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Innovation and the Domain of Competition Policy

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2007–2008 MEADOR LECTURE SERIES ON EMPIRE

INNOVATION AND THE DOMAIN OF COMPETITION POLICY

*Herbert Hovenkamp**

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INTRODUCTION

In our capitalist economy, the domain of competition is very large. We ordinarily think of competition as the default rule. In our aspirations, it controls every market and every transaction. Unless constrained, sellers decide what to make and how much to charge for it, and buyers decide whether and how much to purchase. Sellers are also free to insist on any particular contractual terms that they wish governing price, quantity, discounts, bundling with other products, and the like.

To be sure, this particular default rule is riddled with limitations, both public and private. The government restricts what people can make by enacting safety rules, aesthetic rules, performance standards, explicit

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competition rules, or, in some cases, outright prohibitions. The state may also either set the price or impose severe constraints on firms' ability to set their own prices. Private agreements also serve to limit the range of things people can make, the amount they can produce, or the price they must charge.

"Competition policy" refers to the full range of public rules and sanctions designed to ensure that markets are as competitive as they can realistically be, consistent with these other policies. In the United States, the term competition policy certainly includes the antitrust laws as a central component, but competition policy is in fact much broader. For example, many regulatory agencies, including the Federal Communications Commission and the Securities and Exchange Commission, operate under mandates that require them to take concerns for competition into account in making regulatory decisions.¹ Well-established rules within intellectual property policy, such as the doctrines of patent and copyright misuse or the first sale doctrine, serve to protect competition by applying the policies of those statutes as a kind of substitute for the antitrust laws.² And some of our concerns about competition are addressed through the common law tort system, in particular the law of business torts.³

Our policy toward innovation is an essential part of competition policy because the social rewards from maintaining competitiveness in innovation are so large. Indeed, the portion of economic growth that comes from innovation greatly exceeds the portion that comes from increased price competition.⁴

The term "innovation" refers to something that is much different from the intellectual property laws. By innovation, we mean the act of developing and promulgating some new idea, expression, process, or thing, in many cases for profit. By contrast, the IP laws are legal rules that make up a small part of the constraints and incentives society imposes to facilitate innovation. Significantly, just as competition policy is much broader than antitrust, so too innovation policy is much broader than the patent, copyright, trademark, and related laws that we collectively refer to as the IP

1. See, e.g., *Credit Suisse Sec. (USA) LLC v. Billing*, 127 S. Ct. 2383, 2396 (2007) (noting that the SEC must take concerns for competition into account when regulating issuance of initial public offerings); *Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 412-13 (2004) (finding that the FCC was acting as an "effective steward of the antitrust function").

2. See Thomas F. Cotter, *Misuse*, 44 HOUS. L. REV. 901, 901-02 (2007); Thomas F. Cotter, *The Procompetitive Interest in Intellectual Property Law*, 48 WM. & MARY L. REV. 483, 483 (2006).

3. See, e.g., DAN B. DOBBS, *THE LAW OF TORTS* 1299-1317 (2000); RICHARD A. EPSTEIN, *TORTS* 575-610 (1999).

4. See Robert M. Solow, *Technical Change and the Aggregate Production Function*, 39 REV. ECON. & STAT. 312, 316-17 (1957); see also F. M. SCHERER & DAVID ROSS, *INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE* 613-17 (3d ed. 1990); Herbert Hovenkamp, *Restraints on Innovation*, 29 CARDOZO L. REV. 247, 253 (2007).

laws. Innovation is also furthered by tort rules, traditional property rules, direct regulation, and public funding.

By common consensus, the two most important prerequisites for healthy innovation are a large public domain of ideas and protection for the incremental innovations that continuously enrich our stock. The first of these is essential. Every innovation builds on the works of others, some of whom are acknowledged and others who are not.⁵ As Judge Alex Kozinski wrote in a well-known dissent:

[O]verprotecting intellectual property is as harmful as underprotecting it. Creativity is impossible without a rich public domain. Nothing today, likely nothing since we tamed fire, is genuinely new: Culture, like science and technology, grows by accretion, each new creator building on the works of those who came before. Overprotection stifles the very creative forces it's supposed to nurture.⁶

The second prerequisite for healthy innovation—protection for new ideas—may be less essential, but it is important too. Further, its importance may vary considerably from one situation to the next, and the fact that this protection is “for limited Times,” as the IP Clause of the Constitution mandates, is essential.⁷ After a time, innovations must go into the public domain so that they can incentivize further innovations without constraint.⁸

The problem that this raises, of course, is that the size of the public domain and the scope of IP protection are inversely related. Every grant of an IP right reduces the size of the public domain, and the broader the IP right the greater the reduction. An optimal IP policy tries to find the spot that maximizes the net gains from the incremental social value of increased exclusivity less the loss of social value from the reduced public domain as

5. See, e.g., JARED DIAMOND, GUNS, GERMS, AND STEEL: THE FATES OF HUMAN SOCIETIES 244–45 (1998) (stating that the key to an innovative society is the ability to build on the work of others). For a much more extreme view, see MICHELE BOLDRIN & DAVID K. LEVINE, AGAINST INTELLECTUAL MONOPOLY (2008); Michele Boldrin & David K. Levine, *Perfectly Competitive Innovation*, FED. RES. BANK OF MINN. RES. DEP'T STAFF REP. 303, March 2002, at 5, available at <http://woodrow.mpls.frb.fed.us/research/sr/sr303.pdf>.

6. *White v. Samsung Elecs. Am., Inc.*, 989 F.2d 1512, 1513 (9th Cir. 1993) (Kozinski, J., dissenting).

7. U.S. CONST. art. I, § 8, cl. 8 (granting Congress the power to “promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries”).

8. Landes and Posner speak of the “incentive” and “access” trade-off, arguing that the trade-off is important but cannot account for everything. See WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW 11 (2003). For some of the issues regarding the trade-off, see *id.* at 326–27. See generally Pamela Samuelson, *Enriching Discourse on Public Domains*, 55 DUKE L.J. 783 (2006).

well as the administrative and litigation costs of running the IP system. By contrast, the giving of IP rights which do nothing to enlarge the ex ante incentive to innovate reduces the size of the public domain without giving anything in return.⁹

Antitrust policy and the IP laws are both concerned with practices that restrain competition unnecessarily by reducing the size of the public domain beyond that which the Constitution contemplates or as Congress intended for them to be expanded. In fact, antitrust has a dual role as promoter of competition in IP-intensive markets. It regulates both restraints on competition and restraints on innovation. A good example of the former is the regulation of price fixing in patent licensing. Ever since the Supreme Court created a controversial exception to the antitrust rule against price fixing in patent licenses in its 1926 *GE* decision, the legal status of such price fixes has been controversial.¹⁰ Price fixing in patent licenses actually increases the returns to innovation because the earnings in a cartelized licensing market are presumably greater than those in a competitive licensing market; otherwise, firms would have no incentive to fix prices. To be sure, the problem is a little more subtle than this. The incentive to innovate depends on ex ante anticipation of returns. Before the availability of price fixing would increase the incentive to innovate, the innovator must be able to anticipate that price fixing in the resulting innovation was possible. Significantly, however, to the extent the antitrust laws express a policy against price fixing in licensing markets, the policy is that this particular increased incentive to innovate is improper.

But antitrust also regulates restraints on innovation, such as when it condemns attempts to shrink the public domain improperly in ways that also injure competition. The classic example is the *Walker Process* case in 1965, which held that a patent infringement action based on a fraudulently obtained patent could be an antitrust violation, provided that market competition was injured as well.¹¹ The logic of *Walker Process* is simple

9. See *Graham v. John Deere Co.*, 383 U.S. 1, 6 (1966) (“Congress may not authorize the issuance of patents whose effects are to remove existent knowledge from the public domain, or to restrict free access to materials already available.”); see also Christina Bohannon, *Copyright Harm, Foreseeability and Fair Use*, 85 WASH. U. L. REV. 969 (2007) (arguing that fair use should be interpreted broadly when an alleged infringement does not cause provable harm to copyright holder); Charlotte Hess & Elinor Ostrom, *Ideas, Artifacts, and Facilities: Information as a Common-Pool Resource*, 66 LAW & CONTEMP. PROBS. 111, 114–15 (2003); Jessica Litman, *The Public Domain*, 39 EMORY L.J. 965, 968–69 (1990); Mark Rose, *Nine-Tenths of the Law: The English Copyright Debates and the Rhetoric of the Public Domain*, 66 LAW & CONTEMP. PROBS. 75, 87 (2003); Samuelson, *supra* note 8.

10. *United States v. Gen. Elec. Co.*, 272 U.S. 476 (1926); see 12 HERBERT HOVENKAMP, ANTITRUST LAW ¶ 2041a (2d ed. 2005); HERBERT HOVENKAMP, MARK D. JANIS & MARK A. LEMLEY, IP AND ANTITRUST: AN ANALYSIS OF ANTITRUST PRINCIPLES APPLIED TO INTELLECTUAL PROPERTY LAW § 31.1 (2002 & Supp. 2008); LANDES & POSNER, *supra* note 8, at 382–85.

11. *Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.*, 382 U.S. 172, 174 (1965); see also 3 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶ 706 (3d ed. 2008).

enough: once Congress and the Patent and Trademark Office (PTO) have established the prerequisites for a patent, someone who intentionally deceives the PTO into thinking these prerequisites have been met is trying to patent something that rightfully belongs to the public. At that point, this improper attempt becomes a Patent Act violation, with the probable result that the patent is not enforceable.¹² If the patentee then attempts to enforce this patent and the structural requirements for monopoly are present, then this enforcement action is also an antitrust violation.

The first-line protectors of the competitive process in innovation are the IP statutes themselves. The constitutional mandate to Congress to create intellectual property regimes in order to “promote the Progress of Science and useful Arts” is expressly tied to creating incentives to innovate.¹³ Indeed, the IP Clause is the only place where the Constitution expressly links the scope of a property right to the incentive to develop it. An optimal IP policy creates just enough incentive to cause creative people to innovate at the optimal level, but not so much as to restrain excessively others who want to build on their work. Maintaining this balance requires a determination of both the optimal duration and the optimal scope, or coverage, of IP rights. If the duration of rights is too long or the coverage too broad, future innovators face a shrunken public domain of ideas that they can borrow freely. If the scope of IP rights is too narrow, then the IP laws may provide insufficient incentive to get people to innovate in the first place. Maintaining this balance is critical. The periods of civilization most conducive to innovation have been those where IP rights were given some protection but people were also reasonably free to build upon the work of others.¹⁴

Although the primary purpose of antitrust law is to promote competition, for large parts of their history, the antitrust laws have done just the opposite. Antitrust developed overly protective rules that shielded inefficient businesses from competition at the expense of consumers. By the same token, the effect of the IP laws has often been to undermine rather than to promote innovation by granting IP holders rights that go far beyond what is necessary to create appropriate incentives to innovate and by increasing the costs of innovation in markets where innovation requires building on the works of others. Although the constitutional purpose of most of the IP laws is to further innovation, their actual effect is unclear. They may further it, but they may actually retard it, and, in any event,

12. For a recent application, see *Dippin’ Dots, Inc. v. Mosey*, 476 F.3d 1337, 1346–48 (Fed. Cir. 2007), *cert. denied*, 128 S. Ct. 375 (2007).

13. U.S. CONST. art. I, § 8, cl. 8 (giving Congress the power to “promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries”).

14. See DIAMOND, *supra* note 5, at 240–45.

almost no one believes that the system of IP laws that we currently have is optimal.

I. CONTROLLING COMPETITION: THE STORMY HISTORY OF THE ANTITRUST/IP RELATIONSHIP

Both IP policy and antitrust policy have a great deal to say about the competitiveness of the innovation process. But over time, the relative domain of antitrust law and IP law has shifted back and forth very considerably. In the earliest period of antitrust policy, patent rights reigned supreme and antitrust policy gave way. Later on we entered a protracted period in which patent rights in particular were thought of as inherently monopolistic and almost a competitive evil, and antitrust law was given wide and anticompetitive authority to limit them. More recently, we have operated in a period of IP expansion in which the domain of patent and copyright law have been magnified at the expense of antitrust, which has been regarded as inherently overdeterrent. And even more recently, we have begun to see judicial and perhaps even congressional responses to withering attacks on an overly protective patent system.

Historically and today, the principal regulator of competition in IP-intensive markets in the United States has been antitrust law, which is of very general application. Indeed, the words “patent,” “copyright,” and “intellectual property” never appear in the Sherman Act. The word patent appears once in the Clayton Act, in reference to tying arrangements and exclusive dealing.¹⁵ This is Congress’s way of saying that the basic rules of competition must be the same in all markets, except insofar as Congress has provided differently in some market-specific statute. Except for the provision concerning patent ties, which was added in 1914, the antitrust laws give courts absolutely no guidance as to how the presence of IP rights should affect a challenge to a practice as anticompetitive. Incidentally, neither does any provision of the antitrust laws define the word “competition.” The courts are given no guidance on such fundamental questions as whether a practice is “anticompetitive” only when it decreases short-run output and raises price, or whether it also covers restraints on innovation whose harmful effects might take far longer to realize and that, in any event, are more difficult to measure.

During the earliest years of its enforcement, antitrust was generally placed in a subservient position to the patent laws. In this pre-digital, pre-

15. Section 3 of the Clayton Act, 15 U.S.C. § 14, provides:

It shall be unlawful . . . to lease or make a 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 . . . , where the effect . . . may be to substantially lessen competition or tend to create a monopoly

Id.

computer age, the anticompetitive potential of copyrights was rarely an issue. The landmark example of weak antitrust and strong patents was the *A. B. Dick* decision in 1912.¹⁶ *A. B. Dick* was an office equipment manufacturer that produced a popular mimeograph machine, which rotated blank sheets of paper over an ink-filled drum upon which a stencil had been placed. The machine was the best alternative available to the photocopier in the early part of the twentieth century. *A. B. Dick* sold the machines with a license notice affixed to them providing that the machine “may be used only with the stencil paper, ink, and other supplies made by *A. B. Dick Company . . .*”¹⁷ Today we would call this a tying arrangement, or conditioning the sale of one product on the buyer’s agreement to purchase a second one. Perhaps the most important thing in assessing the *A. B. Dick* tie is that neither the antitrust laws nor the Patent Act had anything to say about ties. The Sherman Act prohibited only contracts “in restraint of trade,”¹⁸ without defining that term. The Patent Act had nothing to say on the subject. Another important factor is that the tied products—stencil paper, ink, and supplies—were ordinary commodities that were sold in numerous markets that had nothing to do with *A. B. Dick*’s mimeograph machine. Today, we would say that they are staple commodities capable of non-infringing uses. The action itself was brought under the Patent Act rather than the antitrust laws against Henry, someone who knowingly sold the supplies to another person who intended to use them on *A. B. Dick*’s patented machine.¹⁹ The Supreme Court held that such a sale constituted contributory infringement of the patent, and, although the defendant raised the Sherman Act in defense, the Court also held that it did not apply.²⁰

Congress was unhappy with both the antitrust holding and the contributory infringement holding in *A. B. Dick*. Two years later, it passed the Clayton Act, whose § 3 reached tying arrangements involving patented goods.²¹ In 1952, Congress also changed the Patent Act to make clear that the sale of staple goods or commodities was not contributory infringement of a patent, even if the purchaser intended to use them in violation of a patentee’s tying contract.²²

16. *Henry v. A. B. Dick Co.*, 224 U.S. 1 (1912).

17. *Id.* at 11.

18. 15 U.S.C. § 1 (2006).

19. *A. B. Dick*, 224 U.S. at 11–12.

20. *Id.* at 46–47, 49.

21. Clayton Act, ch. 323, § 3, 38 Stat. 731 (1914) (codified at 15 U.S.C. § 14 (2006)).

22. The 1952 amendments provided that contributory infringement would not result from the sale of a “staple article or commodity of commerce suitable for substantial noninfringing use.” Patent Act, ch. 950, 66 Stat. 811 (1952) (codified as amended at 35 U.S.C. § 271(c) (2006)). See Charles W. Adams, *A Brief History of Indirect Liability for Patent Infringement*, 22 SANTA CLARA COMPUTER & HIGH TECH. L.J. 369, 369 (2006).

One patent licensing rule that mocked competition was first announced by the Supreme Court in its 1902 *Bement* decision and reiterated in the *General Electric* decision.²³ In *Bement*, a half-dozen firms operating separately had developed spring tooth harrows for agricultural use and patented various features in them.²⁴ A number of conflicts arose about patent claims, and these disputes were settled when the patentees licensed their patents to the defendant, permitting it to manufacture the harrows. However, the license also stipulated the price at which the harrows had to be sold. The lawsuit arose when the defendant later repudiated the agreement, and the Supreme Court upheld both the agreement and the minimum price restriction.²⁵ The severest implications of this rule were not felt until 1926, however, in the government-brought *GE* case.²⁶ GE held a number of patents on incandescent light bulbs. It both produced bulbs itself and licensed Westinghouse to produce them in an agreement that stipulated the price that Westinghouse must charge. The Supreme Court rejected the government's Sherman Act claim, holding that price fixing between two manufacturing competitors was lawful if the fix was contained in a patent license.²⁷ This rule, which is highly controversial,²⁸ remains with us to this day and has served to exonerate many nearly naked price-fixing agreements.

The Supreme Court was not completely unconcerned about competition in patent licenses; however, it expressed its concern more through patent policy than antitrust policy. Already, prior to the passage of the Sherman Act, the Supreme Court had applied the patent law's "first sale" doctrine so as to invalidate restraints on competition. Under the first sale doctrine, once a patentee or copyright holder sells a protected good, it loses control. For example, in *Adams v. Burke*, decided before the Sherman Act was passed, the Court used the first sale doctrine to strike down a patentee's limitations on the geographic territories in which a reseller of a patented good could sell it,²⁹ and in *Keeler* it held that a reseller of a patented bed could resell it in a territory that the patentee had reserved to itself.³⁰ Effectively, these early decisions used the Patent Act to create limitations on both vertical and horizontal territorial restraints that the

23. *United States v. Gen. Elec. Co.*, 272 U.S. 476 (1926); *E. Bement & Sons v. Nat'l Harrow Co.*, 186 U.S. 70 (1902).

24. *Bement*, 186 U.S. at 76-77.

25. *Id.* at 95.

26. *Gen. Elec. Co.*, 272 U.S. 476.

27. *Id.* at 489.

28. For one recent attempt to defend it, see Stephen M. Maurer & Suzanne Scotchmer, *Profit Neutrality in Licensing: The Boundary Between Antitrust Law and Patent Law*, 8 AM. L. & ECON. REV. 476 (2006).

29. *Adams v. Burke*, 84 U.S. 453, 456-57 (1873).

30. *Keeler v. Standard Folding-Bed Co.*, 157 U.S. 659, 666 (1895).

Supreme Court would apply under the antitrust laws as well.³¹ Similarly, in its 1908 decision in *Bobbs-Merrill*, the Court held that the first sale doctrine prevented a patentee from enforcing a resale price maintenance provision in a copyright license.³² This was only three years before the Supreme Court held in *Dr. Miles* that the Sherman Act made resale price maintenance unlawful.³³ Just last year, that decision was itself overruled by the Supreme Court's *Leegin* decision, which now creates a rule of reason for resale price maintenance.³⁴ And this year, the Supreme Court confirmed the continuing vitality of the first sale doctrine.³⁵

So during this early period, the Supreme Court drew its competition policy for innovation markets from a mixture of IP and antitrust law, but antitrust generally took a back seat. That would change beginning in 1914 when Congress passed the Clayton Act, including its prohibition of patent ties.³⁶ In 1916, the Court overruled the *A. B. Dick* case in *Motion Picture Patents*, which involved a license restriction found to violate that statute.³⁷ The patentees were in fact a cartel that was dominated by interests belonging to Thomas Alva Edison. Edison had made the showing of motion pictures much more commercially viable by the use of sprocketed wheels on the projector that engaged little holes on the edges of the film. This technology enabled the film to run smoothly through the projector and eliminated much of the jerkiness of the earliest motion pictures. The Motion Picture Patents Company, sometimes called the "Edison trust," quite clearly intended to monopolize the American motion picture market. First, the trust obtained an exclusive supply contract from Kodak, the dominant

31. *United States v. Arnold, Schwinn & Co.*, 388 U.S. 365, 379 (1967) (finding vertically imposed territorial restrictions unlawful per se), *overruled by* *Cont'l T.V., Inc. v. GTE Sylvania*, 433 U.S. 36 (1977) (applying rule of reason); see 8 PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW* § 1643 (2d ed. 2004).

32. *Bobbs-Merrill Co. v. Straus*, 210 U.S. 339, 350–51 (1908).

33. *Dr. Miles Med. Co. v. John D. Park & Sons Co.*, 220 U.S. 373, 400–01 (1911).

34. *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 127 S. Ct. 2705, 2710 (2007).

35. *Quanta Computer, Inc. v. LG Elecs., Inc.*, 128 S. Ct. 2109 (2008). Patentee LG provided technology that Intel used in microprocessors and chipsets, subject to a license condition that this technology could not be used by the chip purchasers in combination with non-Intel components. When Quanta built computers that employed Intel chips with non-Intel components, LG sued it for infringement. The Supreme Court held that the first sale rule barred the suit, overruling the Federal Circuit's decision in *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700, 709 (Fed. Cir. 1992), which had exempted "conditional" sales such as this one from the first sale doctrine. The Court concluded:

This case illustrates the danger of allowing such an end-run around exhaustion. On LGE's theory, although Intel is authorized to sell a completed computer system that practices the LGE Patents, any downstream purchasers of the system could nonetheless be liable for patent infringement. Such a result would violate the longstanding principle that, when a patented item is "once lawfully made and sold, there is no restriction on [its] use to be implied for the benefit of the patentee."

Quanta Computer, 128 S. Ct. at 2118 (quoting *Adams v. Burke*, 84 U.S. (17 Wall.) 453, 457 (1873) (alteration in original)).

36. Clayton Act, ch. 323, § 3, 38 Stat. 731 (1914) (codified at 15 U.S.C. § 14 (2006)).

37. *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502, 517 (1917).

producer of movie film. Then, they incorporated a license restriction onto the projectors forbidding anyone using the projector from showing films other than those procured from the company. The company even attempted to blacklist actors and actresses who agreed to work for filmmakers that did not use their equipment. The case itself, just like *A. B. Dick*, was a contributory infringement suit, not an antitrust suit. This time the Court refused to find contributory infringement and cited the Clayton Act only as confirmation of its holding that the use of rivals' films did not violate any right created by the patent.³⁸

Motion Picture Patents was undoubtedly a reasonable decision, applying patent policy so as to undermine an attempt to hijack the entire American motion picture industry.³⁹ In subsequent decades, however, antitrust and patent policy both became increasingly aggressive, particularly against patent tying arrangements. Initially, in *United Shoe Machinery* in 1922, the Supreme Court condemned a lease arrangement in which the defendant required shoe manufacturers to take its full line of shoe-making equipment to the exclusion of rivals' equipment.⁴⁰ United Shoe's market share was above 90%, making this a fairly clear cut case of tying by a monopolist. But a decade later in *Carbice*, the Supreme Court refused to enforce a license agreement by the owner of a patented ice box that required users of the box to use only its own dry ice.⁴¹ The Court applied patent law but declared in a footnote that the practice also implicated § 3 of the Clayton Act.⁴² Justice Brandeis gave his famous theory of the case that prompted so much ridicule from later critics of Supreme Court tying law, particularly those in the Chicago School. The tying requirement permitted:

[T]he patent owner to "derive its profit, not from the invention on which the law gives it a monopoly, but from the unpatented supplies with which it is used," [and which are] "wholly without the scope of the patent monopoly." . . . If a monopoly could be so expanded, the owner of a patent for a product might conceivably monopolize the commerce in a large part of unpatented materials used in its manufacture. The owner of a patent for a machine

38. See *id.* at 517-18 ("Our conclusion renders it unnecessary to make the application of this statute to the case at bar which the circuit court of appeals made of it, but it must be accepted by us as a most persuasive expression of the public policy of our country with respect to the question before us.").

39. On the history, see MICHAEL CONANT, ANTITRUST IN THE MOTION PICTURE INDUSTRY 18-21, 77-80 (1960); BENJAMIN B. HAMPTON, A HISTORY OF THE MOVIES 8-11, 17-24, 34, 64-76, 79-81 (Arno Press 1970) (1931); LEWIS JACOBS, THE RISE OF THE AMERICAN FILM 8, 81-85, 88, 164-65, 291-92 (1939).

40. *United Shoe Mach. Corp. v. United States*, 258 U.S. 451, 465 (1922).

41. *Carbice Corp. of Am. v. Am. Patents Dev. Corp.*, 283 U.S. 27, 34-35 (1931).

42. *Id.* at 31-32, 34 n.4.

might thereby secure a partial monopoly on the unpatented supplies consumed in its operation.⁴³

Of course, no one could acquire a monopoly in dry ice, an ordinary commodity made by unpatented processes. Following *Carbice*, the law of patent ties became completely lost from its moorings in concerns about monopoly and competition. Two decisions in the 1930s indicated that both patent policy and antitrust policy would pursue parallel courses in condemning patent ties that raised no serious competitive issues. In *Morton Salt* in 1942, the Supreme Court held that its now developing doctrine of patent “misuse” forbade a patentee from enforcing a patent if it was also engaged in tying of unpatented goods, even if the infringer was not injured by the tying arrangement.⁴⁴ The patentee had developed a salt-injecting machine for measuring and inserting the proper amount of salt into canned goods as they passed down an assembly line. It required users to purchase its salt as a condition of using the machine. The defendant was not a competing supplier of salt, who might have had a competitive gripe. Rather, it was an obvious infringer who was making the machines in violation of the patent and was not affected by the salt tie at all. The Supreme Court held that one who engaged in such a tie was misusing his patent in violation of the principles of the Patent Act, which contained no such authorization.⁴⁵ Then five years later, the United States government obtained a decree that the identical practice by a different firm also violated the antitrust laws.⁴⁶ Further, the Court added, while the offense of tying under the antitrust laws required a showing of market power, that power would be presumed if the tying product—the salt-injecting machine in this case—was patented.⁴⁷ With that stroke, patents tied to unpatented goods instantly became a monopoly problem, even if the patent was a relatively minor one and attached to a product that was sold in a competitive market. This doctrine also spilled into copyright, and the Supreme Court twice condemned tying, or “block booking,” of motion pictures, which refers to nothing more harmless than the seller’s insistence that the licensee obtain pictures for re-showing in blocks of two or more.⁴⁸ This presumption of market power in patent tying cases remained with us until the Supreme Court upset it in 2006.⁴⁹

43. *Id.* at 31–32 (quoting *Motion Picture Patents*, 243 U.S. at 517) (citation omitted).

44. *Morton Salt Co. v. G. S. Suppiger Co.*, 314 U.S. 488, 494 (1942).

45. *Id.* at 491.

46. *Int’l Salt Co. v. United States*, 332 U.S. 392, 396 (1947).

47. *Id.*

48. *United States v. Loew’s, Inc.*, 371 U.S. 38, 48–49 (1962); *United States v. Paramount Pictures, Inc.*, 334 U.S. 131, 156–58 (1948).

49. *Ill. Tool Works Inc. v. Indep. Ink, Inc.*, 547 U.S. 28, 42–43 (2006) (overruling *Int’l Salt*, *Loew’s*, and implicitly, *Paramount*).

Tying was not the only kind of allegedly anticompetitive practice affected by this antitrust expansion, which dominated the central decades of the twentieth century. While the case law itself is inconsistent, the Justice Department's Antitrust Division promulgated its own list of nine patent "no-nos" in 1970.⁵⁰ These were said to be practices that were "clearly unlawful" and subject to government challenge.⁵¹ Lest anyone think that antitrust overreaching was limited to the Supreme Court, the Justice Department's list of nine clearly unlawful practices went well beyond what the Supreme Court had condemned and included at least one practice that the highest Court had exonerated. In addition to tying, the "Nine No-Nos" included mandatory grantbacks requiring a licensee to give back to the licensor any improvement patent on the licensed patent. This was in conflict with a Supreme Court decision that had upheld the practice.⁵² Also on the list were practices that either fell into the general category of tying, such as package licensing and so-called "tie outs," or exclusive dealing. Others were "intra-brand" practices including resale maintenance or restrictions on the sale of unpatented goods made with patented products that are rarely regarded as anticompetitive today.⁵³

During this period, antitrust policy exhibited a great deal of overdeterrence in IP-rich areas, with the Supreme Court often imagining competitive problems that simply did not exist. But significantly, the law of patent misuse, which originated entirely within patent law, was at least as overdeterrent, as the *Carbice* case illustrates.⁵⁴ Even today the Federal Circuit holds that the law of patent misuse is somewhat broader than antitrust law and condemns some things that antitrust law fails to condemn.⁵⁵ The law of copyright misuse has also been applied to situations that clearly did not involve antitrust violations, as many judges have themselves understood.⁵⁶

50. Bruce B. Wilson, Patent and Know-How License Agreements: Field of Use, Territorial, Price and Quantity Restrictions, Address Before the Fourth New England Antitrust Conference (Nov. 6, 1970) in *ANTITRUST PRIMER: PATENTS, FRANCHISING, TREBLE DAMAGE SUITS* 12-21 (Sara-Ann Sanders ed., 1970).

51. *Id.* at 12.

52. See *Transparent-Wrap Mach. Corp. v. Stokes & Smith Co.*, 329 U.S. 637, 640-41 (1947).

53. For an excellent discussion of the "Nine No-Nos" and an attempt to place them in the history of patent antitrust, see Willard K. Tom & Joshua A. Newberg, *Antitrust and Intellectual Property: From Separate Spheres to Unified Field*, 66 *ANTITRUST L.J.* 167, 178-84 (1997).

54. See *Carbice Corp. of Am. v. Am. Patents Dev. Corp.*, 283 U.S. 27 (1931).

55. See, e.g., *Senza-Gel Corp. v. Seiffhart*, 803 F.2d 661, 670 (Fed. Cir. 1986) (finding misuse in patentee's requirement that those wishing to use its patented process also lease its machine for accomplishing the process, even though it was not clear that the tie united "separate products," as antitrust's tying law requires).

56. E.g., *Lasercomb Am., Inc. v. Reynolds*, 911 F.2d 970, 978 (4th Cir. 1990) ("So while it is true that the attempted use of a copyright to violate antitrust law probably would give rise to a misuse of copyright defense, the converse is not necessarily true—a misuse need not be a violation of antitrust law in order to comprise an equitable defense to an infringement action. The question is not whether the copyright is being used in a manner violative of antitrust law (such as whether the licensing agreement is 'reasonable'), but whether the copyright is being used in a manner violative of the public policy embodied in the grant of a copyright."); see also *Assessment Techs. of WI, LLC v. WIREdata*,

II. CONTROLLING IP OVERREACHING

But today we are living in a much different age. The robustness of IP law is at an all-time high, and antitrust has been trimmed down to size over a thirty-year period of liability limiting Supreme Court decisions.

A. The Comparative Advantage of Antitrust

I believe that antitrust should not be too defensive about asserting a broader role in IP competition disputes. This is so for two reasons. First, the extent of special interest capture is significantly greater in IP law than in antitrust, although today patent law is experiencing some important reforms. Second, antitrust has profited greatly from its period in the wilderness, something that the IP laws have yet to experience.

But an important qualifier is that the courts may not contradict constitutional legislation that has spoken clearly. A court may think that a particular statute so completely reflects special interest capture and ignores the public interest that it is affirmatively harmful. That may be a ground for narrow construction of ambiguous terms, but it is certainly not a basis for ignoring what the statute says. Likewise, while antitrust may be able to speak more forcefully in IP areas, it can do so only where IP statutes themselves are silent or speak consistently. Practices that are authorized by the IP statutes cannot form the basis of antitrust violations.

The antitrust statutes are among the simplest and most elegant of the federal regulatory regimes. All of the substantive antitrust provisions, with the exception of the Robinson–Patman Act, state their prohibitions in a sentence or two.⁵⁷

To be sure, special interests were present at the passage of the Sherman and Clayton Acts, and they have been present ever since. The history of the Sherman Act suggests that Congress may not have favored “competition” or efficiency in the abstract, but rather the protection of small businesses that were threatened by large, aggressive, low cost rivals such as Standard Oil.

But what is even more significant is that particular special interests such as those of small oil producers—Ohio Senator John Sherman’s constituency—did not get any specific mandates for protectionism into the statutory language. Perhaps Congress simply assumed that prohibitions against “restraint[s] of trade” in § 1 of the Sherman Act or “monopolizing” in § 2

Inc., 350 F.3d 640, 643, 646–47 (7th Cir. 2003) (conduct akin to misuse; no basis for antitrust violation).

57. The one lengthy antitrust provision, the Robinson–Patman Act, is clearly the exception that proves the rule. 15 U.S.C. § 13 (2006). That lengthy, detailed statute is not concerned with injury to competition at all, but rather with the protection of small retailers from more aggressive or lower cost chain stores. See 14 HERBERT HOVENKAMP, ANTITRUST LAW ¶ 2302 (2d ed. 2006).

would serve to protect smaller, inefficient firms from larger ones. Or perhaps they believed that the larger firms acquired their status strictly by means of anticompetitive practices that these provisions reached. But for whatever reason, the language chosen by the framers of the Sherman Act used terms that either had or have come to have fairly technical meanings that we associate with efficiency, marginal cost pricing, and an absence of unreasonable exclusion, but *not* with the protection of any particular interest group.

So while no statute is free of special interest influence, the antitrust laws must be counted among the relatively “cleaner” substantive statutory regimes in the United States Code. More importantly, federal antitrust policy has gone through an extraordinary “cleansing” policy that began in the 1970s. Beginning about that time, academics and eventually courts launched a broad-scale attack on antitrust policy, pointing out dozens of harmful and competitively silly rules that served to undermine rather than promote competition. The Supreme Court responded with a gradually increasing cutback. For example, the “antitrust injury” doctrine developed in the *Brunswick* decision in 1977 required plaintiffs to show that they were not merely injured in fact by a technical antitrust violation, but that they were injured by truly anticompetitive consequences that flowed from that violation.⁵⁸ Five years later, the Supreme Court imposed significant restrictions on antitrust standing that have served to limit the range of plaintiffs to people with true competitive injury, such as overcharged consumers and improperly excluded rivals.⁵⁹ In two important cases decided twenty years apart, the Supreme Court greatly strengthened pleading and proof requirements, imposing harsh standards for summary judgment in its 1986 *Matsushita* decision⁶⁰ and strict pleading standards in its 2007 *Twombly* decision.⁶¹ On substantive issues, the Supreme Court has made exclusionary practices much more difficult to prove, with holdings on predatory pricing in 1993 and 2007⁶² and on refusals to deal in 2004.⁶³ It has significantly rewritten the law of vertical restraints.⁶⁴ More generally, the courts

58. *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 489 (1977); *see also* 2A PHILLIP E. AREEDA, ROGER D. BLAIR, CHRISTINE PIETTE DURRANCE & HERBERT HOVENKAMP, ANTITRUST LAW ¶ 337 (3d ed. 2007).

59. *Associated Gen. Contractors of Cal., Inc. v. Cal. State Council of Carpenters*, 459 U.S. 519, 542–44 (1983); *see also* 2A AREEDA ET AL., *supra* note 58, ¶ 335d (3d ed. 2007).

60. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 585–98 (1986); *see also* 2 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶ 308 (3d ed. 2007).

61. *Bell Atl. Corp. v. Twombly*, 127 S. Ct. 1955, 1968–69 (2007); *see also* 2 AREEDA & HOVENKAMP, *supra* note 60, ¶ 307d.

62. *Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co.*, 127 S. Ct. 1069, 1074–75 (2007); *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 222–43 (1993).

63. *Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko*, 540 U.S. 398, 407–15 (2004).

64. In chronological order: *Cont'l T. V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 59 (1977) (applying rule of reason to vertical nonprice restraints); *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 12–18 (1984) (tightening up standards for tying arrangements); *State Oil Co. v. Khan*,

have greatly reduced the use of per se rules except in cases of naked price fixing or market division, and required plaintiffs to prove market power and anticompetitive effects. In most areas antitrust can no longer be accused of being overdeterrent. Indeed, in some areas, such as predatory pricing and mergers, it is very likely underdeterrent.

As a result, antitrust has the comparative advantage of well-behaved doctrine that, at least currently, is reasonably free of special interest pressure. The patent and copyright acts cannot make the same claim to well-behaved doctrine, although patent law seems to be entering its own period of self-criticism and reform. Both the patent and copyright statutes are detailed regulatory codes, which is an important sign of regulatory capture. Indeed, public choice theory seems to be practically tailor-made for the IP laws. The theory suggests that when interest groups are small, relatively homogenous, and have individually large interests at stake, these small groups will succeed in controlling government decision makers much more effectively than larger groups that are more diverse and whose individual stakes are much less.⁶⁵

A brief examination of patent and copyright law is revealing.

B. Patents

Consistent with its constitutional purpose of creating incentives to innovate, an optimal patent policy should provide just enough protection to maximize incentives, while not providing so much protection so as to raise the cost of innovating by making it too difficult for a firm to build on information in the public domain or the work of others.⁶⁶ Finally, one must throw into the mix the very considerable costs of running the patent system, which include not merely the direct costs of patent provision but also the enforcement mechanism, including private litigation costs.

The private returns to the innovator produced by the patent system consist of (1) the increased profit that patent protection gives to the innovator less (2) the increased costs that the innovator incurs in trying to invent around existing patents held by others, in licensing from them, or in organizing research and development so that it will be patentable rather than along some other avenue that is otherwise more efficient but not pa-

522 U.S. 3, 22 (1997) (applying rule of reason to maximum price fixing); *Ill. Tool Works Inc. v. Indep. Ink, Inc.*, 547 U.S. 28, 31 (2006) (overruling presumption that patented tying product confers sufficient market power to make a tie unlawful); *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 127 S. Ct. 2705, 2718–20 (2007) (applying rule of reason to resale price maintenance).

65. See DANIEL A. FARBER & PHILIP P. FRICKEY, *LAW AND PUBLIC CHOICE: A CRITICAL INTRODUCTION* 18–19, 23 (1991); Christina Bohannon, *Reclaiming Copyright*, 23 *CARDOZO ARTS & ENT. L.J.* 567, 568 (2006); Herbert Hovenkamp, *Legislation, Well-Being, and Public Choice*, 57 *U. CHI. L. REV.* 63, 85–89 (1990).

66. See SUZANNE SCOTCHMER, *INNOVATION AND INCENTIVES* 127–59 (2004).

tentable.⁶⁷ One must also subtract the increased costs of protecting one's own innovation by litigating patent infringement suits and defending the infringement suits of rival patentees. It is by no means clear that these returns are positive in most industries.

By and large patent applications are *ex parte*, so patent examiners have their contact with prospective patentees rather than with prospective infringers. Innovators in an area are typically well organized and often small in number; frequently those in a particular industry have a homogeneity of interests. As economists Adam B. Jaffe and Josh Lerner suggest, two phenomena of the recent decades have exacerbated this.⁶⁸ One is a pay-as-you-go system under which the PTO derives its income from patent applications. This system has changed the incentive structure to make it more likely that a particular patent application will be granted. The other is the creation of the Federal Circuit, a specialist court of appeals that was frankly intended to strengthen patent protection and that has lived up to its name.⁶⁹ As a result of these developments, both the number of granted patents and the volume of infringement litigation has surged dramatically in recent years.

Few regulatory systems in the United States are as closed as the patent system. As one would expect, the system has become increasingly responsive to the interests of patentees and much less so to the much larger and more diverse population that represents users of patented products or processes, either as end users or as intermediate licensees.

Within the last decade the United States patent system has been made the subject of extensive and withering attacks, some of which have already had a significant impact on Supreme Court decision making. Briefly:

- The number of patents issued has exploded dramatically over the last two decades, and many patents have been issued that in-

67. On this point, see Arnold Plant, *The Economic Theory Concerning Patents for Inventions*, 1 *ECONOMICA* 30, 32, 38–46 (1934); see also 2 MURRAY N. ROTHBARD, *MAN, ECONOMY, AND STATE* 658–59 (Nash Publ'g 1970) (1962) (“It is by no means self-evident that patents encourage an increased absolute quantity of research expenditures. But certainly patents distort the *type* of research expenditure being conducted. . . . Research expenditures are therefore *overstimulated* in the early stages before anyone has a patent, and they are *unduly restricted* in the period after the patent is received. In addition, some inventions are considered patentable, while others are not. The patent system then has the further effect of artificially stimulating research expenditures in the *patentable* areas, while artificially restricting research in the *nonpatentable* areas.”).

68. ADAM B. JAFFE & JOSH LERNER, *INNOVATION AND ITS DISCONTENTS: HOW OUR BROKEN PATENT SYSTEM IS ENDANGERING INNOVATION AND PROGRESS, AND WHAT TO DO ABOUT IT* 1–24 (2004).

69. See LANDES & POSNER, *supra* note 8, at 334–53; see also William M. Landes & Richard A. Posner, *An Empirical Analysis of the Patent Court*, 71 *U. CHI. L. REV.* 111, 112 (2004) (“As expected, the Federal Circuit has turned out to be a pro-patent court in comparison to the average of the regional courts that it displaced in the patent domain.”). See generally Saul Levmore, *Property's Uneasy Path and Expanding Future*, 70 *U. CHI. L. REV.* 181, 190 (2003); Gerard N. Magliocca, *Ornamental Design and Incremental Innovation*, 86 *MARQ. L. REV.* 845, 863 (2003).

volve innovations that appear not to meet the non-obviousness requirement or that rest on overly broad or ambiguous claims;

- While the patent system is said to create “property” rights, the boundaries of this property are often very poorly delineated, giving non-holders inadequate timely information about when they might be committing a trespass. This serves as a major deterrent to invention; and
- Patent infringement litigation and related enforcement activities have become so costly that the system creates negative rather than positive incentives to innovate in most industries.

1. Excessive Number of Trivial or Unclear Patents

On the first point, the scope of patentable subject matter has broadened considerably in recent decades, and the standards for patentability have been lowered to the point that the new innovator must often confront hundreds of patents covering dubious improvements and containing ambiguously broad claims.⁷⁰ The Supreme Court’s recent *KSR* decision addressed a portion of this problem by raising the patentability standard for non-obvious subject matter.⁷¹ Section 103 of the Patent Act provides that a patent should not issue if “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.”⁷²

Under the Federal Circuit’s version of the so-called “teaching, suggestion, or motivation” test (TSM), a patent would be considered non-obvious unless there was some prior “teaching, suggestion, or motivation” reflect-

70. See JAFFE & LERNER, *supra* note 68, at 1–24; see also FED. TRADE COMM’N, 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> (complaining repeatedly of questionable patents on obvious subject matter and claims that go far beyond the actual invention described in the patent application). Among the most stinging indictments are those developed in JAMES BESSEN & MICHAEL J. MEURER, PATENT FAILURE: HOW JUDGES, BUREAUCRATS, AND LAWYERS PUT INNOVATORS AT RISK (2008).

71. *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741–43 (2007).

72. 35 U.S.C. § 103(a) (2006). The first sentence of the statute reads:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Id.

ing the claimed innovation.⁷³ Under the Federal Circuit's approach, one had to point to a fairly specific reference in prior art suggesting the patented invention. The Supreme Court rejected that in favor of a broader and more flexible approach, suggesting that if the patent claim could have been predicted by one skilled in the prior art, then that claim flunks the obviousness test. The Court wrote, "[T]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results,"⁷⁴ even if those results might occur in a different market.⁷⁵

But the problem identified in *KSR* is likely only the tip of the iceberg. Many patents, particularly those pertaining to business methods and software, suffer from "abstract" or vague claims capable of being construed very broadly so as to apply to situations far different from the invention in question, often straying to things that the inventor very likely did not contemplate at all.⁷⁶ At this writing, *KSR*'s impact on such patents remains to be seen.

2. Lack of Adequate Boundaries and Notice

On the second point, that clearly defined property rights produce incentives to invest is beyond controversy. Largely for that reason, the states have gone to elaborate lengths to maintain accurate land and boundary records. A landowner who is unsure about his title or the location of his boundaries has a greatly reduced incentive to invest further in his property. But the fact is that land title disputes represent at most a trivial cost of land development generally.

While patents are typically described as a type of property, the state of the "title records" is an embarrassment in comparison with more traditional property interests.⁷⁷ Overly broad or ambiguous patent claims that are

73. *KSR*, 127 S. Ct. at 1730.

74. *Id.* at 1739.

75. *See id.* at 1740 ("The principles underlying these cases are instructive when the question is whether a patent claiming the combination of elements of prior art is obvious. When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.").

76. *See BESSEN & MEURER, supra* note 70, at 199 ("The process of interpreting patent claims is one of mapping the words in a patent to a range of technologies, much as a surveyor maps the words in a deed to demarcations on the ground. With abstract patent claims, however, the words cover unknown territory, claiming technologies that are unknown at the time the patent is filed and that might change over time, especially in the fast-moving fields of technology. . . . [T]hese claims reward patentees for inventions they do not invent. This means that the actual, future inventors face *reduced* incentives because they have to obtain a license from the patentee . . .").

77. *See BESSEN & MEURER, supra* note 70, at 46–72. For differing perspectives on the "property"

given recognition by courts mean that an outsider often cannot be sure what the boundaries of a particular patent are. Numerous trivial patents, coupled with insurmountable classification problems, make a satisfactory search of the title records almost impossible. Indeed, the boundaries of this property right are so poorly defined that often the optimal course for innovating firms is to ignore patents while engaging in research and development and simply pay the costs of litigating infringement disputes.⁷⁸ Further, the existence of patent “continuations” entail that patentees can expand their claims retroactively, sometimes even covering the inventions of others that did not obviously infringe the original patent and who thus had no notice of the conflicting claim at the time they put forth their invention.⁷⁹ The results are dramatic—the more poorly patent boundaries are defined, the higher are litigation costs in relation to patent value.⁸⁰

In this state of affairs, developers of new technology often cannot be sure that their innovations infringe the prior patents of others until it is too late. They are thus placed in much the same position as a landowner who cannot be sure whether a contemplated structure will encroach on land to which he does not have good title.⁸¹

analogy, see Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031 (2005); Adam Mossoff, *Patents as Constitutional Private Property: The Historical Protection of Patents under the Takings Clause*, 87 B.U. L. REV. 689 (2007); see also Frank H. Easterbrook, *Intellectual Property is Still Property*, 13 HARV. J.L. & PUB. POL’Y 108, 112 (1990) (“[A] right to exclude in intellectual property is no different in principle from the right to exclude in [traditional] physical property.”).

78. See Mark A. Lemley, *Ignoring Patents*, 2008 MICH. ST. L. REV. 19 (noting that because of great number of patents in certain industries, as well as ambiguities about coverage, many innovating firms simply ignore patents, litigate, and pay licensing fees or damages claims when the need arises; for such firms infringement litigation is simply a cost of doing business and some large innovators have as many as one hundred infringement lawsuits pending against them at one time). One reason that firms might willfully ignore patents is because innovating with knowledge of infringement makes one a willful infringer, thereby increasing penalties.

On the anticommons problem, see generally Michael A. Heller & Rebecca S. Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, 280 SCI. 698 (1998); Michael A. Heller, *The Tragedy of the Anticommons: Property in the Transition from Marx to Markets*, 111 HARV. L. REV. 621 (1998).

79. See BESSEN & MEURER, *supra* note 70, at 10 (“It is possible, however, for patent owners to hide the claim language that defines patent boundaries from public view for many years, a practice that is becoming increasingly frequent.”); see also *id.* at 220–21 (“A ‘legitimate reason’ to use continuing applications under current law is to modify claims to cover a competitor’s technology. This practice is permitted regardless of whether the competitor independently invented the technology, and of whether the competitor consulted a published patented application and invented around the original claims. When such amended claims are granted, the competitor finds they are infringing upon a patent claim that was hidden during the often lengthy prosecution. Not surprisingly, such behavior leads to costly litigation.”); Mark A. Lemley & Kimberly A. Moore, *Ending Abuse of Patent Continuations*, 84 B.U. L. REV. 63 (2004); Mark A. Lemley & Bhaven N. Sampat, *Is the Patent Office a Rubber Stamp?* (Stanford Law Sch., Pub. Law & Legal Theory Research Paper Series, Paper No. 999098, 2007) available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=999098.

80. See BESSEN & MEURER, *supra* note 70, at 147–64 (showing dramatic uncertainty in high-tech areas such as software and a fair amount of certainty in the chemical and pharmaceutical industries).

81. On this point, see BESSEN & MEURER, *supra* note 70, at 46–72. The problem is further exacerbated by infringement suits brought by non-practicing patentees, or patent “trolls,” who often

3. Negative Incentives

While the Constitution recognizes property rights elsewhere, the IP Clause is the only place where the power to create the rights is expressly tied to the incentive to develop.⁸² Today, a growing body of evidence suggests that, at best, the patent system provides only weak net incentives to innovate, and even then only in a small number of markets. The incentives to innovate are probably negative in many, if not most, industries.⁸³ For any contemplated innovation, one must compare the incremental value of the patent system in increasing anticipated profits by providing for a period of exclusivity against the incremental cost. While the data are not without ambiguities, about the only industries in which patents provide a clear incentive to innovate are chemicals and pharmaceuticals, where the anticipated profits from patenting clearly exceed litigation costs.⁸⁴ In some others, particularly computer software and business methods, the costs of litigation appear to swamp any incremental profits to be derived from patent protection.⁸⁵

assert patents with broad claims against the developers of new technology. To a degree, this problem has been addressed by the Supreme Court's decision in *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006), which held that there is no automatic entitlement to an injunction in a patent infringement case, but that the right rests on traditional equity factors. *Id.* at 394. Under *eBay*, injunctions are increasingly denied against non-practicing patentees, or patentees who are not in competition with the infringer. See Andrew Beckerman-Rodau, *The Aftermath of eBay v. MercExchange*, 126 S. Ct. 1837 (2006); *A Review of Subsequent Judicial Decisions*, 89 J. PAT. & TRADEMARK OFF. SOC'Y 631, 654-55 (2007) (concluding that (1) the existence of actual competition between the patentee and the infringer is the most important factor in determining entitlement to an injunction; and (2) injunctions are very typically denied when the patentee does not itself practice the patent); see also *eBay*, 547 U.S. at 396 ("An industry has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees.") (Kennedy, J., concurring).

82. U.S. CONST. art. I, § 8, cl. 8 ("To promote the Progress of Science and useful Arts . . .").

83. See BESSEN & MEURER, *supra* note 70, at 1-28.

84. See *id.* at 120-46. On why the patent system seems to work better in the chemical and pharmaceutical markets, see Lemley, *supra* note 78, who observes:

[T]he characteristics of the pharmaceutical industry are quite different than the component industries in which it is common to ignore patents. The need for strong patent rights is greater in that industry because of the cost and delay associated with FDA approval. Virtually all patent owners in the industry are market competitors who rely on the exclusivity of the patent system The scope of the patents is generally quite clear, as they are defined in terms of chemical structure, and disputes over what the patent means are less common than in information technology. Pharmaceutical innovation is rarely cumulative, so the need for further research on a particular drug after FDA approval, while not zero, is not particularly high. Further, the patent owner identifies up front the patents that cover a particular product. It can do that because market entry is delayed for years and even decades by the FDA approval process, with the result that all parties involved will generally know what patent rights exist before the generic seeks to enter. All of these characteristics, particularly those that flow from the FDA regulatory structure, make the need for strong patent protection greater and the costs of that protection less.

Id. at 29-30.

85. See the tables in BESSEN & MEURER, *supra* note 70, at 120-46, and their disturbing conclusion that "by the late 1990s litigation costs clearly exceeded the profits from patents outside the chemical and pharmaceutical industries." *Id.* at 140. Landes and Posner reach roughly the same conclusions. See LANDES & POSNER, *supra* note 8, at 310-16.

C. Relevance for Antitrust Policy

While the problems of the patent system are manifold—indicating a regulatory process that is sorely in need of reform—that task does not generally implicate the antitrust laws. The antitrust laws were not designed to repair other government regulatory processes, but rather to take these processes as given and strive to further competition consistent with their mandates.

Unfortunately, the same defects that make the patent system work so poorly and anticompetitively also serve to narrow the role of antitrust enforcement. A good example is the *Walker Process*⁸⁶ line of cases that involve antitrust challenges to improper infringement suits. These decisions find an antitrust violation only if there was “fraud” in obtaining a patent, or more typically if it was clear at the time the infringement suit was filed that a patent was not enforceable under the circumstances of the suit.⁸⁷ But ambiguity about patent coverage entails that reasonable persons could differ about the scope, coverage, or validity of a patent. And when reasonable minds can differ about the merits of a suit, the courts are clearly unwilling to say that bringing the suit is improper, even though the infringement plaintiff might subsequently lose it. In sum, the efficacy of an antitrust action for “clearly” improper infringement suits depends on a set of clear patent rights in the first place, which the patentee subsequently ignores in bringing its suit.

The same thing is true of the antitrust attitude toward patent settlements, where the tendency of courts is to give extraordinary deference that even approves actions that would be per se unlawful in the absence of a license agreement.⁸⁸ For example, a naked market division agreement between two companies would be per se unlawful and sometimes even a criminal violation. However, a patent dispute that settles with a market division license agreement will be approved, and the courts repeatedly state that they are loathe to inquire into such things as whether the patents in question are valid.⁸⁹ The policy of the law, after all, is to encourage settlement, and the only relevant persons disputing validity are the parties to the settlement agreement. The very ambiguity that makes patent validity or scope difficult to determine also undermines antitrust enforcement.

This extreme deference to settlements distinguishes patents from other types of property where titles are clearer. For example, a gasoline station operator clearly has the right to keep a competitor from opening a competing station on his own property. But suppose the first operator owned good

86. *Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.*, 382 U.S. 172 (1965).

87. *See* 3 AREEDA & HOVENKAMP, *supra* note 11, ¶ 706.

88. *See* 12 HOVENKAMP, *supra* note 10, ¶ 2046.

89. *Id.*

title to one hundred acres on the west side of the river and brought a trespass action against a builder of a competing station on the east side of the river, with no underlying title to support the claim. Suppose then the parties “settled” with an agreement under which the second operator stayed out of the market in exchange for a large monthly payment. No court would hesitate for a moment to examine the title records and conclude that this trespass suit and its settlement were nothing more than a cover for naked market division.

This illustration indicates that the reluctance of courts to intervene in IP settlements⁹⁰ is *not* simply a function of deference to settlements, as courts are fond of saying. Rather, the reluctance is driven mainly by the ambiguity of the property rights in dispute. In the case of patents, the very difficulty that courts have in determining the scope of the right leads them to condone anticompetitive settlements.

Of course, anticompetitive conduct that falls outside of the authorizations set by the Patent Act or the patenting process itself can still be made subject to antitrust challenge. Among these are improper conduct in patent procurement,⁹¹ improper infringement activities,⁹² some acquisitions,⁹³ perhaps non-use⁹⁴ and refusals to license,⁹⁵ a few vertical practices such as tying,⁹⁶ and some horizontal restraints such as price fixing.⁹⁷ In addition, while the pursuit of patent continuations dating back to the initial filing date is protected conduct, the antitrust laws may condemn participation in a standard-setting organization while secretly perfecting continuations that cover the standards being developed.⁹⁸

Although optimism may be premature, the patent system does show signs that it is capable of reforming itself. One important reason has been the emergence of very distinctive interest groups that have widely differing notions about the value and optimal nature of patent protection. Just to give two prominent examples at the two extremes, the pharmaceutical industry generally favors strong patent protection, with both long patent terms and broad coverage. In that industry there is little “networking,” or need for interproduct compatibility, and, as a result, there is little need to

90. See, e.g., *In re Tamoxifen Citrate Antitrust Litig.*, 429 F.3d 370 (2d Cir. 2005).

91. See 3 AREEDA & HOVENKAMP, *supra* note 11, ¶ 705.

92. *Id.* ¶ 706.

93. *Id.* ¶ 707.

94. See *id.* ¶ 708.

95. *Id.* ¶ 709.

96. See 10 PHILLIP E. AREEDA, EINER ELHARGE & HERBERT HOVENKAMP, *ANTITRUST LAW* ¶¶ 1781–82 (2d ed. 2004).

97. See 12 HOVENKAMP, *supra* note 10, ¶ 2041.

98. See 3 AREEDA & HOVENKAMP, *supra* note 11, ¶ 712; see also *In re Rambus, Inc.*, 2006-2 Trade Cases ¶ 75364 (Fed. Trade Comm’n Aug. 2, 2006). At this writing the FTC’s decision is on appeal to the D.C. Circuit. Compare *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297 (3d Cir. 2007), (involving alleged misrepresentations to a standard-setting organization about the royalties that would be charged).

license or borrow technology from others. At the same time, developing a new drug is extremely costly, and successful drugs typically have a very long commercial shelf life. So for a drug manufacturer, the general rule about patents is that more is better.

At the opposite extreme is the high-tech industry, mainly computer software and related technology. In this industry interoperability is critical, and this fact necessitates a great deal of borrowing from others. As a result, the patent cross-licensing “thicket” that we have heard so much about operates to a far greater extent in, say, computer hardware markets than in pharmaceutical markets. Further, the commercial life of electronics products is much, much shorter. Today’s innovation is likely to be obsolete four or five years from now. As a result, having patents is much less valuable in this industry, and having to license patents from others is a far greater burden.

How all of this will eventually play out is very difficult to say. At the same time, however, there is little reason to be optimistic that Congress will come up with an optimal patent policy. Virtually no one lobbies Congress for a patent regime that facilitates the optimal amount of innovation.⁹⁹ The pharmaceutical interests want as much protection as possible to further their interests, and Silicon Valley wants considerably less protection in order to further their interests, but any identification of either of these regimes with the optimal amount of innovation would be purely coincidental.

D. Copyright

The political situation for copyright is bleaker than for patents. The United States Copyright Act shows all of the signs of special interest capture that the Patent Act does. Indeed, the Copyright Act reads like a recipe book for capture, with numerous special provisions favoring this or that interest group. Christina Bohannon has observed that: “As a result of special-interest capture, the Copyright Act confers overly broad rights to copyright owners at the expense of the public interest in having access to creative works.”¹⁰⁰

99. Congress currently has before it Patent Reform Act, S. 1145, 110th Cong., which was introduced in the Senate on April 18, 2007. *See also* Patent Reform Act, H.R. 1908, 110th Cong. (introduced in the House on the same day). This legislation is designed to accomplish a number of important objectives, including: (1) change to a “first-inventor-to-file” system; (2) reduce patent damage awards; (3) enhance post-grant opposition proceedings; (4) provide for publication of all applications; (5) allow for better third-party submissions; (6) limit infringement venues to reduce forum shopping; (7) allow the PTO to set its own fees; (8) remove residency restrictions for judges on the Federal Circuit; (9) authorize the PTO to require pre-filing patent searches and explanations; (10) strengthen the doctrine of inequitable conduct; (11) clarify the rules on unintentional delays in filing.

100. Bohannon, *supra* note 65, at 568.

William F. Patry, a former House IP Subcommittee staff member and now the author of a copyright treatise has commented that:

Copyright interest groups hold fund raisers for members of Congress, write campaign songs, invite members of Congress (and their staff) to private movie screenings or sold-out concerts, and draft legislation they expect Congress to pass without any changes. In the 104th Congress, they are drafting the committee reports and haggling among themselves about what needs to be in the report. In my experience, some copyright lawyers and lobbyists actually resent members of Congress and staff interfering with what they view as *their* legislation and *their* committee report. With the 104th Congress we have, I believe, reached a point where legislative history *must* be ignored because not even the hands of congressional staff have touched committee reports.¹⁰¹

But in this case there does not appear to be very much hope on the horizon. At least in terms of the interest groups getting Congress's attention, there is not the kind of division that characterizes patent markets.

The lowest recent point was the passage of the Sonny Bono Copyright Term Extension Act, sometimes known as the Mickey Mouse Protection Act, in 1998.¹⁰² That legislation, which gave a retroactive time extension to old copyrights, cannot be squared with any sensible rationale of IP law as creating incentives to innovate.¹⁰³ As Robert P. Merges has observed:

The Sonny Bono Copyright Term Extension Act of 1998 is a prime example of legislation that strongly favored a narrow class of copyright owners, broadly but mildly affected many present and

101. William F. Patry, *Copyright and the Legislative Process: A Personal Perspective*, 14 CARDOZO ARTS & ENT. L.J. 139, 141 (1996) (emphasis omitted); see also Joseph P. Liu, *Copyright and Time: A Proposal*, 101 MICH. L. REV. 409, 448 (2002) ("It is widely accepted that copyright legislation responds quite directly to the lobbying efforts of the copyright industries. It is not hard to see why. A narrow group of interests—namely the movie, music, publishing, and software industries—stands to benefit from expansion of intellectual property protection. They have the resources and incentives to lobby for such expansion in Congress. By contrast, consumers individually are largely indifferent to such expansions. Although they bear much of the cost of expansions, and such costs may be significant in the aggregate, each consumer bears only a minuscule share, spread out over time. Thus, as public choice theorists predict, consumers do not band together in sufficient numbers to oppose efforts by the copyright industries to expand protection."); Stewart E. Sterk, *Rhetoric and Reality in Copyright Law*, 94 MICH. L. REV. 1197, 1246 (1996) ("It is hardly shocking to discover that interest-group power has shaped copyright legislation. . . . What is surprising is the paucity of criticism—from Congress, public interest groups, and the academic community—that has accompanied each new expansion of copyright protections.")

102. Pub. L. No. 105-298, 112 Stat. 2827 (codified in scattered sections of 17 U.S.C., but particularly at 17 U.S.C. §§ 302, 304(a)–(b) (2006)).

103. The provision survived a constitutional challenge in *Eldred v. Ashcroft*, 537 U.S. 186 (2003); see also Bohannon, *supra* note 65, at 568.

future consumers, was intensively lobbied, and became law with little opposition. . . . From an incentive point of view, the Act is virtually worthless¹⁰⁴

As public choice theory predicts, broader IP protection is most likely to occur when the groups who will benefit from it are well organized while opposition is diffuse. The Copyright Term Extension Act (CTEA)¹⁰⁵ fell into that category because its burdens fall on all of us, somewhat lightly on most and perhaps a little heavier on others. But the benefits were large and enjoyed by a few. In contrast, if strong special interests are lined up on both sides, then expansion is less likely to occur. Database protection provides a good example of the latter.¹⁰⁶ After the Supreme Court's *Feist* decision made clear that simple collections of facts assembled in a database were not entitled to copyright protection,¹⁰⁷ a move began for Congress to enact database protection legislation.¹⁰⁸ In this case, however, there were as many strong interest groups who favored free and open access to data as those who were in a position to earn significant royalties from compilations of public domain data. So far, such legislation has not passed.

CONCLUSION

In conclusion, here are a few general principles and then some specific recommendations. The general principles are these:

First, while we should not completely give up on the Constitution, the landscape for constitutional control of innovation competition is not promising.¹⁰⁹ Even for fairly egregious instances of special interest capture,

104. Robert P. Merges, *One Hundred Years of Solicitude: Intellectual Property Law, 1900–2000*, 88 CAL. L. REV. 2187, 2236 (2000).

105. Pub. L. No. 105-298, 112 Stat. 2827 (codified in scattered sections of 17 U.S.C.).

106. Merges, *supra* note 104, at 2237–38.

107. *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 359–60 (1991).

108. See J.H. Reichman & Pamela Samuelson, *Intellectual Property Rights in Data?*, 50 VAND. L. REV. 51, 95–106 (1997).

109. On this point, see generally Bohannon, *supra* note 65. To be sure, the Constitution has always been the favored tool of those looking for ways to control the special interest elements in IP law. See, e.g., Robert Patrick Merges & Glenn Harlan Reynolds, *The Proper Scope of the Copyright and Patent Power*, 37 HARV. J. ON LEGIS. 45, 52–53 (2000) (“Against this backdrop, we claim that the constitutional footing for intellectual property protection was constructed with inherent limitations, as well as with a grant of power. The specific language (‘to promote progress,’ and ‘for limited times’), the history, and the context of the Clause dictate that the congressional power to create property rights does not extend to nonproductive rent-seeking. Congress exceeds its authority to grant property rights when those rights do not promote progress, or are not sufficiently limited in time. . . . [T]he courts must exercise their authority to enforce constitutional limits on the Copyright and Patent power. To ignore this duty is to risk the kinds of abuses that threatened the economic progress of seventeenth-century Britain, and to turn our backs on the historical transformation of *ad hoc* grants of rent-seeking privileges into rule-based systems for recognizing intellectual property rights.”).

Constitutional challenges to IP expansion have been consistently rejected. See, e.g., *Eldred v.*

such as the CTEA, the *Eldred* decision gives us little cause for hope. It's not that there is something wrong with the logic of the constitutional argument. Congress has enumerated powers and the IP Clause gives Congress the power to create these rights only in order "to promote . . . progress."¹¹⁰ Rather, there is a long history of deference to Congress when it is legislating under its express IP powers. Very few of the special interest provisions in the IP laws are as offensive to good public policy as the Copyright Term Extension Act, and even that statute survived a constitutional challenge in the Supreme Court, with only two dissenters.¹¹¹

Second, statutory IP policy holds more promise, but special interests have a particularly strong hold on Congress. This places an added burden on the courts to be more mindful of the competitive interest in IP law when they are construing those provisions of the IP statutes that are subject to alternative interpretations.¹¹² A good example in patent law is the *KSR* decision mentioned previously.¹¹³ Of course, statutory interpretation by the courts can go only so far. When a statute speaks unambiguously, a court has little choice except to declare it unconstitutional or else apply it.

Third, antitrust should be employed aggressively when it is clear that the challenged conduct is not explicitly protected by an IP provision and when the injury requirements of antitrust are met, including either an injury to competition as traditionally defined or an anticompetitive restraint on innovation.¹¹⁴ Although it remains imperfect, antitrust has come through a chastening process a much more rigorous and socially useful instrument than it had been. Today federal courts are much less likely to condemn socially harmless or beneficial practices as anticompetitive. They have in large part returned to a more tort-like theory of harm that requires plaintiffs to provide satisfactory proof of injury, causation, and damages.

Ashcroft, 537 U.S. 186 (2003). For one very limited exception, see *United States v. Martignon*, 346 F. Supp. 2d 413, 424 (S.D.N.Y. 2004), *vacated*, 492 F.3d 140 (2d Cir. 2007), in which the district court ruled that the anti-bootlegging amendment to the Copyright Act, 18 U.S.C. § 2319A, which forbids the sale of unauthorized recordings of live musical performances but has no time limit, violated the "limited times" limitation in the Constitution's IP Clause. The Second Circuit vacated, holding that the statute is valid under the Commerce Clause. See also *KISS Catalog, Ltd. v. Passport Int'l Prods., Inc.*, 405 F. Supp. 2d 1169, 1172-73 (C.D. Cal. 2005) (holding anti-bootlegging amendment to the Copyright Act is exercise of Congress's Commerce Clause power).

110. U.S. CONST. art. I, § 8, cl. 8.

111. *Eldred*, 537 U.S. at 222, 242 (Stevens, J. & Breyer, J., dissenting).

112. Cf. Bohannon, *supra* note 65, at 568 (noting no textual interpretive issue in *Eldred*).

113. *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007). Other examples include *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391-93 (2006) (no automatic entitlement to an injunction for patent infringement, but entitlement must be separately shown under traditional equity principles). See also *Traffix Devices, Inc. v. Mktg. Displays, Inc.*, 532 U.S. 23, 29-32 (2001) (denying trade dress protection when it was clear from existence of prior utility patent that the device for which the patentee was claiming protection had a utility function, whose patent had expired; in sum rejecting an attempt to lengthen the term of a patent by turning it into a trade dress claim); cf. *N.Y. Times Co. v. Tasini*, 533 U.S. 483, 505 (2001) (injunctive relief not automatic for copyright infringement).

114. For some of the problems identifying and pursuing restraints on innovation under the antitrust laws, see Herbert Hovenkamp, *Restraints on Innovation*, 29 CARDOZO L. REV. 247 (2007).

Finally, let me suggest a few specific applications in which antitrust policy can be brought to bear more effectively than it has been in the past.

First is IP settlements, or agreements that settle IP infringement disputes. Most IP disputes settle before trial.¹¹⁵ The courts have traditionally been extraordinarily reluctant to second guess private settlement agreements. Further, a great deal of uncertainty attends the determination that an IP right is valid or has been infringed. The result is that for many if not most settlement agreements, no judicial determination has been made about the validity, coverage, or infringement of an IP right. Many of these settlement agreements impose horizontal territorial or product divisions that would be per se unlawful and even criminal offenses if negotiated in a different context.¹¹⁶ These “unexamined” settlements need a harder look than they have been given in the past. The courts need to be less reluctant to look at the IP merits, but only in the subset of cases where the antitrust violation is clear. An illustrative example is the *Clorox* case, in which the makers of Lysol and Pine-Sol household chemicals settled a trademark infringement suit based on Lysol’s dubious allegation that the term “Pine-Sol” was misleadingly similar to the term “Lysol.”¹¹⁷ The parties settled the dispute with an agreement under which the “Lysol” brand would be used for some products and the “Pine-Sol” brand for others. Significantly, the agreement did not place any limitations on the two firms’ ability to manufacture competing products, but only on their ability to use these brands. A court looking at such an agreement, and realizing the competitive potential of settlement agreements, needs to ensure first that a strong antitrust violation is being committed; then and only then should it look at validity issues.¹¹⁸

Second, the Federal Circuit should lighten up a little on the standard for *Walker Process* exclusion claims. In its recent *Dippin’ Dots* decision, the court held that a patent applicant who had lied in a sworn statement to the PTO that there were no prior sales—which would have invalidated its patent application—could nevertheless not show that a subsequent patent infringement suit violated the antitrust laws because the only bad conduct that the court could uncover was the misrepresentation to the PTO itself.¹¹⁹ The applicant had made some 800 sales during a one-week period more than a year prior to filing the application. The on sale bar in the Patent Act

115. See Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1501 (2001).

116. See 12 HOVENKAMP, *supra* note 10, ¶ 2046; Herbert Hovenkamp, Mark Janis & Mark A. Lemley, *Anticompetitive Settlement of Intellectual Property Disputes*, 87 MINN. L. REV. 1719, 1739–65 (2003) (describing examples of anticompetitive provisions within settlement agreements).

117. *Clorox Co. v. Sterling Winthrop, Inc.*, 117 F.3d 50 (2d Cir. 1997).

118. See 12 HOVENKAMP, *supra* note 10, at ¶ 2046.

119. *Dippin’ Dots, Inc. v. Mosey*, 476 F.3d 1337, 1347–48 (Fed. Cir. 2007), *cert. denied*, 128 S. Ct. 375 (2007).

precludes patentability under such circumstances.¹²⁰ In the course of a subsequent infringement suit some dozen years later, the improper sales came out. The Federal Circuit agreed that this conduct was sufficient to invalidate the patent, but it held that an antitrust violation could not be established without additional evidence of anticompetitive conduct. Because some dozen years had elapsed since the patent application had been filed, discovering such conduct would be purely a matter of luck. Here, as in other areas of antitrust law, it would seem appropriate to use an objective test: an antitrust violation consists of exclusionary litigation filed by a dominant firm that has good reason to know that its lawsuit is unfounded.

A third issue is the problem of acquired as opposed to internally developed patents. I favor a rule that a monopolist should be forbidden from acquiring from another anything other than a nonexclusive license in a patent that enhances the market power that it already has. Every firm, even a monopolist, has an interest in improving its own technology, and to that end even the monopolist should be permitted to acquire IP rights in technology that has been developed by others. But a nonexclusive license is fully sufficient for the monopolist's needs to improve its own technology. It does not need the right to deny rivals access to technology that it has not developed itself and which might serve to threaten its monopoly position. The same rule should apply to mergers with firms who hold patents on competing technology, even if those firms are fairly small. If a patent covers technology owned by the acquired firm and which could enhance the monopolist's position or produce a potential to compete with the monopolist, then the merger should be conditioned on royalty-free licensing to outsiders.

Finally is the problem of patent ties and misuse law. The antitrust law of tying arrangements has gotten a very bad name because of the per se rule, which condemns ties even when no one is foreclosed. As noted previously, cases like *Carbice*¹²¹ and *International Salt*¹²² condemned defendants for tying common everyday products such as dry ice and salt where it was inconceivable that anyone could ever obtain a monopoly. In my view, antitrust should jettison this per se rule. But once it has done so it should look much more realistically at ties that do foreclose—such as the Microsoft–Internet Explorer tie which effectively drove Netscape from the market. Tying law has been a very easy target for critics of antitrust law because the per se rule makes the law silly and counterproductive. But the fact is that there are some markets—particularly those subject to fast mov-

120. 35 U.S.C. § 102(b) (2006).

121. *Carbice Corp. of Am. v. Am. Patents Dev. Corp.*, 283 U.S. 27 (1931); see discussion *supra* text accompanying notes 41–43.

122. *Int'l Salt Co. v. United States*, 332 U.S. 392 (1947), *abrogated by* *Ill. Tool Works Inc. v. Indep. Ink, Inc.*, 547 U.S. 28 (2006); see discussion *supra* text accompanying notes 44–47.

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ing technology—in which tying can frustrate entry and limit the growth of rivals.

As the rest of the world becomes more competitive with the United States, it becomes increasingly important that we keep our markets for innovation as competitive as possible. Right now there are good reasons for doubting that the IP laws themselves are up to this task, although there is at least some possibility for true patent reform. That suggests a renewed and at least moderately expanded role for antitrust enforcement.