PATENT REFORM:

PROTECTING PROPERTY RIGHTS

AND THE MARKETPLACE OF IDEAS

Prepared for

THE COALITION FOR PATENT FAIRNESS

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EXECUTIVE SUMMARY

The American inventor is that rare breed of risk-taking entrepreneur who invests his or her own intellect for the sake of innovation, progress, and economic gain. Unfortunately, an outdated and overwhelmed patent system coupled with poorly structured damages rules has dramatically increased and changed the nature of the risks facing innovators.

The Framers envisioned a patent system that balanced innovation—spurred by economic incentive—and the dissemination of knowledge for the benefit and use of the public. Few would contest the success of their vision: America's patent system has enabled unprecedented economic growth and innovation that have been the envy of the world for generations. The demands upon the patent system, however, have changed as the economy has grown and its needs have evolved. Accordingly, Congress has periodically updated the country's patent system as the circumstances warranted—but always with an eye toward preserving the fundamental balance established by the Framers.

Today, there is general consensus on the need for reform. The rapid rise of high-technology, financial services, telecommunications, entertainment and other innovations driving the 21st century economy, a new "knowledge economy," has strained the United States Patent and Trademark Office's ("USPTO") ability to evaluate and issue quality patents. Concurrently, litigation predicated on outdated legal rules—most prominently damages rules ill-fitted to modern innovation—has clogged the courts as patent holders and judges struggle to adapt to novel ideas and pioneering business models.

Of course, the "knowledge economy" is not the only sector driving American economic progress. Reforms must square the needs of traditional patent-holders, including pharmaceuticals and manufacturers of traditional products, with those of the next generation. This new balance, while certainly more complicated and elusive, is nonetheless within reach for one very simple reason: the symptoms that flow from the current inability of the patent system to meet modern demands negatively affect all patent holders. The issuance of poor quality patents creates uncertainty that harms every innovator, from the inventor operating out of his workshop, to the large drug company and the software manufacturer. This uncertainty, in turn, engenders unnecessary litigation which increases the costs of innovation.

Several factors contribute to the decline in patent quality. First, the number of patent applications has more than doubled since 1990. Second, the average number of claims per patent has increased significantly over the last thirty-plus years, and, as a result, patent examiners are now confronted with more complex decisions on each individual application. Finally, the USPTO, despite the best efforts of its professional and dedicated staff, does not have the resources necessary to keep pace with the burgeoning number of increasingly complicated patent applications.

At the same time, the courts have made it easier for plaintiffs to obtain large awards in excess of the actual economic harm caused by infringement. Current legal rules too often overcompensate plaintiffs because they allow courts to assess damages based on the total value of the product, even where the infringed patent contributes only a small part to that product's

value, *i.e.*, where the infringed patent is one of hundreds of patents that comprise a new invention. Ultimately, however, overcompensation actually hurts inventors for two related reasons. The current remedial scheme increases the risk that the financial reward for improving existing products, or for incorporating them into a novel and more useful creation, will be collected by incumbent patent-holders instead of the persons who actually devised the new product, thereby undermining the pecuniary motivation driving innovation. In addition, and more generally, overcompensation harms inventors by promoting litigation, the costs of which threaten to overshadow the benefits of—and investment in—innovation.

Predictably, the possibility of excessive damage awards has caused a dramatic increase in patent litigation, the cost of which also has grown significantly in recent years. This rise in expensive litigation imposes a significant burden on inventors—particularly individual inventors—who are forced to expend exorbitant sums to defend their rights against infringers and interloping speculators alike.

The marketplace of ideas, like any market, is vulnerable to exploitation in the absence of effective oversight and clear governing rules. Unfortunately, the legal rules governing patent infringement—particularly those concerning damage awards—are outdated and, as a result, engender strike suits and other net loss speculative endeavors. Perhaps even more disturbingly, these legal rules actually encourage *bona fide* patent holders to seek judicially coerced transactions for the simple reason that the courts routinely compensate successful litigants over and above the true value of the infringed patent. The enterprising patent holder is now driven—by a system of perverse incentives—away from mutually beneficial arrangements such as voluntary licensing agreements, and toward more profitable holdout positions anchored by judicial fiat. This devolution is hardly what the Framers or Congress intended for the patent system.

Excessive litigation, whether born out of abuse or other factors, is not a new phenomenon. Similar problems in other areas of law have garnered significant attention from Congress over the past several years. For example, the Private Securities Litigation Reform Act of 1995 sought to curb frivolous securities litigation. Likewise, the Class Action Fairness Act of 2005 responded to the rise of unmeritorious cases, filed in plaintiff-friendly jurisdictions, which were designed to extort class settlements from companies who sought to avoid bet-the-company litigation. That is not to say that *all* lawsuits in these areas were without merit. There clearly were underlying problems in the financial industry, as well as other industries subject to frequent litigation among rights-holders. The same is true in the patent context—infringement happens, and patent holders must have the ability to enforce their rights; however, not everyone needs to enforce their rights in Marshall, Texas. Venue abuse, speculative strike suits and other questionable practices have risen again, but now their effects are not limited to the imposition of a litigation tax on ordinary consumers. Instead, excessive litigation threatens to disrupt the careful balance of risk and reward that the Framers crafted over two hundred years ago.

Proposed reforms would go a long way toward restoring balance to the patent system. Significantly, the primary proposals address flagging patent quality by allocating greater resources to the USPTO and providing a meaningful review process to clarify the scope and

validity of patents. Additionally, they address the mounting litigation crisis by clarifying the damages rules to realign a misguided incentive structure that fosters litigation over innovation.

One of the proposed reform measures, the Patent Reform Act of 2007, addresses this problem by providing for actual damages, except in particular circumstances that warrant the application of the entire market value rule. In relevant part, the Act directs the court to assess damages for infringement based on the actual value of the infringed patent relative to the total value of the final commercial product. The court may base this amount on actual market royalties where they are available, or it may consider other factors when the evidence warrants. These common sense reforms will fully compensate patent holders for their hard work and innovation, while simultaneously discouraging opportunistic behavior and encouraging individuals to resolve disputes without resorting to litigation. Taken together, these reforms to the damages rules, along with the steps directed toward improving patent quality, will restore our patent regime to the position envisioned by the Framers: that of protecting inventors' property rights and spurring innovation.

¹ Patent Reform Act of 2007, S. 1145, 110th Cong. § 5(a) (as introduced on Apr. 18, 2007).

¹¹ Id.

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America prides itself on the inventiveness of its people and their contributions to human progress. Our Nation's history is a story of innovation, and the ways in which a single, pioneering inventor can improve all our lives. One need only think of Alexander Graham Bell inventing the telephone, Thomas Edison testing filaments to make the first light bulb, or Orville and Wilbur Wright's first daring flight, in order to grasp the central role that inventors and their innovations have played in furthering the well-being and economic development of our Nation.

Being an entrepreneurial inventor has always been a risky proposition, but the nature and scope of the risk has shifted dramatically over the years due to an interrelated combination of poor patent quality and the prospect of unnecessary and costly litigation. These problems are attributable, at least in part, to the emergence of the "knowledge economy," i.e., the rise of high technology, financial services, telecommunications, and entertainment innovators that are constantly—and rapidly—expanding the availability and accessibility of information. expansion translates into a sustained demand for patents, which has strained the United States Patent and Trademark Office's ("USPTO") ability to evaluate and issue quality patents. To understand the strain that the frenetic innovation common to "knowledge economy" endeavors places upon the USPTO, one need only think of the rapid obsolescence of personal computers, which, of course, have hundreds if not thousands of patents in each machine. The effect on the agency is predictable. Not only must the USPTO process dramatically more patent applications than it did even twenty years ago—the number of patent applications has more than doubled since 1990¹—but those applications and the ensuing patents have grown increasingly more complex. Not surprisingly, the USPTO does not have the resources necessary to keep pace despite the best efforts of its professional and dedicated staff. This is due in large part to insufficient funding, but the increasing number of claims per application² and the sheer volume of the applications themselves also play a significant role in the creation and perpetuation of the problem. As a result, the quality of patents has declined and, as the Federal Trade Commission has noted, it has become "a [s]ignificant [c]ompetitive [c]oncern."³

Declining patent quality has in turn contributed to the litigation crisis as patent holders and judges struggle to reconcile questionable patents, novel ideas, and pioneering business

¹ U.S. PATENT AND TRADEMARK OFFICE, U.S. PATENT STATISTICS, CALENDAR YEARS 1963-2006, (July 2007), http://www.uspto.gov/go/taf/us_stat.pdf (last visited Nov. 26, 2007) (hereinafter "U.S. Patent and Trademark Office").

² John R. Allison & Mark A. Lemley, *The Growing Complexity of the United States Patent System*, 82 B.U. L. REV. 77, 81 (2002) (explaining that "[p]atents issued in the 1990s contained approximately 50% more claims than patents issued in the 1970s.") (hereinafter "Allison & Lemley").

³ FEDERAL TRADE COMMISSION, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY 5 (2003), available at www.ftc.gov/os/2003/10/innovationrpt.pdf (hereinafter "FTC REPORT"); see also Nat'l Research Council, Nat'l Acad. of Sci., A Patent System for the 21st Century 47 (Richard C. Levin, Stephen A. Merrill & Mark B. Myers eds., 2004) (hereinafter "NAS REPORT"); Thomas Stanton et al., Nat'l Acad. of Pub. Admin., U.S. Patent and Trademark Office: Transforming to Meet the Challenges of the 21st Century 62-64 (2005) (hereinafter "NAPA REPORT"); Adam B. Jaffe, The U.S. Patent System in Transition: Policy Innovation and the Innovation Process 35-36 (Nat'l Bureau of Econ. Research, Working Paper 7280, 1999), available at http://www.nber.org/papers/w7280 (hereinafter "Jaffe").

models with outdated legal and procedural rules. The resulting confusion has led to the obfuscation of these legal rules as the courts have made it easier for plaintiffs to obtain large awards in excess of the actual economic harm caused by the infringement. Predictably, the possibility of excessive damage awards has caused a dramatic increase in patent litigation, the cost of which also has grown significantly in recent years. This rise in costly litigation imposes a significant burden on inventors—particularly individual inventors—who are forced to expend exorbitant sums to defend their rights against infringers and interloping speculators alike. As a result, today's inventors find the road to commercialization more difficult, fraught with risk, and all too often prohibitively expensive. The threat of costly litigation and the large number of questionable patents make it difficult for entrepreneurs to obtain the money necessary to develop an idea in the first place, much less to defend their rights in court.

The legal rules governing patent infringement—particularly judicially created rules concerning damage awards—are misaligned, and, as a result engender parasitic strike suits and other net loss speculative endeavors. Perhaps even more disturbingly, these legal rules actually encourage bona fide patent holders to seek judicially coerced transactions, for the simple reason that the courts routinely overcompensate successful litigants over and above the true value of the infringed patent. The enterprising patent holder is now driven—by a system of perverse incentives—away from mutually beneficial arrangements such as voluntary licensing agreements, and toward more-profitable court-mandated solutions. It is not likely that the Framers—or Congress—intended this result as modern inventors are now shackled by novel obstacles to innovation that never troubled the great inventors of American history. Today's inventor must confront the reality that her success may prove to be her ultimate failure depending on the outcome of the litigation lottery, whereas her intellectual antecedents simply worked and invested to develop their ideas, improve them, and bring them to market.

Few would contest that the basic principles of our patent system as envisioned by the Framers have been distorted by the rising tide of low quality patents and ambiguous damages rules. The Framers recognized the critical role that inventors and their innovations would play in the economic development of our fledgling nation. They gave Congress, in Article I, section 8, clause 8 of the Constitution, the power "[t]o 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." Thus, from its inception, patent law was designed to encourage innovation by rewarding inventors. The essence of this constitutional directive is a societal bargain between the inventor and the public: the inventor's investment in "Science and [the] useful Arts" is rewarded with a limited monopoly in exchange for the eventual public ownership of the innovation.

Current reform proposals will go a long way to restore balance to the patent system and bring it back in line with the policy goals envisioned by the Framers. They will protect and encourage inventors by providing a meaningful review process to better define the scope and validity of patents in the first instance and by clarifying and modernizing the damages rules to eliminate the perverse incentives that foster litigation rather than innovation.

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⁴ U.S. CONST. art. I, § 8, cl. 8.

I. Patent Law: The Case for Legal Reform.

There is a general consensus that both procedural and legal reforms are needed to bring our patent system in line with the policy goals of the Framers. In fact, numerous reports, including the National Academy of Sciences report, the Federal Trade Commission report, and the National Academy of Public Administration report, have documented the problems and recommended reforms to address them. As the Wall Street Journal explained, the patent system needs two things above all: better patents and less litigation, and the two are related. Indeed, the question is not whether patent reform is necessary, but rather how best to craft the appropriate legal and damages rules to defend inventors' legitimate property rights and protect them from vexatious litigation.

A. The Legal Rules Governing Patents.

The past twenty years have seen a dramatic increase in patent litigation. As one commentator observed, "[t]he annual number of patent lawsuits filed in the U.S. doubled during the 1990s . . ." and it is continuing to rise. This trend has been especially dramatic for complex products that contain numerous components, each of which is potentially subject to a patent. Even every day items such as automobiles or refrigerators are significantly more complex than those of only a generation ago. From Global Positioning Systems to humidity controls, today's products are much more functionally rich than their 20th century equivalents—if indeed there are any. This mounting complexity of products and the number of patents encompassed therein increase the likelihood of patent litigation for the simple reason that more patents mean more competing rights holders; however, this explanation does not account for the strategic behavior evident in modern patent litigation.

Roughly 25 years ago Congress created the United States Court of Appeals for the Federal Circuit to hear, among other things, appeals from patent cases. 10 Although its creation

⁵ See NAS REPORT, supra note 3, at 81-129 (recommending a series of reforms to help create "an open-ended, unitary, flexible patent system." *Id.* at 5).

⁶ See FTC REPORT, Executive Summary, supra note 3, at 7-17 (recommending, inter alia, a post-grant review process, the tightening of standards for 'non-obviousness' of a patent, and increased funding for the USPTO).

⁷ See NAPA REPORT, supra note 3 (suggesting not only reforms aimed at improving patent quality and reducing the litigation explosion, but also changes within the USPTO to improve its management and employee relations).

⁸ Editorial, *Patent Bending*, WALL ST. J., June 9, 2007, at A8.

⁹ James E. Bessen & Michael J. Meurer, *The Patent Litigation Explosion* 1 (Boston Univ. Sch. of Law Working Paper Series, Law & Economics, Working Paper No. 05-18, 2005), *available at* http://ssrn.com/abstract=831685 (hereinafter "Bessen & Meurer"); *see also* Joseph P. Cook, *On Understanding the Increase in US Patent Litigation* 2 (American Law & Economics Ass'n Annual Mtgs. Working Paper No. 4, 2005), *available at* http://law.bepress.com/alea/15th/art4 ("For the last twenty years, patent litigation in the United States has been steadily increasing. In the last ten years, the number of patent cases filed in US federal courts has approximately doubled."); Adam B. Jaffe & Josh Lerner, *Innovation and Its Discontents*, CAPITALISM AND SOC'Y, Dec. 2006, at 3 (explaining that the number of lawsuits has doubled in the last decade and continues to rise) (hereinafter "Jaffe & Lerner").

¹⁰ Federal Courts Improvement Act of 1982, Pub. L. No. 97-164, 96 Stat. 25 (1982).

was intended to help standardize patent law¹¹ and eliminate forum shopping,¹² the Federal Circuit has instead contributed significantly to the litigation crisis by making it (1) more difficult for alleged infringers to challenge those patents' validity;¹³ (2) easier to obtain large damage awards;¹⁴ (3) easier to secure injunctive relief,¹⁵ and (4) easier for plaintiffs to exploit the venue rules.¹⁶

The Federal Circuit has liberalized patent procedural and damages rules in part because it has adopted the view that patent law is unique. Pursuant to this view, it has declined to apply traditional principles of law in the patent context, and has skewed the relevant jurisprudence as a result. Predictably, the Supreme Court has specifically and clearly disagreed with this approach,

¹¹ Richard Seamon, *The Provenance of the Federal Courts Improvement Act of 1982* 26 (Univ. of Idaho Working Paper 2002), *available at* http://ssrn.com/abstract=327480 (noting that President Carter told Congress that the creation of the Federal Circuit would have two positive effects: (1) by combining two courts, it would induce economies of scale and (2) "it would expand the Federal judicial system's capacity for definitive adjudication of national law and thereby contribute to the uniformity and predictability of legal doctrine in these areas." (internal citations and quotations omitted)).

¹² Jaffe, *supra* note 3, at 4.

¹³ In ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577 (Fed. Cir. 1984), the Federal Circuit established what has come to be known as the "teaching-suggestion-motivation" ("TSM") test for determining obviousness, requiring that the party seeking to invalidate a patent establish some "teaching or suggestion supporting the combination" of prior arts. See In re Dembiczak, 175 F.3d 994 (Fed. Cir. 1999); see also In re Rouffet, 149 F.3d 1350 (Fed. Cir. 1998). The TSM test was recently criticized by the Supreme Court in KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1739 (2007), abrogated in part by In re Translogic Tech., Inc., 2007 U.S. App. LEXIS 23969 (Fed. Cir. Oct. 12, 2007), which held that the Supreme Court's own "expansive and flexible approach" to determining obviousness is "inconsistent" with the Federal Circuit's application of the TSM test as a strict standard. On the impact of KSR v. Teleflex upon the TSM test and standards for obviousness, see generally Hal Milton & Patrick Anderson, The KSR Standard for Patentability, 89 J. PAT. & TRADEMARK OFF. SOC'Y 615 (2007). For criticisms of the TSM test, see, e.g., Brief for the United States as Amicus Curiae, KSR Int'l Co. v. Teleflex, Inc., 126 S. Ct. 2965 (2006) (No. 04-1350), 2004 U.S. Briefs 1350; Brief of Intellectual Property Law Professors as Amici Curiae in Support of Petitioner, KSR Int'l Co. v. Teleflex, Inc., 126 S. Ct. 2965 (2006) (No. 04-1350), 2004 U.S. Briefs 1350, at 1 (criticizing the Federal Circuit's obviousness jurisprudence as "at odds with the statutory language, inconsistent with [the Supreme] Court's precedent, and contrary to the goals of the patent system.").

In *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538 (Fed. Cir. 1995), the Federal Circuit allowed a patent holder to recover damages based on lost sales of a product *not* covered by the particular patent in question; Rite-Hite was awarded \$11 million in damages. In *Monsanto Co. v. Ralph*, 382 F.3d 1374, 1384 (Fed. Cir. 2004), the Federal Circuit affirmed a lower court's award of damages at least five times the technology fee originally assessed by the patent-holder.

patent-holder.

15 The Supreme Court decision in *eBay Inc. v. MercExchange, LLC*, 126 S. Ct. 1837 (2006), rejected the Federal Circuit's practice of issuing a permanent injunction upon finding evidence of both patent validity and infringement. As Prof. Mota has pointed out, the threat of injunction was frequently exploited by patent holders "to negotiate excessive royalties." Sue Ann Mota, eBay v. MercExchange: *Traditional Four-Factor Test for Injunctive Relief Applies to Patent Cases, According to the Supreme Court*, 40 AKRON L. REV. 529, 529 (2007). The Supreme Court's landmark decision in *eBay* brought the Federal Circuit in line with other courts using a case-by-case analysis of the traditional four factors.

¹⁶ See VE Holding Corp. v. Johnson Gas Appliance Co., 917 F.2d 1574 (Fed. Cir. 1990) (holding that venue is proper in a patent-infringement case when a corporate defendant is subject to personal jurisdiction in the judicial district in question).

and has repeatedly reviewed and reversed the Federal Circuit.¹⁷ For example, in *eBay*, the Court reversed the Federal Circuit's "general rule" that a permanent injunction should be granted automatically when there is a finding of infringement of a valid patent.¹⁸ The Supreme Court explained that the principles of equity

apply with equal force to disputes arising under the Patent Act. As this Court has long recognized, "a major departure from the long tradition of equity practice should not be lightly implied." Nothing in the Patent Act indicates that Congress intended such a departure. To the contrary, the Patent Act expressly provides that injunctions "may" issue "in accordance with the principles of equity." ¹⁹

Likewise, in *Dickinson v. Zurko*, the Supreme Court reversed the Federal Circuit, holding that courts should apply the same standard of deference to USPTO findings of fact that courts apply to other agencies' findings of fact pursuant to the Administrative Procedure Act.²⁰ Most recently, in *AT&T v. Microsoft*, the Supreme Court rejected the "software is special" approach utilized by the Federal Circuit to expand the reach of patent law beyond what Congress intended.²¹ Returning to the plain meaning of the patent law and traditional notions of territoriality, the Court refused to give patent law extraterritorial effect.²² In this way, the Supreme Court is attempting to ensure that the patent law is consistent, to the extent possible, with other fields of law.

Similarly, the Supreme Court is now stripping away the complicated and often conflicting legal rules that the Federal Circuit has imposed upon the relatively straightforward directives of the patent law. For example, in *MedImmune, Inc. v. Genentech, Inc.*, ²³ the Supreme Court rejected the Federal Circuit's test for filing a declaratory judgment action. Under Federal Circuit case law, a licensee could not challenge a patent as invalid, unenforceable, or not infringed without first breaching or terminating the license. Thus, a company licensing a patent had to risk the possibility of paying punitive damages for patent infringement in order to challenge the validity of that patent in the first place. ²⁴ The Supreme Court responded by holding that the standards for determining whether a particular declaratory judgment action is permissible may be satisfied even when the patent licensee has not breached the license. ²⁵ This ruling simplified patent law by making it possible for licensees to challenge patents without

The Supreme Court reviewed eight and affirmed four patent cases from the Federal Circuit from 1990 to 2001, but from 2002 to 2006, the Court did not affirm any of the nine cases it reviewed. Marcia Coyle, *Critics Target Federal Circuit*, NAT'L L. J., Oct. 19, 2006, *available at* http://www.law.com/jsp/article.jsp?id=1161162317072 (hereinafter "Coyle").

¹⁸ eBay, Inc., 126 S. Ct. at 1839 (reversing the Federal Circuit's "general rule" that a permanent injunction should be granted when there is a finding of infringement of a valid patent).

¹⁹ *Id.* (internal citations omitted).

²⁰ Q. Todd Dickinson v. Mary E. Zurko et al., 527 U.S. 150 (1999).

²¹ Microsoft Corp. v. AT&T Corp., 127 S. Ct. 1746 (2007).

²² Id.

²³ MedImmune, Inc. v. Genentech, Inc., 127 S. Ct. 764, 777 (2007).

²⁴ MedImmune, Inc. v. Genentech, Inc., 427 F.3d 958 (Fed. Cir. 2005), overruled by MedImmune, Inc. v. Genentech, Inc., 127 S. Ct. 764 (2007).

²⁵ *MedImmune*, *Inc.*, 127 S. Ct. at 777.

unnecessarily incurring liability, and it harmonized the law by applying the rationale of the Declaratory Judgment Act to patent litigation. ²⁶

The Supreme Court's increasing propensity to review Federal Circuit decisions suggests that it believes the lower court's patent jurisprudence is flawed and the patent system needs fixing.²⁷ However, the ability of the Supreme Court to review and correct the patent system is limited because it can only review single cases on a *seriatim* basis. But piecemeal reforms will not suffice—the current, confusing state of patent jurisprudence is undermining the predictability and uniformity Congress attempted to achieve when it created the Federal Circuit, and it will require congressional action to provide the systematic fix the patent system needs.

B. Liberalized Rules Encourage Litigation Abuse.

One need only look at the trends that have emerged from these liberalized legal and procedural rules—which encourage litigation and judicially coerced settlements—to conclude that reform is necessary. The cost of litigating a patent case has risen to phenomenal levels due to the complex legal and technical issues, extensive discovery, experts, and attorneys associated with infringement suits. For example, one survey conducted in 2005 showed that it cost between \$2.5 million and \$6 million to litigate an infringement suit with more than \$25 million at risk. A 2005 article reported that the "industry rule of thumb is that any patent infringement lawsuit will easily cost \$1.5 million in legal fees" to defend. Abusive practices made possible by the liberal legal and procedural rules compound these high costs of litigation, and have created a changing litigation landscape that threatens the basic tenets of the patent system.

An obvious example of this abuse—indeed, a driving force behind it—is the rise of "patent trolls," speculators who acquire and sue upon patents, but do not actually expand the marketplace or increase consumers' choices. The speculators' gain comes at the expense of risk-taking inventors, investors, and entrepreneurs. Justice Kennedy recognized this new phenomenon in *eBay Inc. v. MercExchange LLC*:

²⁷ Rebecca S. Eisenberg, *The Supreme Court and the Federal Circuit*, 106 U. MICH. L. REV. 28, 28 (2007); *see also* Coyle, *supra* note 17.

²⁸ *See* Jaffe & Lerner, *supra* note 9, at 3 ("[A] patent infringement allegation from a competitor can now mean legal

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²⁶ See id. at 773.

²⁸ See Jaffe & Lerner, supra note 9, at 3 ("[A] patent infringement allegation from a competitor can now mean legal fees in the millions."); see also Mark A. Lemley & Carl Shapiro, Patent Holdup and Royalty Stacking, 85 Tex. L. Rev. 1991, 2019 (noting that parties litigating a patent case through trial face the "expense of many millions of dollars per side in legal fees and great time and effort." (citing AM. INTELL. PROP. LAW ASS'N, REPORT OF THE ECON. SURVEY 22 (2005)) (hereinafter "Lemley & Shapiro")).

²⁹ AM. INTELL. PROP. LAW ASS'N, REPORT OF THE ECON. SURVEY I-110 (2005) (Based on 299 individual responses, the median cost estimate for litigating cases with more than \$25 million at stake was reported to be \$4.5 million. The 25th percentile estimate was \$2.5 million and the 75th percentile estimate was \$6 million.); *see also* Lemley & Shapiro, *supra* note 28, at 2019.

Mark H. Webbink, *A New Paradigm for Intellectual Property Rights in Software*, 2005 DUKE L. & TECH. REV. 12, ¶ 15 (2005), http://www.law.duke.edu/journals/dltr/articles/2005dltr0012.html.

³¹ See generally Elizabeth D. Ferrill, Patent Investment Trusts: Let's Build a PIT to Catch the Patent Trolls, 6 N.C. J. L. & TECH. 367 (2005).

³² See id.

In 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. 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.³³

This opportunistic behavior is made possible by permissive damages rules and low patent quality. Likewise, liberalized procedural rules make it possible for opportunistic plaintiffs' lawyers to file questionable lawsuits in favorable jurisdictions.

Not surprisingly, entrepreneurial plaintiffs' lawyers have recognized these trends and now appear to be moving from personal injury litigation to infringement suits. According to the *Texas Lawyer*, ³⁴ some traditional types of tort cases, such as medical malpractice and product liability, are no longer cost-effective for trial attorneys to litigate. The result is that former asbestos and medical malpractice litigators are turning to more lucrative patent litigation. ³⁵ These lawyers, new to patent infringement litigation, are increasingly utilizing an old tactic—bringing suit against entrepreneurs and innovators in places with no discernible connection to where they are located.

Venue has traditionally been designed to ensure there is some recognizable connection between the alleged injury, the location of the parties, and the place in which the lawsuit may be brought. As written, the venue statute applying to patents sought to limit a plaintiff's choice of forum to the "judicial district where the defendant resides, or where the defendant has committed acts of infringement and has a regular place of business," and historically, courts held that a plaintiff's choice of forum was circumscribed by this provision. In 1988, however, Congress adopted a new definition of "reside" applicable to corporations, whereby a corporation is "deemed to reside in any judicial district in which it is subject to personal jurisdiction at the time the action is commenced." Then, in 1990, the Federal Circuit read this broad definition of "reside" from the general venue provision governing civil suits into the venue provision applicable to patent infringement suits. As a result, many corporations are now subject to personal jurisdiction in any federal district in the country, enabling lawyers to sue in sympathetic "magnet jurisdictions" such as Marshall, Texas.

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³³ eBay Inc. v. MercExchange LLC, 126 S. Ct. 1837, 1842 (2006) (Kennedy, J., concurring, joined by Stevens, Souter, and Breyer, JJ.) (citation omitted).

³⁴ Alan Cohen, From PI to IP: Texas Attorneys Transform Their Practices After Tort Overhaul, 21 TEX. LAW. No. 36, Nov. 7, 2005.

³⁵ *Id.* ("In the mid-1970s, Roth worked on one of the first asbestos cases in the country—resulting in a \$20 million settlement. By the 1980s, however, the first stirrings of tort reform were being heard. 'Everyone was worried,' says Roth. 'My boss would tell me, you may have to find a new cow to milk here."").

³⁶ 28 U.S.C. § 1400(b) (2007).

³⁷ Judicial Improvements and Access to Justice Act, Pub. L. No. 100-702, tit. X, § 1013(a), 102 Stat. 4642, 4669 (1988) (codified as amended in scattered sections of 28 U.S.C.).

³⁹ VE Holding Corp. v. Johnson Gas Appliance Co., 917 F.2d 1574 (Fed. Cir. 1990).

⁴⁰ 28 U.S.C. § 1391(c) (2007); see also Kimberly A. Moore, Forum Shopping in Patent Cases: Does Geographic Choice Affect Innovation?, 79 N.C.L. REV. 889, 894-901 (2001).

Marshall is on its way to becoming the new Madison County, Illinois, which was formerly known as the "preeminent" venue on the American Tort Reform Association's list of "judicial hellholes." For example, from January 2000 through February 2006, sixty percent of the patent cases in the Eastern District of Texas were filed in Marshall, population 25,000, despite the fact that there are five other divisions in that District. Predictably, "many of the local lawyers who once specialized in personal injury cases are turning their attention to intellectual property law."

Current legislative proposals would address the most egregious examples of forum shopping by amending the venue provision to minimize this abuse. The new rules will better correspond with the traditional concept that the location of the lawsuit must not be biased in favor of one party, but rather be based on where both parties have a real connection. Such a provision would ensure that magnet jurisdictions see a significant decline in the number of patent cases on their respective judicial dockets.

C. The Patent and Trademark Office.

Perverse incentives for individuals to apply for patents of dubious quality and sue legitimate patent holders are a direct result of the liberalized legal rules that permit forum shopping and litigation abuse. These rules are playing a role in the decline of patent quality by encouraging individuals to apply for patents of dubious quality and sue legitimate patent holders. This practice results in the issuance of questionable patents, and the squandering of precious USPTO resources (even if the patent is not ultimately issued) in the face of an increasing number of patent applications that are presenting a larger number of complex claims. Since 1991, in an effort to rectify the serious problem of an under-funded and under-staffed USPTO, the agency has been entirely funded by patent user fees. But beginning in 1992 a significant percentage of those fees have been diverted for unrelated purposes. The USPTO was deprived, by one

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⁴¹ AM. TORT REFORM ASS'N, JUDICIAL HELLHOLES 2006 iii, 16, *available at* http://www.atra.org/reports/hellholes/r eport.pdf. The ATRA releases an annual report listing the worst of these "powerful magnets for litigation." AM. TORT REFORM ASS'N, JUDICIAL HELLHOLES 2002 3, *available at* http://www.atra.org/reports/hellholes/2002/hellhol es_report_2002.pdf. Madison County has repeatedly been cited as the venue where "almost any class action will be certified." *Id.* at 7.

⁴² Allen Pusey, *Marshall Law: Patent Lawyers Flock to East Texas Court for Its Expertise and 'Rocket Docket'*, DALLAS MORNING NEWS, Mar. 26, 2006, at 1D, *available at* http://www.dallasnews.com/s/dws/bus/stories/DN-marshall_26bus.ART0.State.Edition1.3eb99e4.html (hereinafter "Pusey").

⁴³ United States District Court for the Eastern District of Texas, http://www.txed.uscourts.gov/Directories/DistrictInf ormation/DistrictsOfTexas.htm (last visited on Nov. 26, 2007).

⁴⁴ Pusey, *supra* note 42.

⁴⁵ FTC REPORT, *supra* note 3, at 9-10, 33.

⁴⁶ Prior to 1983, the USPTO was entirely taxpayer-funded via appropriations from the general Treasury. Starting in 1983, the USPTO supplemented its funding with patent-related fees. In 1990, all tax funding was withdrawn. *See The President's FY 1999 Appropriations Request for the USPTO: Hearing Before the Subcomm. on Commerce, Justice, State, the Judiciary, and Related Agencies of the H. Appropriations Comm.*, 105th Cong. (1998) (written statement of Gary L. Griswold, President, American IP Law Ass'n), *available at* http://www.aipla.org/Content/Cont entGroups/Legislative_Action/105th_Congress1/Testimony3/FY_1999_Appropriations_for_the_Patent_and_Trade mark Office.htm.

account, of more than \$750 million over 12 years.⁴⁷ At the same time, the number of patent applications and patents issued has skyrocketed. For example, in 1990 the USPTO received approximately 176,000 patent applications and issued 99,000 patents.⁴⁸ By contrast, in 2006, the USPTO received approximately 453,000 applications and issued 196,000 patents.⁴⁹ Similarly, the number of claims presented in each patent application has increased in recent years.⁵⁰ This trend is only expected to continue as more applications are filed on an annual basis,⁵¹ and as both the patent applications and the patents themselves become more complex.⁵² Predictably, patent quality has declined as a result.⁵³

This decline in patent quality translates into an increase in patent grants which entail only trivial or insignificant improvements. These trivial patents form the basis for the "new industry" Justice Kennedy identified in the *eBay* opinion, "…in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees." Conversely, "quality patents" embody meaningful advances in "Science and [the] useful Arts" and therefore should receive legal recognition and protection.

Unfortunately, too many applicants abuse the limitations on USPTO resources in order to obtain dubious patents. These individuals will often target successful technologies in their applications, claiming intellectual ownership of trivial aspects of a car, computer, or airplane. The reason for this is simple: if they can obtain a patent that relates in some way to a successful enterprise, these speculators can extort damages—due to the misapplication of the entire market value rule—based on the entirety of the targeted and highly valuable technology. The net result is the rewarding of tenacity and opportunism rather than inventive genius.

D. An Opportunity for Legal Reform.

The increasing issuance of low quality patents is contributing to the rising tide of questionable litigation. Of course, litigation abuse is not new. Similar predicaments in other areas of law have garnered significant attention from Congress over the last fifteen years.⁵⁵ For

⁴⁷ Letter from Michael K. Kirk to Representatives John Conyers, Howard Berman, Lamar Smith, and Howard Coble (May 28, 2007), *available at* http://www.aipla.org/Content/ContentGroups/Legislative_Action/110th_Congress1/Te stimony6/LtrReHR2336.pdf.

⁴⁸ U.S. Patent and Trademark Office, *supra* note 1.

⁴⁹ Id.

⁵⁰ Allison & Lemley, *supra* note 2.

⁵¹ Statistics from the USPTO support this account. In 1980, the USPTO received 104,329 utility patent applications; by 2006, this number had grown to 425,967 applications. The number of U.S. utility patents granted in 1980 was 61,819; in 2006 this number had increased to 173,771. U.S. Patent and Trademark Office, *supra* note 1.

⁵² Allison & Lemley, *supra* note 2.

⁵³ See generally FTC REPORT, supra note 3, at 5-7; see also NAS REPORT, supra note 3, at 47; NAPA REPORT, supra note 3, at 62-64; Jaffe, supra note 3, at 35.

⁵⁴ 126 S. Ct. at 1842.

⁵⁵ See, e.g., Private Securities Litigation Reform Act of 1995, Pub. L. No. 104-67, 109 Stat. 737 (codified as amended in scattered sections of 15 U.S.C.); Fairness in Asbestos Injury Resolution Act of 2005, H.R. 1360, 109th Cong. (2005); Class Action Fairness Act of 2005, Pub. L. No. 109-2, 119 Stat. 4 (codified in scattered sections of 28 U.S.C.); see also Alien Tort Statute Reform Act, S. 1874, 109th Cong. (2005) (a bill to amend title 28, United States Code, to clarify Federal Court jurisdiction over tort actions brought by aliens); Personal Responsibility in Food Consumption Act, H.R. 554, 109th Cong. (2005) (designed to prevent civil liability actions from interfering with (Footnote continued on next page.)

example, "abusive practices committed in private securities litigation," including "the routine filing of lawsuits against issuers of securities and others whenever there is a significant change in an issuer[']s stock price, without regard to any underlying culpability of the issuer, and with only faint hope that the discovery process might lead eventually to some plausible cause of action," prompted Congress to pass the Private Securities Litigation Reform Act of 1995 ("PSLRA"). The PSLRA sought to (1) curb frivolous litigation by imposing stringent pleading requirements on plaintiffs, (2) lower the cost of litigation by limiting discovery, and (3) remove the incentives driving the plaintiffs' bar by changing the damages rules to entitle plaintiffs to actual damages.

Likewise, Congress passed the Class Action Fairness Act of 2005 ("CAFA")⁶¹ in response to abusive litigation tactics such as the routine filing of frivolous class action lawsuits alleging enormous damages in plaintiff-friendly "magnet jurisdictions"⁶² with the intention of extorting large class settlements⁶³ from companies fearful of potentially business-ending damage awards (*i.e.*, the routine filing of strike suits).⁶⁴ The practice became so prevalent that Senator

governmental functions regarding food manufacturing, advertising, and distributing relating to a person's weight gain, obesity, or any health condition associated with the same); Protection of Lawful Commerce in Arms Act, Pub. L. No. 109-92, 119 Stat. 2095 (codified in scattered sections of 15 U.S.C. and 18 U.S.C. (2005)) (an act to prevent civil liability actions against firearms or ammunitions companies for damages, injunctive or other relief); Medical Malpractice and Insurance Reform Act of 2003, H.R. 1219, 108th Cong. (2003) (a bill to limit frivolous medical malpractice lawsuits, to reduce the cost of medical malpractice insurance, and to enhance patient access to medical care); Securities Litigation Uniform Standards Act, Pub. L. No. 105-353, 112 Stat. 3227 (codified in scattered sections of 15 U.S.C. (1998)) (a bill to limit securities class actions under state law).

⁵⁶ H.R. REP. No. 104-369, at 31 (1995), reprinted in 1995 U.S.C.C.A.N. 730, 730.

⁵⁷ Private Securities Litigation Reform Act of 1995, Pub. L. No. 104-67, 109 Stat. 737 (codified as amended in scattered sections of 15 U.S.C.).

⁵⁸ See 15 U.S.C. § 78u-4(b)(1)-(4) (2007).

⁵⁹ See § 78u-4(b)(3).

⁶⁰ The PSLRA adjusted the applicable damages rules to provide for compensation based on actual damages. 15 U.S.C. § 78u-4(e)(1).

⁶¹ Class Action Fairness Act of 2005, Pub. L. No. 109-2, 119 Stat. 4 (codified in scattered sections of 28 U.S.C.).

⁶² 150 CONG. REC. S7709 (daily ed. July 7, 2004) (statement of Sen. Dodd) ("First, the compromise responds to concerns that the original bill did not adequately address the handful of small, rural State courts that have increasingly become a magnet for more and more nationwide class actions. Such 'magnet jurisdictions' have tended to have lax class certification requirements, and have been less than rigorous in reviewing proposed settlements. In fact, one of the most flagrant abuses of the current class action system occurs when lawyers 'forum shop' that is, invent an injured class and then file a national class action in a 'magnet jurisdiction' where the judges are more likely to lend a sympathetic ear.").

⁶³ See, e.g., Engle v. R.J. Reynolds Tobacco, No. 94-08273 CA-22, 2000 WL 33534572 (Fla. Cir. Ct. 2000), rev'd, Liggett Group, Inc. v. Engle, 853 So. 2d 434 (Fla. App. 2003), approved in part, quashed in part, Engle v. Liggett Group, Inc., 945 So. 2d 1246 (Fla. 2006), cert. denied, R.J. Reynolds Tobacco Co. v. Engle, 128 S. Ct. 96 (2007) (awarding the plaintiff class \$145 billion); Price v. Philip Morris, Inc., No. 00-L-112, 2003 WL 22597608 (Ill. Cir. Mar. 21, 2003), rev'd, 848 N.E.2d 1 (Ill. 2005), cert. denied, 127 S. Ct. 685 (2006) (awarding \$10.1 billion); see also Jim Copland, The Tort Tax, WALL St. J., June 11, 2003, at A16; Jennifer Batchelor, Philip Morris to Pay \$10.1 Billion in Damages, LEGAL INTELLIGENCER, Mar. 25, 2003, available at http://www.law.com/jsp/article.jsp?id=104 8518184203.

⁶⁴ See 150 CONG. REC. S7713 (daily ed. July 7, 2004) (statement of Sen. Hatch) ("The deck is stacked against these companies hauled to Illinois to answer [class action] charges. The cases are heard on an expedited basis that barely gives the defendants a chance to respond. Under these pressures, they are typically given an offer they can't refuse, and they settle regardless of the merits of the case. These ultimatums offered by lawyers in cahoots with judges are better suited to an episode of The Sopranos than to a supposedly impartial justice system.").

Jeff Sessions of Alabama remarked, "We are seeing a problem in which litigation is impacting adversely our ability to create economic growth and impacting adversely our ability to create jobs." As a result, Congressional action was necessary to stem the tide of unmeritorious lawsuits 66 and reduce the cost of litigation. 67

In the same way, the Fairness in Asbestos Injury Resolution Act(s) ("FAIR Act(s)")⁶⁸ were designed to address an abuse that had become so widespread and infamous that the bill(s) proposed removing asbestos actions—*i.e.*, "litigation lotter[ies]"⁶⁹—from the courts entirely. John Engler, the President of the National Association of Manufacturers and former Republican Governor of Michigan, expressed his frustration with the abusive litigation in this way: "[P]laintiffs' lawyers in search of new pockets have dragged thousands of companies into court on the flimsiest basis, disrupting their business and sabotaging their credit. Reform of the tort system alone cannot address these problems."⁷⁰ Indeed, abusive litigation has periodically become prevalent enough to prompt Senator John Cornyn of Texas to note in the context of class action reform that "[w]e can and should do more to reduce the burden of frivolous, expensive litigation. Our Nation's economic competitiveness in the 21st century depends on it. We should consider additional measures that better level the playing field, that produce a good flow of information and transparency, and that provide a clear relationship between plaintiffs and their attorneys."⁷¹

The same conditions that animated prior legal reform efforts are now plaguing patent holders and should be remedied. Indeed, Senator Cornyn's sentiment, expressed above, is equally applicable, if not more so, in the patent context. Current reform proposals will establish damages rules that will minimize strategic behavior just as Congress sought to do in the PSLRA, CAFA, and the FAIR Acts; it will ensure that compensatory damages are truly compensatory and thus not excessive; and it will address venue concerns akin to those addressed by CAFA.

The Framers did not envision the rising numbers of low quality patents and the liberalizing of the damages rules that have caused the current patent crisis, just as they did not foresee the rise of other innovative legal abuses: "The writers of the Constitution intended for

⁶⁵ 150 CONG. REC. S7734 (daily ed. July 7, 2004) (statement of Sen. Sessions).

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⁶⁶ See 150 Cong. Rec. S7725 (daily ed. July 7, 2004) (statement of Sen. Kohl) ("[C]ertain State and county courts welcome the sort of unfair class action suits that lead to the embarrassing settlements that we are trying to end. Anyone who follows this problem can say that class action cases brought in Madison County, IL or certain counties in Florida or throughout most of Mississippi will succeed regardless of the merits of the case and regardless of how poorly any truly injured consumers make out in the settlement. Our bill stems the abuses in the class action system.").

⁶⁷ Editorial, *It's Good for U.S. Business*, THE HILL, Feb. 15, 2005, *available at* http://thehill.com/op-eds/its-good-for-u.s.-business...-2005-02-15.html; *see generally* Class Action Fairness Act of 2005, § 3, 28 U.S.C. § 1711-1715 (2005).

⁶⁸ See, e.g., S. 3274, 109th Cong. (2006); S. 852, 109th Cong. (2005); S. 2290, 108th Cong. (2004); S. 1125, 108th Cong. (2003).

⁶⁹Fairness in Asbestos Injury Resolution Act of 2006: Hearing on S. 3274 Before the S. Comm. on the Judiciary, 109th Cong. (2006) (statement of John Engler on behalf of the Asbestos Alliance), available at http://nam.org/s_na m/doc1.asp?CID=202137&DID=237023 (addressing an alternative proposal, Mr. Engler stated: "It also does not end the litigation lottery, in which some victims do fine, but many others face delayed and reduced compensation."). ⁷⁰ Id.

⁷¹ 151 CONG. REC. S1244 (daily ed. Feb. 10, 2005) (statement of Sen. Cornyn).

interstate lawsuits to be heard in federal court, but the rules governing federal jurisdiction did not envision the rise of the modern class action.... The Class Action Fairness Act returns American jurisprudence to the way the Founders meant for it to be."⁷² The Framers intended the patent system to be an engine of innovation and economic growth, but poorly structured damages rules create uncertainty and engender frivolous suits that threaten the Framers' vision. As Senator Sessions noted in the CAFA context, Congress has the obligation to monitor the state of litigation in this country, and rectify abusive practices whenever they may be found:

To keep our system strong, we in this Congress have to meet our responsibility to pass laws that improve litigation in America. Our court system must produce effective results that further our national policy, correct wrongs, punish wrongdoers, and generate compensation for those who suffer losses in a fair and objective way. We, therefore, as a Congress must periodically review what is happening in our courts and make adjustments if they are needed. That is what we are here for.⁷³

Current reform proposals present Congress with the opportunity to improve litigation in America by bringing our patent system back in line with the policy goals of the Framers. By amending the venue rules, providing for administrative review of a patent's scope and validity, and reforming the damages rules to eliminate the perverse incentives that encourage litigation, the proposals will restore our patent regime to its rightful position of protecting inventors' property rights and spurring innovation.

II. Property Rights: Strengthening Patent Rights and Benefiting Inventors.

Despite consensus on the need for reform, critics of reform efforts believe that certain provisions will weaken the existing property rights of inventors. This concern is misplaced.

Patents are designed to protect property, reward risk-taking inventors, and spur innovation that grows the economy. These broad goals are attainable only if (1) the patent is valid and accurately describes the underlying property right, and (2) the costs associated with the uncertainty created by ambiguous patents and potential litigation do not outweigh the incentive to innovate provided by the monopoly power of the patent. The patent system does not currently satisfy either of these conditions. Poor patent quality leaves patent holders with a weak and poorly defined title while frivolous litigation undermines the aforementioned incentive to innovate. Consequently, the patent system needs a robust process that clearly defines the scope of the patent right and deters questionable litigation. Only then can inventors adequately protect their rights and continue to invest in their—and America's—future.

⁷² National Association of Manufacturers, The Class Action Fairness Act: A Much Needed Measure To Make the Legal System Fairer, *available at* http://www.nam.org/s_nam/doc1.asp?CID=458&DID=235013 (last visited on Nov. 26, 2007).

⁷³ 151 CONG. REC. S1234 (daily ed. Feb. 10, 2005) (statement of Sen. Sessions).

A. Patent Law Spurs Innovation by Rewarding Inventors.

Like traditional property law, patent law is about rewarding the inventor's labor. The former provides an incentive to cultivate and develop land by protecting one's efforts with a legally enforceable right. Patent law is similar in that it provides an incentive to innovate by rewarding the inventor with a time-limited personal property right. However, unlike real property law, which seeks to divide a finite resource, *i.e.*, land, patent law must expand the marketplace of ideas by creating and spreading knowledge.

Patent law is intended to both reward the inventor and spur innovation by recognizing that the optimal social value of the invention can be fully realized only if patented knowledge is made available for public use. As a consequence, a patent grants the patentee up to a twenty-year monopoly⁷⁴ over the use of the invention in exchange for the subsequent public dissemination of information contained in the patent application.⁷⁵ By allowing others to review the invention, dissemination encourages innovation: other entrepreneurs may build upon and improve the invention and they may invent new goods, services, or processes based on information contained in the patent. The result is a system that protects the interests of the inventor while simultaneously spurring innovation.

B. Clear Title Protects Property Rights.

The patent system cannot work if the personal property right embodied by the patent is ambiguous. An inventor's property right is most valuable and best protected when the right is clearly defined. Indeed, our legal system recognizes this in other contexts by accepting that disputes are inevitable in any system with multiple rights holders, and by developing mechanisms to allow challenges to property rights that clarify the owner's interests and resolve any competing claims to it. By providing a forum for resolving competing claims, properly designed legal procedures eliminate the uncertainty surrounding the owner's right, making the title more transferable, and, consequently, more valuable.

For example, in traditional real property law, surveyors and others seek to describe the parcel of land so that an owner's right is fully captured by the title. An owner can bring a quiet title action to resolve challenges where the title to the property is ambiguous due to a competing claim of adverse possession, a surveying error, or the assertion of a tax lien. Thus, the legal system resolves disputes by determining who rightfully has title to the property, and eliminates uncertainty as a result. In turn, this encourages the owner to develop the land because certainty reduces risk, and decreasing risk lowers the cost of capital. In addition, by conveying unambiguous signals, clear title serves as a deterrent to abusive litigation by reducing the likelihood of success of unmeritorious, competing claims.

⁷⁴ See 35 U.S.C. § 154(a)(2) (2007); the Hatch-Waxman Act extends this term for certain pharmaceuticals. Title II, Drug Price Competition and Patent Term Restoration Act of 1984, Pub. L. No. 98-417, 98 Stat. 1585 (codified as amended in 35 U.S.C. § 156 (1984)).

⁷⁵ *Id*.

Patent law, like traditional real property law, must provide an efficient process to clarify the scope and validity of an inventor's patent. In fact, there is a much greater need for these processes in patent law because the metes and bounds of the property right are not nearly as clear as they are in the real property context. The grant of a patent for an invention is by nature a subjective determination made by an expert examiner based on the claims of the application as compared to the statutory criteria for novelty, non-obviousness, and usefulness. Because there is no system for deciding the reach of a patent that is equivalent to the straightforward surveying measurements used to delineate the bounds of real property, a patent right is inherently less precise than a right in real property. This problem has been exacerbated in the last fifty years as patents have become exponentially more numerous, complex, and technical. Furthermore, the societal costs of uncertainty are much greater for patents than for real property. For example, although uncertainty about real property title could hinder the development of a particular parcel of land, uncertainty about a patent's reach could deter innovation and obstruct competition for an entire industry.

C. Patent Review Provides Clearer Title.

Existing patent law recognizes the problems with the process by which patents are issued by providing for three basic types of post-grant review in which a patent may be clarified and its defects cured: (1) reissue, (2) reexamination, and (3) litigation. Unfortunately, the current state of the patent system demonstrates that these mechanisms are inadequate, and therefore must be updated. Today, too many questionable patents are issued and never corrected. As a consequence, once a questionable patent has been issued, the most effective way to challenge it is often through litigation, and as the Supreme Court has noted: "To await litigation is—for all practical purposes—to debilitate the patent system."

Current proposals would cure the current deficiencies in the law and more firmly and clearly establish the personal property right inherent in a patent. For example, an administrative procedure for post-grant review will allow for meaningful challenges to patent validity short of litigation and will bring the patent system in line with relevant legal precedent and well-established property rights principles by providing a fast, inexpensive method for increasing the certainty as to the enforceability and scope of patents. Section 5 of the Patent Reform Act of 2007 does this by providing that a post-grant review proceeding may be initiated (1) within 12 months after the USPTO issues (or reissues) a patent; (2) after 12 months if the party seeking review can establish a substantial reason to believe that the continued existence of the challenged patent "causes or is likely to cause the petitioner significant economic harm" and the party files a petition for review within 12 months of receiving notice from the patentee of an alleged infringement; or (3) after 12 months if the patentee consents to the review. This full and fair post-grant review is necessary to ensure that inventors' patent rights are defined as accurately as possible and that questionable patents do not block other inventors from innovating. A post-

⁷⁶ See, e.g., U.S. Patent and Trademark Office, supra note 1.

⁷⁷ Graham v. John Deere Co., 383 U.S. 1, 18 (1966).

⁷⁸ Patent Reform Act of 2007, S. 1145, 110th Cong. § 6(a) (as introduced on Apr. 18, 2007 and amended by Manager's substitute on July 20, 2007) *available at* http://www.fr.com/news/2007/July/senate_managers_1145.pdf (last visited Nov. 26, 2007).

grant review process will benefit inventors by providing a less costly and more efficient means by which the scope and validity of patents can be clarified. Moreover, it recognizes that inventors are not benefited by resorting to litigation, which is a more expensive and less effective way to dispel uncertainty.

Indeed, the question is not whether there needs to be a means by which the scope and validity of patents may be tested, but rather whether the judicial system or the USPTO is better suited to do so. Because of its expertise in administering the patent law, the USPTO is frequently in the best position to undertake this task. This does not mean, however, that the agency will have the final say in whether a patent is valid or that it will always have the first say. Post-grant review merely provides a new option for parties to allow the USPTO a first look that will, in any case, ultimately be subject to judicial review.

D. Patent Examiners are Best Equipped to Evaluate the Patent's Scope and Validity.

Executive agencies maintain a comparative institutional advantage over the judiciary with regard to the area of law the agencies are charged with applying. Indeed, as the Supreme Court emphasized in *Chevron U.S.A., Inc. v. NRDC*, executive agencies like the USPTO tend to be knowledgeable of, and sophisticated about, the statutes they administer. The policies militating in favor of agency deference are heightened in the patent context because examiners must have specialized knowledge and review prior art before determining whether the invention is truly new, non-obvious, and useful. In addition, the complicated and highly technical issues presented in patent infringement actions are often beyond the knowledge of courts and juries. Courts are, by their very nature, in a poor position to evaluate the validity of a patent because they do not possess the technical expertise and they do not have access to all of the necessary information. Furthermore, as Justice Stephen Breyer has explained, "courts work within institutional rules that deliberately disable them from seeking out information relevant to the inquiry at hand." In fact, procedural and evidentiary rules limit the judge's and the jury's examination of the facts to the record and "the record itself tells only part of the story, the part that the advocates have chosen to let the court see."

Because patents are becoming more complex, the need for a more considered, expert determination of scope and validity is increasing. This need is highlighted by the fact that

⁷⁹ Laurence H. Silberman, *Chevron: The Intersection of Law & Policy*, 58 GEO. WASH. L. REV. 821, 823 (1990) (hereinafter "Silberman").

⁸⁰ Chevron U.S.A., Inc. v. NRDC, 467 U.S. 837, 843-44 (1984).

⁸¹ See Claude Barfield & John E. Calfee, Biotechnology and the Patent System 77-78 (2007); see also Danny Ciraco, Forget the Mechanics and Bring in the Gardeners, 9 U. Balt. Intell. Prop. L. J. 47, 73-74 (2000); Kimberly A. Moore, Juries, Patent Cases, and a Lack of Transparency, 39 Hous. L. Rev. 779, 801 (2002); Marvin Motsenbocker, Proposal to Change the Patent Reexamination Statute To Eliminate Unnecessary Litigation, 27 J. Marshall L. Rev. 887, 889 (1994) ("No other country in the world uses a jury for patent litigation."); Marion M. Lim, Note, ADR of Patent Disputes: A Customized Prescription, Not an Over-the-Counter Remedy, 6 Cardozo J. Conflict Resol. 155, 171-73 (2004) (noting that courts and juries typically do not have technological or scientific expertise).

⁸² Stephen Breyer, Judicial Review of Questions of Law and Policy, 38 ADMIN. L. REV. 363, 389 (1986).

⁸³ *Id.* at 390.

litigated patents tend to have more claims and cite more prior art,⁸⁴ and further, by the fact that the mounting complexity of patents will only make it more difficult for judges and lay juries to correctly evaluate patent validity.

By letting the USPTO review the patent's validity in the first instance, post-grant review also serves an important constitutional purpose in that deference to agency action keeps judicial power in check. Before to the expert agency's judgment, Judge Silberman has explained, provides a limiting force to "the extraordinary expansion of judicial power in the latter half of this century [and it] might be thought to stand for a 'little judiciary' and, like Gladstone, we should bear the emblem proudly, for that is precisely what the Framers of our Constitution intended."

By sending unambiguous signals to the market, clear patent title decreases the incentives of opportunistic patent trolls and others to game the system. Those plain signals make patents more transferable by providing information to individuals that enables them to bargain to reach efficient outcomes. As a consequence, wasteful, duplicative inventive efforts are minimized and information is conveyed that allows individuals to avoid disputes that might otherwise lead to litigation. In this way, clear title serves as a deterrent to abusive litigation because it reduces the likelihood of success in an infringement lawsuit.

III. Protecting the Marketplace of Ideas.

The market is the most efficient means by which the value of inventions may be measured. Reforming the damages rules so that compensatory damages correspond to actual harm will provide certainty and clarity to the market which will, in turn, promote voluntary *ex ante* actions in the marketplace instead of *ex post* opportunistic behavior and litigation. In the current system, poorly structured damages rules result in damage awards that too often overcompensate plaintiffs. As a result, rational actors pursue litigation over free market transactions because they correctly judge that more money can be made by holding out and seeking compensation through litigation. Hence, current damages rules encourage *ex post* opportunistic behavior such as strike suits and other abusive practices that are antithetical to the *ex ante* free-market bargaining needed to properly value inventions and reward inventors. These market failures inhibit and punish inventors for taking on the risk of building on prior knowledge, thereby defeating a fundamental purpose of the patent law—rewarding the risk-taking inventor for originating an idea and bringing it to the marketplace.

⁸⁴ Bessen & Meurer, *supra* note 9, at 20.

⁸⁵ See Silberman, supra note 79, at 821.

⁸⁶ Id

⁷ Id.

⁸⁷ See Daniel J. Gifford, How Do the Social Benefits and Costs of the Patent System Stack up in Pharmaceuticals?, 12 J. INTELL. PROP. L. 75, 83-84 (2004) (explaining that in our patent system, "the extent to which they are, in fact, rewarded for their inventive activity is determined by the market."); see also Nuno Pires de Carvalho, The Primary Function of Patents, 2001 U. ILL. J.L. TECH. & POL'Y 25, 36 ("Patents have the primary function of serving as metering devices for society to measure an invention's value, thus allowing patentees to stipulate competitive prices for inventions and, consequently, on the products and services that embody them.").

A. Current Damages Rules Favor Litigation over Innovation.

Reforming the mechanism by which damages are calculated so that compensatory remuneration reflects actual harm is particularly important in the patent context, where punitive damages are based upon the compensatory award. Current rules routinely providing for damages based upon the value of the entire product rather than upon the actual harm caused by the infringement make it possible to obtain a court-ordered award that exceeds the profits an inventor may be able to capture in the free market. This prospect provides an enormous incentive to sue.

Under current law, a patent holder whose patent has been infringed is entitled to compensatory damages "adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court." The calculation of damages, which is entirely within the discretion of the trial court, so is designed to fix compensatory remuneration at the market value of the invention by applying one of two methods to measure the harm of the infringement: lost profits or the reasonable royalty rate. To demonstrate lost profits, a patentee must demonstrate that "but for" the infringement, it would have made the sales captured by the infringer. When a patentee is unable to show lost profits, the law directs the courts to determine the appropriate measure of damages based upon "a reasonable royalty." "91

The reasonable royalty rate is set as the floor on compensatory damages, but beyond that, the statute provides no guidance regarding the relevant calculations. Left without legislative direction, the courts have developed a number of methods for calculating damages, such as envisioning the result of the parties' hypothetical negotiation for a license to the claimed invention at the time infringement began. Many of the factors that are used to calculate the reasonable royalty have been compiled in a fifteen-point test set out in *Georgia-Pacific Corp. v. United States Plywood Corp.* ⁹²

B. The Reasonable Royalty Rate Too Often Overcompensates.

The reasonable royalty rate is intended, by operation of the black letter of the patent law, to set a floor on damages and approximate the market rate. Unfortunately, a review of the case

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⁸⁸ 35 U.S.C. § 284 (2007).

⁸⁹ Kori Corp. v. Wilco Marsh Buggies & Draglines, Inc., 761 F.2d 649, 653-54 (Fed. Cir. 1985). These methods are not binding upon the court. However, in practice, damage awards are virtually always calculated using one or both of these methods.

⁹⁰ See, e.g., Kearns v. Chrysler Corp., 32 F.3d 1541, 1551 (Fed. Cir. 1994).

⁹¹ See 35 U.S.C. § 284 (2007).

⁹² Georgia-Pacific Corp. v. United States Plywood Corp., 318 F. Supp. 1116 (S.D.N.Y. 1970), modified and aff'd, 446 F.2d 295 (2d Cir. 1971) (setting forth fifteen relevant factors the judge considered in that instance in determining the reasonable royalty rate, which factors have subsequently been used by juries to help calculate damages); see also Uniform Jury Instructions for Patent Cases, U.S. District Court for the District of Delaware, § 6.1 (Mar. 1993), available at http://www.ded.uscourts.gov/jury/Patent%20Jury%20Instructions.pdf (setting forth 15 factors for measuring a reasonable royalty rate); Model Patent Jury Instructions, Fed. Cir. Bar Ass'n., § 12.3.7, available at http://www.fedcirbar.org/documents/forms/LINKS/-%20FED.%20CIR.%20FINAL%20VERSION%20 (3).PDF (setting forth 11 factors for measuring a reasonable royalty rate).

law demonstrates that the opposite is true. ⁹³ Despite the fact that *Georgia-Pacific* sets out fifteen considerations for the fact finder, whether it be a jury or judge, to take into account when measuring the appropriate royalty rate, those factors provide little actual guidance on how to calculate damages in complex patent cases. Compensatory damages are often excessive because (1) judges and juries are compelled to "imagine" outcomes that might have resulted from hypothetical complex licensing negotiations, and (2) judges and juries must rely on imperfect information and conditions inherently unlike a free market transaction. Moreover, hypothetical market conditions are strongly influenced by the background damages rules that frame the market. If the legal rules governing damages are flawed, then market determinations made against the backdrop of those rules are necessarily flawed as well. Thus, judicially awarded reasonable royalty rates often compensate well above the market rate. ⁹⁴

This situation is worsened by the inherent problems associated with using a hypothetical negotiation to measure compensatory damages. As a threshold matter, to closely emulate a market transaction, a hypothetical negotiation occurring in a courtroom requires there be an underlying, functioning marketplace. The current damages rules, however, have distorted the market by providing incentives (i.e., excessive compensation) for strategic and opportunistic behavior which affects the bargaining positions of the parties. The hypothetical negotiation perpetuates—indeed, worsens—this problem as it seeks to emulate a failed market whose failures are at least partly attributable to the court's efforts to mimic the market in the first instance. For example, assume a court applies the vague damages rules and they result in overcompensation of \$1. When similarly situated parties negotiate in the future, they will negotiate against the backdrop of the \$1 overcompensation, and the outcome will be skewed upwards by that amount. Moreover, when the court endeavors to engage in future hypothetical negotiations, its baseline will be the new market rate, which of course was inflated by the court's previous ruling. If, as we have seen, the court overcompensates by another \$1, then the market will absorb the new distortion as well. Predictably, this process results in unwarranted damages. An entitlement to actual damages will realign this incentive structure so that a hypothetical negotiation can successfully emulate a free-market transaction—and further, it will remedy the current distortion plaguing the market. Clarifying the law, so that the patent holder is entitled to claim damages only on the portion of the allegedly infringing product attributable to the patent, will minimize this problem.

C. Compensatory Damages Should Compensate, Not Punish.

More than 150 years ago, in *Seymour v. McCormick*, ⁹⁵ the Supreme Court explained that the damages in an infringement action should be measured according to the portion of the allegedly infringing product attributable to the patent: "[O]ne who invents some improvement in the machinery of a mill could not claim that the profits of the whole mill should be the measure of damages for the use of his improvement." Likewise, the current patent statute authorizes an

⁹³ See Lemley & Shapiro, supra note 28, at 2033 (explaining that the litigated royalty rate is higher than the negotiated royalty rate).

⁹⁴ *Id*.

⁹⁵ Seymour v. McCormick, 57 U.S. 480 (1854).

⁹⁶ *Id.* at 489.

award of compensatory, *i.e.*, actual, damages.⁹⁷ The compensatory damages award provided by the statute is not meant to be punitive in nature. Instead, it is designed solely to compensate the patent owner for any financial loss caused by the infringement.⁹⁸ This principle is well-established in patent law.⁹⁹

Over the years, however, courts have strayed from the principle set out in McCormick, and they have systematically overcompensated patent-holders as a result. ¹⁰⁰ In addition, courts too often apply "the entire market value rule, which permits recovery of damages based on the value of the entire apparatus containing several features, where the patent related feature is the basis for customer demand," ¹⁰¹ even in those cases where only one patent in a host of patentable parts was infringed (e.g., one patent in one-thousand patentable parts). ¹⁰²

An example illustrates what happens in situations where juries are left without any guidance whatsoever to determine the appropriate damages. Earlier this year in *Lucent Technologies Inc.* and Multimedia Patent Trust v. Gateway Inc. and Microsoft Corporation, a jury ordered Microsoft to pay \$1.52 billion for infringing two patents for the MP3 technology used to play digital music on computers and other mobile devices. ¹⁰³ Instead of measuring the damages based upon the value of the patented MP3 technology itself, the jury looked to the value of nearly all the computers with Microsoft Windows operating systems, and on Microsoft's worldwide sales, *i.e.*, the jury inappropriately applied the entire market value rule. ¹⁰⁴ This award

⁹⁷ See 35 U.S.C. § 284 (2007).

⁹⁸ MICHAEL A. EPSTEIN, EPSTEIN ON INTELLECTUAL PROPERTY, § 5.04[E] (5th ed. 2007).

⁹⁹ See, e.g., Aro Mfg. Co. v. Convertible Top Replacement Co., 377 U.S. 476, 507 (1964) (explaining that the correct measure of damages for infringement is compensatory, and that damages awarded to the plaintiff should be measured as "the difference between his pecuniary condition after the infringement, and what his condition would have been if the infringement had not occurred." (quoting Yale Lock Mfg. Co. v. Sargent, 117 U.S. 536, 552 (1886)); see also Stickle v. Heublein, Inc., 716 F.2d 1550, 1560 (Fed. Cir. 1983) (embracing and reinforcing the Supreme Court's standard in its holding that "only damages may be recovered by a patent holder, not an infringer's profits, as such." (internal quotations and citation omitted)); State Industries, Inc. v. Mor-Flo Industries, Inc., 883 F.2d 1573, 1577 (Fed. Cir. 1989) (explaining that "[t]he measure of damages is an amount which will compensate the patent owner for the pecuniary loss sustained because of the infringement." (citation omitted)); Riles v. Shell Exploration & Prod. Co., 298 F.3d 1302, 1312 (Fed. Cir. 2002) (overturning a jury verdict that had awarded \$8.7 million to an alleged infringer of an oil rig platform structure design, and stating that "[c]ompensatory damages, by definition, make the patentee whole, as opposed to punishing the infringer." (citation omitted)).

¹⁰⁰ See Lemley & Shapiro, supra note 28, at 2033.

¹⁰¹ State Indus., Inc. v. Mor-Flo Indus., Inc., 883 F.2d 1573, 1580 (Fed. Cir. 1989).

¹⁰² Amy L. Landers, *Let the Games Begin: Incentives to Innovation in the New Economy of Intellectual Property Law*, 46 SANTA CLARA L. REV. 307, 309 (2006) (explaining that current law permits plaintiffs to recover royalties based on the "entire product or system, even where the patent covers only a minor component of that product or system." (citation omitted)).

¹⁰³ Jury Verdict, *Lucent Tech. Inc. and Multimedia Patent Trust v. Gateway Inc. and Microsoft Corp.*, No. 02-CV-

¹⁰³ Jury Verdict, *Lucent Tech. Inc. and Multimedia Patent Trust v. Gateway Inc. and Microsoft Corp.*, No. 02-CV-2060-B-CAB (S.D. Cal. Feb. 22, 2007), *rev'd*, Amended and Superceding Partial Judgment Regarding U.S. Patent Nos. 5,341,457 and Re 39,080 Only Following Summary Judgment, Jury Trial and Post-Trial Motions, *Lucent Tech. Inc. and Multimedia Patent Trust v. Gateway Inc. and Microsoft Corp.*, No. 02-CV-02060-B-CAB (S.D. Cal. Aug. 6, 2007).

¹⁰⁴ *Id.*; see also Saul Hansell, *Microsoft Ordered To Pay* \$1.52 Billion in MP3 Patent Lawsuit, INT'L HERALD TRIB., Feb. 23, 2007, available at http://www.iht.com/articles/2007/02/23/business/web-0223microsoft.php; Alan Sipress, *Microsoft Loses Big in MP3 Patent Suit*, WASH. POST, Feb. 23, 2007, at D1.

was later overturned ¹⁰⁵ when the judge determined that the entire market rule should not have been applied because there was not a link between the cost of the computers and the value of the patented technology. ¹⁰⁶ Nonetheless, this case demonstrates how thoughtful and diligent jurors left with no guidance to sort out complicated issues can award astonishingly excessive damages, the mere potential of which can foster strategic behavior.

Excessive compensatory damage awards of this sort are particularly unnecessary in light of the fact that patent law currently provides a means by which deliberate infringement may be punished. Section 284 of the patent statute authorizes courts to assess damages up to three times the compensatory damage award for instances where there is at least a showing that the infringer was objectively reckless. Thus, a patent holder may collect punitive damages where the evidence shows "that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent." The availability of treble damages for purposeful infringement highlights that the intent of the law was to peg compensatory damages to actual harm, and not to punish.

D. Curbing Litigation Abuse by Compensating for Actual Damages.

Only an entitlement closely tied to actual damages will overcome strategic behavior and encourage individuals to engage in un-coerced, *ex ante* transactions. Excessive damage awards for infringement operate like injunctive remedies in the law of nuisance. To overcome opportunistic, rent-seeking behavior leading to social waste, it is necessary to choose a remedy that emulates the market, ¹⁰⁹ while keeping in mind the need for transparent damages rules that promote certainty. Moreover, since a legally coerced transaction is less likely than a market transaction to reach an efficient outcome, ¹¹⁰ it is essential that these rules facilitate transactions outside the courtroom. Unfortunately, infringement damages exceeding the market rate operate in the same inefficient manner as injunctive remedies in the law of nuisance, *i.e.*, they encourage patentees to forgo voluntary *ex ante* transactions that would lead to an efficient outcome.

Returning the award of damages to a closer approximation of actual damages will curb litigation abuse by decreasing the likelihood of a possible windfall that lures would-be litigants. The Patent Reform Act will achieve this by directing judges and juries to assess damages for infringement based upon the "economic value properly attributable to the patent's specific

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Amended and Superceding Partial Judgment Regarding U.S. Patent Nos. 5,341,457 and Re 39,080 Only Following Summary Judgment, Jury Trial and Post-Trial Motions, *Lucent Tech. Inc. and Multimedia Patent Trust v. Gateway Inc. and Microsoft Corp.*, No. 02-CV-02060-B-CAB (S.D. Cal. Aug. 6, 2007).

¹⁰⁶ Order on Microsoft's Motions for Judgment as a Matter of Law and New Trial and Lucent's Motion to Alter or Amend the Judgment Regarding U.S. Patent Nos. 5,341,457 and Re 39,080, *Lucent Tech. Inc. and Multimedia Patent Trust v. Gateway Inc. and Microsoft Corp.*, No. 02-CV-02060-B-CAB, at 31 (S.D. Cal. Aug. 6, 2007). The court concluded that "the jury's application of the entire market value rule to the computer was unsupported as a matter of law." *Id.* at 34.

¹⁰⁷ *In re Seagate Technology LLC*, No. 830, 2007 U.S. App. LEXIS 19768, at *22 (Fed. Cir. Aug. 20, 2007). ¹⁰⁸ *Id.*

¹⁰⁹ See A. MITCHELL POLINSKY, AN INTRODUCTION TO LAW AND ECONOMICS 20-21 (2d ed. 1989) (hereinafter "POLINSKY").

¹¹⁰ See Richard A. Posner, Economic Analysis of the Law 16 (5th ed. 1998).

contribution over prior art."¹¹¹ The purpose of this language is to ensure that inventors are fully and fairly compensated for the value of their contribution to public knowledge and welfare, and to diminish opportunism in both the application and litigation context, by curbing the prospect for excessive over-compensation. To achieve this goal the Act provides the court with the discretion to base damages awards on actual market royalties where they are available, or it may consider other factors when the evidence warrants.¹¹² These reforms will better reflect actual harm because they measure damages based on the value of the infringed patent relative to the total value of the final commercial product and because they direct the courts to base compensation on real market transactions and only use other factors where needed to achieve just results.¹¹³

These reforms will encourage patentees to enter into bona fide licensing transactions and the damages provided by litigation will better approximate an uncoerced market transaction. 114 The logic of this argument is simple, and it has been successfully applied in other contexts, such as in the PSLRA which compensates for actual harm by requiring the plaintiff to prove the defendant caused the loss and by calculating damages based upon the market price of the security. 115 Other fields of law achieve similar ends by providing legal rules that curtail abuse and "gaming the system" by eliminating opportunities for overcompensation. For example, according to the doctrine of waste in real property, a cause of action can be brought by an owner against a tenant who damages or destroys the property's value. The problem arises because tenants naturally seek to maximize the value of the property while they occupy it and therefore are tempted to over-exploit renewable resources to the detriment of the owners' rightful property interest. Real property law addresses the abusive tenant seeking overcompensation by providing a means by which the owner can prevent the tenant's opportunistic behavior. Likewise, contract law provides that a claim of unjust enrichment may be brought when one party is overcompensated while another is undercompensated without justification. Where unjust enrichment is found, it triggers an obligation to make restitution. Thus, contract law prevents unmerited windfalls that would otherwise encourage abuse. By providing for actual damages and by preventing windfalls, these statutes and legal rules provide individuals with an incentive to behave in an optimal manner ex ante in order to maximize their expected ex post return. In the same way, setting a standard for measuring damages caused by patent infringement according to the actual harm provides the correct incentives for individuals to engage in voluntary market transactions leading to efficient outcomes instead of engaging in the types of strategic behavior that are contributing to the problem.

¹¹¹ Patent Reform Act of 2007, S. 1145, 110th Cong. § 5(a) (as introduced on Apr. 18, 2007).

¹¹² *Id*.

¹¹³ *Id*.

¹¹⁴ See generally POLINSKY, supra note 109.

¹¹⁵ U.S.C. § 78u-4(b)(4). The Act assesses actual damages as being no more than "the difference between the purchase or sale price paid or received, as appropriate, by the plaintiff for the subject security and the mean trading price of that security during the 90-day period beginning on the date on which the information correcting the misstatement or omission that is the basis for the action is disseminated to the market." 15 U.S.C. § 78u-4(e)(1).

* * *

The proposed patent reforms will benefit America's pioneering inventors by providing them with a clear, unencumbered title to their invention and by reforming the legal rules that promote unnecessary litigation over innovation. Providing inventors with clear title will deter interloping patent trolls from bringing claims, and it will facilitate individual bargaining with efficient outcomes instead of costly, time-consuming legal actions. In addition, administrative review will provide a more efficient and less costly backstop for resolving disputes that cannot be settled in the marketplace, and it will capitalize on the USPTO's technical expertise in evaluating the scope and validity of patents. Like prior procedural reforms aimed at ending similar abuses in other areas of law, the proposed changes to the damages rules will minimize strategic behavior and encourage individuals to resolve disputes outside of the courtroom by making compensatory damages correspond to actual harm. The result will be a patent system that embodies the twin goals of protecting inventors' property rights and spurring innovation that the Framers envisioned more than two hundred years ago.