1991

Economic Rents and Essential Facilities

Keith N. Hylton
Boston University School of Law

Economic Rents and Essential Facilities

*Keith N. Hylton**

I. INTRODUCTION

This paper presents an economic analysis of the essential facility doctrine of antitrust. According to this doctrine, a firm or group of firms that possesses exclusive access to a cost-reducing facility must be prepared to share such access on fair terms with competitors.[1]

Section II of this paper describes the essential facility doctrine and its development. The doctrine, in its modern form, appeared rapidly after the *Associated Press*[2] decision, receiving its first complete statement in *Gamco, Inc. v. Providence Fruit*

---

* Assistant Professor, Northwestern University School of Law, and Research Fellow, American Bar Foundation. A.B., Harvard University; Ph.D. (Economics), Massachusetts Institute of Technology; J.D., Harvard Law School. The author thanks Ian Ayres for helpful comments, as well as participants in faculty workshops at Boston University, New York University, Syracuse, and Cornell for helpful comments on an earlier draft of this paper.

1. This is a durable and rough statement of the doctrine; a more complete statement is provided in the next section of this paper. Not all essential facility cases involve facilities that are clearly "cost-reducing." *See, e.g.*, Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585 (1985) (concerning access to a joint-marketing arrangement). However, when viewed in terms of the underlying economics, this distinction is not important.

Facilities at the center of previous litigation in this area have included a series of power lines, Otter Tail Power Co. v. United States, 410 U.S. 366 (1973); interconnections with local telephone services, MCI Communications Corp. v. American Tel. & Tel. Co., 708 F.2d 1081 (7th Cir.), *cert. denied*, 464 U.S. 891 (1983); and space in a building with a desirable location, Gamco, Inc. v. Providence Fruit & Produce Bldg. Inc., 194 F.2d 484 (1st Cir.), *cert. denied*, 344 U.S. 817 (1952). Airline computer reservation systems have been a recent subject of litigation. *See* Stephen P. Mahinka, *Vertical Restraints as Exclusionary Practices: Current Issues in Regulated and Deregulated Industries*, 58 ANTITRUST L.J. 921, 925-29 (1989); Note, *The Legal and Regulatory Implications of Airline Computer Reservation Systems*, 103 HARV. L. REV. 1930 (1990).

2. Associated Press v. United States, 326 U.S. 1 (1945) (holding that exclusion of competitors from an essential network of information was an illegal combination under the Sherman Act). *Associated Press* is discussed more fully *infra* notes 118-21 and accompanying text.

& Produce Building, Inc.[3] Although it now states an independent theory of antitrust liability, in some cases it can be seen as a derivative of the leverage theory.[4]

Section III presents an economic model of an essential facility dispute. The model reveals how the language in essential facility cases is at odds with economic theory. For example, essential facilities are treated as sources of monopoly profits. The income earned through ownership of a cost-reducing facility is an economic rent, and rents are observed in many relationships in which monopoly power is not an issue.

The model also examines whether essential facility claims can be procompetitive, arriving at a disappointing answer. First, and perhaps obviously, such claims are not necessarily procompetitive because the firm gaining access to a cost-reducing facility through a court-imposed sharing remedy may enter into a collusive agreement with firms that already have access to the facility.[5] If collusion does not occur, however, it is still not clear that shared access would yield benefits to consumers. For example, if access-sharing raises production costs for participating firms, welfare losses may result.

Further, consideration must be given to the effect a compulsory sharing rule would have on incentives to acquire cost-reducing facilities. Such a rule would be undesirable if its only effect was to discourage investment in cost-reducing facilities. However, an access-sharing rule may benefit consumers by discouraging anticompetitive, rent-seeking investments, such as efforts to acquire economically unjustifiable copyright or patent protection.

Section IV develops the arguments presented in Section III by discussing some essential facility cases. The paper groups the cases into three categories. One category involves access to high-fixed, low-marginal cost resources (e.g., bridges). Another involves access to joint venture activities (e.g., research consortia). The third is a residual category, containing cases that do not obviously raise the economic problems observed in cases falling under the other two categories. The paper argues

---

3. 194 F.2d 484 (1st Cir.), *cert. denied*, 344 U.S. 817 (1952).

4. *See infra* notes 11-14 and accompanying text for a discussion of the leverage theory.

5. Note that to the extent sharing access to an "essential facility" allows participating firms to also share cost data, access-sharing may facilitate collusion.

that in the absence of government regulation, application of the essential facility doctrine is particularly troublesome in the first two categories. In the first category of cases the doctrine is likely to discourage investments in which a significant part of the cost is sunk. In the second category, a compulsory sharing rule is likely to discourage the provision, within the consortium, of the public goods that make it a valuable arrangement. The third category may include a subset of cases in which these problems are not observed.

The article concludes that it is extremely difficult to determine whether the essential facility doctrine will increase consumer welfare in a particular case. A determination may require the level of inquiry typically undertaken by public utility regulators. For this reason, there should be a presumption against claims that consumer welfare will be enhanced by applying the essential facility doctrine to force owners to share access with competitors. On the other hand, a presumption against essential facility claims in regulated markets is not clearly desirable because the doctrine may serve as a disincentive to anticompetitive transfers of property rights from public to private ownership. At the least, courts should be sensitive to the difficulties presented by the separate categories of cases identified in this paper.

II. THE DOCTRINE AND ITS DEVELOPMENT

A. Doctrine

The most frequently-cited statement of the essential facility doctrine is Neale's summary: "The Sherman Act requires that where facilities cannot practicably be duplicated by would-be competitors, those in possession of them must allow them to be shared on fair terms. It is illegal restraint of trade to foreclose the scarce facility."[6]

---

6. A.D. NEALE, THE ANTITRUST LAWS OF THE UNITED STATES OF AMERICA: A STUDY OF COMPETITION ENFORCED BY LAW 67 (2d ed. 1970). For another frequently-cited statement, see LAWRENCE A. SULLIVAN, HANDBOOK OF THE LAW OF ANTITRUST § 48, at 131 (1977), which states the rule as follows: "[I]f a group of competitors, acting in concert, operate a common facility and if due to natural advantage, custom, or restrictions of scale, it is not feasible for excluded competitors to duplicate the facility, the competitors who operate the facility must give access to the excluded competitors on reasonable, non-discriminatory terms." Sullivan's statement is more restrictive than Neale's in that it requires joint activity. For a critique of some expansive interpretations of the doctrine, see Phillip Areeda, *Essential Facilities: An Epithet in Need of Limiting Principles*, 58 ANTI-

Not surprisingly, courts and commentators differ in their application of the doctrine. For example, most academic commentators think that the activity complained of must be joint in order for the injured party to invoke the essential facility docrine.[7] Courts do not impose such a restriction.[8] Also, scholars write as if the plaintiff and the defendant must be competitors in order for the plaintiff to invoke the doctrine,[9] but courts are split on the issue.[10]

B. Development of the Doctrine

Although cases attribute the essential facility doctrine to *United States v. Terminal Railroad*,[11] there are several theo-

---

TRUST L.J. 841 (1989).

7. For statements of the doctrine provided by Neale and Sullivan, see *supra* note 6 and accompanying text; *see also* 3 PHILLIP AREEDA & DONALD F. TURNER, ANTITRUST LAW ¶ 729g (1978).

8. For example, United States v. Otter Tail Power Co., 331 F. Supp. 54 (D. Minn. 1971), *aff'd*, 410 U.S. 366 (1973) and Aspen Highlands Skiing Corp. v. Aspen Skiing Co., 738 F.2d 1509 (10th Cir. 1984), *aff'd*, 472 U.S. 585 (1985), both of which discuss the essential facility doctrine, did not involve joint activity. *See also* MCI Communications Corp. v. American Tel. & Tel. Co., 708 F.2d 1081, 1147 n.10 (7th Cir.) (rejecting argument that joint activity is required), *cert. denied*, 464 U.S. 891 (1983).

9. This is obvious from the statements of the doctrine by Neale and Sullivan. *See supra* note 6 and accompanying text; *see also* AREEDA & TURNER, *supra* note 7, ¶ 729g. PHILLIP AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶ 736.1a, ¶ 736.2e (Supp. 1987) provide a more general treatment of this issue, but still conclude that the doctrine should be restricted to competitors.

10. In support of limiting the doctrine to competitors, see Garshman v. Universal Resources Holding Inc., 824 F.2d 223, 230 (3rd Cir. 1987); Interface Group, Inc. v. Massachusetts Port Auth., 816 F.2d 9, 12 (1st Cir. 1987); Fulton v. Hecht, 580 F.2d 1243, 1247-48 (5th Cir. 1978), *cert. denied*, 440 U.S. 981 (1979); Dart Drug Corp. v. Corning Glass Works, 480 F. Supp. 1091, 1097-98 & n.9 (D. Md. 1979); Shapiro v. General Motors Corp., 472 F. Supp. 636, 644 (D. Md. 1979), *aff'd*, 636 F.2d 1214 (4th Cir. 1980), *cert. denied*, 451 U.S. 909 (1981).

In support of extending the doctrine to noncompetitors, see General Motors Corp., 99 F.T.C. 464 (1982); *accord* LaPeyre v. FTC, 366 F.2d 117, 120 (5th Cir. 1966); Venture Technology, Inc. v. National Fuel Gas Co., 1980-81 Trade Cas. (CCH) ¶ 63,780, at 78,169 (W.D.N.Y. 1981), *rev'd on other grounds*, 685 F.2d 41 (2d Cir.), *cert. denied*, 459 U.S. 1007 (1982); Reuben H. Donnelley Corp., 95 F.T.C. 1, 76-82 (1980), *rev'd sub nom.* Official Airline Guides, Inc. v. FTC, 630 F.2d 920 (2d Cir. 1980), *cert. denied*, 450 U.S. 917 (1981). Although not stating this explicitly, the decision in Byars v. Bluff City News Co., 609 F.2d 843, 860 (6th Cir. 1979), in which the essential facility charge was brought by a customer-competitor, implicitly supports extending the doctrine to noncompetitors.

11. 224 U.S. 383 (1912). In *Terminal Railroad* a group of railroads set up a corporation which gained control of all terminal facilities in St. Louis. Consequently, a monopoly replaced a system in which three independent routes (two bridges and one ferry) competed. A more detailed discussion of *Terminal Railroad* is provided in the text accompanying notes 96-108.

ries from which the doctrine could have been derived. Consider, for example, the leverage theory of *United States v. Griffith*.[12] In one class of essential facility cases, the monopolist is using his control over a scarce resource to determine which of several firms will do well.[13] For example, the monopolist may use its control over the only local television station to channel advertising business in the direction of one agency.[14] In this area, the essential facility doctrine could be seen as a corollary to the *Griffith* proposition.

Another holding from which a form of the essential facility doctrine could be derived is *American Federation of Tobacco Growers v. Neal*.[15] There the defendant trade association, which had been given the power to regulate warehouse sales, denied the plaintiff access to local auctions. Use of the essential facility doctrine to prevent exclusion in such a case can be defended as a means of preventing parties from exploiting, in a manner which reduces consumer welfare, a transfer of government resources into private hands.[16]

A more obvious argument could be based on the test for monopolization.[17] Denying access to some scarce resource may

---

12. 334 U.S. 100 (1948). The opinion is better known for the "Griffith formula," which states that "the use of monopoly power . . . to foreclose competition, to gain a competitive advantage, or to destroy a competitor, is unlawful." *Id.* at 107.

Two cases often cited in support of the essential facility doctrine that rely on the leverage theory are Packaged Programs, Inc. v. Westinghouse Broadcasting Co., 255 F.2d 708 (3d Cir. 1958) and Six Twenty-Nine Prod., Inc. v. Rollins Telecasting, Inc., 365 F.2d 478 (5th Cir. 1966).

13. *See* James R. Ratner, *Should There Be an Essential Facility Doctrine?*, 21 U.C. DAVIS L. REV. 327, 360 (1988).

14. *See, e.g., Westinghouse*, 255 F.2d 708.

15. 183 F.2d 869 (4th Cir. 1950).

16. In general, a welfare-reducing transaction is more likely to occur when the party acquiring the publicly-owned resource is not required to pay a fair price for it. A similar argument, concerning the public-trust doctrine, Illinois Central R.R. v. Illinois, 146 U.S. 387 (1892), is made in Richard A. Epstein, *The Public Trust Doctrine, in* PUBLIC CHOICE AND CONSTITUTIONAL ECONOMICS 324 (James D. Gwartney & Richard E. Wagner eds., 1988). I should also note that a broadly similar justification of the essential facility doctrine is briefly stated in Bruce M. Owen, *Determining Optimal Access to Regulated Essential Facilities*, 58 ANTITRUST L.J. 887, 889 (1990) ("The original downstream bottleneck monopoly may be unwarranted, created and maintained by regulators in pursuit of some policy or political goal.").

17. United States v. Grinnell Corp., 384 U.S. 563, 570-71 (1966) (defining the elements of Section 2 monopolization as: "(1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen or historic accident.").

evidence an intent to monopolize. Under this approach, the essential facility doctrine would be subsumed under the intent test.[18]

There may be other theories from which the essential facility doctrine could be derived. However, the question remains how the doctrine, as an independent theory of antitrust liability, developed and came to be linked with *Terminal Railroad.* The case offers almost nothing on this itself.[19] There is no statement of an essential facility doctrine in the opinion. Indeed, the Court's effort to ground its decision in the facts suggests that it made no attempt to state a generally applicable proposition.[20]

The first discussion of *Terminal Railroad* in a federal court opinion is found in *United States v. Union Pacific Railroad,*[21] where the court briefly refers to it as a decision justifying an examination of intent and purpose in deciding whether a combination violates the Sherman Act.[22]

The next discussion appears in *United States v. Standard Oil Co.,*[23] which is the first to treat *Terminal Railroad* as offering a theory of antitrust liability independent from the more general intent test. The court cites *Terminal Railroad* as requiring the examination of the "effects" of a merger, whatever the intent behind it.[24] If one effect is to "keep others from entering the business," the merger causes an "undue or unreasonable restraint on trade."[25]

The third discussion appears in the dissent in *C.E. Stevens*

---

18. The Court took this approach, long before the *Grinnell* standard for Section 2 monopolization had been formulated, in United States v. Union Pacific R.R., 226 U.S. 61 (1912).

19. *See, e.g.*, Ratner, *supra* note 13, at 336 ("Significant facts severely constrain a conclusion that the case established the general essential facility concept . . . ."); David Reiffen & Andrew N. Kleit, *Terminal Railroad Revisited: Foreclosure of an Essential Facility or Simple Horizontal Monopoly?*, 33 J.L. & ECON. 419 (1990).

20. *Terminal Railroad*, 224 U.S. at 405.

21. 226 U.S. 61 (1912). The opinion concerned the purchase by Union Pacific Railroad Company of a controlling 46% of the stock of the Southern Pacific Company. The Court held that the purchase led to an illegal combination in violation of Section 1 of the Sherman Act.

22. *Id.* at 93.

23. 47 F.2d 288 (D. Mo. 1931) (holding that the United States could not enjoin a planned merger between the Standard Oil Company of New York and the Vacuum Oil company on the ground that it violated a decree resulting from previous antitrust litigation).

24. *Id.* at 296-98.

25. *Id.* at 298.

Co. v. Foster & Kleiser Co.,[26] which refers to *Terminal Railroad* as establishing the proposition that "intent [to monopolize] can be inferred from the extent of control . . . ,"[27] again suggesting that the *Terminal Railroad* doctrine is subsumed under the intent test.

Thus, before 1945 courts do not articulate a principle similar to Neale's statement of the bottleneck doctrine.[28] Two of the three discussions of *Terminal Railroad* in the federal court opinions treat it as merely another case justifying the examination of intent.[29]

The turning point seems to have been Justice Douglas' concurring opinion in *Associated Press*.[30] Discussing remedies generally, Douglas briefly drew an analogy between granting competitors access to the Associated Press network and the problem of granting competitors access in *Terminal Railroad*.[31]

From this point the doctrine developed rapidly. *Gamco, Inc. v. Providence Fruit & Produce Building, Inc.*,[32] comes close to stating the doctrine in its present form.[33] The First Circuit[34] held that it "is incumbent on one with the monopolist's power to deny a substantial economic advantage . . . to a competitor to come forward with some business justification."[35] *Gamco* also presents alternative bases for its holding—in particular, the leverage theory of *Griffith* and the public trust theory underlying *American Tobacco Growers v. Neal*.[36]

It was not until 1971 that the essential facility doctrine again received significant attention in a federal court opin-

---

26. 109 F.2d 764 (9th Cir.), *rev'd*, 311 U.S. 255 (1940).
27. *Id.* at 772 (Haney J., dissenting).
28. *See infra* note 6 and accompanying text.
29. *Union Pacific*, 226 U.S. at 93; *C.E. Stevens*, 109 F.2d at 772.
30. Associated Press v. United States, 326 U.S. 1 (1945).
31. *Id.* at 25 (Douglas, J., concurring).
32. 194 F.2d 484 (1st Cir.), *cert. denied*, 344 U.S. 817 (1952).
33. *Cf.* Gregory J. Werden, *The Law and Economics of the Essential Facility Doctrine*, 32 ST. LOUIS U. L.J. 433 (1987) (stressing importance of *Gamco* in the development of essential facility doctrine).
34. Judge Clark, of the Second Circuit, sitting by designation, wrote the opinion for the majority. *Gamco*, 194 F.2d at 485 n.1.
35. *Id.* at 489.
36. *Id.* at 487. The requirement of "indispensability" (brought up and rejected in *Associated Press*, 326 U.S. at 18) is also discussed. The court notes that the existence of alternative sites does little to help the defendant's case ("The short answer . . . is that a monopolized resource seldom lacks substitutes; alternatives will not excuse monopolization."). *Gamco*, 194 F.2d at 487.

ion.[37] In the meantime, Neale's first edition of *Antitrust Laws of the United States of America* was published. Viewed in light of the discussion in *Gamco* of the "duty" to provide access, Neale's claim that the cases exhibited an underlying doctrine that "where facilities cannot practicably be duplicated . . . those in possession of them must allow them to be shared on fair terms" reflected an expansive reading.[38]

United States v. Otter Tail Power Co.[39] was the next case to discuss *Terminal Railroad*, and the first opinion following *Associated Press* to clearly distinguish the doctrine of *Terminal Railroad* from traditional intent analysis.[40] The court cites Neale's discussion of the bottleneck theory of antitrust law as providing an alternative basis, independent of the intent test, for finding a violation of the antitrust law in Otter Tail's refusal to allow other power sources to use its subtransmission lines.[41] Some recent cases follow *Otter Tail* closely in distinguishing the doctrine of *Terminal Railroad* from traditional

---

37. However, two cases decided after *Gamco* shed some light on the then-prevailing interpretation of *Terminal Railroad*. One is Seatrain Lines Inc. v. Pennsylvania R. Co., 108 F. Supp. 113 (D. N.J. 1952), *cert. denied*, 345 U.S. 916 (1953), decided later in the same year as *Gamco*. Seatrain, which operated barges capable of carrying 100 railroad cars, brought suit to enjoin several railroads from denying it access to their freight cars. Seatrain's complaint was dismissed. Although the opinion says nothing of the essential facility doctrine, it is noted that "Seatrain argues that the combination is a simple breach of the antitrust laws for which it is entitled to relief by way of injunction and damages under such decisions of the United States Supreme Court as United States v. Terminal Railroad Association, . . . and Associated Press v. United States." 108 F. Supp. at 120. The statement suggests awareness, at least on Seatrain's part, of something resembling the modern interpretation of the doctrine of *Terminal Railroad*. Also, Parmelee Transportation Co. v. Keeshin, 186 F. Supp. 533 (N.D. Ill. 1960), *aff'd*, 292 F. 2d 794 (7th Cir.), *cert. denied*, 368 U.S. 944 (1961) cites *Terminal Railroad* and *Associated Press* for the proposition that "terminal facilities may be established cooperatively . . . provided that they are made available on a non-discriminatory basis." *Id.* at 540.

38. NEALE, *supra* note 6, at 67.

39. 331 F. Supp. 54 (D. Minn. 1971), *aff'd*, 410 U.S. 366 (1973). In *Otter Tail*, municipalities sought to compete with the Otter Tail Power Company by acquiring their own electric facilities. However, the municipalities could not afford to construct their own subtransmission lines and Otter Tail refused to wheel power supplied by other generators over its subtransmission lines. For further discussion of *Otter Tail*, see *infra* notes 109-14 and accompanying text.

40. This was the approach in United States v. Standard Oil Co., 47 F.2d 288 (D. Mo. 1931), but it obviously did not catch on then.

41. The Supreme Court affirmed the relevant part of the judgment but neither approved nor disapproved of the discussion of the essential facility doctrine. *See* Otter Tail Power Co. v. United States, 410 U.S. 366 (1973); *see also* Aspen Highlands Skiing Corp. v. Aspen Skiing Co., 738 F.2d 1509, 1520 n.13 (10th Cir. 1984), *aff'd*, 472 U.S. 585 (1985).

intent analysis.[42]

III. THEORETICAL CONSIDERATIONS: THE ECONOMICS OF FACILITY-SHARING

Given its status as part of the modern arsenal of antitrust plaintiffs,[43] it is surprising that the essential facility doctrine has received little rigorous examination from the economically-oriented antitrust commentators. Why would a plaintiff find it necessary to bring such a claim when at some price almost any firm will share access to a scarce resource within its possession? Is it reasonable to infer that all essential facility plaintiffs are merely disappointed suitors, asking the court to grant access cheaply when the market would not? Are such suits likely to yield benefits to consumers? This section considers these questions within the framework of a simple model of an essential facility dispute.

A. Sharing Access: Basic Considerations

Suppose two firms, A and B, produce widgets. Firm B's average production cost is $3. Firm A's average cost is less than $3 in the relevant output range, because firm A has access to a cost-reducing facility.[44] Moreover, because firm A alone has access to the cost-reducing facility, a new entrant would find itself in the same position as firm B. Assume, however, that entry is easy.

Suppose firms A and B compete on the basis of price (but

---

42. *See, e.g., Byars v. Bluff City News Co.*, 609 F.2d 843, 856 (6th Cir. 1979). The essential facility cases following *Otter Tail* seem to have contributed little to the doctrine's development. For example, *Hecht v. Pro-Football, Inc.* repeats Neale's statement and goes on to say that an essential facility "need not be indispensable" and does not have to be shared "if such sharing would be impractical or would inhibit the defendant's ability to serve its customers adequately." 570 F.2d 982, 992 (D.C. Cir. 1977), *cert. denied*, 436 U.S. 956 (1978). Similar statements can be found in *Gamco*. Similarly, MCI Communications Corp. v. American Tel. & Tel. Co., 708 F.2d 1081 (7th Cir.), *cert. denied*, 464 U.S. 891 (1983) provides a four-part test: "(1) control of the essential facility by a monopolist; (2) a competitor's inability practically or reasonably to duplicate the essential facility; (3) the denial of the use of the facility to a competitor; and (4) the feasibility of providing the facility." *Id.* at 1132-33.

43. A WESTLAW search will reveal that the number of cases mentioning *Terminal Railroad* increases dramatically after 1971.

44. The assumption that "essential facilities" are cost-reducing facilites runs throughout the literature. *See, e.g.*, AREEDA & HOVENKAMP, *supra* note 9, ¶ 736.1a (describing essential facility as providing "substantial cost advantage").

not quality). If they charge a high price, say $4 per widget, each will have an incentive to undersell the other, leading to price competition and perhaps losses; moreover, an entrant may come along and bloody the market with new competition. An obvious solution for firm A is to charge $2.99 per widget and take the market to itself. Since A is guaranteed a stable flow of profits, this is the likely outcome of competition. Since the lower price eliminates the incentive for new firms to enter the market, I will refer to $2.99 as an "entry-blockading" price. Further, for simplicity I will sometimes use terminology from the limit-pricing literature[45] and refer to firm A as the "incumbent" and firm B as the "entrant."

In this model, firm B is unable to share the market with firm A as long as the two compete in price. Moreover, consumers benefit by paying $2.99 per widget instead of the higher $4 which they would pay if the two firms shared the market. Thus, if any gains are to be enjoyed by consumers through A's granting access to the facility to firm B, they must result because the two firms continue to compete in price after both have access to the cost-reducing facility.[46] But this is not a guaranteed outcome. The firms may collude after reaching an agreement to share access to the facility, leaving consumers worse off.[47]

It may help to pause at this stage and consider some of the implications of this hypothetical. Sharing access to a cost-reducing facility may or may not yield benefits to consumers. In this example, if firms compete after agreeing to share access, consumers will benefit because each firm with access to the

45. A firm "limit-prices" when it charges just below the price at which a new firm would find it profitable to enter the market. For an introduction, see F.M. SCHERER, INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE 233, 243 (2d ed. 1980).

46. Since the issue will arise again, I should note here that the two firms will compete after entering into an access-sharing arrangement only under special circumstances. Suppose firm A charges firm B for access to the cost-reducing facility. If firm A charges a sufficiently high royalty on each sale made by firm B, firm A can effectively prevent firm B from using price to compete against it. However, if firm A charges firm B a lump sum access fee, firm B will be able to compete against firm A at the same low-unit cost level that firm A faces. Thus, later discussion in the text of firm B competing against firm A under a sharing agreement assumes that firm A is, for some reason, unable to force, or "bond", firm B to keep its price at a certain level.

47. Consumers would be worse off because the two firms together would charge $4 per widget instead of the $2.99 that would be charged when firm A "blocks out" firm B. Sharing access to a cost-reducing facility may facilitate collusion.

facility will be able to undercut the entry-blockading price level. On the other hand, with shared access to the facility it may become clear to the competing firms that since neither possesses a cost advantage there is little to be gained by trying to underprice the other. In this sense, shared access may itself be a "facilitating mechanism"[48] for collusion. However, the incentive to cheat[49] and the possibility of new entrants also gaining access to the facility serve to lessen this incentive to collude.

The strength of the incentive to cheat on a collusive agreement is difficult to quantify.[50] In general, the larger the number of firms sharing access to the cost-reducing facility, and the harder it is for participating firms to monitor each other's activites, the greater the incentive to compete in price. Thus, where conditions permit easy entry, allowing entrants to gain access to the cost-reducing facility will effectively police the behavior of firms which have access to the facility. Moreover, even if entrants could not gain access to the facility, they would nevertheless provide competition to the incumbent firms to the extent that the incumbents could not set price above the average cost of the lowest-cost entrant.

This discussion has implications that run counter to traditional ways of thinking about the essential facility doctrine, as expressed in court opinions. Most judicial opinions assume that the firm which has access to the facility is avoiding competition by denying access to another firm. However, this view fails to recognize that the "outside" firm is already providing competition. The entrant firm's ability to undercut the incumbent firm at any price that exceeds its average cost forces the incumbent to share cost advantages with consumers, and this is what competition is supposed to do. The decision by the incumbent not to share access with a competitor does not mean that the incumbent is able to operate free from competition.

The decision whether to share a scarce facility is more

---

48. The term paraphrases Areeda's "facilitating practice" which is any practice that facilitates oligopolistic collusion. *See* PHILLIP AREEDA, ANTITRUST LAW ¶ 1407 (1986).

49. There is generally an incentive to cheat because collusive agreements are usually not "self-enforcing" or "Nash" equilibria. A theory covering the exceptions, and antitrust implications, is presented in Ian Ayres, *How Cartels Punish: A Structural Theory of Self-Enforcing Collusion*, 87 COLUM. L. REV. 295 (1987).

50. *See, e.g.*, SCHERER, *supra* note 45, at 160-64 for a general discussion of the problem.

complicated than the usual discussions imply. The decision to deny access may be based on a desire to avoid having to compete with a firm that possesses the same cost advantage, and in this sense may reflect an anticompetitive intent. However, the decision to grant access may follow an agreement to collude, which would also reflect anticompetitive intent. A reasonable approach to the essential facility doctrine obviously must take these issues into consideration.

A deeper sense in which this discussion is at odds with traditional analyses concerns the very definition of profit. I have referred to firm A as having a competitive advantage because it has exclusive access to a cost-reducing facility. This should not be taken to mean that firm A receives a monopoly profit.

Monopoly profit, as a type of economic profit, is profit in excess of opportunity cost.[51] In a competitive industry, economic profit is driven to zero by entry. In the model discussed here, firm A makes a profit when it charges the entry-blockading price $2.99 as long as its average cost is below $2.99. For example, if firm A's average cost is $1.99, then it makes a profit of $100 when it produces 100 widgets. However, this is not necessarily an economic profit; it is an economic profit only if it exceeds the opportunity cost of the cost-reducing facility. The opportunity cost of the facility is its maximum value in the next best alternative use. Thus if firm B is more efficient than A, and could lower its average cost to $0.99 if it had the same cost-reducing facility as firm A, the value of the facility to firm B would be $200. In this case firm B could offer to purchase the facility from A for $120 and both firms would benefit from the exchange. Thus, if firm B is more efficient than A, A would make less than its opportunity cost in the equilibrium in which it blocks out firm B by charging $2.99, even though its accounting books would show a profit. If firm B is equally efficient, firm A would make an accounting profit just equal to its opportunity cost. If firm B were less efficient, firm A would make more than the opportunity cost of the facility, the excess reflecting a *rent* accruing to its superior efficiency, which itself has a value on the market. For example, if firm A's superior efficiency results from the presence of better managers, firm B

51. For a discussion of monopoly profit, opportunity cost, and economic profit, see FRANKLIN M. FISHER ET AL., FOLDED, SPINDLED, AND MUTILATED: ECONOMIC ANALYSIS AND *U.S. v. IBM* 219-69 (1983).

would be more efficient if it instead "owned" the same managers. Thus, with the value of the management team and the value of the facility taken into opportunity cost, firm A still makes no profit above its opportunity cost, and thus no monopoly profit.

My point is that the language of monopoly power and monopoly profit is to some extent misplaced when used in reference to essential facility disputes. Exclusive access to a scarce, cost-reducing facility does not by itself generate monopoly profits.[52]

B. Voluntary Sharing: Incentives and Implications for Consumer Welfare

1. Access sharing: necessary conditions

Given low transaction costs, which describes the situation of the firms bargaining over access to a cost-reducing facility, one might think that access-sharing will take place only when it is socially desirable.[53] However, this intuition is probably wrong. Firms bargaining over access to a cost-reducing facility may not take consumers' interests into account.[54] Thus, there is little reason to believe that observed patterns of voluntary sharing are socially efficient. Voluntary sharing is explored here, using the model introduced in the previous section.

---

52. To see this, note that in figure 1, firm A is not producing at the monopoly output level — its price-output is constrained by potential competition from firm B. It might be argued that this point is irrelevant, given the thrust of this paper. The question examined here is whether use of the essential facility doctrine to force owners to share access is socially desirable. The answer to this question does not obviously depend on whether profits are characterized as monopoly rents or competitive rents. The problem with this line of reasoning is that the description of the source of rents is crucial. Common reference to the rents earned from ownership of a cost-reducing facility as monopoly rents eventually takes on life of its own, leading the typical observer to believe that such rents are unearned or necessarily the result of anticompetitive behavior.

53. This would seem to be implied by the Coase Theorem, which states that in the absence of transaction costs parties will bargain themselves to an efficient arrangement, R.H. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960).

54. For example, the firms negotiating a sharing agreement may decide to collude and raise price to the monopoly level. Since monopoly is inefficient, this clearly would not be in the best interests of consumers. Of course, the mere fact that monopoly is inefficient implies something interesting: the firms could always make themselves (and consumers) better off by charging a two-part tariff with price set at marginal cost. Transaction costs and informational asymmetry suggest that this solution is not always available, and for this reason we sometimes observe monopolies setting price above marginal cost.

If firm B could gain access to the essential facility, it would be able to produce widgets under the same technological constraints as firm A, thus facing the same costs.[55] Firm A would then be forced to share the market with firm B. Clearly, one way for firm B to gain access is to offer a payment for access to the facility. Under what conditions is this payment likely to be exchanged?

Firm A will accept the payment if its net income, including the payment, is at least as great as its net income when it charges $2.99 per widget and thereby blocks out firm B. Let P^1_A be firm A's expected profit from producing widgets when it charges $2.99. Let P^2_A be firm A's expected profit when it shares the scarce resource with firm B. Let "s" represent the payment from B to A. Firm A will accept the payment from B, in exchange for granting access to its facility, when

$$P^2_A + s > P^1_A.$$

Firm B will find the payment for access attractive when its economic profit is positive, since in this case it is doing better than if required to exit the industry altogether. Let P^2_B be firm B's expected profit when it is allowed access the scarce resource. Thus, firm B will offer the payment if

$$P^2_B > s.$$

It follows that an arrangement to share access to a cost-reducing facility is likely to take place voluntarily only when joint profits under the sharing arrangement are no less than the profit of the firm which owns the facility when it sets price at an entry-blockading level, i.e., when

$$P^2_A + P^2_B > P^1_A.$$

Sharing access is mutually beneficial when and only when joint profits under the sharing arrangement exceed the profit of the facility-owner when it sets price at an entry-blockading level.

2. *Mutually beneficial sharing*

In the case in which joint profits exceed the profit of the facility-owner acting alone there is a "rent surplus" resulting from the sharing arrangement. What is the source of this surplus?

Consider Figure 1. Let (100, $2.99) be the profit-maximizing quantity and price combination for the firm which has access to the cost-reducing facility when it sets an entry-block-

55. Provided that the access fee is a lump sum payment. *See supra* note 46.

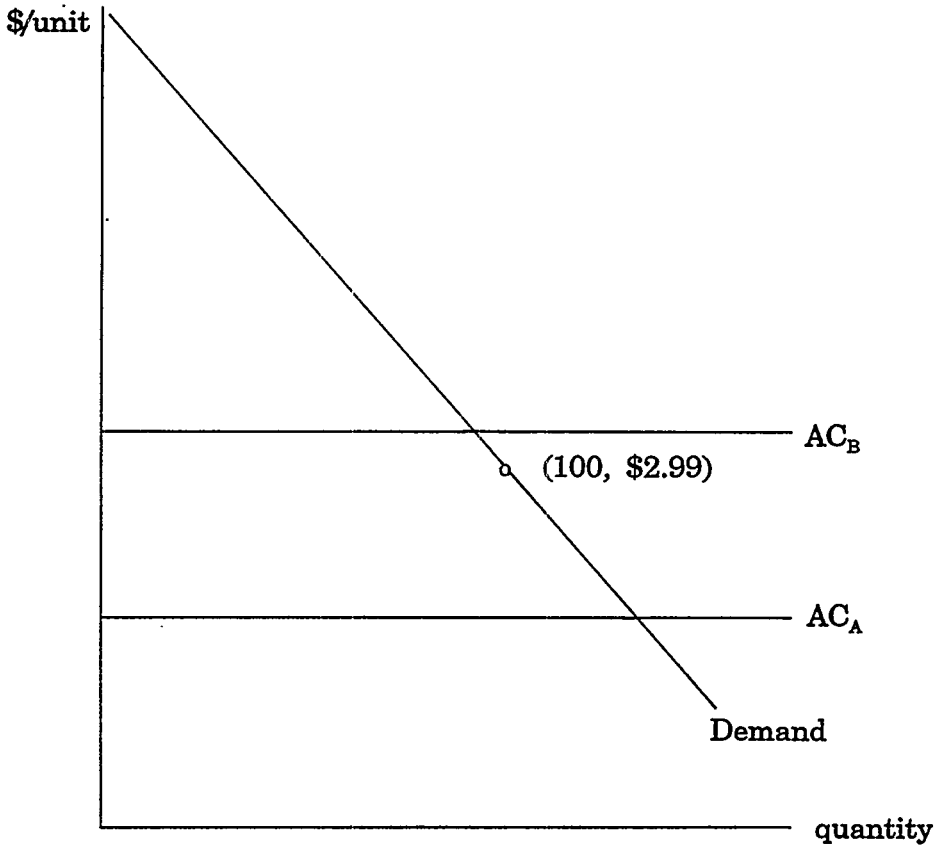
access to the cost-reducing facility when it sets an entry-blockading price. Suppose sharing access itself produces no technological benefits that further reduce production costs.[56] Thus, when access to the facility is shared, both firms produce under the same cost conditions as firm A (the AC_A curve shown in Figure 1 represents the average cost of their joint output). Since, by hypothesis (100, $2.99) is the profit-maximizing output-price combination when firm A produces alone, subject to potential competition from firm B, the joint production level must be to the left of this,[57] i.e., below 100 widgets. Otherwise, firm A would produce more than 100 widgets when it has the market to itself. But if the firms jointly produce less, they must also charge a price higher than $2.99.[58] Since the firms produce less and charge a higher price, the inescapable conclusion is that consumers are worse off. Thus, if the mere act of sharing access does not enhance the cost advantage provided by the facility, then voluntary sharing, provided it is preferable to non-sharing from the perspective of each of the participating firms, reduces consumer welfare.

56. In some cases the act of sharing itself may increase the cost advantage provided by the facility, *see infra* note 59 and accompanying text.

57. It should be noted that this assumes that the monopoly price that would be set by firm A is greater than the average cost of firm B, AC_B. If the monopoly price were less than AC_B, then firm B's presence would have no effect on firm A's pricing. (Otherwise, firm B would have to bluff firm A into thinking it was actually a low-cost producer, which is very unlikely.) In this case, even though firm A acts as a monopolist, consumers would still be better off buying from firm A at its monopoly price than from firm B. Throughout this discussion I have been assuming that firm A's monopoly price is greater than AC_B.

58. They will charge the same price because with costs equalized there is no incentive to compete in price.

Economic Rents and Essential Facilities



This need not be the case if sharing access enhances the cost advantage provided by the facility. For example, firm B may have perfected some technology which allows it to reduce the joint costs of A and B when access to the facility is shared.[59] It is not necessarily the result that the joint profit-maximizing price and output combination lies to the left of (100, $2.99) along the market demand curve.[60] Since the price and quantity combination may entail higher output and a lower price, consumer welfare may be enhanced by an agreement to share access to the facility.[61]

To summarize, when sharing yields a profit, or more accurately a rent surplus, a voluntary agreement among the firms to share access to a cost-reducing facility may or may not be welfare-enhancing from the point of view of consumers. If there are no technological benefits flowing from shared access, voluntary sharing will be mutually beneficial, as between the two participating firms, only under an anticompetitive agreement. However, if there are significant technological benefits, consumers may benefit even though the firms sharing access to the facility operate under an anticompetitive agreement.

The intuitive explanation for this conclusion is fairly straightforward. Given that the two firms will find sharing mutually beneficial only when there is a rent surplus resulting from the agreement, we must determine the sources of this surplus. There are only two: monopoly profits from collusion or efficiency gains that can be realized only through sharing access.

3. *Non-mutually beneficial sharing*

Voluntarily sharing may also occur when joint profits un-

---

59. In this case the AC_A curve shown in Figure 1 shifts down when access to the facility is shared. How might this happen? Consider the news-sharing network in *Associated Press*. For a small network, the pooling benefits achieved by expanding to include new members may outweight the costs. For further discussion of this case, *see infra* text accompanying notes 118-21.

60. In other words, the price/output combination chosen by a monopolist in this position may be at a point where output is higher and price lower.

61. Alternatively, shared access may shift the demand curve for the product outward, as was claimed in Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585 (1985). Since this case does not raise new and analytically different problems, I restrict the discussion to the case where shared access generates cost reductions.

der the sharing arrangement are equal to the profits of the facility owner acting alone (i.e., charging the entry-blockading price). In this case, there is no rent surplus resulting from the sharing agreement and Firm A will share access only if Firm B compensates it for the forgone profit. Both firms are indifferent as between the sharing arrangement and the outcome in which firm A acts alone.

4. The "metering" problem: why the necessary conditions for sharing may not be sufficient

The discussion to this point has stated necessary conditions for access sharing in the case of a cost-reducing facility. The conditions stated are not sufficient because the terms of the agreement to share access have important implications.

If the owner of the facility grants access to another firm, it will in some cases desire constraints on the competitive actions of the firm seeking access. For example, if the facility owner has incurred a large sunk cost in developing the facility, the rent earned from the facility will help recoup the costs of development. In this case the owner of the facility will not want to be denied the chance to recoup its costs by the competitor who is granted access.

The obvious way to prevent this is to enter into a price-fixing agreement, but this is illegal. An alternative approach is to charge a fee for each unit of the competitor's output. If the fee is appropriately set, it will serve as a floor on the competitor's pricing. For example, if firm B is required to pay $.99 per unit of output, its unit cost would be $2.99 under the sharing agreement, which would remove the incentive for firm B to compete in price. A single "lump-sum" access fee, unrelated to the competitor's output rate, will not protect the incumbent. From the perspective of firm B, the lump-sum fee is a sunk cost after payment, so it has every reason to compete with respect to price after gaining access to the facility.

Although the per-unit access fee is a solution in theory, practically, it would be very hard and in some cases impossible to determine.[62] For example, it may be very costly to accurately measure the output of firm B. Alternatively, there may be

62. *See* David J. Gerber, Note, *Rethinking the Monopolist's Duty to Deal: A Legal and Economic Critique of the Doctrine of "Essential Facilities"*, 74 VA. L. REV. 1069, 1088-91, (1988) (discussing the "metering" problem).

other difficult-to-measure ways in which sharing access diminishes the future stream of rents to A. For example, firm B, as a lessee of sorts, may not take the same care in using the facility as would the owner.[63]

The problem of protecting A's claim to a future stream of rents may be described as one of opportunism, but a more accurate term is "time-inconsistency." Access sharing may be potentially profitable, but in sharing access the owner of the facility exposes itself to the risk that the firm granted access will compete with respect to price after gaining access to the facility. If the rent earned from the facility is only sufficient to recoup the costs of development plus a normal profit, the facility owner will be reluctant to expose itself to such competition.

C. Incentives to Acquire an Essential Facility

Up to this point I have treated the cost-reducing facility as if it appeared out of thin air. However, because most cost-reducing facilities must be developed, the effects of a sharing requirement on incentives to develop or to acquire such facilities must be examined.

1. Incentives to acquire a cost-reducing facility

Well-known justifications of patent law provide an immediate and intuitively obvious proposition: requiring firms to share access will generally reduce incentives to acquire cost-reducing facilities.[64]

---

63. This is an example of the "agency cost" problem discussed in its most general form in Gary S. Becker & George J. Stigler, *Law Enforcement, Malfeasance, and Compensation of Enforcers*, 3 J. LEGAL STUD. 1 (1974), and further elaborated in Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305 (1976). For example, the wheeling of electric power requires consideration of incentive issues discussed in the agency cost literature. Joskow and Schmalensee, discussing the pooling of electric power, note that "[e]ven in a brokerage arrangement, a substantial amount of cooperative activity is required to set up a system and to keep it functioning satisfactorily." PAUL L. JOSKOW & RICHARD SCHMALENSEE, MARKETS FOR POWER: AN ANALYSIS OF ELECTRIC UTILITY DEREGULATION 71 (1983).

64. Although there seems to be little empirical evidence demonstrating the incentive effects of patent rights, some very sketchy evidence can be obtained from comparisons of patent protection regimes across countries. Consider the following:

> Although impossible to quantify, trade in ideas seems to be flourishing where patent protection is strong. Trade in ideas is the sole business of America's Battelle Institute. In 1925 Battelle had revenues of $3.5 [million] and 30 employees; in 1987 it had revenues of $610 [million] and

Consider firm A's incentive to develop or acquire a facility which will lower its unit cost from $3 to $2. If the facility allows it to earn rents by underpricing firm B at $2.99, then the value of the facility is the stream of $.99 on every sale. Suppose, then, that after developing the facility, firm A is required to share access with firm B. If A is able to charge B its forgone profit on each of B's sales, i.e., $.99 per unit sold by firm B, A will obviously be compensated in full for granting access to B.[65] Thus, if firm A is able to charge a compensating access fee, forcing A to share access with B would not discourage the development of a cost-reducing facility.

Of course, nothing in the essential facility doctrine guarantees that the stream of rents accruing to the facility-developer will be protected. In particular, such rents may not be protected or protectable because it is impossible, for reasons discussed in the previous section, to implement a compensating access fee.[66]

2. *Acquiring facilities that raise competitors' costs*

If all essential facilities were of the cost-reducing variety, this analysis probably would dispose of the issue. However, a firm might find it profitable to invest in a facility, which has the effect of raising the costs of competing firms.[67] For exam-

---

8,000 employees . . . .

. . . .

Threats to patent protection, by contrast, seem to stifle trade. Mexico, for one, threatened to force drug companies to hand over production of their wares to local firms — rather as a compulsory license would do. The drug companies countered with a threat to abandon the Mexican market entirely. Though the government backed down, American drug firms are still leery of exposing too much of their technology south of the border.

Whose Idea Is It Anyway?, THE ECONOMIST, November 12, 1988, at 73-74.

The other side of the coin is that strong patent protection, besides being redundant as an incentive device in some cases, encourages rent-seeking efforts to claim patent protection. For example, in the U.S., firms have appeared whose sole purpose is to finance patent litigation. *See* Edmund L. Andrews, *Financing Inventors' Lawsuits*, N.Y. TIMES, March 11, 1989, at 36.

65. This conveniently assumes that the facility will not need to be repaired over time. If facility repair will be required, the fully-compensating per unit access fee must also cover depreciation costs.

66. If this is so, firm A will be left with either an uncompensating per unit access fee, a lump sum access fee, or some combination of both.

67. This is the "raising rivals' costs" problem emphasized in Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power Over Price*, 96 YALE L.J. 209 (1986). This is Krattenmaker and

ple, a firm may attempt to acquire copyright or patent protection for no other reason than to extract rents from, or to exclude, competitors.[68] A sharing requirement would be desirable in this case because it would prevent firms from profitably effecting such acquisitions.

The problem, then, becomes one of distinguishing between two types of acquisition: (1) cost-reducing facilities; and (2) facilities that raise competitors' costs. Application of a sharing requirement would be undesirable in the former case and desirable in the latter.

Can these two types of acquisition be distinguished by courts? Probably not in all cases, though some success might be achieved through application of doctrine already developed in copyright and in patent law.[69] But regardless of whether courts can distinguish the types of acquisition, there are reasons to believe that the purely anticompetitive, rent-seeking acquisition will be observed for the most part in rather special circumstances.

The first reason is that purely anticompetitive acquisitions of essential facilities are unlikely to be profitable when substitutes to the facility are available.[70] For example, suppose a firm purchases a bridge, with the intention of charging higher

---

Salop's interpretation of the facts in *Terminal Railroad. Id.* at 234-36. The discussion in the text accompanying notes 96-108 takes no position on this interpretation.

68. That is, a firm may seek copyright protection even though the economic justification for granting such protection is weak — for example, protection of a design which is a trivial variation of something in the public domain. *See, e.g.*, L. Batlin & Son, Inc. v. Snyder, 536 F.2d 486 (2d Cir.) (concerning copyrightability of plastic toy savings bank which was itself a close copy of a design in the public domain), *cert. denied*, 429 U.S. 857 (1976); Donald v. Zack Meyer's T.V. Sales & Serv., 426 F.2d 1027 (5th Cir. 1970) (plaintiff sought copyright protection for common legal form), *cert. denied*, 400 U.S. 992 (1971). Similarly, as long as the patent validity requirement is less than perfectly enforced, firms have incentives to seek patent protection for obvious inventions, *e.g.*, Martin J. Adelman, *Property Rights Theory and Patent-Antitrust: The Role of Compulsory Licensing*, 52 N.Y.U. L. REV. 977, 987 (1977).

69. For example, the doctrine developed from patent-licensing cases may be useful in distinguishing facilities that are "cost-reducing" from those that raise competitors' costs. *See* Gerber, *supra* note 62, at 1103-07 (discussing efforts in patent cases to distinguish patents that are "highly productive" from those that are "restrictive" in the sense that they serve largely to limit competition). Similarly, copyright doctrine protecting "originality," and in some cases mere diligence, might be useful in distinguishing cost-reducing and anticompetitive acquisitions. *See, e.g.*, National Business Lists, Inc. v. Dun & Bradstreet, Inc., 552 F. Supp. 89 (N.D. Ill. 1982).

70. *See, e.g.*, Steven C. Salop & David T. Scheffman, *Raising Rivals' Costs*, 73 AM. ECON. REV. 267 (1983).

rates to competitors who use the bridge. This would provide an opportunity for ferry service providers to earn profits by charging lower rates to the newly-disadvantaged competitors. Thus, if substitutes to the essential facility can easily enter, the value of a purely anticompetitive acquisition will be quite small.

The second reason purely anticompetitive acquisitions will be limited is familiar in the predatory pricing literature: they are unlikely to profitable. For a rent-seeking acquisition to be profitable, the owner must recover the costs of acquisition. Acquiring a facility that raises a competitor's costs is analogous to engaging in a predatory pricing campaign. Both involve incurring up-front costs in expectation of future monopoly profits. But a slight risk of later entry by a lower-cost competitor can significantly reduce the expected profitability of such an acquisition.[71] One might argue that the owner has an incentive to acquire a reputation for toughness, which will deter future entry. But this argument is subject to the "chain store" paradox critique: the reputation for toughness will deter entry only if predatory action is credible, and it is credible only if it is rational *ex post*, which is doubtful in this and the predatory pricing context.[72]

The final reason purely anticompetitive acquisitions will be limited to special circumstances is that in a market in which competitive bidding for possession of an essential facility takes place, the incentive to make a purely anticompetitive acquisition will often be weak. For example, if there are several equally efficient firms, i.e., no lowest-cost producer, it is unlikely that any one of them will be able to *profitably* acquire a facility whose only effect is to put competitors at a disadvantage. The reason is that such a facility will be valuable for the same

---

71. *See* Frank H. Easterbrook, *Predatory Strategies and Counterstrategies*, 48 U. CHI. L. REV. 263, 273-75 (1981).

72. Predation is often not rational *ex post* because the incumbent firm is usually better off sharing the market with a new rival rather than starting a price war with the rival. This critique of predatory pricing was first stated in the antitrust literature in Frank H. Easterbrook, *Predatory Strategies and Counterstrategies*, 48 U. CHI. L. REV. 263, 284-88 (1981). I use the term "chain store paradox" because Easterbrook's criticism had been developed earlier in the more technical economics literature. In that literature the criticism was referred to as the chain store paradox problem. *See, e.g.*, Paul Milgrom & John Roberts, *Predation, Reputation, and Entry Deterrence*, 27 J. ECON. THEORY 280 (1982). The term "chain store paradox" was apparently coined by Reinhard Selten, who offered the paradox as an illustration of the perfectness problem in extensive games. *See* Reinhard Selten, *The Chain Store Paradox*, *in* 9 THEORY AND DECISIONS 127 (1978).

reason to many competing firms. The firm that beats out its competitors in the auction will be forced to pay full value for the facility,[73] eliminating the gain from acquisition.

If firms are not equally efficient, the facility would most likely wind up in the hands of the most efficient producer. However, the efficient producer could achieve the same result by simply underpricing its rivals. For this reason the existence of an essential facility would not necessarily affect the structure (i.e., who survives competition) of the industry. In addition, it does not follow that the lowest-cost firm will always be able to profitably acquire the facility. As long as there is some "hold-out" value to the less efficient firms in gaining possession of the facility,[74] the lowest-cost firm may be prevented from making a profitable acquisition.

This argument implies that acquisitions of facilities that merely raise rivals' costs will occur for the most part in settings where substitutes to the essential facility are unavailable and competitive bidding for possession of the facility is restricted. The most common example of this setting involves the transfer of a public resource into private hands through some process which effectively restricts competitive bidding.[75] Indeed, all private efforts to generate legislation which puts rivals at a competitive disadvantage[76] can be thought of as efforts to acquire "facilities" that raise competitors' costs. Since this sort of activity takes place in a non-market setting, the reasons given for thinking that the incentives to make purely anticompetitive

---

73. The counterstrategies of rivals, in an auction for possession of an essential facility, are briefly discussed in Herbert Hovenkamp, *Antitrust Policy, Restricted Distribution, and the Market for Exclusionary Rights*, 71 MINN. L. REV. 1293 (1987).

74. Suppose the facility is worth $100 to firm A and $10 to firm B. Then the "hold out" value to firm B is any price between $10 and $100. Firm B has an incentive to acquire the facility as long as it can resell it for more than the price paid.

75. This suggests alarmingly vast areas in which the essential facility doctrine might be helpful: regulated industries (particularly franchises granted by government agencies), patents, and copyrights.

76. Generally, efforts to have taxes or tariffs imposed on competing firms easily fall within this category. However, efforts to put rivals at a disadvantage can be and often are more subtle than this. For example, safety or environmental regulations can be influenced in ways that tilt the playing field in favor of certain firms. *See* Ann P. Bartel & Lacy G. Thomas, *Direct and Indirect Effects of Regulation: A New Look at OSHA's Impact*, 28 J.L. & ECON. 1 (1985) (presenting evidence that OSHA's enforcement of health and safety regulations favor large, unionized firms at the expense of small, non-unionized firms). ROBERT H. BORK, THE ANTITRUST PARADOX 347-64 (1978), offers additional examples.

acquisitions are generally weak do not apply.

Thus, in spite of its inconsistency with patent law justifications, the essential facility doctrine is potentially desirable as a means of discouraging acquisitions that only raise competitors' costs. But in markets in which entry is generally easy and competitive bidding for possession of facilities occurs, the essential facility doctrine will be less useful as a disincentive to purely anticompetitive acquisitions.[77] Anticompetitive acquisitions are more likely to involve the transfer of a resource or claim by the government to a private party.[78]

3. *Summary*

The essential facility doctrine is not clearly desirable or undesirable when viewed on welfare grounds. Consumers might benefit if firms A and B compete subject to lower unit costs, or if access-sharing itself enhances the cost advantage provided by the facility. However, this must be weighed against its discouraging effect on incentives to develop cost-reducing facilities. The doctrine also discourages acquisition of facilities that raise competitors' costs (e.g., the rent-seeking copyright), but this benefit is probably limited to circumstances not requiring a doctrine so broad in application. The theoretical ambiguity surrounding the doctrine suggests that a closer examination of the cases may yield insights.

IV. RECURRENT FACT PATTERNS AND CASES

The essential facility cases obviously are more complicated than the simple model discussed in the previous section. How-

---

77. Conversely, if entry is difficult and competitive bidding restricted, claims brought under the essential facility doctrine could provide substantial benefits to consumers. Note that this provides an argument for basing antitrust liability on efforts to influence regulatory boards (because such boards often restrict entry and dole out property rights by means other than competitive auctions). The argument presented in chapter 18 of BORK, *supra* note 76, distinguising the doctrine of *Noerr* (Eastern R.R. Presidents Conference v. Noerr Motor Freight, Inc., 365 U.S. 127 (1961)) from the decision in California Motor Transport Co. v. Trucking Unlimited, 404 U.S. 508 (1972), is broadly similar.

78. This provides justification for the relationship suggested in Section III between the essential facility and public trust doctrines. Although the general question whether successful rent-seeking transfers (e.g., legislation which raises competitors' costs) usually require the cooperation of government has been largely ignored in the recent literature, a forceful argument that government participation is usually necessary is provided in Thomas DiLorenzo, *The Domain of Rent-Seeking Behavior: Private or Public Choice?*, 4 INT'L REV. L. & ECON. 185 (1984).

ever, there are recurrent fact patterns that can be considered abstractly. One such pattern, exemplified by *Terminal Railroad* and *Otter Tail*, involves access to some high-fixed, low-marginal cost facility, like a bridge.[79] A second recurrent fact pattern involves an attempt by firm B to gain entry into a joint venture or consortium, as in *Associated Press*. The third pattern involves the attempt by firm B to share in the locational advantage enjoyed by firm A. *Gamco* is an example. I refer to these fact patterns as "bridge," "joint venture," and "location" cases respectively.

These types of cases can be ranked in terms of the risks of potential welfare losses presented by the imposition of a compulsory sharing rule under the essential facility doctrine. Bridge and joint venture cases are difficult to rank because efficiency considerations counsel against use of the essential facility doctrine to prevent exclusion. However, bridge cases are probably more troublesome because application of the doctrine militates against the kind of long-term commitments that must be enforced in order to protect incentives to invest in facilities in which a large part of the cost is sunk.[80] The location category is actually a residual grouping that includes facilities that do not fall in either of the other categories.

A. Bridge Cases

Bridge cases, exemplified by *Terminal Railroad* and *Otter Tail*, involve access to some high-fixed, low-marginal cost facility.[81] When the market serviced by such a facility is sufficiently small, the structural requirements of natural monopoly will

---

79. NEALE, *supra* note 6, at 66, seems to discuss this type of case when describing the typical essential facility dispute: "Classic 'bottleneck' situations have arisen in the transport industries; the only accessible site for a railway or bus terminal in a city, for example, comes under the control of established concerns, and new entrants must either be allowed to share the facilities or fail."

80. It is not proven below that the social cost from applying the essential facility doctrine in "bridge" category cases is greater than that arising from its application in "joint venture" category cases. In both areas, application of the doctrine might yield a net loss to society, however the types of losses generated are different.

81. On the economic problems raised by such facilities, *see* R. H. Coase, *The Marginal Cost Controversy*, 13 ECONOMICA 169 (1946); Harold Hotelling, *The General Welfare in Relation to Problems of Taxation and of Railway and Utility Rates*, 6 ECONOMETRICA 242 (1938); W. Arthur Lewis, *The Two-Part Tariff*, 8 ECONOMICA 249 (1941); Walter Y. Oi, *A Disneyland Dilemma: Two-Part Tariffs for a Mickey Mouse Monopoly*, 85 Q. J. ECON. 77 (1971).

be satisfied. For this reason, government regulation is often a background feature in this category.

Regulation complicates matters greatly and suggests special reasons for permitting or perhaps encouraging essential facility suits. For example, compulsory sharing may be expected under the regulatory regime, so that it is unlikely that exclusion is really a necessary means of recouping investments.[82] Alternatively, regulation itself may facilitate purely anticompetitive acquisitions. Still, these arguments do not apply in every case,[83] and, for this reason, an examination of the underlying economics remains useful.

Because the cost of providing additional service is low, the denial of access to competitors in cases involving access to a high-fixed, low-marginal cost facility seems unfair. However, the original builder of the facility must recoup its sunk investments in some way, and this may require excluding potential users.

Consider an example. Suppose firm A supplies electricity to the city Noplace. In order to get power to the residents of Noplace and other adjacent cities, firm A builds a series of transmission lines. The cost of building the lines is high, but there is no other way to get power to Noplace.

The efficient way for the residents to pay for power is to compensate firm A up front for building the transmission lines and pay marginal cost for the power supplied to them. However, this is generally infeasible. In the typical real-world solution to this problem, the residents compensate the builder by paying more than marginal cost for power. But this solution brings forth new problems. If given the option, consumers will prefer to replace firm A, the original supplier, with an alternative cheaper supplier. If a potential supplier can gain access to firm A's transmission lines without compensating A for the cost of building them, it may be able to offer power at a lower price even though it is a less efficient supplier. Thus, consumers, as a group, have an incentive to defect from the original contract, and alternative suppliers have an incentive to exploit

---

82. Of course, this still begs the question whether a compulsory sharing rule is itself justifiable. I consider this question in this section. In order to answer this I focus on the underlying economics in analyzing the fact patterns.

83. For example, in *Otter Tail* there was no expectation of compulsory sharing under the Federal Power Commission's regulation of electricity generation. Otter Tail Power Co. v. United States, 410 U.S. 366, 375 (1973).

ready-to-use transmission lines. However, if it were clear to the original supplier at the beginning that the residents would later replace it with another source, and that this other source could gain access to its lines at a nonremunerative rate, it would seek to recover its investment in transmission lines up front. Since the consumers would probably not be able to pay for the structure up front — indeed this is why they are paying more than marginal cost for power — the electricity would never be supplied.

This is a commitment problem, similar in almost all respects to the much older one of taxing capital.[84] Once the capital stock is in place it makes a fine source of tax revenue because it is not about to disappear quickly. However, if the government announced this as its policy, or failed to convince entreprenuers that it would never take this route, capital growth would shrink accordingly.

The essential facility doctrine presents itself as an obvious problem. Application of the doctrine may allow an alternative power source to gain access to firm A's transmission lines at a price that fails to compensate A for the loss of exclusive use of the structure.[85] The savings might then be passed on to the consumer, but there is no sense in which this power is cheaper for society. Of course, the alternative source might be able to offer power more cheaply because it is a more efficient supplier of power. But if this is the case, it should be able to compensate A for the use of the facility and still profit from the deal. Even in this case, however, the alternative supplier will prefer, other things equal, to gain access at the cheapest rate. The possibility of gaining such access through invoking the essen-

---

84. *See* Stanley Fischer, *Dynamic Inconsistency, Cooperation and the Benevolent Dissembling Government*, 2 J. ECON. DYNAMICS & CONTROL 93 (1980).

85. What makes this problem special, and possibly tragic, is that the structure involved may be "specific" to its use. For example, transmission lines are generally useful only for transmitting power. For this reason the investment in transmission lines is a sunk as well as fixed cost for firm A. *See, e.g.*, JOSKOW & SCHMALENSEE, *supra* note 63, at 65. If the facility were not specific in this sense, it probably would not be considered unusual to require an alternative generator to build its own transmission lines, while firm A adapted its lines to some other use. Because firm A's structure is use-specific it would be inefficient to duplicate the structure.

For a more general treatment of the problems of opportunism arising in transactions involving use-specific assets, see Benjamin Klein et al., *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 21 J.L. & ECON. 297 (1978).

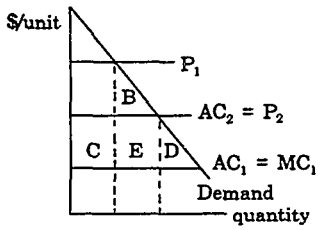
tial facility doctrine provides an incentive for opportunistic behavior.

The phenomenon of new suppliers seeking access to existing facilities at rates cheaper than the market would provide presents a potential for "cream-skimming" entry.[86] Although the cream-skimming entrant can offer a lower price to consumers than the incumbent firm, it is not a cheaper producer. The problem is observed for the most part in areas where government regulates prices or quantities. For example, the charge of cream-skimming entry has figured prominently in discussions of the litigation involving AT&T, the government, and rival long-distance communications companies. Put simply, AT&T was forced through regulation to subsidize local telephone service by keeping its rates on long distance service high.[87] This encouraged entry by MCI and other firms, though the evidence bearing on whether AT&T was or is a cheaper producer seems to be inconclusive.[88] Another example is the regulation of natural gas extraction from fields in which more than one party claims a property right. Extraction formulae which are rela-

---

86. *See, e.g.*, BREAKING UP BELL: ESSAYS ON INDUSTRIAL ORGANIZATION AND REGULATION, 61-94 (David Evans ed., 1983). The theoretical complaint against cream-skimming entry can be described in a simple diagram. In the diagram below, the cream-skimming entrant (firm 2) underprices firm 1 because firm 1 is forced by government regulators to charge p_1. If, under an optimal regulatory scheme, firm 1 would be charging a price equal to AC_1, the welfare loss resulting from this state of regulation is given by the area C+E+D. Even comparing the outcome in which firm 2 underprices firm 1 with that in which firm 1 charges the higher price, it is not clear that society gains from the cream-skimmer's entry. The net change in welfare in this case is given by the area B - C.

Economic Rents and Essential Facilities



87. *See* Paul W. MacAvoy & Kenneth Robinson, *Winning by Losing: The AT&T Settlement and Its Impact on Telecommunications*, 1 YALE J. ON REG. 1 (1983); *see also* William J. Baumol & Janusz A. Ordover, *Use of Antitrust to Subvert Competition*, 28 J.L. & ECON. 247, 257 (1985).

88. Recent reports suggest that MCI, with 10% of the long-distance telephone market, and US Sprint, with roughly 7%, are gradually being recognized as stable sources of competition against AT&T, which has 70% of the long-distance market. *See For MCI at 20, Fewer Growing Pains*, N.Y. TIMES, Aug. 8, 1988, at D3; Calvin Sims, *US Sprint Seen Turning a Corner*, N.Y. TIMES, Oct. 12, 1988, at D1.

tively generous to a given type of extractor, for example, owners of relatively small claims, encourage entry and overproduction by such owners.[89]

One way that firm A may be able to protect its investment is to require the consumers to accept a sufficiently long term contract, binding the city to deal exclusively with A. However, limits must be placed on such a contract; such franchises are never granted, or effectively extended, for an indefinite period.[90] If firm A was not guaranteed an exclusive franchise (or receipt of an adequate rental fee from an alternative supplier given access to its lines) long enough to recoup its investment costs plus a normal profit, firm A might require consumers to forfeit use of the transmission lines if they choose another supplier within the period required to recoup the costs of constructing the system of lines.[91] If such an agreement were enforceable, consumers and alternative suppliers would, obviously, have less incentive to replace the original supplier before it could recover its costs.

But the enforceability of a contract which requires consumers to forgo use of the transmission lines of the original supplier upon switching to an alternative supplier is itself doubtful if courts apply the essential facility doctrine to force facility-owners to grant access to competitors. Thus, it may be impossible for developers of cost-reducing facilities to design contractual covenants which permit them to avoid the disincentives to investment exacerbated by an essential facility doctrine.[92]

Another type of essential facility claim arising in cases which involve access to a high-fixed, low-marginal cost facility involves charges of access granted at discriminatory rates rath-

---

89. The allocation problem in Woods Exploration & Producing Co. v. Aluminum Co. of America, 438 F.2d 1286 (5th Cir. 1971), *cert. denied*, 404 U.S. 1047 (1972) provides an excellent example of this.

90. For example, the franchises at issue in the *Otter Tail* litigation were from ten to twenty years. United States v. Otter Tail Power Co., 331 F. Supp. 54, 57 (D. Minn. 1971), *aff'd*, 410 U.S. 366 (1973) (The district court's opinion will be referred to as *Otter Tail I*. The Supreme Court's opinion is referred to simply as *Otter Tail*.).

91. This is not what happened in *Otter Tail*, but is close enough to be worth considering.

92. This is suggested by the holding in *Otter Tail*. Conflict between contractual commitment and antitrust law is not unique to this area, see, e.g., Tampa Elec. Co. v. Nashville Coal Co., 365 U.S. 320 (1961). The effect is to encourage vertical integration as a substitute for contractual commitment and to discourage commitments which cannot be effected through integration.

er than exclusion altogether. In this type of case, a discriminatory pricing charge is probably hard to avoid. The pricing of access to a high-fixed, low-marginal cost facility has been a topic of controversy in economics for a long time.[93]

Consider another example. Suppose several firms involved in transportation compensate a bridge builder up front for the cost of constructing a bridge and agree to pay marginal cost for each use of the bridge. The firms form a club whose members pay marginal cost for use of the bridge after paying an initial fee to gain entry into the club. If non-members are allowed to use the bridge at marginal cost, the bridge builder would suffer a loss on every use by an outsider, and the club members would probably have to make up for the loss by paying higher dues. However, making everyone join the club would cause infrequent users to complain that they were being forced to subsidize more frequent users.

In broad terms, the pricing problem reduces to choosing something between two extremes: having everyone pay average cost or having everyone pay marginal cost with a lump sum payment for the cost of construction imposed on some group. Charging everyone average cost is nondiscriminatory, and therefore presumably not subject to attack under the essential facility doctrine. But it is inefficient. Consumers facing a choice between bridge and ferry use may choose the ferry even though, on the margin, it is a more costly mode of transportation. On the other hand, charging everyone marginal cost leaves the lump sum payment to be borne by someone. The question is who should bear it. Trying to spread it among users in some form (e.g. a two-part tariff, Ramsey pricing[94]) will leave some users feeling discriminated against.

To summarize, cases which involve access to high-fixed, low-marginal cost resources are particularly troublesome for application of the essential facility doctrine. One problem is that the doctrine runs counter to the kind of long-term commitments that must sometimes be made in order to encourage investments in which a large portion of the cost is sunk. There are two types of social costs generated by application of the essential facility in this category: loss from discouraging invest-

93. *See, e.g.*, Hotelling, *supra* note 81. However, the history of this literature begins well before 1938.

94. *See* HAL R. VARIAN, MICROECONOMIC ANALYSIS 223-25 (1978) (discussing the Ramsey pricing formula).

ment in certain facilities and an additional loss resulting from cream-skimming entry. Further, the doctrine's emphasis on non-discriminatory access ignores the special economic problems presented by high-fixed, low-marginal cost resources.[95] In order to flesh out the argument I consider below the treatment of these issues in two prominent "bridge category" essential facility cases.

1. Terminal Railroad

The case involving access to a high-fixed, low-marginal cost facility that is cited most often in support of the essential facility doctrine is *Terminal Railroad.*[96] However, the connection between its facts and the economic arguments that might justify the essential facility doctrine has received relatively little examination.[97]

In *Terminal Railroad* the government brought suit seeking the dissolution of a combination which controlled all of the means of entry into St. Louis by rail crossing the Mississippi River. The principal defendant was the Terminal Railroad Association of St. Louis (hereafter TRA), a corporation organized under an 1889 agreement between Jay Gould and several railroad companies for the purpose of acquiring all of the independent terminal companies (companies connecting rail lines with bridge and ferry services) at St. Louis. When the corporation was formed there were two ways to get a railroad car across the river into St. Louis: by rail over the Eads Bridge or by a boat operated by the Wiggins Ferry Company. A third way of getting into St. Louis, the Merchants' Bridge, was then under construction. Shortly after its formation TRA acquired the Eads Bridge and its system of terminals.

The Merchants' Bridge was completed in 1890. Not long after that, the proviso in the act of Congress authorizing its construction which forbade ownership of its stock by a stockholder in any other railway bridge company was eliminated, and TRA acquired the bridge. Then in 1892 the Rock Island Railroad Company and TRA tried to outbid each other for control of the stock of the Wiggins Ferry Company. The bidding war was settled with the companies coming to an agreement

95. *See* Lewis, *supra* note 81.
96. United States v. Terminal R.R. Ass'n, 224 U.S. 383 (1912).
97. The exception is AREEDA & HOVENKAMP, *supra* note 9, ¶ 736.1b.

under which Rock Island would become a joint owner of TRA in exchange for transferring its shares in Wiggins at cost.

The Court held that TRA's combination of facilities violated Sections 1 and 2 of the Sherman Act. It remanded the case to the district court with directions that "a decree be . . . entered directing the parties to submit . . . a plan for the reorganization of the contract" between the defendant railroad companies and TRA.[98] The reorganization was, among other things, to require that TRA provide for the admission of other railroads[99] on "just and reasonable" terms and provide for the use of terminal facilities by non-member railroads upon such "just and reasonable terms and regulations as will . . . place every such company upon as nearly an equal plane as may be . . . ."[100]

Unlike *Otter Tail*, and other cases falling in the "bridge" category,[101] *Terminal Railroad* has very little to do with exclusion. There were no complaints of exclusion or denial of access to the routes controlled by TRA.[102] Unanimous consent of members was required in order for a new corporation to become a joint owner,[103] but the defendants claimed that no applicant would be denied entry.[104] Apparently no evidence was put forth to contradict this. The Court discusses at length complaints concerning arbitrary and discriminatory charges,[105] but this seems to be the only evidence of anything about which the customers/competitors of TRA might have complained.

As already noted, pricing disputes are probably unavoidable in a case such as this. This is not to say that TRA was not charging monopoly rates, or at least trying to raise the costs of non-proprietary rivals.[106] Unless scale economies existed in running several terminal facilities, the desire to gain a competitive advantage over rivals seems to be a very likely explanation of TRA's combination of facilities. However, given that the fixed costs had to be distributed among the bridge users, it is

98. 224 U.S. at 411.
99. There were 10 remaining; 14 of the 24 railroads then using the St. Louis terminals were members of TRA. *Id.* at 399.
100. *Id.* at 411.
101. *See, e.g.*, City of Mishawaka v. American Elec. Power Co., 616 F.2d 976 (7th Cir. 1980), *cert. denied*, 449 U.S. 1096 (1981).
102. 224 U.S. at 400. Indeed, a recent study argues that TRA neither excluded competitors nor charged discriminatory rates, *see* Reiffen & Kleit, *supra* note 19.
103. 224 U.S. at 400.
104. *Id.*
105. *Id.* at 407-08.
106. *See* Krattenmaker & Salop, *supra* note 67, at 234.

unlikely that a set of rates could be devised that seemed fair to all of them. The efficient solution would have been for all of the bridge users to become joint owners of TRA and pay marginal cost for use of the facilities,[107] but this may have seemed unfair to the infrequent users.

As for the essential facility doctrine, particularly its statement by Neale, *Terminal Railroad* has ambiguous implications. In one passage the Court expresses hostility to the notion that facilities that cannot practicably be duplicated by competitors must be shared.[108] The Court's remedy might be taken as providing support for the notion that facilities must be shared on fair terms, but the remedy did not require the non-proprietary companies to be treated the same as the joint owners of TRA. The finding of a Sherman Act violation relied on the mere fact of the combination coupled with what the Court considered as extraordinary terminal conditions at St. Louis. Nothing in the opinion suggests that the Court was setting forth a principle as general as that expressed by Neale.

2. Otter Tail

The example of power generation in Noplace, discussed earlier, pointed out the commitment problem presented in *Otter Tail.* The Supreme Court affirmed the decree enjoining the Otter Tail Power Company from refusing to wheel electric power, but the decree also provided that the company "shall not be compelled . . . to furnish wholesale electric service or wheeling service to a municipality except at rates which are compensatory and under terms and conditions which are filed and subject to approval by the Federal Power Commission."[109] This was not very different from what was already required of Otter Tail under the Federal Power Act.[110] Putting this aside, however,

---

107. This was the suggestion of one of the defendant's witnesses. 224 U.S. at 405-06.

108.

> It cannot be controverted that, in ordinary circumstances, a number of independent companies might combine for the purpose of controlling or acquiring terminals for their common but exclusive use. In such cases other companies might be admitted upon terms or excluded altogether. If such terms were too onerous, there would ordinarily remain the right and power to construct their own terminals.

Id. at 405.

109. Otter Tail Power Co. v. United States, 410 U.S. 366, 375 (1973).

110. The Federal Power Commission could, under certain conditions, compel a

the district court and Supreme Court opinions (*Otter Tail I* and *Otter Tail* respectively) display insensitivity to the economic issues discussed in this paper.[111]

The Otter Tail Power Company argued that its conduct was "fully justified by its legitimate right to fight for its corporate life, remain viable in serving the public and prevent the erosion of its integrated system and the impairment of its credit."[112] Whatever the stated reasons, Otter Tail probably would have lost money if it had granted access to the Bureau of Reclamation and other suppliers. Otter Tail had agreed in 1955 to wheel power provided by the Bureau of Reclamation and several other sources on the condition that it would be under no obligation to make lines going to its retail customers available to such sources.[113] In return, these sources paid a wheeling fee to Otter Tail. Since the terms of the wheeling agreement were set under the condition restricting the availability of Otter Tail's lines, one must suppose that the wheeling fee was much lower than it would have been if such a restriction were not part of the contract. If the restriction had not been part of the agreement, Otter Tail would have sought to recover a much larger share of the cost of its system of transmission lines in the wheeling fee charged under the 1955 agreement.

The decision in *Otter Tail I* essentially eliminated the restriction governing the availability of Otter Tail's lines. Far

---

public utility to interconnect with the facilities of another energy supplier, though whether the commission was authorized to use such power for the purpose of promoting competition was unclear. *Id.* at 375 n.7. However, the "power to direct wheeling [was] left to the 'voluntary coordination of electric facilities.'" *Id.* at 376. Given that the Federal Power Commission was not itself authorized to compel wheeling, an order requiring Otter Tail to provide wheeling services, but at the same time leaving it up to the Commission to oversee the terms of the wheeling agreement, could not have substantially altered Otter Tail's obligations to other energy suppliers under the Federal Power Act.

111. As the only essential facility case involving exclusion from some high-fixed, low-marginal cost facility (note that there was no exclusion in *Terminal Railroad*) to reach the Supreme Court, its treatment is suggestive of the problems courts have in reaching economically sensible decisions in these cases.

An entirely different way of looking at *Otter Tail* is to view the case as involving a regulated corporation trying to misuse governmental processes to produce an anticompetitive effect. *See, e.g.*, BORK, *supra* note 76, at 354-55. A discussion of *Otter Tail* which is somewhat closer to the view presented here is provided in John W. Shenefield, *Antitrust Policy Within the Electric Utility Industry*, 16 ANTITRUST BULL. 681, 697-705 (1971).

112. United States v. Otter Tail Power Co., 331 F. Supp. 54, 58 (D. Minn. 1971), *aff'd*, 410 U.S. 366 (1973).

113. *Id.* at 63.

from recognizing that the restriction lowered wheeling rates and consequently lowered prices for some consumers, the district court found the restriction a territorial allocation scheme, unlawful *per se* under the Sherman Act.[114]

B. Joint Venture Cases

The second fact pattern involves an attempt by firm B to gain entry into a joint venture of some sort, such as the news sharing network discussed in *Associated Press*. Perhaps the best example is the research consortium. Because there are external benefits from specialization and cross-fertilization, such projects are often proposed. However, as the number of members increases, the likely contribution of an additional member falls. And, more importantly, the incentive for a given member to free ride on the efforts of others increases, particularly so if the firms compete vigorously in the market in which they aim to sell.[115] As the number of members increases, a point is reached at which the losses resulting from congestion, slackened effort generated by the greater incentive to free ride, and the increasing cost of communicating information to all the participants begin to outweigh the benefits from joint activity. Because of these reasons, such groups are likely to limit the number of members they take.[116]

It is difficult for an outside observer to determine whether the exclusion of a firm seeking entry into a joint venture is based on anticompetitive purposes (i.e., because the party seeking entry cannot be trusted to collude with members) or simply technological or efficiency considerations (i.e., what allowing entry would do to incentives of members).[117]

In *Associated Press*, the government complained in part of the practice which allowed each member of AP to "block mem-

---

114. *Id.*

115. *See, e.g., Lightning Strikes Semiconductors*, THE ECONOMIST, June 11, 1988, at 65, 66 ("Consortia which attempt to share research among competitors have a poor track record, even in Japan. Dissension and lack of results stalled Japan's 'Fifth Generation Project' in advanced computing.").

116. The economic literature covering this problem is labeled "club-theory." *See* James M. Buchanan, *An Economic Theory of Clubs*, 32 ECONOMICA 1 (1965); Todd Sandler & John T. Tschirhart, *The Economic Theory of Clubs: An Evaluative Survey*, 18 J. ECON. LIT. 1481 (1980).

117. For an example where allowing entry would probably have undesirable effects on the incentives of participants in a joint venture, consider the case of a Japanese firm asking to join Sematech, *see* David E. Sanger, *NEC Wants Part in U.S. Chip Project*, N.Y. TIMES, Aug. 15, 1988, at D1.

bership by competing newspapers and thereby remain the exclusive outlet for AP news in its locality."[118] The AP network was comprised of over 1200 newspapers who shared both a pool of information and the costs of gathering that information. However, the network established oppressive entry requirements for papers in local competition with existing members. The Court held that the entrance requirement effectively blocked entry, creating an illegal combination.

As is generally true of cases in the joint venture category, efficiency arguments can be made in support of the consortium's decision to deny access to an applicant.[119] In this case, two fairly obvious arguments can be presented in favor of AP's veto rule. First, the rule preserved incentives for agencies to gather news; an AP member would have little incentive to gather news if it then had to share it with its local competitor. Second, although the incentive to form an organization like AP exists because there are technological benefits from pooling information in the news industry, such benefits are likely to be very small in the case of a newspaper that is the local competitor of a member newspaper. The costs of accepting such a newspaper as a member, even ignoring its effect on the incentives of the competitor member to gather news, may easily outweigh the negligible pooling benefits. Thus, even without granting veto power to any particular member newspaper, a rule flatly denying entry to any firm that was the local competitor of a member newspaper may have been efficient. This is why the claim that "less restrictive alternatives" exist, if used to justify forcing a consortium such as AP to take additional members, should carry little force on efficiency

---

118. PHILLIP AREEDA & LOUIS KAPLOW, ANTITRUST ANALYSIS: PROBLEMS, TEXT, CASES 380-81 (4th ed. 1988).

119. The facts of United States v. Realty Multi-List, Inc., 629 F.2d 1351 (5th Cir. 1980), place it within the category of cases considered here. The defendant was a corporation, organized by eight real estate brokers, which controlled the only real estate multiple-listing service in Columbus, Georgia. The association required that members have a favorable credit report and business reputation, maintain an active real estate office open during customary hours, and pay a $1,000 fee for a share of stock. *Id.* at 1351. The court found the restrictions unreasonable.

As the court's discussion of the case makes clear, maintaining the listing service required a certain amount of effort from each of the members. For example, each had to contribute listings, and take care in showing property without the assistance of the listing broker. *See, e.g., id.* at 1356. Obviously, allowing open membership would permit some brokers to join who were unable to contribute as expected, and provide incentives for others to join in order to free ride off the efforts of incumbent members.

grounds.[120] Accepting additional members when the pooling benefits are zero merely limits the incentive of the consortium to expand and provide more of its product at a lower cost.

Yet an argument can be made that AP's rule had an anticompetitive purpose. Being a member of AP was equivalent to having access to a cost-reducing facility, since any particular piece of news of a given quality could be gathered more cheaply through the network than through hunting down interviews. Thus, admitting the local competitor of a member newspaper would allow the locally-competing newspapers to compete on the same cost terms. If the firms chose to compete with shared access to the AP network, consumers would be better off, provided that safeguards kept the firms from trying to free ride on each other's work. Under the veto rule at issue, a firm operating with access to AP's network might say to its local competitor; "If you want to join, I'll vote you in — provided we both charge twice what we're charging now." If the local competitor agreed, consumers would be hurt, at least until an entrant arrived. In this sense, a firm's decision to deny access to its local competitor may reflect only its awareness that its competitor could not be trusted to collude after gaining access to the network.

A firm denied access to the AP network might use the essential facility doctrine in a procompetitive manner to gain access. However, the potential procompetitive benefits are necessarily limited. Although the Court speaks in *Associated Press* as if local competitors who could not gain access to the AP network were unable to compete with newspapers that had access, the opposite is true. Newspapers operating without access to AP provided competition to their better-off local counterparts; their existence forced AP members to share the cost advantages provided by access to the AP network with the consuming public. If a policy of forcing local competitors to share access to the AP network is going to benefit consumers, it must provide benefits beyond those provided by existing competition, and these benefits must outweigh losses likely to result from either the collusion of member newspapers sharing the same market or the likely dilution of incentives to contribute

120. AREEDA & HOVENKAMP, *supra* note 9, ¶ 736.1c argue that Associated Press could have simply prevented competing newspapers from sharing information rather than implementing the veto rule at issue. This would no doubt have been costly, and the benefits probably would have been very small.

within the network.[121] Further, if there are significant sunk costs in setting up a news-sharing network, a rule requiring open membership, to the extent it enhances price competition, will discourage efforts to set up such ventures.

C. Location Cases

A third, residual category of fact patterns includes the attempt by firm B to share in the locational advantage enjoyed by firm A. To see in broad terms what the underlying economic issues are, consider another highly simplified example. Suppose firm A runs the only ice cream stand on a certain beach. It puts the stand in the most desirable location: smack in the middle. Because of its location, A is able to charge a higher price than B, whose ice cream stand is located on the road by the beach. But if A raises its price too high, customers will walk to B's stand on the road. Thus, as in the more general model presented earlier, firm A is forced by the competition from firm B to share the value of its locational advantage with consumers.

Firm B would like to set up an ice cream stand on the same beach. The efficient solution would require firm A to position itself to one side, with one quarter of the beach to one side and three quarters of the beach to the other, and firm B to position itself symmetrically to the other side of the midpoint. But in an unregulated market, the two firms will choose to occupy the middle.[122] Further, as far as B is concerned, the middle of the beach is an essential facility.[123] If A remains in the middle of the beach and B is forced to move to either side, it will remain at a competitive disadvantage.[124]

---

121. Because this conclusion is uncertain, it can obviously not be determined a priori whether such suits are providing benefits to consumers. It should, however, be clear that a compulsory sharing (i.e., open membership) rule is inefficient. An intermediate position that might be justifiable, on efficiency grounds, is for the courts to examine suits on a case-by-case basis to determine whether efficiency losses are likely to outweigh competitive pricing gains.

122. Further, this is inefficient. *See* Harold Hotelling, *Stability in Competition*, 39 ECON. J. 41 (1929). For an illuminating discussion of spatial competition, see SCHERER, *supra* note 45, at 252-58.

123. It follows from this that there is nothing inherently efficient about firm B's desire to share the middle. Thus, Hotelling's model of spatial competition suggests that even if requiring that an "essential location" be shared would benefit consumers, there may still be an alternative allocation of territory that would benefit consumers more.

124. This example demonstrates that the location category is similar in many

Can consumers be made better off by forcing A to share the middle of the beach with B? Clearly not if the two firms collude.[125] If the firms compete, both sharing the same location, consumers could be better off. However, consumers may be hurt in the long run if A is denied the exclusive enjoyment of its locational advantage, especially if there are significant sunk costs in developing locational advantages.

I have noted already that *Gamco* falls into this residual category. No efficiency justifications were offered by the defendants in *Gamco*, and the facts do not suggest efficiency arguments.[126] For example, the defendants were not involved in a collaborative, cost-reducing effort which would be worthwhile only if the plaintiff, or competitors in the plaintiff's position, were excluded. In this sense, *Gamco* is different from *Associated Press*. The alternative justification for exclusion is that it was necessary in order to protect rents.[127] If the firms occupying the building were all operating under an agreement not to compete, then it would obviously be necessary to exclude lessees who would not comply with the agreement. Indeed, it might be argued that without this sort of agreement, there would have been no incentive to build the structure in the first place. But this argument assumes that some significant portion of the cost of the building was otherwise non-recoverable (i.e.,

---

respects to the other paradigms discussed. The additional insight the location cases provide is the "Hotelling competition" problem: B's sharing of A's locational advantage may be inferior to an alternative spatial allocation. This might just as easily be true of B's desire to share any cost advantage possessed by A; there may be a Pareto superior alternative. Only in a world of Coasean bargaining between firms and consumers would this alternative be realized. This point, however, has little to do with applying the essential facility doctrine, for it would be impossible for courts to determine Pareto superior allocations. The question is whether consumers might benefit from requiring firms to share access.

125. The same is true if firm A is able to deny firm B the rent earned from the locational advantage by charging a sufficiently high per unit access fee. If an access fee which is high enough to fully compensate firm A is charged, only a lump sum fee would allow the two firms to compete.

126. But this does not mean that such arguments cannot be made anyway. Suppose, for example, that the group of firms leasing space in the building provided benefits that were shared within the group. Then exclusion of the plaintiff in *Gamco* may have been justifiable on economic grounds. For such an argument, see Gerber, *supra* note 62, at 1098-99.

127. The evidence suggested that Gamco's exclusion was prompted by its affiliation with an out-of-state competitor. Gamco, Inc. v. Providence Fruit & Produce Bldg. Inc., 194 F.2d 484, 488 (1st Cir.) ("It was undisputed, for example, that Gamco's exclusion was contemporaneous with and grew out of its affiliation with the non-Rhode Island Sawyer & Co."), *cert. denied*, 344 U.S. 817 (1952).

sunk). While it is impossible to tell whether this was true on the basis of the facts given in the case, it seems superficially unlikely. The building's location was probably valuable to many alternative users.

D. Summary

The essential facility doctrine is inconsistent with the protection of rents earned through the ownership of a cost-reducing facility. These rents can be reduced by compulsory sharing in two ways: from the resultant price competition, or from a reduction in the cost-advantage provided by the facility. The latter outcome is presumably one that should be avoided altogether. The former is undesirable if the rent earned is needed in order to recover sunk costs.

This argument can be stated in terms of two variables: rivalry in the consumption of benefits provided by the facility,[128] and the extent to which the costs of acquiring or developing the facility are sunk. Rivalry in the consumption of benefits is the problem I emphasized in discussing cases falling in the joint venture category. Sunk costs, though they may be observed in almost any case, are likely to be observed in cases involving access to high-fixed, low-marginal cost facilities.

In cases where "consumption-rivalry" is significant, a general compulsory sharing rule is undesirable. Further, case-by-case application of the essential facility doctrine will benefit consumers only if courts make special efforts to determine whether or not forcing entry will generate undesirable results.[129] The consumer welfare implications of the doctrine are also unfavorable in cases involving "sunk cost" facilities.

---

128. Alternatively, this might be described as the case in which members of the "facility" voluntarily provide public goods (e.g., research results) which make the arrangement valuable. For an interesting discussion of rivalry and its implications for the theory of public goods, see WALTER NICHOLSON, MICROECONOMIC THEORY 707-08 (3d ed. 1985).

129. For example, in examining joint venture category cases like *Associated Press*, courts would not require the consortium to accept all applicants. In each case the court would determine whether the benefits from the price competition permitted by requiring entry are likely to exceed efficiency losses. I should note that this approach seems to be required by the reasoning of Continental T.V. Inc., v. GTE Sylvania Inc., 433 U.S. 36 (1977) (upholding manufacturer's location restrictions in franchise agreements). If a producer can prevent retailers from competing in price in order to support the provision of services to customers, it seems that the argument can be made that the AP network can exclude parties for precisely the same reason.

These propositions are substantially weakened by the presence of regulation. In regulated industries the doctrine is justifiable as a sort of public trust doctrine for regulatory regimes, preventing firms from exploiting welfare-reducing transfers of property rights from the government.[130]

It follows that there is a set of cases, arising in unregulated markets, in which compulsory sharing could benefit consumers — specifically, cases in which consumption-rivalry is insignificant, and the stream of rents is not necessary to compensate the facility owner for risk or for sunk costs. But this raises the question whether courts will be successful in distinguishing this subset of cases from the others. Unless courts are sufficiently good at recognizing these cases, the doctrine's overall effect could be to reduce consumer welfare.

Since the earliest price-fixing cases, antitrust courts have shied away from questions that would require judges to tackle questions typically considered by public utlity regulators, such as the reasonableness of prices.[131] A similar proposition can be stated in this area. My argument suggests that determining whether application of the essential facility doctrine will enhance welfare in a particular case will involve courts in solving problems no less difficult than determing the reasonableness of

---

130. Two types of problem might emerge under regulatory regimes. The first is where state regulation has allowed the facility owner to acquire a facility which raises competitor's costs (e.g., the economically unjustifiable copyright). I have argued that this type of acquisition is unlikely to occur in markets in which substitute facilities can appear and there is competitive bidding for acquisition. Since neither of these conditions may hold in a regulated setting, a compulsory sharing rule is more likely to provide benefits under such a regime. The second, and closely related, case is where regulation permits a state-granted monopoly to charge a monopoly rent for access to some resource. For example, it has been suggested that the British government's recent effort to lower prices for telephone service by introducing competition has failed because British Telecom (before its privatization a largely state-owned monopoly) is able to charge a monopoly rent to its only (state-authorized) competitor for access to local interconnections. *See The Regulatory Two-Step*, THE ECONOMIST, Jan. 21, 1989, at 69. This interpretation of regulatory failure can be applied, in the copyright area, to the facts of West Publishing Co. v. Mead Data Cent., Inc., 799 F.2d 1219 (8th Cir. 1986), *cert. denied*, 479 U.S. 1070 (1987). The issue presented was whether Mead, producer of LEXIS, could provide the corresponding page numbers of West's reports of federal and state court opinions in its computerized reports of court opinions. In "essential facility" terms, Mead sought access to West's page numbers. West's page numbers are important because courts require lawyers to use them in referring to cases in briefs. This is obviously a state-granted monopoly. Permitting West to claim copyright protection in its page numbers, which the court did, allows it to charge a monopoly rent for access to them.

131. United States v. Trans-Missouri Freight Ass'n, 166 U.S. 290, 331-32 (1897).

prices.[132] A general presumption against the essential facility plaintiff in cases not involving a facility whose ownership was determined by government regulation (e.g., a patent) may be better than leaving it to the courts to find the set of cases in which the doctrine is economically justifiable.

V. CONCLUSION

It is not unusual to run across language in antitrust opinions to the effect that denying competitors access to a cost-reducing facility is an anticompetitive abuse of monopoly power. These comments are generally not supported by economic theory. Firms denied access do in fact compete against firms that have access to cost-reducing facilities, and such competition forces the latter to share its cost advantage with consumers. A compulsory sharing rule will not necessarily improve upon this result. If shared-access supports collusion, then consumers might be made worse off by a compulsory sharing rule. This is the most obvious sense in which the essential facility doctrine is flawed. In addition to this, even if shared-access generally does not lead to collusion, it would still not follow that a compulsory sharing rule benefits consumers. A compulsory sharing rule may reduce incentives to develop cost-reducing facilities, or it may lead to inefficient sharing which reduces the cost advantage provided by the facility. These arguments suggest the possible dangers in undiscriminating application of the essential facility doctrine to grant competitors access to cost-reducing facilities.

This paper categorizes fact patterns, with a view toward identifying cases in which application of the doctrine is likely to benefit consumers. Although there may substantial scope for the doctrine to provide benefits in regulated settings, in unregulated markets that scope seems to be narrow.

---

132. *See* Owen, *supra* note 16 (concluding generally that the economic problems raised by essential facility claims are too complicated for courts to solve); Werden, *supra* note 33.