

# LEGAL MEMORANDUM

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## Key Patent Reforms Needed to Spur U.S. Innovation

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### Abstract

*Patent rights have long been a bulwark of American economic growth and innovation. Unfortunately, over the past decade, the U.S. patent system has slipped from number one to number 10 in the world. U.S. Supreme Court decisions have weakened American patents by reading into the Patent Act new judicial limitations on eligibility and enforcement, threatening innovation in computer and life sciences. A constitutionally dubious administrative review panel has eliminated large numbers of new patents and cast a cloud over the value of recently issued patents. Antitrust enforcers have also raised new legal uncertainty about the exercise of patent rights through licensing. Congress should pass legislation to eliminate inappropriate judge-made limitations on patentability and patent enforceability, and the administrative review panel should be curbed or eliminated. The Trump Administration should act aggressively to restore respect for American patent rights domestically and internationally and to eliminate unwarranted antitrust threats to patents.*

The U.S. patent system, rooted in the Constitution, plays a key role in American innovation and economic growth. Regrettably, evidence strongly suggests that recent changes in U.S. court decisions and in statutory patent law (coupled with a more skeptical attitude toward the patent system by antitrust enforcers here and abroad) have devalued American patents overall by making it more difficult to obtain and defend them. Reflecting this development, there are indications that American innovators are increasingly turning to other jurisdictions to secure patent protection, threatening to undermine America's lead role in generating the technological

### KEY POINTS

- Patent rights have long been a bulwark of American economic growth and innovation. Unfortunately, over the past decade, the U.S. patent system has slipped from number one to number 10 in the world. U.S. Supreme Court decisions have weakened American patents by reading into the Patent Act new judicial limitations on eligibility and enforcement, threatening innovation in computer and life sciences.
- A constitutionally dubious administrative review panel has eliminated large numbers of new patents and cast a cloud over the value of recently issued patents. Antitrust enforcers have also raised new legal uncertainty about the exercise of patent rights through licensing.
- Congress should pass legislation to eliminate inappropriate judge-made limitations on patentability and patent enforceability, and the administrative review panel should be curbed or eliminated. The Trump Administration should act to restore respect for American patent rights domestically and internationally and to eliminate unwarranted antitrust threats to patents.

This paper, in its entirety, can be found at <http://report.heritage.org/lm215>

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breakthroughs that will promote emerging industries and expand economic welfare in the future.

These recent changes are consistent with economic theory that underscores the value of a robust patent system, as well as recent international economic evidence that those nations with the strongest patent protection tend to have higher rates of economic expansion and innovation. Targeted congressional legislation, coupled with Trump Administration policy changes reflecting a better appreciation for the patent system's attributes, would help reclaim the U.S. patent system's former role as a driver of U.S. economic success.

## Background<sup>1</sup>

The Intellectual Property Clause (IP Clause) of the U.S. Constitution authorizes Congress “[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.”<sup>2</sup> Constitutional history indicates that the Framers understood inventors as having a private property interest in the fruits of the innovations produced by their labor (a form of “intellectual property”) and provided a specific means for that interest to be protected through legislation enacted pursuant to the IP Clause.

Reflecting that understanding, and underscoring the importance of the patent-property interest, the first Congress in 1790 enacted a law providing for the issuance and protection of patents. Subsequent Congresses built on that initial law and expanded the scope of patent protection, and early Supreme Court jurisprudence manifests a clear and consistent understanding that patents are valuable property and merit great respect. Thus, the firm recognition and robust support of a patent system to encourage innovation is rooted in our constitutional system.

The importance of patents has not diminished over time. To the contrary, patents played a central role in supporting the industrial revolution in 19th-century America and were associated with key U.S. innovative breakthroughs in the 20th and early 21st century as well. Throughout these periods, litigation over the boundaries of patent rights played a central role in the sorting out of legal rights in new industries. Indeed, lawsuits went hand-in-hand with patent-enabled breakthroughs that allowed for the introduction and widespread adoption of new products that fundamentally transformed American

industry (sewing machines in the 1800s; telephones, airplanes, and electrical equipment in the 1900s; and smartphones in the 2000s—just to name a few).<sup>3</sup> Over the 1995–2015 period, patent licensing by academic and nonprofit institutions contributed \$1.33 trillion to U.S. gross industry output; \$591 billion to the gross domestic product; and supported 4,272,000 American jobs.<sup>4</sup> While individual patents consistently have been the subject of legal disputes over time, patents as a whole have clearly been at the heart of successive waves of critically important American commercial innovation and continue to make enormous contributions to the American economy.

## I. An Overview of Patents and Recent Court Decisions Affecting the U.S. Patent System<sup>5</sup>

The U.S. Patent and Trademark Office (PTO), an agency within the U.S. Commerce Department, examines patent applications and issues patents that it determines meet the statutory criteria for patentability.<sup>6</sup> Also, upon request by third parties, the PTO conducts “second look” reviews of issued patents to determine if they should have been issued or not.

A patent for an invention is the grant of a property right to the inventor. A patent may contain a variety of specific “claims” that define the precise subject matter that is protected by the patent. Generally, the term of a new patent is 20 years from the date on which the application for the patent was filed in the United States or, in special cases, from the date an earlier related application was filed, subject to the payment of maintenance fees. U.S. patent grants are effective only within the United States, U.S. territories, and U.S. possessions: In short, patent rights are national in scope. Once a patent is issued, it (similar to other private property rights) is enforced by its owner, not by the PTO. When a patent is granted, key information related to the patented invention is published, adding to the stock of valuable, publicly available technical information. This information is a public good: It facilitates the efforts of third parties to develop their own innovations and thereby spurs technological development and economic growth.

As the U.S. Patent Act<sup>7</sup> explains, a patent confers “the right to exclude others from making, using, offering for sale, or selling” the invention in the United States or “importing” the invention into the United States. A patent grant neither requires nor

prohibits the patent owner from using his patent to make or sell a good or service. In other words, the right to exclude lies at the heart of a patent.

Patent infringement is the act of making, using, selling, or offering to sell a patented invention, or importing into the United States a product covered by a claim of a patent, without the permission of the patent owner.<sup>8</sup> A patent owner can sue a party it believes has infringed his patent in federal court. If the patent owner is able to prove infringement, the court may order the infringer to pay the owner monetary damages and/or to stop infringing one or more patent claims (an injunction). When damages<sup>9</sup> are awarded, they shall “in no event [be] less than a reasonable royalty for the use made of the invention by the infringer.” Additionally, the court may increase the damages up to three times the actual damages suffered if it finds an infringement was “knowing, deliberate, intentional, willful, or wanton,” but this very rarely occurs. A court may also hold that a patent has not been infringed, or is invalid, because Patent Act requirements for patentability have not been met.

The Patent Act specifies that to be patentable, a claimed invention must be: (1) patent eligible, (2) useful, (3) novel, (4) non-obvious, and (5) described sufficiently well so that people skilled in the field can make and use it (enablement). Failure to meet *any* of these conditions precludes receipt of a patent. Recent U.S. Supreme Court decisions have made it harder to satisfy the second and fourth criteria—usefulness and non-obviousness, respectively—thereby making it more difficult for American inventors to obtain a U.S. patent.

In addition, the Supreme Court has greatly diminished the ability of a patent owner to obtain an injunction to prevent third parties from infringing his or her patent rights. Finally, and most recently, the Supreme Court undermined the ability of a patent holder to guarantee that his patent rights would be respected when products embodying the patent are resold by the initial purchaser (patent exhaustion). These developments pose a real threat to U.S. innovation and the future vitality of the American economy.

**A. Patent Eligibility.** Section 101 of the Patent Act, which governs patent eligibility, plainly states that “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement

thereof, may obtain a patent therefor, subject to the [other] conditions and requirements of this title.”<sup>10</sup>

This language basically says that everything made through human intervention is patentable. For many years, however, the Supreme Court has recognized three judicially created exceptions to patent eligibility, providing that you cannot patent: (1) laws of nature, (2) natural phenomena, or (3) abstract ideas. Even with these exceptions (which learned critics point out have no basis in the Patent Act’s language<sup>11</sup>), the scope for patentability was quite broad from 1952 (when the modern version of the Patent Act was codified) until roughly 2010.<sup>12</sup>

But over the past decade, the Supreme Court has cut back significantly on what it deems patent eligible, particularly in such areas as biotechnology, computer-implemented inventions, and software. As a result, today “there are many other parts of the world that have more expansive views of what can be patented, including Europe, Australia, and even China.”<sup>13</sup> Reflecting this change in circumstances, a 2017 U.S. Chamber of Commerce ranking of national patent systems found that the United States has slipped to number 10 in the world (tied with Hungary), after having been ranked number one in prior rankings.<sup>14</sup>

Senator Christopher Coons (D-DE), who has proposed patent reform legislation, succinctly summarized the nature of the problem:

Until recently, Section 101 of the Patent Act of 1952 acted as a coarse filter, with the remaining patentability requirements of Title 35 [the U.S. statutory patent provisions] doing the heavy lifting on whether a patent should issue. This arrangement let examination focus on whether the inventor had disclosed enough information and whether he or she had made a sufficient advancement in science or technology. Over the last eight years, however, a series of Supreme Court decisions on Section 101 have substantially moved the line on what is patent-eligible. These rulings have created uncertainty about the validity of previously issued patents, many of which companies have already relied upon to justify significant research and development investments.

Our current problem appears twofold. First, courts are calling into question whether patents should be granted at all to inventions made in

critical areas of our innovation economy, namely medical diagnostics and computer software. Second, the manner in which case law has been developing is creating profound uncertainty on what is and what is not patentable. Whether or not one gets a patent or that patent survives in court should not depend on which patent examiner your case is assigned to, or what judge you appear in front of. Such ambiguity has serious implications in the investment sector, where confidence is essential. If we are regularly seeing such levels of inconsistency, then we have an area where the jurisprudence is insufficiently clear, and which may necessitate congressional action to provide clarity and consistency.<sup>15</sup>

Senator Coons went on to summarize the bad likely consequences of the newfound uncertainty regarding what is patentable subject matter: (1) reduced research and development, undermining American preeminence in emerging technologies; (2) direct harm to Americans, as lack of patentability slows the incentive to develop valuable innovative products (such as diagnostic tools for such costly and tragic diseases as Alzheimer's); (3) more reliance on trade secret protection instead of patent protection, inhibiting useful business collaborations and reducing the stock of innovation-inducing publicly available information;<sup>16</sup> and (4) new ambiguity about what is patentable, yielding costly uncertainty for inventors, patent examiners, and judges.

**B. Usefulness (or "Utility").**<sup>17</sup> Even if the eligible patentable subject matter criterion is met, the inventor must show that the invention is "useful" for some purpose. Generally, this is a fairly low bar, and a patent applicant's assertion that his or her invention possesses "utility" for some purpose will be accepted unless: (1) it involves seriously flawed logic; or (2) the facts revealed by the applicant are at odds with the assertion of utility. (For example, a claim for a patent covering a "perpetual motion machine" would run afoul of basic scientific knowledge and logic.)

**C. Novelty.**<sup>18</sup> Section 102 of the Patent Act requires that a claimed invention be "novel," that is, not "anticipated" by prior art. Under the "first to file" system that was adopted by the United States effective March 2013, a use, sale, or publication of the invention prior to the U.S. filing dates precludes patentability, but disclosures made by the inventor,

or by others who derived their information from the inventor, do not bar patentability (i.e., do not count as "prior art") as long as they occurred within 12 months of the patent filing date.

**D. Non-Obviousness.**<sup>19</sup> The requirement in Section 103 of the Patent Act that a claimed invention be "non-obvious" has been described as meaning that it is "non-trivial." Courts have sought to determine whether a claim is "non-obvious" by asking whether it would have been "obvious" to a "person having ordinary skill in the art." As a leading commentator has noted, "[A]s hard as decision-makers may try the ultimate decision necessarily incorporates a certain amount of subjectivity."<sup>20</sup> Nevertheless, until a decade ago, the "non-obviousness" issue was viewed as involving the application of relatively straightforward criteria and was not deemed to be a major disincentive in deciding whether to file for a patent.

The uncertainty concerning whether a patent examiner or a court will find a patent covering an invention to be "obvious," however, increased following the Supreme Court's 2007 decision in *KSR v. Teleflex*.<sup>21</sup> In that case, the Supreme Court struck down as "obvious" a patent covering an adjustable accelerator pedal assembly for an automobile that incorporated an electronic sensor for communication with the computer chip controlling the throttle in the car's engine. The Supreme Court's statement in *Teleflex* that inventions created "according to known methods...[that] yield predictable results" are obvious and thus unpatentable has been criticized as "particularly troubling because science progresses by predicting a result and applying known methods to test the prediction."<sup>22</sup> In other words, this test in effect *assumes* a result is "predictable," without considering the complicated analysis and inventiveness often required in selecting alternative methods to frame a test and achieve a possible result.

By failing to provide helpful guidance as to whether a result will be deemed "predictable" or not, the Supreme Court in *Teleflex* created a highly subjective test that injects confusion into the "obviousness" inquiry and is arguably at odds with the scientific method.<sup>23</sup> The uncertainty spawned by *Teleflex* was predicted to raise legal costs and reduce incentives to invest in patentable research and development—particularly for small inventors, who are less able to afford enhanced legal fees.<sup>24</sup>

A rise in the rejection of patents following *Teleflex* underscores the legitimacy of this concern. As

one learned commentator recently explained, in the wake of *Teleflex*, “judges and patent examiners would proclaim obviousness by ‘common sense’ and by circular arguments that the combination is ‘obvious’ because it is ‘obvious to try.’ As a result, many more patents were found invalid for obviousness and many more patent applications failed to overcome rejections based on obviousness.”<sup>25</sup>

**E. Enablement.**<sup>26</sup> Section 112(a) of the Patent Act requires that a patent application contain:

[A] written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.<sup>27</sup>

This “enablement” requirement, which “goes back to the beginning of the [U.S.] patent system,” is key to ensuring that patent grants expand the scope of useful technical knowledge. It specifies that a patent will be granted “on a new and non-obvious invention if and only if the inventor puts that invention into the possession of the public so that it can be understood and freely used by anyone and everyone once the patent expires.”<sup>28</sup> As such, the enablement requirement is relatively straightforward and a reasonable precondition to obtaining a patent.

**F. Judicial Obstacles to Obtaining an Injunction.** A patent is a private property right, and, as such, an injunction—an order forbidding an infringer from continuing to use the protected property—was long the preferred remedy for patent infringement. The U.S. Supreme Court in its 2006 *eBay v. MercExchange*<sup>29</sup> decision, however, overturned the long-established presumption in favor of granting an injunction when patent infringement is found by a federal trial court. Instead, the Supreme court in *eBay* held that the trial court should subjectively “weigh the equities” in order to determine whether the patent holder would likely suffer “irreparable harm” without an injunction.

Since *eBay*, trial courts have granted an injunction after finding that a patent was valid and infringed in a far lower percentage of cases. The one comprehensive empirical study of *eBay*’s impact on patent litigation (using a comprehensive database

of pre- and post-*eBay* cases) shows that the decision dramatically reduced “both the level at which injunctive relief is sought in patent cases and the rate at which they are granted, particularly for preliminary injunctions.”<sup>30</sup> This has weakened patent rights. It has reduced patent infringers’ incentive to settle lawsuits, knowing that, at most, they are likely to have to pay “reasonable royalties” to the patent owner in the future if found liable. Moreover, it has raised the patent owner’s direct costs of defending his or her property and, more generally, has played a central role in the erosion of patent rights:

Without the issuance of a permanent injunction the prevailing patent owner plaintiff is left to continually sue time and time again to seek redress for ongoing infringement. A well-funded infringing defendant could just keep on infringing and force the patent owner to expend many millions of dollars pursuing the infringer... The true mischief of the *eBay* decision...[is] that the Supreme Court has taken the threat of a permanent injunction off the table. This means that infringers have no incentive to deal. Courts have already limited damages available to patent owners over the last decade. The courts have increasingly made it easier to challenge claims as being patent ineligible or obvious over the last decade. Congress has provided additional procedural mechanisms to more easily challenge patents after they have issued. Over the last decade there has been a significant erosion of patent rights. But the single most significant erosion of rights came in *eBay*.<sup>31</sup>

**G. Patent Exhaustion.** On May 30, 2017, in *Impression Product v. Lexmark*,<sup>32</sup> the U.S. Supreme Court eliminated judicial uncertainty in enunciating a broad theory of “patent exhaustion” that sharply limits restraints on resale imposed by a patent holder. Lexmark makes toner cartridges for printers and owns a number of patents that cover components of those cartridges and the manner in which they are used. Lexmark gave consumers two options: (1) Buy a toner cartridge at full price, with no restrictions; or (2) buy a cartridge at a discount, subject to a contractual agreement to use the cartridge only once and to refrain from transferring the cartridge to anyone but Lexmark. Lexmark sued for patent infringement a company that refilled and resold old

Lexmark cartridges that had been purchased from Lexmark's discount buyers, who had violated their contractual agreement.

The U.S. Supreme Court held that once Lexmark had sold its cartridges, it had "exhausted" its patent rights, and thus the re-filler/reseller of cartridges had not infringed its patent. The Court emphasized that allowing enforcement of a resale restriction under patent law would go beyond the point where patent rights must yield to the common-law principle against restraints on alienation. In so holding, the Court found that the "exhaustion" of Lexmark's patent rights after initial sale applied both to the discount program cartridges sold domestically and to those sold overseas.

The *Lexmark* decision is troublesome because it creates a disincentive for patent holders to engage in efficient contracts that allow it to cater to diverse customers that have different preferences as to how they want to utilize patented goods. As the Director of IP Policy at BIO, the major trade association for biopharmaceutical products, stated:

The Court's decision will change decades of established commercial practice essential to the U.S. economy. The Court provided no analysis of whether such sweeping changes are necessary or even beneficial.... [T]he Court's decision greatly reduces the incentive for patentees to utilize conditional sales. This penalizes manufacturers who sell products at preferential prices to special users who could not otherwise afford the product. For example, manufacturers will have to rethink whether sales for "research use only" to universities at lower cost will continue to be commercially viable. This could make it more difficult for the end products of such research endeavors to be made available to the public.<sup>33</sup>

The leading antitrust treatise writer, Professor Herbert Hovenkamp, expressed substantial concerns about the reasoning and negative policy implications of the *Lexmark* holding:

Lexmark was attempting to use patent law to impose a variable proportion tie—in this case, a requirement that users of its printers also use its own original equipment toner cartridges. The general although not unanimous consensus is that such arrangements are economically

beneficial, and largely everyone agrees that they are beneficial when the seller lacks market power, as Lexmark did in this case.... *Impression Products* reveals an economic deficiency that manifests all too frequently when patent law is brought to bear on market practices. Economic concepts such as market power or output effects which are commonly used in antitrust law are virtually unknown in patent law.... The Supreme Court based its patent exhaustion holding on concerns about restraints on alienation, which it presented as rooted in the common law. But the common law's rules on restraints on alienation are much more complex than the Supreme Court acknowledged. The common law typically upheld restraints that were limited in time, and restraints enforced by patent infringement actions are by definition limited by the life of the patent.... [Thus] the Supreme Court would have been wise to develop a more nuanced exhaustion rule that examined actual effects likely to result from a particular restraint.<sup>34</sup>

The bottom line is that the Supreme Court has weakened patents through a crabbed reading of common-law doctrine (restraints on alienation), as well as through statutory constructions that weaken patent law remedies and render the validity and enforceability patent rights less predictable.

## **II. Patent Trial and Appeal Board Review: A Recent (and Constitutionally Questionable) Statutory Innovation that Has Undermined Patent Rights<sup>35</sup>**

### **A. Patent Trial and Review Proceedings Are Unfair and Wasteful, and They Weaken Patents.**

In 2011, Congress enacted a major overhaul of the Patent Act, the Leahy-Smith America Invents Act (AIA).<sup>36</sup> A key feature of that overhaul was the creation of a novel type of "*inter partes* review" (IPR) process, run by the newly created Patent Trial and Appeal Board (PTAB).<sup>37</sup> Under IPR, a third party may request the PTO to have administrative judges (PTO employees) re-examine the claims in an already issued patent and to cancel any claims that they find to be unpatentable in light of prior art. IPR responded to a stated concern that has been controversial from the start—the subject of complaints that it is "rigged" to strike down patent rights. As one noted commentator put it:

While it is a laudable goal to make it easier to challenge obviously absurd patent claims, the way that post grant procedures were created does little other than ensure that any patent owner with a commercially valuable patent will face endless challenges. The patent system is supposed to encourage commercially relevant innovations, not to turn patents covering ubiquitous innovations into...an illusory promise. After all, ubiquitous innovations become ubiquitous because they are so valuable.<sup>38</sup>

More colorfully, Randall Rader, former Chief Judge of the U.S. Court of Appeals for the Federal Circuit (the federal patents appeal court), compared the PTAB to a “death squad, kind of killing property rights.”<sup>39</sup> Perhaps the most notable element of PTAB review that puts at risk issued patents is that unpatentability for existing patent claims may be proved by a mere “preponderance of the evidence,” rather than the much more exacting (and favorable to patent holders) standard of “clear and convincing evidence,” which applies in federal district court.

Indeed, there is strong evidence that PTAB review has significantly weakened patent rights. The PTO’s own statistics covering nearly five years of PTAB decisions (from September 16, 2012, to May 31, 2017)<sup>40</sup> reveal that 65 percent (nearly two-thirds) of patents reviewed by PTAB had *all* of their claims invalidated; 17 percent of patents reviewed had some of their claims invalidated; and only 18 percent of patents reviewed had none of their claims invalidated. In short, over four-fifths of all patents (82 percent, or 65 percent plus 17 percent) had at least some of their claims declared invalid by PTAB—very shortly after those patents had been reviewed and deemed valid by other PTO patent experts, the patent examiner corps.

Patent experts (including leading judges, scholars, practitioners, and former PTO heads) have pointed out that PTAB’s record of overturning the vast bulk of patents presented for review is far out of line with historic rates of patent reversals by the courts, and that this indicates that the PTAB process is seriously defective.<sup>41</sup> Differences in procedures and standards between PTAB and federal district courts have been geared to make it far harder to defend patents in administrative *inter partes* reviews. Moreover, PTAB reviews have proceeded simultaneously with federal court judicial proceedings (leading

to costly waste and duplication), and the PTAB has often invalidated thoroughly vetted patents that the federal courts have upheld.<sup>42</sup> In addition, “[w]hile close to a third of patent holders subjected to PTAB settle, these settlements are made under the PTAB storm clouds of extremely high invalidation rates and are settled under terms unfavorable to the patent holder.”<sup>43</sup> Summing up the problem, the lawyer who for many years represented the PTO in federal court appeals, former PTO Solicitor and law professor John Whealan, recently concluded that “[t]he [PTAB review] system is not fair.... The PTO doesn’t presume what it does is right.”<sup>44</sup> Proposed reforms to improve the fairness of PTAB proceedings have included suggested rules changes to eliminate anti-patent holder bias and to restore the background presumption that a patent is valid (which is applied in the federal courts).<sup>45</sup>

The PTAB’s weakening of patent rights seriously threatens American innovation, which is key to future American economic growth and prosperity. What is worse, it also poses a potential threat to U.S. national security as well. Three leading American high-tech patent holders and entrepreneurs, citing recent research, have put it starkly:

U.S. Patent grants fell significantly from 2014 to 2015 while China’s filings skyrocketed. “China’s patent office received by far the most filings, clocking nearly one million of them outstripping the combined total of patents filed in runner-up countries the United States and Japan.” U.S. share of global venture capital has fallen dramatically. China increased its venture capital investment by 223%. This dramatic swing in venture capital, patent filings, and startups from the U.S. to China maps its time line directly to the creation of the PTAB, which also coincides with China’s efforts to establish an innovator friendly patent system. China has seen the opportunity... [created by] America’s patent system becoming a hostile [one] for inventors, startups and venture capital, and is seizing the moment.

The PTAB is truly a crisis that is driving venture capital, startups and job creation to China. If the PTAB is allowed to remain the death squad that it currently is, we will be buying our next generation of high tech software and hardware critical to our infrastructure and military from China.

We [are] teetering on the doorstep of a national security disaster.<sup>46</sup>

**B. The PTAB System Poses Grave Constitutional Problems.** In addition to being unfair and harmful to patent rights, the PTAB process raises serious constitutional questions.

First, there is a strong argument that enabling the PTAB to extinguish patents violates the Seventh Amendment to the Constitution, which guarantees the right to a civil jury trial in federal lawsuits “at common law” where the value in controversy exceeds twenty dollars.<sup>47</sup> The Supreme Court has held that the Seventh Amendment’s protections apply to the types of cases that existed under the English common law when the amendment was adopted,<sup>48</sup> and lawsuits dealing with the infringement or extinguishment of patent rights were so treated in 18<sup>th</sup>-century England.<sup>49</sup>

Second, the PTAB system undermines the constitutionally mandated separation of powers. Article III of the U.S. Constitution vests the federal judicial power in the U.S. Supreme Court and in inferior federal courts established by Congress. The Supreme Court “has long recognized that in general, Congress may not ‘withdraw from judicial cognizance any matter which, from its nature, is the subject of a suit at the common law.’”<sup>50</sup> By authorizing PTAB administrative law judges—who are not Article II judges<sup>51</sup>—to review and extinguish patent-based property rights, Congress has ignored this command and substituted Executive Branch for Judicial Branch resolution of common-law legal disputes. Indeed, the Supreme Court has explicitly stated that “the only authority competent to set a patent aside, or to annul it, or to correct it for any reason whatever, is vested in the courts of the United States, and not in the department which issued the patent.”<sup>52</sup>

In June 2017, the U.S. Supreme Court “teed up” these constitutional questions when it agreed to review the *Oil States Energy* case, raising the question of whether *inter partes* PTAB review “violates the Constitution by extinguishing private property rights through a non-Article III forum without a jury.”<sup>53</sup> It is far from clear, however, that the Supreme Court will hold that PTAB review is unconstitutional. As a panel of patent law experts recently noted (and as discussed previously, above), Supreme Court decisions have tended to weaken patent rights in recent years, and the Court has not raised doubts

about the PTAB’s constitutionality in recent decisions involving other aspects of PTAB *inter partes* reviews.<sup>54</sup>

**C. Summary: The PTAB System Should Be Eliminated or at Least Significantly Overhauled.** Given the unfairness and harm to patent rights stemming from PTAB review, and the real possibility that the Supreme Court may uphold the PTAB despite its constitutional infirmities, Congress may wish to act. The best congressional action would be repeal of the statutory provisions that authorize the PTAB. If, however, full statutory repeal is not feasible, amendments to rein in and seriously reform the PTAB process would be advisable. (A legislative proposal that would do just that is briefly discussed in Section V of this memorandum.)

### III. Recent Changes in Antitrust Enforcement Policy Have Further Weakened U.S. Patents

Over the past century, U.S. patent rights have been subjected to scrutiny under the U.S. antitrust laws. Although they are not mentioned in the Constitution, antitrust laws have long been seen as holding a special status in the federal statutory hierarchy. The U.S. Supreme Court, for example, famously stated that “[a]ntitrust laws in general, and the Sherman Act in particular, are the Magna Carta of free enterprise.”<sup>55</sup> Since the late 1970s, mainstream American antitrust analysis (as reflected in U.S. Supreme Court decisions, enforcement policies, and scholarship) has sought to advance “economic efficiency” and consumer welfare.<sup>56</sup> The focus has been on challenging only those business actions that harm the competitive process. Efficient business practices that harm individual competitors—but not the competitive process—have not been challenged. Indeed, efficient business practices by a monopolist that allows it to maximize its profits are perfectly permissible, as the Supreme Court emphasized in its unanimous landmark 2004 *Verizon v. Trinko* decision:

The mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system. The opportunity to charge monopoly prices—at least for a short period—is what attracts “business acumen” in the first place; it induces risk taking that produces innovation and economic growth. To

safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful unless it is accompanied by an element of anti-competitive conduct.<sup>57</sup>

While the antitrust treatment of patents has varied over the past century, from the early 1980s to roughly 2010, American antitrust law generally gave great leeway to patent holders to maximize the value of their patents through unilateral action, in particular, through restrictions placed on a patent license.<sup>58</sup> The consensus view of patent licensing was embodied in 1995 Antitrust Guidelines for the Licensing of Intellectual Property,<sup>59</sup> issued by the U.S. Justice Department (DOJ) and the U.S. Federal Trade Commission (FTC), the two federal antitrust agencies. The Guidelines explained: (1) For the purpose of antitrust analysis, the DOJ and FTC regard a patent as being essentially comparable to any other form of property; (2) The DOJ and FTC do not presume that a patent creates market power in the antitrust context; and (3) The DOJ and FTC recognize that patent licensing allows firms to combine complementary factors of production and is generally pro-competitive.

Unfortunately, however, Obama Administration antitrust enforcers ushered in a period of new uncertainty regarding the U.S. antitrust treatment of unilateral patent licensing.<sup>60</sup> This was particularly the case with respect to the licensing of “standard essential” patents (SEPs)—patents that cover technologies incorporated into important technical standards widely used by competitors in an industry, such as the high-tech smartphone sector. The antitrust-enforcement concern raised was that the need for manufacturers to use key standardized technologies gave additional unwarranted “market power” to the holders of SEPs, which should be curtailed through antitrust limits on SEP licensing terms. In short, patent owners’ efforts to maximize the returns on their own patents could be thwarted by antitrust enforcers, a result in tension with the broad teaching of *Trinko*.

Consistent with this theme, among other actions:

- The FTC entered into settlements with firms that capped the price of their SEP licenses at very low rates (and, worse, filed a questionable lawsuit against Qualcomm essentially based on “overly high” licensing rates mere days before the end of the Obama Administration);<sup>61</sup>

- The DOJ commented favorably on proposed standard-setting rules designed to sharply constrain SEP holders’ licensing flexibility; and
- Antitrust officials made public statements suggesting possible antitrust investigations of SEP licensing.

Taken together, by reducing potential returns to patent licensing, these actions undermined the incentives of patent owners—and, in particular, SEP holders—to invest in technologies related to standards to the detriment of innovation. Competition among patent holders also suffered, to the extent reduced investment in technologies lessened rivalrous efforts to achieve product quality breakthroughs.

Regrettably, the recent U.S. antitrust policy changes regarding patents helped foster a more aggressive approach to patent-antitrust suits by foreign authorities, further exacerbating the harm suffered by U.S. patent holders:

US antitrust policy changes do not operate in a vacuum. Major foreign competition enforcers such as China and Korea, are by nature more interventionist than US agencies, and recently they have undertaken a variety of intrusive investigations and enforcement measures directed at patents. The continuing apparent denigration of patent rights by US antitrust authorities can only encourage them to continue along this path—a result that may further undermine innovation and welfare. Chinese officials’ public references (albeit less than fully accurate) to FTC settlements restricting SEPs are but one example of this sad phenomenon.<sup>62</sup>

Most recently, in a similar vein, a March 2017 experts’ report on foreign antitrust commissioned by the U.S. Chamber of Commerce found that foreign governments’ inappropriate orders requiring the worldwide lowering of patent license rates by U.S. patent-owning defendants threatens “to reduce incentives for innovation...around the world.”<sup>63</sup> The report stressed that “[g]iven the seriousness of the economic consequences of foreign disrespect for U.S. [patent]...rights, the Trump Administration may wish to take a strong stance against specific foreign antitrust abuses that target U.S. patents in a manner inconsistent with core competition principles by

engaging in international consultations and by considering possible sanctions if all else fails.”<sup>64</sup>

More broadly, the recent unfortunate turn in patent–antitrust policy manifested a general Obama Administration regulatory attitude that was less favorable to patents,<sup>65</sup> seemingly “reflect[ing] a general administrative disdain for strong property rights and a belief in the superior ability of enlightened technocrats to micromanage the economy.”<sup>66</sup> The Trump Administration should reverse this regrettable trend. It should make it clear in word and deed that it will not challenge legitimate efforts by patent owners to achieve maximum profits on their patent rights through licensing—and will work with foreign governments to reverse unwarranted antitrust attacks on such legitimate unilateral patent licensing practices.

#### **IV. Sound Economics Supports Strengthening the U.S. Patent System**

Sound economics supports the case for strengthening, not weakening, the patent system. Before turning to this research, however, a brief review and debunking of flawed criticisms of the American patent system is in order.

**A. Misplaced Critiques of the Patent System Are Flawed and Do Not Justify Further Legislative Weakening of Patent Rights.** The recent weakening of the U.S. patent system, through judicial decisions, statutory change (establishment of the PTAB), and administrative actions, finds support in some critiques of the patent system that arose around a decade ago. A widely cited article asserting that patent rights are by their nature “highly uncertain” and generate excessive litigation<sup>67</sup> lent fuel to support for patent-related “litigation reform” and efforts to constrain patent rights through legislation. Efforts to “modernize” the American patent system were embodied in the America Invents Act of 2011, and subsequent congressional bills were introduced in order to reduce the burden imposed by unwarranted patent infringement lawsuits.<sup>68</sup> Supporters of new legislation often cited the allegedly excessive costs due to “bad quality” patents issued by patent examiners and unjustified lawsuits by “patent trolls” (also called “patent assertion entities”)—bad-actor firms that make no products and buy up questionable patents merely for the purpose of profiting from abusive lawsuits against productive businesses.

With regard to alleged problems in “patent quality,” the PTO in recent years has undertaken a comprehensive initiative aimed at avoiding the issuance of patents that do not meet statutory standards for patentability. It “promotes and supports the continuous improvement of patent products, processes and services through collaboration with internal and external stakeholders of the intellectual property community.”<sup>69</sup> Thus, although perfection in patent examination will never be achieved—that would be impossible—the patent quality problem is being dealt with in a reasonable fashion.

With respect to “wasteful lawsuits” and “patent trolls,” additional legislation designed to further curb patent litigation through procedural changes has not been enacted. *This is a good thing.* As Heritage Foundation scholars have pointed out, the extent to which wasteful lawsuits actually have spawned a serious patent-litigation problem is very much in question, particularly since “the volume of patent lawsuits has remained remarkably stable over the years.”<sup>70</sup> Furthermore, there are perfectly legitimate reasons (such as a sole focus on inventing or pure research) why a party may wish to sell its patents to third parties, rather than enforce them directly. Relatedly, patent aggregators often facilitate an efficient division of labor, allowing many inventors to specialize in what they do best—inventing.<sup>71</sup>

Although there are some cases of unwarranted patent litigation, existing judicial tools to deal with abusive lawsuits in general are the best solution: “Judges should be empowered and encouraged to employ sanctions and bond requirements to deter abusive litigants of all types, not based on whether they are plaintiffs or defendants or whether they are patent assertion entities or ‘active users’ of a patent.”<sup>72</sup> In short, “[p]recipitous, unreflective action on legislation is unwarranted, and caution should be the byword.”<sup>73</sup>

Additional critiques directed at the current American patent system have been raised to further justify curbs on patent rights. These include claims that the system is rife with (1) multi-patent “patent thickets,” which are described as an overlapping set of patent rights that cover innovative products and which raise transaction and litigation costs; (2) “patent stacking” whereby multiple patents covering a single product burden that product’s manufacturer with having to pay “excessive” royalty fees; and (3) hold-ups, whereby holders of patents that cover a

particular standard demand “excessive” royalties from manufacturers, backed by the threat of lawsuits. These theoretical assertions, however, lack empirical support, and have been debunked by an academic study (scheduled for publication later this year) which finds that “the paucity of evidence for thicket, holdup and stacking effects recommend[s] against policy actions that have weakened patent protections in technology markets.”<sup>74</sup> That study also finds that the “de-propertization” of patent rights stemming from the limitation on injunctions, imposed by the U.S. Supreme Court’s *eBAY* decision, and by judicial reductions in monetary awards for patent infringement, have discouraged innovation.<sup>75</sup>

**B. Economic Analysis Lends Robust Support to Strong Patent Rights.** At the same time that critics of “bad” patents and “abusive” patent lawsuits were making arguments that had the perhaps unintended effect of weakening American patent rights, an impressive amount of economic analysis was published that supported the case for very strong patent rights, which strongly suggests that, if anything, Congress should direct its attention away from further curbing patents and toward undoing the recent erosion of U.S. patent rights. U.S. Federal Trade Commissioner (and current Acting Chairwoman) Maureen Ohlhausen has eloquently summarized the rapidly expanding empirical literature indicating that robust patent rights stimulate research and development and economic growth.<sup>76</sup> Ohlhausen explains that published economic research, covering many countries and extended time periods, unambiguously indicates that intellectual property rights are an incentive that spur innovation. In so doing, she highlights studies showing:

1. Countries that provide stronger patent protection tend to have larger proportions of their gross national products devoted to research and development (the seed corn for economic growth).
2. Patents affect economic growth by stimulating the accumulation of factor inputs such as research and development capital and physical capital.
3. Patents are correlated with economic growth across and within the same country over time.
4. Research and development spending since 1953 is strongly associated with patenting. U.S. data

between 1980 and 2010 show patenting to be associated with higher metropolitan area productivity, indicating that patents cause economic growth.

5. Large-scale manufacturers have invested far more aggressively in patents during the period associated with strong U.S. patent rights, even controlling for other known determinants of patenting.

These empirical findings are fully in line with economic theory regarding strong patents and economic progress.<sup>77</sup> Specifically, as law and economics analysis explains:

1. The patent system not only creates incentives for individuals by providing them a reward for invention, it also allows firms to signal to capital markets their capabilities.
2. The patent system lowers transaction costs by establishing a title registration system for certain information-based assets.
3. The patent system transforms the market for inventions into a market for innovative control by providing financing and spurring innovation.
4. The patent system creates a platform for the commercialization of innovations—a theory developed in detail by professor and former U.S. International Trade Commissioner F. Scott Kieff.

The “commercialization explanation” for patent-induced innovation merits particular note:

[The commercialization approach] is [c]entered on the relationships among private parties.... [T] his approach targets a broad, diverse set of market actors in general; and it does so indirectly. This broad set of indirectly targeted actors encompasses the creator or inventor of the underlying [patent] asset as well as all those complementary users of a creation or an invention who can help bring it to market, such as investors (including venture capitalists), entrepreneurs, managers, marketers, developers, laborers, and owners of other key assets, tangible and intangible, including other creations or inventions.... This commercialization approach sees property rights in

[patents] serving a role akin to beacons in the dark, drawing to themselves all of those potential complementary users of the [patent]-protected-asset to interact with the [patent] owner and each other. This helps them each explore through the bargaining process the possibility of striking contracts with each other.<sup>78</sup>

In sum, legal and economic theory, buttressed by multiple empirical studies, demonstrates that strong patent systems, which encourage research and development and investment, spur innovation and support robust economic growth. Thus, it is most unfortunate that recent legal developments have tended to undermine, rather than bolster, the American patent system.

## V. Legal Policy Reforms Needed to Strengthen the American Patent System and Promote Innovation

The preceding discussion makes it clear that reforms are needed to strengthen the American patent system and promote innovation. What specific legislative and other reforms are needed?

**The STRONGER Patent Act of 2017.** A bipartisan congressional reform package designed to further safeguard patent rights in administrative reviews and litigation, the STRONGER Patent Act of 2017 (STRONGER Act), was introduced on June 21, 2017, by Senator Christopher Coons and by Senator Tom Cotton (R-AR).<sup>79</sup>

The one-page descriptive sheet released in tandem with the STRONGER Act's introduction briefly makes the case for legislation:

- “A number of changes over the past decade have weakened the U.S. patent system, from Supreme Court decisions to the unintended consequences of new post-grant administrative proceedings at the U.S. Patent and Trademark Office.
- The result is that the U.S. patent system is now ranked tenth worldwide by the U.S. Chamber of Commerce. Until this year, it was always ranked first.
- These changes risk undermining investor confidence in technology-intensive small businesses, ceding the U.S.'s historic edge in innovation to Europe or China.

- The impact of undermining the patent system will be significant—patent-intensive industries create high-paying jobs that have a wage premium of 74 percent, and the U.S. currently has a trade surplus of about \$85 billion due to the licensing of IP rights.
- Strong patents are also vital to technology-intensive startups. Research shows that if a startup receives a patent, its chance of securing venture capital increases over 50 percent, and it is likely to have better growth in employment and sales.”<sup>80</sup>

The STRONGER Act proposes “balanced reforms” to solve the problem of a weakened American patent system.

- **Protect American Inventors from Illegal Infringement.** U.S. courts should treat a patent like any other property right, permitting preliminary injunctions to protect patent owners against infringement while cases are pending, and granting permanent relief to protect a patent owner from ongoing infringement after a court determines the patent to be valid and infringed. A presumption that patent owners are entitled to injunctive relief will also encourage infringers to negotiate fair licenses based on the free market, keeping cases out of court.
- **Ensure Fairness in Patent Office Administrative Challenges.** Five years after the Leahy-Smith America Invents Act created proceedings at the Patent Office to allow faster and cheaper challenges to patents, it has become clear that further changes are needed to limit repetitive and harassing challenges against patent owners and to ensure that the proceedings are fair to all parties, including solo inventors and small businesses.
- **Protect Small Businesses and Consumers from Abusive Patent-Demand Letters.** Changes are needed to ensure that the Federal Trade Commission and state attorneys general have the tools they need to protect consumers and small businesses from bad-faith, abusive demand letters.
- **Fully Fund the USPTO to Ensure Timely, High-Quality Patents.** Inventors' patent

application fees should remain at the USPTO. It is not fair to tax inventors for government spending. Adequate, dependable funding is critical for timely, higher-quality patents.”<sup>81</sup>

A more comprehensive section-by-section analysis of the STRONGER Patents Act fills in more details.<sup>82</sup> In particular, this analysis demonstrates that the STRONGER Act seeks to conform PTAB rules with well settled federal district court rules that are more respectful of patent rights. Thus, for example, the STRONGER Act requires the PTAB to apply federal court rules regarding patent claims construction and the burden of proof (the “clear and convincing evidence” standard for overturning a patent claim).

Other STRONGER Act provisions to undo PTAB-related abuses include immediate appeal to the federal courts of certain PTAB holdings, elimination of repetitive PTAB challenges, and the halting of PTAB proceedings when patent validity is being reviewed in a federal court. Patent re-examination proceedings by the PTO are harmonized with PTAB reviews to provide clear guidelines for the treatment of parallel proceedings. The AIA is clarified to ensure that PTO adjudicators who decide whether to permit a post-grant proceeding are distinct from the PTAB judges who will decide the outcome of a proceeding. The presumption that a patent holder is entitled to injunctive relief—and does not have to settle for royalty payments—is designed explicitly to overturn the Supreme Court’s *eBay* decision, which, as discussed above, has undermined patent rights. The STRONGER Act also provides a helpful nod toward those who are concerned that abusive demand letters by patent trolls impose unjustified costs on smaller businesses.

The STRONGER Patents Act represents an excellent initial step in the effort to achieve firmer legislative protection for patent rights. The Act’s focus on restoring the general right to obtain injunctions and equalizing the treatment of patent owners before the PTAB and federal courts would tend to enhance patent values by making patent infringement less profitable and by increasing the likelihood that meritorious patents would be upheld. The proposed targeting of abusive “demand letters” is a sensible measure that should not undermine legitimate patent rights, nor interfere with the efficient functioning of legitimate patent aggregators.<sup>83</sup> Further legislative

work to refine the proposals found in the STRONGER Act would be most worthwhile. In particular, Congress may wish to propose statutorily eliminating the PTAB system in its entirety, given the grave constitutional problems it raises.<sup>84</sup>

**A. Legislative Reforms Aimed at Enhancing Patent Eligibility.** Additional legislative reforms, however, would also be beneficial. Specifically, the problems raised by the U.S. Supreme Court’s weakening of patent eligibility standards posed by the creation of case law that has narrowed Section 101 of the Patent Act<sup>85</sup> urgently needs to be addressed. Amendments to clarify patent eligibility have been proposed by two leading trade associations that support robust intellectual property protection, the Intellectual Property Owners Association (IPO), and the American Intellectual Property Law Association (AIPLA).

The IPO’s proposal,<sup>86</sup> released in February 2017, confronts the problem of Supreme Court decisions “that have dramatically narrowed the scope of patent protection for life sciences and software technology by significantly expanding the judicially-created exceptions to patent eligible subject matter.”<sup>87</sup> It puts forth Section 101 amendments that are designed to “reverse recent Supreme Court rulings and restore the scope of subject matter eligibility to that intended by Congress in the passage of the Patent Act of 1952,” “define subject matter eligibility more clearly and in a technology-neutral manner,” “require an evaluation of subject matter eligibility for the invention as a whole,” and “simplify the subject matter eligibility analysis for the Patent Office, courts, patent applicants, patentees, and the public by prohibiting consideration of ‘inventiveness’ and patentability issues”<sup>88</sup> that are dealt with in other parts of the Patent Act.

The AIPLA’s proposal<sup>89</sup> also is designed to rewrite Section 101 in a manner that overrides recent Supreme Court-made exceptions to patentability and narrows the reach of that section. It is generally similar but not identical to the IPO proposal. It would provide for broad patent eligibility of a claimed invention, the only two exceptions being when a “‘claimed invention as a whole exists in nature independently of and prior to any human activity, or can be performed solely in the human mind.’ The application of these [two] exceptions should be predictable because the application will not involve the exercise of judgment regarding, for example, the extent of preclusion or

the incremental value of the invention.”<sup>90</sup> Other constraints on whether a patent merits being awarded, such as utility, novelty, non-obviousness, and enablement, would be dealt with under the other Sections of the Patent Act applied by patent examiners and not “pulled into” Section 101 as additional constraints on eligible subject matter. In sum:

AIPLA’s proposal expressly ends the common-law development of the so-called judicial exceptions to patent eligibility. It creates two statutory exceptions to patent eligibility and eliminates the ability of the Supreme Court to develop further exceptions as a matter of its common-law interpretation of the patent statute.... AIPLA’s Legislative Proposal does not, in other words, put in place a wholly backward-looking test for patent eligibility that cannot be predictably applied to new patent claims. As a result, AIPLA’s proposal should not be subject to tinkering in the future by the USPTO or courts. The exceptions in AIPLA’s Legislative Proposal will be able to be used to determine the eligibility of future technologies.<sup>91</sup>

The IPO and AIPLA proposals are serious efforts to simplify patent eligibility in a manner that clears away confusing judicially made exceptions, freeing basic eligibility determinations from being confusingly comingled with other statutory requirements that must be met before a patent is issued. These initiatives, and others like them, point the way toward legislation that could make it significantly easier for valuable innovations in the life sciences and computer sciences to obtain patents—providing a strong incentive for American inventors and thus a boon to the American economy.

**B. Other Targeted Legislation.** While the legislative proposals highlighted above are of paramount importance, Congress also should weigh targeted measures aimed at two Supreme Court decisions that undermine the value of certain patents.

Targeted legislation should be considered to overturn the U.S. Supreme Court’s 2017 *Lexmark* decision regarding patent exhaustion<sup>92</sup> in order to enhance the ability of patent holders to enter into efficient contracts and thereby raise the value of their patents. Legislative language could, for example, provide that patent owners may impose and enforce under patent law contractual restrictions on the resale of items embodying patented technology.

Targeted legislation should also be considered to overturn the Supreme Court’s 2007 *Teleflex* decision,<sup>93</sup> which generated additional uncertainty regarding the “obviousness” of an invention and thereby created a cloud surrounding the status of many patents, reducing their marketability and value. Congress may wish, for example, to establish a clearer, more specific benchmark for obviousness, such as the “teaching, suggestion, and motivation” test (the accepted standard prior to *Teleflex*). Under this test a patent is struck down for obviousness only when it is shown that pre-patent publicly available information known to individuals “skilled in the art” would have apprised those technical experts of the value of combining the “inventive steps” that lie at the heart of a patent claim.<sup>94</sup> This test avoids the “hindsight bias” implicit in *Teleflex*, which injected confusion into obviousness determinations by creating unfocused and subjective after-the-fact inquiries into whether inventions yielded “predictable results.”

**C. Non-Legislative Initiatives.** While patent-related legislative reform is vital, its fate and timing are uncertain. While the Trump Administration should strongly endorse legislative initiatives along the lines summarized above, it cannot merely wait for legislative passage. It also can and should take executive actions now to strengthen the patent system.

First, the President should only appoint officials to the PTO and other federal agencies that interact with the patent system who are committed to robust protection of patent rights.

Second, the President should issue memoranda to federal agencies (and, when appropriate, Executive Orders) making the enhanced protection of patent rights a top Administration priority, which will be reflected in the Administration’s formal and informal regulatory actions, policy pronouncements, litigation policy, and international negotiations. Relatedly, the Director of the PTO should play a high-profile role in ensuring that a “pro-patent” orientation prevails at the PTO and is communicated to all patent examiners.

Third, the President should convene a White House-led interagency working group on patents, chaired by the Director of the PTO and including senior representatives from all federal agencies. The working group should be directed to study laws, regulations, and policies that affect patent rights, and recommend reforms as appropriate. The working

group should also be tasked with developing a strategy for patent legislative reform along the lines discussed in this memorandum.<sup>95</sup> Once an appropriate legislative package is developed, the Administration should work diligently to secure its passage.

Fourth, the President should direct the DOJ, to the fullest extent possible, to advocate in favor of strong patent rights in conducting litigation involving the United States as a party and in filing “friend of the court” briefs in other cases involving questions of patent law interpretation. In particular, the DOJ should file a brief with the U.S. Supreme Court in the *Oil States Energy* case, taking the position that PTAB review is unconstitutional.<sup>96</sup>

Fifth, the Assistant Attorney General in charge of the DOJ’s Antitrust Division and the Chairman of the Federal Trade Commission should take action to reverse the prior Administration’s policies regarding the application of the antitrust laws to patent rights. In particular, they should amend federal antitrust guidelines to clarify that unilateral efforts (not involving anticompetitive agreements with owners of competing technologies) by a patent holder to maximize the value of its patent rights—and, in particular, through patent licensing restrictions—should not give rise to antitrust liability. They should also advance this principle in court filings and in speeches here and abroad. In particular, DOJ and FTC officials should work hard to promote international support for this principle. They should advance it in consultations with foreign agencies and in the development of new and amended antitrust enforcement chapters (also called “competition chapters”) in international trade agreements.

Sixth, subject to overall White House guidance, the DOJ, the FTC, and the U.S. government economic agencies (including in particular the Office of the United States Trade Representative, the U.S. Commerce Department, the U.S. Treasury Department, and other agencies as appropriate) should work cooperatively to oppose foreign regulatory restrictions or enforcement actions that undermine American patent rights—including unwarranted foreign antitrust prosecutions or remedies.<sup>97</sup> The White House should ensure that all appropriate responses, including possible sanctions, are adequately weighed when inappropriate foreign actions threaten to impose substantial harm on American commerce.

## VI. Conclusion

The constitutionally based U.S. patent system has long been a driver of American innovation and economic growth, but it is faltering. An unfortunate confluence of Supreme Court decisions, legislative amendments, and Administration policy changes have combined to significantly weaken patent rights and displace the United States as an international leader in patent protection. This is not just a problem for patent owners. If bold action is not taken to address the recent decline in the effectiveness of U.S. patent protection, American innovation will decline and the American economy will suffer—to the detriment of American workers, businesses, and innovators.

Specific actions can and should be taken to reinvigorate the U.S. patent system.

- Legislation should eliminate or sharply rein in the PTAB, which has been used to eliminate an unjustifiably large proportion of recently enacted patents without adequate judicial oversight.
- Legislation should restore the presumption that a patent holder is entitled to injunctive relief, which absolutely bars infringers from illegally using his or her property.
- Legislation should overturn judicial holdings that have narrowed the scope of patentable subject matter, preventing key meritorious innovations from getting patent protection.
- Legislation should overturn other judicial holdings that have limited patent owners’ contractual flexibility and have generated inappropriate uncertainty as to whether inventions will be adjudged “obvious” and therefore unpatentable.
- The President should take actions to appoint “pro-patent” officials and establish strong “pro-patent” policies throughout his Administration.
- U.S. antitrust enforcers should: (1) reject the last Administration’s antitrust policies that undermined the unilateral exercise of patent rights; and (2) restore the understanding that strong patents and antitrust are fully compatible.
- The Trump Administration should vigorously oppose foreign actions aimed at undermining

American patent rights, and take affirmative steps on the global stage to promote greater respect and protection for patents.

No single recommendation is a silver-bullet solution to the problems that have plagued the American patent system. Taken together, however, these proposals provide a blueprint for Administration and congressional action on multiple fronts designed to significantly strengthen American patent rights and restore the United States patent system to a position of world leadership. Successful implementation of the blueprint would strike a blow for the protection of private property rights and redound to the benefit of all Americans.

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## Endnotes

1. See Alden F. Abbott, *The Constitutionalist and Utilitarian Justifications for Strong U.S. Patent and Copyright Systems*, HERITAGE FOUNDATION LEGAL MEMORANDUM No. 179 (June 21, 2016), <http://www.heritage.org/report/the-constitutionalist-and-utilitarian-justifications-strong-us-patent-and-copyright-systems>.
2. U.S. CONST., art. I, § 8, cl. 8.
3. See generally Adam Mossoff, *The Sewing Machine Patent Wars*, SLATE (Dec. 2013), [http://www.slate.com/articles/technology/future\\_tense/2013/12/sewing\\_machine\\_patent\\_wars\\_of\\_the\\_1850s\\_what\\_they\\_tell\\_us\\_about\\_the\\_patent.html](http://www.slate.com/articles/technology/future_tense/2013/12/sewing_machine_patent_wars_of_the_1850s_what_they_tell_us_about_the_patent.html).
4. See Joseph Allen, *Academic Patent Licensing Helps Drive the U.S. Economy*, IP WATCHDOG (June 20, 2017) (discussing an economic study produced by academic experts), <http://www.ipwatchdog.com/2017/06/20/academic-patent-licensing-helps-drive-u-s-economy/id=84778/>.
5. This overview draws upon U.S. Patent and Trademark Office, General Information Concerning Patents (Oct. 2015), <https://www.uspto.gov/patents-getting-started/general-information-concerning-patents#heading-3>.
6. The PTO also examines and issues federal trademark registrations. Trademarks are not dealt with in this paper.
7. 35 U.S.C. §§ 1-376, <https://www.law.cornell.edu/patent/patent.overview.html>.
8. See U.S. Patent and Trademark Office, Infringement of Patents (2017), <https://www.uspto.gov/patents-getting-started/general-information-concerning-patents#heading-3>.
9. See 35 U.S.C. § 284.
10. 35 U.S.C. § 101.
11. See, e.g., Paul R. Michel, *Judicial Litigation Reforms Make Comprehensive Patent Legislation as Well as Counterproductive*, 14 NW. J. OF TECH. & INTELLECTUAL PROP. 131, 136-37 (2016).
12. See John W. Cox & Joseph L. Vandegrif, *A Brief History of Supreme Court Interest in Patentable Subject Matter Under 35 U.S.C. § 101*, 19 J. OF TECH. L. & POL'Y 181 (2014).
13. Gene Quinn, *Patentability Overview: When Can an Invention be Patented?*, IP WATCHDOG (June 3, 2017), <http://www.ipwatchdog.com/2017/06/03/patentability-invention-patented/id=84071/>.
14. U.S. Chamber of Commerce, International IP Index (Patents Score Range) (5th ed. 2017), <http://www.theglobalipcenter.com/ipindex2017-chart/>.
15. Sen. Chris Coons, *A Few Thoughts on the Supreme Court's Section 101 Jurisprudence*, IP WATCHDOG (Feb. 8, 2007), <http://www.ipwatchdog.com/2017/02/08/thoughts-supreme-courts-section-101-jurisprudence/id=78166/>.
16. As Sen. Coons put it, “[b]y moving away from patents and towards trade secrets, research being conducted in emerging areas of innovation will stagnate under a shroud of silence.” *Id.*
17. See generally Gene Quinn, *Understanding the Patent Law Utility Requirement*, IP WATCHDOG (Nov. 7, 2015), <http://www.ipwatchdog.com/2015/11/07/understanding-the-patent-law-utility-requirement/id=63007/>.
18. See generally Gene Quinn, *Patentability: The Novelty Requirement of 35 U.S.C. 102*, IP WATCHDOG (June 10, 2017), <http://www.ipwatchdog.com/2017/06/10/patentability-novelty-requirement-102/id=84321/>.
19. Gene Quinn, *Patentability: The Nonobviousness Requirement of 35 U.S.C. 103*, IP WATCHDOG (June 17, 2017), <http://www.ipwatchdog.com/2017/06/17/patentability-nonobviousness-35-usc-103/id=84716/>.
20. *Id.*
21. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007).
22. Rebecca Green dyke, *No Patent for You!: How KSR v. Teleflex's Nonobviousness Test Conflicts with the Scientific Method and Removes the Incentive to Innovate*, 35 U. DAYTON L. REV. 413, 414 (2010).
23. *Id.* at 430-35.
24. *Id.* at 432.
25. Ron Katznelson, *Can the Supreme Court's Erosion of Patent Rights be Reversed?*, IP WATCHDOG (Mar. 2, 2017), <http://www.ipwatchdog.com/2017/03/02/supreme-courts-erosion-patent-rights-reversed/id=78992/>.
26. Sanjeev Mahanta, *Enablement—Did the Public Receive All it Contracted to Receive?*, IP WATCHDOG (Mar. 7, 2015), <http://www.ipwatchdog.com/2015/03/07/enablement-did-the-public-receive-all-it-contracted-to-receive/id=55470/>.
27. 35 U.S.C. § 112(a).
28. Gene Quinn, *Patent Drafting 101: The Basics of Describing Your Invention in a Patent Application*, IP WATCHDOG (Dec. 17, 2016), <http://www.ipwatchdog.com/2016/12/17/describing-invention-patent-application/id=75937/>.
29. *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006).
30. See Kirti Gupta & Jay P. Kesan, *Studying the Impact of eBay on Injunctive Relief in Patent Cases* (July 31, 2016), U. OF IL. L. RESEARCH PAPER NO. 17-03, <https://ssrn.com/abstract=2816701> or <http://dx.doi.org/10.2139/ssrn.2816701>.

31. Gene Quinn, *No Permanent Injunction Threat Leads to Refusal to Deal with Patent Owners*, IP WATCHDOG (June 18, 2015), <http://www.ipwatchdog.com/2015/06/18/no-permanent-injunction-threat-leads-refusal-to-deal/id=58845/>.
32. *Impression Product, Inc. v. Lexmark International, Inc.*, No. 15-1189, slip op. (May 30, 2017), [https://www.supremecourt.gov/opinions/16pdf/15-1189\\_ebfj.pdf](https://www.supremecourt.gov/opinions/16pdf/15-1189_ebfj.pdf).
33. Gene Quinn, *Patent Exhaustion at the Supreme Court: Industry Reaction to Impression Products v. Lexmark*, IP WATCHDOG (May 30, 2017) (excerpts from statement of Melissa Brand, Director of IP Policy, BIO), <http://www.ipwatchdog.com/2017/05/30/patent-exhaustion-supreme-court-industry-reaction-impression-products-v-lexmark/id=83822/>.
34. Herbert J. Hovenkamp, *Reasonable Patent Exhaustion* (Abstract, SSRN, July 1, 2017), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2995751](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2995751).
35. See generally Alden F. Abbott, *Constitutional and Economic Policy Problems Raised by Inter Partes Review (IPR) Suggest Congress Should Consider Acting*, HERITAGE FOUNDATION COMMENTARY (Dec. 12, 2016), <http://www.heritage.org/economic-and-property-rights/commentary/constitutional-and-economic-policy-problems-raised-inter>.
36. 35 U. S. C. §§ 100, et seq.; Pub. L. 112-29, 125 Stat. 284, Sept. 16, 2011.
37. The AIA established two general types of PTO reviews of patents after a patent grant has been made: “post-grant review” and “*inter partes* review,” which are available for a limited period after a patent’s issuance. Although there are some technical differences between the two types of reviews (which are beyond the scope of this memorandum), they both generally have to be carried out within a year (subject to limited six-month extensions), and both can and have been applied to extinguish property rights without the intervention of a court. This memorandum’s discussion of PTAB review encompasses both post-grant review and *inter partes* review. For more specific information about the two types of review, see Chad M. Rink, *Post-Grant Review and Inter Partes Review*, BSKB (2017), [http://www.postgrantproceedings.com/resources/procedures/article-CMR\\_PGR\\_IPR.html](http://www.postgrantproceedings.com/resources/procedures/article-CMR_PGR_IPR.html); Fish & Richardson, *Post-Grant Review* (2017), <http://fishpostgrant.com/post-grant-review/>; Fish & Richardson, *Inter Partes Review* (2017), <http://fishpostgrant.com/inter-partes-review/>.
38. Gene Quinn, *Inter Partes Review and the Controversial Implications of the Kyle Bass Petitions*, IP WATCHDOG (Sept. 15, 2015), <http://www.ipwatchdog.com/2015/09/15/inter-partes-review-and-the-controversial-implications-of-the-kyle-bass-petitions/id=61691/>.
39. Ryan Davis, *PTAB’s ‘Death Squad’ Label Not Totally Off-Base, Chief Says*, LAW 360 (Aug. 14, 2014), <https://www.law360.com/articles/567550/ptab-s-death-squad-label-not-totally-off-base-chief-says>.
40. PTO, Trial Statistics (IPR, PGR, CBM), Patent Trial and Appeals Board, May 2017 (June 2017), at 11, [https://www.uspto.gov/sites/default/files/documents/Trial\\_Statistics\\_2017-05-31.pdf](https://www.uspto.gov/sites/default/files/documents/Trial_Statistics_2017-05-31.pdf).
41. See generally Gene Quinn, *America’s Patent System: Mediocre and Stabilized in a Terrible Space*, IP WATCHDOG (May 9, 2017) (citing former Federal Circuit Judge’s Paul Michel that most PTAB *inter partes* reviews involve “the strongest patents...a two-third invalidation rate can’t be right for these pre-vetted patents”), <http://www.ipwatchdog.com/2017/05/09/americas-patent-system-mediocre-terrible/id=83067/>.
42. See Joe Mullin, *Patent that Cost Microsoft Millions Gets Invalidated*, ARS TECHNICA (Mar. 25, 2016), <https://arstechnica.com/tech-policy/2016/03/game-companies-knock-out-patent-that-slammed-microsoft-with-388m-verdict/>.
43. Scott Moscovitz, et al., *PTAB Procedural Reforms Are Necessary to Restore Balance and Due Process*, IP WATCHDOG (May 24, 2017), <https://www.ipwatchdog.com/2017/05/24/ptab-procedural-reforms-necessary/id=83651/>.
44. *America’s Patent System*, *supra* note 41.
45. Moskowitz et al., *supra* note 43.
46. *Id.* (internal citations omitted).
47. See Eric Grant, *Right to Jury in Civil Cases*, in HERITAGE GUIDE TO THE CONSTITUTION 464-465 (David F. Forte and Matthew Spalding, eds., 2nd ed. 2014).
48. *Baltimore & Carolina Line v. Redman*, 295 U.S. 654 (1935); *Granfinanciera, S.A. v. Nordberg*, 492 U.S. 33, 42 (1989).
49. See *Petition for a writ of certiorari in Oil States Energy Services, LLC, v. Green’s Energy Group, LLC* (Nov. 23, 2016), <http://www.scotusblog.com/wp-content/uploads/2017/06/16-712-petition.pdf>.
50. *Stern v. Marshall*, 564 U.S. 462, 484 (2011) (quoting *Murray’s Lessee v. Hoboken Land & Improvement Co.*, 59 U.S. 272, 284 (1855)).
51. PTAB administrative law judges are mere PTO employees, and the PTO is an agency within the Executive Branch (a subdivision of the Commerce Department), which exercises executive authority under the overall supervision of the President. See U.S. CONST., art. II, § 1, cl. 1 (“The executive Power shall be vested in a President of the United States of America”) and U.S. CONST., art. II, § 3 (“[The President] shall take Care that the Laws be faithfully executed”).
52. *McCormick v. Aultman*, 169 U.S. 606, 609 (1898).
53. *Oil States Energy Services, LLC v. Green’s Energy Group, LLC* (No. 16-712, cert. granted June 12, 2017), <https://www.supremecourt.gov/qp/16-00712qp.pdf>.
54. See Gene Quinn, *Industry Reaction to SCOTUS Granting Cert. in Oil States*, IP WATCHDOG (June 13, 2017), <http://www.ipwatchdog.com/2017/06/13/industry-reaction-scotus-granting-cert-oil-states/id=84460/>. One view expressed was that the Supreme Court might hold that patent rights are not classic private property rights but are instead far weaker “public rights” that can be eliminated without formal judicial approval.

55. *United States v. Topco Assocs., Inc.*, 405 U.S. 596, 610 (1972).
56. The precise goals of antitrust are a rather complicated topic beyond the scope of this discussion, but the merits of “economic efficiency” and “consumer welfare” clearly are central features of modern U.S. antitrust policy debates (even though other factors are also discussed, and there are disagreements as to definitions of terms). A good summary of the development over time of U.S. antitrust enforcement philosophy is HERBERT HOVENKAMP, *FEDERAL ANTITRUST POLICY* 69-104 (5th ed. 2016).
57. *Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 407 (2004).
58. In contrast, anticompetitive collusion among owners of competing patents (for example, to fix prices or divide up markets among customers), which inherently retards efficient competition, has consistently been deemed to violate the antitrust laws.
59. U.S. DEP'T OF JUSTICE & FED TRADE COMM'N, *ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY* (Apr. 1995), <https://www.justice.gov/atr/archived-1995-antitrust-guidelines-licensing-intellectual-property>. The Guidelines refer generally to “intellectual property,” which includes copyrights and trademarks as well as patents, but most such licensing that gave rise to antitrust scrutiny involved, and continues to involve, patents. An updated April 2017 version of the IP Guidelines did not depart from the general principles enunciated above. See U.S. DEP'T OF JUSTICE & FED TRADE COMM'N, *ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY* (2017), [https://www.ftc.gov/system/files/documents/public\\_statements/1049793/ip\\_guidelines\\_2017.pdf](https://www.ftc.gov/system/files/documents/public_statements/1049793/ip_guidelines_2017.pdf).
60. This very brief summary of the Obama Administration's antitrust scrutiny of unilateral patent-rights exploitation draws upon Alden F. Abbott, *US Government Antitrust Intervention in Standard-Setting Activities and the Competitive Process*, 18 VAND. J. ENT. & TECH. L. 225 (2016), [http://www.jetlaw.org/wp-content/uploads/2016/03/Abbott\\_SPE\\_6-FINAL.pdf](http://www.jetlaw.org/wp-content/uploads/2016/03/Abbott_SPE_6-FINAL.pdf).
61. See Alden Abbott, *Commissioner Ohlhausen's Qualcomm Dissent Points the Way Toward Sound Antitrust Enforcement*, TRUTH ON THE MARKET (Jan. 18, 2017), <https://truthonthemarket.com/2017/01/18/commissioner-ohlhausens-qualcomm-dissent/>.
62. Abbott, *supra* note 60, , at 245 (internal citations omitted).
63. U.S. Chamber of Commerce, *International Competition Policy Expert Group Report and Recommendations* 31 (Mar. 2017) (ICPEG Report), [https://www.uschamber.com/sites/default/files/icpeg\\_recommendations\\_and\\_report.pdf](https://www.uschamber.com/sites/default/files/icpeg_recommendations_and_report.pdf). The bipartisan experts responsible for the ICPEG Report included former senior antitrust and international trade officials, as well as leading lawyers and economists who work on antitrust and international trade issues.
64. *Id.*
65. See, e.g., Neal Solomon, *Obama's Anti-Patent Bias Led to the Destruction of His Legacy*, IP WATCHDOG (Dec. 14, 2016) (documenting various ways in which Obama Administration policies undermined patent rights), <http://www.ipwatchdog.com/2016/12/14/obama-anti-patent-bias-destruction-legacy/id=75618/>.
66. Abbott, *supra* note 60, at 245.
67. Mark A. Lemley & Carl Shapiro, *Probabilistic Patents*, 19 J. ECON PERSP. 75 (2005), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=567883](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=567883).
68. See generally, Alden F. Abbott & John G. Malcolm, *A Measured Approach to Patent Reform Legislation*, HERITAGE FOUNDATION BACKGROUNDER NO. 3035 (July 14, 2015), [http://thf\\_media.s3.amazonaws.com/2015/pdf/BG3035.pdf](http://thf_media.s3.amazonaws.com/2015/pdf/BG3035.pdf).
69. See PTO, *Patent Quality* (2017), <https://www.uspto.gov/patent/patent-quality>.
70. Abbott & Malcolm, *supra* note 68, at 3.
71. *Id.* at 4.
72. *Id.* at 11.
73. *Id.* One very limited and targeted legislative remedy to deal specifically with the problem of “abusive demand letters” may, nevertheless, be appropriate, consistent with the general rule of legislative caution. This problem arises when “bad trolls” send scores of abusive letters, claiming that a business—often a small business—is violating some patent right while providing literally no relevant information and demanding a payment to avoid litigation. As a result, some innocent but frightened businesses pay up and absorb unwarranted costs. Various proposals advanced in prior Congresses would: (1) require that demand letters provide great specificity about how a patent allegedly is being infringed; and (2) provide that the widespread dissemination of deceptive demand letters that lack a reasonable basis violates the U.S. Federal Trade Commission Act. It has been suggested that actual legislative language should be phrased carefully to avoid excessive limitations on the right of patent holders—some of whom may be small inventors without the financial wherewithal to hire counsel to advise them—to protect their interests in seeking legitimate licensing opportunities and in protecting their rights short of filing lawsuits. See *Id.* at 8.
74. Jonathan M. Barnett, *Has the Academy Led Patent Law Astray?* (University of Southern California Law School Legal Studies Working Paper No. 239 (2017)) (abstract), <http://law.bepress.com/cgi/viewcontent.cgi?article=1374&context=usclwps-lss>, *forthcoming in* 90 S. CAL. L. REV. (2017).
75. *Id.*
76. See Maureen K. Ohlhausen, *Remarks before the American Bar Association's 32nd Annual Intellectual Property Law Conference*, Arlington, Virginia (Apr. 6, 2017), [https://www.ftc.gov/system/files/documents/public\\_statements/1207513/ohlhausen\\_-\\_aba\\_ip\\_law\\_conference\\_remarks\\_4-6-17.pdf](https://www.ftc.gov/system/files/documents/public_statements/1207513/ohlhausen_-_aba_ip_law_conference_remarks_4-6-17.pdf); Maureen K. Ohlhausen, *Patent Rights in a Climate of Intellectual Property Rights Skepticism*, 30 HARV. J. L. & TECH. 103 (2016). Although Ohlhausen generally uses the term “intellectual property” rights in referring to the research, rather than the narrower term “patent rights” (which are a subset of intellectual property rights), the empirical studies she emphasizes largely center on patent-related data.

77. See Alden F. Abbott, *Abuse of Dominance by Patentees: A Pro-Innovation Perspective*, 14 THE ANTITRUST SOURCE, No. 1, at 1, 8–9 (2014) (discussing law and economics studies of how the patent system supports growth and innovation), [https://www.americanbar.org/content/dam/aba/publishing/antitrust\\_source/oct14\\_abbott\\_10\\_21f.authcheckdam.pdf](https://www.americanbar.org/content/dam/aba/publishing/antitrust_source/oct14_abbott_10_21f.authcheckdam.pdf).
78. Views of the Honorable F. Scott Kieff, Commissioner, United States International Trade Commission, on the United States Federal Trade Commission's and the United States Department of Justice Antitrust Division's Joint Guidelines for the Licensing of Intellectual Property, at 4–5 (Sept. 23, 2016), <https://www.justice.gov/atr/file/897081/download>.
79. See Brian Pomper, *Senators Coons and Cotton introduce STRONGER Patents Act of 2017*, IP WATCHDOG (June 21, 2017), <http://www.ipwatchdog.com/2017/06/21/senators-coons-cotton-introduce-stronger-patents-act-2017/id=84956/>.
80. The STRONGER Patents Act of 2017 (June 21, 2017), <https://www.coons.senate.gov/imo/media/doc/STRONGER%20Patents%20Act%20of%202017%20One%20Pager.pdf>.
81. *Id.* The PTO “fee funding” language refers to the fact that patent application fees charged by the PTO have at various times been diverted in part to other non-patent-related government functions, raising concerns about the adequacy of PTO resources to conduct examinations and administer the patent system.
82. The STRONGER Patents Act of 2017, Section By Section (June 21, 2017), <https://www.coons.senate.gov/imo/media/doc/STRONGER%20Patents%20Act%20of%202017%20Section-By-Section.pdf>.
83. See the discussion of patent aggregators and abusive demand letters in section V.A. of this memorandum, *supra*.
84. See the discussion of those problems in section III.B., *supra*.
85. See the discussion of Section 101 in section II.A. of this memorandum, *supra*.
86. IPO, “Proposed Amendments to Patent Eligible Subject Matter Under 35 U.S.C. § 101” (Feb. 7, 2017), [http://www.ipo.org/wp-content/uploads/2017/02/20170224\\_IPO-101-TF-Proposed-Amendments-and-Report\\_final.pdf](http://www.ipo.org/wp-content/uploads/2017/02/20170224_IPO-101-TF-Proposed-Amendments-and-Report_final.pdf).
87. *Id.* at 1–2.
88. *Id.* at 27.
89. AIPLA, *AIPLA Legislative Proposal and Report On Patent Eligible Subject Matter* (May 12, 2017), <http://www.aipla.org/resources2/reports/2017AIPLADirect/Documents/AIPLA%20Report%20on%20101%20Reform-5-19-17-Errata.pdf>.
90. *Id.* at 17 (internal quotation referring to specific language of the legislative amendment).
91. *Id.*
92. See section I.G., *supra*.
93. See section II.D., *supra*.
94. See *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577 (Fed. Cir. 1984).
95. Precedent suggests that such an initiative may bear valuable fruit. The Reagan Administration convened an interagency intellectual property working group, chaired by the PTO Director, which built support for strong patent and other intellectual property rights throughout the Administration. Among other accomplishments, the working group generated support for a proposal to grant exclusive rights to the owners of original semiconductor chip designs, which was enacted by Congress as the Semiconductor Chip Protection Act of 1984, 98 Stat. 3335 (1984) (codified as 17 U.S.C. §§ 901–914).
96. See the discussion of the constitutional problems posed by PTAB in section III.B., *supra*.
97. The ICPEG Report of antitrust and trade experts released by the U.S. Chamber of Commerce, see note 58, *supra*, made a somewhat similar recommendation focused solely on foreign antitrust abuses that harm U.S. commerce: The Trump Administration should “set a government-wide, high-level strategy for articulating and promoting policies to address the misuse of competition law by other nations that impede international trade and competition and harm U.S. companies.” ICPEG Report at 2.