

Prepared Testimony of Taraneh Maghamé,
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Hearing on: "Patent Reform in the 111th Congress: Legislation and Recent
Court Decisions"
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Chairman Leahy, Senator Specter, and Members of the Committee:

My name is Taraneh Maghamé and I am Vice President of Patent Policy and Government Relations Counsel at Tessera, Inc., in San Jose, California. Tessera also has facilities in Charlotte, North Carolina, including a facility for manufacturing a variety of optics products and components. I deeply appreciate this opportunity to speak before you regarding the importance of the US patent system to my company and our innovation economy.

The Tessera Story

Tessera, a co-founder of the Innovation Alliance, is a small publicly-traded company that was founded in 1990 by three former IBM technologists. We currently have over 900 U.S. patents or patent applications. The company has become a leader in semiconductor packaging with its invention of chip-scale packaging (CSP) technology, now widely adopted by the semiconductor industry. This technology enables the packaging of a chip to be approximately the same size as the chip itself, allowing for electronics devices such as cell phones to become as small as they are today. None of this would have been possible without a strong patent system to protect our inventions and reward our innovators.

Today, Tessera continues to innovate in new areas as a result of strategic acquisitions and investment, particularly in the imaging and optics business. The company has quadrupled the size of its work force in the last three years to over 400 employees, nearly 300 of which are engaged in research and development. In 2008, we spent \$61.6 million on research and development.

As a result of our heavy investment in R&D, we provide innovative technologies that are transforming next-generation wireless, consumer and computing products. Our packaging and interconnect solutions offer new levels of semiconductor miniaturization by enabling smaller, more fully featured electronic devices. Our imaging and optics solutions provide low-cost, high-quality camera functionality in electronic products, and include image sensor packaging, wafer-level optics and "smart" image enhancement technologies.

Tessera has a highly successful licensing program, under which it currently licenses technologies to over 60 companies. These companies manufacture a broad range of products. By choosing to make its technologies broadly available to a large number of

practicing manufacturers, Tessera promotes the rapid and wide dissemination of industry-wide solutions that raise the general level of product performance while promoting interoperable designs and reusable solutions. In a world of proliferating technical complexity and widely distributed innovation, business models like Tessera's, which match highly specialized research and development with open licensing, increase efficiency and reduce transaction costs for multiple industries.

Tessera is in the business of innovation, and its innovations positively impact millions of lives every day. Maintaining a strong patent system is essential to our continuing success.

The distributed innovation model that has made Tessera successful is not unique in our industry. In fact, small companies generate most of America's innovation and employ more than 80% of its workers. Many of these companies would not exist but for a strong patent system, and cannot survive absent a strong patent system.

While this hearing's focus is on pending legislative proposals and the impact of recent court decisions on our patent system, allow me to provide a brief overview of why we at Tessera believe a strong patent system is so vital to our nation's economic well-being.

The Innovation Ecosystem

The US patent system has fueled economic growth for over two centuries and is now crucial to our country's economic recovery. A strong and predictable patent system fosters the collaborative development and funding required to transform basic research into commercially viable technologies and stable, high-paying jobs. According to a study by the Federal Reserve Bank of Cleveland, those states with the greatest percentage of patent ownership also enjoy the highest levels of income and economic prosperity.¹

Tessera supports legislative and regulatory improvements to our Nation's patent system, provided the changes are aimed at strengthening our patent system and do not diminish the value of patents. However, we must oppose legislation that will diminish the value of patents, no matter how well intended.

It is troubling to many small technology companies that, at a time of such grave economic uncertainty, Congress would seek to fundamentally alter the economic structure of our Nation's patent system. We believe the proposed changes to the law of damages, in particular, would cause a massive and irreversible transfer of wealth from the United States to foreign manufacturers.

¹ See Paul W. Bauer and Mark E. Schweitzer. *Paths to Prosperity: Knowledge is Key for Fourth District States*, Federal Reserve Bank of Cleveland (Aug. 2006), located at <http://www.clevelandfed.org/Research/Commentary/2006/0815.pdf>.

In a recent op-ed in the New York Times (February 22, 2009), columnist Thomas L. Friedman wrote:

As we invest taxpayer money, let's do it with an eye to starting a new generation of biotech, info-tech, nanotech and clean-tech companies, with real innovators, real 21st-century jobs and potentially real profits for taxpayers. Our motto should be, "Start-ups, not bailouts: nurture the next Google, don't nurse the old G.M.'s."²

A strong patent system that appropriately rewards innovation is needed to "nurture the next Google."

In a world where innovation and IP are more important and valuable than ever, Congress should champion America's small innovators and vigorously challenge any legislation that would diminish the value of the patents that help fuel that innovation. Sadly, some business advocates for reform seem to be inverting the truth surrounding innovation and intellectual property, arguing that patents themselves are an obstacle rather than a defender of innovation. However, our foreign competitors – those same countries that would benefit from a weakened U.S. patent system – recognize the importance of intellectual property to their economies. A February 25, 2009 NY Times article entitled "In Innovation, U.S. Said to Be Losing Competitive Edge," states:

Some countries, including Singapore, Taiwan, Finland and China, are pursuing policies that are explicitly designed to spur innovation. These policies typically try to nurture a broader "ecology of innovation," which often includes education, training, intellectual property protection and immigration. This is in contrast to the industrial policy of the 1980s in which governments helped pick winners among domestic industries.³

While other countries increasingly recognize the danger of picking winners among their domestic industries and promote stronger intellectual property protections, in many instances looking to the American patent system as the "gold standard" and a model to be duplicated, some members of Congress continue to advance legislation that would diminish intellectual property protection for American small companies and start-ups.

This is not to say the current patent system is perfect. It is not. Our nation's economic recovery and continued global competitiveness depend upon a strong and predictable PTO. In our effort to provide constructive comment on this issue, we have made proposals to the Committee regarding how the patent office can be improved, including measures that would enhance patent quality by devoting greater examination resources to complex applications and improving the current *inter partes* reexamination

² Thomas L. Friedman. *Start Up the Risk Takers*. The New York Times, 22 February 2009: WK10.

³ Steve Lohr. *In Innovation, U.S. Said to Be Losing Competitive Edge*. The New York Times, 25 February 2009: B9.

system. We also believe the PTO should be empowered to forgive educational loans carried by its examiners in exchange for five years or more of service, to improve retention rates. Investment in the PTO is an investment in America's economic future.

The Economic Case for a Strong Patent System

The U.S. economy is dependent on patents and other IP assets for stability and growth. According to the President's Economic Report, intellectual property accounts for 33 percent of the value of US corporations, with patents representing one-third of this value. In total, U.S. intellectual property is worth an estimated \$5 trillion, which represents almost a third of our country's GDP. The IP component of the U.S. economy, which may be its largest sector, is greater in value than the entire GDP of any other nation.

IP strategy experts Mark Blaxill and Ralph Eckardt note in their recently published book, *The Invisible Edge*, that thanks to America's high-performance innovation economy, protected by our patent system, the lion's share of the world's economic value generated by intellectual property now flows to American companies and workers. American intellectual property, by itself, provides one of the strongest surpluses in the country's balance of trade accounts.

For example, in 2007, America's IP exports, that is, royalties and license fees we receive from overseas, were \$62 billion – three times larger than Japan's IP exports, which came in second at \$20 billion. And America's IP surplus was eight times the size of Japan's and twice the size of the combined surplus of every other country in the world that reported an IP surplus.

Intellectual property – the legal structure that captures innovation – is our nation's "Invisible Edge." In fact, American inventors have been responsible for half of the greatest inventions in history, such as steam engines, electricity, and integrated circuits. One of the factors that have greatly contributed to this inventive spirit is a long legal tradition that defends both personal and business property rights.

Increasingly, the interests of the U.S. economy are separating from those of world's largest global companies. The shift has been noted in policies concerning taxation, international trade, and now intellectual property protections. The role of these giant companies in orchestrating global commerce presents a fundamental challenge to America's innovation economy. Unlike giant multi-nationals, which can innovate anywhere in the world, the U.S. economy needs local innovation to thrive. American innovation, more often than not, occurs at small companies.

So why do we need to maintain a strong patent system?

Strong patent rights drive local job creation and income growth, particularly in sectors that offer skilled, well-paying jobs. Patent ownership is a key indicator in determining a state's income level vis-à-vis other states, followed by education and industry specialization. States with the highest level of patents per capita tend to have the highest income levels, while most lower-income states have very low levels of patenting

per capita. A strong patent system is transformative in its ability to fuel local investments in knowledge-based industries and revitalize struggling state and regional economies.

Strong patent rights drive technology transfer and private capital investments in home grown innovative technologies. Strong patent rights facilitate and encourage technology sharing among universities, national laboratories and private firms. Patent-fueled technology transfer and investments are particularly critical to emerging fields such as biotechnology.

Strong patents rights are also critical to the competitiveness and survival of our domestic manufacturing sectors. Patents facilitate “disruptive” innovation within established industries, empowering smaller firms to force technological change within manufacturing and other traditional sectors, and encouraging incumbents to improve existing product lines and business units.

Given the change in policy direction here in Washington, more attention is being given to green technology and the need to invest in that sector. Strong patent rights fuel investments in, and commercialization of, alternative energy and other sustainable green technologies. Patent rights also encourage established manufacturers to invest in green technologies to improve existing product lines and business units.

We all recognize the need to reduce our dependence on foreign oil and make our nation energy independent by adopting the use of renewable energy and energy-efficient technologies – what we call “clean-tech.” Clean-tech is the fastest growing sector of venture investment and the venture capital community that led the way in high-tech and biotech is now poised to lead the way in new clean technologies. The companies that are truly taking the risk in developing the new frontier for innovative ideas are the venture-backed and other small innovators. Thus, we should strive to make sure that our clean-tech future, and the future of American innovation, is not harmed by any unintended consequences of misguided patent reform.

Small innovative firms produce proportionately more, higher quality patents than large firms, and they rely more heavily on patents to protect their innovations. Patents also empower small firm innovators to build new businesses around emerging fields of technology, which might otherwise be ignored by large firms.

Recently, the Chief Judge of the United States Court of Appeals for the Federal Circuit gave the keynote address at a Federal Trade Commission hearing at which he opined on the negative consequences of getting patent reform wrong. He said: “Is it too much to ask that our reforms not only promote innovation, but also promote job creation and avoid job loss and promote stock values going up instead of precipitously down?”⁴

⁴ The Honorable Paul R. Michel, Chief Judge, Court of Appeals for the Federal Circuit, Keynote Address Before The Federal Trade Commission Hearing on “The Evolving IP Marketplace.” [<http://www.ftc.gov/bc/workshops/ipmarketplace/dec5/081205transcript.pdf>], December 5, 2008.

With this background, permit me to turn to a discussion of the concerns Tessera has with S.515, “The Patent Reform Act of 2009” and, in particular, the sections of the bill dealing with the calculation of damages and post-grant opposition. It should be noted that other industries share Tessera’s concerns with these provisions. These concerned stakeholders include: agriculture, alternative energy, biotechnology, chemical, computer hardware, computer software, computer networking, financial services, food/beverage, green tech, health care, heavy industry, life sciences, manufacturing, medical devices, material science, nanotechnology, optics, security, startup incubation, telecommunications, venture capital, and Internet-based businesses.

Damages and Post-Grant Opposition

As the Committee is well aware, Section 4 of the patent bill, which changes how damages for infringement are calculated in reasonable royalty cases, has been the most contentious part of the proposed legislation. Industry advocates for a reformulation of reasonable royalty damages rules assert that it will prevent frivolous assertions. Despite all the anecdotes, no serious data has been provided to date to support this claim. While patent litigation – like any high-stakes commercial litigation – is often expensive, the costs incurred by alleged infringers pale in comparison to the billions of dollars that American companies invest each year to further innovation in reliance on the belief that their hard work and creations will be protected by strong and fair patent laws.

But is there really a damages problem? Damages awards have been largely consistent for more than a decade, according to a PriceWaterhouseCoopers 2008 Patent Litigation Study⁵. Also, University of Houston Law School Professor Paul Janicke’s survey of patent infringement cases filed since 2005 demonstrates that there is no pattern of runaway jury verdicts in patent cases. It also confirms that trial judges routinely review verdicts and set aside awards that are not supported by the evidence. These conclusions are supported by numerous other studies and articles, including those by Harvard Law School Professor Einer Elhauge and patent law expert William C. Rooklidge.⁶

Professor Janicke performed a comprehensive analysis of patent infringement cases filed for the period from January 2005 through January 2009 and verdicts issued in that time period. His analysis shows:

- 86% of the cases settle before trial.
- Taking into account only cases in which an award is issue, the median award is about \$5-6 million.
- Taking into account all cases that go through trial, including those that result in no recovery, the median award is less than \$2 million.

⁵ PriceWaterhouseCoopers, *2008 Patent Litigation Study*.

⁶ Einer Elhauge, *Do Patent Holdup and Royalty Stacking Lead to Systematically Excessive Royalties?*, 4 J. Competition L. & Econ. 535 (Sept. 2008); William C. Rooklidge, *“Reform” of Patent Damages: S.1145 and H.R.1908*.

Another study by Prof. Janicke in 2007 based on the 93 jury verdicts issued in patent infringement cases between January 2005 and November 2007 shows:

- In 22 of the 93 cases, the jury returned verdicts of no damages.
- In 13 of the 93 cases, the jury found monetary damages of \$500,000 or less.
- In 47 of the 93 cases, the jury found damages of \$2,000,000 or more.

Of the 47 patent cases where the jury found damages of \$2,000,000 or more:

- In 1 case the parties had stipulated to the amount of damages.
- Of the remaining 46 verdicts, in 9 cases the damages were based on a calculation of lost profits.
- Of the remaining 37 verdicts, in 9 cases the damage verdict was set aside by the trial judge or on appeal.
- Of the remaining 28 verdicts, in 3 cases the trial judge found the damages awarded were not supported by the evidence.
- Of the remaining 25 verdicts, in 4 cases the trial judge increased the damage award based on the defendant's willful infringement.
- The remaining 21 verdicts were still under review, either at the trial court or on appeal.

Prof. Janicke's data illustrates that despite arguments made by proponents of damages reform, there is no pattern of runaway jury verdicts or exorbitant damages awards. Furthermore, judges review awards where necessary, as with the \$1.5 billion jury award in the *Lucent Technologies v. Gateway* case, and set aside the verdict where appropriate.

In addition, in a pending appeal of *Lucent Technologies v. Gateway*, the Federal Circuit has been asked to rule on the same damages issues addressed in the proposed legislation. The Federal Circuit is, of course, the expert body created by Congress with exclusive jurisdiction to hear appeals in patent matters. We believe the legislative process will benefit from waiting until the Federal Circuit has rendered a decision in the *Lucent* case.

The Committee has heard, and will continue to hear, from the large companies pressing for damages legislation about the need for "predictability." But their desire for predictability needs to be balanced against other values: fairness, flexibility, and maintaining confidence in the ability of innovators to recoup their investments. Dismantling the long-established framework for calculating reasonable royalties at trial will encourage infringers, and perhaps even existing licensees, to reject negotiated, market-

based royalties. It will weaken the value of patents generally and unfairly advantage large companies looking to acquire a smaller innovators property.

“Apportionment” of Reasonable Royalty Damages

Critics of *Georgia Pacific*⁷ (the leading case on reasonable royalty damages) are fond of suggesting that a 40 year old judicial decision must be outdated given the tremendous changes in technology that have since occurred. In reality, however, *Georgia Pacific* simply restated the basic principles and methodology that have historically guided courts in matters of patent damages. In addition, the court enumerated the types of factors that may be relevant to a patent’s market value when calculating compensatory damages, while emphasizing the non-exhaustive nature of the list and the need for judicial discretion in all cases.

At their core, the rules articulated in *Georgia Pacific* are rooted in well-established (and arguably incontrovertible) legal and economic principles of compensatory damages generally – i.e., the same principles that govern damages in other contexts. Foremost among these is to restore the injured party, as nearly as possible, to the position he or she would have enjoyed had it not been for the wrong of the other party. The injured party's *ex ante* position is measured in terms of "market value" – i.e., the established exchange value of the property or, if no established value exists, the amount that would have been negotiated by a willing buyer and seller immediately prior to the trespass.⁸

Consistent with basic tenets of compensatory damages and market valuation, the court in *Georgia Pacific* cited three cornerstones of patent damages law:

1. Damages must place the patent holder in at least the same pecuniary position as it would have been in had the patent not been infringed -- i.e., the reasonable royalty that a the patent user would have paid for the use made of the invention;
2. To achieve that result, damages should reflect the royalty a willing licensor and licensee would have negotiated immediately prior to the commencement of the infringement, with both parties assuming the patent to be valid, enforceable and infringed absent a license (i.e., the “willing buyer/willing seller” paradigm used to assess the market value of any asset); and
3. Given the multiplicity of factors that may be relevant to a reasonable royalty, courts and juries must be given the discretion and flexibility to consider any and all evidentiary factors that would have been deemed relevant by the parties in a hypothetical negotiation and to determine the respective weight to be given each such factor.

When taken as a whole, these principles aim to uphold the property rights embodied in a patent and to ensure that reasonable royalty damages are sufficient to safeguard those rights. These rules are not, as some would suggest, unique to patent law or easily

⁷ 318 F. Supp. 1116 (S.D.N.Y. 1970).

⁸ See, e.g., *United States v. Hatahley*, 257 F.2d 920 (10th Cir. 1958), cert. denied, 358 U.S. 899 (1958).

susceptible to radical change. Indeed, the tried and true principles that underlie *Georgia Pacific* and patent damages law generally are so firmly grounded in our legal system that it would be difficult to justify any significant departure without acknowledging an effort to transform patent rights into something far different, and far less valuable, than the nation's founders intended.

The so-called “apportionment” proposals would unquestionably diminish the value of U.S. patents – indeed, reducing patent value is the principal goal of apportionment. Although there are marginal differences between the various versions of apportionment introduced in this and previous congresses, each proposal (including the damages amendment included in S.515) has aimed to reduce reasonable royalty damages according to novel rules of patent valuation. The proposed apportionment test would assess damages according to the patent's incremental benefit to the patent user, as measured by the invention's “specific contribution over the prior art”. As a result, reasonable royalty damages would no longer compensate the patent holder for the full extent of its losses (as historically measured by the market value of lost royalties), let alone discourage infringement. Without the prospect of meaningful damages, a patent would confer something less than a property right and cease to function as an effective incentive to invest in and commercialize disruptive technologies.

The distinction between our system of compensatory patent damages and the proposed apportionment rule is more than theoretical. As a historical matter, apportionment of profits was a form of equitable remedy that gained acceptance in the 19th century due to the then-existing division between courts at equity and law. The concept of mandatory apportionment was abandoned by Congress in 1946 because of the gross inefficiencies and inequities that it had caused. Were mandatory apportionment to be resurrected in the form proposed in previous patent bills, the impact on patent holders and the U.S. economy would be significant and indefensible.

According to a recent study conducted by Dr. Scott Shane of Case Western Reserve University, the proposed apportionment amendment would reduce the value of U.S. patents by as much as \$85.3 billion; reduce R&D expenditures by up to \$66 billion per year; and potentially cost the U.S. economy 298,000 manufacturing jobs.⁹ Beyond these effects, an apportionment-based damages regime would inject tremendous uncertainty and instability into our patent system, at a time when U.S. firms can ill afford further upheaval. Uncertainty and instability are forces that unquestionably discourage investments in the commercialization of new technologies, decreasing competition across new and old industries alike.

Advocates of apportionment have yet to substantiate allegations of excessive royalties or unfair damages awards. To the contrary, patent litigation studies reveal that median damages awards have, year after year, remained fairly stable.¹⁰ Although jury trials are more likely to result in large damage awards than bench trials, federal judges do not

⁹ Scott Shane, *The Likely Adverse Effects of an Apportionment-Centric System of Patent Damages* (2009).

¹⁰ PriceWaterhouseCoopers, *2008 Patent Litigation Study*.

hesitate to overturn or reduce excessive jury verdicts. With few exceptions, the largest jury verdicts awarded each year are typically reduced or overturned on appeal, as in the *Lucent* case.¹¹

In several public statements, including in a letter to this Committee dated June 13, 2007, Chief Judge Paul R. Michel of the Federal Circuit expresses his surprise at the perceived need for reforms implementing the “apportionment” methodology:

Under current practice, apportionment of damages is infrequently invoked. Present law requires the accused infringer to establish a basis for such apportionment. It is attempted in only a limited number of cases and successful in still a smaller number of cases.

In his letter, Chief Judge Michel proceeds to outline the innumerable problems and delays that would result from the proposed changes to damages calculations. Clearly, such a risk is not worth taking in this difficult economic climate, simply in response to anecdotal evidence presented by the proponents of damages reform – companies that will benefit from a weakened patent system.

Furthermore, there is no credible evidence to suggest that existing damages rules are forcing large manufacturers to submit to the frivolous settlement demands of non-practicing entities. Patent damages rules are based on the same principles that underlie compensatory damages generally; thus, the risks of inflated settlements are no greater in patent negotiations than in the context of any other commercial dispute. Such claims seem particularly implausible in the wake of *eBay*, *KSR*, *Bilski* and other cases that have significantly undermined the ability of non-practicing entities to enforce “trivial” or otherwise questionable process patents.

Post-Grant Opposition

KSR and *Bilski* are expected to produce a wave of validity challenges in the courts and at the USPTO. These decisions have also engendered confusion and uncertainty as to the statutory standards that govern patentability, a situation that will further increase litigation costs, whether judicial or administrative.

The proposed post-grant opposition (“PGO”) system would further exacerbate this upsurge in the prevalence and costs of litigation, particularly when combined with an expanded *inter partes* reexamination process that lacks existing safeguards against abuse. The proposed hybrid PGO/*inter partes* system would (i) unleash a wave of administrative litigation with many of the costs and complexities of judicial litigation, (ii) invite serial and harassing validity challenges throughout the life of a patent, and (iii) effectively eliminate the statutory presumption of validity essential to a patent’s enforceability. . Such a system, when combined with recent judicial patent decisions, would further weaken and destabilize patent rights and increase dramatically the risks and costs of patent ownership. As a

¹¹ Innovation Alliance, *Moving beyond the Rhetoric, Jury Damage Verdicts in Patent Infringement Cases (2005-2007)*.

practical matter, small innovators would, as a result, find it increasingly difficult to attract the capital investments necessary to fund R&D and commercialization efforts, and to bring patent users to the negotiating table.

Beyond these ill effects, PGO would further strain the resources of an already overburdened and under-funded USPTO. Even the USPTO has acknowledged that PGO in the form proposed last Congress would overwhelm its offices with a wave of opposition challenges. Until the effects of *KSR*, *Bilski* and other cases are fully known, it would be far more prudent to focus on improvements to existing *inter partes* reexamination procedures without creating an extremely costly opposition system.

Ongoing Litigation & Recent Patent Decisions

When the patent legislation of today was first being discussed in 2005, advocates for far-reaching changes to patent law argued that the patent system was out of balance, with lax standards that yielded weak or overly broad patents and harsh remedies that gave so-called patent speculators too much bargaining power. Since that time, a series of U.S. Supreme Court and Federal Circuit decisions have unquestionably changed major areas of the law and shifted the balance of power between patent holders and users, tightening standards of patentability and narrowing patent rights and remedies. Tessera urges Congress and the Administration to consider carefully the impact of these decisions, once sufficient time has passed for their full effect to be known, before enacting any legislation that will further decrease the value or enforceability of patents.

Due to recent court decisions, it is now more difficult for innovators to obtain and enforce patent rights (particularly in the case of software and business methods), and even after winning at trial, to secure injunctive relief and enhanced damages. At the same time, recent Supreme Court and Federal Circuit decisions have considerably improved the litigation landscape for patent users. Not only is it easier for patent users to defend against infringement claims and remedies, users are better able to avoid venue in the Eastern District of Texas and other districts that lack a meaningful connection to the case.

Collectively, these judicial decisions have addressed virtually all of the substantive issues that originally led Congress to consider patent legislation, including injunctions, willfulness, venue and patentability standards. When viewed as a whole, the decisions represent the most comprehensive line of court-led patent reforms in decades.

Permit me to briefly summarize each of the key decisions in recent years and then turn to the question facing policy-makers: do these decisions remove or substantially diminish the policy rationale for legislative reform.

SUPREME COURT CASES

eBay v. MercExchange (2006): Injunctive Relief

The Supreme Court's decision in *eBay v. MercExchange*¹² marked the beginning of a period of judicial attention to patent law that has altered many of the substantive standards that underlie patent rights and remedies, in each case shifting the legal balance against patent holders. In *eBay* the Court decided that, despite the patent holder's unquestioned statutory right to exclude, a permanent injunction should not issue as a matter of course following a final finding of infringement liability. The Court held that a permanent injunction is an equitable remedy and thus, before a patent holder can obtain such remedy, it must satisfy the same four part test for equitable relief that applies in other areas of the law. This test requires a plaintiff to demonstrate that (i) it has suffered an irreparable injury, (ii) remedies available at law are inadequate to compensate for that injury, (iii) considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted, and (iv) the public interest would not be disserved by a permanent injunction.

The Supreme Court rejected the Federal Circuit's "categorical rule" favoring a grant of permanent injunctive relief following a verdict of infringement because such a rule failed to recognize the lower court's equitable discretion to deny relief on the basis of the four-part test. Notably, the Court was equally hostile to categorical rules disfavoring injunctive relief based on broad classifications, including a patent holder's decision to license its patents. But despite the clear admonition of the Supreme Court, some lower courts have interpreted *eBay* in a manner that arguably replaces one categorical rule, favoring the grant of permanent injunctive relief against infringers, with another, namely, one that has made it far more difficult for non-manufacturing patent holders to obtain injunctive relief of any nature.

In the process, *eBay* threatens to increase significantly the prevalence of court-imposed and -administered compulsory licenses that force patent holders to permit ongoing use of an invention by a proven infringer. Because Congress and the courts have long recognized the innovation-chilling effects of compulsory licenses, our patent laws have historically disfavored market distorting measures of this type. Following *eBay*, however, courts that deny permanent injunctive relief to certain categories of patent holders may be tempted to impose compulsory licenses. (Moreover, even if a court does not affirmatively grant a compulsory license, its refusal to enjoin ongoing infringement arguably has the same effect.) Should such a trend emerge, it would greatly diminish the value of U.S. patent rights for broad sectors of the innovation economy and encourage foreign governments to "break" U.S. patents through even more expansive compulsory licensing mandates.

MedImmune v. Genentech (2007): Declaratory Judgment Actions by Licensees

In *MedImmune, Inc. v. Genentech, Inc.*¹³, the Supreme Court held that a licensed patent user's declaratory judgment action challenging the validity and enforceability of a licensed patent satisfies the case-or-controversy requirement for subject matter jurisdiction under the U.S. Constitution, even though the patent user has continued to make royalty

¹² 547 U.S. 388 (2006).

¹³ 549 U.S. 118 (2007).

payments. Under previous Federal Circuit precedent, the licensed patent user was required to stop royalty payments and breach the license agreement to meet the case-or-controversy requirement. This again is a major change in the law and tips the scales considerably in favor of the patent user. Additionally, it reduces the stability normally associated with arm's length negotiated license agreements and provides incentive to licensed patent users to litigate without risk. Uncertainty will now prevail over the life of the license agreement, and more lawsuits will be filed.

The Federal Circuit further diminished legal incentives to negotiate a voluntary license in lieu of litigation when it subsequently applied *MedImmune* to licensing negotiations. In *SanDisk Corporation v. STMicroelectronics Inc.*¹⁴ the court held that when a patent holder notifies a patent user that certain planned or ongoing activity will infringe the patent holder's rights absent a license, and the patent user disputes the need for a license, an actual case or controversy will arise sufficient to support a declaratory judgment action. Thus, a prospective licensee need not risk an infringement suit by engaging in the accused activity before initiating a declaratory judgment suit.

KSR International v. Teleflex (2007): Non-Obviousness

In *KSR International Co. v. Teleflex Inc.*¹⁵ the Supreme Court altered the objective patentability test of obviousness which had been used by the USPTO and federal courts for two decades. The test was, and is still believed by many to be, necessary to avoid the inappropriate application of 20/20 hindsight to obviate non-obvious, and otherwise patentable inventions. Prior to this decision, in order for an invention to be considered obvious over prior art documents, the so called "teaching, suggestion, or motivation ("TSM")" test had to be met. In order to meet this test, one of the prior art documents had to expressly state or suggest that the technical content of the other documents could be combined to make the invention for which a patent was being sought.

Characterizing this objective test of obviousness as too rigid, the Court held that a more flexible "functional approach" to resolution of an obviousness issue was more appropriate. This new approach generally requires a deeper analysis of what the qualifications of a person of ordinary skill in the art are, and then a more subjective inquiry as to whether or not such a person would consider the invention a predictable variation of the prior art solutions. Other additional and more subjective factors required to be considered are effects of demands known to the design community or present in the market factors, and whether the combination of elements constituting the invention was "obvious to try" by such a person.

Experts have predicted that *KSR* will lead to a sharp increase in validity challenges by patent users, as well as significant uncertainty as to the fate of patents granted under the previous obviousness test.

Microsoft v. AT&T (2007): Section 271(f) of the Patent Act

¹⁴ 480 F.3d 1372 (Fed. Cir. 2007).

¹⁵ 550 U.S. 398 (2007).

In *Microsoft Corp. v. AT&T Corp.*¹⁶ the Supreme Court held that the exportation of a master disk with embedded software, which is subsequently copied onto computers in a foreign country, does not constitute the infringing supply of components for a patented invention, in violation of Section 271(f) of the Patent Act. Section 271(f) imposes infringement liability for supplying from the United States components of a patented invention to be assembled abroad, if such a combination in the United States would infringe the patent. The Federal Circuit had adopted an expansive view of Section 271(f), holding that the exportation of a software master disk satisfied both the “components” and “supply” prongs of the statute. The Supreme Court reversed, ruling that software *per se* cannot be considered a component. Moreover, because the copies of Windows software that were actually installed on the computers were made overseas, they were not supplied “from the United States” as required for liability under Section 271(f). Thus, Microsoft could not be held liable for damages based on the making and selling of foreign-assembled computers.

A narrow interpretation of Section 271(f) will have the greatest impact on patent holders that lack the financial resources to secure foreign patents, namely independent inventors, small firms and universities, among others. A significant foreign patent portfolio will now be required to realize full recovery of investments in innovation.

Quanta Computer v. LG Electronics (2008): Patent Exhaustion

The Court’s decision in *Quanta Computer, Inc., et al. v. LG Electronics, Inc.*¹⁷ is notable in two respects: (i) it extended the patent exhaustion doctrine to method patents, and (ii) it held that the authorized sale of a patented product triggers exhaustion, notwithstanding contractual provisions by sophisticated parties to the contrary, even as to patents covering the combination of that product with other components, when the authorized product substantially embodies the “essential” or “inventive” features of the patented invention. LGE had licensed several of its process patents to Intel for the purpose of making, using and selling microprocessors and chip sets. Intel subsequently sold the products to Quanta, which then combined them with non-Intel parts in order to make computers. LGE sued Quanta for patent infringement, citing a stipulation in the Intel license agreement that that no license was granted to any third party to combine non-Intel parts with Intel products made under the license.

The Supreme Court held that because Intel was authorized to sell its products to Quanta, the doctrine of patent exhaustion prevented LGE from further asserting its patent rights with respect to the patents substantially embodied by those products. The Intel products embodied the essential features of the LGE patents because they carried out all of the inventive processes when combined, according to their design, with standard components. The Court further reversed the Federal Circuit’s holding that exhaustion does not apply to method patents. The Court observed that while a patented method may not be sold in the same way as an article or device, methods nonetheless may be embodied in a

¹⁶ 550 U.S. 437 (2007).

¹⁷ 128 S. Ct. 2109 (2008).

product, the sale of which exhausts patent rights. Significantly, the LGE license agreement did not preclude exhaustion because it merely denied a license to third parties that combine non-Intel parts with Intel products. As a result, the stipulation did not affect the legality of Intel sales, which effectively exhausted LGE's rights to prevent downstream sales.

By expanding the patent exhaustion doctrine, *Quanta* further restricts a patent holder's ability to enforce its rights against downstream users. More broadly, *Quanta* is now being cited in some quarters as justification for amended damages rules that would value reasonable royalties according to a patent's "essential" or "inventive" features, comparable to the "prior art subtraction" test proposed in previous legislation. This argument has no merit and reflects a fundamental misunderstanding and misapplication of the *Quanta* decision. Neither *Quanta* nor the Court's discussion of a patent's essential features has any bearing on reasonable royalty valuation rules. Instead, *Quanta* addresses a completely different inquiry, namely the point at which downstream patent users should be free to engage in commercial transactions involving patented products without any liability to the patentee. The patent exhaustion doctrine ensures that once a patent holder has authorized the sale of a patented product (and presumably received a negotiated royalty), subsequent patent users in the value chain are exempt from further payment obligations. The doctrine has nothing to do with infringement remedies generally or rules for calculating damages when product sales are unauthorized and a royalty has not been paid.

FEDERAL CIRCUIT CASES

In re Seagate Technology (2007): Enhanced Damages for Willful Infringement

In *In re Seagate Technology*¹⁸ the Federal Circuit overruled its much-criticized decision in *Underwater Devices Inc. v. Morrison-Knudsen Co.*¹⁹, which held that an alleged patent user has an affirmative duty of care to determine whether or not he is infringing, including an obligation to obtain opinion of counsel. In lieu of this negligence-based standard, the court adopted a heightened willfulness standard based on an objective recklessness test. Under the *Seagate* standard, a patent holder must show by clear and convincing evidence that the patent user acted despite an objectively high likelihood that its actions constituted infringement of a valid patent. The patent holder must also show that this objectively-defined risk was either known or so obvious that it should have been known to the patent user. Asserting the advice-of-counsel defense and disclosing opinions of opinion counsel do not constitute waiver of the attorney-client privilege for communications with trial counsel. Relying on opinion counsel's work product does not waive work product immunity with respect to trial counsel.

By significantly elevating the standard for proving willful infringement and reemphasizing that there is no affirmative obligation to obtain an opinion of counsel, *Seagate* obviates any need to legislate in this area. The decision makes it more difficult for patent holders to successfully obtain enhanced damages for willful infringement; any

¹⁸ 497 F.3d 1360 (Fed. Cir. 2007).

¹⁹ 717 F.2d 1380 (Fed. Cir. 1983).

further restrictions could undermine the legitimate deterrent effect of the willfulness doctrine.

In re Bilski (2008): Subject Matter Eligibility

The Federal Circuit's much-anticipated decision in *In re Bilski*²⁰ narrowed the scope of patent-eligible process claims and, in particular, the business methods that many critics view as the principal culprit behind abusive litigation practices. Although *Bilski* falls short of resurrecting a categorical exclusion for business methods and software-related inventions (as critics of the *State Street Bank* case²¹ hoped that it would), it casts a cloud over the continued validity of issued patents of these types and erects a much higher bar for new and pending applications.

Bilski involved a claimed method for managing the consumption risk costs of a commodity sold by a commodity provider at a fixed price. The patent examiner had rejected all claims in the application as not being directed to patent-eligible subject matter under Section 101 of the Patent Act, and the Board of Patent Appeals and Interferences had sustained that rejection. In an en banc hearing, the Federal Circuit affirmed the Board's decision, holding that the claims failed to satisfy either prong of the "machine-or-transformation" test, which it deemed to be the governing test for determining patent eligibility.

The court held that a process is patent-eligible subject matter only if (i) it is tied to a particular machine or apparatus, or (ii) it transforms a particular article into a different state or thing. The "useful, concrete and tangible result" inquiry was deemed to be an inadequate test for determining eligibility. Moreover, even if a claim recites a specific machine or a particular transformation of a specific article, the recited machine or transformation must not constitute mere insignificant post-solution activity. Thus, *Bilski* throws into doubt the validity of claims to business methods that are implemented by a general purpose computer.

In re TS Tech (2008): Venue

In *In re TS Tech*²², patent holder Lear Corporation had filed a patent infringement suit in the Eastern District of Texas against the TS Tech entities, even though neither it nor any of the defendants were incorporated in Texas or had offices there. Nevertheless, Lear claimed venue on the grounds that the patent user's products were sold in the Eastern District of Texas. Consistent with past decisions in which product sales were deemed sufficient to honor patent holder's choice of venue in the Texas "rocket docket," the district court denied defendants' motion to transfer venue.

The Federal Circuit reversed and directed the lower court to transfer venue to Ohio, where two of the TS Tech entities were incorporated and based. The court held that the

²⁰ 545 F.3d 943 (Fed. Cir. 2008).

²¹ 149 F.3d 1368 (Fed. Cir. 1998).

²² Misc. No. 888 (Fed. Cir. 2008).

lower court had erred in giving inordinate weight to the patent holder's choice of venue. Among other considerations favoring venue in Ohio, including the fact that all physical evidence was located there, the court noted that there is no relevant connection between the actions giving rise to the case and the Eastern District of Texas, except that certain accused products of the patent user were sold in the venue. The court observed that such products are sold throughout the U.S.; thus, citizens of the Eastern District of Texas have no more or less of a meaningful connection to the case than citizens of any other venue.

TS Tech establishes a more conservative approach to patent venue rules, in which less deference will be given to patent holders' venue choices when there is an absence of any meaningful connection to an infringement case. As such, the case addresses the criticism that the venue rules fail to provide a meaningful check against forum shopping by patent holders. Of particular significance is the Federal Circuit's decision that products sales are, in the absence of other relevant connections, insufficient to support venue in the patent holder's chosen venue. Because many (if not virtually all) patent infringement cases are filed in the Eastern District of Texas on that basis alone, *TS Tech* could facilitate the transfer of actions from this controversial rocket docket and discourage new suits from being filed in the first place.

SHIFTING FOCUS IN THE WAKE OF JUDICIAL PATENT REFORM

It is imperative that each of these cases be further analyzed to assess its individual impact, as well as the aggregate effect when considered as a whole or in conjunction with proposed legislation. Individually, these decisions, each of which shifted the balance of rights and remedies in favor of patent users to the detriment of patent holders, have addressed virtually all of the substantive issues that originally prompted calls for patent legislation, including injunctions, willfulness, venue, and standards relevant to the patent-eligibility of claims and validity of issued patents.

As for remaining priorities, the courts are obviously not positioned to address the USPTO's resource constraints and operational deficiencies, which have diminished the overall quality, predictability and efficiency of pre-grant patent examination processes. These problems merit urgent attention and should be the focus of current patent reform efforts.

Is Legislation Needed?

The impact of *eBay* was quickly felt by non-manufacturing entities that concentrate on R&D and technology transfer. In the post-*eBay* world, patent holders of this type, which are among our most prolific and productive innovators, have had little success in securing injunctive relief. As a result, the value of their patents has already diminished, as has their ability to secure capital investments and negotiate voluntary licenses.

In a case where permanent injunctive relief is denied, reasonable royalty damages are typically the patent holder's only viable remedy against infringement, and its only opportunity to secure downstream value in exchange for the upfront investments made by

investors and inventors alike. For these and other patent holders to remain viable and competitive, it is imperative that patent damages rules aim to achieve (as they currently do) the overarching goal of compensatory damages generally, namely to make the patent holder whole based on a market valuation of its losses. Any lesser measure of damages would devalue patents and deprive patent holders (and their investors) of the incentives needed to make risky bets on innovative technologies and products.

Critics will counter that despite the above decisions, legislation is still needed to address “inflated” damage awards and expand administrative opportunities to challenge issued patents. However, advocates of “apportionment” have never provided any hard evidence to justify such a radical departure from deeply rooted principles of compensatory damages, let alone the wholesale devaluation of patent rights. Similarly, proponents of a new post-grant opposition system have yet to explain how the USPTO will effectively manage a European-style system of administrative litigation on top of an already crushing backlog. As discussed in greater detail above, the clear intent behind the legislative proposals on damages and post grant is to diminish the value and enforceability of patent rights, to further shift the legal balance in favor of the patent user, and against the patent holder. The prospect of fundamentally weakening the U.S. patent system – formerly the envy of the world – would be problematic and unprecedented at any time in our history. However, at a time when the United States is in the grip of an ever-deepening recession, such legislation would be a disastrous blow to our innovation economy.

In conclusion, much has changed since patent legislation was first introduced in 2005. The Supreme Court and Federal Circuit have reshaped the patent landscape in a manner that has both strengthened the bargaining position of patent users and, in the process, created a far less predictable terrain for patent holders. The marketplace must be given an opportunity to adjust and apply these decisions. Beyond the legal changes, the current economic crisis has imposed an additional layer of uncertainty that threatens to chill investments in innovation. As in other sectors of the economy, what is urgently needed is a patent stimulus plan, one that preserves the fundamental strength of patent rights and remedies while improving the fairness and efficiency of pre-grant examination processes.