

**Prepared Statement of the Federal Trade Commission**

**Before the**

**Subcommittee on Courts, the Internet, and Intellectual Property  
Committee on the Judiciary  
United States House of Representatives**

**American Innovation at Risk: The Case for Patent Reform**

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Chairman Berman, Ranking Member Coble, and members of the Committee, I am Suzanne Michel, Deputy Assistant Director for Policy and Coordination at the Federal Trade Commission (FTC).<sup>1</sup> I appreciate this opportunity to appear before the Committee today to discuss the findings and recommendations of the FTC's October 2003 Report, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* (the Report).<sup>2</sup> The prepared testimony summarizes the FTC's reasons for studying the patent system, the process the FTC used to develop the Report, and its finding that, although patents play an important role in promoting innovation, patents of questionable quality can hinder competition and innovation, to the detriment of consumers. The testimony also describes the Report's recommendations for improving patent quality and their relationship to proposals for patent reform legislation.

## **I. The FTC's Report on the Patent System**

The FTC is an antitrust enforcement agency but it also has a mandate to study issues related to competition policy. The agency undertook its study of the patent system under both of these roles in response to the significance of patents in the knowledge-based economy and the role of dynamic, innovation-based considerations in competition policy.<sup>3</sup> Competition and patents influence innovation, which drives economic growth and increases standards of living.

The Report explains in detail the relationship between competition policy and patent policy,

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<sup>1</sup> This written statement represents the views of the Federal Trade Commission. My oral presentation and responses to questions are my own, and do not necessarily represent the views of the Commission or any Commissioner.

<sup>2</sup> Federal Trade Commission, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* (October 2003), available at <http://www.ftc.gov/opa/2003/10/cpreport.htm> [hereinafter Report].

<sup>3</sup> This initiative to learn about competition and patent law was not unique. Rather, it was only one component of the agency's mission to bring a competition perspective to bear on important areas of governmental policy. The Commission's 2002 study, *Generic Drug Entry Prior to Patent Expiration*, provides another example. Available at <http://www.ftc.gov/os/2002/07/genericdrugstudy.pdf>. The FDA promulgated regulations adopting some of the recommendations of that study (68 Fed. Reg. 36675-36712), and Congress implemented other recommendations by amending the Hatch-Waxman Act through the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, Pub. L. No. 108-172, § 1110-1112.

focusing on rapidly advancing industries such as pharmaceuticals, biotechnology and the computer industry.

#### **A. Development of the Report**

To examine the relationship of competition and patent policy, the FTC and the Department of Justice's Antitrust Division (DOJ) held hearings from February through November 2002. The hearings took place over 24 days, and involved more than 300 panelists, including representatives from large and small business firms; the independent inventor community; patent and antitrust organizations; and the academic community in economics and antitrust and patent law. In addition, the FTC received about 100 written submissions. Many of the business representatives were from high-tech industries such as pharmaceuticals, biotechnology, computer hardware and software, and the Internet. The Report summarizes testimony from the hearings, discusses independent research, and explains the Commission's conclusions about and recommendations for improving the patent system.

Following release of the Report, the FTC co-sponsored several meetings on patent reform, including a conference co-sponsored with the Berkeley Center for Law and Technology, and the National Academy of Sciences (NAS) in April 2004, and four town meetings on patent reform co-sponsored with NAS and the American Intellectual Property Law Association (AIPLA) during 2005.<sup>4</sup> Meeting participants debated recommendations for patent reform made by the FTC, the NAS and AIPLA.

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<sup>4</sup> A summary of the town meetings on patent reform co-sponsored by AIPLA, the NAS and the FTC can be found at <http://www.ftc.gov/opp/intellect/050601summarytownmtg.pdf>.

## **B. The Report's Findings**

Patent policy stimulates innovation by providing an incentive to develop and commercialize inventions. Without patent protection, innovators that produce intellectual property may not be able to appropriate the full benefits of their innovation when competitors are able to “free ride” on the innovator’s efforts. Patents may also encourage firms to compete in the race to invent new products and processes.<sup>5</sup> Following the initial innovation, patent rights may make it easier for inventors to attract funding and develop relationships needed to commercialize the invention. Moreover, the public disclosure of scientific and technical information made through a patent can stimulate further scientific progress.<sup>6</sup>

For example, at the hearings representatives from the pharmaceutical industry stated that patent protection is indispensable in promoting pharmaceutical innovation for new drug products. By preventing rival firms from free riding on the innovating firms’ discoveries, patents can enable pharmaceutical companies to cover their fixed costs and regain the high levels of capital they invest in research and development.<sup>7</sup> At the same hearings, representatives from the biotechnology industry explained that many biotechnology companies conduct basic research to identify promising products and then partner with a pharmaceutical company to test and commercialize the product. Patent protection allows them to attract funding from capital markets, and to facilitate inter-firm relationships, such as licencing and joint ventures, necessary for commercial development of their inventions.<sup>8</sup>

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<sup>5</sup> See Thomas O. Barnett, Assistant Att’y Gen., U.S. Dep’t of Justice, *Interoperability Between Antitrust and Intellectual Property*, address before the George Mason University Symposium on Managing Antitrust Issues in the Global Marketplace 3-4 (Washington, D.C., Sept. 13, 2006), <http://www.usdoj.gov/atr/public/speeches/218316.pdf>.

<sup>6</sup> Report, Ch. 2 at 3-7.

<sup>7</sup> Report, Ch. 3 at 11-12.

<sup>8</sup> Report, Ch. 3 at 15, 17-18.

Competition also plays a very important role in stimulating innovation and spurs invention of new products and more efficient processes. Competition drives firms to identify consumers' unmet needs and to develop new products or services to satisfy them. In some industries, firms race to innovate in hopes of exploiting first-mover advantages. Companies strive to invent lower-cost manufacturing processes, thereby increasing their profits and enhancing their ability to compete.<sup>9</sup>

At the hearings, many participants representing computer hardware companies observed that competition, more than patent protection, drives innovation in their industries.<sup>10</sup> In the semiconductor industry, for instance, lead-time over rivals and trade secret protection provide key mechanisms for appropriating returns on R&D investments.<sup>11</sup> Representatives of software and internet companies made similar observations that competition to commercialize the most recent technological advance provides the primary driver of innovation.<sup>12</sup>

In the pharmaceutical industry also, the competition spurred by entry of a generic drug product has forced brand-name firms to invent new products to replenish their revenue streams.<sup>13</sup>

To optimally foster innovation, patent and competition policy must work together in tandem. Errors or systematic biases in how one policy's rules are interpreted and applied

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<sup>9</sup> Report, Ch. 2 at 9-12.

<sup>10</sup> Report, Ch. 3 at 31-32.

<sup>11</sup> Report, Ch. 3 at 31 (citing W.M. Cohen et al., *Protecting Their Intellectual Assets: Appropriability Conditions and Why U.S. Manufacturing Firms Patent (Or Not)*, National Bureau of Econ. Research Working Paper No. 7552, 2000, available at <http://papersdev.nber.org/papers/27552>).

<sup>12</sup> Report, Ch. 3 at 46.

<sup>13</sup> Report, Ch. 3 at 11 (citing Glover 3/19 at 146).

disrupts the other policy's effectiveness.<sup>14</sup> It is important to note that the Report and hearings confirmed that patents play an important role in promoting innovation. Nonetheless, many observers expressed significant concerns that, in some ways, the patent system has become misaligned with competition policy.

### **C. Concerns with Questionable Patents**

One issue stood out at the hearings for the widespread agreement it generated among panelists: the importance of patent quality in maintaining the alignment between patent and competition policy. Panelists raised concerns about the issuance of patents of questionable quality—those of questionable validity or having overly broad claims. Patents of questionable quality can distort competition, innovation, and the marketplace in at least four ways.

First, they may slow follow-on innovation by discouraging firms from conducting research and development in areas that the patent improperly covers.<sup>15</sup> When firms fear that they will infringe a questionable patent, the substantial costs and risks of litigation may persuade them to direct their resources into other areas. For example, biotechnology firms reported that they avoid infringing questionable patents and therefore will refrain from entering or continuing with a particular field of research that such patents appear to cover.<sup>16</sup> A lawsuit may not be an

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<sup>14</sup> The FTC's Report on the patent system is the first of two reports that the agency will issue regarding the relationship of competition and patent policies. Optimal results require proper antitrust policies, as well as proper patent policies. As competition policymakers, the FTC has a responsibility to ensure that it interprets and applies antitrust law in ways that do not undermine the innovation that the patent system promotes. A second, joint report by the FTC and DOJ will discuss and make recommendations for antitrust to maintain a proper relationship with the patent system. Separate from the hearings, the Commission has found that exclusion payments in pharmaceutical patents settlements harm competition. *See Anticompetitive Settlements in the Pharmaceutical Industry*, Prepared Statement of the Federal Trade Commission Before the Committee on the Judiciary of the United States Senate (January 17, 2007). *See* [http://www.ftc.gov/speeches/leibowitz/070117anticompetitivepatentssettlements\\_senate.pdf](http://www.ftc.gov/speeches/leibowitz/070117anticompetitivepatentssettlements_senate.pdf).

<sup>15</sup> Carl Shapiro, *Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard-Setting*, in *Innovation Policy and the Economy* 119, 126 (Adam Jaffe et al. eds., 2001).

<sup>16</sup> Report, Ch. 3 at 21.

alternative because a competitor has no standing to challenge patent validity unless the patent holder has threatened litigation. In these circumstances, as one biotech representative complained, “there are these bad patents that sit out there and you can’t touch them.”<sup>17</sup> A competitor might attempt to invalidate the patent through a re-examination procedure in the PTO, but this allows only limited participation by third parties, and most hearing participants did not believe it proved effective.<sup>18</sup> Such conditions deter market entry and follow-on innovation by competitors and increase the potential for the holder of a questionable patent to suppress competition.

Second, patents that should not have been granted raise costs when they are challenged in litigation.<sup>19</sup> If a competitor chooses to pursue R&D in the area covered by the patent without a license, it risks expensive and time-consuming litigation with the patent holder that wastes resources.<sup>20</sup>

Third, questionable patents may raise costs by inducing unnecessary licensing. If a competitor chooses to negotiate a license and pay royalties to avoid costly and unpredictable litigation, the costs of follow-on innovation and commercial development increase due to the

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<sup>17</sup> Report Ch. 3 at 21-22.

<sup>18</sup> Report, Ch. 3 at 22-23; Ch. 5 at 16-18.

<sup>19</sup> Report, Ch. 36-41. “Large and small companies are increasingly being subjected to litigation (or its threat) on the basis of questionable patents.” *United States Patent and Trademark Office Fee Modernization Act of 2003: Hearing Before the Subcomm. on Courts, the Internet, and Intellectual Property of the House Comm. on the Judiciary*, 108th Cong. 2 (2003) (Statement of Michael K. Kirk, Executive Director, American Intellectual Property Law Association), *available at* [http://www.aipla.org/html/Legislative/108/testimony/Fee\\_Leg.htm](http://www.aipla.org/html/Legislative/108/testimony/Fee_Leg.htm).

<sup>20</sup> If litigation does take place, it typically costs millions of dollars and takes years to resolve. The median costs to each party of proceeding through a patent infringement suit to a trial verdict are at least \$500,000 when the stakes are relatively modest. When more than \$25 million is at risk in a patent suit, the median litigation costs for the plaintiff and the defendant average \$4 million each, and in the highest-stakes patent suit, costs can exceed this amount by more than fivefold. A Patent System for the 21st Century, at 68 (National Academies’ Board on Science, Technology and Economic Policy) (2004), *available at* <http://www.nap.edu/html/patentsystem> [hereinafter, NAS Report]; *see also*, Report, Ch. 2 at 7-8; Ch. 3 at 20-26, 33-41, 50-55; Ch. 5 at 2-4.

unjustified royalties and transaction costs.<sup>21</sup> Questionable patents particularly contribute to increased licensing costs in industries with “patent thickets.”<sup>22</sup> In some industries, such as computer hardware and software, firms can require access to dozens, hundreds, or even thousands of patents to produce just one commercial product. Scholars refer to this phenomenon of overlapping patent rights as a “patent thicket.” With so many patents at issue, panelists suggested, infringing another firm’s patent can be inevitable, but there is often no economically feasible way, prior to making investments, to search all potentially relevant patents, review the claims, and evaluate the possibility of infringement or the need for a license. This is particularly true where the scope of patent coverage is ambiguous, so that questionable patents increase uncertainty about the patent landscape, and thereby complicate business planning.<sup>23</sup> Firms facing this scenario frequently pay royalties on numerous patents for each product.

Fourth, firms facing patent thickets may spend resources obtaining “defensive patents,” not to protect their own innovation from use by others, but to have “bargaining chips” to obtain access to others’ patents through a cross-license, or to counter allegations of infringement. Some hearing participants believed that companies spend too many resources on creating and filing these defensive patents, instead of focusing on developing new technologies. This is especially true when defensive patenting is conducted in response to, or results in, questionable patents.<sup>24</sup>

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<sup>21</sup> Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 Nw. L. Rev. 1495, 1517 (2001) (noting that “patent owners might try to game the system by seeking to license even clearly bad patents for royalty payments small enough that licensees decide that it is not worth going to court”). See Shapiro, *supra* note 14, at 125; Report, Ch. 2 at 7-8; Ch. 3 at 20-26, 33-41, 50-55; Ch.5 at 2-4.

<sup>22</sup> A “patent thicket” is a “dense web of overlapping intellectual property rights that a company must hack its way through in order to actually commercialize new technology.” See Shapiro, *supra* note 14, at 120.

<sup>23</sup> Report, Ch. 2 at 25-28; Ch. 3 at 34-40, 52-53.

<sup>24</sup> Report, Ch. 3 at 34-40, 52-53.

## II. The FTC Report's Recommendations

The FTC Report makes ten recommendations for changes to the patent system to maintain its proper alignment with competition.<sup>25</sup> This testimony provides an overview of those recommendations, followed by a more detailed discussion of the three recommendations that correspond to provisions of previously proposed patent reform legislation: (1) establish a post-grant opposition procedure; (2) change the standards for willful infringement; and (3) require publication of all patent applications at 18 months.<sup>26</sup>

### A. Overview

A first set of recommendations aims to increase a challenger's ability to eliminate questionable patents after issuance. Those recommendations are:

- enact legislation to create a new administrative procedure to allow post-grant review of and opposition to a patent after issuance by the PTO; and
- enact legislation to specify that challenges to the validity of a patent are to be determined based on a "preponderance of the evidence" rather than a "clear and convincing evidence" standard.

A second group of recommendations has the goal of minimizing the issuance of questionable patents. Those recommendations are:

- tighten certain legal standards used to evaluate whether a patent is "obvious;"
- provide adequate funding for the Patent and Trademark Office (PTO);

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<sup>25</sup> Report, Executive Summary at 7-17.

<sup>26</sup> "The Patents Depend on Quality Act of 2006," H.R. 5096, introduced in the U.S. House of Representatives by Reps. Howard Berman (D-Cal.) and Rick Boucher (D-Va.), and the "Patent Act of 2005," H.R. 2795, introduced by Rep. Lamar Smith (R-Tex.), both contained provisions related to these three recommendations.

- modify certain PTO rules and encourage patent examiners to request additional information from patent applicants; and
- expand PTO's "second-pair-of-eyes" review.

A third group of recommendations seeks to promote the disclosure, teaching, and notice function of patents. Providing reliable and early notice of the subject matter a patent covers enhances business certainty for competitors who wish to avoid infringement. Those recommendations are:

- modify the doctrine of willful infringement by enacting legislation to require, as a predicate for liability for willful infringement, either actual, written notice of infringement from the patentee or deliberate copying of the patentee's invention, knowing it to be patented;
- enact legislation to require publication of all patent applications 18 months after filing; and
- enact legislation to create intervening or prior user rights to protect parties from infringement allegations that rely on certain patent claims first introduced in a continuing or other similar application.

The final set of recommendations encourages consideration of competition and economics in shaping patent policy:

- consider possible harm to competition and innovation, along with other possible benefits and costs, before extending the scope of patentable subject matter; and
- expand consideration of economic learning and competition policy concerns in patent law decision making.

**B. Enact Legislation to Create a New Administrative Procedure to Allow Post-Grant Review of and Opposition to Patents**

The Report recommended creation of a new administrative procedure for post-grant review and opposition that allows for meaningful challenges to patent validity short of federal court litigation. Existing means for challenging questionable patents are inadequate. Patent prosecution is *ex parte*, involving only the PTO and the patent applicant, even though third parties in the same field as a patent applicant may have the best information and expertise with which to assist in the evaluation of a patent application. To enhance third-party involvement, Congress established limited *inter partes* reexamination procedures that allow third parties to participate in patent reexaminations. Recent amendments have improved those procedures, but they still contain important restrictions and disincentives for their use.<sup>27</sup> Once a questionable patent has issued, the most effective way to challenge it is through litigation, but that path is extremely costly and lengthy and it is not an option unless the patent owner has threatened the potential challenger with patent infringement litigation.

For these reasons, the FTC Report recommended institution of a meaningful post-grant review and opposition procedure and identified several characteristics that might contribute to its success. To be meaningful, post-grant review should be allowed to address important patentability issues, including novelty, nonobviousness, written description, enablement, and utility. An administrative patent judge should preside over the proceeding, which should allow cross-examination and carefully circumscribed discovery. Proceedings should be subject to a time limit and the use of appropriate sanctions authority. Patent applicants must be protected

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<sup>27</sup> Report, Ch. 5 at 15-17.

against undue delay in requesting post-grant review and against harassment through multiple petitions for review. The review petitioner should be required to make a suitable threshold showing. Finally, settlement agreements resolving post-grant proceedings should be filed with the PTO and, upon request, made available to other government agencies.<sup>28</sup>

**C. Enact Legislation to Require, As a Predicate for Liability for Willful Infringement, Either Actual, Written Notice of Infringement from the Patentee, or Deliberate Copying of the Patentee's Invention, Knowing It to Be Patented**

Courts have discretion to award treble damages after finding that patent infringement was undertaken willfully. Some hearings participants explained that they do not read their competitors' patents out of concern for such potential treble damage liability. Failure to read competitors' patents can harm innovation and competition in a number of ways. It undermines one of the primary benefits of the patent system—the public disclosure of new invention. This encourages wasteful duplication of effort, delays follow-on innovation that could derive from patent disclosures, and discourages the development of competition. Failure to read competitors' patents also thwarts rational and efficient business planning and can jeopardize plans for a noninfringing business or research strategy.

It is troubling that some businesses refrain from reading their competitors' patents because they fear the imposition of treble damages for willful infringement. Nonetheless, infringers must not be allowed to profit from knowingly and deliberately using another's patented invention due to a low likelihood that the patent holder can afford to bring suit or obtain substantial damages. For these reasons, the FTC Report recommended that legislation be enacted

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<sup>28</sup> Report, Ch. 5 at 17-24.

requiring, as a predicate for liability for willful infringement, either actual, written notice of infringement from the patentee, or deliberate copying of the patentee's invention, knowing it to be patented. The FTC's recommendation would permit firms to read patents for their disclosure value and to survey the patent landscape to assess potential infringement issues, yet retain a viable willfulness doctrine that protects both wronged patentees and competition.<sup>29</sup>

#### **D. Publish all Patent Applications 18 Months After Filing**

With enactment of the American Inventors Protection Act in 1999, the U.S. began publishing most patent applications 18 months after their filing. However, the Act allows applicants to "opt-out" of publication if they did not seek corresponding foreign patents.<sup>30</sup> The Report recommends that the United States publish all patent applications 18 months after filing, rather than allowing an exception for those applications not filed abroad. Publication appears to have increased business certainty and promoted rational planning, as well as to have reduced the problem of "submarine patents" used to hold-up competitors for unanticipated royalties. Publishing all applications would strengthen these benefits.

### **III. Conclusion**

Patents and competition can work together to drive innovation, consumer welfare, and our nation's prosperity. There is broad consensus on the significant role that patents can play in fostering innovation and encouraging the disclosure and commercial development of inventions. Competition also plays an important role in spurring innovation. More patents having greater breadth in more industries is not always the best way to maximize consumer welfare. A

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<sup>29</sup> Report, Ch. 5 at 38-41.

<sup>30</sup> 35 U.S.C. § 122.

questionable patent can raise costs and prevent competition and innovation that otherwise would benefit consumers. Implementing the recommendations in the FTC's Report will increase the likelihood that issued patents are valid and the efficiency of challenges to invalid patents. Thank you for this opportunity to share the Commission's views. We look forward to working with you on this important issue.