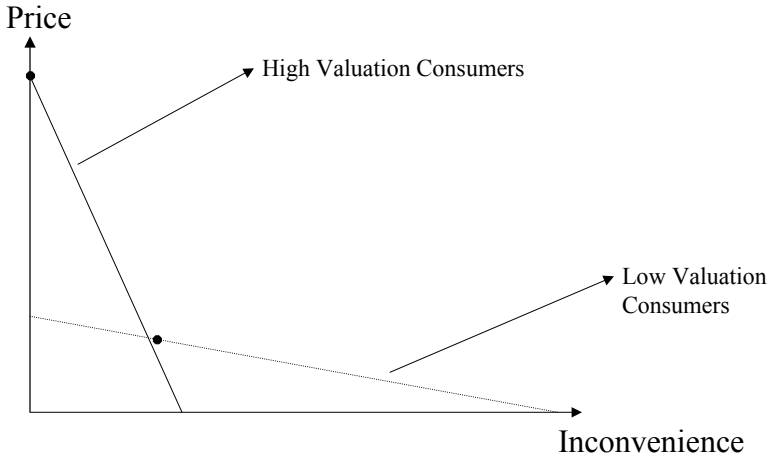
Consumer Self Selection

- Get groups to self-identify by product choice
- Examples

Consumer Self Selection

- All consumers get same menu : price as function of product characteristics (quality, features, quantity)
- Menu designed to get high-valuation (low elasticity) consumers to reveal themselves
- Typical menu imposes some cost or inconvenience on cheap alternatives

Pricing and Inconvenience



Guidelines for Menu Choice

- Problems the firm faces
  - People with high valuations want to *pretend* to be low valuation people and keep some surplus.
  - If too much surplus is extracted from either group, they won't buy the good at all.
- Solutions
  - Make high valuation people *just* prefer the high price choice designed for them rather than the low price option.
  - Make low valuation people just indifferent between consuming and not consuming.

Take Away Points

- Price discrimination : capture more consumer surplus than uniform (single) pricing
  - Make consumers with higher valuations pay more (i.e. capture consumer surplus)
  - Get consumers with low valuations to buy through (implicit) discounts (i.e. capture deadweight loss)
- Perfect price discrimination: charge the reservation price for each unit sold (if you know it ...).
- Segmentation: charge low prices to more elastic markets and high prices to less elastic markets.
- Self-selection: make consumers identify themselves as having high or low valuations (through e.g. inconvenience) and charge accordingly.