Lecture Note 7. Mergers and Acquisitions

1. Market Concentration Indices

- Antitrust statutes
  - The Sherman Act (1890) forbids cartel and exclusionary conducts.
  - The Clayton Act (1914) forbids some given forms of behaviors if they lessen competition.
  - The Federal Trade Commission Act (1914) establishes the right for FTC to enforce antitrust laws and adjudicate disputes. Section 5 prohibits unfair method of competition.
- Measures of market power
  - There is no perfect measure of market power.
  - The number of firms can be a proxy, but not always.
  - The markup, $P - MC$, might be one of good measures. To measure relatively, $\frac{P-MC}{P}$ would be appropriate.
  - Problem?
  - Alternatively, if we assume that firms maximize their own profit,

    So we can use the inverse of the price elasticity, $-\frac{1}{e}$, as a measure of market power.
  - Problem?
- Market share as a measure
  - Has many flaws
  - Simple to calculate, so good to use as a premeasure
  - C_4 = sum of market shares of the biggest four firms in the market
  - HHI (Herfindahl-Hirschman Index)

$$HHI = \sum_{i=1}^{n} \text{share}_i^2 \qquad \text{(using percentage share)}$$

  - Need to define a market appropriately first.

2. Mergers and Acquisitions

- Difference?
  - A merger is an agreement for several firms to combine and create a new firm.
  - An acquisition is taking over other firms and claiming a new owner.
  - In practice, a merger usually involves acquisition by a firm of others.
- Mergers include
  - Horizontal merger
  - Vertical merger (also known as vertical integration)
  - Market-expansion merger
  - Product-expansion merger
  - Conglomeration
- Policy on mergers
  - Basically, a merger is permitted only if it encourages competition.
  - If the policy restriction is too strict, it may prevent procompetitive mergers.
  - If it is too lenient, it may create a big firm and eventually lessen competition.
- Horizontal merger guidelines by DOJ and FTC (1992)
  - If post-merger $HHI < 1000$, it is okay.
  - If post-merger HHI is between 1000 and 1800, and a merger increases HHI by 100 or more, it raises concerns.
  - If post-merger $HHI > 1800$, and a merger increases HHI by 50 or more, it raises concerns.

3. Vertical Integration and Vertical Restrictions

- Purpose of vertical integration
  - Lower transaction costs
  - Assure supply
  - Correct market failure
  - Avoid government rules
  - Gain market power
  - Eliminate market power
- Some problems can be solved by imposing restrictions on downstream or upstream firms. For example, there are following problems between manufacturers and distributors.
  - Double monopoly markup
  - Free riding problems by distributors
  - Free riding problems by manufacturers
  - Externalities due to a lack of coordination
- Why do they choose vertical restrictions rather than integrating vertically?
  - Monitoring cost
  - An advantage retail firms have in selling goods to consumers
- Method of vertical restrictions
  - Sales quota
  - Resale price maintenance
  - Two-part tariff
  - Exclusive Territories
  - Exclusive Dealing
  - Contracts on advertisements
- Effects of vertical restriction or vertical integration
  - May benefit both-side firms and consumers
  - Could be ambiguous
  - Possibly harms competition
  - There is no unique rule.

- Example of double monopoly markup
  - Suppose $P = 10 - Q$, and a manufacturer is a monopolist with $MC = 2$. There is one distributor who buys at p_1 from the manufacturer, and sells at p_2 to the consumers. Assume no distribution cost.
  - The manufacturer sets $p_1 = 6$ to maximize her own profit. Given this, the distributor would maximize his own profit as follows.

    So $p_2 = 8$, and $Q = 2$ units are sold. The manufacturer's profit is $\pi_1 = 8$, and $\pi_2 = 4$.
  - If one of the firms vertically integrates the other firm,

    So $P = 6$, $Q = 4$, and $\pi = 16$. There is an incentive to vertically integrate.
  - How about using vertical restrictions?
    * Sales quota: forcing the distributor to sell at least $Q = 4$ units
    * Price ceiling: preventing the distributor from selling at $p_2 > 6$
    * Two-part tariff: Selling the distributor the franchise right at $F = 16$ and each unit of commodity at $p_1 = 2$