

NOTES

TYING ARRANGEMENTS AND THE COMPUTER INDUSTRY: *DIGIDYNE CORP. V. DATA GENERAL CORP.*

In the recent case of *Digidyne Corp. v. Data General Corp.*,¹ the United States Court of Appeals for the Ninth Circuit held that Data General's refusal to license its copyrighted computer software to those who did not purchase its hardware was an unlawful tying arrangement.² The court of appeals found that Data General's market power in the market for the tying product—computer software—was sufficient to establish a per se violation of section 1 of the Sherman Antitrust Act³ and section 3 of the Clayton Act.⁴ The trial court had already found that there was no business justification for Data General's actions,⁵ and this determination was affirmed by the court of appeals.⁶ With two Justices filing a written dissent, the Supreme Court denied certiorari in the case.⁷ The *Data General* decision opens many firms in the highly competitive computer industry to potential antitrust liability for "tying" hardware and software products.

This note reviews the law of tying arrangements and the opinions in the *Data General* case.⁸ The note then examines the Ninth Circuit's reasoning in light of recent changes in the attitudes of courts, legal commentators, and economists toward the possible efficiency effects of tying arrangements. It finds that the *Data General* holding can be faulted on

1. 734 F.2d 1336 (9th Cir. 1984), cert. denied, 105 S. Ct. 3534 (1985).

2. *Id.* at 1338.

3. 15 U.S.C. § 1 (1982) provides, in relevant part, that "[e]very contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal."

4. 15 U.S.C. § 14 (1982) provides, in relevant part:

It shall be unlawful for any person engaged in commerce, in the course of such commerce, to lease or make a sale or contract for sale of goods, . . . whether patented or unpatented, . . . on the condition, agreement, or understanding that the lessee or purchaser thereof shall not use or deal in the goods . . . of a competitor or competitors of the lessor or seller, where the effect of such lease, sale, or contract . . . may be to substantially lessen competition or tend to create a monopoly in any line of commerce.

5. *Data General*, 734 F.2d at 1339 n.1.

6. *Id.* at 1343-44, 1347.

7. 105 S. Ct. 3534 (1985).

8. See *infra* notes 12-39 and accompanying text.

several grounds. First, the Ninth Circuit failed to require a showing of market power sufficient to invoke the per se rule.⁹ Second, the presumption of market power arising from copyright proprietorship should be treated as rebuttable, or merely as persuasive evidence, rather than as an irrebuttable presumption.¹⁰ Finally, the trial court did not give adequate consideration to the possible business justifications for selling computer hardware and software as a single package.¹¹ Because it applied mechanical rules to complex economic issues, the Ninth Circuit imposed liability without a sufficient showing that competition or consumer welfare was adversely affected by the tying arrangement. *Data General* thus threatens to impose treble damage liability on all firms in the computer industry that engage in the common practice of selling software-hardware packages. The note concludes that the imposition of such liability is unjustified in light of Supreme Court precedent and the underlying purposes of the antitrust laws.

I. THE PER SE RULE AGAINST TYING ARRANGEMENTS

Section 1 of the Sherman Act prohibits "[e]very contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce."¹² Cases arising under section 1 are generally decided under the "rule of reason."¹³ This standard "requires the factfinder to decide whether under all the circumstances of the case the restrictive practice imposes an unreasonable restraint on competition."¹⁴ If a restraint is found to promote competition, it is upheld.¹⁵ In the interest of judicial economy, however, courts have fashioned per se rules against practices that are "manifestly anticompetitive."¹⁶ Where this rule is

9. See *infra* notes 40-102 and accompanying text.

10. See *infra* notes 103-33 and accompanying text.

11. See *infra* notes 134-84 and accompanying text.

12. Sherman Act, ch. 647, § 1, 26 Stat. 209, 209 (1890) (codified as amended at 15 U.S.C § 1 (1982)).

13. *Arizona v. Maricopa County Medical Soc'y*, 457 U.S. 332, 342-43 (1982); *Standard Oil Co. v. United States*, 221 U.S. 1, 60 (1911). For a discussion of the nature and history of the rule of reason, see *National Soc'y of Professional Eng'rs v. United States*, 435 U.S. 679, 688-92 (1978).

14. *Arizona v. Maricopa County Medical Soc'y*, 457 U.S. 332, 343 (1982) (citing *Chicago Bd. of Trade v. United States*, 246 U.S. 231, 238 (1918) (Brandeis, J.)).

15. *National Soc'y of Professional Eng'rs v. United States*, 435 U.S. 679, 691 (1978).

16. *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 50 (1977); see also *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1560 n.25 (1984) (discussing rationale for per se rules in antitrust cases). The per se rule makes certain activities, including certain tying arrangements, illegal without any showing of unreasonable effect on competition. *Fortner Enters. v. United States Steel Corp.*, 394 U.S. 495, 498 (1969) [hereinafter cited as *Fortner I*]; *Northern Pac. Ry. v. United States*, 356 U.S. 1, 5-6 (1958) ("[T]here are certain agreements or practices which because of their pernicious effect on competition and lack of any redeeming virtue are conclusively presumed to be unreasonable and therefore illegal without elaborate inquiry as to the precise harm they have

applied, a practice is condemned without consideration of its reasonableness.¹⁷

A tying arrangement, or "tie-in," is "an agreement by a party to sell one product but only on the condition that the buyer also purchases a different (or tied) product, or at least agrees that he will not purchase that product from any other supplier."¹⁸ The courts have held that the use of market power or leverage in one market to influence another market "generally serve[s] no legitimate business purpose that cannot be achieved in some less restrictive way."¹⁹ As a result, tying arrangements are assumed to be anticompetitive and are therefore condemned as per se violations of section 1 of the Sherman Act and section 3 of the Clayton Act.²⁰

It is important to note, however, that the courts have normally applied a "partial per se" rule to tying arrangements:²¹

caused or the business excuse for their use."). For a discussion of the validity of the per se rule against tie-ins, see *infra* notes 60-77 and accompanying text.

17. See, e.g., *Arizona v. Maricopa County Medical Soc'y*, 457 U.S. 332, 343-44 (1982); *Broadcast Music, Inc. v. CBS*, 441 U.S. 1, 7-8 (1979); *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 49-50 (1977); *Northern Pac. Ry. v. United States*, 356 U.S. 1, 5 (1958). The rationale for the per se rule is to avoid burdensome market inquiry "where the likelihood of anticompetitive conduct is so great as to render unjustified the costs of determining whether the particular case at bar involves anticompetitive conduct." *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1560 n.25 (1984).

18. *Northern Pac. Ry. v. United States*, 356 U.S. 1, 5-6 (1958).

19. *Fortner I*, 394 U.S. 495, 503 (1969). The leverage theory is discussed and criticized *infra* notes 46-54 and accompanying text.

20. See *Northern Pac. Ry. v. United States*, 356 U.S. 1, 5 (1958) (tying arrangements are per se violations of § 1 of the Sherman Act); *International Salt Co. v. United States*, 332 U.S. 392, 396 (1947) ("[I]t is unreasonable, *per se*, to foreclose competitors from any substantial market."). An extensive legislative and case history supports the per se rule against tying arrangements. See *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1557 nn.14-15 (1984) (citing cases and legislative history supporting the per se rule).

21. E.g., *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1558-61 (1984) (discussing necessary conditions for the application of the per se rule against tie-ins); *Fortner I*, 394 U.S. 495, 498 (1969) (tie-ins are per se illegal, "at least when certain prerequisites are met"). As the Supreme Court recently noted:

[T]here is often no bright line separating *per se* from Rule of Reason analysis. *Per se* rules may require considerable inquiry into market conditions before the evidence justifies a presumption of anticompetitive conduct. For example, although the Court has spoken of a "*per se*" rule against tying arrangements, it has also recognized that tying may have procompetitive justifications that make it inappropriate to condemn without considerable market analysis.

NCAA v. Board of Regents, 104 S. Ct. 2948, 2962 n.26 (1984); see ABA ANTITRUST SECTION, ANTITRUST LAW DEVELOPMENTS 89-90 (2d ed. 1984) (some business justifications are considered by the courts despite the per se rule); R. GIVENS, ANTITRUST: AN ECONOMIC APPROACH § 9.02 (1983) (discussing market power and business justification issues that are considered despite per se label); ANTITRUST ADVISER 94 (C. Hills 2d ed. 1978) (courts apply near-per se or pseudo-per se rule) [hereinafter cited as C. HILLS]; W. HOLMES, INTELLECTUAL PROPERTY AND ANTITRUST LAW § 8.02, at 5 (1983) (reference to per se standard somewhat misleading); E. ROCKEFELLER, ANTITRUST COUNSELING FOR THE 1980S, at 82-83 (1983) (courts consider business justifications).

[A]s a practical matter, the need to conduct a number of market-related inquiries in order to invoke the per se rule and the willingness of the courts to consider justifications for the challenged conduct result in an analysis of economic effect that in some respects approaches a rule of reason inquiry.²²

In order to invoke this partial per se rule, the plaintiff must prove the following: (1) there are two separate products; (2) the sale of one product is conditioned on or "tied" to the sale of the other product; (3) the seller has enough market power in the market for the tying product "to restrain competition appreciably" in the market for the tied product; and (4) a substantial amount of commerce in the tied product is affected by the tie-in.²³ Courts of appeals in several circuits have also required the plaintiff to establish that competition in the market for the tied product has actually been foreclosed.²⁴

A large number of cases illustrate the application of the partial per se rule. See, e.g., *Fortner I*, 394 U.S. 495, 506 (1969) ("It may turn out [on remand] that the arrangement here serves legitimate business purposes. . . ."); *Betaseed, Inc. v. U. & I., Inc.*, 681 F.2d 1203, 1215 (9th Cir. 1982) (per se rule against tying still "permits the defendant to offer justifications for undertaking the tie") (quoting *Phonetele, Inc. v. American Tel. & Tel. Co.*, 664 F.2d 716, 738-39 (9th Cir. 1981), *cert. denied*, 459 U.S. 1145 (1983)); *Hirsh v. Martindale-Hubbell, Inc.*, 674 F.2d 1343, 1347 nn.16-17 (9th Cir.) (noting that even under per se rule procompetitive nature of a tie-in is considered), *cert. denied*, 459 U.S. 973 (1982); *David R. McGeorge Car Co. v. Leyland Motor Sales, Inc.*, 504 F.2d 52, 58 (4th Cir. 1974) (transaction "does not fall within that classification of arrangements which have no lawful business objective"), *cert. denied*, 420 U.S. 992 (1975); *Polytechnic Data Corp. v. Xerox Corp.*, 362 F. Supp. 1, 9 (N.D. Ill. 1973) (accepting efficiency justification for tie-in); *Susser v. Carvel Corp.*, 332 F.2d 505, 519-20 (2d Cir. 1964) (protection of goodwill accepted as business justification), *cert. dismissed*, 381 U.S. 125 (1965); *Baker v. Simmons Co.*, 307 F.2d 458, 468-69 (1st Cir. 1962) (upholding tie-in that maintained trademark holder's goodwill); *Dehydrating Process Co. v. A. O. Smith Corp.*, 292 F.2d 653, 655-57 (1st Cir.) (accepting goodwill/efficiency justification), *cert. denied*, 368 U.S. 931 (1961); *United States v. Jerrold Elecs. Corp.*, 187 F. Supp. 545 (E.D. Pa. 1960) (accepting "developing industry" justification in case of tie-in of CATV equipment and service), *aff'd per curiam*, 365 U.S. 567 (1961).

22. ABA ANTITRUST SECTION, *supra* note 21, at 77.

23. See *Digidyne Corp. v. Data General Corp.*, 734 F.2d 1336, 1338 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985); see also *Fortner I*, 394 U.S. 495, 498-99 (1969); *Hirsh v. Martindale-Hubbell, Inc.*, 674 F.2d 1343, 1346-47 (9th Cir.), *cert. denied*, 459 U.S. 973 (1982). The elements of the per se rule are generally the same for Clayton and Sherman Act suits. See *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1564 n.39 (1984) ("[W]ith respect to the definition of tying the standards used by the two statutes are the same."); *Spartan Grain & Mill Co. v. Ayers*, 581 F.2d 419, 428 (5th Cir. 1978) (market power is required under both Sherman and Clayton Acts), *cert. denied*, 444 U.S. 831 (1979); *Moore v. Jas. H. Matthews & Co.*, 550 F.2d 1207, 1214 (9th Cir. 1977) (elements of per se rule for Sherman and Clayton Acts appear "virtually identical"); E. ROCKEFELLER, *supra* note 21, at 81 (similar standards applied); E. KINTNER, AN ANTITRUST PRIMER 55 (1964) ("difference [in elements of the per se rule] may no longer exist in the field of tie-in sales"). Some earlier decisions interpreted the Clayton Act as condemning tying arrangements on a lesser showing than that required under section 1 of the Sherman Act. See, e.g., *Times-Picayune Publishing Co. v. United States*, 345 U.S. 594, 608-09 (1953).

24. E.g., *Shop & Save Food Mkts., Inc. v. Pneumo Corp.*, 683 F.2d 27, 30 (2d Cir.), *cert. denied*, 459 U.S. 1038 (1982); *Bob Maxfield, Inc. v. American Motors Corp.*, 637 F.2d 1033, 1037 (5th Cir.), *cert. denied*, 454 U.S. 860 (1981); *Yentsch v. Texaco, Inc.*, 630 F.2d 46, 57-58 (2d Cir.

II. *DIGIDYNE CORP. V. DATA GENERAL CORP.*

Data General is one of approximately one hundred manufacturers of general-purpose minicomputers and microprocessors. It sells a central processing unit (CPU) called NOVA and an accompanying line of operating system software called RDOS. Digidyne Corp. and the other plaintiffs are manufacturers of competing CPUs (known as NOVA emulators) that are compatible with the RDOS software. After Data General refused to license its software for use with the NOVA emulators, Digidyne Corp. and other competitors filed suit, alleging that Data General's requirement that purchasers of RDOS also buy NOVA was a tying arrangement in violation of the Sherman and Clayton Acts.²⁵

The trial court granted summary judgment in favor of the plaintiffs on three of the four elements of the per se rule. The trial court found that the software and the CPU were separate products,²⁶ purchasers were required to buy both,²⁷ and the tie-in affected a "not insubstantial" amount of interstate commerce.²⁸ In addition, the court rejected three

1980); *Driskill v. Dallas Cowboys Football Club, Inc.*, 498 F.2d 321, 323 (5th Cir. 1974); *Coniglio v. Highway Servs., Inc.*, 495 F.2d 1286, 1291-92 (2d Cir.), *cert. denied*, 419 U.S. 1022 (1974); *see also Boddicker v. Arizona State Dental Ass'n*, 680 F.2d 66, 67 (9th Cir.) (membership link between a national dental association and local and state societies not a tying arrangement because there is no market in the "tied product" for the challenged membership requirements to restrain), *cert. denied*, 459 U.S. 837 (1982); *Community Builders, Inc. v. City of Phoenix*, 652 F.2d 823, 830 (9th Cir. 1981) (municipality's conditioning of building permit on water hookup not a tying arrangement because no competitive market for water services existed). For a discussion of the elements of the per se rule in tie-in cases, *see* R. GIVENS, *supra* note 21, § 9.02.

25. *In re Data General Corp. Antitrust Litig.*, 529 F. Supp. 801, 805 (N.D. Cal. 1981), *rev'd in part*, 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985) [hereinafter cited as *Data General II*].

26. *In re Data General Corp. Antitrust Litig.*, 490 F. Supp. 1089, 1104-06 (N.D. Cal. 1980), *aff'd in relevant part*, 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985) [hereinafter cited as *Data General I*]. The court concluded that, despite the fact that the two products must be used together, the CPU and the software need not come from the same seller. *Id.* Whether there are two separate products depends upon the existence of two separate product markets, not upon the functional relationship between the two products. *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1562 (1984); *see infra* note 183. Although seemingly straightforward, the standards for determining whether two products are indeed separate are vague. *See* R. POSNER, *ANTITRUST LAW: AN ECONOMIC PERSPECTIVE* 181 (1976) (no logical way to determine whether there are one or two products unless cost justifications are implicitly taken into account).

27. *Data General I*, 490 F. Supp. at 1107.

28. *Id.* at 1116-17. The court also found that the plaintiffs had shown that they had suffered antitrust injury as a result of the defendant's tying practices. *Id.* at 1117-19.

Under the "not insubstantial" test, anything more than a de minimis dollar amount is sufficient. *Fortner I*, 394 U.S. 495, 501 (1969). Dollar volumes in the \$50,000 to \$100,000 range have been regarded as sufficient. *See Aamco Automatic Transmissions v. Tayloe*, 407 F. Supp. 430, 436 (E.D. Pa. 1976).

business justifications offered by Data General.²⁹ A jury trial was held on the limited issue of whether there was sufficient economic power in the tying product market to restrain competition appreciably in the market for the tied product.³⁰ The jury found that Data General possessed sufficient economic power, but the trial court granted Data General's motion for a judgment n.o.v.³¹ The court concluded that "the evidence cannot reasonably support a finding that Data General possessed economic power" sufficient to restrain competition.³²

The United States Court of Appeals for the Ninth Circuit reversed the district court's conclusion on the sufficiency of market power.³³ To establish a per se case, the court reasoned, the plaintiff need not show "power over the whole market for the tying product," but merely the ability to induce some customers to purchase the second product when they would not have done so in a competitive market.³⁴ The court of appeals found that Data General had the ability to "force" buyers to accept the tying arrangement, and justified this finding on several grounds. First, it found that "defendant's RDOS was distinctive and particularly desirable to a substantial number of buyers."³⁵ Second, the court recited the rule that a defendant's possession of a copyright on the tying product creates a presumption of market power.³⁶ Finally, having found that RDOS was "unique as a matter of law," the court asserted that the market power thus conferred on Data General was magnified because buyers were "locked in."³⁷ The lock-in allegedly gave Data

29. Data General I, 490 F. Supp. 1089, 1120-24 (N.D. Cal. 1980), *aff'd in relevant part*, 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985). The business justification question is discussed *infra* notes 134-84 and accompanying text.

30. Digidyne Corp. v. Data General Corp., 734 F.2d 1336, 1338 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985).

31. Data General II, 529 F. Supp. at 821. In the alternative, the court granted a motion for a new trial. *Id.*

32. *Id.*

33. Digidyne Corp. v. Data General Corp., 734 F.2d 1336, 1346-47 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985). The Ninth Circuit's decision can be partly explained by its deference to the jury's conclusion at trial. *See id.* at 1341 (finding "substantial evidence" to support the jury's findings). Nevertheless, the court went further, holding that uniqueness was shown "as a matter of law." *Id.* at 1342-43. The court stated its opinion in broad language, and apparently did not intend to limit the decision to its facts.

34. *Id.* at 1341 (citing Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 104 S. Ct. 1551, 1559 n.20 (1984)).

35. *Data General*, 734 F.2d at 1341.

36. *Id.* at 1341-42; *see* Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 104 S. Ct. 1551, 1560 (1984) ("it is fair to presume" market power from patents and other legal monopolies); *United States v. Loew's Inc.*, 371 U.S. 38, 45 (1962) (same); *see also* *United States Steel Corp. v. Fortner Enters.*, 429 U.S. 610, 620 (1977) (copyright confers "some advantage[s] not shared by . . . competitors in the market for the tying product") [hereinafter cited as *Fortner II*].

37. Digidyne Corp. v. Data General Corp., 734 F.2d 1336, 1342-43 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985).

General power over its customers, companies that build complete computer systems around RDOS. Such a purchaser would presumably be forced to abandon its entire computer system if it switched to a competing, and incompatible, brand of software.³⁸ Hence, the expense and inconvenience involved in switching from RDOS to a competing operating system gave Data General an advantage not shared by its competitors.³⁹

III. MARKET POWER IN TYING CASES

The *Data General* court's willingness to impose per se liability and treble damages⁴⁰ was based essentially on two findings: (1) many buyers accepted Data General's mandatory software-hardware package and (2) the tying product, RDOS, was copyrighted. Software-hardware packages are common in the computer industry.⁴¹ Because computer hardware and software are generally protected by patents and copyrights, respectively,⁴² many computer manufacturers may be exposed to anti-trust liability as a result of *Data General*. Yet these companies face intense competition from a large number of American and foreign producers.⁴³ Rapid technological change encourages the constant replacement of leading products with newer and more advanced competitors.⁴⁴ The Ninth Circuit's finding of market power was inadequate under the legal rules governing tying arrangements and in light of the economic underpinnings of the antitrust laws. It is widely acknowledged that, in defining the legal standards for market power, the law should recognize the economic realities of the marketplace.⁴⁵ A more stringent

38. *Id.* The lock-in theory is criticized *infra* notes 90-91 and accompanying text.

39. See *Digidyne Corp. v. Data General Corp.*, 734 F.2d 1336, 1342-43 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985).

40. Treble damages are authorized by 15 U.S.C. § 15(a) (1982) ("[A]ny person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws . . . shall recover threefold the damages by him sustained . . .").

41. The specialized computer magazines describe some of the numerous software-hardware packages that are offered on the market. *E.g.*, *COMPUTER BUYER'S GUIDE & HANDBOOK*, Jan. 1985, at 40, 43-105; Enright, *Preview: The Kaypro 16*, *PROFILES*, Feb. 1985, at 74, 76, 79.

42. Computer programs (software) receive limited copyright protection. See *Data General II*, 529 F. Supp. 801, 816 (N.D. Cal. 1981), *rev'd in part on other grounds*, 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985). See generally Samuelson, *CONTU Revisited: The Case Against Copyright Protection for Computer Programs in Machine-Readable Form*, 1984 *DUKE L.J.* 663.

43. In *Data General II*, for example, the trial court noted that Data General had over one hundred competitors in the market for operating system software. *Data General II*, 529 F. Supp. at 813. The market was described as "broad, dynamic, [and] highly competitive." *Id.*

44. See *id.*

45. A recognition that the intellectual and legal basis of the antitrust laws lies in economic theory is crucial. See, e.g., *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1559-60 (1984) (discussing efficiency and consumer welfare as goals of the antitrust laws); *Arizona v. Maricopa County Medical Soc'y*, 457 U.S. 332, 366-67 (1982) (Powell, J., dissenting) (the courts are

and rigorous definition of market power would prevent the imposition of liability on firms that do not have the economic power to restrain competition. It would also be consistent with recent Supreme Court rulings that, unlike *Data General*, emphasize the importance of market power in deciding antitrust cases.

A. *The Importance of Market Power: Traditional and Economic Approaches.*

The requirement of a strong showing of market power is consistent with the traditional "leverage" rationale for attacking tying arrangements. As Justice White has noted, leverage "is the use of power over one product to attain power over another, or otherwise distort freedom of trade and competition in the second product."⁴⁶ If there is no economic power or control over the tying product market, one seller's decision to sell two products as a package does not have any anticompetitive

bound to interpret the broad mandate of the antitrust laws for the benefit of consumers); *Reiter v. Sonotone Corp.*, 442 U.S. 330, 343 (1979) (antitrust laws are a "consumer welfare prescription"); *Broadcast Music, Inc. v. CBS*, 441 U.S. 1, 19-20 (1979) (discussing the importance of efficiency effects in determining the applicability of the per se rule); *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 488 (1977) (antitrust should protect competition, not competitors); 1 P. AREEDA & D. TURNER, *ANTITRUST LAW* § 104 (1978) (economic efficiency is paramount consideration in antitrust cases); R. BORK, *THE ANTITRUST PARADOX* 81-89 (1978) (same); W. LETWIN, *LAW AND ECONOMIC POLICY IN AMERICA* 3 (1965) (describing the Sherman Act as "economic policy [to facilitate competition] imposed by a general law"); Holmes, *Antitrust as a Flexible Charter for Competitive Markets*, in ABA ANTITRUST SECTION, *INDUSTRIAL CONCENTRATION AND THE MARKET SYSTEM* 17, 18 (1979) ("[T]he central and fundamental objective of the antitrust laws is to ensure the preservation and perpetuation of the competitive market economy."); Bork, *Legislative Intent and the Policy of the Sherman Act*, 9 J.L. & ECON. 7, 7 (1966) (Congress's intent in passing Sherman Act was to promote consumer welfare). In a landmark decision, the Supreme Court recognized the economic evidence favoring territorial restrictions on franchises and therefore overturned the per se rule against that form of vertical restraint. *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 54-58 (1977); see R. GIVENS, *supra* note 21, § 31.01 ("The increased recognition of the importance of economic factors in antitrust . . . contributed to the expansion of the rule of reason in the *GTE Sylvania* case and the notion that per se rules only apply where their purposes also apply."); Williamson, *Symposium on Antitrust Law and Economics: Introduction*, 127 U. PA. L. REV. 918, 920 (1979) (*GTE Sylvania* illustrates the Court's willingness to consider efficiency and transaction-cost effects of business practices).

The Supreme Court was also receptive to economic efficiency arguments in a recent case involving resale price maintenance. See *Monsanto Co. v. Spray-Rite Serv. Corp.*, 465 U.S. 752, 762 (1984) (discussing the importance of actual market impact); see also Easterbrook, *Vertical Arrangements and the Rule of Reason*, 53 ANTITRUST L.J. 135, 169-71 (1984) (*Monsanto* "largely reads as if the Court has adopted the economic approach to restricted distribution."). *Monsanto* also casts doubt on the applicability of the per se rule to resale price maintenance. See Easterbrook, *supra*, at 171.

46. *Fortner I*, 394 U.S. 495, 512-14 (1969) (White, J., dissenting); see Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 104 S. Ct. 1551, 1558 (1984). One commentator has argued that the leverage theory of tie-ins is similar to the transfer-of-power theory in predatory pricing. See C. HILLS, *supra* note 21, at 192-93 (W. Liebler ed. Supp. 1984).

effects.⁴⁷ In *Jefferson Parish Hospital District No. 2 v. Hyde*,⁴⁸ for example, the Supreme Court refused to apply the per se rule against a hospital's requirement that its patients purchase preselected anesthesiological services. Viewing market power as a necessary condition for the existence of anticompetitive "forcing,"⁴⁹ the court held that per se treatment is inappropriate where no strong showing of market power is made.⁵⁰

Although still influential, the leverage view of tie-ins has been widely criticized by commentators and economists.⁵¹ George Stigler's

47. *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1558, 1565 (1984); *see also id.* at 1571-72 (O'Connor, J., concurring) (noting that, absent market power in tying product market, tie-in will in fact be "pro-competitive"); *Fortner II*, 429 U.S. 610, 620 (1977) (raising issue of whether seller has power within the tying product market to raise prices or require purchasers to accept burdensome terms); *Fortner I*, 394 U.S. 495, 503-04 (1969) ("[T]he proper focus of concern is whether the seller has the power to raise prices, or impose other burdensome terms such as a tie-in, with respect to any appreciable number of buyers within the market."). One commentator has noted that "when . . . firms lack market power . . . they cannot sustain deleterious practices. Rival firms will offer the consumers better deals. The process of rivalry is sufficient insurance. Rivals' better offers will stamp out bad practices faster than the judicial process can." Easterbrook, *supra* note 45, at 159. A tie-in by a firm with little or no market power can benefit consumers by increasing the number of price-quality options available, facilitating the introduction of new products, alleviating imperfect information problems, and frustrating efforts to form cartels. *See id.* at 146, 149-50.

48. 104 S. Ct. 1551 (1984).

49. *Id.* at 1558-60.

50. *Id.* at 1560-61, 1565.

51. "Although the replacement of leverage by price discrimination in the theory of tie-ins has been a part of the economic literature for almost twenty years, it has had virtually no impact on public policy." R. POSNER, *supra* note 26, at 174 (footnote omitted); *see* D. ARMENTANO, *ANTI-TRUST AND MONOPOLY: ANATOMY OF A POLICY FAILURE 200* (1982) ("[T]here is no practical way to 'leverage' market power from one market to another."); R. BORK, *supra* note 45, at 372 ("The law's theory of tying arrangements is merely another example of the discredited transfer-of-power theory, and perhaps no other variety of that theory has been so thoroughly and repeatedly demolished in the legal and economic literature."); W. BOWMAN, *PATENT AND ANTITRUST LAW*, at ix, 55-58, 157-58 (1973) (criticizing the leverage theory in the patent-antitrust cases); Easterbrook, *supra* note 45, at 143-44 (criticizing the leverage theory); D. GIFFORD & L. RASKIND, *FEDERAL ANTITRUST LAW 183* (1983) (criticizing "leverage" as assuming ability to transfer or extend market power); C. HILLS, *supra* note 21, at 192-94 (W. Liebler ed. 1984 Supp.) (leverage view of tie-ins is subject to increasing challenge); R. POSNER, *supra* note 26, at 172 ("One striking deficiency of the traditional, 'leverage' theory of tie-ins . . . is the failure to require any proof that a monopoly of the tied product is even a remotely plausible consequence of the tie-in."); Hovenkamp, *Tying Arrangements and Class Actions*, 36 *VAND. L. REV.* 213, 227-31 (1983) (concluding that the leverage theory "has no economic merit" and is "fallacious"); Williamson, *supra* note 45, at 919 (describing Harvard School's leverage theory as "discredited"). For a general discussion of the leverage theory, *see* P. AREEDA, *ANTITRUST ANALYSIS 735* (3d ed. 1981); Bowman, *Tying Arrangements and the Leverage Problem*, 67 *YALE L.J.* 19 (1957); Burstein, *A Theory of Full-Line Forcing*, 55 *NW. U.L. REV.* 62 (1960); Markovits, *Tie-ins, Reciprocity, and the Leverage Theory*, 76 *YALE L.J.* 1397 (1967).

The notion that tie-ins are barriers to entry is a related notion that rests on the same premises as the leverage theory. R. BORK, *supra* note 45, at 374-75; *see* W. BOWMAN, *supra*, at 118 ("The 'barriers to entry' argument . . . is again merely a variation of the leverage example."); R. POSNER, *supra* note 26, at 176 (criticizing the entry barrier argument); Posner, *The Chicago School of Antitrust Analysis*, 127 *U. PA. L. REV.* 925, 929-30 (1979) (criticizing leverage and barrier to entry theories).

critique of *United States v. Loew's Inc.*⁵² provides an example:

One film, Justice Goldberg cited *Gone With the Wind*, is worth \$10,000 to the buyer, while a second film, the Justice cited *Getting Gertie's Garter*, is worthless to him. The seller could sell the one for \$10,000, and throw away the second, for no matter what its cost, by-gones are forever by-gones. Instead the seller compels the buyer to take both. But surely he can obtain no more than \$10,000, since by hypothesis this is the value of both films to the buyer. Why not, in short, use his monopoly power directly on the desirable film? It seems no more sensible, on this logic, to blockbook the two films than it would be to compel the exhibitor to buy *Gone With the Wind* and seven Ouija boards, again for \$10,000.⁵³

The weakness of the leverage theory has only recently been noted by the courts:

The existence of a tied product normally does not increase the profit that the seller with market power can extract from sales of the *tying* product. A seller with a monopoly on flour, for example, cannot increase the profit it can extract from flour consumers simply by forcing them to buy sugar along with their flour. Counterintuitive though that assertion may seem, it is easily demonstrated and widely accepted.⁵⁴

There are, of course, other anticompetitive purposes that may be achieved by tying arrangements. Tie-ins may be used to evade price controls or regulation;⁵⁵ they may also serve as a means of enforcing price discrimination through metering of consumer demand.⁵⁶ These practices, however, can be carried out only if the firm has a great deal of market power.⁵⁷ In *Data General*, as in *Jefferson Parish Hospital*,⁵⁸ there

52. 371 U.S. 38 (1962).

53. Stigler, *United States v. Loew's Inc.: A Note on Block-Booking*, 1963 SUP. CT. REV. 152, 152-53, cited in R. BORK, *supra* note 45, at 374.

54. *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1571 (1984) (O'Connor, J., concurring) (citation omitted) (emphasis in the original); see also Fortner I, 394 U.S. 495, 512 n.3 (1969) (White, J., dissenting) (noting limited applicability of leverage theory); *Moore v. Jas. H. Matthews & Co.*, 550 F.2d 1207, 1212-13 (9th Cir. 1977) (recognizing that the leverage theory is questionable and concluding that the per se rule against tie-ins is invoked simply to avoid the more complex rule-of-reason analysis).

55. *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1567 n.47 (1984); *id.* at 1571 n.4 (O'Connor, J., concurring); Fortner I, 394 U.S. at 513 (White, J., dissenting); R. BORK, *supra* note 45, at 376; R. POSNER, *supra* note 26, at 172 n.3; Blair & Finci, *The Individual Coercion Doctrine and Tying Arrangements: An Economic Analysis*, 10 FLA. ST. U.L. REV. 531, 546-47 (1983); Hovenkamp, *supra* note 51, at 232-35.

56. *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1559, 1567 n.47 (1984); *id.* at 1571 n.4 (O'Connor, J., concurring); Fortner II, 429 U.S. at 617; Fortner I, 394 U.S. at 513 (White, J., dissenting); R. BORK, *supra* note 45, at 376-78; R. POSNER, *supra* note 26, at 173-74; Bowman, *supra* note 51, at 23-24; Posner, *supra* note 51, at 926; Blair & Finci, *supra* note 55, at 547-49; Hovenkamp, *supra* note 51, at 247-52.

57. Fortner II, 429 U.S. at 620; Fortner I, 394 U.S. at 514; Hovenkamp, *supra* note 51, at 237. Such use of market power could be proscribed by section 2 of the Sherman Act. See *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1571 (1984) (O'Connor, J., concurring).

is no evidence that the defendant engaged in price discrimination.⁵⁹

The crucial point is that both the leverage and the metering theories require some showing of market power. Under the leverage theory, the defendant must have enough power in the market for the tying product to be able to project that power into another market. Market power is also essential to the success of any price discrimination scheme.

B. *The Per Se Rule and Market Power.*

The per se rule conclusively presumes that certain activities are illegal, and thus dispenses with the need for any extensive inquiry into the reasonableness of the practice in individual cases.⁶⁰ The rule is intended to apply where a practice is "manifestly anticompetitive"⁶¹ and there is a "nearly universal view [that the practice is] subject to automatic condemnation under the Sherman Act, rather than to careful assessment under the rule of reason."⁶²

The rationale for per se rules in antitrust law suggests that a more demanding requirement of market power should be applied to tying cases than is currently in use. The court in *Jefferson Parish Hospital* noted that the rule is intended to obviate the need for detailed market inquiry in cases where anticompetitive effect is nearly certain.⁶³ In the case of tying arrangements, leverage and price discrimination are both impossible without market power.⁶⁴ A high threshold requirement of market power would enable courts to pinpoint cases where anticompetitive effect is most likely. Plaintiffs unable to meet this standard would justifiably be forced to prove that the tie-in harms competition under the rule of reason analysis.⁶⁵

In the case of tie-ins used to evade government regulations, market power is not necessary; the existence of government regulations prevents other competitors from lawfully responding to the use of the tying arrangement. See Hovenkamp, *supra* note 51, at 235.

58. *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1571 n.4 (1984).

59. See *Data General II*, 529 F. Supp. 801, 814-15 (N.D. Cal. 1981), *rev'd in part on other grounds*, 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985). Price discrimination is nearly impossible where the quantity of tied product used is a fixed proportion of the quantity of the tying product. *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1567 n.47 (1984); see Hovenkamp, *supra* note 51, at 240-44 ("Fixed proportion tying arrangements generally are unlikely candidates for use as metering devices.").

60. See *supra* note 17 and accompanying text.

61. *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 50 (1977).

62. *Broadcast Music, Inc. v. CBS*, 441 U.S. 1, 16 (1979).

63. *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1560 n.25 (1984).

64. See *supra* notes 46-59 and accompanying text.

65. See *Jefferson Parish Hosp.*, 104 S. Ct. at 1561 ("When . . . the seller does not have either the degree or the kind of market power that enables him to force customers to purchase a second, unwanted product . . . an antitrust violation can be established only by evidence of an unreasonable restraint on competition . . .").

There is a second, and related, reason to require a strong showing of market power and thus to narrow the scope of the per se rule. A growing number of commentators have criticized the application of the per se rule in *any* tie-in case. The rule is attacked primarily because it ignores evidence of the efficiency effects of tie-ins.⁶⁶ Commentators have claimed that economic analysis simply no longer supports the harsh view of tying arrangements taken by some courts.⁶⁷ Not only are the efficiency effects of tie-ins coming to light, but the traditional leverage theory of tying arrangements is being discredited at the same time.⁶⁸

Although there is no "universal view" that tying arrangements are anticompetitive, *Jefferson Parish Hospital*⁶⁹ reaffirmed that "certain tying arrangements" are unreasonable per se.⁷⁰ The Court was strongly divided in coming to this conclusion; four concurring Justices called for the

66. See D. ARMENTANO, *supra* note 51, at 225 ("A 'rule of reason' approach to tying arrangements is certainly to be preferred to absolute illegality . . ."); R. BORK, *supra* note 45, at 365 (antitrust treats tying arrangements as "utterly pernicious, despite the increasingly obtrusive fact that it has found no adequate grounds for objecting to them at all"); R. POSNER, *supra* note 26, at 182 ("The prohibition against tie-ins ought to be radically curtailed, and in the absence of a general prohibition of systematic price discrimination eliminated."); see also Dam, *Fortner Enters. v. United States Steel: "Neither a Borrower, Nor a Lender Be,"* 1969 SUP. CT. REV. 1, 19 (per se rule fails to provide economic standards for determining when tie-ins are harmful and when they are not), cited in *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1563 n.33 (1984); Easterbrook, *supra* note 45, at 144-45 (the situations in which tie-ins and other vertical restraints protect monopoly are too rare to justify application of the per se rule); Comment, *Jefferson Parish Hosp. Dist. No. 2 v. Hyde: Time to Apply the Rule of Reason to Tying Arrangements*, 70 IOWA L. REV. 565, 577 (1985) (consumer welfare best served by applying rule-of-reason analysis to tie-ins).

67. See, e.g. C. HILLS, *supra* note 21, at 158 (Supp. 1983).

68. As Hills notes, the critique of the traditional leverage view involves two propositions. First, the seller of a tying product cannot induce buyers to accept the tied product without providing a discount on the price of the tying product. See *id.* at 158-59 (citing *Fortner I*, 394 U.S. 495, 513 (1969) (White, J., dissenting)). Moreover, "in the absence of price discrimination, a monopolist of one product [market] cannot increase profits by tying a complementary (vertically related) product to the product over which the monopoly is held." C. HILLS, *supra* note 21, at 159 (Supp. 1983); see *supra* notes 51-59.

69. 104 S. Ct. 1551 (1984).

70. *Id.* at 1556. The Court's response focused upon precedent: "It is far too late in the history of our antitrust jurisprudence to question the proposition that certain tying arrangements . . . are unreasonable 'per se.'" *Id.* Although the importance of precedent cannot be doubted, the majority opinion in *Jefferson Parish Hosp.* brings to mind the words of Karl Llewellyn:

[C]ategories and concepts, once formulated and once they have entered into thought processes, tend to take on an appearance of solidity, reality and inherent value which has no foundation in experience. More than this: although originally formulated on the model of at least some observed data, they tend, once they have entered into the organization of thinking, both to suggest the presence of corresponding data when these data are not in fact present, and to twist any fresh observation of data into conformity with the terms of the categories. . . . It is peculiarly troublesome in regard to legal concepts, because of the tendency of the crystallized legal concept to persist after the fact model from which the concept was once derived has disappeared or changed out of recognition.

Llewellyn, *A Realistic Jurisprudence—The Next Step*, 30 COLUM. L. REV. 431, 453-54 (1930).

abandonment of the per se rule.⁷¹ The majority opinion in *Jefferson Parish Hospital* does not, however, preclude the requirement of a strong showing of market power.⁷² The Court noted that market power “in some abstract sense” will not suffice;⁷³ market power in the economic sense—control over price—must be proved.⁷⁴

Given the strong economic arguments against the per se rule, the best course would be to apply the rule only in cases where anticompetitive effects seem very likely. This narrow interpretation is supported by *Continental T.V., Inc. v. GTE Sylvania Inc.*,⁷⁵ in which the Supreme Court overturned the per se rule against territorial restrictions on franchises. Criticizing “formalistic line drawing,” the Court focused on the need to show “demonstrable economic effect” in cases involving vertical restraints.⁷⁶ The elements of the per se rule are somewhat flexible;⁷⁷ by adopting a more demanding standard for market power, courts can retain the benefits of the per se rule while applying it only in cases of truly anticompetitive behavior.

C. Proof of Economic Power in Per Se Tying Cases.

In order for a tying arrangement to be illegal per se, the seller must have sufficient economic power in the tying product market to restrain

71. *Jefferson Parish Hosp.*, 104 S. Ct. at 1570-74 (O'Connor, J., concurring). Justice O'Connor was joined in her opinion by Chief Justice Burger, and by Justices Powell and Rehnquist. *Id.* at 1569. Judge Feinberg has written, for example:

The tie-in field, like much of antitrust law, rests on economic assumptions that are coming under increased scrutiny. I concur in the changed result reached by the new majority because I agree that in view of the present case law and the current learning, it would be unjustifiable to extend the law regarding tying to the fact pattern present here.

Shop & Save Food Mkts., Inc. v. Pneumo Corp., 683 F.2d 27, 31 (2d Cir. 1982) (Feinberg, J., concurring) (citation omitted), *cert. denied*, 459 U.S. 1038 (1983). In that case, the United States Court of Appeals for the Second Circuit decided on rehearing that the per se rule against tie-ins should not apply where a “penalty” rent was charged by the defendant when the plaintiff refused to purchase groceries from it. *Id.* at 30-31. The court found that anticompetitive forcing could not be shown because the plaintiff refused to purchase the groceries—though it did pay the higher rental charge. *Id.*

72. See *Jefferson Parish Hosp.*, 104 S. Ct. at 1560-67 (discussing various prerequisites for the application of the per se rule).

73. *Id.* at 1566.

74. *Id.* at 1566 n.46.

75. 433 U.S. 36 (1977).

76. *Id.* at 58-59.

77. See *infra* notes 119 & 177 and accompanying text (rejecting mechanical legal rules in favor of market analysis); see also *United States v. Jerrold Elecs. Corp.*, 187 F. Supp. 545, 555-56 (E.D. Pa. 1960) (discussing the discretion available in determining whether per se rule is applicable), *aff'd per curiam*, 365 U.S. 567 (1961); R. GIVENS, *supra* note 21, at xvii (discussing the need in antitrust law for consideration of changing economic circumstances); R. POSNER, *supra* note 26, at 182-83 (calling for limitations on liability for tying arrangements); Easterbrook, *Is There a Ratchet in Antitrust Law?* 60 TEX. L. REV. 705, 706-10 (1982) (arguing that antitrust rules should be flexible).

competition in the market for the tied product.⁷⁸ In *Data General*, the Ninth Circuit correctly indicated that tying cases do not require the detailed market power analysis that is necessary, for example, in a monopolization case.⁷⁹ However, the court failed to recognize that the Supreme Court has nonetheless required a strong showing of market power. *Jefferson Parish Hospital*, for instance, held that a showing of both thirty percent market share and imperfect consumer information "do[es] not generate the kind of market power that justifies condemnation of tying."⁸⁰ In *Fortner Enterprises v. United States Steel Corp. (Fortner I)*,⁸¹ the Supreme Court indicated that "the proper focus of concern is whether the seller has the power to raise prices, or impose burdensome terms such as a tie-in, with respect to any appreciable number of buyers within the market."⁸² This statement has not been read to imply that the mere existence of a tying arrangement is sufficient to prove market power. Rather, *Fortner I* and *Jefferson Parish Hospital* require proof of control over price or other terms,⁸³ not "'market power' in some abstract sense."⁸⁴

Evidence of this market power can include proof of dominance in the tying product market or proof that the seller's product is sufficiently unique to confer "some advantage not shared by [its] competitors in the

78. See *supra* note 23 and accompanying text.

79. *Digidyne Corp. v. Data General Corp.*, 734 F.2d 1336, 1339 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985); see *United States v. Loew's Inc.*, 371 U.S. 38, 45 n.4 (1962) (in tie-in case, government need not "demonstrat[e] . . . market power in the sense of § 2 of the Sherman Act").

80. *Jefferson Parish Hosp.*, 104 S. Ct. at 1566.

The recently issued Department of Justice guidelines for tying arrangements and other vertical restraints provide some assistance in defining the requisite market power. See Department of Justice Vertical Restraints Guidelines, 50 Fed. Reg. 6263 (1985). The Guidelines indicate that the Department of Justice will not challenge a tying arrangement if the party imposing the arrangement possesses a market share of 30% or less, unless the tie-in unreasonably restrains competition under the rule of reason. *Id.* at 6272. If the market share in the tying product market is greater than 30%, the Department of Justice "will attempt to determine whether the seller has 'dominant' market power." *Id.* If dominance is found and the other elements of the per se rule are present, the Guidelines view the tie-in as illegal per se. If dominant power is not found, however, then the Department of Justice will again apply the rule of reason. *Id.* In the last situation, the seller's substantial market power will be considered in the analysis, but will not justify per se condemnation. Thus the Vertical Restraints Guidelines appear to track *Jefferson Parish Hosp.* in its market power analysis. Although the Guidelines are not binding on private litigants or the courts, they do serve as indicators of the government's enforcement policy. They also reflect a sound view of the circumstances where condemnation of tying arrangements is justified.

81. 394 U.S. 495 (1969).

82. *Id.* at 504; see *Fortner II*, 429 U.S. 610, 620 (1976).

83. See *Jefferson Parish Hosp.*, 104 S. Ct. at 1565 ("The fact that [customers] are required to purchase two separate items is only the beginning of the appropriate inquiry."); *Fortner II*, 429 U.S. at 620 n.13 (read in context, *Fortner I* requires control over price) (citing *Dam*, *supra* note 66, at 25-26).

84. *Jefferson Parish Hosp.*, 104 S. Ct. at 1566.

market for the tying product.”⁸⁵ Economic power can also be shown where a substantial number of buyers have accepted the package, but only when this fact can be explained solely by the seller’s market power.⁸⁶

In *Data General*, there was no claim that the defendant in fact dominated its market. The Ninth Circuit found instead that RDOS was sufficiently unique to confer the required market power on Data General.⁸⁷ The court based its conclusion on several factors: (1) the distinctiveness and desirability of RDOS, (2) the copyright on RDOS, and (3) the existence of a “lock-in.”⁸⁸ The court’s lock-in argument⁸⁹ is circular because it assumes the uniqueness of Data General’s software. If there are compatible alternatives, then Data General’s customers will not be locked into purchasing its software.⁹⁰ Moreover, two other courts have rejected similar lock-in arguments.⁹¹

The *Data General* court found the uniqueness requirement fulfilled by evidence that RDOS was “particularly desirable to a substantial number of buyers.”⁹² This desirability is insufficient to show market power unless it gives the seller economic power: the power to raise prices by restricting output.⁹³ *United States Steel Corp. v. Fortner Enterprises (Fortner II)*⁹⁴ quotes a commentator who interprets this test to require the following proof: “Whenever there are some buyers who find a seller’s product uniquely attractive, and are therefore willing to pay a premium

85. *Fortner II*, 429 U.S. at 620; *see also* *United States v. Loew’s Inc.*, 371 U.S. 38, 45 (1962) (“Even absent a showing of market dominance, the crucial economic power may be inferred from the tying product’s desirability . . . or uniqueness . . .”).

86. *Fortner II*, 429 U.S. at 618 n.10; *Moore v. Jas. H. Matthews & Co.*, 550 F.2d 1207, 1216 (9th Cir. 1977). One court has noted that it is circular reasoning to assume market power from the existence of a tie-in accepted by a significant number of buyers. *Ungar v. Dunkin’ Donuts, Inc.*, 531 F.2d 1211, 1224-25 (3d Cir.), *cert. denied*, 429 U.S. 823 (1976).

87. *Digidyne Corp. v. Data General Corp.*, 734 F.2d 1336, 1341-43 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985).

88. *Id.*

89. *See supra* notes 37-38 and accompanying text for a discussion of the alleged lock-in.

90. It is quite possible that compatible alternatives exist. *See, e.g.*, Enright, *Preview: The Kaypro 16*, PROFILES, Feb. 1985, at 74, 74, 76 (noting ability of competing manufacturers to “clone” IBM personal computer and operating system software without violating patent and copyright laws). In addition, the lock-in could be avoided by conversion to a similar system. *Data General II*, 529 F. Supp. 801, 814 (N.D. Cal. 1981), *rev’d in part*, 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985).

91. One of these cases involved another challenge to Data General’s marketing practices. *Warner Management Consultants, Inc. v. Data General Corp.*, 545 F. Supp. 956, 965-66 (N.D. Ill. 1982) (rejecting lock-in as evidence of market power). The other case involved Kodak’s alleged “technological tie” of film and cameras. *Berkey Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263, 285-86 (2d Cir. 1979) (monopolization case), *cert. denied*, 444 U.S. 1093 (1980).

92. *Data General*, 734 F.2d at 1341.

93. *Jefferson Parish Hosp.*, 104 S. Ct. at 1566 & n.46; *Fortner I*, 394 U.S. 495, 503-04 (1969).

94. 429 U.S. 610 (1977).

above the price of its nearest substitute, the seller has the opportunity to impose a tie"⁹⁵ In *Fortner I* and *Fortner II*, for example, the alleged tie-in involved extremely favorable credit terms tied to the purchase of prefabricated housing.⁹⁶ The Supreme Court reversed a finding that the purportedly advantageous financing terms were sufficiently unique or desirable to confer market power.⁹⁷ The Court did not view the fact that the financing terms were "unique and unusual" as dispositive of the market power issue.⁹⁸

In *Data General*, there was no showing of the economic power required under the *Fortner II* standard. The trial court described the market as highly competitive, and it found no evidence of noncompetitive pricing or price discrimination.⁹⁹ Moreover, the existence of a large number of purchasers for Data General's package can be explained by the competitiveness of the package¹⁰⁰ or by the efficiency of bundling the hardware and software.¹⁰¹

Evidence of economic power, or power over price, in the tying product market is an essential element of the per se rule against tie-ins. As noted in *Jefferson Parish Hospital*, once sufficient market power is proved, the probability increases that the tie-in has anticompetitive effects.¹⁰² Thus, application of an economic test—rather than mechanical rules—ensures that the harsh per se rule will be used only in cases where its assumptions are justified.

D. *The Presumption of Market Power Arising from Copyrights.*

A major basis for imposing liability on Data General was the presumption of uniqueness, and thus market power, arising from Data General's copyright on its software, RDOS.¹⁰³ Despite its acknowledgement that a copyright merely creates a rebuttable presumption of economic

95. *Id.* at 621 n.14 (quoting Note, *The Logic of Foreclosure: Tie-In Doctrine After Fortner v. U.S. Steel*, 79 YALE L.J. 86, 93-94 (1969)).

96. *Id.* at 611; *Fortner I*, 394 U.S. 495, 496-97 (1969).

97. *Fortner II*, 429 U.S. at 620-21. The evidence of uniqueness rejected in *Fortner II* included the following: the defendant was owned by one of the largest industrial corporations in the country; a large number of customers purchased the package; U.S. Steel charged a "noncompetitive price" for its homes; and the finance terms were unusual (including 100% financing). *Id.* at 614.

98. *Id.* at 621 (citing *Fortner I*, 394 U.S. at 505).

99. *Data General II*, 529 F. Supp. 801, 813-15 (N.D. Cal. 1981), *rev'd in part*, 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985).

100. *Id.* at 815-16.

101. This point refers to the business justifications discussed *infra* notes 134-84 and accompanying text.

102. *Jefferson Parish Hosp.*, 104 S. Ct. at 1560-61.

103. *Digidyne Corp. v. Data General Corp.*, 734 F.2d 1336, 1341 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985); *see also* *United States v. Loew's Inc.*, 371 U.S. 38, 45-46 (1962) (discussing presumption of market power arising from copyrights and patents).

power,¹⁰⁴ the Ninth Circuit effectively treated the existence of the copyright as conclusive evidence of market power. Specifically, the court stated that the copyright made RDOS "unique as a matter of law,"¹⁰⁵ and it was apparently unwilling to consider Data General's rebuttal on the point.¹⁰⁶ In contrast, the trial court had noted the highly competitive nature of the computer market, the existence of more than one hundred competing brands of software, the clear availability of substitutes for RDOS, and the complete lack of evidence that Data General had control over price.¹⁰⁷ It is difficult to conceive of more persuasive evidence that Data General did not have market power. Indeed, under the Ninth Circuit's view of the issue, it is difficult to see how even the smallest computer manufacturer in the country could prove that its copyright did not give rise to market power.¹⁰⁸

The *Data General* court's unfortunate reliance on the presumption of market power arising from copyright can be traced to the confusing origin and nature of that presumption. An early patent case, *Motion Picture Patents Co. v. Universal Film Manufacturing Co.*,¹⁰⁹ involved a tie-in of patented movie projectors and films. The Court in that case applied the doctrine of patent misuse, which penalizes a patentee's attempts to extend the patent monopoly by requiring it to forfeit its patent rights.¹¹⁰ The early patent and copyright tie-in cases cited and were influenced by this doctrine.¹¹¹

104. *Data General*, 734 F.2d at 1344 ("The burden to rebut the presumption shifted to defendant.").

105. *Id.* at 1342-43.

106. *Id.* at 1345-46.

107. *Data General II*, 529 F. Supp. 801, 813-16 (N.D. Cal. 1981), *rev'd in part*, 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985).

108. Liability would be limited only by the requirement that a "not insubstantial" amount of commerce be affected. This requirement is easily met. *See supra* note 28.

109. 243 U.S. 502 (1917).

110. *See id.* at 516-19. For example, the Supreme Court in 1942 applied the principles of equity to bar a patent infringement suit where the patent holder engaged in tying. *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488, 492-94 (1942).

111. *See* *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1572 n.7 (1984) (O'Connor, J., concurring):

Although *United States v. Paramount Pictures, Inc.* considered the legality of "block booking" of motion pictures, which ties the purchase of rights to copyrighted motion pictures to purchase of other motion pictures of the same copyright holder, the Court did not analyze the arrangement with the schema of the tying cases. Rather, the Court borrowed the patent law principle of "patent misuse," which prevents the holder of a patent from using the patent to require his customers to purchase unpatented products.

Id. (citation omitted). In *United States v. Paramount Pictures, Inc.*, 334 U.S. 131 (1948), the Supreme Court condemned block booking because the practice prevented competition on the merits and allegedly extended the seller's copyright monopoly to other products. *Id.* at 156-57. "That enlargement of the monopoly of the copyright was condemned below in reliance on the principle which forbids the owner of a patent to condition its use on the purchase or use of patented or unpatented materials." *Id.* at 157. To support these propositions, the Court included citations to

The extension of this patent law doctrine into antitrust is troubling because it exposes a patent holder to liability for *both* treble damage penalties and patent law sanctions. In addition, the early copyright-antitrust cases, *United States v. Loew's Inc.*¹¹² and *United States v. Paramount Pictures, Inc.*,¹¹³ involved motion pictures that were "unique" and "non-replicable."¹¹⁴ The copyrighted motion picture *Gone With the Wind* can readily be described as unique, but a copyrighted computer operating system is not unique in the same sense. Consumers are not concerned with insignificant differences between RDOS and other operating systems. Two copyrighted software programs that are functionally equivalent will be indistinguishable to the average consumer, whereas two movies, even with similar plot lines, will not.¹¹⁵

The Court in *Loew's* recognized the possibility that some tying arrangements involving copyrighted or patented products would not violate the antitrust laws.¹¹⁶ In *Data General*, the Ninth Circuit did not dispute the trial court's holding that the presumption arising from copyrights is rebuttable.¹¹⁷ However, the court placed so much emphasis on the existence of the copyright that the presumption was effectively rendered conclusive. Indeed, the court seemed unwilling to consider the

two patent misuse cases: *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488 (1942), and *Mercoid Corp. v. Mid-Continent Investment Co.*, 320 U.S. 661 (1944). See *Paramount Pictures*, 334 U.S. at 157; see also *United States v. Loew's Inc.*, 371 U.S. 38, 45-56 (1962) (noting that the presumption of market power arose in the patent misuse cases); R. BORK, *supra* note 45, at 366 (early cases were "decided under law of patent misuse"); W. BOWMAN, *supra* note 51, at 153-54, 157-58, 182 (discussing the influence of patent misuse and leverage notions on the law of tie-ins); R. POSNER, *supra* note 26, at 172 (same); E. SINGER, *ANTITRUST ECONOMICS AND LEGAL ANALYSIS* 112-13 (1981) (same).

112. 371 U.S. 38 (1962).

113. 334 U.S. 131 (1948).

114. W. HOLMES, *supra* note 21, § 36.05, at 17; see *Loew's*, 371 U.S. at 48 (holding that the presumption of films' uniqueness arising from copyright was confirmed by the lower court's proper findings regarding nature of the films); *Paramount Pictures*, 334 U.S. at 156-59 (applying "patent tying" cases to block-booking practices of motion picture distributors).

115. Professor Samuelson has noted that computer programs are viewed by most users as a "black box." See Samuelson, *supra* note 42, at 681-82 ("The user does not care how the program does what it does, just that it does what it is supposed to do.").

116. See *Loew's*, 371 U.S. at 49-50 ("There may be rare circumstances in which the doctrine . . . prohibiting tying arrangements involving patented or copyrighted tying products is inapplicable."); see also W. HOLMES, *supra* note 21, § 36.05, at 15 (discussing *Loew's*).

117. *Data General*, 734 F.2d at 1344. See also *Data General II*, 529 F. Supp. 801, 816 (N.D. Cal. 1981) ("[T]he existence of copyright notices generally creates a presumption of economic power but does not conclusively presume such power."), *rev'd in part on other grounds*, 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985); *Data General I*, 490 F. Supp. at 1113. Oddly, the court of appeals asserted that the trial judge erred by placing the burden of proving economic power on the plaintiffs. *Data General*, 734 F.2d at 1344. In fact, the trial judge instructed the jury that the presumption arising from the copyright shifted the burden of proof to the defendant. *Data General II*, 529 F. Supp. at 811.

substantial evidence offered to rebut the presumption of market power.¹¹⁸ The Ninth Circuit's approach is inconsistent with *Jefferson Parish Hospital* and other Supreme Court decisions that indicate the need for a factual showing of market power and criticize the use of mechanical legal rules to decide complex economic questions.¹¹⁹ Given the importance of market power as a theoretical, legal, and economic prerequisite to liability for tying arrangements,¹²⁰ it seems unreasonable to eliminate economic power as an issue simply because the tying product is copyrighted.

The presumption of market power arising from copyrights and patents has come under increasing criticism in recent years, both from commentators¹²¹ and from the Supreme Court. Justice O'Connor, in a concurring opinion joined by three other members of the Court, voiced such a concern in *Jefferson Parish Hospital*:

A common misconception has been that a patent or copyright . . . suffice[s] to demonstrate market power. While [this fact] might help to give market power to a seller, it is also possible that a seller in these situations will have no market power: for example, a patent holder has no market power in any relevant sense if there are close substitutes for the patented product.¹²²

118. See *supra* notes 87-101 and accompanying text.

119. *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1559, 1566 (1984); *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 50-51 (1977) (quoting *White Motor Co. v. United States*, 372 U.S. 253, 263 (1963)); *Fortner II*, 429 U.S. 610, 620-22 (1977); *Fortner I*, 394 U.S. 495, 503-05 (1969).

120. See *supra* notes 46-86 and accompanying text.

121. As Professor, now Judge, Richard Posner notes:

A patent is actually a poor proxy for monopoly power, since most patents confer too little monopoly power to be a proper object of antitrust concern. Some patents confer no monopoly power at all. A patent may simply enable a firm to reduce the cost advantage of a competing firm; in such a case the patent might actually reduce the amount of monopoly power in the market. Its popularity in the tie-in cases may stem from the fact that the earliest such cases were not antitrust cases at all. They were patent-misuse cases, where the issue was whether the patentee had improperly extended the patent monopoly by monopolizing an unpatented product tied to the patented product.

R. POSNER, *supra* note 26, at 172 n.3 (citations and parentheses omitted). "Implicit in the presumption [of market power] is the belief that since a patent or copyright is a statutory monopoly, it follows that each must also be a market monopoly. But all patents do not confer substantial or even significant market power." E. SINGER, *supra* note 111, at 112; see also D. ARMENTANO, *supra* note 51, at 203-05 (criticizing presumption of market power in context of *International Salt*); THE ATTORNEY GENERAL'S NATIONAL COMMITTEE TO STUDY THE ANTITRUST LAWS 238 (1955) ("The Committee feels [that] . . . the fact that the tying product is patented need not be decisive of illegality."); R. BORK, *supra* note 45, at 367-68 (criticizing presumption of market power). See generally W. BOWMAN, *supra* note 51, at 53 (noting that patent does not necessarily confer market power).

The presumption of market power is also a manifestation of the discredited leverage theory. See E. SINGER, *supra* note 111, at 112 (patent monopoly is not necessarily extended by tie-in); see also note 51 (discussion of leverage theory).

122. *Jefferson Parish Hosp.*, 104 S. Ct. at 1572 n.7. See generally Landes & Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937 (1981).

In addition, it is likely that patents confer greater market power than do copyrights. An invention is required to have some degree of "novelty" in order to secure patent protection.¹²³ A copyrighted work, on the other hand, need not meet the novelty standard.¹²⁴ Moreover, copyrighted material can be duplicated as long as it is not copied; a patented device cannot be duplicated at all.¹²⁵ Copyright protects only the "expression" of a computer program, not the basic idea behind the program.¹²⁶ The copyright monopoly thus does not prevent others from appropriating the idea embodied in that program. Finally, copyright infringers are protected by the fair use doctrine, which is not available to patent infringers.¹²⁷ "Fair use" is a privilege permitting limited and reasonable use of copyrighted material.¹²⁸ Thus it can be argued that the presumption of market power arising from a copyright should be weaker than the presumption arising in patent cases.

Courts have drawn a similar distinction with regard to trademarks.

123. 35 U.S.C. § 102 (1982); see *Loew's*, 371 U.S. at 46 (because goal of patent laws is to reward uniqueness, existence of patent can be used to infer uniqueness in tying cases).

124. In order to secure a statutory copyright, the author need only "originate" the work and fix it in a tangible medium. 17 U.S.C. § 102(a) (1982).

125. See 17 U.S.C. § 102(b) (1982) (idea/expression distinction in copyright); C. MCMANIS, *THE LAW OF UNFAIR TRADE PRACTICES* 239 (1982) (if two authors produce identical works independently, i.e., without copying the work of the other, then each author may copyright his work); see also 17 U.S.C. § 405(b) (1982) (no liability for innocent infringer when copyright notice has been omitted and infringer has not received actual notice that the material has been registered); 17 U.S.C. § 504(c)(2) (1982) (exemption from statutory damages for innocent infringement by non-profit educational institutions or public broadcasters). Judge Hand explained the patent/copyright distinction as follows:

To sustain [a finding of copyright infringement] . . . more must appear than the mere similarity, or even identity, of the supposed infringement with the part in question. In this lies one distinction between a patent and a copyright. One may infringe a patent by the innocent reproduction of the machine patented, but the law imposes no prohibition upon those who, without copying, independently arrive at the precise combination of words or notes which have been copyrighted.

Fred Fisher, Inc. v. Dillingham, 298 F. 145, 147 (S.D.N.Y. 1924). Judge Hand developed this same principle, twelve years later, into his memorable fantasy of the recreation of Keats's "Ode on a Grecian Urn": "[I]f by some magic a man who had never known it were to compose anew Keats's Ode on a Grecian Urn, he would be an 'author,' and, if he copyrighted it, others might not copy that poem, though they might of course copy Keats's." *Sheldon v. Metro-Goldwyn Pictures Corp.*, 81 F.2d 49, 54 (2d Cir.) (citations omitted), *cert. denied*, 298 U.S. 669 (1936).

126. See Samuelson, *supra* note 42, at 754-55.

127. 17 U.S.C. § 107 (1982) (copyright fair use provision).

128. "Fair use" has been defined as a privilege permitting the reasonable and justifiable use of copyrighted material without the consent of the copyright holder. *Rosemont Enters. v. Random House, Inc.*, 366 F.2d 303, 306 (2d Cir. 1966), *cert. denied*, 385 U.S. 1009 (1967). Section 107 of the Copyright Act of 1976 mandates that four factors be considered in determining whether a use is fair: the purpose and character of the use, the nature of the copyrighted work, the amount and substantiality of the taking, and the effect of the use on the market for the copyrighted work. 17 U.S.C. § 107 (1982).

In *Carpa, Inc. v. Ward Foods, Inc.*,¹²⁹ the United States Court of Appeals for the Fifth Circuit held that trademarks are only persuasive evidence of market power. The United States Court of Appeals for the Second Circuit has concluded that trademarks merely serve to identify the franchisor, and that proof of actual economic power is therefore still required.¹³⁰ Other courts have recognized that the mere presence of a trademark does not prove actual economic power, and have therefore rejected any presumption of market power flowing from the presence of a trademark.¹³¹ In contrast, the Ninth Circuit has held that a trademark creates the same presumption of market power as does a patent or a copyright.¹³² The approach of the Second and Fifth Circuits is sounder because it recognizes that a legal right does not necessarily confer economic power. This pragmatic analysis should be applied in copyright cases.

There is no precedent establishing that copyrights create an irrebuttable presumption of market power.¹³³ A product that meets the statutory requirements for copyrightability may not possess the qualities necessary to create a market success. Given the important role of market power in finding antitrust violations, a copyright should at most give rise to a rebuttable presumption. Indeed, it can be argued that the copyright should merely be persuasive evidence of economic power. In any case, the defendant should be allowed to prove that it does not have the ability to raise prices or impose other burdensome terms on its customers.

IV. "REDEEMING VIRTUES": BUSINESS JUSTIFICATIONS FOR TIE-INS

Although labeled a "per se" violation of the antitrust laws, tying arrangements have generally not been deemed illegal without some con-

129. 536 F.2d 39, 48 (5th Cir. 1976).

130. *Capital Temporaries, Inc. v. Olsten Corp.*, 506 F.2d 658, 663-65 (2d Cir. 1974); *Susser v. Carvel Corp.*, 332 F.2d 505, 519-21 (2d Cir. 1964), *cert. dismissed*, 381 U.S. 125 (1965).

131. *See United States v. Mercedes-Benz of N. Am., Inc.*, 517 F. Supp. 1369, 1386-87 (N.D. Cal. 1981) (holding that although the Ninth Circuit allows a presumption in some circumstances, trademark alone is not sufficient to prove market leverage); *Q. T. Mkts., Inc. v. Fleming Cos.*, 394 F. Supp. 1102, 1109 (D. Colo. 1975) (where plaintiff cannot show any factor in addition to mere existence of trademark, no presumption of coercive market power is justified); *Golden West Insulation, Inc. v. Stardust Investment Corp.*, 47 Or. App. 493, 501-04, 615 P.2d 1048, 1053-54 (1980) (applying Oregon antitrust law) (a trademark "alone cannot create a presumption of sufficient economic power over the market for the tying product"); *see also Redd v. Shell Oil Co.*, 524 F.2d 1054, 1057 (10th Cir. 1975) (rejecting application of per se rule on grounds that a trademark is not a separate product for purposes of two product requirement), *cert. denied*, 425 U.S. 912 (1976).

132. *Siegel v. Chicken Delight, Inc.*, 448 F.2d 43, 50 (9th Cir. 1971) (registered trademark presents legal barrier against competition), *cert. denied*, 405 U.S. 955 (1972).

133. *See Data General I*, 490 F. Supp. 1089, 1112 (N.D. Cal. 1980) ("[T]he sole fact of the existence of a copyright notice has not been held to be sufficient to prove economic power."), *aff'd in relevant part*, 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985).

sideration of business justifications.¹³⁴ Despite the often cited assertion that "tying arrangements serve hardly any purpose beyond the suppression of competition,"¹³⁵ tie-ins may have a number of beneficial effects. First, a tie-in may be used to facilitate the introduction of a new product.¹³⁶ Second, it can be used to evade price monitoring by cartels.¹³⁷ Three other possible purposes are the protection of goodwill,¹³⁸ the capture of economies of joint production and distribution,¹³⁹ and the elimination of the free rider problem.¹⁴⁰ Defenses based upon the goodwill, efficiency, and free rider theories were rejected at an early stage in the *Data General* litigation.¹⁴¹ The trial court rejected those justifications because such defenses are available only in limited circumstances and are accepted only when there are no "less restrictive alternatives" to the tying arrangement.¹⁴²

134. See *supra* notes 21-24 and accompanying text.

135. *Standard Oil Co. v. United States*, 337 U.S. 293, 305-06 (1949), *quoted in* *Northern Pac. Ry. v. United States*, 356 U.S. 1, 6 (1958).

136. The most famous case discussing the "new industry" defense is *United States v. Jerrold Elecs. Corp.*, 187 F. Supp. 545, 555-60 (E.D. Pa. 1960) (tie-in is reasonable when used to facilitate development of new line of business), *aff'd per curiam*, 365 U.S. 567 (1961). See *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 55 (1977) (discussing use of tie-ins to facilitate development of emerging markets or new technologies); *Northern v. McGraw-Edison Co.*, 542 F.2d 1336, 1347 (8th Cir. 1976) (same), *cert. denied sub nom. McGraw-Edison Co. v. Soper*, 429 U.S. 1097 (1977); *Carpa, Inc. v. Ward Foods, Inc.*, 536 F.2d 39, 47 (5th Cir. 1976) (same); ABA ANTITRUST SECTION, *supra* note 21, at 89-90 (discussing the new product defense); ABA ANTITRUST SECTION, MONOGRAPH NO. 8, VERTICAL RESTRICTIONS UPON BUYERS LIMITING PURCHASES OF GOODS FROM OTHERS 12, 20-21 (1982) (same) [hereinafter cited as ABA MONOGRAPH]; C. HILLS, *supra* note 21, at 108-09 (same); W. HOLMES, *supra* note 21, § 34.03 (same); Note, *Newcomer Defenses: Reasonable Use of Tie-ins, Franchises, Territorials and Exclusives*, 18 STAN. L. REV. 457, 458-65 (1966) (same). Similarly, a tying arrangement might aid a new entrant in an established market; "[t]ie-ins . . . may facilitate new entry into fields where established sellers have wedded their customers to them by ties of habit and custom." *Fortner I*, 394 U.S. 495, 514 n.9 (1969) (White, J., dissenting), *quoted in* *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1573 (1984) (O'Connor, J., concurring); see *GTE Sylvania*, 433 U.S. at 55 (discussing use of tie-in by new manufacturer); *White Motor Co. v. United States*, 372 U.S. 253, 263 (1963) (same); *Brown Shoe Co. v. United States*, 370 U.S. 294, 330 (1962) (same); *Easterbrook*, *supra* note 45, at 149-50 (discussing increase in product variety resulting from entry of firm using vertical restraint) (citing Douglas & Miller, *Quality Competition, Industry Equilibrium, and Efficiency in the Price-Constrained Airline Market*, 64 AM. ECON. REV. 657, 668 (1974) and Scherer, *The Economics of Vertical Restraints*, 52 ANTITRUST L.J. 687, 704 (1983)).

137. See *Fortner I*, 394 U.S. 495, 514 n.9 (1969) (White, J., dissenting) (tie-in "may permit clandestine price cutting" thus lessening threat of retaliation by cartel), *cited in* *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1573-74 (1984) (O'Connor, J., concurring); *Easterbrook*, *supra* note 45, at 146 (tie-in may enable firm to cheat in cartelized market).

138. See *infra* notes 153-77 and accompanying text.

139. See *infra* notes 178-84 and accompanying text.

140. See *infra* note 181.

141. *Data General I*, 490 F. Supp. 1089, 1120-1124 (N.D. Cal. 1980), *aff'd in relevant part*, 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985).

142. *Id.* at 1120 (quoting *Siegel v. Chicken Delight, Inc.*, 448 F.2d 43, 51 (9th Cir. 1971), *cert. denied*, 405 U.S. 955 (1972)); see also *Moore v. Jas. H. Matthews & Co.*, 550 F.2d 1207, 1217 (9th Cir. 1977) (justifications for tie-ins available only in limited circumstances).

The trial court's view of business justifications seems to conflict with the rationale of the Supreme Court's decision in *GTE Sylvania*.¹⁴³ Overturning the per se rule against territorial restrictions on franchises, the Court in that case focused upon the "redeeming virtues" of vertical restrictions.¹⁴⁴ The redeeming virtues discussed in *GTE Sylvania*—facilitation of new businesses, protection of goodwill, efficient marketing, and the elimination of the free rider problem¹⁴⁵—are as relevant to tying cases as they are to territorial restrictions. As the Supreme Court indicated in *Monsanto Co. v. Spray-Rite Service Corp.*,¹⁴⁶ "the economic effect of . . . unilateral and concerted vertical price-setting, agreements on price and non-price restrictions . . . is in many, but not all, cases similar or identical."¹⁴⁷ Justice White, in his concurrence in *GTE Sylvania*, noted that the distinction between price and non-price vertical restraints "may be as difficult to justify as that [made by] *Schwinn*."¹⁴⁸

Tying law can therefore be reconciled with *GTE Sylvania* in two ways. First, the per se rule against tying arrangements can be eliminated.¹⁴⁹ Alternatively, courts can give greater attention to business justifications under the partial per se rule.¹⁵⁰ Although the former approach was rejected in *Jefferson Parish Hospital*,¹⁵¹ the Supreme Court did not address the argument that business justifications should be construed more broadly.¹⁵² This section reviews two business justifications that may be applicable to the *Data General* case in light of *GTE Sylvania* and *Jefferson Parish Hospital*.

A. *The Goodwill Defense.*

The goodwill defense rests upon the fact that a manufacturer's product might not function properly when used in conjunction with a component manufactured by another firm. The other firm's component may be defective or simply incompatible. Manufacturers of complex devices thus have an incentive to sell two complementary products as a package in order to avoid consumer dissatisfaction. By using a tie-in, the manu-

143. *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36 (1977).

144. *Id.* at 54.

145. *Id.* at 54-55.

146. 465 U.S. 752 (1984).

147. *Id.* at 762; see C. HILLS, *supra* note 21, at 159-61 (Supp. 1983) (discussing relevance of *GTE Sylvania* to tying arrangement law).

148. *GTE Sylvania*, 433 U.S. at 70 (White, J., concurring).

149. See *supra* notes 66-71 and accompanying text.

150. See *supra* notes 21-24 and accompanying text for a discussion of the partial per se rule.

151. See *supra* note 70 and accompanying text.

152. See *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1564 n.39, 1565 n.42 (1984).

facturer is able to maintain its goodwill and reputation.¹⁵³ For example, in *Pick Manufacturing Co. v. General Motors Corp.*,¹⁵⁴ the United States Court of Appeals for the Seventh Circuit upheld GM's requirement that its dealers sell and install only genuine GM parts. The arrangement was viewed as an attempt to avoid harm to GM's goodwill.¹⁵⁵ A tie-in of a patented silo unloader and patented silos was upheld in *Dehydrating Process Co. v. A. O. Smith Corp.*¹⁵⁶ In that case the tying arrangement was instituted after customers complained of malfunctions when other silos were used.¹⁵⁷ The Supreme Court has also noted that federal and state laws impose safety and quality requirements on firms, giving them another reason to maintain quality standards.¹⁵⁸

Defendants who raise the goodwill justification must show that there are no less restrictive alternatives available. In other words, the tie-

153. See *GTE Sylvania*, 433 U.S. at 55 & n.23 (discussing use of vertical restraints to maintain goodwill); R. BORK, *supra* note 45, at 379-80 (praising the goodwill defense in tying cases); W. BOWMAN, *supra* note 51, at 173-76 (discussing goodwill defense).

154. 80 F.2d 641 (7th Cir. 1935), *aff'd per curiam*, 299 U.S. 3 (1936).

155. *Id.* at 644; see *Fortner I*, 394 U.S. 495, 514 n.9 (1969) (tie-in "may protect the reputation of the tying product if failure to use the tied product in conjunction with it may cause it to malfunction"), *quoted in* *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1574 (1984) (O'Connor, J., concurring); W. BOWMAN, *supra* note 51, at 174-75 (discussing *Pick* and related cases); see also *IAP, Inc. v. Mercedes-Benz of N. Am.*, 571 F. Supp. 262, 267 (D.N.J. 1983) (applying *Pick* in analogous suit involving Mercedes-Benz). *But see* *Metrix Warehouse, Inc. v. Daimler-Benz Aktiengesellschaft*, 1984-2 Trade Cas. (CCH) ¶ 66,226, at 66,947 (D. Md. 1984) (suggesting that *Pick* is inconsistent with *Jefferson Parish Hosp.*). A number of cases have upheld goodwill justifications for tying arrangements. See, e.g., *Baker v. Simmons Co.*, 307 F.2d 458 (1st Cir. 1962) (upholding tie-in to maintain trademark holder's goodwill), *cert. denied*, 382 U.S. 820 (1965); see also ABA MONOGRAPH, *supra* note 136, at 12-13, 18-20 (discussing the goodwill justification); C. HILLS, *supra* note 21, at 109-13 (same). Goodwill was also one of the considerations in *United States v. Jerrold Elecs. Corp.*, 187 F. Supp. 545, 556-60 (E.D. Pa. 1960) (discussing good will and new industry justifications), *aff'd per curiam*, 365 U.S. 567 (1961). See Austin, *The Tying Arrangement: A Critique and Some New Thoughts*, 1967 Wis. L. REV. 88, 122 (arguing that *Jerrold* is based on a combination of goodwill, single product, and new industry defenses); see also *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. at 1570 n.1 (O'Connor, J., concurring) (discussing *Jerrold* as a goodwill case).

156. 292 F.2d 653, 656-67 (1st Cir.), *cert. denied*, 368 U.S. 931 (1961).

157. *Id.* at 654; see W. BOWMAN, *supra* note 51, at 175-76 (discussing *Dehydrating Process* and related cases).

158. *GTE Sylvania*, 433 U.S. at 55 n.23; see *Tripoli Co. v. Wella Corp.*, 425 F.2d 932, 936-39 (3d Cir.) (allowing tie-in intended to avoid product liability suits), *cert. denied*, 400 U.S. 831 (1970). Governing federal provisions include the Consumer Product Safety Act, 15 U.S.C. §§ 2051-83 (1982) (safety regulations), and the Consumer Product Warranties Act, 15 U.S.C. §§ 2301-12 (1982) (warranty obligations); see J. INMAN, *THE REGULATORY ENVIRONMENT OF BUSINESS* 541-71 (1984) (discussing state and federal safety requirements), R. MEINERS & A. RINGLEB, *THE LEGAL ENVIRONMENT OF BUSINESS* 98-175 (1982) (discussing state and federal quality and safety requirements); L. STERN & T. EOVALDI, *LEGAL ASPECTS OF MARKETING STRATEGY* 76-116 (1984) (discussing numerous legal rules that mandate product quality and safety).

in must be "fairly necessary" to protect goodwill.¹⁵⁹ For example, in *International Business Machines v. United States*,¹⁶⁰ IBM claimed that its requirement that only IBM computer cards be used with its tabulating machine was intended to prevent malfunctions resulting from the use of inferior cards.¹⁶¹ The Supreme Court rejected the defense because a less restrictive alternative was available: IBM could provide consumers with quality specifications for the tabulating cards.¹⁶² Defendants seeking to justify a tie-in must therefore show that either quality specifications "would be so detailed that they could not practicably be supplied,"¹⁶³ or the use of quality specifications would reveal trade secrets.¹⁶⁴ In *Data General*, the trial court acknowledged that quality specifications would be inadequate and would result in disclosure of trade secrets.¹⁶⁵ There are at least three ways to distinguish *Data General* from cases where quality specifications are adequate. The first is that specifications for compatible computer hardware are probably too detailed to be reasonable.¹⁶⁶ In addition, as the court noted, specifications might reveal trade secrets.¹⁶⁷ Finally, Data General's sales are often made to middlemen who may not pass on the specifications to final purchasers.¹⁶⁸

159. *Principe v. McDonald's Corp.*, 631 F.2d 303, 311 (4th Cir. 1980) (franchisor's tie-in upheld as necessary to franchising process), *cert. denied*, 451 U.S. 970 (1981); *Anderson v. AAA*, 454 F.2d 1240, 1246 (9th Cir. 1972) ("fairly necessary" test for vertical restrictions); *see also infra* note 162.

160. 298 U.S. 131 (1936).

161. *Id.* at 138-39. The purpose of the tie-in in *IBM* may well have been "metering" of demand as part of a price discrimination scheme. *See supra* note 56 and accompanying text.

162. *IBM Corp. v. United States*, 298 U.S. 131, 139-40 (1936). The availability of product specifications as a less restrictive alternative is frequently the rationale for rejecting goodwill justifications. *See, e.g.*, *Standard Oil Co. v. United States*, 337 U.S. 293, 305-06 (1949); *International Salt Co. v. United States*, 332 U.S. 392, 397-98 (1947); *Moore v. Jas. H. Matthews & Co.*, 550 F.2d 1207, 1217 (9th Cir. 1977).

163. *Standard Oil Co. v. United States*, 337 U.S. 293, 306 (1949); *see Krehl v. Baskin-Robbins Ice Cream Co.*, 664 F.2d 1348, 1353 (9th Cir. 1982) (discussing less restrictive alternatives to tying arrangements); *Principe v. McDonald's Corp.*, 631 F.2d 303, 308-11 (4th Cir. 1980) (same), *cert. denied*, 451 U.S. 970 (1981); *Siegel v. Chicken Delight, Inc.*, 448 F.2d 43, 50-52 (9th Cir. 1971) (same), *cert. denied*, 405 U.S. 955 (1972); *Susser v. Carvel Corp.*, 332 F.2d 505, 519-20 (2d Cir. 1964) (same), *cert. dismissed*, 381 U.S. 125 (1965); *Dehydrating Process Co. v. A. O. Smith Corp.*, 292 F.2d 653, 656 (1st Cir.) ("It may be assumed . . . that defendant did not readily escape claims, or the consequent injury to its reputation, by telling its customers that the fault was theirs."), *cert. denied*, 368 U.S. 931 (1961).

164. *See Siegel v. Chicken Delight, Inc.*, 448 F.2d 43, 51 n.9 (9th Cir. 1971) (goodwill justification might be accepted if specifications would reveal trade secrets), *cert. denied*, 405 U.S. 955 (1972).

165. *Data General I*, 490 F. Supp. 1089, 1121 (N.D. Cal. 1980), *aff'd in part*, 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985).

166. *See supra* note 163; *cf. IBM Corp. v. United States*, 298 U.S. 131, 139-40 (1936) (specification of computer cards found to be reasonable alternative).

167. *See supra* note 164.

168. *Compare Data General II*, 529 F. Supp. 801, 805 (N.D. Cal. 1981) (noting that Data General's customers resell completed computer systems to end users), *rev'd in part*, 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985), and *Pick Mfg. Co. v. General Motors Corp.*, 80 F.2d

Although the evidence adduced by Data General might be viewed as proof that its tie-in was fairly necessary to protect its goodwill,¹⁶⁹ the court proceeded to suggest a different less restrictive alternative. It held—without citing any case authority—that Data General could offer “lesser warranties” or “decline to provide service” when its software was used with hardware made by other firms.¹⁷⁰ The fact that the limited warranty might be more costly to consumers was not considered.¹⁷¹ Nor was the effectiveness of the alternatives discussed.¹⁷² Indeed either scheme suggested by the court could harm Data General’s goodwill more than would the use of incompatible hardware. The notion that providing lesser warranties or denying service would protect Data General’s goodwill is, at a minimum, counterintuitive. Warranties and product service are methods of protecting goodwill because they can prevent buyers from becoming dissatisfied. Limitations on post-purchase service are likely to harm a company’s reputation and goodwill, if not lead to legal action by consumers.¹⁷³ Moreover, warranties are signals to buyers; buyers view generous warranties as an assurance of product quality and reliability.¹⁷⁴ Consumer protection laws also constrain a manufacturer’s ability to limit warranties.¹⁷⁵ As the United States Court of Appeals for the Third Circuit has noted:

Application of the rigid “no less restrictive alternative” test . . . would place an undue burden on the ordinary conduct of business. Entrepreneurs . . . would then be made guarantors that the imaginations of lawyers could not conjure up some method of achieving the business purpose in question that would result in a somewhat lesser restriction of trade. And courts would be placed in the position of second-guessing business judgments as to what arrangements would or would not provide “adequate” protection for legitimate commercial interests.¹⁷⁶

639, 642 (7th Cir. 1935) (GM sold parts to dealers who installed them in GM cars) *with* IBM Corp. v. United States, 298 U.S. 131, 139-40 (1936) (IBM can “[proclaim] the virtues of its own cards or [warn] against” use of other cards).

169. See generally *supra* note 159.

170. Data General I, 490 F. Supp. 1089, 1121 (N.D. Cal. 1980), *aff’d in relevant part*, 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985).

171. *Id.* (“[C]osts could simply be passed along to consumers who choose an unbundled, lesser warranty option.”).

172. *Cf. supra* note 163 (citing cases where less restrictive alternatives were regarded as impractical).

173. See *supra* note 158 and accompanying text.

174. See Whitford, *Comment on a Theory of the Consumer Product Warranty*, 91 YALE L.J. 1371, 1373, 1379-80 (1982) (discussing the signal theory). *But cf.* Gerner & Bryant, *Appliance Warranties as a Market Signal?* 15 J. CONSUMER AFF. 75, 78-79 (1981) (contending that consumers generally look with favor on the existence of warranties but rarely spend much time and energy evaluating specific warranty provisions).

175. See *supra* note 158.

176. American Motor Inns v. Holiday Inns, 521 F.2d 1230, 1249-50 (3d Cir. 1975). One commentator has noted that *Data General* is “[a]n example of the extent to which courts’ belief in the

In *GTE Sylvania*, the Supreme Court highlighted the need to focus on demonstrable economic effect, not "formalistic line drawing."¹⁷⁷ By ignoring the possibility that "lesser warranties" are inferior to tie-ins as a means of protecting goodwill, the *Data General* court failed to adhere to Supreme Court precedent.

B. *Economies of Joint Production and Sale.*

The joint production and sale of two products may result in substantial cost savings to consumers. As noted in *GTE Sylvania*, these savings occur because a tying arrangement may promote "marketing efficiency."¹⁷⁸ An auto manufacturer, for instance, "ties" the various components of a car in order to create a substantial efficiency gain.¹⁷⁹ Where this is the case, courts sometimes characterize the package as one product and thus hold that the two-product requirement is not met.¹⁸⁰ Simi-

supposed availability of less restrictive alternatives will be carried." C. HILLS, *supra* note 21, at 157 (Supp. 1983). The tendency of courts to suggest speculative or inadequate alternatives to tying arrangements has been criticized by several commentators. See, e.g., R. BORK, *supra* note 45, at 380 ("There is no showing that . . . alternative routes will be as effective as the tie-in of the related product, or that they will accomplish the result as inexpensively."); R. POSNER, *supra* note 26, at 175-76 (specifications alternative is often less efficient than tie-in).

177. Continental T.V., Inc. v. GTE Sylvania Inc., 433 U.S. 36, 58-59 (1977).

178. *Id.* at 55; see Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 104 S. Ct. 1551, 1573 (1984) (O'Connor, J., concurring) ("When the economic advantages of joint packaging are substantial the package is not appropriately viewed as two products, and that should be the end of the tying inquiry."). Cost savings are particularly likely when the two products "are used in fixed proportions." ABA MONOGRAPH, *supra* note 136, at 26. It is thus possible to contrast *Data General I*, 490 F. Supp. 1089, 1104 (N.D. Cal. 1980), *aff'd in part*, 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985), where the tied hardware and software were used in fixed proportions, with *IBM Corp. v. United States*, 298 U.S. 131, 133-34 (1936), where the tabulating cards were not used in fixed proportions.

179. This example is noted in R. BORK, *supra* note 45, at 378-79.

180. The existence of two separate products is one of the defining elements of tying arrangements. See Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 104 S. Ct. 1551, 1563 (1984) (discussing "two product" requirement); see also *supra* note 23 and accompanying text. Many cases have focused on the separate product issue where the tie-in produced efficiencies of joint production and sale. See ABA MONOGRAPH, *supra* note 136, at 26 (tie-in of advertising in morning and afternoon newspapers characterized as one product) (citing *Times-Picayune Publishing Co. v. United States*, 345 U.S. 594, 613-15 (1953)); see also Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 104 S. Ct. 1551, 1573 (1984) (O'Connor, J., concurring) ("When the economic advantages of joint packaging are substantial the package is not appropriately viewed as two products . . ."); *Hirsh v. Martindale-Hubbell, Inc.*, 674 F.2d 1343, 1347-49 (9th Cir.) (same), *cert. denied*, 459 U.S. 973 (1982); *Siegel v. Chicken Delight, Inc.*, 448 F.2d 43, 48 (9th Cir. 1971) (same), *cert. denied*, 405 U.S. 955 (1972); *Associated Press v. Taft-Ingalls Corp.*, 340 F.2d 753, 759-64 (6th Cir.) (same), *cert. denied*, 382 U.S. 820 (1965); *United States v. Mercedes-Benz of N. Am., Inc.*, 517 F. Supp. 1369, 1379-81 (N.D. Cal. 1981) (same); R. BORK, *supra* note 45, at 379 (noting that courts have attempted to deal with economies of scale by characterizing package as one product). The district court in *Data General* also noted potential cost savings in its discussion of the two-product issue. *Data General I*, 490 F. Supp. 1089, 1104-07 (N.D. Cal. 1980), *aff'd in part*, 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985).

larly, in two blanket licensing cases, the courts have assumed that such an arrangement results in the creation of a single, new product.¹⁸¹

181. A blanket license gives the licensee the right to perform or use all of the copyrighted compositions in the licensor's repertoire. Blanket licensing is not a classic tie-in because it involves no actual conditioning or "tying" of two products. After all revenues from the blanket licensing are collected, they are allocated to particular compositions based on actual use. The most famous antitrust challenge to this practice alleged that it constituted price fixing in violation of section 1 of the Sherman Act. *Broadcast Music, Inc. v. CBS*, 441 U.S. 1, 6 (1979). Noting the "substantial lowering of costs" and the fact that the blanket license "is, to some extent, a different product," the Supreme Court refused to apply the per se rule to BMI. *Id.* at 21-25. In *F.E.L. Publications, Ltd. v. Catholic Bishop*, 214 U.S.P.Q. 409 (7th Cir. 1982), a copyright infringement action, the United States Court of Appeals for the Seventh Circuit invoked *BMI* when it refused to characterize the blanket licensing of religious songs as an unlawful tying arrangement. *Id.* at 413-16; see also *Broadcast Music, Inc. v. Moor-Law, Inc.*, 527 F. Supp. 758 (D. Del. 1981) (refusing to characterize blanket licensing as a tie-in), *aff'd without opinion*, 691 F.2d 490 (3d Cir. 1982) and 691 F.2d 491 (3d Cir. 1982). The court, focusing on the efficiencies of blanket licensing, concluded that the practice created a unique product. *F.E.L. Publications*, 214 U.S.P.Q. at 413-14. The Supreme Court likewise focused upon the curing of market imperfections when it upheld the Chicago Board of Trade's "Call rule" against a section 1 price fixing challenge. *Chicago Bd. of Trade v. United States*, 246 U.S. 231, 240-41 (1918) (Call rule "improve[d] market conditions"); see also *NCAA v. Board of Regents*, 104 S. Ct. 2948, 2960-62 (1984) (refusing to apply per se rule against price fixing where the restraint was necessary to create the product in question).

A related business justification sometimes raised in tie-in cases is the "free rider" defense. For a general introduction to the free rider/public good problem, see J. HIRSHLEIFER, *PRICE THEORY AND APPLICATIONS* 561-64 (2d ed. 1980). Data General, for example, claimed that it needed to bundle its hardware and software in order to recoup its investment in software research and development. *Data General I*, 490 F. Supp. 1089, 1121-22 (N.D. Cal. 1980), *aff'd in part*, 734 F.2d 1336 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985). As one trade journal pointed out after the decision in *Data General*:

[T]here will be little incentive for a company to invest the money necessary to develop a unique or innovative [computer] system. Competitors will simply wait to see how commercially successful the system is. If it is a "hit," there will be a flood of "compatible" products, all piggybacking on the software R&D done by the innovator. If it is a "flop," then the competitors will turn elsewhere, leaving the innovator to shoulder the loss.

Appellate Court Reinstates Antitrust Verdict Against Data General, SCOTT REPORT, June 1984, at 1, 6; see *Monsanto Co. v. Spray-Rite Serv. Corp.*, 465 U.S. 752, 762-63 (1984) (discussing free rider problem in resale price maintenance context); *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 55 (1977) ("Because of market imperfections such as the so-called 'free rider' effect . . . services might not be provided by retailers in a purely competitive situation, despite the fact that each retailer's benefit would be greater if all provided the services than if none did."); *Berkey Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263, 281 (2d Cir. 1979) (monopolization case) ("If a firm that has engaged in the risks and expenses of research and development were required in all circumstances to share with its rivals the benefits of those endeavors, [creative] incentives would very likely be vitiated."), *cert. denied*, 444 U.S. 1093 (1980); *Moor-Law*, 527 F. Supp. at 763 (discussing free rider problem in blanket licensing context); see also ABA MONOGRAPH, *supra* note 136, at 25 (discussing, in tying arrangement context, "reallocat[ion] of costs or profits" justification derived from *Fortner II*); Easterbrook, *supra* note 45, at 146 (discussing role of tying arrangements in facilitating innovation); Easterbrook, *Predatory Strategies and Counterstrategies*, 48 U. CHI. L. REV. 263, 307-12 (1981) (tie-in enables firm to recoup investment in information); Lipsky, *Current Antitrust Division Views on Patent Licensing Practices*, 50 ANTITRUST L.J. 515, 518 (1982) (same). A "free rider" defense would thus be consistent with the copyright law's goal of encouraging innovation in computer technology. See Samuelson, *supra* note 42, at 671 n.26; see also R. BOWKER, *COPYRIGHT: ITS HISTORY AND ITS LAW* 50 (1912) (quoting Senator O.M. Platt) ("The very essence of copyright is

Although it is true that efficiency gains are considered during analysis of the separate products issue,¹⁸² the complex and confusing tests applied at that stage of a case may not adequately account for the benefits of the tying arrangement.¹⁸³ Given the consumer welfare-efficiency goal of antitrust law and the concern for "redeeming virtues" in *GTE Sylvania*,¹⁸⁴ the courts should analyze economies of joint production and sale as an affirmative defense.

V. CONCLUSION

The legal proscriptions against tying arrangements have received increasing criticism in recent years. Commentators viewing the problem from the economic perspective have been particularly critical of the mechanistic nature of the law. First, in the interest of judicial economy, courts often seem unwilling to delve into complex questions such as market power. Second, the courts' uncritical adherence to precedent often causes them to apply economic reasoning that has long been discredited by economists.

These problems are illustrated in *Data General*. The partial per se rule of tying arrangements requires a showing of actual economic power. The *Data General* court, however, seemed unwilling to analyze evidence tending to disprove market power. Instead the court sought to rely upon

the privilege of controlling the market], because t]hat is the only way in which a man's property in the works of his brain can be assured.").

182. See *supra* note 180.

183. The legal test for determining whether there are one or two products "turns not on the functional relation between them, but rather on the character of the demand for the two items." *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 104 S. Ct. 1551, 1562 (1984). This standard has been criticized by several commentators. See *Dam*, *supra* note 66, at 19 (noting abstract nature of two-product analysis), quoted in *Jefferson Parish Hosp.*, 104 S. Ct. at 1563 n.33; see also ABA ANTI-TRUST SECTION, *supra* note 21, at 79 ("Courts generally have examined whether separate products exist on a case-by-case basis without attempting to set forth a systematic standard for making this determination.") (footnote omitted); ABA MONOGRAPH, *supra* note 136, at 5-8 (noting that test involves "a normative rather than objective inquiry" and discussing various factors that courts consider); R. BORK, *supra* note 45, at 378-79 (criticizing one-product, two-product distinction); C. HILLS, *supra* note 21, at 207-09 (W. Liebeler ed. Supp. 1984) (criticizing standards used in determining separate-products issue). As Posner notes:

We think of a mimeograph machine and its paper and ink as separate products which if sold together are "tied," but we do not think of a left and right glove, or an automobile and its radiator, in the same way. Yet nothing in the traditional legal thinking about tie-ins enables one to distinguish among these cases. . . . I suppose what keeps the doctrine from expanding to its logical limits is a tacit assumption that the more obvious combination sales could be readily justified by their lower costs. . . . But there is something seriously wrong about a doctrine under which virtually every combination sale is *prima facie* an unlawful tie-in

R. POSNER, *supra* note 26, at 181.

184. See *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 54-55 (1977); see also *supra* note 45.

the existence of a copyright, vague generalizations about the "special attraction of RDOS," and the presence of a "lock in."¹⁸⁵ Further, the court relied on the unsound leverage or transfer-of-power theory.¹⁸⁶

Almost any firm in the computer industry that sells hardware and software as a package would be liable for treble damages under the *Data General* court's presumption of economic power, its minimal requirement as to market power, and its rapid dismissal of business justifications. The same threat of liability would exist regardless of the size of the firm, as long as it held a copyright or a patent on the tying product. Under the *Data General* approach, the competitive nature of the computer industry would be ignored, and even the most persuasive business justifications might be rejected. This result would indeed be harsh. More importantly, it would be a result that is inconsistent with the main goal of the antitrust laws: improving consumer welfare by fostering competition.

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185. *Digidyne Corp. v. Data General Corp.*, 734 F.2d 1336, 1341-43 (9th Cir. 1984), *cert. denied*, 105 S. Ct. 3534 (1985).

186. *See, e.g., id.* at 1340.