Mergers

18.2 Main Motivations

1) **Market power** - fewer competitors allows firm to increase price and profit (not socially desirable)
2) **Efficiency** - take advantage of economies of scale (socially desirable)
3) **Other**
   a) Reduce risk
   b) Government policy / tax advantages
   c) Principle agent

The Merger Paradox (firms in a merger don't necessarily earn greater profits)

The below profit equation is a Cournet model (firms choose Q).

$$p = a - bQ$$

a = Price intercept
b = Slope
c = Marginal cost
n = Number of firms before merge
m = Number of firms after merge

Before

$$\pi_i = \frac{(a-c)^2}{b(n+1)^2}$$

After

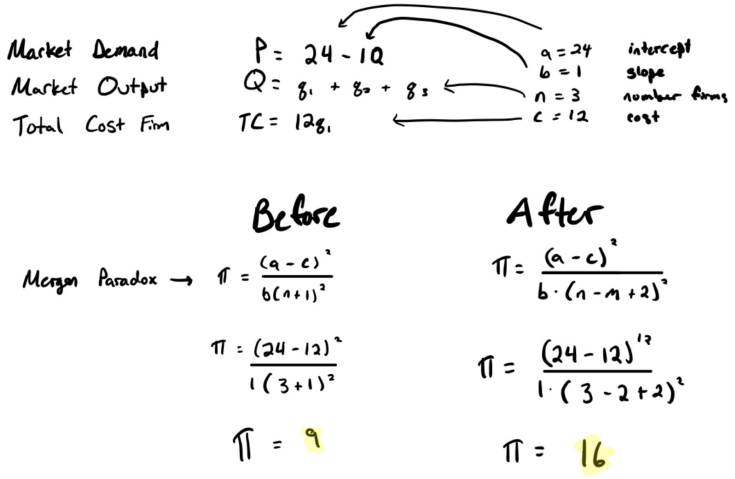
$$\pi_i = \frac{(a-c)^2}{b(n-m+2)^2}$$

$\pi_{i,m} =$

But this must hold. Will only happen when .8*m > n

$$\frac{(a-c)^2}{b(n-m+2)^2} > \frac{m(a-c)^2}{b(n+1)^2}$$

Example:



Profit with Fringe Production

Step 1: Profit where q_f represents how much total the other firms are producing

$$\pi = (1 - (q + q_f))q - qc$$

Step 2: Take derivative with respect to Q

$$q = \frac{1}{2}(1 - c - q_f)$$

Step 3: Plug that q ^ into our original profit equation

$$\pi = \frac{1}{4}(c + q_f - 1)^2$$

Step 4: This is the rate that a monopolist loses profit as the fringe production of others growing

$$\frac{\Delta\pi}{\Delta q_f} = \frac{1}{2}(c + q_f - 1)$$

Horizontal Mergers

1. Increase in Market Power - elimate competition by just buying the other firms
2. Buying other firms to lower our costs

Vertical Integration -- buying up supply chain

1. It could increase efficiency
2. Or it could just increase market power

Motives

1. Technological Economies (Efficiency gains)
2. Hold up problems
3. Transaction costs
4. Quality of service

18-5.pdf

Monopoly, Monopoly

18-6.pdf

Double Marginalization

1. Assume there is a wholesaler and a retailer
2. Wholesale marginal cost is MC_W

Three Cases

18-4.pdf

Monopoly, competitive

Competitive, competitive

Competitive, competitive

Other Reasons

1. Increase barriers to entry
2. Restrict access to an input to another industry (foreclosure)
3. Price discrimination (prevents arbitrage through wholesalers)

You are the CEO of the Macrosoft Corporation and decide to buy a custom motorcycle from US Choppers. The purpose of the motorcycle is to help promote your company, and your only request is that the Macrosoft logo be prominently displayed on the motorcycle.

Explain how the hold-up problem applies to this purchase.
There is no guarentee that I will buy the bike once they make it

Who is at greater risk of being held up, you or US Choppers?
US Choppers is at risk. If I decide I no longer want the motorcycle, they will sell for less to someone else

Identify 2 ways in which to eliminate the hold-up problem.
1) Pay up front / set a contract
2) Buy US Choppers

2) Buy UG Choppers