Lectures 17-18: Antitrust

Primary reference:
McAfee, Competitive Solutions, Ch. 9
Antitrust Law

- Antitrust law is prominent in many nations. Cases are widely covered by the media.
- Ideal antitrust law regulates through rules of competition. It prohibits firms from coordinating actions.
- Managers should be familiar with antitrust laws for three reasons.
  - Antitrust law restricts the scope of legal business activities.
  - Antitrust suits are frequently used to harass competitors and/or change the rules of competition (e.g. through consent decrees).
  - Managers may face fines or prison terms for violating antitrust laws.
Antitrust law was sparked by the post-Civil War transformation of the US economy.

By the 1880s, farmers were very upset over the railroad cartels such as the Joint Executive Committee.

There was general discomfort with the scale that many businesses had achieved.

The Interstate Commerce Commission was formed in 1887, but the first real antitrust law was the Sherman Antitrust Act of 1890.
The Sherman Antitrust Act

- Section 1 declares that “restraint of trade...is illegal.”
  - Trusts and other price-fixing organizations are illegal.
  - Covers joint actions that decrease consumer welfare, such as exclusive contracts, resale price maintenance, etc.
  - Individuals may be fined up to $10 million and three years in jail.

- Section 2 declares that a “person who shall monopolize...shall be deemed guilty of a felony.”
  - Monopolizing or attempting to monopolize is illegal and worthy of a felony.
  - Covers unilateral actions to increase market power, such as predatory pricing and product tying/bundling.
  - Similar fines and jail times as above.
The Sherman Antitrust Act

- The law is extremely vague. Many scholars contend it was passed just to force the courts to create law via precedent.
- The Peckham Rule was an early example, which stated that conspiracies restricting output (which typically raise prices) were not OK, but those increasing output were OK.
- The Standard Oil case (1911) broke up Rockefeller’s giant oil company into 33 companies.
- This case introduced the rule of reason whereby a restraint is illegal if it has an anticompetitive basis and legal if it has a procompetitive basis. The rule of reason contrasts with per se illegality.
Since the *Alcoa* case (1945), the courts have employed a two-part test.

First, is the firm a monopoly? If it is not, then it can’t influence competition or prices.

Second, did the firm use illegal tactics to acquire monopoly power? It is not illegal to *be* a monopoly, as long as the monopoly is the result of, e.g., superior products or legal instruments such as patents.
The Clayton Antitrust Act

- Passed in 1914.
- Money damages may be trebled.
- Section 2 covers certain types of price discrimination, most notably selling to firms that compete with each other in a way that advantages some firms over others.
- Section 3 covers tying (e.g. requiring the purchase of one product to purchase another), exclusive dealing (e.g. buyer agrees to deal only with seller), predatory pricing and resale price maintenance.
- Section 7 covers mergers and prohibits mergers that “lessen competition.” This strengthens the standard above the “attempt to monopolize” language of the Sherman Act.
The FTC Act

- Also passed in 1914.
- Establishes the Federal Trade Commission and mandates it with preventing unfair competition and deceptive business practices.
- The FTC is in charge of preventing false advertising. In 1962, they successfully alleged false advertising by Colgate-Palmolive in an ad where Frank Gifford shaved just after being shown in a sandpaper mask.
Oversight

- Antitrust laws are enforced by the US Department of Justice (DOJ) and the Federal Trade Commission (FTC).
- DOJ typically uses the Sherman Act, while the FTC typically uses the Clayton Act (it cannot bring criminal charges).
- Cases are typically divided based on expertise.
- Some industries are regulated in special ways, so that the agency in charge of oversight winds up (essentially) doing antitrust work. For example, the Federal Communications Commission (FCC) is in charge of selling licenses for television broadcasting. When NBCU and Comcast wanted to create a joint venture combining NBCU’s assets with those of Comcast, they needed the FCC’s blessing to “sell” licenses.
  - The FCC evaluates transactions under a public interest standard, considering the effects of a transaction on competition.
Price Fixing

- Under the Sherman Act, price fixing is illegal *per se* (*US v. Trenton Potteries* 1927)...except when it is not.

- Firms with patents may fix prices among licensees (*US v. General Electric* 1926).
  - The goals of patent law (to grant monopolies to stimulate innovation) conflict with the goals of antitrust law (to promote competition).
  - This area of the law remains very very murky. Though the *General Electric* holding remains as precedent, it has been weakened and nearly reversed in 1948 and 1965.

- Firms bidding in hostile takeovers may pay each other to stop bidding (recall the LIN-McCaw-BellSouth case).
  - Courts defer to the 1934 Securities and Exchange Commission (SEC) legislation, which preempts antitrust law.
Predatory Pricing, Foreclosure and Tying

- The *Alcoa* case highlights many examples of non-price-fixing arrangements that may run afoul of antitrust law.
  - Exclusive contracts with utilities forbidding them from selling power to Alcoa rivals.
  - Increasing the price of raw materials to competitors.
- The *United Shoe* case (1953) found prohibiting third-party repair of machinery to be illegal.
- Refusing to sell an essential asset, like the right to use the only railroad bridge, may also be illegal.
- Predatory pricing is a somewhat odd type of anticompetitive behavior. It involves a firm lowering its prices (which benefits consumers) to drive out rivals, then raise prices later (which harms consumers).
A Predatory Pricing Inquiry

- Courts use a two-part test when investigating predatory pricing.
- Were the prices below cost?
  - This is not always something that can be learned.
  - Marginal cost may not be measurable (or may be manipulable by the firm in the way it reports it).
  - Average variable cost may also be difficult to observe...for example, how do you count laid off workers?
- Could the firm recoup the short-term losses if it drives out competition?
Resale Price Maintenance

- Firms often want their retail outlets to offer services such as exchanges, refunds, promotion, assistance using the product, etc.
- One way to accomplish this is to institute a price floor for the retailers. This way, retailers compete on the basis of service and not price.
- Without resale price maintenance, it can be difficult to justify a high level of customer service. If a discount retailer decides to sell a product for a rock-bottom price, it can steal business from outlets providing customer service and, effectively, let its customers free ride off the service provided by other outlets.
- Many economists were frustrated by the fact that resale price maintenance was *per se* illegal under the Sherman Act, dating to the decision in *Dr. Miles Medical Co. v. John D. Park and Sons* (1911)...but that is no longer the case.
Resale Price Maintenance

- In *Leegin Creative Leather Products, Inc. v. PSKS, Inc.* (2007), the US Supreme Court overruled *Dr. Miles* and replaced the *per se* rule with the rule of reason.
- Leegin is a manufacturer of leather apparel. They pursued a strategy of focusing on quality and brand cachet. Above all else, they did not want a “race to the bottom” price war.
- Leegin decided to start refusing to sell to retailers who intended to discount its products below their recommended retail price.
- Five years later, Leegin discovered that Kay’s Kloset was marking Leegin products down 20%. Kay’s refused to rescind the markdowns and Leegin cut them off. PSKS, the parent company of Kay’s, sued.
- Leegin lost at the district court level based on the *per se* rule, but appealed to have *Dr. Miles* overturned and eventually won...based on economic arguments emphasizing that competition based on things other than price (e.g. quality) can lead to efficient outcomes.
Exclusive Territories

- We saw in the section on collusion that segmenting demand by territory is a potentially appealing way to align the incentives of a number of producers.
- Obviously, many firms operate franchise businesses by territory and this is not (necessarily) illegal.
- Courts typically view exclusive territories as being beneficial if the point is to promote competition.
- If a parent firm has some franchise-owned stores and some company-owned stores, franchisees might be hesitant to invest in a franchise if they know that success would lead the parent firm to open more stores in a successful territory.
Exclusive Dealing and Tying

- If a manufacturer insists in a contract with a retailer that the retailer sells only its product, the courts are likely to view this as an antitrust violation.
  - Note that the *bilateral* nature of this type of arrangement is likely to alarm the court because they conjure up collusion. *Unilateral* strategies, like the one chosen by Leegin, may be easier to defend.

- This ties the purchase of one good to the non-use of another good. Similarly, firms that require firms to purchase one product to purchase another often find themselves running afoul of antitrust laws. *United Shoe* is a prime example.

- Microsoft got into trouble by tying the bundling of its service registration with Windows to promotion of Internet Explorer (in dealings with AOL).
The Hart-Scott-Rodino Act of 1976 requires firms above a certain size (the “size of person” tests) to file papers with the FTC and DOJ indicating the firms’ intentions to merge. These cutoffs change each year.

1,726 transactions under the Hart-Scott-Rodino Act reported in 2008, down 22% from 2007. Only 21 of these were challenged, resulting in 6 abandoned or restructured transactions.

Typical merger review lasts for several months, with multiple requests for information.
Mergers: Why?

- Mergers often fail in colossal ways (AOL - Time Warner). What are the reasons for doing them?
- Mergers may pay for purely strategic reasons. Merging to monopoly eliminates competition entirely (recall the history of the diamond industry leading up to the formation of DeBeers), while merging to reduce from 4 to 3 firms, say, slackens competition for all firms in the industry. That is, prices tend to rise and outputs tend to fall.
  - In textbook models of horizontal mergers, i.e. those between firms competing in the same product market, the non-merging firms see greater increases in profits than the merging firms. Intuitively, their rivals face a weaker rival post-merger.
- Horizontal mergers may be done for efficiency reasons.
  - Consolidating the use of capacity (e.g. warehouse space), streamlining overhead, taking advantage of scale economies in input purchases and production.
- Vertical mergers, i.e. those between firms in different parts of the production chain, tend to raise fewer competitive concerns. More later.
Horizontal Mergers: Defining the Relevant Product Market

- If FTC/DOJ review finds a merger not to be anticompetitive, then the firms complete their merger as planned. If FTC/DOJ review raises competitive concerns, then a trial typically ensues.

- FTC/DOJ review begins by defining the **relevant product market**, in a way very similar to the way courts define product markets in monopoly cases.

- Start with the products sold by the merging firms and ask...if these were the only two products in the market, would a monopolist make a “small but significant nontransitory increase in price” (SSNIP)? If so, that’s the relevant product market. If not, add a third substitute good and repeat the query. Continue repeating it until the answer to the query is “yes.” In principle, it could take a large number of substitutes before the answer is “yes.”

- Typically, a SSNIP is 5%+. 
In monopoly cases, the trial is often won or lost over the definition of the product market.

A famous case involved the manufacture of cellophane. duPont was the dominant American producer. In the 1930s it faced entry by Sylvania. Through a series of patent infringement suits and settlement negotiations, it eventually licensed Sylvania in a way that essentially created a cartel.

The government sued duPont in 1947. The case turned on the definition of the relevant product market. duPont (and Sylvania) were the only US producers and sellers of cellophane, but duPont successfully argued that the relevant product market was “flexible wrapping material” (which includes aluminum foil and wax paper) and that they did not have a monopoly on that.

duPont won, in a decision that raised considerable ire among economists.
Defining the Geographic Product Market and Market Shares

- The logic for the geographic market is the same. How big does it need to be before you don’t have a significant number of customers buying substitutes in another geographic location?
- Once the relevant product market has been defined, the FTC/DOJ review calculates market shares of the merging firms’ products and of all other products in the market.
- They then calculate the Herfindahl-Hirschmann Index (HHI), which sums the squared market shares. If there are four firms, then the HHI is

\[
HHI = s_1^2 + s_2^2 + s_3^2 + s_4^2.
\]

- Let the merging firms shares be \(s_1\) and \(s_2\). FTC/DOJ review calculates a pre-merger HHI (as above) and a post-merger HHI:

\[
HHI_{post-merger} = (s_1 + s_2)^2 + s_3^2 + s_4^2.
\]
Defining Market Shares

- The HHI is bounded between 0 and 10,000 (market shares are conventionally represented as whole numbers). Perfect competition yields a very low HHI, while monopoly yields an HHI of $100 \times 100 = 10,000$.
- It is very crude, yet customary, to think of the HHI in terms of the number of firms in the industry if the industry were symmetric. With four symmetric firms, the HHI would be $4 \times \left(\frac{100}{4}\right)^2 = 2500$.
- FTC/DOJ review considers a product market **unconcentrated** if the pre-merger $HHI < 1500$.
- FTC/DOJ review considers a product market **moderately concentrated** if $1500 < HHI < 2500$.
- FTC/DOJ review considers a product market **concentrated** if the $HHI > 2500$. 
Evaluating the Effect of the Merger on Market Shares

- Then, how much does the HHI change pre-merger to post-merger? If it changes by more than 100 and the market is at least moderately concentrated, then the FTC/DOJ typically challenge the merger.

- If it changes by more than 50 and the market is concentrated, then the FTC/DOJ typically challenge the merger.

- Now...do you see why defining the relevant product market is important?
Secondary Considerations

- Firms that are likely to go out of business absent a merger are referred to as “failing firms.” FTC/DOJ review is typically more permissive when one of the merging firms is in this category, because its exit would (typically) be bad for consumers. McAfee cites the merger between Greyhound and (failing) Trailways. The XM/Sirius merger, and other war-of-attrition situations, relate to this as well.

- FTC/DOJ review also considers the likely effects of the merger on entry. Firms capable of entering the market (but nor currently producing) are supposed to be counted in the product market.

- Firms often claim efficiencies or “synergies” from mergers and want FTC/DOJ review to take them into account. For example, if firms can save on costs, then overall welfare could be higher even if consumers are slightly worse off. FTC/DOJ review seldom adopts a “total welfare” standard, however.
Vertical Mergers: Efficiencies

- In general, vertical mergers are more promising in terms of efficiency gains.
- Firms may overcome holdup problems.
- Firms may overcome inefficient pricing phenomena such as double marginalization.
- Firms may overcome externalities.
Most electrical generating plants are near either their customers or where the source of energy can be found.

Coal-fired plants, for example, are typically located either near a coal mine or near a city. Plants near cities typically receive coal by railroad.

These assets (plants, rail lines, coal mines) are specialized to each other. If they were not used for their intended purpose, they would lose much of their value.

If a power plant located next to a coal mine must get coal from elsewhere, it will be much more expensive because of the low value-to-weight ratio of coal.
A mine owner who expands the mine may find that the power plant owner may try to capture all of the rents, e.g. by threatening to use that plant only for backup sources of power. The plant owner might worry that after new, improved turbines are purchased, the mine owner might try to raise the price of coal.

These holdups present a powerful incentive to execute a vertical merger. The incentive is entirely efficiency-based.

- Fewer renegotiations, so lower costs.
- Better incentives to invest in value-creating activities.

Paul Joskow studied the electric utility in the 1970s and 1980s and found that coal mines supplying mine-mouth plants are most frequently owned by the utility they serve (eliminating the holdup problem).
Absent integration, a “retailer” treats the “wholesale” price $P_w$ as its marginal cost $MC_r$, and marks up over that. As a result, the price consumers pay is too high and the quantity they buy is too low. A vertical merger therefore improves both profit and welfare.
Vertical Mergers: Eliminating Externalities

- In car retailing, customers buying from a dealership may base their view of other dealerships and other manufacturer products on their experience at the first dealership.
- In principle, dealerships could compete with each other (as General Motors’ brands did prior to the arrival of Alfred Sloan in the early 1920s), hurting each other.
- If vertical integration improves the coordination of dealerships (similar customer service and selling practices, good market segmentation, etc.), then it may enhance overall efficiency.
There are also several market-power-enhancing reasons to vertically integrate.

- *De facto* price discrimination.
- Foreclosure.
- Raising rivals’ costs.
Titanium Dioxide is a chemical used to make white pigment.

duPont used to sell to firms in two industries, paint and paper.

Suppose the demand from one industry, paper, is very inelastic (paper mills have no alternatives, but paint companies do).

Suppose further that arbitrage prevents direct price discrimination.

If duPont could vertically integrate with one market, it could indirectly price discriminate against the other.
Vertical Mergers: Foreclosure

- In November 1998, Barnes & Noble announced its intention to take over Ingram Books.
- Ingram buys books from publishers and warehouses them for resale to owner-operated book stores and chains, including Amazon.com and Barnes & Noble.
- At the time, Amazon and Barnes & Noble were in a fierce battle over the internet market for books.
- Would Barnes & Noble - Ingram foreclose Amazon?
- Ingram’s service to independent book sellers had some efficiency properties—mainly good information about consumer preferences from service-oriented independents—that might vanish if Barnes & Noble - Ingram disadvantaged the independents.
- Ultimately, after negative signals from the FTC, Barnes & Noble and Ingram abandoned the transaction in June 1999.
Denial of a key input to production (foreclosure) is a rather extreme maneuver. If Barnes & Noble - Ingram foreclose Amazon, they lose a lot of Amazon’s business. For this to be profitable, they would have to make those losses back up in additional downstream profit earned by (better positioned) Barnes & Noble.

A less extreme effect of vertical market-power strategy is raising rivals’ costs. Barnes & Noble - Ingram could just charge more to Amazon, harming their ability to price competitively downstream.
A *conglomerate* merger has no obvious vertical or horizontal dimension.

These types of mergers are not so common today, but were extremely popular during the merger boom of the late 1960s.

International Telephone and Telegraph (ITT) bought over 150 companies during the 1960s. These mergers do not have a great track record. ITT actually divested its telecommunications business entirely in 1986.