

Patent Ships Sail an Antitrust Sea

Joseph Scott Miller[†]

The novelty and nonobviousness requirements of patentability embody a congressional understanding, implicit in the Patent Clause itself, that free exploitation of ideas will be the rule, to which the protection of a federal patent is the exception.¹

I. INTRODUCTION

This essay arises from my participation in an April 2006 conference at Seattle University Law School. The conference was titled, *At the Intersection of Antitrust and Intellectual Property Law: Looking Both Ways to Avoid a Collision*. This “intersection” metaphor is a common one for describing antitrust law’s relationship with intellectual property law, among both commentators² and courts.³ And the metaphor endures

[†] Associate Professor, Lewis & Clark Law School. © 2006 Joseph Scott Miller. Upon publication of this work in the *Seattle University Law Review*, I license my copyright in it to all under the Creative Commons license known as Attribution 2.5. You can see a summary of this license at <http://creativecommons.org/licenses/by/2.5/>. Attribution should be to me as the author and to *Seattle University Law Review* as the first publisher. Upon my death, my copyright in this work is dedicated to the public domain. Comments are welcome at getmejoemiller@gmail.com.

1. *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 151 (1989) (striking down a Florida hull design protection statute because it conflicted with federal patent law by sheltering a useful design from competition without requiring that the design satisfy patent law’s rigorous threshold requirements (e.g., nonobviousness)). *Bonito Boats* was a unanimous decision written by Justice O’Connor. *Id.* at 143.

2. Consider the titles of the following articles: John Fazzino, *Pharmaceutical Patent Settlements: Fault Lines at the Intersection of Intellectual Property and Antitrust Law Require a Return to the Rule of Reason*, 11 J. TECH. L. & POL’Y 1 (2006); Louis Kaplow, *The Patent-Antitrust Intersection: A Reappraisal*, 97 HARV. L. REV. 1813 (1984); A. Douglas Melamed & Ali M. Stoeppelwerth, *The CSU Case: Facts, Formalism and the Intersection of Antitrust and Intellectual Property Law*, 10 GEO. MASON L. REV. 407 (2002); Robert Pitofsky, *Challenges of the New Economy: Issues at the Intersection of Antitrust and Intellectual Property*, 68 ANTITRUST L.J. 913 (2001).

3. See, e.g., *In re Tamoxifen Citrate Antitrust Lit.*, No. 03-7641, 2006 WL 2401244, *1 (2d Cir. 2006) (“This appeal, arising out of circumstances surrounding a lawsuit in which a drug manufacturer alleged that its patent for the drug tamoxifen citrate (‘tamoxifen’) was about to be infringed, and the suit’s subsequent settlement, requires us to address issues at the intersection of intellectual property law and antitrust law.”); *Telcom Technical Servs., Inc. v. Rolm Co.*, 388 F.3d 820, 826 (11th Cir. 2004) (“[T]his question lies at the intersection of intellectual property law and antitrust

despite the decades-old recognition that the antitrust and intellectual property laws have the same overall goal—to maximize wealth by producing what consumers want at the lowest cost.”⁴ Perhaps it endures because these two regimes pursue their shared goal through quite different means, one by fostering competition (antitrust) and one by curtailing it (intellectual property).⁵

My goal here is to explore a different metaphor for describing the relationship between antitrust law and patent law (the branch of intellectual property law with which I am most familiar). To wit: patent ships sail an antitrust sea, protecting those aboard from free competition’s harshest dangers—but only for a time. No ship lasts forever; the seas abide.⁶

It is, of course, fair to ask, why spend more than a moment or two thinking about which metaphor—intersecting roads or a ship in the sea—is more apt? It’s just a *metaphor*! The time is well spent, I think, because metaphors shape how we think about a topic and can also help illuminate that topic. As Professor Eugene Volokh notes in one of his works exploring the “slippery slope” metaphor in law, “metaphors are falsehoods that aim at exposing a deeper truth. They can be legitimate, and rhetorically

law”); *Valley Drug Co. v. Geneva Pharm.*, 344 F.3d 1294, 1307 (11th Cir. 2003) (“This approach is commonly used by courts considering the intersection of patent law and antitrust law.”).

4. WARD S. BOWMAN, JR., *PATENT AND ANTITRUST LAW: A LEGAL AND ECONOMIC APPRAISAL* 1 (1973). *See also Zenith Elecs. Corp. v. Exzec, Inc.*, 182 F.3d 1340, 1353 (Fed. Cir. 1999) (observing that “[t]he patent and antitrust laws are complementary in purpose in that they each promote innovation and competition”); *Atari Games Corp. v. Nintendo of America, Inc.*, 897 F.2d 1572, 1576 (Fed. Cir. 1990) (“[W]hen the patented product is so successful that it creates its own economic market or consumes a large section of an existing market, the aims and objectives of patent and antitrust laws may seem, at first glance, wholly at odds. However, the two bodies of law are actually complementary, as both are aimed at encouraging innovation, industry and competition.”).

5. *See SCM Corp. v. Xerox Corp.*, 645 F.2d 1195, 1203 (2d Cir. 1981) (“The conflict between the antitrust and patent laws arises in the methods they embrace that were designed to achieve reciprocal goals. While the antitrust laws proscribe unreasonable restraints of competition, the patent laws reward the inventor with a temporary monopoly that insulates him from competitive exploitation of his patented art.”). *See also* BOWMAN, *supra* note 4, at 2 (explaining that [p]atent law, thought by some to be an exception to a general rule in favor of competition, shares with antitrust law its central purpose—efficiently providing those things consumers value. But the means are different. Patent law pursues this goal by encouraging the invention of new and better products. Invention, like other forms of productive activity, is not costless. . . . The exclusive right to make, use and vend the invention or discovery, which Congress has long granted patentees, is thus a legal monopoly exempt from the more general proscription of trade restraints and monopolization under early common law and more recent antitrust statutes. (internal quotation and footnotes omitted)).

6. I am uncertain, but I think I first encountered a version of this metaphor at a presentation given by Ken Germain of Thompson Hine LLP. *See, e.g.,* Kenneth B. Germain, *The Interface and Conflict Between Utility Patents, Design Patents and Copyrights, on the One Hand, and Trademark/Trade Dress Rights, on the Other Hand*, in *ADVANCED SEMINAR ON TRADEMARK LAW 2005* (2005), available at 834 PLI/Pat 231, 237 (Westlaw) (describing intellectual property protection as “islands afloat” in “the great sea of free competition”).

powerful. Some of the most effective legal arguments use metaphor.”⁷ Indeed, as Professor Patricia Loughlan explains in her engaging, example-rich meditation on intellectual property metaphors, three metaphor clusters—“the metaphor of the unauthorised user of intellectual property as a ‘pirate’ or ‘parasite’ or ‘poacher,’ the metaphor of the author or inventor of an intellectual work as a ‘farmer,’ and the metaphor of intellectual creations which are not subject to private ownership, as ‘a common’”⁸—powerfully shape our understanding of intellectual property law and policy.⁹ I will, in any event, be brief, appreciating that we should not mistake even the most compelling metaphor for the reality that we are trying to understand.¹⁰

The deeper truths evoked by patent ships sailing an antitrust sea are three. First, free competition is the pervasive, baseline reality, the background norm; patent protection is the temporary, partial exception. Second, we grasp both patent and antitrust policy with a common science: economics. Third, although neither patent nor antitrust law doctrines are good tools for fixing fundamental problems in the other body of law, both bodies of law help us better understand the shortcomings of the other. I explore these ideas in turn, below.

II. FREE COMPETITION IS THE RULE, AND PATENT LAW THE EXCEPTION

When we think of patent law and antitrust law as intersecting roads, rather than as patent ships in an antitrust sea, we put these two bodies of law on roughly equal footing. In the “intersections” image, neither surrounds, nor could engulf, the other. That image thus misses a basic fact about our market economy. Free competition, which antitrust law helps ensure, is the fundamental norm. Indeed, “[t]he policy of free

7. Eugene Volokh, *Same-Sex Marriage and Slippery Slopes*, 33 HOFSTRA L. REV. 1155, 1157 (2005).

8. Patricia Loughlan, *Pirates, Parasites, Reapers, Sowers, Fruits, Foxes . . . The Metaphors of Intellectual Property Law*, 28 SYDNEY L. REV. 211, 216 (2006).

9. *Id.* at 217–25.

10. Volokh, *supra* note 7, at 1157 (“Yet, as Justice Holmes cautions us, we must ‘think things not words’ – ‘or at least we must constantly translate our words into the facts for which they stand, if we are to keep to the real and the true.’”) (quoting Oliver Wendell Holmes, *Law in Science and Science in Law*, 12 HARV. L. REV. 443, 460 (1899)). See also *Berkey v. Third Ave. Ry. Co.*, 155 N.E. 58, 61 (N.Y. 1926) (Cardozo, J.) (“Metaphors in law are to be narrowly watched, for starting as devices to liberate thought, they end often by enslaving it.”); David A. Anderson, *Metaphorical Scholarship*, 79 CAL. L. REV. 1205, 1214–15 (1990) (reviewing STEVEN H. SHIFFRIN, *THE FIRST AMENDMENT, DEMOCRACY, AND ROMANCE* (1990) and arguing that

[l]ike other forms of discourse, however, metaphor is useful only to the extent that it produces shared understanding. In legal scholarship, it is a mixed blessing. It is useful because it is evocative, but it may evoke different ideas in different readers. It liberates the author from some of the rigidity of exposition, but also from the demands of precision and clarity.).

competition runs deep in our law.”¹¹ Patent protection, if one can obtain it at all, is a hard-earned, partial exception. Assuming a given patent grant is proper, it provides the patentee the power to bring an enforcement action to exclude others from competing against it with a perfect duplicate or close functional equivalent of the claimed invention.¹² Competition is the norm, and patent litigation to prevent it is not self-executing: in any enforcement action, the patentee bears the burden of proving liability, and an infringement allegation may be untenable.¹³ What follows from the competition norm?

First, antitrust law surrounds patent law. The standard economic account of intellectual property protection is that it is a solution to a market failure in the production of information goods.¹⁴ As Professor Mark Lemley puts it, in the standard market failure account, “intellectual property is a necessary evil.”¹⁵ Our economy relies on interfirm competition to provide consumers with the things they desire at lower quality-adjusted prices. Firms are generally free to use public information to compete with one another, even if the information is found through a competitor’s offering. “[I]n many instances there is no prohibition against copying goods and products. In general, unless an intellectual property right such as a patent or copyright protects an item, it will be

11. *Dawson Chem. Co. v. Rohm & Haas Co.*, 448 U.S. 176, 221 (1980). As Justice Stevens explained in a case nullifying a professional society’s ethics canon against competitive bidding, The Sherman Act reflects a legislative judgment that ultimately competition will produce not only lower prices, but also better goods and services. “The heart of our national economic policy long has been faith in the value of competition.” The assumption that competition is the best method of allocating resources in a free market recognizes that all elements of a bargain—quality, service, safety, and durability—and not just the immediate cost, are favorably affected by the free opportunity to select among alternative offers. Even assuming occasional exceptions to the presumed consequences of competition, the statutory policy precludes inquiry into the question whether competition is good or bad. *Nat’l Soc’y of Prof’l Eng’rs v. United States*, 435 U.S. 679, 695 (1978) (quoting *Standard Oil Co. v. FTC*, 340 U.S. 231, 248 (1951)).

12. 35 U.S.C. §§ 154(a)(1) (2000) (listing the rights a patent confers), 271(a) (defining direct patent infringement).

13. For example, the patentee may mistake the scope of its claims, or perhaps the asserted claims ought never to have been granted by the Patent Office in the first place. In this sense, patent rights are profoundly probabilistic, conferring a right to sue rather than a right to exclude. See Herbert Hovenkamp et al., *Anticompetitive Settlement of Intellectual Property Disputes*, 87 MINN. L. REV. 1719, 1761 (2003); Mark A. Lemley & Carl Shapiro, *Probabilistic Patents*, 19 J. ECON. PERSP. 75, 75 (2005); Joseph Scott Miller, *This Bitter Has Some Sweet: Potential Antitrust Enforcement Benefits from Patent Law’s Procedural Rules*, 70 ANTITRUST L.J. 875, 881–82 (2003).

14. See generally Joseph Scott Miller, *Building a Better Bounty: Litigation-Stage Rewards for Defeating Patents*, 19 BERKELEY TECH. L.J. 667, 680–83 (2004) (reviewing standard account).

15. Mark A. Lemley, *Ex Ante Versus Ex Post Justifications for Intellectual Property*, 71 U. CHI. L. REV. 129, 131 (2004). The standard account has its limitations and critics. See *id.* at 130–31.

subject to copying.”¹⁶ Moreover, the rights to exclude that patents and copyrights confer “are part of a ‘carefully crafted bargain,’ under which, once the patent or copyright monopoly has expired, the public may use the invention or work at will and without attribution.”¹⁷ This commitment to free competition reflects a faith “that imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy.”¹⁸

Second, the more fundamental status of free competition and anti-trust highlights a further truth. A patent’s protection from free competition is never more than partial; it is dry aboard the ship, but the ship still bobs on an icy deep. The protection is limited in time: a utility patent expires twenty years from the date on which the application for it was first filed.¹⁹ It is also limited by the realities of consumer preferences. Throughout the life of the patent, the patented invention competes against closer (or more distant) substitutes. For example, if I patent a laundry detergent formula and market a product that embodies it, the detergent will compete in a market filled with other detergents. Consumers’ preferences, expressed through their willingness to pay, will determine which detergents, including my own, succeed. The relentless pressure of

16. *Traffix Devices, Inc. v. Marketing Displays, Inc.*, 532 U.S. 23, 29 (2001). *See also* *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 230–31 (1964) (stating that

[w]hen the patent expires the monopoly created by it expires, too, and the right to make the article—including the right to make it in precisely the shape it carried when patented—passes to the public. Thus the patent system is one in which uniform federal standards are carefully used to promote invention while at the same time preserving free competition.);

Kellogg Co. v. Nat’l Biscuit Co., 305 U.S. 111, 122 (1938) (“Sharing in the goodwill of an article unprotected by patent or trademark is the exercise of a right possessed by all—and in the free exercise of which the consuming public is deeply interested.”); *Singer Mfg. Co. v. June Mfg. Co.*, 163 U.S. 169, 185 (1896) (stating that

[i]t is self-evident that on the expiration of a patent the monopoly created by it ceases to exist, and the right to make the thing formerly covered by the patent becomes public property. It is upon this condition that the patent is granted. It follows, as a matter of course, that on the termination of the patent there passes to the public the right to make the machine in the form in which it was constructed during the patent.);

L.A. Gear, Inc. v. Thom McAn Shoe Co., 988 F.2d 1117, 1131 (Fed. Cir. 1993) (“[T]he public has the right to copy the design of goods that are unprotected by patent or copyright, absent consumer confusion or deception.”). As Professor Janice Mueller puts it, “[i]n free market economies such as that of the United States, the general rule is that competition through imitation of a competitor’s product or service is permitted, so long as that competition is not deemed legally ‘unfair.’” JANICE M. MUELLER, AN INTRODUCTION TO PATENT LAW 7–8 (2003).

17. *Dastar Corp. v. Twentieth Century Fox Film Corp.*, 539 U.S. 23, 33–34 (2003) (quoting *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 150–51 (1989)).

18. *Bonito Boats*, 489 U.S. at 146. *See also id.* at 150 (“[T]he purposes behind the Patent Clause are best served by free competition and exploitation of either that which is already available to the public or that which may be readily discerned from publicly available material.”).

19. 35 U.S.C. § 154(a)(2) (2000).

these more-or-less acceptable substitutes, not an abstract proposition about patent protection, determines the market power of my deterrent patent.²⁰ More generally, “[t]he *average* patent . . . confers too little monopoly power on the patentee in a meaningful economic sense to interest a rational antitrust enforcer, and sometimes it confers no monopoly power at all.”²¹

Third, the Supreme Court’s recent decision in *Illinois Tool Works Inc. v. Independent Ink, Inc.*²² embraces the basic fact that acceptable substitutes discipline the market for a patented technology. In *Illinois Tool Works*, the Court confronted the question of whether, in a challenge to a tying arrangement, the antitrust plaintiff is entitled to a presumption that the defendant has market power in the tying product if that tying product is patented.²³ The Court “conclude[d] that the mere fact that a tying product is patented does not support such a presumption,”²⁴ overturning a decades-old approach from *International Salt Co. v. United States*.²⁵ One reason, the Court stated, for rejecting the presumption of market power from a patent’s presence is that, as “the vast majority of academic literature recognizes,” “a patent does not necessarily confer market power.”²⁶ The literature that the Court noted in *Illinois Tool Works*, which distinguishes a formal legal rule from its practical economic consequence, points the way to the second truth that the ship-sea metaphor captures—namely, we grasp patent and antitrust with the common science of economics.

20. The U.S. Court of Appeals for the Federal Circuit, which hears all appeals arising under the patent laws, 28 U.S.C. § 1295(a)(1) (2000), has been quite clear about this market definition point in the context of modeling damages for infringement. See *Micro Chem., Inc. v. Lextron, Inc.*, 318 F.3d 1119, 1124 (Fed. Cir. 2003) (“The proper starting point to identify the relevant market is the patented invention. The relevant market also includes other devices or substitutes similar in physical and functional characteristics to the patented invention. It excludes, however, alternatives with disparately different prices or significantly different characteristics.”) (internal quotation omitted). The approach is familiar from antitrust’s market definition inquiry. See, e.g., *United States v. Visa U.S.A., Inc.*, 344 F.3d 229, 239 (2d Cir. 2003) (“A distinct product market comprises products that are considered by consumers to be reasonably interchangeable with what the defendant sells.”) (internal quotation and modifications omitted).

21. WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW* 374–75 (2003). For a thorough discussion of the fact that “market power [is] not inherent in [an] intellectual property grant,” see 1 HERBERT A. HOVENKAMP ET AL., *IP AND ANTITRUST: AN ANALYSIS OF ANTITRUST PRINCIPLES APPLIED TO INTELLECTUAL PROPERTY LAW* § 4.2 (2005).

22. 126 S. Ct. 1281 (2006).

23. *Id.* at 1284.

24. *Id.*

25. 332 U.S. 392 (1947). See *Illinois Tool Works*, 126 S. Ct. at 1288–91 (discussing *International Salt*’s undermined foundations).

26. *Illinois Tool Works*, 126 S. Ct. at 1292; see also *id.* at 1291 n.4 (citing sources).

III. ECONOMIC ANALYSIS DOMINATES BOTH PATENT AND ANTITRUST POLICY

If we want a more systematic understanding of both the ship and sea and how they interact, some physics and chemistry will help us make significant progress over anecdote and folk wisdom. In much the same way, we now routinely use economic analysis to identify and select policy options throughout both patent and antitrust law.²⁷ Two examples from recent developments in patent infringement damages jurisprudence are sufficient to illustrate the point. Both examples involve the proper analysis for showing one's entitlement to a lost profits award.

By way of background, the Patent Act entitles a prevailing patentee to an award of "damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer."²⁸ "In practice, patentees seek lost profits as damages when they are able to make the required showing."²⁹ What is that showing? As a general matter, the key is proving "a sufficient causal connection between the infringement and the unearned profit."³⁰ To prove that causal connection, one must reckon with complex market entry and price effect phenomena. Moreover, one must do so by creating a picture of the "but for" world that would have existed if the infringement in question had not occurred.³¹ The Federal Circuit has demanded greater fidelity to microeconomic principles in these "but for" reconstructions, following a trail already blazed in antitrust.

First, in *Grain Processing Corp. v. American Maize-Products Co.*, for example, the Federal Circuit confronted the question whether lost profits damages are precluded where the infringer could have switched quickly to a noninfringing substitute and competed effectively on that

27. See, e.g., RICHARD A. POSNER, *ANTITRUST LAW* ix (2d ed. 2001) ("Almost everyone professionally involved in antitrust today . . . not only agrees that the only goal of the antitrust laws should be to promote economic welfare, but also agrees on the essential tenets of economic theory that should be used to determine the consistency of specific business practices with that goal."); Harvey S. Perlman, *Taking the Protection-Access Tradeoff Seriously*, 53 *VAND. L. REV.* 1831, 1831 (2000) ("Law and economics scholarship has contributed much to our understanding of both the nature of intellectual property rights generally and the features of individual intellectual property regimes. Indeed it is hard to imagine a field other than antitrust law that is so explicitly governed by economic thinking.").

28. 35 U.S.C. § 284 (2000).

29. ROGER E. SCHECHTER & JOHN R. THOMAS, *PRINCIPLES OF PATENT LAW* § 9.2, at 332 (2d ed. 2004). See also *Hanson v. Alpine Valley Ski Area, Inc.*, 718 F.2d 1075, 1078 (Fed. Cir. 1983) ("If the record permits the determination of actual damages, namely, the profits the patentee lost from the infringement, that determination accurately measures the patentee's loss.").

30. SCHECHTER & THOMAS, *supra* note 29, at 334.

31. See, e.g., *Ericsson, Inc. v. Harris Corp.*, 352 F.3d 1369, 1377 (Fed. Cir. 2003) ("To show 'but for' causation, the patentee must reconstruct the market to determine what profits the patentee would have made had the market developed absent the infringing product.").

basis (but never actually did so during the period for which damages are sought).³² The Federal Circuit, affirming the trial court,³³ concluded that the ready availability of a noninfringing substitute is potential competition that precludes a lost profits award.³⁴ Stressing that “sound economic proof of the nature of the market and likely outcomes with infringement factored out of the economic picture” is what “prevent[s] the hypothetical from lapsing into pure speculation,”³⁵ the court reasoned as follows:

The competitor in the “but for” marketplace is hardly likely to surrender its complete market share when faced with a patent, if it can compete in some other lawful manner. Moreover, only by comparing the patented invention to its next-best available alternative(s)—regardless of whether the alternative(s) were actually produced and sold during the infringement—can the court discern the market value of the patent owner’s exclusive right, and therefore his expected profit or reward, had the infringer’s activities not prevented him from taking full economic advantage of this right.³⁶

The resemblance to conventional reasoning in antitrust market definition analysis is plain,³⁷ a byproduct of the reliance on microeconomics common to both patent and antitrust law.

Second, in another move toward greater sophistication in economic modeling, the Federal Circuit recently rejected a lost profits damages theory because it did not take sufficient account of the demand effects of price changes from infringing competition.³⁸ In older cases, the court had used a rather simplistic model for determining lost profits damages—namely, the product of the number of infringing units sold and the per-unit-profit that the patentee earned before infringement (i.e., at the

32. 185 F.3d 1341, 1343 (Fed. Cir. 1999).

33. The trial judge in the case was Judge Frank Easterbrook of the Court of Appeals for the Seventh Circuit, sitting by designation. See 893 F. Supp. 1386, 1388 (N.D. Ind. 1995). Judge Easterbrook’s contributions to the economic analysis of antitrust law, and to law and economics more generally, are well known. His recent law review articles on antitrust include *When Is It Worthwhile to Use Courts to Search for Exclusionary Conduct?*, 2003 COLUM. BUS. L. REV. 345; *Information and Antitrust*, 2000 U. CHI. LEGAL F. 1; and *Does Antitrust Have a Comparative Advantage?*, 23 HARV. J.L. & PUB. POL’Y 5 (1999).

34. *Grain Processing*, 185 F.3d at 1349–51.

35. *Id.* at 1350.

36. *Id.* at 1351.

37. See, e.g., *LePage’s Inc. v. 3M*, 324 F.3d 141, 159 (3d Cir. 2003) (en banc) (“When a monopolist’s actions are designed to prevent one or more new or potential competitors from gaining a foothold in the market by exclusionary, i.e., predatory, conduct, its success in that goal is not only injurious to the potential competitor but also to competition in general.”); POSNER, *supra* note 27, at 148–49 (noting the role of potential competition in market definition).

38. *Crystal Semiconductor Corp. v. Tritech Microelectronics Int’l*, 246 F.3d 1336, 1357–61 (Fed. Cir. 2001).

uneroded price).³⁹ The problem with this approach, as longtime U.S. Department of Justice Antitrust Division economist Gregory J. Werden⁴⁰ explained in a 1999 journal article, is that it fails to take account of demand effects: “a lower price [from a competing infringer] necessarily implies a higher quantity [sold], other things being equal, so a necessary consequence of price erosion is ‘quantity accretion.’ This link between price and quantity is obvious to economists, but it has been recognized by very few courts.”⁴¹

Two years later, in *Crystal Semiconductor*, the Federal Circuit faulted the patentee for omitting the very quantity accretion factor that Werden proposed:

in a credible economic analysis, the patentee cannot show entitlement to a higher price divorced from the effect of that higher price on demand for the product. In other words, the patentee must also present evidence of the (presumably reduced) amount of product the patentee would have sold at the higher price.⁴²

Just as it did in *Grain Processing*, the court in *Crystal Semiconductor* insisted on detailed economic reasoning and evidence.

IV. ANTITRUST CANNOT SOLVE PROFOUND PATENT PROBLEMS

My final point is brief. The common susceptibility to economic analysis that both antitrust and patent law share, as powerful as it is, does not make either field’s doctrines good tools for fixing deep problems in

39. See, e.g., *TWM Mfg. Co., Inc. v. Dura Corp.*, 789 F.2d 895, 901–02 (Fed. Cir. 1986). See also Sumanth Addanki, *Economics and Patent Damages: A Practical Guide*, in *PLI’S FOURTH ANNUAL INSTITUTE FOR INTELLECTUAL PROPERTY LAW* (1998), available at 532 *PLI/Pat* 845, 851 (Westlaw) (describing this approach as the “naïve calculation of lost profits”).

40. See www.abanet.org/antitrust/programs/at-spring-06/pdf/bios/werden-gregory.pdf for a 2006 biographical note about Werden.

41. Gregory J. Werden et al., *Quantity Accretion: Mirror Image of Price Erosion from Patent Infringement*, 81 *J. PAT. & TRADEMARK OFF. SOC’Y* 479, 480 (1999); see also Addanki, *supra* note 39, at 852 (arguing that

[t]his is the flaw in the naive approach . . . : the expanded output associated with infringement could not have been sold at the higher prices that prevailed pre-infringement. If the patentee is presumed to sell all of the output produced by the infringer, profits cannot logically be calculated assuming pre-infringement price and profit levels because the aggregate quantity being absorbed by the market (patentee’s plus infringer’s sales) is higher than before and would, therefore, only be absorbed at some lower price.)

42. 246 F.3d at 1357; see also *id.* at 1359 (stating,

[T]he record does not contain sufficient evidence to show the reaction of the market if, ‘but for’ infringement, Crystal would have tried to charge at least 89¢ more per CODEC. All markets must respect the law of demand. According to the law of demand, consumers will almost always purchase fewer units of a product at a higher price than at a lower price, possibly substituting other products. (citation omitted)).

the other. If a ship is taking on water, you cannot save it by adding more water.

If, for example, our implementation of patent law harms competition by routinely granting imprudent patents on obvious inventions (as many now believe is the case⁴³), we can do little about it by applying antitrust law doctrines. Professor Thomas Cotter recently contrasted internal reform of intellectual property laws with external application of antitrust enforcement tools. He noted, quite rightly, that antitrust “can be slow, inflexible, and (what with treble damages, the possibility of indirect purchaser suits under state law or [European Commission] law, and the like) potentially susceptible to serious overdeterrence problems when applied outside the context of conventional price-fixing schemes.”⁴⁴ We risk much if the overdeterrence Professor Cotter describes overly chills the patenting of genuine, socially valuable inventions.

Our appreciation for competition’s vital role in promoting innovation, tutored by experience with antitrust law and policy, does, however, expose the importance of calibrating the patent law rules to our competition needs. More than that, antitrust law’s innovation-fostering spirit should encourage the antitrust community to take an active role in patent law reform. Indeed, FTC Commissioner William E. Kovacic recently urged just this sort of antitrust input.⁴⁵ Additionally, the FTC’s exhaustive October 2003 study on competition and patent law and policy⁴⁶ exemplifies the great insights that an antitrust perspective can bring to

43. See, e.g., SCHECHTER & THOMAS, *supra* note 29, at 161; John H. Barton, *Non-Obviousness*, 43 IDEA 475 (2003); Rebecca Eisenberg, *Obvious to Whom? Evaluating Inventions from the Perspective of PHOSITA*, 19 BERKELEY TECH. L.J. 885 (2004); Bronwyn H. Hall & Dietmar Harhoff, *Post-Grant Reviews in the U.S. Patent System—Design Choices and Expected Impact*, 19 BERKELEY TECH. L.J. 989 (2004). Happily, the Supreme Court has granted review in a case for the October 2006 Term that provides it the opportunity to reinforce patent law against the approval of patents for obvious inventions. See Anandashankar Mazumdar, *High Court to Review ‘Teaching-Suggestion-Motivation’ Standard for Patent Obviousness*, 72 Pat. Trademark & Copyright J. (BNA) 233 (June 20, 2006) (discussing *Teleflex, Inc. v. KSR Int’l Co.*, 119 F. App’x 282 (Fed. Cir. 2005), *cert. granted*, 126 S. Ct. 2965 (2006)).

44. Thomas F. Cotter, *Evaluating the Pro- and Anticompetitive Effects of Intellectual Property Protection*, ANTITRUST SOURCE, Mar. 2006, at 1, 6 (book review), available at <http://www.abanet.org/antitrust/at-source/06/03/Mar06-CotterRev3=22f.pdf>.

45. William E. Kovacic, *Competition Policy and Intellectual Property: Redefining the Role of Competition Agencies*, in ANTITRUST, PATENTS AND COPYRIGHT: EU AND US PERSPECTIVES 1, 2 (François Lévêque & Howard Shelanski eds. 2005). In January 2004, when he gave the talk embodied in this book chapter, Commissioner Kovacic was the FTC’s General Counsel. His biographical sketch is on the FTC’s website, at <http://www.ftc.gov/bios/commissioners.htm#Kovacic>.

46. FEDERAL TRADE COMMISSION, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY (2003), available at <http://www.ftc.gov/os/2003/10/innovationrpt.pdf>.

patent law debates.⁴⁷ Healthy competition policy requires healthy intellectual property law policy.

V. CONCLUSION

My nautical metaphor for patent law's relationship to antitrust law helps me see things that the intersection metaphor does not. Perhaps it will aid you too. If not, please cast it aside. It is the facts, not the words about them, that require our deepest attention.

47. The report has already had an impact on policymakers' views of patent law, if Supreme Court Justices' recent citations to the report are any indication. *See eBay Inc. v. MercExchange, L.L.C.*, 126 S. Ct. 1837, 1842 (2006) (Kennedy, J., concurring); *Lab. Corp. v. Metabolite Labs.*, 126 S. Ct. 2921, 2927 (2006) (Breyer, J., dissenting from dismissal of certiorari as having been improvidently granted).