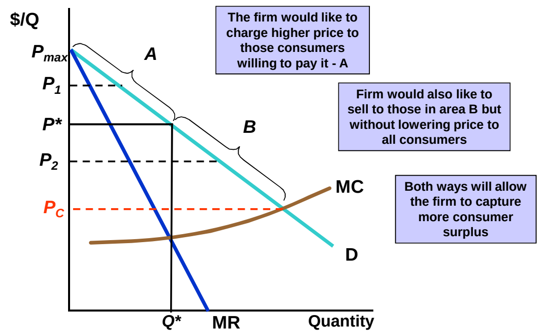
Chapter 11

Pricing with Market Power

Capturing Consumer Surplus

- All pricing strategies we will examine are means of capturing consumer surplus and transferring it to the producer
- Profit maximizing point of P* and Q*
  - But some consumers will pay more than P* for a good.
  - Some want to buy it if the price is less than P*.

Capturing Consumer Surplus



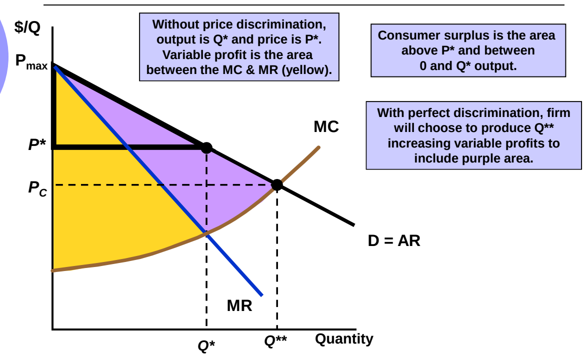
Capturing Consumer Surplus

- ( ) is the practice of charging different prices to different consumers for similar goods.

Price Discrimination

- If the firm can perfectly ( ), each consumer is charged exactly what they are willing to pay.
  - Incremental revenue is exactly the price at which each unit is sold – the demand curve
  - *( ) from producing and selling an incremental unit is now the difference between demand and marginal cost*

Perfect First-Degree Price Discrimination



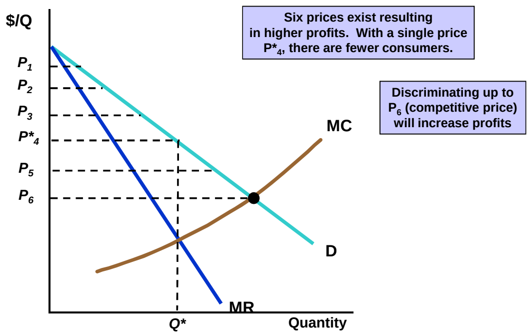
First-Degree Price Discrimination

- In practice perfect price discrimination is almost never possible
- Firms can discriminate (   )
  - Can charge a few different prices based on some estimates of reservation prices

First-Degree Price Discrimination

- (   ) of imperfect price discrimination where the seller has the ability to segregate the market to some extent and charge different prices for the same product:
  - Lawyers, doctors, accountants
  - Colleges and universities (differences in financial aid)

First-Degree Price Discrimination in Practice



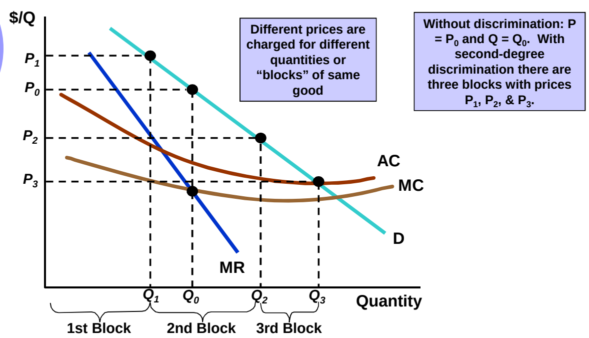
Second-Degree Price Discrimination

- In some markets, (   ) purchase many units of a good over time
  - Demand for that good declines with increased consumption
  - Firms can engage in second degree price discrimination
    - Practice of charging different prices per unit for different quantities of the same good or service

Second-Degree Price Discrimination

- (   ) discounts are an example of second-degree price discrimination
  - Ex: Buying in bulk like at Sam's Club
- (   ) pricing – the practice of charging different prices for different quantities of "blocks" of a good

Second-Degree Price Discrimination



Third-Degree Price Discrimination

- Practice of dividing consumers into two or more groups with separate demand curves and charging different prices to each group
  1. ( ) the market into two-groups.
  2. Each group has its own demand function.

Price Discrimination

- ( ) Price Discrimination
- Most common type of price discrimination.
  - Examples: airlines, premium v. non-premium liquor, discounts to students and senior citizens, frozen v. canned vegetables.

Third-Degree Price Discrimination

- Some characteristic is used to divide the consumer groups
- Typically elasticities of demand differ for the groups
  - College students and senior citizens are not usually willing to pay as much as others because of lower incomes
  - These groups are easily distinguishable with ID's

Third-Degree Price Discrimination

- Algebraically
  - P_1: price first group
  - P_2: price second group
  - $C(Q_T)$ = total cost of producing output $Q_T = Q_1 + Q_2$
  - Profit: $\pi = P_1Q_1 + P_2Q_2 - C(Q_T)$

Third-Degree Price Discrimination

- Firm should increase sales to each group until incremental profit from last unit sold is zero
- Set incremental π for sales to group 1 = 0

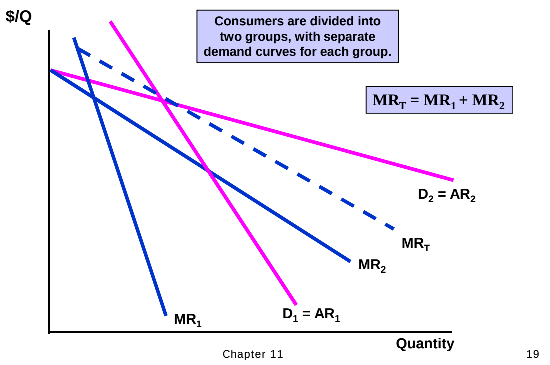
$$\frac{\Delta \pi}{\Delta Q_1} = \frac{\Delta(P_1Q_1)}{\Delta Q_1} - \frac{\Delta C}{\Delta Q_1} = 0$$

$$\frac{\Delta(P_1Q_1)}{\Delta Q_1} = MR \qquad \frac{\Delta C}{\Delta Q_1} = MC$$

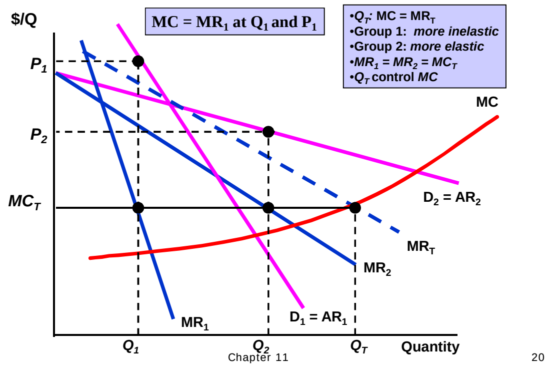
Third-Degree Price Discrimination

- First group of consumers:
  - $MR_1 = MC$
- Second group of customers:
  - $MR_2 = MC$
- Combining these conclusions gives
  - $MR_1 = MR_2 = MC$

Third-Degree Price Discrimination



Third-Degree Price Discrimination



The Economics of Coupons and Rebates

- Those consumers who are more price elastic will tend to use the coupon/rebate more often when they purchase the product than those consumers with a less elastic demand.
- Coupons and rebate programs allow firms to price discriminate.

Airline Fares

- Differences in (   ) imply that some customers will pay a higher fare than others.
- Business travelers have few choices and their demand is less elastic.
- Casual travelers and families are more price sensitive and will therefore be choosier.

Airline Fares

- There are multiple fares for every route flown by airlines
- They separate the market by setting various restrictions on the tickets.

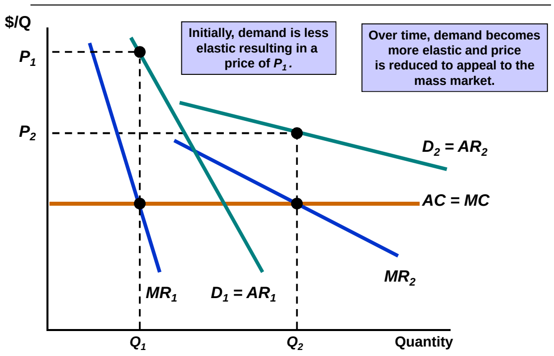
Other Types of Price Discrimination

- Intertemporal Price Discrimination
  - Practice of separating consumers with different demand functions into different groups by charging different prices at different points in time
  - Initial release of a product, the demand is inelastic
    - Hard back v. paperback book
    - New release movie

Intertemporal Price Discrimination

- Once this market has yielded a maximum profit, firms lower the price to appeal to a general market with a more elastic demand.
- This can be seen ( ) looking at two different groups of consumers – one willing to buy right now and one willing to wait.

Intertemporal Price Discrimination



Other Types of Price Discrimination

- ( ) Pricing
  - Practice of charging higher prices during peak periods when capacity constraints cause marginal costs to be higher.
- Demand for some products may peak at particular times.
  - Rush hour traffic
  - Electricity - late summer afternoons
  - Ski resorts on weekends

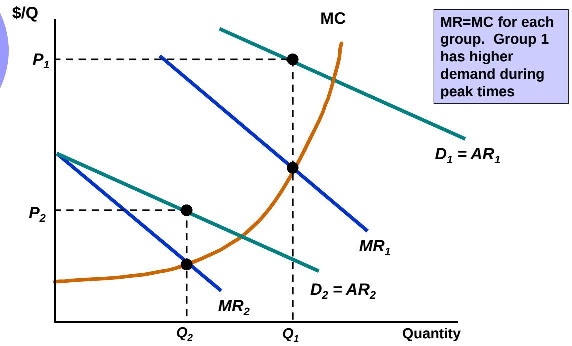
Peak-Load Pricing

- Objective is to increase efficiency by charging customers close to marginal cost

Peak-Load Pricing

- With third-degree price discrimination, the MR for all markets was equal
- MR is not equal for each market because one market does not impact the other market with peak-load pricing.
  - Price and sales in each market are independent
  - Ex: electricity, movie theaters

Peak-Load Pricing



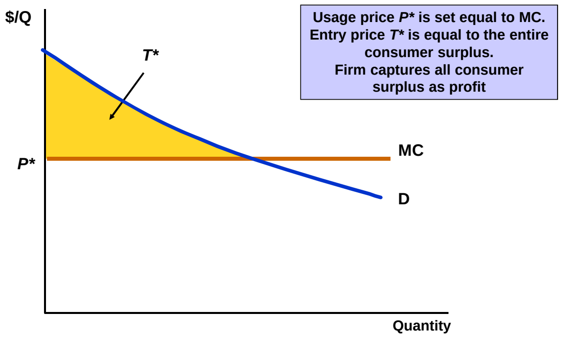
The Two-Part Tariff

- Form of pricing in which consumers are charged both an entry and usage fee.
- A fee is charged upfront for right to use/buy the product
- An additional fee is charged for each unit the consumer wishes to consume

The Two-Part Tariff

- Pricing decision is setting the entry fee (T) and the usage fee (P).
- Choosing the trade-off between free-entry and high-use prices or high-entry and zero-use prices.
- Single Consumer
  - Assume firm knows consumer demand
  - Firm wants to capture as much consumer surplus as possible

Two-Part Tariff with a Single Consumer



The Two-Part Tariff with Many Consumers

- No exact way to determine P* and T*.
- Must consider the trade-off between the entry fee T* and the use fee P*.
  - Low entry fee: more entrants and more profit form sales of item
  - As entry fee becomes smaller, number of entrants is larger and profit from entry fee will fall

The Two-Part Tariff

- Rule of Thumb
  - Similar demand: Choose P close to MC and high T
  - Dissimilar demand: Choose high P and low T.
  - Ex: Disneyland in California and Disney world in Florida have a strategy of high entry fee and charge nothing for ride.

Bundling

- Bundling is packaging two or more products to gain a pricing advantage.
- Conditions necessary for bundling
  - Heterogeneous customers
  - Price discrimination is not possible
  - Demands must be negatively correlated

Bundling

- When film company leased “Gone with the Wind” it required theaters to also lease “Getting Gertie’s Garter.”
- Why would a company do this?
  - Company must be able to increase revenue.
  - We can see the reservation prices for each theater and movie.

Bundling in Practice

- Car purchasing
  - Bundles of options such as electric locks with air conditioning
- Vacation Travel
  - Bundling hotel with air fare
- Cable television
  - Premium channels bundled together

Tying

- Practice of requiring a customer to purchase one good in order to purchase another.
  - Xerox machines and the paper
  - IBM mainframe and computer cards
- Allows firm to meter demand and practice price discrimination more effectively.