Chapter 11

Pricing with Market Power
Topics to be Discussed (Sec. 11.1 - 11.4)

- Capturing Consumer Surplus
- Price Discrimination
- Intertemporal Price Discrimination and Peak-Load Pricing
- The Two-Part Tariff
Introduction

- Pricing without market power (*perfect competition*) is determined by market supply and demand.
- The individual producer must be able to forecast the market and then concentrate on managing production (cost) to maximize profits.
Introduction

- Pricing with market power (*imperfect competition*) requires the individual producer to know much more about the characteristics of demand as well as manage production.
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
  - Raising price will lose some consumers, leading to smaller profits
  - Lowering price will gain some consumers, but lower profits
Capturing Consumer Surplus

The firm would like to charge higher price to those consumers willing to pay it - A

Firm would also like to sell to those in area B but without lowering price to all consumers

Both ways will allow the firm to capture more consumer surplus
Capturing Consumer Surplus

**Price discrimination** is the practice of charging different prices to different consumers for similar goods

- Must be able to identify the different consumers and get them to pay different prices

Other techniques that expand the range of a firm’s market to get at more consumer surplus

- Tariffs and bundling
Price Discrimination

- First Degree Price Discrimination
  - Charge a separate price to each customer: the maximum or reservation price they are willing to pay

- How can a firm profit?
  - The firm produces $Q^*$ $\rightarrow$ $MR = MC$
  - We can see the firm’s producer’s surplus i.e., profit plus fixed costs (or \textit{variable profit} according to the text)

  **Area between MR and MC**
  - Consumer surplus area between demand and price
Price Discrimination

- If the firm can price discriminate perfectly, each consumer is charged exactly what they are willing to pay
  - MR curve is no longer part of output decision
  - Incremental revenue is exactly the price at which each unit is sold – the demand curve
  - Additional profit from producing and selling an incremental unit is now the difference between demand and marginal cost
Without price discrimination, output is $Q^*$ and price is $P^*$. Variable profit is the area between the MC & MR (yellow).

Consumer surplus is the area above $P^*$ and between 0 and $Q^*$ output.

With perfect discrimination, firm will choose to produce $Q^{**}$ increasing variable profits to include purple area.
First-Degree Price Discrimination

- *In practice, perfect price discrimination is almost never possible*
  1. Impractical to charge every customer a different price (unless very few customers)
  2. Firms usually do not know reservation price of each customer (insufficient information)

- Firms can discriminate imperfectly
  - Can charge a few different prices based on some estimates of reservation prices (Any examples?)
First-Degree Price Discrimination

Examples 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 (not in Japan), accountants
- Car salesperson (15% profit margin)
- Colleges and universities (differences in financial aid)
First-Degree Price Discrimination in Practice

Six prices exist resulting in higher profits. With a single price $P^*$, there are fewer consumers.

Discriminating up to $P_6$ (competitive price) will increase profits.