Finish “competition” lecture

• Back to slides from last time to discuss those we skipped at the end
• Introducing a new product
  – As soon as remunerative, versus wait for most-profitable time
• General idea: maximize consumer welfare subject to non-negative profits
• When does competition misfire?
Not-Competition

• Many books repeat “benefits of competition” in form “defects of monopoly”
  – Do CP do this?
  – Also vice versa
  – Is this a problem, opportunity?

Monopoly Pricing

• We already studied profit-maximizing level of price: \( L = \frac{(p - MC)}{p} = \frac{1}{e} \)
• Price discrimination important: later (CP 9)
• Product quality
  – What does monopolist have to do to survive?
  – What does m. have incentive to do?
  – Finite Greed?
  – Durability of light bulbs
Sensitivity of profits to price

• Smooth hills are flat on top
• How flat? To second order,

\[-\frac{1}{2} m^2 \Pi''(p^*) \frac{\partial^2 \Pi}{\partial p^2} \frac{m^2}{(p^*-c)^2} - \frac{1}{2} m^2 \frac{X''(p^*)}{X(p^*)}\]

What the &*(% does that mean?

• For linear demand, {cost of a small “error” in price, as fraction of gross profits} is (roughly) the square of {price error as fraction of gross margin}
• Error in pricing equal to 10% of gross margin (say 5% of price?) loses 1% of gross profits
  – Typically higher fraction of net profits
  – It doesn’t cost a monopoly much to offer some random customers a better price
    • That doesn’t mean it is costless…
    • Compare price discrimination reasoning
A competitive firm’s profit hill

• Much sharper peak—why?
• Identifying “competitive firm” with much more elastic demand

Advertising

• Raises demand—economists mostly don’t go into how/why
• Equilibrium advertising/sales ratio if \( D(p,s) \)
• Does advertising count as MC in the Lerner equation?
  – “Have to” increase it to add sales, so like MC
  – Merger application: MCI-Sprint, cellular
Seeking and Protecting Monopoly

• Rent-seeking
  – Is it hard to give away money?
  – Beyond deadweight loss triangle
  – Productive and unproductive rent-seeking
    • Patents—much more later (CP ch 16)

Diagnosing Monopoly

• Rate of change of prices—why not
• Profits—why not
  – Economic
    • Long-run: efficiency advantage (rent) or entry barrier
    • Short-run: many factors
      – Losses: “excessive” competition?
  – Accounting
    • Return on capital; timing of costs, revenues
      – Plough it back
    • Capitalization of monopoly
Diagnosing Monopoly

- Identifying competitors or lack thereof
  - Can they expand enough?
  - “Dominant firm with fringe” model calibrates “enough”
- Entry conditions
- “Monopoly” in antitrust
  - Firm that can unilaterally hurt consumers?

Dominant Firm with Fringe

- Market power but not monopoly: sets price
- Rivals individually small enough to behave competitively (price-takers)
  - Might collectively be a large share of market
- Does dominant firm have lower costs?
- Residual demand curve
  - Elasticity of residual demand
    - What it depends on
Merger to Monopoly

- CP Example 4.6
  - US antitrust law: “failing firm defense”
  - Newspapers: JOA
    - Examiner and Chronicle
- How will market evolve if no merger?
  - Will merger efficiencies happen post bankruptcy?
- What if firms must compete for survival?

Next Time: Pass-through of cost changes

- No pass-through of change in fixed cost
- How much of change in MC does monopoly pass through?
  - Contrast with competitive pass-through
- Does an increase in variable cost/MC hurt the monopolist, if it can pass it through?
Dates etc

• Problem Set 1: due Jan 31 at *beginning* of class
• Midterm 1: in class Feb 9
  – DSP: let me know!!!
  – Drop date: Feb 17
• Feedback
  – Jenny and I find this stuff fairly easy…