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THE TAKING OF BUSINESS METHOD PATENTS?

Matthew J. Rizzolo and Kathryn C. Thornton*

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[1] In *Oil States Energy Services v. Greene's Energy Group*, the Supreme Court rejected a Constitutional challenge to the Inter Partes Review proceedings created in the 2011 America Invents Act (AIA), finding that these proceedings violate neither Article III nor the Seventh Amendment.¹ But in doing so, the Supreme Court reiterated its longstanding view that patents are property rights which are protected by other Constitutional provisions—such as the Fifth Amendment's Taking Clause or Due Process Clause.² This article raises the question as to whether, in light of *Oil States*, patent owners who have had their patents canceled through certain AIA trial proceedings may have a viable claim for just compensation against the U.S. government under the Takings Clause.

I. INTRODUCTION

[2] The patent system is based on a constitutional grant of power to 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.”³ When an inventor applies for and receives a patent, he or she enters into a *quid pro quo* with the United States

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¹ See *Oil States Energy Servs., L.L.C. v. Greene's Energy Grp.*, 138 S. Ct. 1365, 1368–70 (2018) (“In this case, we address whether inter partes review violates Article III or the Seventh Amendment of the Constitution. We hold that it violates neither.”).

² See *id.* at 1379 (“Finally, our decision should not be misconstrued as suggesting that patents are not property for purposes of the *Due Process Clause* or the *Takings Clause*.” (emphasis in original)).

³ U.S. CONST. art. I, § 8, cl. 8.

government.⁴ Instead of keeping the invention from the public, such as maintaining it as a trade secret, the inventor publicly discloses the invention to everyone.⁵ In exchange, the inventor is provided by statute with a private property right—the right to exclude others from using the invention for a limited period of time. Congress designed this “patent bargain” to “promot[e] progress in the useful arts.”⁶

[3] In an effort to eliminate *lower quality* patents, Congress, through the AIA, enacted certain provisions that upset this longtime bargain.⁷ Among other provisions, the AIA allowed the Patent and Trademark Office (PTO), through so-called Covered Business Method (CBM) reviews, to reevaluate and cancel the claims of business method patents on new grounds—and at a lower level of proof—than what was previously available in district courts in the past.⁸ By applying these new provisions retroactively, Congress arguably disrupted settled expectations of certain patent owners, leading to the revocation of private property rights in many circumstances via a route that was not available to patent challengers when those private property rights were first granted.

⁴ See, e.g., Elizabeth Pesses, *Patent and Contribution: Bringing the Quid Pro Quo into eBay v. Mercexchange*, 11 YALE J. L. & TECH. 309, 311 (2009) (describing the *quid pro quo* in patent law as a “right granted to its owner by the public in exchange for an invention and its disclosure”).

⁵ J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred Int’l Inc., 534 U.S. 124, 142 (2001); Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 150–51 (1989).

⁶ *Id.* at 161.

⁷ See Barack Obama, President, Remarks by the President at Signing of the America Invents Act (Sept. 16, 2011) (transcript available in the White House Archives).

⁸ See Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 18, 125 Stat. 284, 329–31 (2011) (codified at 35 U.S.C. § 321 (2012)) (describing the transitional program for covered business method patents); 35 U.S.C. § 321(b) (allowing patents to be challenged not only on invalidity grounds, but also for requirements of § 101 and § 112). Compare 35 U.S.C. § 324(a) (2012) (codifying that a petition to institute a post-grant review of a patent must “demonstrate that it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable.”), with, e.g., Microsoft Corp. v. i4i Ltd. P’ship, 564 U.S. 91, 95 (2011) (holding that the invalidity of patent claims in district court must be proven by “clear and convincing evidence”).

[4] Cancellation of a patent for invalidity nullifies the right to exclude, dedicating the patent's subject matter to the public.⁹ To be sure, nothing in the Constitution prohibits the federal government from taking this private property for public use, but if it does so, it must provide "just compensation" to the property owner.¹⁰ As Supreme Court Justice Oliver Wendell Holmes stated nearly a century ago, "a strong public desire to improve the public condition is not enough to warrant achieving the desire by a shorter cut than the constitutional way of paying for the change[;]"¹¹ that the property was taken for a reason that ultimately is beneficial to society as a whole is not on its own enough. The revocation of patents by the PTO, as authorized by Congress,¹² has potentially exposed the government to an untold amount of liability.

II. BACKGROUND OF TAKINGS LAW

[5] The Fifth Amendment provides that "private property" cannot "be taken for public use, without just compensation."¹³ This guarantee "was designed to bar Government from forcing some people alone to bear public burdens which, in fairness and justice, should be borne by the public as a whole."¹⁴ To be sure, the Takings Clause does not eliminate the government's power to appropriate private property—it simply mandates that the government compensate the property owner for what the

⁹ See 35 U.S.C. § 154(a)(1) (2012) ("Every patent shall contain [. . .] a grant to the patentee, his heirs or assigns, of the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States, or importing the invention into the United States, and if the invention is a process, [a grant of equivalent rights].").

¹⁰ See U.S. CONST. amend. V.

¹¹ *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 416 (1922).

¹² See 35 U.S.C. § 328(b).

¹³ U.S. CONST. amend. V.

¹⁴ *Armstrong v. United States*, 364 U.S. 40, 49 (1960).

government took.¹⁵ Typically, this compensation must be equal to the fair market value of the property at the time of the taking.¹⁶

[6] The classic example of a taking—also known as a *per se*, categorical, or physical taking—is one in which “the government directly appropriates private property for its own use.”¹⁷ “When the government physically takes possession of an interest in property for some public purpose, it has a categorical duty to compensate the former owner.”¹⁸ The government’s permanent physical occupation of someone’s property rises to the level of a *per se* taking because in that situation, “the government does not simply take a single ‘strand’ from the ‘bundle’ of property rights: it chops through the bundle, taking a slice of every strand.”¹⁹ The owner cannot exercise the power to exclude the occupier from the space, undermining what “has traditionally been considered one of the most treasured strands in an owner’s bundle of property rights.”²⁰

[7] The Fifth Amendment also protects against government regulation that “goes too far” in regulating property.²¹ To identify these “regulatory takings,” courts use a balancing test, in which they consider (1) “[t]he economic impact of the regulation on the claimant,” (2) “the extent to which the regulation has interfered with distinct investment-backed expectations,”

¹⁵ See John Echeverria, *Knick v. Township of Scott: Takings Advocates’ Nonsensical Forum Shopping Agenda*, CTR. FOR PROGRESSIVE REFORM: CPRBLOG (Sept. 28, 2018), <http://progressivereform.org/CPRBlog.cfm?idBlog=211E5DD2-9C6F-60C4-2A845FE1C1222616> [<https://perma.cc/YHY3-J5WQ>].

¹⁶ See *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 130 (1978).

¹⁷ *Horne v. Dep’t of Agric.*, 135 S. Ct. 2419, 2425 (2015) (internal quotations omitted).

¹⁸ *Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg’l Planning Agency*, 535 U.S. 302, 322 (2002).

¹⁹ *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 435 (1982).

²⁰ *Id.*

²¹ See *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 415–16 (1922).

and (3) “the character of the governmental action.”²² This so-called *Penn Central* analysis is fact- and case-specific.²³ For instance, “a regulation which ‘denies all economically beneficial or productive use of land’ will require compensation under the Takings Clause.”²⁴ Similarly, “[a] ‘taking’ may more readily be found when the interference with property can be characterized as a physical invasion by government.”²⁵

[8] It is worth repeating that the Takings Clause does not *prohibit* the government from taking private property, but instead places conditions on the exercise of that power—the taking must serve a public purpose, and the property owner must receive just compensation.²⁶ Thus, a government action that takes property rights necessarily implicates the “constitutional obligation to pay just compensation.”²⁷ And when that action is taken by the federal government, Congress has provided a forum for the property owner to seek compensation—in the Court of Federal Claims—under the Tucker Act.²⁸

²² *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 124 (1978).

²³ *See id.*

²⁴ *Palazzolo v. Rhode Island*, 533 U.S. 606, 617 (2001) (quoting *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1015 (1992)).

²⁵ *Penn Cent.*, 438 U.S. at 124 (citing *United States v. Causby*, 328 U.S. 256 (1946)); *see also* *Kaiser Aetna v. United States*, 444 U.S. 164, 178 (1979) (“[T]he Government’s attempt to create a public right of access to the improved pond goes so far beyond ordinary regulation or improvement for navigation as to amount to a taking under the logic of *Pennsylvania Coal*”).

²⁶ *See* U.S. CONST. amend. V.

²⁷ *Armstrong v. United States*, 364 U. S. 40, 49 (1960).

²⁸ *See* 28 U.S.C. § 1491(a)(1) (2018).

III. PATENTS ARE PRIVATE PROPERTY PROTECTED BY THE FIFTH AMENDMENT

[9] The right to exclude is “one of the most essential sticks in the bundle of rights that are commonly characterized as property.”²⁹ Patents isolate this single stick in the bundle of property rights—a patent provides the owner with a right to exclude others from using the claimed invention for a limited time.³⁰ This right to exclude is separate from an affirmative right to use the patented invention (which is not included within a patent grant).³¹

[10] Congress has also recognized patents as property, both explicitly and implicitly. The Patent Act specifically provides that “patents shall have the attributes of personal property.”³² Likewise, Congress requires the United States to pay “reasonable and entire compensation for such use and manufacture” if the United States uses or manufactures a patented invention without a license.³³ And when Congress passed statutes that called for the revocation of existing patents (such as those “useful solely in the utilization of special nuclear material or atomic energy in an atomic weapon”), it expressly required that the patent owners whose patents had been revoked would be provided with “just compensation” through a Patent Compensation Board.³⁴ Even now, if the Patent Office withholds a patent for national security reasons, the applicant may seek “compensation for the damage and/or use of the invention by the Government.”³⁵

²⁹ *Kaiser Aetna*, 444 U.S. at 176.

³⁰ See 35 U.S.C. § 154 (2018); see also 35 U.S.C. § 271 (2018).

³¹ See *King Instruments Corp. v. Perego*, 65 F.3d 941, 949 (Fed. Cir. 1995) (“A patent confers the right to exclude others from exploiting an invention. It does not confer the right to exploit the invention already possessed by the inventor.”).

³² 35 U.S.C. § 261 (2018).

³³ 28 U.S.C. § 1498 (2018).

³⁴ Atomic Energy Act, 42 U.S.C. §§ 2181(a), 2187(b) (1954).

³⁵ 35 U.S.C. § 183 (2018).

[11] As noted by scholars such as Adam Mossoff, Greg Dolin, and Irina Manta, the courts have long recognized that a patent is a property right protected by the Fifth Amendment.³⁶ This understanding harkens back to the nineteenth century, when the Supreme Court explained “[t]hat the government of the United States when it grants letters-patent for a new invention or discovery in the arts, confers upon the patentee an exclusive property in the patented invention which cannot be appropriated or used by the government itself, without just compensation.”³⁷ A few years ago, the Supreme Court reiterated this understanding of patents as property that the government cannot take without providing just compensation, citing patents as an example of personal property that is protected against physical appropriation by the Takings Clause.³⁸

[12] Just this year, the Supreme Court once again reiterated this understanding of patents as private property rights protected by the Fifth Amendment.³⁹ In *Oil States*, the Supreme Court considered the question of whether Inter Partes Review (IPR)—a post-grant validity review proceeding created by the AIA—violated either Article III of the Constitution or the Seventh Amendment right to a jury trial.⁴⁰ In a 7-2 decision authored by Justice Thomas, the Supreme Court held that IPR

³⁶ See, e.g., Brief of 27 Law Professors as Amici Curiae in Support of Petitioner at 6, *Oil States Energy Servs., L.L.C. v. Greene’s Energy Grp.*, 138 S. Ct. 1365 (2018) (No. 16-712) (“This court unequivocally defined patents as property rights in the early American Republic”); Gregory Dolin & Irina D. Manta, *Taking Patents*, 73 WASH. & LEE L. REV. 719, 788–91 (2016) (making the argument that the AIA itself effected either a regulatory taking under *Penn Central* or even a physical taking of all patents potentially subject to the post-grant validity reviews created by the AIA); Adam Mossoff, *Patents as Constitutional Private Property: The Historical Protection of Patents Under the Takings Clause*, 87 B.U.L. REV. 689, 700 (2007) (“Nineteenth-century courts concluded that patents were constitutional private property based on a logical development in both patent and constitutional law.”).

³⁷ *James v. Campbell*, 104 U.S. 356, 357–58 (1882).

³⁸ See *Horne v. Dep’t of Agric.*, 135 S. Ct. 2419, 2427 (2015).

³⁹ See *Oil States Energy Servs., L.L.C. v. Greene’s Energy Grp.*, 138 S. Ct. 1365, 1369 (2018).

⁴⁰ See *id.* at 1372.

proceedings are constitutional under both Article III and the Seventh Amendment.⁴¹ While the Supreme Court in *Oil States* characterized patents as “a public franchise” and affirmed the constitutionality of IPR, the Court went out of its way to “emphasize the narrowness” of its holding and noted that even as a public franchise, patents are “a specific form of property right.”⁴² The Court expressly stated that its affirmance in *Oil States* “should not be misconstrued as suggesting that patents are not property for the purposes of the Due Process Clause or the Takings Clause.”⁴³

IV. THE AMERICA INVENTS ACT AND COVERED BUSINESS METHOD REVIEWS

[13] On September 16, 2011, President Obama signed the AIA,⁴⁴ culminating years of legislative debate about the interplay between the patent system, the United States economy, and how to improve the quality of patents. Through the AIA, Congress attempted to address the problem of non-practicing entities (NPEs—sometimes referred to as “patent trolls”) who used their patents to extract settlement or licensing fees to the detriment the economy.⁴⁵ Congress targeted certain types of patents that were commonly asserted by NPEs, in particular so-called “business method patents.”⁴⁶ The AIA defines a business method patent as one that “claims a

⁴¹ See *id.* at 1369, 1379.

⁴² See *id.* at 1375, 1379.

⁴³ *Id.* at 1379.

⁴⁴ See *Global Impacts of the AIA*, U.S. PATENT & TRADEMARK OFFICE, <https://www.uspto.gov/patent/laws-and-regulations/america-invents-act-ai-a/global-impacts-ai-a> [<https://perma.cc/MR96-T3LT>].

⁴⁵ See *Abusive Patent Litigation: The Impact on American Innovation and Jobs, and Potential Solutions: Hearing Before the Subcomm. on Courts, Intellectual Property, and the Internet of the H. Comm. on the Judiciary*, 113th Cong. 1–2 (2013) (statement of Rep. Howard Coble, Chairman, H. Subcomm. on Courts, Intellectual Property and the Internet).

⁴⁶ See Robert M. Abrahamsen, *Courts are Drawing the Line on Business Method Patents*, FORBES (Oct. 30, 2015, 7:37 AM),

method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service,” but is not for a “technological invention[.]”⁴⁷

[14] To improve patent quality under the AIA, Congress created a new administrative review procedure called the “Transitional Program for Covered Business Method Patents,” also called CBM review.⁴⁸ These proceedings allow the PTO to revisit the validity of certain *business method* patents at the request of a third party.⁴⁹ Beginning September 16, 2012 and lasting for eight years thereafter, an entity sued or charged with infringement of any business method patent, regardless of the date on which it issued, can petition the PTO to examine the patent’s validity through CBM review.⁵⁰ CBM review permits invalidity challenges on virtually any grounds—under 35 U.S.C. §§ 102 and 103 based on prior art, § 101 for unpatentable subject matter, and § 112 for lack of a written description, lack of enablement, or indefiniteness.⁵¹ Under CBM review, the petitioner has to prove invalidity only by a preponderance of the evidence—the statutory presumption of validity does not apply as it does in district court.⁵²

[15] Congress designed CBM review to protect defendants by providing an “inexpensive and speedy alternative to litigation—allowing parties to resolve these disputes more efficiently rather than spending millions of

<https://www.forbes.com/sites/danielfisher/2015/10/30/courts-are-drawing-the-line-on-business-method-patents/#5814d5322b03> [<https://perma.cc/4GUZ-D4A4>].

⁴⁷ Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 18(d), 125 Stat. 284, 331 (2011).

⁴⁸ *See id.*

⁴⁹ *See id.* § 18(a).

⁵⁰ *See id.* § 18(a)(2)–(3).

⁵¹ *See id.* § 18(a)(2) (codified at 35 U.S.C. § 321).

⁵² *See* Leahy-Smith America Invents Act of 2011, Pub. L. No. 112–29, § 6(d), 125 Stat. 284, 308 (2011) (codified at 35 U.S.C. § 326(e)).

dollars in litigation costs.”⁵³ Congress encouraged defendants to use CBM review instead of litigating the validity of business method patents in district court.⁵⁴

[16] Through its targeted applicability, broad grounds, and lower evidentiary standard, Congress structured CBM review to be aggressive against perceived low-quality patents and non-practicing entities,⁵⁵ in some circumstances arguably upending the expectations of certain patent owners. Prior to the enactment of the AIA, patent owners had an expectation that challenges under §§ 101 and 112 could only be made in district court—where patents are presumed valid and a challenger must prove invalidity by clear and convincing evidence.⁵⁶ Notably, in creating other forms of review in the AIA, Congress avoided sweeping so broadly. IPR—the proceedings at issue in *Oil States*—permits validity challenges only under §§ 102 and 103 based on prior art⁵⁷—the same grounds long allowable in proceedings such as Ex Parte Reexamination and Inter Partes Reexamination.⁵⁸ And while Congress also created Post-Grant Review (PGR), which allows challenges on the same grounds as CBM review, Congress applied PGR only prospectively—to patents granted after the AIA went into effect, and only for a period of nine months after the issue date of any of those patents.⁵⁹

⁵³ Letter from Rep. Lamar Smith, Chairman of the House Judiciary Comm., to Sens. Kyl, Schumer, Leahy, and Grassley (Sept. 8, 2011), reprinted in 157 CONG. REC. S7413 (daily ed. Nov. 14, 2011) [hereinafter Rep. Smith Letter].

⁵⁴ See 157 CONG. REC. S1363 (daily ed. Mar. 8, 2011) (statement of Sen. Chuck Schumer) (“The [CBM program] is designed to provide a cheaper, faster alternative to district court litigation over the validity of business-method patents. This program should be used instead of, rather than in addition to, civil litigation.”).

⁵⁵ See Rep. Smith Letter, *supra* note 54 at S7413.

⁵⁶ See 35 U.S.C. § 282(a); see also *Microsoft Corp. v. i4i Ltd. P’ship*, 564 U.S. 91, 95 (2010).

⁵⁷ See 35 U.S.C. § 311 (2018).

⁵⁸ See, e.g., 35 U.S.C. § 301 (2018).

⁵⁹ See 35 U.S.C. § 321 (2018).

[17] Recent and varying case law applying § 101, in combination with the lower standard of proof for CBM review, further undermined an inventor's expectations in his or her patent. For example, in *Bilski v. Kappos*, the Supreme Court found that “[t]he patent application here can be rejected under our precedents on the unpatentability of abstract ideas,” and then exhorted the Federal Circuit to develop “other limiting criteria that further the purposes of the Patent Act.”⁶⁰ In the AIA, Congress used this changing standard to further target business method patents—not in the courts, but in the PTO.⁶¹ While the standard for patent eligibility under § 101 and the treatment of this subsection continued to evolve, Congress’ decision to target these patents using a lower standard of proof in CBM review has resulted in high rates of invalidation under § 101.⁶² A recent study from the GAO determined that the Patent Trial and Appeal Board (PTAB) found some or all of the claims invalid in 35.6% of all CBM review petitions filed since 2012.⁶³ For those CBM proceedings where the PTAB issued a final decision, the Board found some or all of the claims unpatentable in 96.7% of its decisions.⁶⁴

⁶⁰ *Bilski v. Kappos*, 561 U.S. 593, 612–13 (2010).

⁶¹ See Rep. Smith Letter, *supra* note 54 at S7413 (describing that in *Bilski*, “the U.S. Supreme Court clamped down on the patenting of business methods and other patents of poor quality” and that “[t]here really is no sense in allowing expensive litigation over patents that are no longer valid in light of the Supreme Court’s clarification of the law.”); 157 CONG. REC. S5376 (daily ed. Sept. 7, 2011) (Statement of Sen. Jon Kyl) (describing Congress’ rational decision “in light of the continuing confusion over [business method] patents [. . .] to provide a mechanism for ensuring that adequate vigor went into the PTO’s decision to issue a business-method patent”).

⁶² See, e.g., *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014); *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369 (Fed. Cir. 2018) (clarifying that patent eligibility, though a question of law, may involve underlying factual questions).

⁶³ See U.S. PATENT AND TRADEMARK OFFICE, GAO-18-320: ASSESSMENT OF THE COVERED BUSINESS METHOD PATENT REVIEW PROGRAM 23, 24 (2018).

⁶⁴ See *id.* at 23.

V. CBMS MAY EFFECT A COMPENSABLE TAKING OF PATENTS

[18] Through the enactment of CBM review, Congress opened up a specific, targeted set of patents—private property rights—to unexpected validity challenges under §§ 101 and 112 by a mere preponderance of the evidence at the PTO, all without affording these patents the statutory presumption of validity. Owners of such patents, issued to inventors before the enactment of the AIA, seemingly had a long-held expectation that their patents could only be challenged on such grounds in district court with the statutory presumption of validity under the clear and convincing evidence standard.⁶⁵ To be sure, Congress was well within its authority to create such CBM review proceedings in the AIA.⁶⁶ But when Congressional action leads to a taking of private property rights, the Fifth Amendment of the Constitution requires that just compensation be paid.⁶⁷ Yet nowhere in the AIA (or anywhere else in the patent laws) did Congress provide a mechanism for compensating a patent owner whose issued patent is revoked in a CBM review.⁶⁸

⁶⁵ See *Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91, 95-97 (2011). It is important to note that since the enactment of the Bayh-Dole Act of 1980, Pub. L. No. 96-517, 94 Stat. 3015 (1980) (codified at 35 U.S.C. §§ 301-307), applicants and patent owners have been aware that issued patents may be subject to post-grant review and revocation by the PTO under certain grounds—35 U.S.C. § 102 (anticipation) and § 103 (obviousness), in proceedings such as *ex parte* reexamination and *inter partes* reexamination. As such, post-grant review on issues relating to §§ 102 or 103 were part of the “patent bargain” well before the AIA’s creation of the popular *inter partes* review (IPR) proceedings. IPRs, therefore, do not present the same constitutional takings issues as CBMs—it would be very difficult for a patent owner who has expressly agreed in advance that his patent could be challenged and invalidated on §§ 102 or 103 grounds to later argue that he should be paid “just compensation” by the government when that patent is subsequently invalidated on such grounds. See 35 U.S.C. §§ 102, 103, 311 (2018).

⁶⁶ See *Oil States Energy Servs., L.L.C. v. Greene’s Energy Grp.*, 138 S. Ct. 1365, 1370 (2018).

⁶⁷ U.S. CONST. amend. V.

⁶⁸ See generally 35 U.S.C. §§ 321–29 (2018).

A. CBMs As Potential Physical, Per Se Takings

[19] When the PTAB cancels the claims of a patent based on its decision on §§ 101 and 112 grounds in CBM review, it effects a per se taking of the patent claims, akin to a physical seizure of the patent owner's right to exclude others from practicing those claims. That is, in order to promote economic growth and facilitate the free use of these business methods—and in furtherance of the AIA's goal of eliminating low-quality patents—the government effectively appropriates the exclusive rights afforded in the patent from the patent owner. This prevents the patent owner from exercising the sole right that a patent provides—the right to exclude others.⁶⁹ Although the patent owner retains nominal title or possession after the claims are canceled (no one from the government removes the framed copy of the patent hanging on her wall, for example), no effective rights in the canceled patent claims continue to exist.⁷⁰ In cancelling patent claims through a CBM review, the government does not merely take “a single ‘strand’ from the ‘bundle’ of property rights: it chops through the bundle”—taking every right conveyed by the patent.⁷¹

B. CBMs As Potential Regulatory Takings

[20] Even if viewed as a regulatory taking, as opposed to a per se or physical taking, cancellation of a patent on §§ 101 and 112 grounds in CBM review may in certain circumstances “go too far” and effect a taking under the Supreme Court's *Penn Central* test.⁷² Cancelling all of the claims of a patent, for example, destroys *all* economic value in the patent, which

⁶⁹ See 35 U.S.C. § 154(a)(1).

⁷⁰ See Shashank Upadhye & Adam Sussman, *A Real Separation of Powers or Separation of Law: Can an Article I Administrative Agency Nullify an Article III Federal Court Judgment?*, 25 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1, 44 (2014) (stating that a canceled patent no longer confers enforceable rights).

⁷¹ *Loretto v. Telepromptor Manhattan CATV Corp.*, 458 U.S. 419, 435 (1982).

⁷² See *Palazzolo v. Rhode Island*, 533 U.S. 606, 617 (2001); *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 130–31 (1978) (describing the Court's focus in deciding whether a governmental action effects a *taking*).

typically requires the government to pay just compensation.⁷³ As noted above, the government's interference with investment-backed expectations—here, changing the terms of the patent bargain—also weighs in favor of finding a taking. The Supreme Court has warned that “[f]undamental alterations in [patent law] risk destroying the legitimate expectations of inventors in their property.”⁷⁴ Unlike past changes that Congress applied *prospectively*, (such as inter partes reexamination⁷⁵ or medical practitioner immunity⁷⁶), the *retroactive* applicability of CBM review means that owners of pre-AIA patents had no notice of CBM review or that their issued patents would face §§ 101 and 112 challenges at the PTO under a preponderance of the evidence standard and without being afforded the statutory presumption of validity.⁷⁷ Unaware of these future changes to the patent bargain at the time of application and issuance, patent owners were not able to accurately evaluate whether to pursue other means of protecting their intellectual property, such as trade secrets.⁷⁸

[21] The final factor in the *Penn Central* analysis—the character of government action⁷⁹ appears to be more neutral. Promulgating legislation

⁷³ See *Palazzolo v. Rhode Island*, 533 U.S. 606, 617 (2001); *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1015 (1992).

⁷⁴ *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 525 U.S. 722, 739 (2002).

⁷⁵ See American Inventors Protection Act of 1999, Pub. L. 106-113, 113 Stat. 1536 (codified at 35 U.S.C. §§ 311–319 (2012) (creating inter partes reexamination but applying it prospectively to patents issued on applications filed after the date of enactment).

⁷⁶ 35 U.S.C. § 287(c) (2018).

⁷⁷ See, e.g. Petition for Writ of Certiorari at 21, *Smartflash L.L.C. v. Samsung Elecs. Am., Inc.* (U.S. Aug. 9, 2018) (No. 18-189), *cert. denied*, 2018 U.S. LEXIS 4716 (Oct. 1, 2018).

⁷⁸ See Brief for the United States as Amicus Curiae Supporting Respondents at 25–28, *Microsoft Corp. v. i4i Ltd. P’ship*, 564 U.S. 91 (2011) (No. 10-290) (supporting the continued use of the clear and convincing standard in district court and warning against changes that “would alter the patent bargain”).

⁷⁹ *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 124 (1978).

to govern the patent system, including adjusting the substantive and procedural patent laws, is certainly within Congress' power, and Congress has revised the patent system and the patent laws on many occasions.⁸⁰ In this case, CBM review serves as an error-correction mechanism, allowing the government to revoke a patent that never should have been issued in the first place. But the AIA marked the first time Congress had ever empowered the PTO to review and cancel issued patents on certain §§ 101 and 112 grounds. Furthermore, when Congress has changed the patent laws in the past, it often limited those changes to have prospective effect—as in the case of providing infringement immunity to medical practitioners⁸¹—or provided a way for aggrieved patent owners to seek and receive just compensation for the revocation of previously issued patents—as in the case of patents canceled under provisions of the Atomic Energy Act.⁸² Here, Congress did neither.

[22] The obvious question is this: how can there possibly be a *taking* of a patent that the PTO itself has now determined should never have issued in the first place? While seemingly appealing, this argument misses the heart of the potential takings claim at issue. The simple and salient fact is that the PTO *did* issue the patent, at which point the patent's property right—the right to exclude others from practicing the claimed invention—vested in the patent owner. Through the cancellation of the patent claims after a CBM review, the claims—and the attendant right to exclude—were taken away. Before its issuance, the patent owner conceivably invested time and money into her patent application—disclosing her business method invention to the public in the hopes of receiving a patent, instead of exploring other options (such as protecting this property as a trade secret). After the patent's issuance, the patent owner acted in reliance on the now-issued right, paying any necessary maintenance fees and perhaps building a business around the

⁸⁰ See Gene Quinn, *Patents, Copyrights and the Constitution, Perfect Together*, IPWATCHDOG (Feb. 19, 2018) <https://www.ipwatchdog.com/2018/02/19/patents-copyrights-constitution/id=93941/> [<https://perma.cc/VS2S-MZFP>].

⁸¹ See 35 U.S.C. § 287(c) (2018).

⁸² See 42 U.S.C. § 2181(a) (2018); see also 42 U.S.C. § 2187(b) (2018) (describing other methods to receive compensation for a patent that still comports with the Atomic Energy Act).

claimed invention. The subsequent cancellation of the patent in CBM review on grounds that were not part of the original patent bargain upended the patent owner's settled expectations. That the government may now say the patent right *should* not have issued in the first place may play a role in the takings analysis, but then again, it may not—the Supreme Court has noted that under the Fifth Amendment, the United States cannot avoid takings liability by asserting *ipse dixit* that the private property which was taken never actually existed.⁸³

VI. IF THERE'S A TAKING, WHAT COMPENSATION IS DUE?

[23] Once a taking has been found, the inquiry shifts to what *just compensation* may be due to the owner of the now-taken property.⁸⁴ As noted above, the government—not any private party—is liable under the Fifth Amendment for the taking of private property.⁸⁵ The former property owner can secure this compensation through a complaint filed in the Court of Federal Claims under the Tucker Act.⁸⁶ The amount of compensation owed by the government is typically “the fair market value of the property at the time of the taking.”⁸⁷

[24] In the context of patents *taken* through CBM review, the issue of compensation may be a tricky one. A CBM cannot be brought unless the petitioner has been sued or charged with infringement.⁸⁸ Given that the patent owner decided to assert the patent, the patent revoked through CBM review likely had substantial value (at least in the eyes of its owner). But the value of any given patent may vary dramatically over time and can be

⁸³ See *Hughes v. Washington*, 389 U.S. 290, 296–97 (1967).

⁸⁴ See D. Zachary Hudson, *Eminent Domain Due Process*, 119 YALE L.J. 1280, 1315 (2010).

⁸⁵ See discussion *supra* Section II.

⁸⁶ See 28 U.S.C. § 1491(a)(1) (2018).

⁸⁷ *Horne v. Dep't of Agric.*, 135 S. Ct. 2419, 2423 (2015) (internal quotations omitted).

⁸⁸ See Leahy-Smith America Invents Act, Pub. L. No. 112-29 § 18(a)(1)(B), 125 Stat. 284, 329 (2011) (codified at 35 U.S.C. § 321 (2012)).

substantially affected by external factors such as litigation events. The question of when the taking actually occurred is particularly important for the compensation analysis:

- Was the patent taken by the PTAB’s final written decision of unpatentability?
 - Likely not, as the claims remain in effect until after all appeals are exhausted.
- Was the patent taken by the Federal Circuit’s decision affirming the PTAB’s invalidity finding (or a Supreme Court denial of certiorari)?
 - Perhaps, because the PTO is obligated by statute to issue a cancellation certificate once all appeals have been exhausted.
- Was the patent taken by the PTO’s issuance of a cancellation certificate?⁸⁹
 - Yes, but as noted above, the taking may have actually occurred before this event.

[25] Ultimately, *when* the taking occurred is important, because the PTAB’s determination of invalidity may affect the compensation owed. A PTO ruling of invalidity—even under the preponderance of the evidence and not binding on district courts—may substantially decrease the patent’s market value. Because the PTO, which originally issued the patent, has now determined that the patent is directed to unpatentable subject matter, the patent’s value may be minimal, as a district court may be inclined to agree with the PTO’s decision despite the higher standard of proof applicable in district court. But for any patent that was previously the subject of failed § 101 challenges in district court under the clear and convincing standard, the PTO’s ruling of unpatentability may *not* significantly decrease its value.

⁸⁹ See *id.* § 6 (codified at 35 U.S.C. § 318 (2012)).

The question of just compensation is an issue that will undoubtedly be the subject of litigation if (or when) a CBM-related takings claim is brought.

VII. ARE PATENT-RELATED TAKINGS CLAIMS ALREADY PERCOLATING?

[26] Since the Supreme Court decided *Oil States*, several litigants have advanced arguments that the AIA violates the Fifth Amendment's Takings Clause.⁹⁰ One party whose patent was found invalid in an IPR proceeding, Advanced Audio Devices, L.L.C., has petitioned for certiorari to the Supreme Court, asserting that "IPR constitutes a Fifth Amendment taking when applied to patents filed before the AIA was enacted."⁹¹ Another party who had several of its patents found invalid in CBM proceedings, Trading Technologies International Inc., has offered similar arguments in appeals at the Federal Circuit.⁹² However, these arguments appear unlikely to be entertained on their merits—let alone succeed—because the litigants have not properly advanced a takings claim that is ripe for appellate review.⁹³

[27] Parties typically cannot challenge the PTAB's decisions on grounds that they did not raise with the agency.⁹⁴ Neither Advanced Audio nor Trading Technologies seem to have raised the Takings Clause issue during

⁹⁰ Other patent owners have also asserted that the AIA violates the Fifth Amendment's Due Process Clause. *See, e.g.*, Petition for Writ of Certiorari at 21, *Smartflash L.L.C. v. Samsung Elecs. Am., Inc.*, 718 F. App'x 985 (2018) (No. 18-189), *cert. denied*, 2018 U.S. LEXIS 4716 (Oct. 1, 2018) (asserting that retroactive application of CBM review to patents filed before the AIA was enacted violates the Due Process Clause).

⁹¹ Petition for Writ of Certiorari at 5, *Advanced Audio Devices, L.L.C. v. HTC Corp.*, 721 F. App'x 989 (2018) (No. 18-183), *cert. denied*, 2018 U.S. LEXIS 6034 (Oct. 9, 2018).

⁹² *See, e.g.*, Notice of Constitutional Challenge to Federal Statute at 1, *Trading Techs. Int'l, Inc. v. Tradestation Securities, Inc.* (Fed. Cir. June 8, 2018) (No. 18-1489); *see, also* Brief of Appellant at 78–79, *Trading Techs. Int'l v. Tradestation Sec., Inc.* (Fed. Cir. 2018) (No. 18-1489).

⁹³ *See generally* discussion *supra* Section VI (discussing when a taking actually occurs and appeals).

⁹⁴ *See, e.g., In re DBC*, 545 F.3d 1373, 1378 (Fed. Cir. 2008).

the underlying PTAB proceedings, making it unlikely that these issues will be substantively addressed for the first time on appeal.⁹⁵ Moreover, the Supreme Court has long required Takings Clause claimants to first seek “just compensation” before claiming that the Takings Clause has been violated.⁹⁶ Here, because the alleged taking was performed by an agency of the federal government, such relief could be sought by bringing a Tucker Act claim against the United States in the Court of Federal Claims.⁹⁷ Finally, and importantly, it is unclear that anything has actually been *taken* from either Advanced Audio or Trading Technologies (or any other patent owner who raises the takings issue in a PTAB-related appeal). By statute, the PTAB does not issue a cancellation certificate until all appeals from the PTAB proceedings have been exhausted.⁹⁸ Indeed, the cancellation

⁹⁵ See *Advanced Audio Devices, L.L.C. v. HTC Corp.*, 721 F. App’x 989 (Fed. Cir. 2018), *petition for cert. filed*, (U.S. Aug. 3, 2018) (No. 18-183); see also Notice of Constitutional Challenge to Federal Statute at 1, *Trading Techs. Int’l v. Tradestation Sec., Inc.* (Fed. Cir. June 8, 2018) (No. 18-1489); Brief of Appellant at 78–79, *Trading Techs. Int’l v. IBG L.L.C.*, (Fed. Cir. 2018) (No. 18-1489).

⁹⁶ *Williamson Cty. Reg’l. Planning Comm’n. v. Hamilton Bank*, 473 U.S. 172, 194–195 (1985) (“If the government has provided an adequate process for obtaining compensation, and if resort to that process yields just compensation, then the property owner has no claim against the Government for a taking.”) (internal quotations omitted).

⁹⁷ See 28 U.S.C. § 1491(a)(1) (2018); see also *Preseault v. Interstate Commerce Comm’n*, 494 U.S. 1, 4–5 (1990) (“We find it unnecessary to evaluate the merits of the takings claim because we hold that even if the rails-to-trails statute gives rise to a taking, compensation is available to petitioners under the Tucker Act”); *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1019 (1984) (dismissing constitutional challenges as unripe because the Tucker Act provided a remedy for any uncompensated taking suffered).

⁹⁸ *Cf.* 35 U.S.C. § 318(b) (2018) (stating after a final written decision has been made, the Director of the PTAB will publish a certificate that cancels “any claim of the patent finally determined to be unpatentable, confirming any claim of the patent determined to be patentable, and incorporating in the patent by operation of the certificate any new or amended claim”).

certificates for the patents involved in these appeals have not issued,⁹⁹ so the patents' claims are still in force, and nothing has been *taken*!¹⁰⁰

[28] Notably, at least one current case may avoid these potential pitfalls. On May 9, 2018, Christy, Inc.—an entity who had several claims of a patent canceled after IPR proceedings—filed a class action complaint against the United States, bringing a variety of claims on behalf of itself and a purported class of all patent owners who have had at least one patent claim canceled in any AIA trial proceeding—IPRs, CBMs, or PGRs—and who had paid their issuance and maintenance fees up until the date of cancellation.¹⁰¹ Filed in the Court of Federal Claims under the Tucker Act, this complaint raises claims not just under the Takings Clause, but for breach of express and implied contract, breach of the duty of good faith and fair dealing, unjust enrichment, and exaction.¹⁰² Christy, Inc. later filed an amended complaint, which the government has moved to dismiss.¹⁰³

[29] The government made three principal substantive arguments on the Takings Clause issue: first, that the takings claim is really an improper *appeal* of the PTAB's invalidation decision; second, that Christy, Inc. never had a property right in the now-invalidated patent; and third, that the Takings Clause does not apply because a canceled patent is not *taken for public use*.¹⁰⁴ Briefing on the motion to dismiss concluded in October 2018,

⁹⁹ See 37 C.F.R. § 42.80 (2018) (“After the Board issues a final written decision in [... a] covered business method patent review and the time for appeal has expired or any appeal has terminated, the Office will issue and publish a certificate canceling any claim of the patent finally determined to be unpatentable”).

¹⁰⁰ See discussion *supra* Section VI.

¹⁰² See Class Action Complaint at 28–30, Christy, Inc. v. United States, No. 18-657 (Fed. Cl. May 9, 2018).

¹⁰³ See *id.* at 32–52.

¹⁰⁴ See Motion of the United States to Dismiss the First Amended Class Action Complaint, Christy, Inc. v. United States, No. 18-657C (Fed. Cl. Aug. 18, 2018).

¹⁰⁵ See *id.* at 5–9; *cf.* Brief for the United States at 42–47, Tradestation Grp. v. Trading Techs. Int'l Inc. (Fed. Cir. 2018) (Nos. 17-1732, -1766, -1769) (the government's

and the decision is forthcoming.¹⁰⁵ The Court of Federal Claims' ruling on the motion to dismiss will presumably be the first test of whether patent owners who have had their patents canceled through certain AIA trial proceedings may have a viable claim for just compensation against the U.S. government under the Takings Clause. Whatever the outcome, it is likely that the Federal Circuit will also be asked to weigh in.

VIII. LEARNING FROM HISTORY—WHAT'S THIS ABOUT BIKE PATHS AND RAILROADS?

[30] Up until now we have focused on business method patents—and few would find that business method patents and bike paths have anything in common. But the federal government's experience over the last few decades with rails-to-trails conversions may foreshadow the result of the issues described above. In 1983, Congress enacted the National Trails System Act Amendments of 1983 ("Trails Act") to facilitate the conversion of thousands of miles of unused rail lines crisscrossing the country into public recreational trails.¹⁰⁶¹⁰⁷ It was no doubt a worthy objective—to incentivize the creation of walking and bike paths over land occupied by now-abandoned railroad lines.¹⁰⁸ Who doesn't like a bike path? But Congress apparently did not consider that in many cases, the railroads did not actually own the rights-of-way, but instead held temporary interests through easements.¹⁰⁹ A few years after its enactment, property owners challenged the Trails Act in courts as an overextension of Congressional authority¹¹⁰—

intervenor brief in the appeal also provides an excellent insight into the current position of the United States regarding the merits of such Takings Claims).

¹⁰⁶ See Order, *Christy, Inc. v. United States*, No. 18-657C (Fed. Cl. Aug. 31, 2018) (order granting motion for extension of time to file response).

¹⁰⁷ See generally 16 U.S.C. § 1244 (describing the establishment of these trails and how they are monitored).

¹⁰⁸ See Lawrence S. Lim, *Walking the Line: Rails-to-Trails Conversions and Presault v. Interstate Commerce Commission*, 53 OHIO ST. L.J. 337, 337–338 (1992).

¹⁰⁹ See *id.* at 340.

¹¹⁰ See *Preseault v. Interstate Commerce Comm'n*, 494 U.S. 1, 10 (1990).

much like the PTO's authority to review issued patents in AIA trial proceedings was challenged in *Oil States* and other cases.¹¹¹

[31] And just like the Supreme Court in *Oil States* upheld the PTO's authority to revoke issued patents, it likewise found in *Preseault v. Interstate Commerce Commission* that Congress acted for a proper public purpose in enacting the Trails Act.¹¹² But the Supreme Court explained that any Trails Act rails-to-trails conversions may still be subject to the Fifth Amendment's Takings Clause—just as in *Oil States*, it reaffirmed its prior holdings that patents are property rights protected by the Fifth Amendment.¹¹³ As a result of the *Preseault* decision (and a related subsequent Federal Circuit en banc ruling¹¹⁴), in the last few decades, the U.S. government has paid out *hundreds of millions of dollars* to thousands of property owners who have had bike trails built on abandoned railroads on or adjacent to their land.¹¹⁵

[32] Obviously, the universe of patent owners whose patents have been canceled in CBM review under §§ 101 or 112 is far smaller. But in addition to defending against Trails Act takings litigation at the Court of Federal Claims, the federal government may soon be dealing with business method patent-related takings claims as well.

IX. CONCLUSION

[33] In creating CBMs, Congress's aims were admirable—one would have to look far and wide to find many defenders of low-quality patents. In

¹¹¹ See *Oil States Energy Servs., L.L.C. v. Greene's Energy Grp.*, 138 S. Ct. 1365, 1372 (2018); *MCM Portfolio L.L.C. v. Hewlett-Packard Co.*, 812 F.3d 1284, 1288 (Fed. Cir. 2015).

¹¹² See *Oil States*, 138 S. Ct. at 1374; *Preseault*, 494 U.S. at 16.

¹¹³ See *Preseault*, 494 U.S. at 4–5; see also *Oil States*, 138 S. Ct. at 1379.

¹¹⁴ See *Preseault v. United States*, 100 F.3d 1525 (Fed. Cir. 1996) (en banc).

¹¹⁵ See, e.g., *Haggart v. United States*, 133 Fed. Cl. 568, 568, 577 (2017) (finding settlement for \$110 million in rails-to-trails takings case was enforceable).

fact, had some of these now-canceled business method patents been asserted and defended against in court and proceeded to final judgment, it is certainly possible—and in some cases likely—that they would have been found invalid, even under the heightened clear and convincing evidence standard. But as Justice Holmes famously said, the Fifth Amendment’s Takings Clause prohibits Congress from taking shortcuts.¹¹⁶ In retroactively changing the terms of the patent bargain and allowing a specific subset of patents to be challenged at the PTO on new grounds, without affording them the statutory presumption of validity,¹¹⁷ Congress arguably took such a shortcut to make it easier to rid the market of certain types of patents. Now, just as with the Trails Act over the last few decades, the government may soon face unanticipated and unforeseen takings claims for business method patents and CBMs.

¹¹⁶ See *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 416 (1922).

¹¹⁷ See discussion *supra* Part V.