Invention Is Not Innovation and Intellectual Property Is Not Just Like Any Other Form of Property: Competition Themes from the FTC's March 2011 Patent Report

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By now, every antitrust lawyer who has studied in the intellectual property monastery can reliably recite the catechism: (1) that "[t]he intellectual property laws and the antitrust laws share the common purpose of promoting innovation and consumer welfare,"[1] and (2) that "the same general antitrust principles [apply] to conduct involving intellectual property as . . . [they do] to conduct involving any other form of tangible or intangible property."[2] These two statements have come to be widely regarded as bedrock principles, to be remembered and repeated whenever one is confronted with questions at the interface of the intellectual property and antitrust laws—often questions of quasi-theological dimensions.[3]

The doctrinal underpinnings of these two statements lend themselves to critical analysis. This article undertakes such an analysis using the Federal Trade Commission's March 2011 report, *The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition* (Patent Report).[4] In the course of this analysis, I will identify key competition themes that pervade the Report's otherwise patent-law intensive discussion and analysis, expand upon those themes, and invite fellow antitrust lawyers to ponder on them.

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Invention vs. Innovation

The Patent System May Not Always Promote Innovation. The statement that the intellectual property and antitrust laws serve a common purpose of promoting innovation and consumer welfare can be fairly well traced to a few decisions handed down by a young Federal Circuit in 1985, when

[1] U.S. Dep't of Justice & Fed. Trade Comm'n, Antitrust Guidelines for the Licensing of Intellectual Property § 1.0 (1995) [hereinafter IP Guidelines] (citing Atari Games Corp. v. Nintendo of Am., Inc., 897 F.2d 1572, 1576 (Fed. Cir. 1990)), *available at* http://www.ftc.gov/bc/0558.pdf.

[2] *Id.* § 2.1.

[3] An example of a question of arguably quasi-theological dimension is the one posed by the Eleventh Circuit in *Schering-Plough Corp. v. FTC*, 402 F.3d 1056, 1066 (11th Cir. 2005), which is the extent to which a "pay-for-delay" agreement exceeds "the scope of the exclusionary potential of the patent." If the "exclusionary potential" of a patent refers to any settlement (or litigated) outcome that a patent owner can obtain with a lawsuit filed in good faith, then under what circumstances, if ever, can a settlement be considered anticompetitive? This question has bedeviled judges sitting in other circuits. *See* Ark. Carpenters Health & Welfare Fund v. Bayer AG, 625 F.3d 779, 781–82 (2d Cir. 2010) (Pooler, J., dissenting from the denial of a petition for rehearing en banc) (recognizing the "troubling dynamic" of permitting exclusion payments to protect patent monopolies that are perhaps undeserved).

[4] Fed. Trade Comm'n, The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition (2011) [hereinafter Patent Report], *available at* http://www.ftc.gov/os/2011/03/110307patentreport.pdf. *See also* Press Release, Fed. Trade Comm'n, FTC Report Recommends Improvements in Patent System to Promote Innovation and Benefit Consumers (Mar. 7, 2011), http://www.ftc.gov/opa/2011/03/patentreport.shtm.

it was asserting itself as the national patent appeals court.[5] This view—that the patent system, like the antitrust laws, is intended to encourage innovation, industry and competition—would be repeated again by the Federal Circuit over the years, including in its oft-cited *Atari Games* decision[6] and the well-known *Intergraph* decision.[7] It would also make its way into the IP Guidelines,[8] as well as the Agencies' reports relating to the interplay between the patent and antitrust laws.[9]

This observation—that invention is not the same thing as innovation—is one of the key competition themes in the Patent Report.

This statement holds true only so long as the intellectual property laws actually promote innovation, i.e., the development, commercialization, and diffusion of new products, processes, and services, and the creation of new, more competitive, or more efficient markets.[10] It is not enough if the intellectual property laws merely encourage invention, however, because invention and innovation are not the same thing. Rather, invention is only *the first step* in a much longer, and potentially more arduous and risky, process of innovation. The Patent Report makes this critical observation in the context of discussing whether patents, standing alone as naked rights to exclude that may be asserted by "patent assertion entities" (PAEs) against others,[11] necessarily promote innovation.[12]

As the Patent Report observes, "Invention is the first step of innovation, but innovation often requires significant additional development activity beyond that first step in order to get new products and services to consumers."[13] This observation—that invention is not the same thing as innovation—is one of the key competition themes in the Patent Report. While it is not a new observation—for example, Jean Tirole has made it in his *Theory of Industrial Organization* textbook[14]—most patent and antitrust lawyers, and indeed the media, still casually refer to invention and innovation interchangeably.

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5 *See* Loctite Corp. v. Ultraseal Ltd., 781 F.2d 861, 877 (Fed. Cir. 1985) (quoting from Paulik and Patlex and concluding that "the patent and antitrust laws are complementary"); Paulik v. Rizkalla, 760 F.2d 1270, 1276 (Fed. Cir. 1985) (en banc); Patlex Corp. v. Mossinghoff, 758 F.2d 594, 599 (Fed. Cir. 1985). This is not to say that other circuits did not also express the same view. *See, e.g.*, Int'l Wood Processors v. Power Dry, Inc., 792 F.2d 416, 427 (4th Cir. 1986).

6 Atari Games Corp. v. Nintendo of Am., Inc., 897 F.2d 1572, 1576 (Fed. Cir. 1990) (reaffirming that the patent and antitrust laws "are actually complementary, as both are aimed at encouraging innovation, industry and competition").

7 Intergraph Corp. v. Intel Corp., 195 F.3d 1346, 1362 (Fed. Cir. 1999).

8 IP Guidelines, *supra* note 1, § 1.0.

9 U.S. Dep't of Justice & Fed. Trade Comm'n, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition 13 & n.29 (2007) [hereinafter Antitrust Report], *available at* http://www.ftc.gov/reports/innovation/P040101PromotingInnovationandCompetitionrpt0704.pdf; Fed. Trade Comm'n, To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy ch. 1, § I.B., at 7 & n.42 (2003) [hereinafter Innovation Report], *available at* http://www.ftc.gov/os/2003/10/innovationrpt.pdf.

10 *See, e.g.*, Jean Tirole, The Theory of Industrial Organization ch. 10, at 389 (1988) (describing four stages of innovation); Patent Report, *supra* note 4, at 32; IP Guidelines, *supra* note 1, § 3.2.3, at 11; *see also International Wood Processors*, 792 F.2d at 427 (describing the public benefit from the patent laws in terms of the entry of new products and the increased competition such products bring to the marketplace); *Paulik*, 760 F.2d at 1276 (referring to "innovation and its fruits" as "new jobs and new industries, new consumer goods and trade benefits"); SCM Corp. v. Xerox Corp., 645 F.2d 1195, 1203 (2d Cir. 1981); Mannington Mills, Inc. v. Congoleum Indus., Inc., 610 F.2d 1059, 1070 (3d Cir. 1979).

11 Patent assertion entity, the term that the Patent Report uses to refer to business entities that have no intention of practicing the patented inventions themselves and acquire patent rights for the sole purpose of asserting them against others. *See* Patent Report, *supra* note 4, at 8 n.5, 50 n.2, 60 & n.47, 162 n.10 & 220 n.21. More familiar to readers will be the terms "patent troll" and "non-practicing entity" (NPE).

12 *Id.* at 9.

13 *Id.* at 227.

14 Tirole, *supra* note 10, ch. 10, at 390.

The differences between invention and innovation are not a trivial matter of semantics. The patent laws regard invention as principally a mental activity. An inventor is someone who "conceives" a patented invention,[15] and "conception" is defined as "the formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice."[16] Once an inventor has conceived her invention, she "'may use the services, ideas, and aid of others in the process of perfecting [her] invention without losing [her] right to a patent.'"[17] In sum, the patent laws credit and reward the mental act of invention, and not the efforts that may come afterward to perfect the invention for commercial use.

The patent laws do not require that an invention be reduced to practice or commercialized before it may be patented,[18] and the grant of a patent is therefore only prima facie evidence of some inventive activity that has been determined to meet the legal thresholds of patentability.[19] All that the public receives as a result of the grant is a disclosure of what an inventor claims to have invented.[20] This disclosure concededly fulfills the constitutional quid pro quo underlying the patent system.[21] From the standpoint of innovation and competition policy, however, there is as yet no new product, process, or service that benefits consumers—unless the inventor has separately done, or has others do, the work of developing and commercializing her invention.[22]

While it is correct, then, to say that the patent and antitrust laws operate in a complementary manner if they both promote innovation, that synergistic relationship potentially breaks down if the former laws are in fact promoting only invention. Although some social benefit flows from public disclosure of inventions (in the form of issued patents) as "additions to the general store of knowl-

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15 C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352 (Fed. Cir. 1998) (citing Collar Co. v. Van Dusen, 90 U.S. (23 Wall.) 530, 563–64 (1874)); Burroughs Wellcome Co. v. Barr Lab., Inc., 40 F.3d 1223, 1227–28 (Fed. Cir. 1994).

16 Hybritech, Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1376 (Fed. Cir. 1986) (quoting 1 Robinson on Patents 532 (1890)).

17 Shatterproof Glass Corp. v. Libbey-Owens Ford Co., 758 F.2d 613, 624 (Fed. Cir. 1985) (quoting Hobbs v. U.S. Atomic Energy Comm'n, 451 F.2d 849, 864 (5th Cir. 1971)).

18 *See, e.g.*, Ariad Pharms., Inc. v. Eli Lilly & Co., 598 F.3d 1336, 1352 (Fed. Cir. 2010) (en banc) ("We have made clear that the written description requirement does not demand either examples or an actual reduction to practice[.]"). Evidence of the commercial success of an invention typically comes into play only if the non-obviousness of the invention is challenged in litigation. *See* Graham v. John Deere Co., 381 U.S. 1, 17–18 (1966) (identifying the commercial success of an invention as a secondary consideration of non-obviousness).

19 *See* 35 U.S.C. §§ 101, 102, 103, 112 & 116. Not all inventive activity should be patentable, as Justice Breyer observed in his dissent from the Court's dismissal of the writ of certiorari in *Laboratory Corp. of America Holdings v. Metabolite Laboratories, Inc.*, as having been improvidently granted. 548 U.S. 124 (2006). Notably, laws of nature, natural phenomena, and abstract ideas are not eligible for patent protection even though "research into such matters may be costly and time-consuming" and "that research may prove of great benefit to the human race" because overprotection by patents "would too often severely interfere with, or discourage, development and the further spread of useful knowledge itself." *Id.* at 128 (Breyer, J., dissenting).

20 *See, e.g.*, *Ariad*, 598 F.3d at 1353 ("Requiring a written description of the invention limits patent protection to those who actually perform the difficult work of 'invention'—that is, conceive of the complete and final invention with all its claimed limitations—and disclose the fruits of that effort to the public."). I use the word "claims" in the sentence above not to suggest that an inventor has not in fact engaged in some inventive activity, but to emphasize that the patent document, standing alone, is literally a claim being made by the inventor over what is described therein to be the invention. With the exception of biological materials that are subject to a deposit requirement, and excerpts of software source code that are attached to an issued patent, the public does not get access to other work product that might be associated with the inventive activity, such as engineering drawings, laboratory notebooks, or prototypes.

21 Universal Oil Prods. Co. v. Globe Oil & Ref. Co., 322 U.S. 471, 484 (1944).

22 American history is replete with famous examples of inventions that have been commercialized by others besides the inventor. *See, e.g.*, Henry C. Co, Faculty, Tech. & Operations Mgmt., Cal. Poly & State Univ., Pomona, *Technology and Innovation* (slides prepared for a course entitled Management of Technology) (citing the vacuum cleaner, sewing machine, and telegraph as examples of inventions commercialized by others), *available at* http://www.csupomona.edu/~hco/MoT/01aTechnologyInnovation.ppt.

edge,"[23] the broader societal expectation underlying the patent system is that the "risk-laden" efforts undertaken by inventors[24] "will have a positive effect on society through the introduction of new products and processes of manufacture into the economy, and the emanations by way of increased employment and better lives for our citizens."[25] Consequently, if a particular situation arises in which a case can be made that the patent system is not being used to promote innovation, then perhaps the transaction or conduct being challenged in the context of that situation should be subject to heightened antitrust scrutiny. For example, the IP Guidelines are wary of patent pooling arrangements and grantbacks that deter or discourage the parties involved from engaging in research and development.[26]

This is not to say that a failure of the patent system to promote innovation automatically gives rise to a violation of the antitrust laws. Rather, it is that such a failure arguably should dispel the standard notion that the patent laws are necessarily working in harmony with the antitrust laws. In some cases they may well be working in conflict. In such cases, a transaction or conduct being challenged as anticompetitive arguably should not be entitled to hide behind a patent-based presumption of per se legality under, or immunity from, the antitrust laws.[27]

Non-Practicing Entities Present a Conundrum. A situation in which the patent laws may not be promoting innovation arises in the context of non-practicing entities (NPEs)—or PAEs, as the Patent Report calls them.[28] If a patent owner does not itself practice the invention in commerce but instead asserts the patent against other firms, with the goal of obtaining either royalty-bearing licenses or infringement damages, is innovation being promoted, or is it instead being discouraged? The Patent Report poses this very question.

> While increased invention and patenting activity will lead to increased innovation in many contexts, it can decrease innovation in others. The risk that patentees that have made no technical contribution to a product can extract hold-up value from manufacturers increases uncertainty and costs and discourages innovation by those manufacturers.[29]

As the Report highlights, the potential harm to innovation is two-fold: not only has there been *no contribution* by the patent owner to the commercialization of what it claims to be its invention in the accused products or services,[30] but the assertion of its patent potentially *levies a tax* on an accused infringer's commercialization that is unrelated to the economic value of the invention—the so-called hold-up value tied to the accused infringer's costs of switching to a non-infringing alternative.[31]

Furthermore, the potential harm to innovation is arguably exacerbated by the fact that a significant percentage of NPEs have acquired the patents that they are asserting through a sec-

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[23] Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 481 (1974).

[24] *Id.* at 480.

[25] *Id. See also* Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1562 (Fed. Cir. 1995) (en banc) (Nies, J., dissenting in part).

[26] IP Guidelines, *supra* note 1, § 5.5, at 29, & § 5.6, at 30.

[27] Past court decisions urging caution in applying the antitrust laws to patent-based transactions and conduct have done so out of a concern for frustrating or upsetting the goals of the patent system, i.e., promoting innovation. Int'l Wood Processors v. Power Dry, Inc., 792 F.2d 416, 427 (4th Cir. 1986); Mannington Mills, Inc. v. Congoleum Indus., Inc., 610 F.2d 1059, 1070 (3d Cir. 1979).

[28] *See supra* note 11 and accompanying text.

[29] PATENT REPORT, *supra* note 4, at 227.

[30] *See id.* at 40 n.43.

[31] *See id.* at 22 & 191 n.61.

ondary market that allows patent rights to be sold, bartered, or auctioned between or among firms.[32] When a patent changes hands in a secondary market, there is often only a transfer of the naked legal right to exclude, which is what principally drives the market value for the patent. Whatever work product that might have resulted from the inventive activity may not get transferred (apart from perhaps the patent prosecution files); indeed, the inventor may already be out of the picture as well.

As a result, when an NPE asserts a patent against an accused infringer, it may not have any inventor-created knowledge in its possession (aside from what has been disclosed to the Patent Office) to provide to the accused infringer as part of any bargained-for settlement.[33] Such a settlement, which would be called an "ex post patent transaction" in the Patent Report, arguably does not promote innovation because the accused infringer acquires nothing in the way of technical know-how or data from the NPE that it can apply, in an additive manner, to the accused products or services already in the marketplace.

An anticipated rejoinder in defense of NPEs is that there is no requirement under the patent system that an inventor practice her invention during the term of the patent monopoly. The case law is clear on this point.[34] It stems from the fact that an inventor has a common law right to make, use, and sell what she has invented and discovered,[35] and may therefore choose not to put the invention to any use at all.[36]

This legal principle does not mean that NPEs do not adversely impact innovation and competition. The same case law also makes clear that Congress, exercising its power under the Patent Clause,[37] has decided to create a patent system that would give inventors a legal right to exclude others from practicing their inventions, in the hope that such a monopoly will provide enough incentive to inventors to put their inventions to use for the public benefit during the term of the monopoly.[38] In other words, although an invention or discovery has always been the inventor's absolute property, to do with as she will, the patent grant is what gives to her the added right to exclude.[39] One, therefore, cannot think about patents as property without considering the statu-

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32 *Id.* ch. 2, § IV.B, at 62–67 (describing the different players in a burgeoning secondary market for patents).

33 *See id.* at 60 n.46 (quoting Professor Robert Merges on his observation that "in a lot of patent troll situations [] what's bothersome about them is that, in fact, there is no information changing hands; it's strictly a legal relationship. It's strictly an agreement to make a lawsuit go away").

34 Woodbridge v. United States, 263 U.S. 50, 55 (1923) ("It is true that a patentee is not obliged either to make, use or vend his invention during the period of his monopoly.") (citing Crown Die & Tool Co. v. Nye Tool & Mach. Works, 261 U.S. 24 (1923), and Continental Paper Bag Co. v. Eastern Paper Bag Co., 210 U.S. 405 (1908)).

35 Crown Die & Tool Co. v. Nye Tool & Mach. Works, 261 U.S. 24, 36 (1923). This common law right should not be confused with the patent right that Congress has created pursuant to the Constitution. *See infra* note 39.

36 Continental Paper Bag Co. v. Eastern Paper Bag Co., 210 U.S. 405, 425 (1908).

37 U.S. Const. art. I, § 8, cl. 8.

38 *Woodbridge*, 263 U.S. at 55–56; Bement v. Nat'l Harrow Co., 186 U.S. 70, 90 (1902).

39 *Crown Die*, 261 U.S. at 36 ("It is the fact that the patentee has invented or discovered something useful and thus has the common law right to make, use and vend it himself which induces the Government to clothe him with power to exclude everyone else from making, using or vending it."); *Continental Paper Bag*, 210 U.S. at 424 ("And it was further said in that case that the inventor could have kept his discovery to himself, but to induce a disclosure of it Congress has, by its legislation, made in pursuance of the Constitution, guaranteed to him an exclusive right to it for a limited time, and the purpose of the patent is to protect him in this monopoly—not to give him a use which he did not have before, 'but only to separate to him an exclusive use.'"); Gayler v. Wilder, 51 U.S. (10 How.) 477, 494 (1851) ("The monopoly did not exist at common law, and the rights, therefore, which may be exercised under it cannot be regulated by the rules of the common law. It is created by the act of Congress; and no rights can be acquired in it unless authorized by statute, and in the manner the statute prescribes.").

tory right to exclude, its underlying constitutional bargain, and its impact on innovation and competition.[40]

On the question of whether NPEs truly promote innovation, it is also worth reviewing the facts in *Continental Paper Bag Co. v. Eastern Paper Bag Co.*,[41] which has been cited many times over for the proposition that a patent owner should not be denied injunctive relief for infringement on the sole basis that it does not practice its patent.[42] *Continental Paper Bag*, however, does not help the cause of NPEs because in that case, Eastern, the patent owner and respondent, did in fact operate a paper bag-making business,[43] and on this record, the Supreme Court concluded that Eastern's decision not to practice the patented invention was not unreasonable or contrary to the public interest.[44] Specifically, the Court considered Eastern's alleged nonuse of its patent from the standpoint of potential harm to competition (decrease in output or increase in price) and found Eastern's procompetitive business justification (i.e., cost savings) to be substantial and sufficient.

The facts in *Continental Paper Bag* stand in stark contrast to the situation presented by NPEs today and give credence to Justice Kennedy's cautionary note in *eBay Inc. v. MercExchange, LLC* that "[i]n cases now arising trial courts should bear in mind that in many instances the nature of the patent being enforced and the economic function of the patent holder present considerations quite unlike earlier cases."[45] Justice Kennedy was referring to NPEs, of course.[46]

Intellectual Property v. Other Forms of Property

Intellectual Property Is Unlike Other Forms of Property. The statement that the same general antitrust principles apply to conduct involving intellectual property as they do to conduct involving any other form of tangible or intangible property is best exemplified by the Supreme Court's 2006 repudiation of the market power presumption in tying claims involving patented products in *Illinois Tool Works Inc. v. Independent Ink, Inc.*[47] Before *Independent Ink* was handed down, the long-held view in the case law was that a patent is unique, conferring on its owner special bargaining power that would force an unwanted, tied product on a buyer.[48]

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40 *See Crown Die*, 261 U.S. at 36 ("The error in the position of the respondent and the court below is in a failure to distinguish between the property or title or interest in a patent capable of assignment and the chief incident of that property, title or interest, an incident which can only pass by assignment when attached to the right to make, use and vend.").

41 210 U.S. 405 (1908).

42 *See, e.g.*, eBay Inc. v. MercExchange, LLC, 547 U.S. 388, 393 (2006).

43 As the Court noted, Eastern made a simple business decision "to make more money with the existing old reciprocating Lorenz & Honiss machines and the existing old complicated Stilwell machines than could be made with new Liddell machines, when the cost of building the latter was taken into account[.]" *Continental Paper Bag*, 210 U.S. at 428.

44 *Id.* ("There was no question of a diminished supply or of increase of prices, and can it be said, as a matter of law, that a non-use was unreasonable which had for its motive the saving of the expense that would have been involved by changing the equipment of a factory from one set of machines to another? And even if the old machines could have been altered, the expense would have been considerable.").

45 547 U.S. at 396 (Kennedy, J., concurring).

46 *Id.* ("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. . . . For these firms, an injunction, and the potentially serious sanctions arising from its violation, can be employed as a bargaining tool to charge exorbitant fees to companies that seek to buy licenses to practice the patent.") (citing INNOVATION REPORT, *supra* note 9, ch. 3, at 38–39); *see also* Foster v. Am. Mach. & Foundry Co., 492 F.2d 1317, 1324 (2d Cir.) (affirming the denial of an injunction to a patentee who did not manufacture any product, explaining that an injunction "is not intended as a club to be wielded by a patentee to enhance his negotiating stance"), *cert. denied*, 419 U.S. 833 (1974).

47 547 U.S. 28, 46 (2006).

48 *See, e.g.*, Jefferson Parish Hosp. Dist. v. Hyde, 466 U.S. 2, 16 (1984) (dictum).

More importantly, however, patents are an amalgam of an inventor's common law right to her invention or discovery, to do with as she will, and a statutory right to exclude . . . .

Yet the issue is not completely settled. Patents unquestionably have all the attributes of personal property, including assignability.[49] More importantly, however, patents are an *amalgam* of an inventor's common law right to her invention or discovery, to do with as she will, and a statutory right to exclude, bestowed by Congress with the expectation that the inventor will be sufficiently motivated to put her invention or discovery to use during the term of the monopoly.[50] If all that were at issue is an inventor's common law right to her invention or discovery, then the ensuing antitrust analysis would indeed be straightforward.[51] It would be no different from someone buying a car and then choosing not to drive it. Even the acquisition of a portfolio of inventions would be subject to the same set of antitrust principles as the acquisition of a fleet of cars.

A patent's right to exclude, however, complicates the analysis. The fact that one person owns a car but chooses not to drive it does not prevent another person from owning a car or being able to ride in one. A patent is different. Its owner can still exclude others from allegedly practicing the claimed invention or discovery even if the owner does not use the invention.

The concern here, as raised in the Patent Report and mentioned above, is that a patent owner's exercise of its right to exclude against companies that produce products or services may in fact discourage or harm innovation.[52] Even if the patent owner's ultimate intent is to license the use of the invention to others, and not to exclude them, such licenses may in fact not be enhancing innovation through the contribution of any inventor-created technology and know-how to the licensees' development of new products or services, as the patent system had originally intended. Moreover, to add injury to insult,[53] such licenses may in fact harm innovation by imposing an unwarranted tax on the licensees' commercialization of new products or services—the so-called hold-up value paid in order to avoid the extra cost associated with switching to a non-infringing alternative.

There is, however, another aspect of the right to exclude that is not given any discussion in the Patent Report but deserves some attention here. Specifically, the right to exclude is a negative right because it is *not* about what the inventor, or anyone else for that matter, can do with the claimed invention. Rather, it is about what the public cannot do during the term of the patent monopoly.

One way to visualize patent rights is to think of them as the holes that form in Swiss cheese, within which there can be no public use of inventive subject matter during the term of any given patent. Viewed from the public's perspective, one can see that what is really valuable is the

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49 35 U.S.C. § 261.

50 *See supra* notes 38–40 and accompanying text.

51 *See* United States v. Dubilier Condenser Corp., 289 U.S. 178, 186 (1933) ("He may keep his invention secret and reap its fruits indefinitely."); United States v. Am. Bell Tel. Co., 167 U.S. 224, 250 (1897) ("The inventor is one who has discovered something of value. It is his absolute property. He may withhold the knowledge of it from the public[.]"). *Accord* Bd. of Trustees of Stanford Univ. v. Roche Molecular Sys., Inc., 180 L. Ed. 2d 1, 12, 2011 U.S. LEXIS 4183, at *16–18 (2011) ("Our precedents confirm the general rule that rights in an invention belong to the inventor.") (citing prior cases).

If an inventor chooses to keep her invention or discovery to herself, to be enjoyed privately and in secret, and not to share it with the public, then trade secret law, rather than patent law, provides any remedies for unauthorized use. Trade secrets, in contrast to patents, have all the attributes of private property with none of the public obligations and consequences. Instead of a right to exclude, statutory or common law provides only remedies for acts of misappropriation, which may involve theft and conversion of the alleged secrets as private property or a breach of some contract or other obligation. *See* UNIFORM TRADE SECRETS ACT (amended 1985), *available at* http://www.law.upenn.edu/bll/archives/ulc/fnact99/1980s/utsa85.pdf.

52 *See supra* notes 28–33 and accompanying text.

53 I have intentionally switched the words around in this common expression. The failure of an ex post patent transaction (*see infra* notes 68–71 and accompanying text) to provide any actual technology transfer may be viewed as an insult, and the extraction of the hold-up value as an injury, to the innovation process.

cheese itself, i.e., the public domain, which is the storehouse of knowledge and information that is free for everyone to use.[54] Everyone gets to eat the cheese. A patent's right to exclude may not appropriate what is already in the public domain,[55] and when the term of the patent monopoly expires, that subject matter too passes into the public domain.[56]

Inherent in the right to exclude is a delineation, to be ascertained from the patent specification and claims, of what an inventor claims to be her invention from what is in the public domain. No less important than the inventor's ability to exclude others from practicing her claimed invention during the term of the patent monopoly is the public's ability to be able to identify and continue using what has been in the public domain. As the Supreme Court declared in *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, "[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."[57] In other words, the patent system is designed to promote innovation and competition in two fundamental but distinct ways—by encouraging inventors to engage in inventive activity and to disclose and put their inventions to use under a guarantee of exclusivity, and by allowing anyone, inventors included, to use what is in the public domain to compete freely in the marketplace.[58]

As the preceding point implies, innovation does not depend solely on inventive and patenting activities. There are other forces that can drive innovation—*provided* that businesspeople are able to freely take full advantage of knowledge and information residing in the public domain. Not all patented inventions lead to innovation, and not all innovations are patentable or patented, as *Aronson v. Quick Point Pencil Co.* exemplifies.[59]

The Supreme Court more recently embraced this view in *KSR International Co. v. Teleflex Inc.*,[60] which reaffirmed the legal standard for evaluating the non-obviousness of a patentable invention.[61] The Court observed that a patent system that promotes innovation must be able to distinguish "the results of ordinary innovation" from patentable products of extraordinary ideas and genius, noting:

> We build and create by bringing to the tangible and palpable reality around us new works based on instinct, simple logic, ordinary inferences, extraordinary ideas, and sometimes even genius. These advances, once part of our shared knowledge, define a new threshold from which innovation starts once more. And as progress beginning from higher levels of achievement is expected in the normal course, the results of ordinary innovation are not the subject of exclusive rights under the patent laws. Were it otherwise patents might stifle, rather than promote, the progress of useful arts.[62]

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54 *See* Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 151 (1989).

55 Graham v. John Deere Co., 381 U.S. 1, 6 (1966); Great Atl. & Pac. Tea Co. v. Supermarket Equip. Corp., 340 U.S. 147, 152–53 (1950).

56 *Dubilier Condenser*, 289 U.S. at 186–87.

57 *Bonito Boats*, 489 U.S. at 150.

58 *Id.* at 151. *See also* Bd. of Trustees of Stanford Univ. v. Roche Molecular Sys., Inc., 180 L. Ed. 2d 1, 18, 2011 U.S. LEXIS 4183, at *34 (2011) (Breyer, J., dissenting). Although Justice Breyer was writing in dissent in *Stanford*, his views on how patents can sometimes stifle or suppress innovation echo those he expressed in *Laboratory Corp.*, *see supra* note 19, and conceivably could be regarded as reflecting his appreciation of the nature of innovation based on his experience as a former professor of antitrust law.

59 440 U.S. 257, 261–62 (1979) ("Quick Point apparently placed a significant value on exploiting the basic novelty of the device, even if no patent issued; its success demonstrates that this judgment was well founded.") (upholding a royalty-bearing agreement between the inventor, Mrs. Aronson, and Quick Point, on a new design for a keyholder that did not receive patent protection).

60 127 S. Ct. 1727 (2007).

61 *Id.* at 1739.

62 *Id.* at 1746.

New products and services may result from design forces and market incentives that would expectedly lead a businessperson, through the application of ordinary skill and common sense, to make the desired variations or improvements.[63] Even though such products and services are not patentable, they nevertheless constitute innovation and can enhance consumer welfare.

In summary, the right to exclude is what distinguishes a patent from other forms of tangible or intangible property. An inventor had at common law the right to use her invention or discovery. What a patent provides is a right to exclude, which protects the common law right from infringement by others. Although an inventor who avails herself of the patent process does not assume "the position of a quasi trustee for the public,"[64] the very nature of the right to exclude imbues a patent with aspects of a public good.[65] The right to exclude not only functions to encourage an inventor to put her invention to use for the benefit of the public, but it also serves to delineate what an inventor regards as her invention or discovery from that which belongs in the public domain. These aspects should not be ignored in antitrust analysis because of the co-equal importance of both inventive subject matter and knowledge in the public domain to innovation and competition.

The right to exclude not only functions to encourage an inventor to put her invention to use for the benefit of the public, but it also serves to delineate what an inventor regards as her invention or discovery from that which belongs in the public domain.

Ex Post Patent Transactions and Secondary Markets Upset the Private/Public Aspects of Patents. Another one of the key themes in the Patent Report is the distinction between what the Report calls ex ante and ex post patent transactions. The Report uses the "ex ante" label to refer to "[p]atent transactions that occur as part of a technology transfer agreement . . . because they occur *before* the purchaser has obtained the technology through other means."[66] In the view of the Report, ex ante patent transactions (such as patent licenses) should be favored because they "have great potential for advancing innovation, creating wealth and increasing competition among technologies."[67]

By contrast, the "ex post" label is applied to patent transactions that occur "*after* the firm accused of infringement has invested in creating, developing or commercializing the technology."[68] A firm still needs a license "to avoid liability, even if it invented or obtained the technology independent of the patentee, because patent infringement is a strict liability offense."[69] The Report takes the position that ex post patent transactions should be minimized because they can "distort competition in technology markets and deter innovation."[70] A principal reason is that ex post patent transactions are fraught with the potential of creating a hold-up situation, in which a firm must pay more than the economic value of the patented invention in order to avoid infringement liability and the costs and delays associated with switching to an alternative, non-infringing technology in its products or services.[71]

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63 *Id.* at 1740–41, 1742; *Bonito Boats*, 489 U.S. at 146.

64 United States v. Am. Bell Tel. Co., 167 U.S. 224, 250 (1897) ("Counsel seem to argue that one who has made an invention and thereupon applies for a patent therefor, occupies, as it were, the position of a quasi trustee for the public; that he is under a sort of moral obligation to see that the public acquires the right to the free use of that invention as soon as is conveniently possible. We dissent entirely from the thought thus urged.").

65 In *Bonito Boats*, the Supreme Court repeatedly refers to the patent system as a federal demarcation between private property and public access. 489 U.S. at 162–63.

66 PATENT REPORT, *supra* note 4, at 7–8, 40.

67 *Id.* at 40.

68 *Id.* at 8, 50.

69 *Id.*

70 *Id.* at 50.

71 *See, e.g.*, *id.* at 5, 26.

The distinction between ex ante and ex post patent transactions also highlights a problem with the perspective of treating patents purely as private property rights—a perspective actively promoted by those in favor of secondary markets for patents. If patents are just a species of intangible property (like securities, for example), then it should make no difference who owns them and who licenses them, and how often and when patent transactions occur. The market will set the price based on the perceived economic value of the invention.

But it is not that simple. Under the patent system as originally conceived by the Framers and the First Congress, the incentives associated with the right to exclude are directed at the inventor (or the original assignee at issuance).[72] She is encouraged to put the invention to use during the term of the monopoly, or to license the invention to others for profit.[73] If the latter occurs, the licensee receives not only the legal right to practice the invention free of infringement liability, but also whatever work product the inventor has in her possession relating to her inventive efforts. A patent license accompanied by some technology transfer is the model of an ex ante patent transaction espoused in the Patent Report.[74]

When a patent changes hands in a secondary market,[75] however, there is a real risk that what is being sold, and what is driving the patent's market value, is the right to exclude. The prospective buyer, especially if it is an NPE, may have no interest in the economic value of the underlying invention, apart from how well the described field of the invention matches up with the perceived scope of the right to exclude. The net result, therefore, may be that a patent sold or bartered in a secondary market finds itself in the hands of an owner who does not respond, and has no interest in responding, to the incentives that were planted by the Framers and the First Congress. All that the new owner cares about instead is maximizing a return on its monetary investment; this is the financial strategy associated with monetizing patent assets.

Such a strategy, however, arguably perverts the original conception of patent rights. True, patents do have all of the attributes of private property. But they are also a means to achieve an end, namely, a public benefit that is far greater than the interests of any individual inventor. Only recently, the Supreme Court reiterated the point that "the primary purpose of our patent laws is not the creation of private fortunes for the owners of patents but is 'to promote the progress of science and useful arts . . . .'"[76] In other words, the reward to the inventor is a secondary consideration.[77] There has been an unfortunate tendency, however, to view patents as property rights "in absolute terms to the exclusion of all else."[78]

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72 Grant v. Raymond, 31 U.S. 218, 241–42 (1832) (Marshall, C.J.).

73 Woodbridge v. United States, 263 U.S. 50, 55–56 (1923).

74 *See supra* note 66. In *Board of Trustees of Stanford University v. Roche Molecular Systems, Inc.*, Justice Breyer expressed a similar view in dissent that the Bayh-Dole Act intentionally puts the rights to a federally funded invention in the hands of the institutional recipient of the federal funds, as opposed to the individual inventor, because "it seeks to encourage those institutions *to commercialize* inventions that otherwise might not realize their potentially beneficial public use." 180 L. Ed. 2d 1, 19, 2011 U.S. LEXIS 4183, at *37 (2011) (Breyer, J., dissenting). The Bayh-Dole Act, as construed by Justice Breyer, is another example of Congress's efforts to incentivize ex ante patent transactions involving technology transfer and to discourage patent assignments (in this case, effected by the individual inventor to a third party) that may lead to ex post patent transactions.

75 I am therefore excluding from this discussion patent assignments that occur as a result of corporate reorganization, acquisition, or merger.

76 Quanta Computer, Inc. v. LG Electronics, Inc., 128 S. Ct. 2109, 2116 (2008) (quoting Motion Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502, 511 (1917)).

77 Sony Corp. v. Universal City Studios, Inc., 464 U.S. 417, 429 (1984); Kendall v. Winsor, 62 U.S. 322, 327–28 (1859).

78 *Sony*, 464 U.S. at 432 n.13 (citing the Court's earlier copyright and patent cases).

To state the problem succinctly, a secondary market for patents may misdirect the focus from the economic value of the invention to the financial value of the right to exclude. In so doing, it has the effect of decoupling the legal right to exclude granted by the Congress from the common law right to practice one's own invention, which the former was intended to protect. It thus upsets the delicate balance of private incentives and public benefits that the patent system intends to strike in order to promote innovation.

Such concerns are neither imagined nor new. In *Crown Die & Tool Co. v. Nye Tool & Machine Works*,[79] the Supreme Court considered the question of whether "the patent is only the power to exclude all from making, using and vending," and therefore "the power to exclude some particular person from doing so [being] a part of that power of exactly the same nature . . . is a definite interest in the patent that can be assigned."[80] The Court answered no. It held that although the right to exclude is what has been given to an inventor by the Congress, that right is incident to the inventor's common law right to make, use, or sell an invention.[81] The right to exclude "can not be enjoyed save with the common law right."[82]

Based on this reasoning, the *Crown Die* Court concluded that the right to exclude cannot be splintered from the patent and assigned by the patent owner to others as a right to sue for damages for infringement.[83] The practical implication of this ruling is that the patent owner must be joined in any infringement lawsuit brought by one who is not the exclusive licensee. The policy implication of this ruling, however, is what is relevant to the discussion here. Importantly, the Court was concerned that "divid[ing] up the monopoly of patent property" so as to place the legal right to exclude granted by a patent in the hands of third parties would lead to the patent being used as a vehicle for stirring up litigation without expense or detriment to the patent owner.[84]

NPEs arguably present concerns similar to that voiced in *Crown Die*. Although it has ostensibly purchased the entire patent and not just the right to exclude, an NPE may have no interest at all in the underlying invention. Its primary and obvious interest is in the right to exclude, which can be used to "stir up litigation."[85] Moreover, unlike a patentee who builds a business around practicing the invention and therefore has to decide what resources and monies to allocate to infringement litigation, an NPE may not have much of a downside, if any, by bringing a lawsuit. An NPE may be using returns from prior successful lawsuits to fund future lawsuits.

In an attempt to realign infringement damages with the economic value of the invention as opposed to the financial value of the right to exclude, the Patent Report makes some useful and sensible recommendations relating to reasonable royalty damages.[86] For example, it urges courts to recognize that "the incremental value of the patented invention over the next-best alternative establishes the maximum amount that a willing licensee would pay in a hypothetical negotiation" and not to "award reasonable royalty damages higher than this amount."[87] Reference to the

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79 261 U.S. 24 (1923).

80 *Id.* at 34.

81 *Id.* at 35–37.

82 *Id.* at 36.

83 *Id.* at 39.

84 *Id.* at 38–39.

85 *See* Patent Report, *supra* note 4, at 61 (quoting the testimony of hearing participants who describe NPEs as having business strategies built around "being infringed" and operating as "opportunistic litigation mills" that do not innovate).

86 *See id.* at 19–25; *see generally id.* chs. 6 & 7, at 159–212.

87 *Id.* at 189.

accused infringer's "next-best alternative" steers the damages discussion back to the economic value of the invention because it stands to reason that if an invention truly has economic value, then the accused infringer's "next-best alternative" may be relatively costly to implement.

Concluding Observations

The Patent Report is the latest installment in the FTC's continuing dialogue with the other branches and agencies of the federal government, the industry, and the public regarding what might be done to ensure that our patent system promotes innovation and competition, in harmony with the antitrust laws. This particular installment addresses issues of patent notice and patent remedies that have taken center stage in the courts, before Congress, and among industry circles as a result of an "evolving patent marketplace" fueled by the growing phenomenon of NPEs.[88] Purchases of patents and patent portfolios have garnered heightened public attention because of the fear that the buyers will use infringement litigation, or the threat of litigation, to obtain a strategic advantage vis-à-vis their rivals.[89] Depending on how the litigation card is played, that strategic advantage may be based—at least in part—on a patent's potential for creating a hold-up problem.

[T]he evolving marketplace may reflect a broken patent system in which invention is often confused with innovation, and the financial value of the right to exclude (which is a function of a patent's hold-up potential) has overshadowed the economic value of the underlying invention.

The Patent Report makes several practical (and largely modest) recommendations relating to patent notice and patent remedies aimed at ameliorating the problem of patent hold-up. Specifically, more effective and reliable patent notice might help firms steer clear of a hold-up problem in the first place, before they have sunk investments into commercial development and production. Furthermore, changes in the way infringement damages based on lost profits or a reasonable royalty are calculated and awarded, and the circumstances under which permanent injunctions are issued, might minimize the hold-up value that firms have to pay for patents being asserted against them in litigation.

The Patent Report leaves for future debate, however, the nagging competition questions underlying the "evolving patent marketplace." Importantly, the evolving marketplace may reflect a broken patent system in which invention is often confused with innovation, and the financial value of the right to exclude (which is a function of a patent's hold-up potential) has overshadowed the economic value of the underlying invention. Although reforms in the areas of patent notice and remedies can alleviate some of the symptoms, they do not provide a long-term cure for a broken system.

The development of a secondary market for patents places undue emphasis on the financial value of the right to exclude and largely ignores the economic value of the underlying invention. This is not what the patent system intended. Individual inventors should be duly rewarded for their risk-taking and their ingenuity, but the Framers and the First Congress envisioned that such rewards would flow principally from the exploitation of their inventions and the introduction of new and improved products and services to the marketplace. By contrast, the exploitation of the right to exclude through infringement lawsuits not only perverts these incentives but dampens the entrepreneurial spirit that depends as much on free competition as it does on innovation.

Accordingly, antitrust analysis should take care to distinguish between invention and innovation when evaluating whether a challenged conduct or transaction involving intellectual property harms competition and consumer welfare. The fact that a patented invention is not being prac-

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88 *See id.* ch. 2.

89 *See, e.g.*, Chris V. Nicholson, *Apple and Microsoft Beat Google for Nortel Patents*, N.Y. TIMES, July 1, 2011, http://dealbook.nytimes.com/2011/07/01/apple-and-microsoft-beat-google-for-nortel-patents/.

ticed by its owner may inform the view that a particular conduct or transaction does not promote innovation, and hence would have a net anticompetitive effect. Similarly, antitrust analysis should consider whether the patent right to exclude is being manipulated by its owner so as to deny competitors access to knowledge and information that is in the public domain. For example, a patent owner may be asserting its right to exclude in order to squelch legitimate design-around or reverse engineering efforts. Such a use of the right to exclude might be viewed as exclusionary and therefore anticompetitive. ●