Principles of Economics
When Competitive Markets Cannot Work Optimally
Rate Regulation

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The Set-Up...

• Every weekend new movie(s) are released
• Gotta release new movies every weekend!
  • The demand for new movies is different from the demand for old movies
• Demand for new movies: \( P_d = 100 - 0.1 \times Q \)
• Each new movie costs 5000 to make
  • Those are the only costs of making a movie
• People don’t care which new movie they see
• Ample space in theaters
What If We Don’t Nationalize the Movie Industry and Give It Away?

• But we: don’t trust bureaucracy, want to spur innovation, are in the pocket of the Hollywood lobby

• New movies are non-rival: you make it, and then can show it to as many people as are willing to pay that weekend for no additional cost

• But you can charge a price: a ticket-taker: the first-run movie is *excludible*

• One new movie produced each week: mono = one, poly = seller. One seller. Spent 5000 to make this week’s movie.
What is the Monopoly Outcome?

- Profit maximized when: \( Q = \frac{P d_0}{2a} \)
- Price = 50; \( Q = 500 \)
- \( TR = 50 \times 500 = 25000 \)
- \( TC = FC = 5000 \)
- Profit = \( TR - TC = 20000 \)
- Consumer Surplus = 12500
- Total Surplus = 32,500
- Contrast with FBS = 45,000
Ladies, Gentlemen, and First-Run Moviegoers, to Your i>Clickers!

• Fixing things without nationalization…

• I know, I know we talked about how lousy price ceilings are…

• But suppose we imposed a price ceiling of 5.30: How many tickets does the monopolist then sell?

   • A. 1000
   • B. 500
   • C. 947
   • D. 53
   • E. None of the above
Ladies, Gentlemen, and First-Run Moviegoers, to Your Clickers!:

Answer

• Fixing things without nationalization…

• I know, I know we talked about how lousy price ceilings are…

• But suppose we imposed a price ceiling of 5.30: How many tickets does the monopolist then sell? A. 1000 B. 500 C. 947 D. 53 E. None of the above

• The monopolist free to set the price found that selling fewer tickets allowed them to raise the price, and might boost revenue

• A monopolist with a regulated price doesn’t benefit from a higher price by restricting supply

• A monopolist regulated at 5.30 sells as many tickets as they can—947
What Is the Outcome?

- A price ceiling of 5.30
- Demand: \( P = 100 - 0.1Q \)
- Sells 947 tickets
- Earns \( 947 \times 5.3 - 5000 = 19.1 \) of profit
- Consumer surplus = \( 947 \times (100 + 5.3)/2 = 44,840.4 \)
- Total surplus = 44,859.5
- Contrast with FBS of 45,000
Regulated Monopoly!

- A price ceiling of 5.30. Sells 947 tickets. Earns $947 \times 5.3 - 5000 = 19.1$ of profit. CS = 44,840.4

- Total surplus = 44,859.5

- Contrast with FBS of 45,000

- This was the high-tech frontier of economic policy from 1880 or so to 1950
Arguments Against Regulating Monopoly

• What reasons can you think of not to institute rate regulation over monopolies?