Tying, Foreclosure and Section 2 of the Sherman Act

Lecture One: Cases and Conflicting Standards

Daniel R. Vincent*
Department of Economics
University of Maryland
College Park, MD 20742

Introduction

• The notion of anticompetitive tying comes from the idea that a seller can, by various contracting or pricing behavior, induce a competitive rival to exit.

• The regulation of this behavior is governed by Section 2 of the Sherman Act (1890)

> Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony ...

• "The mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only (un)lawful; it is an important element of the free-market system." (U.S. Supreme Court, Verizon v. Trinko (2004).

• Pricing is an exceptionally sensitive area in this process. Price cutting is a classic, a nd a socially desirable form of competition. Lower prices typically make more goods available to mor people and thus result in greater overall benefits to society. P cutting may result also in some competitors being driven out of business, a result that is tolerated as a natural product of legitimate competition... (Ortho v. Abbott, (1993))

• "to establish a section 2 violation, plaintiffs must show 1) that the defendant possessed monopoly power in the relevant market and 2) the defendant willfully acquired this monopoly power by anticompetitive conduct as opposed to gaining it as a result of "a superior product, business acumen or a historical accident." (Concord opinion quoting Grinnell 1966)

• A variety of practices conceivably come under the purview of Section 2: predatory pricing, tie-outs, "raising rivals' costs"

• This series of lectures is interested in examination a particular form of potentially exclusionary behavior: setting contracts so as to induce purchases by a downstream buyer with the intent of denying business to a rival and (potentially) putting the rival out of business.

An Example(From Spector):

• Suppose Firms A and B compete in differentiated widgets. Market size is 1000. 90% of the market always want A's widget, 10% want either A's or B's. Those who want A only have a willingness to pay of 10.

• Were A to charge a marginal wholesale price of 1, B could not get enough sales (through retailers) to remain in the market.

• If A charges 10, it gets $10 \times 900 = 9000$. If it charges 1, it drives B out but only gets 1000. Suppose it offers a "loyalty rebate" such that for every percentage of your purchases over 90% A gives a 1% rebate on ALL purchases.

• The average price A receives under this scheme is 9 but it still is able to generate an exclusionary *marginal* price of less than one.

• These lectures examine the effectiveness and impact of pricing strategies of this type.

Outline of the MiniCourse

1. Some Relevant Cases: Many Opinions are on website.

2. Conflicting Standards: Werden, Melamed, Salop, Spector,

3. Costless Exclusion? Farrell, Nalebuff, Greenlee, Reitman and Sibley, Burstein, Matthewson and Winter (1997) .

4. Equilibrium Exclusionary Contracts: Matthewson and Winter (1987), Ramseyer et. al., Segal and Whinston,

5. Efficiency Defenses: Kolay et. al., Mills, Spector.

Outline of this Lecture

1. Some Prominent Cases

- SmithKline v. Eli Lilly (1976)
- Ortho Diagnostics v. Abbott Labs (1996)
- Concord Boat v. Brunswick (1999)
- Virgin Atlantic Airways v. British Airways (1999)
- Lepage's v. 3M (2004)

2. Legal standards.

- The "No Economic Sense Test"
  - Robert Bork, Ordover and Willig , Posner , Melamed and Werden
- The Consumer Welfare Standard
  - Salop and Popovsky
- Rule of Reason
  - Spector

Some Related Cases

- There a variety of other cases that are tangentially related to these issues.
  - Aspen Ski v.Aspen Highlands (1985) , Verizon v. Trinko (2004) (Refusal to Deal)
  - Barry White v. ITT Grinnnel (1983) (Predatory Pricing)
  - Brooke Group v. Brown & Williamson (1983) (Predatory Pricing)
- I will not discuss these.

SmithKline v. Eli Lilly (1976)

- Facts and Background:
  - Eli Lilly is a pharmaceutical company that initiated the distribution of a potent antibiotic, cephalosporin, in the US market.
  - It enjoyed a monopoly position in the sale of branded products, Keflin and Keflex.
  - In the early 1970's SmithKline acquired the nonexclusive license for a generic brand of cephalosporin, Ancef. Lilly acquired a similar licence sold under the name Kefsol. Lilly and SmithKline made significant inroads in the cephalosporin market threatening even the branded products.
  - Lilly spent $2.4 M promoting Kefzol, SK spent over $20M on Ancef.

- The Complaint:
  - To combat the growth of SK, Lilly developed the revised Cephalosporin Savings Plan (CSP) This offered hospitals the opportunity for a 3% rebate on all purchases of (effectively) three products if the hospital met certain target minimums in each product.
  - The actual plan allowed the hospitals to reach the minimum in any three of five major drugs but effectively that

meant achieving the minimum in Keflin and Keflex and Kefsol.

- The minimum quantity whicch had to be purchased in order to qualify for the rebate was separately calculated for each hospital

- Lilly instructed its salemen to emphasize that the entire rebate should be considered as an inducement to buy Kefzol instead of Ancef and supplied its salesmen with figure to show that to meet this inducement, SmithKline WOULD HAVE TO offer a rebate on Ancef of over 20%.

- The plan did not contain any provision requiring that any hospital purchase any Lilly product in order to buy any other Lilly product, nor does it contain any provision which requires any hospital to refrain from purchasing any product from any course.

• Outcome:

- Court found for the plaintiff as a violation of Section 2 though not of S1 (per se tie). US Third Circ. Affirmed 1978).

- Lilly's ability to offer the bonus and volume rebates under the CSP is a function not of its lower production costs but instead the result of Lilly's ability to recoup the resultant decline in Kefzol profits through its large profit margins on Keflin and Keflex.

- "To prevent further injury to SmithKline from Lilly's illegal Revised CSP, Lilly should be enjoined from offering any rebate or sales promotion plan except on a product by product basis."

Ortho Diagnostics v. Abbott Laboratories (1993)

- Facts and Background:
  - A portfolio of five tests are used by various hospitals and blood collection centers: (1) HBsAg tests for hepatitis B surface antigen; (2) HBc, also known as Anti-Core or Core, tests for the core of the hepatitis B virus; (3) HCV tests for the hepatitis C virus; (4) HTLV tests for a form of virus associated with leukemia; and (5) HIV-1/2 tests for two strains of the human immunodeficiency virus (''HIV'').
  - The five assays each perform a unique function and thus are not interchangeable.
  - Abbot Lab offered all five tests (and a data management system) that were required to screen donated blood for various pathogens.
  - Abbot's market share was HTLV (91%), HIV-1/2 (86%), HBsAg(75%), Anticcore (70%) and HCV (21%)
  - Ortho offered essentially three of the five tests. (Not HTLV or
  - A major purchasing cooperative, CCBC sent out an RFP for a three year contract asking for competitive pricing in the tests.
  - Abbott made the following offer

Test	5 tests DMS Inc	4 Tests DMS Inc	4 Test No DMS	$\leq$ 3 Tests No DMS
HCV	2.90	2.90	2.90	3.53
Anti-core	.85	1.14	1.05	1.25
HTLV	1.03	1.18	1.09	1.57
HIV-1/2	1.93	2.08	1.99	2.47
HBsAg	.66	.81	.72	1.20
Total	7.37	8.11	7.75	10.02

- Given Abbott's monopoly position in HTLV and HIV-1/2 customers felt they had to buy at least two of the tests from Abbott.

- The Complaint:
  - Ortho filed suit under both Section 1 and Section 2 claiming that Abbott's pricing was an attempt to take advantage of its monopoly position in two or three tests to leverage monopoly in the others.
  - Although it conceded that all of the stand alone prices were above Abbott's costs, it claimed that the bundled price put CCBCs in a position that they HAD to take the bundle.
  - If a CCBC bought HTLV, HIV-1/2 and HCV from Abbot and the other two from Ortho, then since combined price of the first three are higher (7.57) than the price of all five tests from Abbott, the implied price of the additional two would seem clearly below MC.
  - The judge agreed that the *incremental* price was relevant using testimony from Ortho's witness J. Ordover.
  - Ordover's test is to ask whether the pricing in the five test package is such that the incremental revenue from selling the two additional tests is greater than the revenue forgone as a result of the price cuts of the original three test. If so, then the package is deemed "compensatory", otherwise it is viewed as a violation of Section 2
  - It argued that if a CCBC bought HTLV, HIV-1/2 and HbsAg from Abbot and the other two from Ortho.
  - Pricing DMS at 0.36, then the incremental price of Anticore and HCV in the five test bundle is 1.77.
  - Ortho's witness claimed that the MC of the two tests is 1.49 so even on the Ordover test, these do not seem to be below MC.

- However, the judge pointed out that Ordover failed to take into account two additional facts:

- "...the package pricing structure Abbott adopted cut the prices of all five assays. As demand for a firm's products ordinarily is a function of price-lower prices generally mean greater demand-Abbott's CCBC pricing reasonably may be expected to have increased its unit sales of all of the assays and thereby to have generated added profits offsetting, at least in part, the revenue loss attributable to the price cuts. Ordover's deposition testimony does not confront this matter with any specificity. "

- " The combined unbundled price of Abbott's HIV-1/2 and HTLV is $4.04. As its package price for all five tests is $7.37, Ortho could sell its three competitive assays competitively with the Abbott package at a combined price of $3.33, which admittedly is above its cost. Hence, Ortho in substance seeks relief under the antitrust laws for business lost as a result of its own refusal to lower its prices sufficiently to meet the competition."

- Outcome:

  - Abbott's motion for summary judgment dismissing the complaint is granted as to the entire first claim for relief and granted

Concord Boat vs. Brunswick (1999)

- Facts and Background:
  - Brunswick was the leader in stern motor boat engine manufacturer (75% of market in 1983).
  - In 1983, it began to offer market share discounts to its downstream clients, boat builders and dealers. If they agreed to purchase a target percentage of their engines from Brunswick they would be entitled to a percentage off the price. (3% for 80% share, 2% for 70% share, 1% for 60% share). (These varied over the time of the period in question.)
  - In addition, quantity discounts of up to 5% were offered. Brunswick documents declared a target of 95% market share. Policy was discontinued in mid-90s.
  - Brunswick also vertically integrated downstream into boat manufacturers, bought Bayline and SeaRay.

- The Complaint
  - In 1995 boat builders filed suit under Clayton Section 7 and Sherman Section 2 claiming the market share discounts, vertical integration and long term contracts were geared to monopolize the engine market and ultimately led to supra competitive prices. (Robert Hall from Stanford was boat builders' expert.)
  - They alleged that B erected and maintained barriers to entry and put its customers in "golden handcuffs" such

that boat builders and dealers had no choice but to purchase engines from B. (p. 34)

- Outcome:
  - The district court found for the plaintiff, they were awarded damages of $142M.
  - On appeal, evidence was presented that some boat builders chose to purchase 100% of their requirements from B even though they only needed to purchase 80% for the discount. (p.26, opinion)
  - Appeals Court found that the contracts were not exclusive, "customers were free to walk away and did" (p.31) (Thus not a tie.)
  - Furthermore, plaintiffs present no evidence of barriers to entry in the market and, in fact, other manufacturers did enter. (32)
  - Neither did they show that B's pricing was below cost.
  - Appeals Court of 8th Circuit overturned the judgement.

Virgin Atlantic Airlines vs. British Airways (1999)

- Facts and Background:
  - BA was clearly the dominant carrier in markets from Heathrow to the US. It controlled 39% of the slots. 19 of its routes were monopoly routes.
  - It serves between 43% and 45% of all Heathrow passengers.
  - The US-UK routes were among its most profitable. But these routes had been growing more competitive in recent years.

- The Complaint
  - Virgin Atlantic Airways charged BA used pricing to limit its entry into air traffic market between Britain and the US.
  - BA enters into incentive agreements with repeat customers – travel agents and corporate customers. With both, special incentive payments (to TAs) or discounts were offered when sales targets were reached. About 40% of its US traffic is sold through these agencies (B115)
  - The agreements "bundled routes" (Bernheim) offered a theory of predatory foreclosure whereby BA used pricing practices to exclude VAA from the US market.

- Bernheim establishes the following *example*. Suppose a typical TA requires services on 20 Heathrow routes all served by BA. Now, suppose BA says, if you purchase air travel on 19 routes, you can have the 20th for a penny. Any potential entrant wishing to compete on a single route cannot because the effective marginal price of any single route from BA is 1 cent. (The customers still have to buy the other 19 from BA) which presumably is below any measure of marginal cost.

- BA's pricing practices involved i) pooling across routes (in establishing a target) and ii) dollar one clauses. (the incentive payments are assigned to all routes sold not just to the marginal one.)(87)

- To be eligible for an incentive payment, a corporation or TACO had to provide either a certain market share or target. The payments were higher as higher targets were met.(88)

- "Even when there is no explicit bundling (so corporations are technically permitted to purchase BA's services separately route by route) incentive schemes can be used to similar effect. (95)

- Bernheim argues that the scheme is noncompensatory at the margin, meaning that the incremental revenue on the additional flights minus the incremental costs minus the incentive payments are negative.(96)

- "If BA is selling its incremental frequencies below its own incremental cost, then even an equally efficient entrant on a single route ... will not be able to attract BA's incentivized customers....By foreclosing an equally efficient (or

more efficient) rival, BA restricts output, harms the competitive process and deprives consumers of the benefits offered by BA's rival.

- Outcome:
  - Bernheim uses some data to compute the incremental cost of an additional flight.
  - If instead, BA just increased the load factor, maybe the incremental cost is basically zero.
  - This turns out to be where the judge dismisses the case on summary judgement since no evidence was offered that additional flights were provided.

Lepage's vs. 3M (2004)

- Facts and Background:
  - 3M manufactured Scotch Brand transparent and in early 1990s controlled 90 % of the US market.
  - In the 1980s, Lepage's promoted and sold a second brand tape as well as a private label. It gained 90% of the private label market by 1990.
  - Demand for this market rose with the emergence of office super stores like Office Depot and Staples.
  - 3M began selling its own private label tape. Offered multi-level bundled rebates to customers, conditioned on the customer's level of purchases from each of the segments of 3Ms product line. The more targets met, the larger the rebates.

- The Complaint:
  - Lepage's sued under Sections 1 and 2 of Sherman, and Section 3 of Clayton.
  - 1. 3M made outright payments to distributors in exchange for exclusivity.
  - 2. It paid Kmart $1m to drop L. Paid Staples $1.5M .
  - 3. It conditioned a special price to Sam's club if it kept Lepages out. 2.
  - 4. 3M created a series of bundled rebates. If a distributor failed to meet growth targets in anyone product line, it had to pay a higher price on many products purchased from 3M.
- Outcome:
  - Lepage lost Kmart business, Tesa exited the market, Lepage lost money.
  - Jury returned a verdict for 3M under 1 and 3 but found for Lepage's under 2. Treble damages were awarded of $68.5M.
  - Panel of Third Circuit overturned because discounts were above cost.

- This was reversed by the full court finding that 3M "used its monopoly power over transparent tape, ... to entrench its monopoly to the detriment of Lepage, its only serious competitor in violation of Section 2 of the Sherman Act".

- District court judge told jury "if 3M has been attempting to exclude rivals on some basis other than efficiency, you may characterize that behavior as predatory."

- Appeals Panel said that Lepage incorrectly argued that the linkage of a monopoly product with a competitive one is the significant factor to be considered rather than pricing "... if this was so, competitors unwilling to accept lower profits could use the law to insulate themselves from competition."

- The full court replied that it did not matter that Lepage's did not show price was below cost because they were not making a predatory pricing claim. The standard was to see if 3M engaged in exclusionary or predatory conduct without a valid business justification.

- The full court invoked Lilly where the decision recognized that..."the principal anticompetitive effect of bundled rebates is that when offered by a monopolist, they may foreclose portions of the market to a potential competitor who does not manufacture an equally diverse group of products and who therefore cannot make a comparable offer."

- US Supreme Court chose not to hear an appeal so the ruling stands.

Part II: Standards

• As in the case of predatory pricing, evaluating and identifying potentially anti-competitive conduct under Section 2 is extremely difficult.

• ...antitrust laws ought not condemn price-cuts lest

> a rule or precedent that authorizes a serch for a particular type of undesirable pricing behavior end up discouraging legitimate price competition. (Breyer, Reiter v. Sonotone, 1979)

• Rule of Reason v. Per se standards:

- Certain categories of conduct are judged under a "per se" standard. That is to say, simply showing a conduct took place is sufficient to show a violation of an antitrust statute. The standard example of this is price-fixing (a violation of Sherman, Section 1)

- Other types of conduct are judged under a "Rule of Reason". Under this standard, various explanations for the actions are

considered, pro-competitive defenses allowed, and typically a successively finer screen is used to come to a decision.

- At times, the distinction is not exactly obvious. (See for example the standards under tying arrangements.

- Section 2 actions are all considered under a Rule of Reason standard, however, ...

- > Although courts usually express the Rule of Reason as a specific step-wise test for assessing the legality of conduct, the Rule of Reason generally provides a principle for generating antitrust doctrines in a common-law fashion ... Section 2's Rule of Reason so understood, asks: For the type of conduct at issue, which Legal test is likely to maximize consumer welfare over the long run? (Popovsky, p.2)

• Although all of these standards are formally Rule of Reason, three different approaches might be distinguished:

- "No Economic Sense Test"
  - Below-cost pricing (Bernheim, Areeda Turner, Ortho)
  - Protecting an equally efficient competitor (Posner)
  - The Profit Sacrifice Test or The No Economic Sense Test (Bork, Werden, Melamed)
- The Consumer Welfare Standard (Salop)
- A Successive Screen Test (Popovsky, Spector)

The No Economic Sense Test

• These tests have been proposed in order of increasing stringency.

• The idea can likely be traced back to Robert Bork, *The Antitrust Paradox* "..if a firm has been attempting to exclude rivals on some basis other than efficiency, it is fair to characterize its behavior as predatory." (Popovsky, p. 4-5)

• It is sometimes thought of as "a predation test for non-price predatory conduct." (Salop p. 3)

• Note that although the test has a strong element of motive at its core, its goal is both factual *and* intent driven.

• A virtue that is often attributed to it, is its opportunity to provide firms with a "safe harbor". Firms can determine on the basis of their own information whether their own behavior is sheltered from antitrust investigation.

The Below Cost Test

• This was the standard applied in Ortho.

• Developed from a rule of Ordover as expert witness and the notion of compensatory pricing.

• Bernheim applies a similar point in his brief in VAA v. BA.

• It is a direct extension of predatory pricing logic. As such, it only condemns pricing under *some* measure of direct costs. (marginal, average variable). (Not opportunity costs.)

• Presumably, under this standard, as long as a firm prices above cost, it is in a safe harbor.

• Problem is that limit pricing models indicate that anticompetitive exclusion could occur even with prices above costs. (Suppose a monopolist, threatened by an aggressive but less efficient rival, cuts its price to a "limit price".)

Equally Efficient Competitor

• A variant of this test, is to query whether the conduct has the property of excluding an "equally efficient competitor". (Posner).

> The question, therefore, is whether a firm that enjoys a monopoly on one or more of a group of complementary products, but which faces competition on others, can price all of its products above average variable cost and yet still drive an equally efficient competitor out of the market.(Ortho Opinion)

• This is more general than above because it covers non-price conduct as well.

• The rationale is that while we cannot identify every possible anticompetitive problem, a policy geared to protecting an equally efficient competitor has the property of ruling out egregious conduct and also allows a firm to rely on its own data to determine legality.

• As a general rule, the exclusionary effect of prices above a relevant measure of cost either reflects the lower cost structure of the alleged predator, and so represents competition on the merits, or is beyond the practical ability of a judical tribunal to control without courting intolerable risks of chilling legitimate price cutting. (Brooke Group)

• Problem is that it seems too lax. What about differentiated products where product variety is an important welfare source?

No Economic Sense Test

• The first version of this is the profit sacrifice test which is the natural extension of predatory pricing logic.

• Really a version of Ordover-Willig's definition of predatory pricing.

> Predatory pricing is a response to a rival that sacrifices part of the profit that could be earned under competitive circumstances, were the rival to remain viable, in order to induce exit and gain consequent monopoly profit. (quoted in Werden p. 11)

• Consider the example offered by Salop:

Suppose the monopoly price is $100 and at some point a new competitor enters the market. The monopolist cuts price. That action on its own cannot be anticompetitive, since we expect entry to lead to price cuts. However, how do we distinguish *too low* a price cut? Here is the role of the profit sacrifice notion. A price cut below marginal cost is clearly suboptimal (without exclusion). The profit sacrifice test asks, what price would emerge under duopoly competition? A price cut below *that* level would indicate that the monopoly is deviating from her static best response and would suggest that her motive is to induce exit from the rival.

No Economic Sense Test

• This test generalizes the profit sacrifice test in the sense that sometimes, a pure measure of profit sacrifice might not be available or appropriate. Would apply to non-price behavior as well.

• "A finding of exclusionary conduct requires some sign that the monopolist engaged in behavior that – examined without reference to its effects on competitors – is economically irrational." (Stearns Airport Equip. v. FMC. 1999)

• "Conduct makes no economic sense unless it is expected to yield a positive expected payoff, net of the costs of undertaking the conduct, and not including any payoff from eliminating competition." (Werden, p. 3)

• "A short-run profit sacrifice also is not necessary for conduct to be deemed exclusionary ... because te anticompetitive gains from exclusionary conduct sometimes can be reaped immediately." (Werden, p. 13)

A Consumer Welfare Standard

- Salop

Structural Screen Standard

- Spector