EC 360: Industrial Organization
Lecture 8 - price discrimination

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Clayton Act: price discrimination

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  - Aimed at preventing a large firm from engaging in predatory pricing in small markets, while pricing high in other markets
- Generally, price discrimination is legal and very common
  - Plane tickets
  - Pre-orders for videogames
  - Happy hour specials
  - Child and senior discounts

Price discrimination

Price discrimination

Price discrimination: the act of selling the same product at two or more prices, where the price differences do not reflect cost differences

- Intuitively, this means charging two different prices for the same good
- Mathematically, price discrimination is present if

$$\frac{P_1}{MC_1} \neq \frac{P_2}{MC_2}$$

  - where the subscripts denote two separate markets, consumers, etc.

Price discrimination

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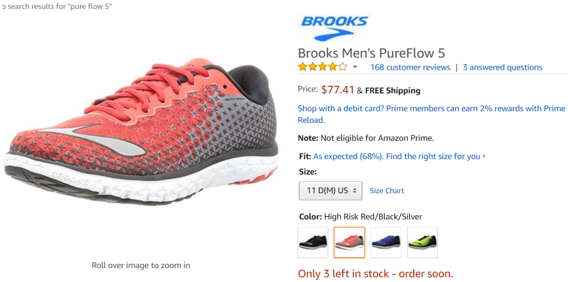
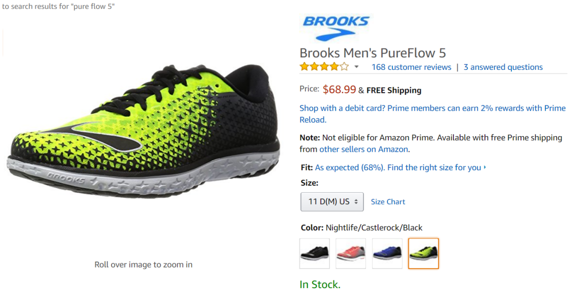
  - Suppose the product for both markets is the same, and is produced at the same plant using the same process
- The monopolist must make 2 decisions
  - The total amount of the product to produce
  - The amount of the product to send to each market
- After these decisions are made, the prices will be determined in each market

Price discrimination: example





Price discrimination: elasticity

- Recall, the more elastic the demand curve, the more consumers respond to a change in price
    - Claim: if a firm price discriminates between two markets, the market with more inelastic demand will necessarily be charged a higher price
    - Graph 8.1

Price discrimination: elasticity

Let's show this mathematically

- Based on the optimal strategy for a profit maximizing monopolist, they produce the quantity where $MC = MR$

$$MR = P\left(1 - \frac{1}{|\eta|}\right)$$

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- Generalizing our optimality condition to two separate markets, a price-discriminating monopolist sets $MC = MR_1 = MR_2$

$$P_1\left(1 - \frac{1}{|\eta_1|}\right) = P_2\left(1 - \frac{1}{|\eta_2|}\right)$$

- Example 8.1

Price discrimination: conditions for success

- Price discrimination leads to higher profits for a firm
  - Why don't all firms price discriminate?
- Three conditions must be satisfied in order for a firm to successfully price discriminate
  - Market power: if firms don't have market power, a price increase will result in customers buying from a competitor
  - Identify sub-markets and their respective elasticities: this isn't easy!
  - Prevent arbitrage between markets: customers in the market with the lower price must not be able to resell the product to buyers in the other market

Price discrimination: welfare

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- **Claim**: the only way total welfare *may* rise due to price discrimination is if discrimination leads to more goods being sold in the total market
  - To figure out the total effect, let's compare the welfare of a pooled market to the welfare of a price discrimnated market
  - Example 8.2

Robinson-Patman Act of 1936

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- The Robinson-Patman Act ammended Section 2 of the Clayton Act and services as the main statute in price discrimination cases
  - The act extends to both direct and indirect instances of price discrimination
  - Indirect discrimination occurs when the firm alters credit terms, quality, delivery time, etc.

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- The Robinson-Patman Act ammended Section 2 of the Clayton Act and services as the main statute in price discrimination cases
  - The act extends to both direct and indirect instances of price discrimination
  - Indirect discrimination occurs when the firm alters credit terms, quality, delivery time, etc.
- "The purpose of this proposed legislation is to restore, so far as possible, equality of opportunity in business by strengthening antitrust laws and by protecting trade and commerce against unfair trade practices and unlawful price discrimination, and also against restraint and monopoly for the better protection of consumers, workers, and independent producers, manufacturers, merchants, and other businessman" House Report (1936)

Robinson-Patman Act of 1936

- The act only applies “where the effect of such discrimination may be to substantially **lessen or prevent competition**”
  - Most discrimination cases have no effect on competition and are thrown out
- The act only applies to the sale of “commodities of like grade and quality”
  - The buyers must believe that the discriminated markets are selling the same goods
  - If the goods in different markets have significantly different costs to produce, the act doesn’t apply

Primary-line

Primary-line injury

- **Primary-line injury** refers to the injury suffered by direct competitors of the firm practicing price discrimination
- Consider the following example
  - Che McKinnon, Inc. is an established seller of bicycles in the Eugene bicycle market
  - Houston Asterisks, LLC offers only the established customers of Che McKinnon a lower price for bicycles, thus taking them away from Che McKinnon
  - The primary-line injury is suffered by Che McKinnon

Utah Pie Co. v. Continental Baking Co. (1967)

- In the 1950's, frozen fruit pies were becoming incredibly popular
  - In Salt Lake City, Utah Pie had a commanding market share, as a result of lower costs relative to its California competitors
  - The California companies lowered their prices below Utah Pie's, and gained market share in Salt Lake City
  - Utah Pie filed suit claiming primary-line injury, alleging that the California companies sold their products at different prices in different markets

Utah Pie Co. v. Continental Baking Co. (1967): evidence

Table: Market shares

Company	1958	1959	1960	1961
Utah Pie	67	34	46	45
Pet	16	36	28	29
Carnation	10	9	12	9
Continental	1	3	2	8
All others	6	19	13	8

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Table: prices

Company	Early 1958	1961
Utah Pie	$4.15	2.75
Pet	4.92	3.46
Carnation	4.82	3.30
Continental	5.00	2.85

Utah Pie Co. v. Continental Baking Co. (1967): the decision

- The Supreme Court decided (controversially) that the California firms were guilty of illegal price discrimination
  - No firms had to exit the market, so this resembles competitive behavior more than predatory pricing
  - At the end of the case, Utah Pie still had a dominating market share
  - The case seemed to oppose the idea of "protecting competition, not the competitors"

Secondary-line

Secondary-line injury

- **Secondary-line injury** refers to the injury occuring in the second stage of price discrimination
  - Occurs when the alleged price discrimination alters competition among customers of the firm
- Consider the following example
  - Suppose two retailers buy a product from the same firm
  - The firm charges a different price to each of the retailers
  - The retailer who bought the product at the higher price is at a competitive disadvantage, and is elgible for secondary-line injury

FTC v. Morton Salt Co. (1948)

- Morton sold salt to all of its buyers on a standard quantity discount system
  - The only stores that could afford to buy the quantity that qualified for the largest discount were five large grocery store chains
  - These five chains could then resell the salt at a much lower price

Table: Morton Bulk Prices

Amount	Price Per Case
Less-than-carload purchases	$1.60
Carload purchases	1.50
5,000-case purchases in any consecutive 12 months	1.40
50,000-case purchases in any consecutive 12 months	1.30

FTC v. Morton Salt Co. (1948): the decision

- The FTC filed a parens patriae suit to recoup the damages to all of the small retailers that were harmed
  - Morton tried to argue that the revenue from salt was neglible
- The Supreme Court (easily) decided that Morton was guilty
  - This case established the precedent that even if a price is theoretically available to everyone, it must also be "functionally" available to everyone as well

Laws and other discrimination

Indirect discrimination

- The Clayton Act claims price discrimination through brokerage commissions is indirect price discrimination
    - A broker serves as a link between a buyer and seller, and is paid commission
    - A buyer can price discriminate by setting up a sham broker, who then turns the commission over to the buyer, thus giving the buyer a price discount

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  - A buyer can price discriminate by setting up a sham broker, who then turns the commission over to the buyer, thus giving the buyer a price discount
- Discriminatory allowances and services are another form of indirect price discrimination
  - This is only illegal if it is discriminatory
  - Examples include paying for advertising, or providing a demonstrator at the retailer's store

Unequal cost defense

- Unequal costs is an allowable defense for price discrimination
    - According to the Clayton Act, price differentials that "make only due allowance for differences in the cost of manufacture, sale or delivery resulting from the differing methods or quantities in which such commodities are to such purchasers sold or delivered" are exempt from punishment

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- The following are the two most commonly used for an unequal cost defense
    - Manufacturing costs
    - Freight and delivery costs
- This does not apply to cost differences due to scale
    - Graph 8.2

Robinson-Patman treatment of big buyers

- Up until this point, we've only focused on price discrimination by sellers, but we haven't discussed buyers
- Why should we care about buyers?
  - Big chain stores have a lot of purchasing power and could extract illegal discounts
  - Big chains are becoming a lot more common
  - These illegal concessions could lead to anticompetitive outcomes

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  - These illegal concessions could lead to anticompetitive outcomes
- Technically, this is forbidden by the Robinson-Patman amendment; however, it is rarely used and is very hard to prosecute