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The AIA Is Not a Taking: A Response to Dolin & Manta

Camilla A. Hrdy* & Ben Picozzi**

Table of Contents

I.	Introduction
II.	Patents' Uncertain Status Under the Takings Clause 474
III.	Takings Versus "Curative Statutes"479
IV.	Patentees' Reasonable Investment-Backed Expectations
V.	Conclusion

I. Introduction

In a forthcoming article in the Washington and Lee Law Review,¹ Gregory Dolin and Irina Manta argue that the Leahy-Smith America Invents Act (AIA),² the cornerstone of modern patent reform, effectuates a "taking" within the meaning of the Fifth Amendment by depriving patent owners of the economic value of their patents without compensating them for these

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^{1.} Gregory Dolin & Irina D. Manta, *Taking Patents*, 72 WASH. & LEE L. REV. (forthcoming 2016) (on file with the Washington and Lee Law Review).

^{2.} Leahy-Smith America Invents Act, Pub. L. No. 112-29, §§ 6, 18, 125 Stat. 284, 299–311, 329–31 (2011) (codified as amended at 35 U.S.C. §§ 311–19, 321–29, 321 note (2012)).

losses.³ Specifically, they contend, the AIA's creation of inter partes review (IPR) and covered business method review (CBMR) proceedings significantly interfered with patentees' "reasonable investment-backed expectations" by increasing the likelihood that their patents would be found invalid.⁴ As evidence, the authors point to high invalidation rates in IPR and CBMR proceedings⁵ and the strong negative effect of some IPR filings on patentees' stock prices. According to their theory, "a mere IPR request... has significant effects on the underlying value of the patent and even on the price of the stock of the company that owns the patent."⁶

Dolin and Manta's article is a provocative invitation to consider Congress's constitutional authority to pass legislation that decreases the value of issued patents. While the precise contours of this authority are unclear, we are ultimately unpersuaded that the AIA effectuates a taking. First, the authors' premise that patents are property rights protected by the Takings Clause is far less clear than they contend. Although we agree that

- 3. U.S. CONST. amend. V.
- 4. Dolin & Manta, *supra* note 1 (manuscript at 65–66). CBMR is itself a variation of post-grant review (PGR), a third type of proceeding created by the AIA. For discussion of Dolin and Manta's arguments regarding the differences between AIA's post-issuance proceedings and other administrative proceedings for challenging patent validity, see *infra* Part IV.
- 5. The new IPR and CBMR proceedings have a higher invalidation rate than either litigation or pre-AIA proceedings. See Dolin & Manta, supra note 1 (manuscript at 31–36); see also Gregory Dolin, Dubious Patent Reform, 56 B.C. L. Rev. 881, 924–27 (2015). For current statistics on IPRs and CBMRs, see PATENT TRIAL AND APPEAL BOARD STATISTICS, U.S. PAT. & TRADEMARK OFF. (Feb. 29, 2016), http://www.uspto.gov/sites/default/files/documents/2016-2-29%20PTAB.pdf.
- 6. See Dolin & Manta, supra note 1 (manuscript at 60, 31–36). The authors also cite the opinion of Richard Baker, President of New England Intellectual Property, LLC, who estimates that "because of the AIA" the value of patents has dropped by two thirds, "with a further drop of 10-15% expected in the next few years." Id. (manuscript at 64–65) (citing Richard Baker, America Invents Act Cost the US Economy over \$1 Trillion, PATENTLY-O (June 8, 2015), http://patentlyo.com/patent/2015/06/america-invents-trillion.html). Many might balk at such estimates and remain skeptical of Dolin and Manta's contention that the procedures adopted by the AIA have had, and will continue to have, "a serious effect on the value of patents to their owners." Dolin & Manta, supra note 1 (manuscript at 5). Nevertheless, given the difficulty of assessing the authors' empirical claims, we concentrate instead on the legal aspects of their argument.

this proposition is theoretically and legally defensible, the relevant precedents are hardly decisive.

Second, courts are unlikely to view IPR and CBMR proceedings as the kinds of government actions governed by the Takings Clause. Courts assessing constitutional challenges under the Fifth or Fourteenth Amendment tend to distinguish actions intended to cure defects in government administrative systems from incursions on property rights. Indeed, the Federal Circuit rejected a challenge to IPR's predecessor based partly on this distinction. We see little reason that a court would reach a different conclusion today.

Third, Dolin and Manta arguably overstate the extent to which the AIA affected patentees' investment-backed expectations. As they acknowledge, the AIA was enacted against a background of federal statutes and regulations that authorize challenges to patent validity, both through administrative review and through litigation, or otherwise limit patentees' ability to exploit patents and patented inventions. These laws, like the AIA, affected the value of issued patents. Within this environment, patentees could arguably foresee that the government would continue to actively regulate patent rights.

Together, these arguments persuade us that the AIA does not effectuate a taking. Nevertheless, Dolin and Manta's analysis offers an engaging and important discussion on the constitutional implications of patent reform.

II. Patents' Uncertain Status Under the Takings Clause

Whether the AIA effectuated a taking depends on whether patents are "property" for purposes of the Takings Clause. As Dolin and Manta acknowledge, the question is the object of intense scholarly debate.⁷ Nevertheless, they conclude, "Judicial precedent and statutory analysis quite clearly support the proposition that patents are property." We believe that this

^{7.} See Dolin & Manta, supra note 1 (manuscript at 49–51).

^{8.} Id. (manuscript at 51) (quoting Joshua I. Miller, 28 U.S.C. § 1498(a) and the Unconstitutional Taking of Property, 13 Yale J.L. & Tech. 1, 18 (2010)). Dolin and Manta's analysis of precedent tracks Joshua Miller's analysis of the history of 28 U.S.C. § 1498, which grants the Court of Federal Claims

proposition is defensible but disagree that it is clearly established.

The Fifth Amendment unquestionably protects patents. The scope of that protection is, however, unclear. The Supreme Court has explained that patents are protected "property" under the Due Process Clause. But in contrast with trade secrets,9 the Court has never held that patents are property under the Takings Clause. In Florida Prepaid Postsecondary Education Expense Board v. College Savings Bank, 10 the Court stated that patents are "surely included within the 'property' of which no person may be deprived by a State without due process of law."11 Nevertheless, the Court declined to rule on patents' status under the Takings Clause. In that case, College Savings Bank argued that the Patent and Plant Variety Protection Remedy Clarification Act, 12 which purported to abrogate states' sovereign immunity to patent infringement liability, was a valid exercise of Congress's Fourteenth Amendment powers because state patent infringement constituted an uncompensated taking. 13 The Court withheld judgment, holding instead that the Act was not intended to remedy takings violations.14 The Court neither nor rejected $_{
m the}$ possibility that government infringement could constitute a taking.¹⁵

jurisdiction to hear claims for patent infringement against the United States and its contractors.

- 9. See Ruckelshaus v. Monsanto Co., 467 U.S. 986, 1003-04 (1984).
- 10. 527 U.S. 627 (1999).
- 11. *Id.* at 642.
- 12. 35 U.S.C. §§ 271(h), 296(a) (2012).
- 13. See Fla. Prepaid Postsecondary Educ. Expense Bd., 527 U.S. at 641-42.
- 14. See id. at 641-42 & n.7.
- 15. See id. The view that patents are protected under the Due Process Clause but not the Takings Clause has some support in the Supreme Court's Fifth Amendment jurisprudence. As Davida Isaacs argues, the Court's modern precedents distinguish between federally created benefits, protected by the Due Process Clause, and other forms of property protected by the Takings Clause. Like the government benefits at issue in these cases, patents are federal creations and are arguably entitled to the former's narrower protections. See Davida H. Isaacs, Not All Property Is Created Equal: Why Modern Courts Resist Applying the Takings Clause to Patents, and Why They Are Right To Do So, 15 GEO. MASON L. REV. 1, 36–41 (2007) (citing Bowen v. Gillard, 483 U.S. 587 (1987); Goldberg v. Kelly, 397 U.S. 254 (1970)).

Dolin and Manta argue that the Supreme Court's recent decision in *Horne v. Department of Agriculture*¹⁶ "left no doubt" that "patents are subject to the Takings Clause."¹⁷ We disagree. In *Horne*, the Court held that the government could not order raisin growers to set aside a certain percentage of their crop without receiving just compensation.¹⁸ To support its conclusion that the Takings Clause protects real and personal property equally, the Court quoted language from *James v. Campbell*, ¹⁹ a nineteenth-century decision in which the Court compared government appropriation of patents to appropriation of real property:

[A patent] confers upon the patentee an exclusive property in the patented invention which cannot be appropriated or used by the government itself, without just compensation, any more than it can appropriate or use without compensation land which has been patented to a private purchaser.²⁰

Superficially, *Horne* endorses Dolin and Manta's assessment that patents are property under the Takings Clause. *Horne*'s precedential status, however, is doubtful. First, *Horne*'s discussion of patents and real property is not controlling; the discussion was neither essential to the Court's holding nor briefed or argued by the parties.²¹ Second, *James*, the source of this comparison, itself has extremely limited precedential value. *James*'s discussion of patent takings was dicta,²² and twelve

^{16. 135} S. Ct. 2419 (2015).

^{17.} Dolin & Manta, supra note 1 (manuscript at 52).

^{18.} See Horne, 135 S. Ct. at 2427; see also Dolin & Manta, supra note 1 (manuscript at 47).

^{19. 104} U.S. 356 (1882).

^{20.} Horne, 135 S. Ct. at 2427 (quoting Campbell, 104 U.S. at 358 (alterations in original)).

^{21.} See Brief for Petitioners, Horne, 135 S. Ct. 2419 (No. 14-275); Brief for the Respondent, Horne, 135 S. Ct. 2419 (No. 14-275); Transcript of Oral Argument, Horne, 135 S. Ct. 2419 (No. 14-275).

^{22.} Adam Mossoff, who has discussed nineteenth-century takings law cases at length, observes that even though the Supreme Court's statement in *James* was *dicta*, the lower court's opinion had held in favor of the patentee against the government based on the Takings Clause. See Adam Mossoff, *Patents as Constitutional Private Property: The Historical Protection of Patents Under the Takings Clause*, 87 B.U. L. Rev. 689, 697, 709 (2007). Specifically, the lower court held that the government was not immune from suit for patent infringement based on sovereign immunity because a patent, "like all other

years later, in *Schillinger v. United States*, 23 the Supreme Court cast doubt on *James*'s conclusion that patents "cannot be appropriated or used by the government . . . without just compensation." 24

In *Schillinger*, the Court held that the Court of Claims did not have jurisdiction to hear a claim against the government for patent infringement.²⁵ At that time, the court's jurisdictional statute authorized the court to hear "claims founded upon the constitution" but not those "sounding in tort."²⁶ Accordingly, the Court held that the patentee could not recover. Justice Harlan dissented, citing *James*'s statement that a patented invention "cannot be appropriated or used by the government itself, without just compensation"²⁷—but to no avail.

Subsequently, in *Zoltek Corp. v. United States*,²⁸ the Federal Circuit held that a patentee could not bring an action in the Court of Federal Claims, the Court of Claims's successor, alleging that the government's infringement of a patent constituted a Fifth Amendment taking.²⁹ Between *Schillinger* and *Zoltek*, Congress enacted 28 U.S.C. § 1498, which authorizes the Court of Federal Claims to hear claims for patent infringement against

private property recognized by law, [was] exempt from being taken for public use without just compensations, by the supreme law of the land." Campbell v. James, 4 F. Cas. 1168, 1172 (C.C.S.D.N.Y. 1879) (No. 2,361). Thereafter, the government prevailed by convincing the Supreme Court that the patent was invalid. See James, 104 U.S. at 382–83. More broadly, Mossoff documents that, even if the Supreme Court has not held unequivocally that government patent takings are compensable under the Takings Clause, some courts in the nineteenth century appeared quite comfortable with the notion that patents could be taken like other forms of property. See Mossoff, supra, at 719 (citing several nineteenth-century federal cases, including McKeever v. United States, 14 Ct. Cl. 396 (1878), and the lower court's decision in Campbell, applying traditional property reasoning to patents and concluding that patentees should have the right to sue under the Takings Clause if the federal government made an unauthorized use of a patented invention).

- 23. 155 U.S. 163 (1894).
- 24. Id. at 173 (Harlan, J., dissenting) (quoting Campbell, 104 U.S. at 358).
- 25. See id. at 167-70.
- 26. Id. at 167 (quoting Act of March 3, 1887, ch. 359, § 1, 24 Stat. 505).
- 27. *Id.* at 173.
- 28. 442 F.3d 1345 (Fed. Cir. 2006) (per curiam), *vacated*, 672 F.3d 1309, 1314–22 (Fed. Cir. 2012) (en banc).
 - 29. See id. at 1353.

the federal government and its contractors.³⁰ Citing *Schillinger*'s rule that an action for patent infringement sounds in tort, the court held that § 1498 provided the only means of recovery and that the patentee could not bring its claim under the Takings Clause.³¹ Given the Supreme Court's decision not to review *Zoltek*,³² we believe it unlikely that *Horne* overruled *Schillinger* sub silentio.

Of course, as Dolin and Manta argue, Schillinger and Zoltek are not decisive. First, the Federal Circuit subsequently vacated its Zoltek decision on other grounds, and the court's revised opinion declined to reach the question of the United States's liability for patent infringement under the Takings Clause.³³ Second, these cases do not necessarily establish that patents can never be subject to takings. As Dolin and Manta put it, "The rule of law announced in [Schillinger and Zoltek] is simply not that broad."³⁴ Although those cases might govern government infringement of patent rights, other, more "drastic" adjustments of patent rights might qualify.³⁵

30. See 28 U.S.C. § 1498 (2012)

Whenever an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right . . . the owner's remedy shall be by action against the United States in the United States Court of Federal Claims for . . . reasonable and entire compensation.

For a brief history of § 1498 and its predecessor, see Sean M. O'Connor, *Taking*, *Tort*, or *Crown Right? The Confused Early History of Government Patent Policy*, 12 J. MARSHALL REV. INTELL. PROP. L. 145, 183–98 (2012).

- 31. See Zoltek, 442 F.3d at 1350-53.
- 32. Zoltek Corp. v. United States, 551 U.S. 1113 (2007).
- 33. The Federal Circuit's original decision held that § 1498 only applied to government actions that would create liability for direct infringement under 35 U.S.C. § 271(a). See Zoltek, 442 F.3d at 1360. The court subsequently concluded that this holding was erroneous and that § 1498 also applied to actions equivalent to indirect liability under § 271(g). See Zoltek, 672 F.3d at 1314–22. Accordingly, the court determined that the patentee's complaint stated a claim under § 1498. See id. at 1323–26. The court decided that it was unnecessary to address whether the patentee could bring a claim under the Takings Clause. See id. at 1327.
 - 34. Dolin & Manta, supra note 1 (manuscript at 53).
- 35. *Id.* (manuscript at 53–54). Nevertheless, if patents are categorically not property under the Takings Clause, as some readings of *Schillinger* and *Zoltek* might suggest, the extent to which the government action affects patent values might be irrelevant.

Indeed, on the scale of government intrusions on patentees' rights, infringement is arguably not the most severe. Government infringement effectively creates a compulsory license for the government, and "all the other attributes of ownership" remain "with the patentee." In contrast, Dolin and Manta write, the AIA "changed the scope of patent rights themselves" by subjecting issued patents to more stringent forms of adversarial post-issuance review and significantly reducing the value of those patents. In theory, this might effectuate a taking that, absent just compensation, is unconstitutional. Before the several rights are supported by the several representation of the several represent

III. Takings Versus "Curative Statutes"

Furthermore, even if patents are property rights under the Takings Clause,³⁹ courts are unlikely to view IPR and CBMR proceedings as the kind of government actions that the Clause governs. The authors cite no precedent for the conclusion that a government action *designed to ensure the validity of property rights*, intangible or otherwise, can constitute a taking.⁴⁰ Is such an action a taking? Or does it merely ensure that property boundaries are accurate? In *Patlex Corp. v. Mossinghoff*,⁴¹ the Federal Circuit suggested the latter.⁴²

In *Patlex*, the Federal Circuit rejected a Fifth Amendment challenge to the ex parte reexamination statute.⁴³ The Bayh–Dole

^{36.} Id. (manuscript at 55).

^{37.} Id.

^{38.} See id. Dolin and Manta also suggest that the AIA may be a taking under a breach of implied contract theory. Patents, they argue, are commonly conceived as a contract between the patentee and the government in which the government grants a patent in exchange for disclosure of the patented invention. Id. (manuscript at 54). This argument is doubtful, however. Courts have only invoked implied contract as an analogy for describing the purpose of the patent system, not as a legal theory. Further, Schillinger and Zoltek suggest that an infringement claim against the government, at least, necessarily sounds in tort and is not compensable as a taking.

^{39.} See supra Part II.

^{40.} See Dolin & Manta, supra note 1 (manuscript at 62).

^{41. 758} F.2d 594 (Fed. Cir. 1985).

^{42.} See id. at 602-03.

^{43.} See id. at 603. Patlex styled its claim as a Takings Clause challenge. See id. at 600–03. As explained below, however, the court treated that claim

Act established procedures that parties could use to challenge the validity of issued patents, including those issued before the Act was enacted.⁴⁴ The plaintiff argued that the Act's retroactive application unfairly encroached on constitutionally protected patent rights.⁴⁵ The court disagreed, holding that the "overriding public purposes Congress articulated in enacting the reexamination law with retroactive effect" outweighed any "hardship" suffered by the patentee.⁴⁶

Dolin and Manta dismiss *Patlex* for two reasons. First, they note, the Federal Circuit's decision turned on Congress's "public purposes" for enacting the reexamination statute.⁴⁷ The Supreme Court subsequently clarified, however, that this approach is only proper under the Due Process Clause, not the Takings Clause.⁴⁸ Second, they argue IPR and CBMR proceedings "are fundamentally different" from the ex parte reexamination system at issue in *Patlex*.⁴⁹

As we explain below, we doubt that the differences between IPR and CBMR and reexamination proceedings are significant enough to make a constitutional difference. Moreover, *Patlex* presents a fundamental difficulty for Dolin and Manta's argument, despite the Supreme Court's abandonment of the "public purposes" approach, because it casts doubt on the conclusion that post-issuance review proceedings can constitute a taking at all. In *Patlex*, the court explained that the reexamination statute belonged to "the class of 'curative' statutes, designed to cure defects in an administrative system." The court

much as a modern court would treat a claim brought under the Due Process Clause. See infra notes 47–48 and accompanying text.

^{44.} See Bayh–Dole Act, Pub. L. No. 96-517, § 1, 94 Stat. 3015, 3015–17 (1980) (codified as amended at 35 U.S.C. §§ 302–07 (2012)).

^{45.} See Patlex, 758 F.2d at 596 ("The issue is whether [the retroactive effect] of the patent reexamination statute and implementing regulations are in violation of [several constitutional provisions]."). For the contentious history of the first reexamination procedure, see Dolin, *supra* note 6, at 899–902.

^{46.} Patlex, 758 F.2d at 602-03.

^{47.} See Dolin & Manta, supra note 1 (manuscript at 57–58).

^{48.} See Lingle v. Chevron U.S.A., Inc., 544 U.S. 528, 532, 540-45 (2005).

^{49.} Dolin & Manta, supra note 1 (manuscript at 58).

^{50.} Infra Part IV.

^{51.} Patlex Corp. v. Mossinghoff, 758 F.2d 594, 603 (Fed. Cir. 1985).

noted that other courts have treated curative statutes favorably, even when applied retroactively.⁵²

IPR and CBMR proceedings likewise fall into this class of curative statutes that simply do not seem like the subject matter of a Fifth Amendment taking. Far from depriving patentees of vested rights for some public use, IPR and CBMR proceedings ensure that patents issued by the government to private parties are valid.⁵³ Thus, while *Patlex*'s references to "public purposes" might seem anachronistic, its analysis of the reexamination statute reveals the conceptual difficulty that a Takings Clause challenge to the AIA will likely face.

IV. Patentees' Reasonable Investment-Backed Expectations

Finally, assuming Dolin and Manta's argument survives the objections described above, it would arguably still fail as a matter of takings doctrine. To determine whether a particular governmental action effectuates a taking, courts assess "the character of the governmental action, its economic impact, and its interference with reasonable investment-backed expectations." Thus, even assuming a government action has a significant

52. See id. at 603

Where the asserted vested right, not being linked to any substantial equity, arises from the mistake of officers purporting to administer the law in the name of the Government, the legislature is not prevented from curing the defect in administration simply because the effect may be to destroy causes of action which would otherwise exist." (citing Graham & Foster v. Goodcell, 282 U.S. 409, 429 (1931);

see also Fresenius USA, Inc. v. Baxter Int'l, Inc., 721 F.3d 1330, 1338 (Fed. Cir. 2013) ("Like reissuance, ex parte reexamination is a curative proceeding meant to correct or eliminate erroneously granted patents." (citing In re Etter, 756 F.2d 852, 858 (Fed. Cir. 1985) (en banc))).

- $53.\ See$ H.R. REP. No. 112-98, pt. 1, at 45–47 (2011) (describing the purposes of IPR and comparing IPR to inter partes reexamination).
- 54. See Penn. Cent. Transp. Co. v. City of New York, 438 U.S. 104, 124 (1978). For the purposes of this analysis, we put aside Dolin and Manta's suggestion that the AIA effected a physical taking. See Dolin & Manta, supra note 1 (manuscript at 62–64). Unlike the authors' physical taking claim, their regulatory taking claim does not rely on untested analogies between the "physical" invasion of tangible and intangible property boundaries. See id.

economic impact on protectable property,⁵⁵ whether this constitutes a taking depends on whether the affected party should have expected that the action would occur—which, in turn, depends on how sharply the action diverges from the regulatory background. The Supreme Court has explained that, at least in some circumstances involving personal property, affected parties "ought to be aware of the possibility that new regulation might even render [that] property economically worthless."⁵⁶

Given these principles, it does not seem that the AIA disrupted reasonable patentees' expectations. The AIA is only the latest in a series of administrative procedures authorizing parties to offensively challenge the validity of issued patents. Congress gave the Patent and Trademark Office (PTO) authority to perform post-issuance reexamination of issued patents over thirty years ago and has made adjustments to this system ever since. Specifically, Congress created ex parte reexamination in 1980, the inter partes reexamination (the predecessor of IPR and CBMR) in 1999, and IPR, PGR, and CBMR in 2011.⁵⁷

Inter partes reexamination is the most important of these precedents because, like IPR and CBMR, it was adversarial, allowing for participation of the third party challenger in the

^{55.} As noted above, many might dispute the authors' contention that the AIA reduced the value of patents by changing the procedures for post-issuance review. See supra note 6. Some have argued that the challengers to the new IPR procedures in Cuozzo, discussed below, lack standing because they cannot show use of the broadest reasonable interpretation standard caused a redressable injury. See Brief of Public Knowledge as Amicus Curiae in Support of Respondent at 26–28, In re Cuozzo Speed Techs., LLC v. Lee, 136 S. Ct. 890 (2016) (No. 15-446).

^{56.} Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1027 (1992) (holding that "the simple prohibition of the sale of lawfully acquired property [in this case, the parts of protected endangered birds legally killed before the birds came under the protection of federal statutes] does not effect a taking in violation of the Fifth Amendment" (citing Andrus v. Allard, 444 U.S. 51, 66–67 (1979))).

^{57.} Leahy–Smith America Invents Act, Pub. L. No. 112-29, §§ 6, 18, 125 Stat. 284, 299–311, 329–31 (2011) (codified as amended at 35 U.S.C. §§ 311–19, 321–29 (2012)); Optional Inter Partes Reexamination Procedure Act of 1999, Pub. L. No. 106-113, §§ 4601–08, 113 Stat. 1501A-567–1501A-572 (codified as amended at 35 U.S.C. §§ 311–18 (2000)); Act of Dec. 12, 1980, Pub. L. No. 96-517, § 1, 94 Stat. 3015, 3015–17 (codified as amended at 35 U.S.C. §§ 302–07 (2012)).

process. Dolin and Manta offer several grounds for distinguishing IPR and CBMR from inter partes reexamination. First, the AIA requires the Patent Trial and Appeal Board (PTAB), the PTO's administrative tribunal, to use a "preponderance of the evidence" standard when assessing validity, rather than the more deferential "clear and convincing evidence" standard.⁵⁸ Second, the PTAB uses the "broadest reasonable interpretation" standard to construe patents in IPR and CBMR proceedings; but, unlike the prior ex partes reexamination system, the AIA offers patentees only "limited" opportunity for amendment.⁵⁹

In our view, neither of these distinctions is significant enough to make a constitutional difference. The first distinction—the use of a higher standard of review—is illusory. The PTO already applied the "preponderance of the evidence" standard when assessing patent validity in reexamination proceedings. This should not, on its own, have been surprising. The second distinction—the use of the "broadest reasonable interpretation" standard without significant opportunity to amend—is more compelling, especially when combined with the PTAB's less deferential standard of review. As a whole, this represents a combination of patent examination and adversarial procedures that might potentially have surprised some patentees.

But this, too, is ultimately unpersuasive. In *In re Cuozzo Speed Technologies*, *LLC*,⁶¹ where patentees recently challenged the PTO's authority to use the "broadest reasonable interpretation" standard in the new IPRs, the Federal Circuit conceded that, under the PTO's interpretation of the AIA, patentees' opportunity to amend their claims was "much more cabined." But the court went on to hold that the AIA's "restriction on amendment opportunities" did not "materially distingui[sh] IPR proceedings from their predecessors in the patent statute,"⁶²

^{58.} Dolin & Manta, supra note 1 (manuscript at 21).

^{59.} Id. (manuscript at 29-31, 58-61).

^{60.} See In re Etter, 756 F.2d 852, 855-59 (Fed. Cir. 1985) (en banc).

^{61. 793} F.3d 1268 (Fed. Cir. 2015).

^{62.} *Id.* at 1277 (citing 35 U.S.C. § 316(d)(1)–(2) (2012)). Additionally, Dolin and Manta's characterization of ex parte reexamination as "not a substitute for litigation," Dolin & Manta, *supra* note 1 (manuscript at 58), is dubious given the reexamination statute's legislative history. *See, e.g.*, H.R. REP. NO. 96-1397, at 3 (1980) ("Reexamination will permit efficient resolution of questions about the

and that its prior decisions regarding the "broadest reasonable interpretation" standard only required amendment to be *available*, not that opportunities to amend be especially liberal.⁶³ Without taking a position on whether *Cuozzo* was correctly decided, it seems highly unlikely that the Takings Clause's application to administrative patent proceedings could turn on such minute differences in amendment procedures.⁶⁴

To determine patentees' reasonable expectations, courts must also examine the broader context, to determine whether affected parties "ought to be aware" that "new regulation" might render their "property economically worthless." ⁶⁵

Beyond third party challenges to patent validity, numerous federal regulatory statutes limit patentees' ability to exploit their inventions. For example, various regulatory review statutes, such as the Food, Drug, and Cosmetic Act (FDCA),⁶⁶ the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA),⁶⁷ and the Toxic Substances Control Act (TSCA),⁶⁸ practically reduce the effective lifetimes of patents by prohibiting patentees from commercially marketing or using protected products during the review period.⁶⁹ Yet none of these statutes fully compensate patentees for these losses.⁷⁰

validity of issued patents without recourse to expensive and lengthy infringement litigation.").

^{63.} Cuozzo, 793 F.3d at 1277, n.7.

^{64.} To be sure, Dolin and Manta are correct to point out the controversial nature of the "broadest reasonable interpretation" standard. See Dolin & Manta, supra note 1 (manuscript at 23–25, 29–31). The Supreme Court has granted certiorari in Cuozzo to determine whether the PTO should be required to use the "ordinary and customary meaning" standard used by courts during claim construction. See Cuozzo Speed Techs., LLC v. Lee, 136 S. Ct. 890 (2016) (No. 15-446). Even if the PTO is wrong to apply the "broadest reasonable interpretation" standard, however, in our view, administrative law, not constitutional law, provides the best justification for rejecting the PTO's position.

^{65.} Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1027 (1992).

^{66.} Pub. L. No. 75-717, § 505, 52 Stat. 1040, 1052–53 (1938) (codified as amended at 21 U.S.C. § 355 (2012)).

^{67.} Pub. L. No. 61-152, § 3, 36 Stat. 331, 331–32 (1910) (codified as amended at 7 U.S.C. § 136a (2012)).

^{68.} Pub. L. No. 94-469, § 5, 90 Stat. 2003, 2012–20 (1976) (codified as amended at 15 U.S.C. § 2604 (2012)).

^{69.} For example, a drug manufacturer that owns several patents on a new drug must nevertheless wait until the Food and Drug Administration (FDA)

Against this backdrop of uncompensated regulatory devaluations of patents, it seems the AIA's adoption of stricter post-issuance review proceedings was in accordance with patentees' reasonable expectations.

Of course, Dolin and Manta might conclude that these other examples are also takings. But this conclusion has troubling consequences. Does Congress really need to compensate patentees every time it passes a statute that significantly affects the value of issued patents? Could Congress pass regulations for the purpose of restraining bad-faith enforcement of patents that have already been granted?⁷¹ What about judicial actions that reduce the value of patents?⁷² Do they intend for Congress to compensate patentees in these cases or to take fewer actions limiting patent rights, simply due to the fear of effectuating a taking? This seems like a dangerous basis on which to formulate patent policy.

V. Conclusion

Ultimately, we believe a Takings Clause challenge to the AIA would fail. Arguments over the AIA's ultimate economic impact

approves its New Drug Application before selling that drug.

^{70.} For instance, between the enactment of the FDCA in 1938 and the Drug Price Competition and Patent Term Restoration Act (Hatch-Waxman Act) in 1984, drug manufacturers received no compensation for diminutions in effective patent lifetime caused by the FDA's approval process. After Hatch-Waxman, manufacturers are eligible for patent term extensions. But extensions cannot exceed five years, and the total effective lifetime after extension cannot exceed fourteen years. Pub. L. No. 98-417, 98 Stat. 1585 (1984) (codified as amended at 21 U.S.C. § 355(b), (j), (l) (2012); 35 U.S.C. §§ 156, 271, 282 (2012)).

^{71.} See, e.g., Consumer Protection Act, VT. STAT. ANN. tit. 9, §§ 2451–66 (2015); Bad Faith Assertions of Patent Infringement Act, VT. STAT. ANN. tit. 9, §§ 4195–99 (2015); Vermont v. MPHJ Tech. Invs., LLC, 803 F.3d 635 (Fed. Cir. 2015). For discussion, see Camilla A. Hrdy, What Is Happening in Vermont? Patent Law Reform from the Bottom Up, PATENTLY-O (May 27, 2013), http://patentlyo.com/patent/2013/05/what-is-happening-in-vermont-patent-law-reform-from-the-bottom-up.html (last visited Mar. 22, 2016) (on file with the Washington and Lee Law Review).

^{72.} While we only discuss legislative acts, a plethora of judicial decisions affect validity. A plurality of the Supreme Court has held that the Takings Clause applies to judicial actions as well as legislative ones. *See* Stop the Beach Renourishment, Inc. v. Fla. Dep't of Envtl. Protection, 560 U.S. 702, 713–15 (2010).

on patent value are necessarily speculative, and it is at least possible that the new post-issuance proceedings significantly devalued patents. But it cannot be denied that Dolin and Manta's conclusion that the AIA effectuates a taking faces significant legal hurdles. Based on Federal Circuit and Supreme Court precedent, patents are arguably not property under the Takings Clause; the AIA's creation of IPR and CBMR proceedings is arguably not the kind of government action that constitutes a taking; and the AIA arguably did not disrupt patentees' reasonable investment-backed expectations, given background of federal statutes regulating patent rights and patented inventions. Nevertheless, the authors' article is a thought-provoking and educational analysis of the constitutional implications of Congress's recent efforts to reform the patent system.