ARTICLES

PUBLIC ENFORCEMENT OF PATENT LAW

MEGAN M. LA BELLE*

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^{*} Associate Professor, Catholic University of America, Columbus School of Law. Earlier versions of this paper were presented at the University of San Diego School of Law Fifth Annual Patent Law Conference, the 2015 Works-in-Progress Intellectual Property Colloquium, the 2015 University of Houston Law Center Administrative Law Workshop, the 2015 Junior Federal Courts Conference, the 2015 Mid-Atlantic Patent Works-in-Progress Conference, and the 2016 Junior Scholars in Intellectual Property Workshop. The author would like to thank the participants for their extremely helpful comments and suggestions, particularly Jonas Anderson, Jack Beermann, Bernard Chao, Christi Guerrini, Paul Gugliuzza, Kristin Hickman, Will Hubbard, Jay Kesan, Sapna Kumar, Tom Lee, Jonathan Masur, Michael Meurer, Arti Rai, Sarah Rajec, Greg Reilly, Josh Sarnoff, Andres Sawicki, Christopher Seaman, Ted Sichelman, Brenda Simon, Saurabh Vishnubhakat, and Melissa Wasserman. The author is also grateful to her research assistants, Emily Black, Daniel Kane, Monika Ledlova, and Michael Marusak, for their excellent research and editorial assistance.

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Law enforcement in the modern regulatory state is largely a joint enterprise. In areas such as securities, antitrust, civil rights, and environmental law, enforcement responsibilities are allocated between public and private actors. Patent law, on the other hand, is enforced almost exclusively through private lawsuits. Considering patent law's constitutionally mandated public purpose—"to promote the Progress of Science and useful Arts"—this privatization of patent enforcement is troubling.

In recent years, there has been some movement away from this purely private enforcement scheme for patent law. The Department of Justice and the Federal Trade Commission, for example, have involved themselves in certain patent matters that implicate antitrust law. Although this is a step in the right direction, these regulators alone cannot adequately enforce patent law due to their limited jurisdiction, resources, and expertise.

This Article thus proposes a robust public enforcement regime for patent law. It argues that Congress should arm the U.S. Patent and Trademark Office ("PTO"), the agency responsible for reviewing patents ex ante, with broad powers to police patent validity ex post. The PTO is best situated to lead this effort because of the agency's expertise, institutional resources, and enhanced powers under the America Invents Act. Moreover, charging the PTO with the responsibility for policing patents should serve to dispel allegations of agency capture and institutional bias toward patent owners.

INTRODUCTION

Not long ago, the standing of the Court of Appeals for the Federal Circuit as the most powerful and influential institution in patent law was indubitable. These days, however, it seems like everyone wants a piece of the patent action. In recent years, the Supreme Court, Congress, the U.S. Patent and Trademark Office ("PTO"), the Federal Trade Commission ("FTC"), the Department of Justice ("DOJ"), state attorneys general, federal district courts, state courts, and even the Advisory Committee on the Federal Rules have all asserted power over patent-related matters to some degree. The result is a new era in patent law's

¹ See, e.g., John F. Duffy, *The Federal Circuit in the Shadow of the Solicitor General*, 78 GEO. WASH. L. REV. 518, 519 (2010) ("The innovative jurisdictional structure of the new appellate court... has, in a subtle but meaningful way, shifted power over the development of patent law from the judicial to the executive branch of government."); Arti K. Rai, *Patent Validity Across the Executive Branch: Ex Ante Foundations for Policy Development*, 61 DUKE L.J. 1237, 1238-40 (2012) ("[T]he institutional debate has often focused on the Federal Circuit.... But other institutions are also beginning to compete for institutional primacy.").

history marked by power struggles and political wrangling among these lawmaking bodies.

Many factors have contributed to this move toward decentralization—and, arguably, destabilization—of the patent system. First, as patent rights have become increasingly important to the economy, stakeholder groups have expanded causing a broad array of institutional actors to engage with patent issues.² Second, while acknowledging the importance of high-quality patents, accused infringers have been complaining about the impact of bad patents, patent trolls, and frivolous infringement suits for more than a decade now.³ When efforts to reform the system met resistance at the Federal Circuit, accused infringers turned elsewhere for help.⁴ Finally, and perhaps most importantly, when Congress passed the 2011 America Invents Act ("AIA"),⁵ it radically altered the power dynamic in patent law by providing the PTO with a host of new responsibilities and powers.⁶

Prior to the AIA, the Federal Circuit dominated patent policy vis-à-vis the PTO.⁷ This was due in large part to the Federal Circuit's determination that the PTO lacked substantive rulemaking authority and its refusal to afford deference to PTO legal interpretations.⁸ A number of commentators criticized the Federal

² See Clarisa Long, The PTO and the Market for Influence in Patent Law, 157 U. PA. L. REV. 1965, 1966 (2009) ("[L]acking institutional competition from other courts, the Federal Circuit has strengthened patent law. In the process, the court has made this a more attractive area for institutions to wield legal and policy influence.").

³ See Gaia Bernstein, *The Rise of the End User in Patent Litigation*, 55 B.C. L. REV. 1443, 1444 (2014) (discussing how the patent litigation landscape is changing because of patent trolls); Long, *supra* note 2, at 1966.

⁴ Long, *supra* note 2, at 1966 ("The more prominent role played by the PTO is both a cause and an effect of dissatisfaction with the state of patent law.").

⁵ Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (codified as amended in scattered sections of 35 U.S.C.).

⁶ See Sarah Tran, Patent Powers, 25 HARV. J.L. & TECH. 609, 647-50 (2012) ("By granting the Patent Office the power to set standards, prioritize technologies, and set its own fees, Congress has pumped up the [PTO]'s rulemaking muscles and invited it to flex them."); Melissa F. Wasserman, The Changing Guard of Patent Law: Chevron Deference for the PTO, 54 Wm. & MARY L. Rev. 1959, 1964 (2013) ("The AIA . . . undeniably increased the stature of the PTO by granting the Agency a host of new responsibilities, such as fee-setting authority and the ability to conduct new adjudicatory proceedings in which patent rights may be obtained or challenged." (footnote omitted)).

⁷ Rai, *supra* note 1, at 1238 ("Congress has...delegated responsibility for interpreting the [Patent Act of 1952] to the [PTO] and the courts—with a historical emphasis on the courts.").

⁸ See, e.g., Merck & Co. v. Kessler, 80 F.3d 1543, 1549-50 (Fed. Cir. 1996) ("[T]he broadest of the PTO's rulemaking powers—35 U.S.C. § 6(a)—authorizes the Commissioner to promulgate regulations directed only to 'the conduct of proceedings in the [PTO]'; it does NOT grant the Commissioner the authority to issue substantive rules." (quoting Animal Legal Def. Fund v. Quigg, 932 F.2d 920, 930 (Fed. Cir. 1991))).

Circuit's approach, arguing that it contradicts mainstream administrative law principles, marginalizes the PTO, and undermines the development of sound patent policy. Moreover, in the years leading up to the passage of the AIA, the executive branch urged Congress to grant the PTO substantive rulemaking authority. Indeed, such a provision made its way into at least one early version of the legislation. In

In the end, the AIA did not include an explicit provision regarding the PTO's substantive rulemaking authority.¹² Yet, the legislation has effected a major power shift in the patent system nonetheless. Not only does the AIA endow the PTO with fee-setting authority,¹³ it also empowers the agency to decide matters of patent validity in various post-grant adjudicatory proceedings.¹⁴ These

⁹ See, e.g., Michael J. Burstein, Rules for Patents, 52 WM. & MARY L. Rev. 1747, 1798-99 (2011); John M. Golden, Patentable Subject Matter and Institutional Choice, 89 Tex. L. Rev. 1041, 1075 (2011); Jonathan S. Masur, Regulating Patents, 2010 SUP. CT. Rev. 275, 278-79; Joseph Scott Miller, Substance, Procedure, and the Divided Patent Power, 63 ADMIN. L. Rev. 31, 35 (2011).

¹⁰ Letter from Gary Locke, Sec'y of Commerce, U.S. Dep't of Commerce, to Senators Patrick J. Leahy, Chairman, Comm. on the Judiciary, and Jefferson B. Sessions, III, Ranking Member, Comm. on the Judiciary 2-3 (Oct. 5, 2009) (on file with author) ("Current law limits the USPTO Director's ability to implement needed reforms through the promulgation of administrative regulations. . . . At a minimum, USPTO should have procedural rulemaking authority over proceedings in the agency.").

¹¹ Patent Reform Act of 2007, H.R. 1908, 110th Cong. § 11 (2007) ("[T]he Director may promulgate such rules, regulations, and orders that the Director determines appropriate to carry out the provisions of this title or any other law applicable to the United States Patent and Trademark Office or that the Director determines necessary to govern the operation and organization of the Office.").

¹² Rai, *supra* note 1, at 1239 ("Although the AIA did not give the agency the expansive rulemaking authority over questions of substantive patent law that had been proposed in earlier versions of the legislation, the AIA did confer upon the PTO the ability to conduct post-grant review proceedings that resemble formal adjudications."). Notably, however, the Supreme Court recently held in *Cuozzo Speed Technologies, LLC v. Lee*, 136 S. Ct. 2131, 2144 (2016), that the AIA grants the PTO substantive rulemaking authority, at least with respect to post-grant proceedings, and that such rules are entitled to deference under *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 843-44 (1984).

¹³ 35 U.S.C. § 41 (2012 & Supp. 2012).

¹⁴ *Id.* §§ 311-319, 321-329 (describing inter partes review and post-grant review proceedings); *id.* § 321 (describing transitional program for covered business-method patents). Melissa Wasserman has argued that the AIA indirectly granted the PTO substantive rulemaking authority through these proceedings. Wasserman, *supra* note 6, at 1967. She believes that the Patent Trial and Appeal Board's validity decisions will be entitled to *Chevron* deference because of the formal adjudicatory nature of the proceedings. *Id.* If correct, this means that the PTO, not the Federal Circuit, is now the "chief expositor of substantive patent law standards." *Id.* at 1965. So far, however, the PTO has failed to ask for *Chevron* deference on legal determinations made in adjudication. *See* Stuart Minor Benjamin & Arti K. Rai, *Administrative Power in the Era of Patent Stare Decisis*, 65 DUKE L.J. 1563, 1581-90 (2016)

proceedings, conducted by the newly created Patent Trial and Appeal Board ("PTAB"), have begun to redefine the PTO.

The PTO, which is responsible for granting patents, has long been plagued with a reputation as a weak and ineffectual agency. Critics claim, among other things, that the PTO's fee structures and internal operating procedures bias the agency toward granting patents.¹⁵ More pointedly, the agency has been accused of kowtowing to the patent bar—the group that the PTO is supposed to be regulating—and blamed for flooding the marketplace with bad patents.¹⁶ Indeed, these concerns about agency capture and incompetence helped spur the reform efforts that culminated in the AIA.¹⁷

The AIA, and its creation of the PTAB in particular, have ushered in a new era in the PTO's history. Where the PTO was once viewed as a weak, captured agency whose sole purpose was to serve its "customers"—i.e., patent applicants—today's PTO, like so many modern federal agencies, is multifunctional. Agencies such as the Securities and Exchange Commission ("SEC"), the Environmental Protection Agency ("EPA"), and the FTC consist of various offices or arms that perform wide-ranging functions in furtherance of the agency's mission. With the creation of the PTAB and formal adjudicatory proceedings, the PTO is beginning to look more like these other agencies. From an institutional choice perspective, this is a positive development that better positions the PTO to effectuate patent law's constitutionally mandated purpose: the promotion of innovation for the public good. 19

("[T]he PTO has sought to assert significant authority under the auspices of the AIA. This assertion of authority has sometimes included taking a leadership position on the legal standards that determine patent validity. So it might seem obvious that the PTO would argue for *Chevron* deference on these positions. But it has not so argued.").

¹⁵ E.g., Michael D. Frakes & Melissa F. Wasserman, *Does Agency Funding Affect Decisionmaking?: An Empirical Assessment of the PTO's Granting Patterns*, 66 VAND. L. REV. 67, 124 (2013) ("Our findings suggest that the PTO's current fee schedule likely biases the Agency to grant patents."); Long, *supra* note 2, at 1990-91 ("At the level of substantive patent policy, the PTO's budgetary structure creates a bias in favor of granting patents and encouraging inventors to apply for patents.").

¹⁶ Frakes & Wasserman, *supra* note 15, at 74 (noting "a general perception in the literature that the PTO is routinely granting bad patents"); Jonathan S. Masur, Response, *The PTO's Future: Reform or Abolition?*, 158 U. PA. L. REV. PENNUMBRA 1, 2 (2009) ("Through a combination of poorly designed incentives, a lack of necessary funding, and a type of capture by the patent bar, the PTO has come to be viewed as inept and inefficient.").

¹⁷ Michael D. Frakes & Melissa F. Wasserman, *Does the U.S. Patent & Trademark Office Grant Too Many Bad Patents?*: Evidence from a Quasi-Experiment, 67 STAN. L. REV. 613, 621 (2015).

¹⁸ See, e.g., Terry Calvani & Angela M. Diveley, *The FTC at 100: A Modest Proposal for Change*, 21 GEO. MASON L. REV. 1169, 1183-84 (2014) (discussing the prosecutorial and adjudicatory functions of the SEC and the FTC).

¹⁹ See Samuel Estreicher & Richard L. Revesz, Nonacquiescence by Federal Administrative Agencies, 98 YALE L.J. 679, 739 (1989) ("[O]ne central premise of our post-

Yet, one fundamental way that the PTO stands apart from these other agencies is that it lacks an enforcement—or prosecutorial—arm to police patents ex post.²⁰ While the PTO enforces patent validity ex ante, no federal agency monitors, investigates, and polices already-issued patents. Outside of the antitrust context,²¹ there simply are no public enforcement actions concerning patents. The government has instead delegated to private parties the authority to enforce patent validity. Such wholesale reliance on private litigation raises a host of problems.

As I have argued in earlier work, patent validity is a matter of public law.²² Of course, it is common for public law regimes to rely on private enforcement.²³ But in the areas of securities, environmental, and antitrust law, private enforcement is merely a *supplement* to agency enforcement.²⁴ In the patent

New Deal administrative law system . . . is that the administrative agency as the delegatee of congressional authority, rather than the Article III courts, is the primary policymaker under the statute."); Rai, *supra* note 1, at 1265-72 (discussing "the comparative competence of particular patent institutions," namely Congress, the federal courts, and the PTO); Wasserman, *supra* note 6, at 2007-18 (noting that "the principal goal of the patent system" is "the promotion of innovation," and comparing "the relative strengths and weaknesses of the Federal Circuit and the PTO").

- ²⁰ See infra Section II.A (discussing the development of the United States patent review system).
- ²¹ See, e.g., Susan E. Foster, *Intellectual Property Antitrust: The Pendulum Swings, in* RECENT DEVELOPMENTS IN ANTITRUST LAW (ASPATORE 2013), 2013 WL 3773857, at *5 ("In the context of intellectual property antitrust, both the FTC and the DOJ have been fairly active in assessing antitrust settlement activities, patent portfolio acquisitions, and the activities of patent assertion entities (PAEs).").
- ²² Megan M. La Belle, *Patent Law as Public Law*, 20 GEO. MASON L. REV. 41, 52 (2012) ("[P]atent validity disputes bear little resemblance to private law litigation."). Some scholars contend that patent infringement is also a public law right. *See* Ted Sichelman, *Purging Patent Law of "Private Law" Remedies*, 92 TEX. L. REV. 517, 531 (2014) (arguing that all patent rights, including the right to sue for infringement, "stand in stark contrast to traditional private law rights"). The question of whether infringement is a public offense that should be subject to government enforcement is an excellent one. It is beyond the scope of this Article, which focuses on validity, but has been addressed in other work. *See* Caroline M. Turner, *A Path Toward an Increased Role for the United States in Patent Infringement Litigation*, 14 CHI.-KENT J. INTELL. PROP. 485, 489 (2015) (discussing the ways in which government could bring infringement suits on behalf of certain private parties).
- ²³ See Abram Chayes, The Role of the Judge in Public Law Litigation, 89 HARV. L. REV. 1281, 1284 (1976) ("Perhaps the dominating characteristic of modern federal litigation is that lawsuits do not arise out of disputes between private parties about private rights. Instead, the object of litigation is the vindication of constitutional or statutory policies. . . . For this reason . . . I shall call the emerging model 'public law litigation.'").
- ²⁴ See, e.g., Piper v. Chris-Craft Indus., Inc., 430 U.S. 1, 25 (1977) (explaining that in securities law, private enforcement is a "necessary supplement" to SEC actions "because of practical limitations upon the [agency's] enforcement capabilities" (quoting J. I. Case Co. v. Borak, 377 U.S. 426, 432 (1964))).

context, by contrast, the public is wholly reliant on private actors to police invalid patents, either through declaratory judgment actions in federal court or administrative review at the PTO.²⁵ Unfortunately for the public, private actors are generally disinclined to challenge bad patents.²⁶

The disincentives for private validity challenges are well documented in the literature. Often private parties are discouraged from challenging a patent because of the "free rider problem," whereby the patent challenger bears all the cost of litigation, but the benefit—invalidation of the patent—is enjoyed by all, including the challenger's competitors. Additionally, competitors are usually best situated to contest patents, but they may worry about putting their own, similar intellectual property at risk. Finally, whenever a private party launches a validity challenge, there's a real risk that the patent owner will countersue for infringement. Private parties, therefore, are loath to initiate patent challenges in most situations.

For a time, it appeared that public interest organizations might help fill this enforcement gap in the patent system. The ACLU, the Public Patent Foundation, and Consumer Watchdog have all attempted to intervene on the public's behalf to challenge suspect patents in recent years.³¹ These efforts have mostly been unsuccessful, however, because of the Federal Circuit's overly restrictive standing doctrine in patent cases.³² And while public interest groups may challenge patents at the PTO, the Federal Circuit recently dismissed Consumer

²⁵ See infra Part II (discussing private enforcement of patent validity).

²⁶ See, e.g., La Belle, supra note 22, at 64-68.

²⁷ See, e.g., Joseph Farrell & Robert P. Merges, *Incentives to Challenge and Defend Patents: Why Litigation Won't Reliably Fix Patent Office Errors and Why Administrative Patent Review Might Help*, 19 Berkeley Tech. L.J. 943, 952, 958 (2004); Joseph S. Miller, *Building a Better Bounty: Litigation-Stage Rewards for Defeating Patents*, 19 Berkeley Tech. L.J. 667, 687-88 (2004) ("[T]he... free rider problem, which discourages patent challenges, is at least as stark as the one that justifies providing a patent system in the first place.").

²⁸ See, e.g., Jay P. Kesan, Carrots and Sticks to Create a Better Patent System, 17 BERKELEY TECH. L.J. 763, 793-97 (2002) (advocating for one-way fee shifting because the current rule "might deter private litigants from bringing a costly [patent validity challenge]... even though the total benefits to society outweighs the cost to the individual").

²⁹ La Belle, *supra* note 22, at 64.

³⁰ Tom Ewing & Robin Feldman, *The Giants Among Us*, 2012 STAN. TECH. L. REV. 1, 21-22.

³¹ See, e.g., Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 133 S. Ct. 2107, 2114 (2013); Consumer Watchdog v. Wis. Alumni Research Found., 753 F.3d 1258, 1260 (Fed. Cir. 2014); Organic Seed Growers & Trade Ass'n v. Monsanto Co., 718 F.3d 1350, 1352 (Fed. Cir. 2013).

³² Michael J. Burstein, *Rethinking Standing in Patent Challenges*, 83 GEO. WASH. L. REV. 498, 500 (2015) ("[I]n recent years the Federal Circuit has developed a set of standing rules that prevents most developers of intellectual property, rather than real property, from bringing [quiet title] action[s].").

Watchdog's appeal from an unfavorable PTO decision for lack of Article III standing.³³ So even though public interest organizations may have the incentive to challenge bad patents, they face serious legal and practical constraints.

This Article thus argues for a robust public enforcement regime for patent law. The recent tumult within our patent system suggests the need for sound policymaking, and the ability to police already-issued patents is an important part of that effort. Not only should there be public enforcement of patent validity for pragmatic reasons (i.e., because private parties and public interest groups are unwilling or unable to successfully challenge bad patents), but public enforcement is also normatively justified because enforcement decisions shape innovation policy for the future. The relatively recent decision in *Alice Corp. v. CLS Bank International*³⁴ demonstrates this point well. *Alice*, which addressed the patentability of software inventions, has undoubtedly impacted innovation policy. Yet, neither the PTO nor any other agency decided to challenge the patent at issue in *Alice*. Rather, it was CLS Bank—a private party that is much more concerned with its personal interests than national innovation policy—that made the decision.³⁵

So, if a public agency should be policing patents ex post, which agency should it be? The FTC is one contender given its consumer protection mission and experience with antitrust-related patent matters. The DOJ's Antitrust Division and Intellectual Property Section have also weighed in on patent issues, so they could be in the running too. While these possibilities have some theoretical appeal, the PTO nevertheless emerges as the most realistic candidate to lead this effort. The PTO, first and foremost, possesses the necessary expertise due to its technological acumen and fluency in substantive patent law. The PTO also has certain mechanisms in place that would facilitate sound enforcement decision-making, including the Offices of the Chief Economist and Solicitor. Moreover, the PTO already has the power, albeit limited and rarely exercised, to challenge patents ex post in the form of director-initiated reexaminations. And finally,

³³ Consumer Watchdog, 753 F.3d at 1259-60 ("Because Consumer Watchdog has not established an injury in fact sufficient to confer Article III standing, however, this court dismisses the appeal.").

³⁴ 134 S. Ct. 2347, 2352 (2014).

³⁵ See Thomas M. Mengler, Consent Decree Paradigms: Models Without Meaning, 29 B.C. L. REV. 291, 341 (1988) ("Because private litigants pursue their own interests, even when litigating a public law suit, courts have not presumed that private litigants adequately represent others similarly situated.").

³⁶ See Daniel A. Crane, *Technocracy and Antitrust*, 86 Tex. L. Rev. 1159, 1206 (2008) (discussing "recent requirements for notification of patent settlements to the FTC").

³⁷ E.g., R. Polk Wagner, Reconsidering Estoppel: Patent Administration and the Failure of Festo, 151 U. PA. L. REV. 159, 210 (2002).

³⁸ 35 U.S.C. § 303 (2012) ("On his own initiative, and any time, the Director may determine whether a substantial new question of patentability is raised by patents and publications discovered by him or cited under the provisions of section 301 or 302."); 37

granting the PTO enforcement power will facilitate the agency's transformation into a legitimate patent policymaker.

This Article proceeds in three Parts. Part I discusses public and private enforcement regimes, and weighs the costs and benefits of both. Part II turns to patents and our system for enforcing patent validity ex ante and ex post, meaning before and after patents are granted, respectively. Part II then outlines some of the patent-specific problems associated with private enforcement actions. Part III explores why there is no ex post public enforcement of patent validity, and argues that such a mechanism is both theoretically and practically important to innovation policy. Part III therefore proposes that Congress grant the PTO robust powers to regulate patent validity for already-issued patents.

I. PUBLIC-PRIVATE ENFORCEMENT REGIMES

Law enforcement in the modern regulatory state is largely a joint enterprise. In areas such as securities, antitrust, civil rights, and environmental law, enforcement responsibilities are allocated between public and private actors. A rich scholarly literature has developed over the past several decades regarding the costs and benefits of public and private enforcement regimes,³⁹ and more recent scholarship focuses on the intersection and coordination of the two.⁴⁰ This

C.F.R. § 1.520 (2016) ("The Director may initiate ex parte reexamination without a request for reexamination").

³⁹ See, e.g., MARTIN H. REDISH, WHOLESALE JUSTICE: CONSTITUTIONAL DEMOCRACY AND THE PROBLEM OF THE CLASS ACTION LAWSUIT 20 (2009) (arguing that "[o]nce one critically examines the modern class action . . . one is forced to recognize the substantial need for dramatic alteration in the procedure's underlying theory, modern format, and current doctrinal structure"); Gary S. Becker & George J. Stigler, Law Enforcement, Malfeasance, and Compensation of Enforcers, 3 J. LEGAL STUD. 1, 14 (1974) (discussing the possibility of "let[ting] anyone enforce statutes and receive as compensation for performance the fines levied against convicted violators"); Myriam E. Gilles, Reinventing Structural Reform Litigation: Deputizing Private Citizens in the Enforcement of Civil Rights, 100 COLUM. L. REV. 1384, 1387 (2000) (discussing "the possibility of constructing a constitutionally sound model that harnesses the power of private citizens to reform unconstitutional practices"); Amanda M. Rose, The Multienforcer Approach to Securities Fraud Deterrence: A Critical Analysis, 158 U. PA. L. REV. 2173, 2176 (2010) (suggesting that it "would be [beneficial] to consolidate the enforcement authority now shared between federal regulators, state regulators, and class action lawyers in a federal agency, such as the SEC, and to grant that agency exclusive authority to prosecute national securities frauds").

⁴⁰ See, e.g., Zachary D. Clopton, Redundant Public-Private Enforcement, 69 VAND. L. REV. 285, 289-90 (2016) ("Redundant public-private enforcement describes legal regimes in which public and private agents may seek overlapping remedies for the same conduct on substantially similar theories."); David Freeman Engstrom, Agencies as Litigation Gatekeepers, 123 YALE L.J. 616, 623 (2013) ("[M]any of our most consequential regulatory regimes have evolved in recent decades into hybrids of public and private enforcement"); Margaret H. Lemos & Max Minzner, For-Profit Public Enforcement, 127 HARV. L. REV. 853, 857 (2014) (discussing how "financial incentives . . . bring[] public enforcement closer to the

debate about institutional design informs how effective regulation—including the regulation of patents—is best achieved.

A. Public Enforcement

One of the most fundamental tenets of our constitutional system is that the President "shall take Care that the Laws be faithfully executed." It is the executive branch's job, in other words, to enforce the laws that Congress makes. The Executive generally carries out this responsibility through the DOJ and other administrative agencies. These agencies bring enforcement actions against violators on the public's behalf and seek criminal sanctions, injunctive relief, or monetary damages. Examples include the SEC's enforcement action against Bernard Madoff, the DOJ Antitrust Division's suit against Microsoft, and the EPA's punishment of British Petroleum for the oil spill in the Gulf of Mexico.

This constitutional ideal of regulatory enforcement is normatively attractive for many reasons. Public enforcement actions can simultaneously "vindicate . . . broadly dispersed rights . . . and . . . exert a measure of deterrence for the future." Agencies have specialized knowledge and experience that inform and guide enforcement decisions. 49 Regulators are well positioned to

private model"); Matthew C. Stephenson, *Public Regulation of Private Enforcement: The Case for Expanding the Role of Administrative Agencies*, 91 VA. L. REV. 93, 95 (2005).

⁴² See, e.g., Nicholas Quinn Rosenkranz, Executing the Treaty Power, 118 HARV. L. REV. 1867, 1895 (2005) ("[T]he executive branch subsequently 'execute[s]' the laws made by Congress").

⁴³ See Kate Andrias, *The President's Enforcement Power*, 88 N.Y.U. L. REV. 1031, 1033 (2013) (describing "[t]he growth of the administrative state and the expansion of presidential power" in the twentieth century); Elena Kagan, *Presidential Administration*, 114 HARV. L. REV. 2245, 2246 (2001) ("We live today in an era of presidential administration."); Michael Waterstone, *A New Vision of Public Enforcement*, 92 MINN. L. REV. 434, 451-52 (2007) ("Most public enforcement officials are essentially administrative agencies.").

⁴⁴ See Edward D. Cavanagh, *Detrebling Antitrust Damages: An Idea Whose Time Has Come?*, 61 Tul. L. Rev. 777, 799 (1987) ("The Justice Department may seek (1) criminal sanctions for violations of the Sherman Act; (2) actual damages for injury sustained by reason of any violation of the antitrust laws; and (3) injunctive relief." (footnotes omitted)).

⁴⁵ Diana B. Henriques & Zachery Kouwe, *U.S. Arrests a Top Trader in Vast Fraud*, N.Y. TIMES, Dec. 12, 2008, at A1.

⁴⁶ Steve Lohr, *Microsoft Case May Be Prelude to a Wider Antitrust Battle*, N.Y. TIMES, Feb. 9, 1998, at D1.

⁴⁷ See Clifford Krauss, U.S. Agrees to Allow BP Back into Gulf Waters to Seek Oil, N.Y. TIMES, Mar. 14, 2014, at A1.

⁴⁸ Richard A. Nagareda, *Class Actions in the Administrative State: Kalven and Rosenfield Revisited*, 75 U. CHI. L. REV. 603, 604 (2008).

⁴⁹ See Heckler v. Chaney, 470 U.S. 821, 831 (1985) (noting that agency enforcement decisions are "peculiarly within [the agency's] expertise"); Richard B. Stewart & Cass R.

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⁴¹ U.S. CONST. art. II, § 3.

plan for coordinated enforcement efforts when necessary.⁵⁰ And perhaps most importantly, administrative actors are politically accountable for their enforcement decisions. More precisely, the public will hold the President and Congress responsible for how agencies exercise their delegated powers, including choices about enforcement.⁵¹ Dissatisfied voters will consequently refuse to re-elect those officials, or so the theory goes.⁵²

Unfortunately, there are considerable gaps between the ideal of regulatory enforcement and the reality. Resource-strapped agencies must set priorities, including with respect to enforcement decisions.⁵³ Limited resources might force regulators to choose between legitimate tasks, say rulemaking and enforcement, because they cannot afford to undertake both.⁵⁴ In short, "[t]he budget and manpower of federal regulatory agencies are" finite, which means that some violations will go unenforced.⁵⁵

Then there's the problem of "agency slack"—the tendency of government regulators to eschew the public interest by underenforcing or overenforcing certain laws.⁵⁶ The cause of agency slack varies, but regulatory capture is the main culprit. Capture is a complicated phenomenon that has been discussed at length in the literature.⁵⁷ In simplest terms, it refers to the situation where

Sunstein, *Public Programs and Private Rights*, 95 HARV. L. REV. 1193, 1211 (1982) (discussing courts that "acknowledge the value of an agency's specialized experience, political accountability, and capacity to plan for coordinated enforcement").

⁵⁰ See Stewart & Sunstein, supra note 49, at 1211.

⁵¹ *Id.* at 1199 ("[A]gency choices about enforcement are subject to legislative oversight...."); *see also* Katherine Pratt, *Lessons from the Demise of the Sugary Drink Portion Cap Rule*, 5 WAKE FOREST J.L. & POL'Y 39, 87 (2015) ("Permitting administrative agencies to make difficult policy judgments is permissible because the executive branch is politically accountable."); Kevin M. Stack, *The President's Statutory Powers to Administer the Laws*, 106 COLUM. L. REV. 263, 264 (2006) ("[P]residents are held politically accountable for how the federal government as a whole functions, and in particular for how administrative agencies exercise their vast delegated powers.").

⁵² Jessica Mantel, *Procedural Safeguards for Agency Guidance: A Source of Legitimacy for the Administrative State*, 61 ADMIN. L. REV. 343, 360 (2009).

⁵³ See, e.g., Cass R. Sunstein & Adrian Vermeule, *The Law of "Not Now": When Agencies Defer Decisions*, 103 GEO. L.J. 157, 170-71 (2014).

⁵⁴ *Id.* at 158-59 ("The number of potential rulemakings is extraordinarily high—as is the number of adjudications—and agencies must necessarily defer numerous decisions until a later time.").

⁵⁵ See Stephenson, supra note 40, at 107 ("The budget and manpower of federal regulatory agencies are generally quite limited, and many agencies simply lack the capacity to enforce the law adequately.").

⁵⁶ *Id.* at 110; Waterstone, *supra* note 43, at 451.

⁵⁷ See, e.g., Steven P. Croley, *Theories of Regulation: Incorporating the Administrative Process*, 98 COLUM. L. REV. 1, 4 (1998) (describing the theory that "agencies serve not to correct but to exacerbate market failures by delivering illicit regulatory favors to those who already enjoy excessive market power"); Michael A. Livermore & Richard L. Revesz,

agencies favor the interests of regulated groups at the expense of the public at large.⁵⁸ Agencies are considered vulnerable to capture when certain interest groups have a disproportionate stake in the work of the agency.⁵⁹ So, for instance, "Corporate America" might have captured the SEC,⁶⁰ or perhaps media media firms have captured the Federal Communications Commission ("FCC").⁶¹

Even if not captured, regulators may be concerned with self-promotion rather than the public interest—another example of agency slack. Agencies, after all, are made up of people with personal interests, objectives, and motivations.⁶² Individual government actors may have career aspirations that influence enforcement decisions. For example, public employees who aspire to land a job within the regulated industry may take deregulatory positions to curry favor with prospective employers.⁶³ Alternatively, those who are looking to move up the bureaucratic ladder may succumb to political pressure. Others might pursue easier cases to ensure a higher win rate, or be overzealous in high-profile cases to garner attention.⁶⁴

Regulatory Review, Capture, and Agency Inaction, 101 GEO. L.J. 1337, 1341 (2013) (explaining "the role of capture in providing a normative foundation for regulatory review" and advocating "a reform agenda to help bring the practice of review in line with its anticapture justification"); David Thaw, Enlightened Regulatory Capture, 89 WASH. L. REV. 329, 331-32 (2014) (discussing "the possibility of engaging private expertise through certain forms of regulatory capture to increase the legitimacy and efficacy of the regulatory process").

- ⁵⁸ See Croley, supra note 57, at 5; Saule T. Omarova, Bankers, Bureaucrats, and Guardians: Toward Tripartism in Financial Services Regulation, 37 J. CORP. L. 621, 630 (2012) (referring to capture as "the misalignment of incentives of government actors who pursue narrow private interests that may conflict with the public interest they purport to serve").
 - ⁵⁹ See Croley, supra note 57, at 4.
- ⁶⁰ See, e.g., ARTHUR LEVITT & PAULA DWYER, TAKE ON THE STREET 106-15 (2002) (citing the former SEC chairwoman on how "the business lobby" and "CEOs" successfully used Congress and the SEC to thwart reform efforts); Amy Borrus, SEC Reforms: Big Biz Says Enough Already, BUSINESSWEEK, Feb. 2, 2004, at 43 (detailing the efforts of corporate managers to stifle proxy reform).
- ⁶¹ See, e.g., Peter DiCola, Note, Choosing Between the Necessity and Public Interest Standards in FCC Review of Media Ownership Rules, 106 MICH. L. REV. 101, 129 (2007) ("The FCC has been particularly vulnerable to capture").
- ⁶² See Bruce L. Benson, Understanding Bureaucratic Behavior: Implications from the Public Choice Literature, 2-3 ECONOMIA DELLE SCELTE PUBLICHE [J. PUB. FIN. & PUB. CHOICE] 89, 89 (1995) (It.) ("[G]overnment programs are . . . implemented by people who have their own concerns, their own interests, and their own views of what is right and wrong.").
- ⁶³ Lemos & Minzner, *supra* note 40, at 859 ("Individual government attorneys may pull their punches in enforcement because they hope to secure a job in the regulated industry").

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⁶⁴ *Id*.

Other bureaucrats may be less self-absorbed and focused instead on bringing prestige to their agency, office, or division. Some enforcement agencies, for example, are allowed to keep a portion of any monetary damages they recover. This could very well incentivize regulators to pursue certain enforcement actions at the expense of more-deserving cases that lack the same potential for profit. And even if not receiving direct financial benefits, "agencies may have reputational interests in [pursuing suits that reap substantial] financial awards."

It is difficult to measure the extent to which each of these various causes contributes to regulatory enforcement failure. Solving the problem is therefore problematic, and so alternatives to public enforcement—namely, private enforcement through litigation—have emerged.

B. Private Enforcement

The United States has a long history of enforcing public rights through private actors. Guided by the maxim *ubi jus ibi remedium*—for every right there is a remedy—common law courts recognized what we now call "implied right[s] of action." The Supreme Court embraced the practice during the Warren era, permitting individuals to sue for violations of the Securities and Exchange Act of 1934⁶⁹ and the Voting Rights Act of 1965, oeven though Congress was silent as to private entities' rights under these statutes. Moreover, Congress has explicitly created private rights of action in certain legislation, the Endangered Species Act and the Clean Water Act being prime examples. These different

⁶⁵ *Id.* at 856 (noting that arrangements "allow[ing] enforcement agencies to retain a portion of any financial awards they win . . . are common at the state level and beginning to crop up in federal law as well" (footnote omitted)).

⁶⁶ See id.

⁶⁷ Id. at 856-57.

⁶⁸ See Stephen E. Ronfeldt, *Implying Rights of Action for Minorities and the Poor Through Presumptions of Legislative Intent*, 34 HASTINGS L.J. 969, 973-74 (1983).

^{69 15} U.S.C. § 78 (2012).

⁷⁰ 42 U.S.C. § 1971 (2012).

⁷¹ See, e.g., Allen v. State Bd. of Elections, 393 U.S. 544, 554-55, 557 (1969) ("T]he Voting Rights Act does not explicitly grant or deny private parties authorization to seek a declaratory judgment [However,] [t]he guarantee of § 5 [of the Act] that no person shall be denied the right to vote . . . might well prove an empty promise unless the private citizen were allowed to seek judicial enforcement of the prohibition."); J. I. Case Co. v. Borak, 377 U.S. 426, 430-31 (1964) (stating that "[i]t appears clear that private parties have a right under § 27 to bring suit for violation of § 14 (a) of the [Securities Exchange] Act" even though "petitioners . . . emphasiz[e] that Congress made no specific reference to a private right of action in § 14 (a)").

 $^{^{72}}$ Endangered Species Act of 1973, Pub. L. No. 93-205, $\$ 11(g), 62 Stat. 1155 (codified as amended at 16 U.S.C. $\$ 1540(g) (2012)).

⁷³ Federal Water Pollution Control Act Amendments of 1972, Pub L. No. 92-500, § 505, 86 Stat. 888 (codified as amended at 33 U.S.C. § 1365 (2012)).

types of private actions brought to vindicate public harms are generically referred to as "citizen" or "private attorney general" suits.

Procedural innovations have played an important role in facilitating this private enforcement scheme in the United States. The class action,⁷⁴ a uniquely American procedural device until recently,⁷⁵ allows plaintiffs to sue on behalf of a large group of similarly situated individuals to provide redress for widespread wrongs. As the Supreme Court once put it, "[t]he aggregation of individual claims in the context of a class-wide suit is an evolutionary response to the existence of injuries unremedied by the regulatory action of government."⁷⁶

Private attorney general suits may have emerged out of necessity, but they have flourished at least in part because of certain advantages they enjoy over government action. Most importantly, private parties often have greater resources and better access to information than public law enforcers.⁷⁷ They also tend to be less risk averse and nimbler than regulators, so they can advance novel legal theories and make quicker decisions.⁷⁸ Private litigation also provides injured parties with direct compensation in a way that public enforcement cannot.⁷⁹ Finally, private litigants are insulated from political pressure and bureaucratic pathologies, thus granting them latitude to sue powerful players that agencies are simply unwilling to confront. In short, private enforcement serves as an important "check" on regulatory capture.⁸⁰

⁷⁴ FED. R. CIV. P. 23 (listing the prerequisites of a class action, types of class actions, and other formalities associated with class actions).

⁷⁵ Linda S. Mullenix, *Ending Class Actions as We Know Them: Rethinking the American Class Action*, 64 EMORY L.J. 399, 401 (2014) (explaining that most foreign legal systems have resisted class action lawsuits).

⁷⁶ Deposit Guar. Nat'l Bank v. Roper, 445 U.S. 326, 339 (1980); *see also* J. Maria Glover, *The Structural Role of Private Enforcement Mechanisms in Public Law*, 53 WM. & MARY L. REV. 1137, 1163 (2012) ("Modern class action practice emerged . . . and the practice accordingly developed in response to the inability of centralized government institutions to comprehensively address a number of widespread wrongs.").

⁷⁷ See Pamela H. Bucy, *Private Justice*, 76 S. CAL. L. REV. 1, 6 (2002) (contending that public regulatory systems will always lack a private party's access to inside information in economic wrongdoings); Seth Davis, *Implied Public Rights of Action*, 114 COLUM. L. REV. 1, 25 n.120 (2014) ("Injured parties will often have better information than public regulators about the source and scope of legal violations.").

⁷⁸ See Davis, supra note 77, at 84. Importantly, the lawyers representing plaintiffs in citizen suits, who work on a contingency fee basis, may very well be more risk averse than their clients. See John C. Coffee, Jr., Rescuing the Private Attorney General: Why The Model of the Lawyer as Bounty Hunter Is Not Working, 42 Md. L. Rev. 215, 230-31 (1983).

⁷⁹ See Davis, supra note 77, at 84.

⁸⁰ See Engstrom, supra note 40, at 619 ("[P]rivate enforcement leverages private information, expertise, and resources while serving to check 'capture' of public enforcement agencies by regulated parties."); Margaret H. Lemos, State Enforcement of Federal Law, 86 N.Y.U. L. REV. 698, 702-03 (2011) (drawing comparisons between state enforcement and

Naturally, there are downsides to private litigation as well. A common criticism regards private enforcement's duplicative and overzealous nature, due to private parties simply "piggybacking" on regulatory enforcement efforts. 81 In this way, private enforcement can waste social resources, stymic governmental efforts to establish coherent enforcement policy, and lead to overdeterrence.82 Another critique is that private enforcers are purely profit driven with little regard for the public good.⁸³ Unlike the ideal regulator who weighs the social costs and benefits of enforcement and exercises prosecutorial discretion, private litigants sue as long as they will make money.⁸⁴ Taking this to the extreme, private enforcers will use the threat of litigation, and more specifically discovery costs, to extort settlements from defendants for non-meritorious claims. 85 Private Private litigants can afford to pursue non-meritorious claims because they are not accountable for their enforcement decisions in the way that regulators, at least theoretically, must answer to the public.86 To be sure, some critics have questioned the constitutionality of such private suits to the extent that they interfere with the executive branch's duty to "take Care that the Laws be faithfully executed."87

Regulatory litigation, whether initiated by public or private parties, is imperfect. There are costs and benefits to both systems, which perhaps explains why a mixed model has emerged and persisted in most areas of the law. As David Freeman Engstrom has said: "The institutional design challenge in this new regulatory landscape is not choosing between public and private enforcement. Rather, it is how to coordinate multiple, overlapping, and

private enforcement with regard to offering a hedge against the possibility of agency capture).

⁸¹ See, e.g., Engstrom, supra note 40, at 634; Charles W. Sherrer, Joint Ventures on Government Contracts: A Walk Through a Rose Garden Planted over Land Mines, 19 Pub. Cont. L.J. 331, 342 (1990).

⁸² See Amanda M. Rose, Reforming Securities Litigation Reform: Restructuring the Relationship Between Public and Private Enforcement of Rule 10b-5, 108 COLUM. L. REV. 1301, 1301 (2008).

⁸³ See, e.g., Engstrom, supra note 40, at 634; Stephenson, supra note 40, at 114 ("[P]rivate rights of action can lead to inefficiently high levels of enforcement, causing waste of judicial resources and leading to excessive deterrence of socially beneficial activity.").

⁸⁴ See, e.g., Engstrom, supra note 40, at 634 (discussing common critiques of private enforcement as opposed to public enforcement efforts); Stephenson, supra note 40, at 128-29 (explaining different ways in which public enforcement is superior to private enforcement, including in identifying important statutory violations).

⁸⁵ See, e.g., Engstrom, supra note 40, at 634 (discussing various "litigation reforms" designed to counteract the common issues with private enforcement, including limits on discovery and heightened pleading standards).

⁸⁶ See id. at 619 (noting that private enforcers are "democratically unaccountable").

⁸⁷ U.S. CONST. art. II, § 3; *see also* Stephenson, *supra* note 40, at 120 ("Though private enforcement suits have been upheld as constitutional... many proponents of a unitary executive nonetheless perceive a constitutional problem with allowing private citizens to determine the stringency with which the law will be enforced....").

interdependent enforcement mechanisms."⁸⁸ For patent law, however, the institutional design challenge is different because patent validity is enforced almost exclusively through private litigation.

II. POLICING PATENT VALIDITY

The constitutionally mandated goal of our patent system is to promote innovation to benefit the public.⁸⁹ Inventors who introduce new technologies into the public domain are rewarded with patents: time-limited exclusive rights to their inventions.⁹⁰ Although patents come at a price, the hope is that their innovation incentives will outweigh any anticompetitive effect. To this end, Congress has established conditions of patentability in an attempt to "draw[] a line between the things which are worth to the public the embarrassment of an exclusive patent, and those which are not."⁹¹ Specifically, a patent is valid if the invention is of proper subject matter and is useful, novel, nonobvious, and adequately described.⁹² Poor quality patents, meaning patents that fail to satisfy these requirements, impose significant societal costs, including discouraging competition, driving up the cost of innovation, and eroding confidence in the patent system.⁹³

Of course, laws and regulations are meaningless if unenforced, so designing appropriate enforcement mechanisms is crucial.⁹⁴ Policymakers must decide

⁸⁸ Engstrom, supra note 40, at 623.

⁸⁹ U.S. CONST. art. I, § 8, cl. 8 ("To 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.").

⁹⁰ See 35 U.S.C. § 271(a) (2012) (describing when patent infringement occurs).

⁹¹ Letter from Thomas Jefferson to Isaac McPherson (Aug. 13, 1813), *in* 13 THE WRITINGS OF THOMAS JEFFERSON 326, 335 (Andrew A. Lipscomb & Albert Ellery Bergh eds., 1903).

⁹² 35 U.S.C. §§ 101, 102, 103, 112 (describing the subject matter for which patents may be obtained and other conditions for patentability).

⁹³ Scholars have discussed the effect of bad patents at length. See, e.g., Shubha Ghosh & Jay Kesan, What Do Patents Purchase? In Search of Optimal Ignorance in the Patent Office, 40 Hous. L. Rev. 1219, 1228-29 (2004) (documenting the well-known negative consequences of granting substandard patents and the difficulties of quantifying the true cost to society); Christopher R. Leslie, The Anticompetitive Effects of Unenforced Invalid Patents, 91 MINN. L. Rev. 101, 113-39 (2006) (detailing the numerous negative effects of invalid patents, including the exclusionary effect it has on other players entering the market); Robert P. Merges, As Many as Six Impossible Patents Before Breakfast: Property Rights for Business Concepts and Patent System Reform, 14 Berkeley Tech. L.J. 577, 580-81 (1999) (discussing the "negative effects [of] business method patents"); Stephen Yelderman, Improving Patent Quality with Applicant Incentives, 28 HARV. J.L. & Tech. 77, 83 (2014) ("Invalid claims limit commercial freedom, deter potential innovators, and lead to wasteful legal and technical undertakings.").

⁹⁴ See, e.g., Clopton, supra note 40, at 306 ("[T]he benefits of redundant enforcement will not spring up without careful husbandry in the form of institutional design."); Glover, supra note 76, at 1142 ("[O]ur system of regulation is only as good as the enforcement mechanisms

whether to regulate conduct through ex ante regulation, ex post policing, or a combination of the two.⁹⁵ Moreover, if the institutional design calls for ex post policing, then the question becomes who should enforce the laws—the government, private parties, or both? Throughout history, lawmakers have searched for the most effective means of enforcing patent validity requirements to ensure that only deserving inventions are protected.

A. Ex Ante Patent Examination

After the original Patent Act was passed in 1790, the First Congress immediately had to determine how to enforce the new law. The United States initially adopted an ex ante examination system, modeled after the French system, with the exception that the United States elected to use high-level government officials, rather than private individuals, to conduct the examination. The examination system was soon abandoned, however, because the government officials involved found the system to be too time consuming. The United States then moved in 1793 to an English-style registration system, where the technical merits of inventions were only reviewed ex post during an infringement suit. The states are the system to be too times consuming an infringement suit.

The country ultimately returned to an examination system with the Patent Act of 1836, which marks the beginning of the modern patent system. 99 The 1836 Act established a specialized office, or administrative agency, devoted to examining and issuing patents. 100 This office—which evolved over time into the PTO—was staffed with highly talented scientists who rigorously examined, and

underlying it."); Martin H. Redish, *Class Actions and the Democratic Difficulty: Rethinking the Intersection of Private Litigation and Public Goals*, 2003 U. CHI. LEGAL F. 71, 76 (noting the "great social and political significance" of "the legislative choice of how to implement and enforce" laws).

- ⁹⁵ Glover, *supra* note 76, at 1140 ("Whereas European nations regulate the conduct of their citizens largely using ex ante regulations promulgated by a centralized bureaucracy, we frequently rely on ex post law enforcement, much of which results from private suits rather than from governmental actions." (footnote omitted)).
- 96 John F. Duffy, $\it Harmony$ and $\it Diversity$ in Global Patent Law, 17 Berkeley Tech. L.J. 685, 714 (2002).
- ⁹⁷ Daniel Preston, *The Administration and Reform of the U.S. Patent Office, 1790-1836*, 5 J. EARLY REPUBLIC 331, 332 (1995) ("More important duties, however, kept the [patent] board from devoting sufficient time to patent matters"). The government officials included the Secretary of State, Secretary of War, and Attorney General. *Id.*
 - ⁹⁸ Duffy, *supra* note 96, at 714-15.
- ⁹⁹ Mark A. Lemley, *Why Do Juries Decide if Patents Are Valid?*, 99 VA. L. REV. 1673, 1697-98 (2013) ("[T]he 1836 Act established what we know today as the Patent and Trademark Office, an administrative agency devoted to examining and issuing patents.").
- ¹⁰⁰ *Id.*; Duffy, *supra* note 96, at 714-15 ("When the U.S. returned to an examination system in 1836, the development drew upon earlier experiences but also created a specialized bureaucracy to perform the task.").

frequently rejected, patent applications.¹⁰¹ By the 1850s, however, the office succumbed to pressure from the patent bar and liberalized the examination process, resulting in higher grant rates.¹⁰²

The PTO's approach to patent examination has continued to ebb and flow over the years. There have been periods when the examination process was generally more rigorous or more lax. There have also been times when the PTO has subjected certain types of patent applications to varying levels of review. In 2000, for instance, the PTO established a "second pair of eyes" program to enhance the quality of business method patents. ¹⁰³ The agency also developed a program called the Sensitive Application Warning System ("SAWS"), which allowed examiners to alert PTO leadership when a "sensitive" patent might issue. ¹⁰⁴ Although SAWS dates back to 1994, ¹⁰⁵ it garnered significant negative attention recently, ¹⁰⁶ causing the PTO to terminate the program last year. ¹⁰⁷ Whatever the value of these special procedures, the fact remains that ex ante review alone is insufficient to police patent validity.

¹⁰¹ Andrew P. Morriss & Craig Allen Nard, *Institutional Choice & Interest Groups in the Development of American Patent Law: 1790-1865*, 19 SUP. CT. ECON. REV. 143, 179-80, 244 n.145 (2011) ("The thrust of the 1836 Patent Act was to erect a rigorous examination process, and the Patent Office during the 1840s staffed its examining corps with some of the best scientific talent in the country.").

¹⁰² *Id.* (stating that inventors and patent solicitors "repeatedly sought 'to induce key politicians and administrators to seek out those examiners who' took too strict a view of the patentability requirements" (quoting Robert C. Post, "*Liberalizers*" *Versus* "*Scientific Men*" in the Antebellum Patent Office, 17 TECH. & CULTURE 24, 26 (1976))).

¹⁰³ U.S. PATENT & TRADEMARK OFFICE, A USPTO WHITE PAPER: AUTOMATED FINANCIAL OR MANAGEMENT DATA PROCESSING METHODS (BUSINESS METHODS) 2 (2000), http://www.uspto.gov/sites/default/files/web/menu/busmethp/whitepaper.pdf [https://perma.cc/S892-DDLC] (requiring a new second-level review of all business method patents to ensure compliance with the mandatory search requirements and reasons for allowance).

¹⁰⁴ Sensitive Application Warning System, U.S PAT. & TRADEMARK OFF. (Mar. 2, 2015), http://www.uspto.gov/patent/initiatives/patent-application-initiatives/sensitive-application-warning-system [https://perma.cc/2PK5-MMVA].

¹⁰⁵ Id.

¹⁰⁶ See, e.g., Alyssa Bereznak, The U.S. Government Has a Secret System for Stalling Patents, YAHOO! TECH (Dec. 3, 2014), https://www.yahoo.com/tech/the-u-s-government-has-a-secret-system-for-104249688314.html [https://perma.cc/5VYL-6AJ4] ("Newly released documents reveal that the [Patent] [O]ffice, tasked with evaluating and protecting the rights to intellectual property, has a covert system for delaying controversial or inconvenient patents."); Devon Rolf, Secret Examination Procedures at the USPTO: My Experience with SAWS, IPWATCHDOG.COM (Dec. 14, 2004), http://www.ipwatchdog.com/2014/12/14/secret-examination-procedures-at-the-uspto-my-experience-with-saws/id=52638/ (explaining the author's experience with SAWS including the secretive nature of the program).

¹⁰⁷ See Sensitive Application Warning System, supra note 104 ("As the USPTO notified the public in January, the Agency has conducted a review of the SAWS program. After completing that review, the USPTO has decided to retire this program.").

B. Judicial Review of Patent Validity

Since the 1836 Act, applications have been examined by an expert agency before patents are granted. But the ability to police patents post-issuance remains important for a number of reasons. For one, the PTO sometimes makes mistakes and grants bad patents. Moreover, as the legal standards for patentability change—as many have in recent years—inventions that were once subject to a valid patent are no longer worthy of protection. Pinally, although hundreds of thousands of patent applications are filed each year, only a very small percentage of those applications evolve into "valuable" patents, meaning patents that are practiced, licensed, or enforced. Thus, lenient ex ante examination arguably makes sense, as long as those patents that prove valuable in the long term are subject to some sort of ex post review.

One option is for courts to review the validity of issued patents. This idea of judicial review of agency decision-making, though routine in today's administrative state, was unmapped territory in the early 1800s when administrative agencies were just emerging. Therefore, it should come as no surprise that the opportunities for ex post judicial review under the 1836 Act were fairly limited.

¹⁰⁸ See, e.g., Mark Lemley, Doug Lichtman & Bhaven Sampat, What to Do About Bad Patents?, REGULATION, Winter 2005-2006, at 10, 10-13 ("Bad patents are everywhere: covering obvious inventions like the crustless peanut butter and jelly sandwich, ridiculous ideas like a method of exercising a cat with a laser pointer, and impossible concepts like traveling faster than the speed of light.").

¹⁰⁹ See David L. Schwartz, *Retroactivity at the Federal Circuit*, 89 IND. L.J. 1547, 1548 (2014) (stating that the Federal Circuit "has frequently startled the patent law community with apparently run-of-the-mill rulings that substantially alter the value of previously issued patents").

¹¹⁰ See Mark A. Lemley, Essay, *Rational Ignorance at the Patent Office*, 95 Nw. U. L. REV. 1495, 1497 (2001) ("The essential insight of this Essay stems from the little-acknowledged fact that the overwhelming majority of patents are never litigated or even licensed.").

¹¹¹ *Id.* at 1531 ("For the PTO to gather all the information it needs to make real validity decisions would take an enormous investment of time and resources. Those decisions can be made much more efficiently in litigation"); Andres Sawicki, *Better Mistakes in Patent Law*, 39 FL. St. U. L. Rev. 735, 745 (2012) ("Whenever the costs of avoiding the mistake are greater than the costs of making it, we will be better off making the mistake.").

¹¹² Lemley, *supra* note 99, at 1697-98, 1707; *see also* WILLIAM J. NOVAK, THE PEOPLE'S WELFARE: LAW AND REGULATION IN NINETEENTH-CENTURY AMERICA 202 (1996) (explaining that the earliest administrative agencies in the United States were state and local boards of health founded in the late eighteenth and early nineteenth centuries); Ann Woolhandler, *Demodeling Habeas*, 45 STAN. L. REV. 575, 608 (1993) (referring to the early nineteenth century as the "prebureaucratic era").

1. 1836 Act and "Defensive" Patent Validity Challenges

The 1836 Act provided for what I refer to as "defensive" validity challenges. Because only a valid patent can be infringed, the Act permitted accused infringers to raise invalidity of the patent-in-suit as a defense to an infringement claim. More specifically, defendants might argue that the patent owner was not the "original and first inventor." Or perhaps defendants could defeat the patent by proving that the invention was "described in some public work" or "in public use, or on sale... before... [the] application for a patent." Consequently, in most patent cases, the court (or jury) must adjudicate both infringement and validity. 116

That Congress had the foresight in 1836 to provide for *any* sort of judicial review of patent validity is remarkable given how rare administrative agencies—like the PTO—were at the time. ¹¹⁷ Indeed, for a long time, already-issued patents patents could only be reviewed through defensive validity challenges, and to this day, defensive challenges remain the primary way patent validity is tested ex post. The problem with defensive validity challenges is that potential infringers must wait to be sued for infringement in order to prove a patent invalid. Eventually, almost a century after the 1836 Act passed, Congress recognized this limitation and began expanding the means for challenging patents in federal court.

2. Declaratory Judgment Act

In the early twentieth century, Congress considered legislation that would allow for anticipatory, or preventive, adjudication for potential patent infringers and other would-be defendants. After years of debate, the Declaratory Judgment Act was finally passed in 1934. The Declaratory Judgment Act provides that, "[i]n a case of actual controversy within its jurisdiction . . . any court of the United States, upon the filing of an appropriate pleading, may declare the rights and other legal relations of any interested party seeking such

¹¹³ Patent Act of 1836, ch. 357, § 15, 5 Stat. 117, 123 (describing the pleadings a defendant may make in the face of a patent infringement suit).

¹¹⁴ *Id*.

¹¹⁵ *Id*.

¹¹⁶ See, e.g., Lisa A. Dolak, Power or Prudence: Toward a Better Standard for Evaluating Patent Litigants' Access to the Declaratory Judgment Remedy, 41 U.S.F. L. Rev. 407, 410 (2007) ("A patent infringement defendant typically asserts one or more declaratory judgment counterclaims in response to the patentee's claim(s) for patent infringement."); Lemley, supra note 99, at 1712 ("Defendants in infringement suits tended to raise validity issues as personal defenses to the suit in question.").

¹¹⁷ See Lemley, supra note 99, at 1697-98.

 $^{^{118}}$ See, e.g., Samuel L. Bray, Preventive Adjudication, 77 U. CHI. L. REV. 1275, 1276 (2010); La Belle, supra note 22, at 59.

¹¹⁹ La Belle, *supra* note 22, at 59 ("Congress actively considered legislation for fifteen years before the Declaratory Judgment Act passed").

declaration."¹²⁰ The legislative history makes clear that one reason Congress passed the Act was to expand the opportunities for ex post patent challenges:

I assert that I have a right to use a certain patent. You claim that you have a patent. What am I going to do about it? There is no way that I can litigate my right, which I claim, to use that device, except by going ahead and using it, and you [the patent owner] can sit back as long as you please and let me run up just as high a bill of damages as you wish to have me run up, and then you may sue me for the damages, and I am ruined, having acted all the time in good faith and on my best judgment, but having no way in the world to find out whether I had a right to use that device or not.¹²¹

Thus, the Act intended to improve the plight of accused infringers by allowing them to bring "offensive" patent validity challenges.

While the Declaratory Judgment Act was no doubt a step in the right direction, its ability to effectively police patent validity is curbed by various factors. Specifically, there are both legal and pragmatic barriers that make it difficult—if not impossible—for many plaintiffs to pursue patent declaratory judgment actions. ¹²² Because I have written about the shortcomings of private validity challenges at length in earlier works, ¹²³ I will mention them only briefly here.

Starting with the legal hurdles, the Federal Circuit has interpreted patent standing doctrine restrictively, so that only a narrow class of plaintiffs may seek declaratory relief in federal court.¹²⁴ Standing doctrine, consequently, has thwarted operating companies and public interest organizations alike from

¹²⁰ 28 U.S.C. § 2201(a) (2012).

¹²¹ Declaratory Judgments: Hearings on H.R. 5623 Before a Subcomm. of the S. Comm. on the Judiciary, 70th Cong. 35 (1928).

¹²² See La Belle, *supra* note 22, at 68-69 ("In patent declaratory judgment actions, the defendant patent owner often responds to the complaint with two concurrent motions. . . . If the plaintiff is unable to demonstrate either of these threshold requirements, the court will grant the motion(s) to dismiss"); Megan M. La Belle, *Patent Litigation, Personal Jurisdiction, and the Public Good*, 18 GEO. MASON L. REV. 43, 46 (2010) ("With respect to alleged patent infringers, however, there are also certain jurisdictional hurdles that must be overcome before declaratory relief may be sought.").

¹²³ See La Belle, *supra* note 22, at 64-67 (documenting a number of "pragmatic disincentives facing plaintiffs considering a patent declaratory judgment," including the remedy, the opportunity for the defendant to countersue, and the plaintiff's concerns about putting their own intellectual property at risk); Megan M. La Belle, *Standing to Sue in the* Myriad Genetics *Case*, 2 CALIF. L. REV. CIR. 68, 85-86 (2011) ("[I]n the context of patent declaratory judgment actions, the Federal Circuit consistently seems more concerned with the plight of patent owners than with the threat that potentially bad patents pose to the public.").

¹²⁴ See, e.g., Ass'n for Molecular Pathology v. U.S. Patent & Trademark Office, 653 F.3d 1329, 1344 (Fed. Cir. 2011) (confining standing to plaintiffs who intend "to actually and immediately engage in allegedly infringing BRCA-related activities"), vacated, appeal reinstated, 467 F. App'x 890 (Fed. Cir. 2012), aff'd in part, rev'd in part, 689 F.3d 1303 (Fed. Cir. 2012), aff'd in part, rev'd in part sub nom. Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 133 S. Ct. 2107, 2120 (2013).

challenging patents that offer low social value.¹²⁵ A further hindrance is the Federal Circuit's distorted personal jurisdiction jurisprudence, which often precludes plaintiffs from filing patent declaratory judgment actions in convenient venues.¹²⁶

Yet, even plaintiffs who overcome these legal obstacles face pragmatic difficulties when challenging a patent. First, patent litigation is extremely expensive and time consuming. Second, filing a patent declaratory judgment action is almost guaranteed to trigger a counterclaim for infringement, thus exposing the patent challenger to an injunction, treble damages, or possibly attorney's fees. 128 Third, challenging patents is particularly risky for competitors because it may put their own patents in jeopardy (e.g., when a patent is scrutinized under § 101). 129 Fourth, there is no direct monetary reward for winning a patent challenge, unlike in securities and antitrust cases. 130 Finally, the benefit the challenger reaps—the free use of the patented invention—is shared by everyone, including competitors, even though the challenger alone bore the cost of invalidating the patent. 131

Recognizing that patent validity is underenforced, scholars have proposed various ways to encourage patent challenges in federal court, such as fee

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¹²⁵ See, e.g., Cisco Sys., Inc. v. Alberta Telecomm. Research Ctr., 538 F. App'x 894, 898 (Fed. Cir. 2013) ("In the circumstances presented here, that interest is simply insufficient to give rise to a current, justiciable case or controversy upon which federal declaratory judgment jurisdiction may be predicated."); Organic Seed Growers & Trade Ass'n v. Monsanto Co., 718 F.3d 1350, 1361 (Fed. Cir. 2013) ("The appellants have alleged no concrete plans or activities to use or sell greater than trace amounts of modified seed, and accordingly fail to show any risk of suit on that basis.").

¹²⁶ See La Belle, supra note 122, at 77-81.

¹²⁷ See Colleen V. Chien, Of Trolls, Davids, Goliaths, and Kings: Narratives and Evidence in the Litigation of High-Tech Patents, 87 N.C. L. Rev. 1571, 1573 (2009) ("Patent litigation has alternatively been called the sport of kings and the business of sharks." (footnote omitted)).

¹²⁸ See, e.g., Ewing & Feldman, supra note 30, at 10 (providing an example of a counterclaim from a patent infringement suit when TiVo sued Verizon).

¹²⁹ See Mark A. Lemley, *Patenting Nanotechnology*, 58 STAN. L. REV. 601, 623-24 (2005) ("If core patents are distributed roughly evenly among firms participating in a market . . . , those firms will have a strong incentive to enter into cross-licenses, since their interests are symmetrical: they need their competitors' patents just as much as the competitors need their patents.").

¹³⁰ See Joseph Scott Miller, Building a Better Bounty: Litigation-Stage Rewards for Defeating Patents, 19 Berkeley Tech. L.J. 667, 704-05 (2004).

¹³¹ See, e.g., John R. Thomas, Liberty and Property in the Patent Law, 39 Hous. L. Rev. 569, 618 n.361 (2002) (discussing the "free rider" problem).

shifting,¹³² bounties,¹³³ and joint defense agreements.¹³⁴ Others have urged a more fundamental shift for validity challenges away from federal court towards administrative adjudication at the PTO.¹³⁵ This suggestion to dejudicialize patent validity challenges gained some traction in the 1980s, but did not take hold and begin to revolutionize the patent litigation landscape until the passage of the AIA in 2011.

C. Administrative Review of Patent Validity

For the first 150 years in its history, the PTO's role in policing patent validity was limited. The agency reviewed patents ex ante and decided whether or not a patent should issue. If the patent was rejected, the applicant could appeal to a board of examiners. But once a patent was granted, it was the courts—not the PTO—that evaluated a patent's validity. That began to change in the early 1980s as Congress incrementally expanded the PTO's jurisdiction over various proceedings for challenging already-issued patents.

1. Early Post-Grant Proceedings

Congress introduced the first post-grant administrative proceedings, ex parte reexamination (or "reexam"), in 1980.¹³⁷ Ex parte reexam allows either the patent owner or a third party to ask the PTO to take a second look at "doubtful patents." This procedure was intended "to strengthen investor confidence in

¹³² See, e.g., Gaia Bernstein, supra note 3, at 1449 ("[F]ee shifting is applicable to the diverse array of end user cases and can contribute toward leveling the footing of end users in all type of end user-patentee disputes.").

¹³³ See Miller, supra note 27, at 704-05 (proposing a bounty system in patent litigation that would reward a patent challenger with cash after a successful suit).

¹³⁴ Joseph Scott Miller, *Joint Defense or Research Joint Venture? Reassessing the Patent-Challenge-Bloc's Antitrust Status*, 2011 STAN. TECH. L. REV. 1, 5-6 (discussing how joint-venture agreements would address market failures under the current patent regime).

¹³⁵ See Michael A. Carrier, Post-Grant Opposition: A Proposal and a Comparison to the America Invents Act, 45 U.C. DAVIS L. REV. 103, 122-24 (2011); Farrell & Merges, supra note 27, at 960-64 (postulating numerous ways to improve PTO examination in lieu of litigation).

¹³⁶ See Burstein, supra note 9, at 1762-63 (explaining the establishment of the modern system of patent examination and the processes by which a defendant could appeal). Three years after passing the 1836 Act, Congress passed the Act to Promote the Progress of the Useful Arts, which allowed applicants who were dissatisfied with the board's decision to appeal to federal court. *Id.* at 1763 n.69.

¹³⁷ See 126 CONG. REC. 34,412-13 (1980) (reporting passage of reexamination provisions in December 1980); Kristen Jakobsen Osenga, *Rethinking Reexamination Reform: Is It Time for Corrective Surgery, Or Is It Time to Amputate?*, 14 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 217, 223 (2003) (explaining that Congress passed a bill in December 1980 incorporating the American Bar Association's suggestions for reexamination).

¹³⁸ Kaufman Co. v. Lantech, Inc., 807 F.2d 970, 976 (Fed. Cir. 1986) (quoting H.R. REP. No. 96-1307, at 3-4 (1980)).

the certainty of patent rights... without recourse to expensive and lengthy infringement litigation."¹³⁹ To ensure that ex parte reexam remained affordable and efficient, certain provisions restricted its scope.¹⁴⁰ For instance, a third party requesting reexam was not permitted to participate in the proceeding, and the substantive grounds for reexam were limited to a few validity defenses based on certain types of prior art.¹⁴¹ The impact of reexam was further dampened by the fact that the PTO's decisions were not binding on courts.¹⁴² Even if the PTO upheld a patent during reexam, in other words, validity could be relitigated in federal court.¹⁴³ Due to these limitations, third parties rarely availed themselves of ex parte reexam.¹⁴⁴

Over the next two decades, the federal judiciary's patent docket steadily grew and the costs of litigation continued to rise. Congress again attempted to alleviate these problems by creating administrative avenues for patent validity challenges. In 1999, Congress enacted the American Inventors Protection Act ("AIPA"), 145 which created a new post-grant review proceeding called inter partes reexam that allowed for greater participation by third-party patent challengers. 146 For example, third-party challengers could comment on the patent owner's

¹³⁹ *Id*.

¹⁴⁰ See U.S. PATENT & TRADEMARK OFFICE, REPORT TO CONGRESS ON INTER PARTES REEXAMINATION 1-2 (2004) [hereinafter INTER PARTES REPORT] https://www.uspto.gov/web/offices/dcom/olia/reports/reexamreport.pdf [https://perma.cc/9NMF-4M9S] (finding that ex parte reexam procedure was established "to serve as an expedited, low-cost alternative to patent litigation for reviewing only certain aspects of patent validity").

¹⁴¹ *Id.* at 2 ("Congressional review indicated infrequent use of *ex parte* reexamination, primarily because a third party who requested reexamination was unable to participate in the examination stage of the reexamination after initiating the reexamination proceeding."); Mark D. Janis, *Rethinking Reexamination: Toward a Viable Administrative Revocation System for U.S. Patent Law*, 11 HARV. J.L. & TECH. 1, 53 (1997) ("During reexamination, the PTO examines the patent claims on the basis of prior art patents or printed publications only.").

¹⁴² DONALD S. CHISUM, CHISUM ON PATENTS § 6.3.4.5 (2013) ("An ex parte reexamination carries no threat of an estoppel against an unsuccessful third-party requester. The requester can continue to contest validity in a judicial action although a PTO confirmation will tend to make that contest more difficult.").

¹⁴³ *Id*.

¹⁴⁴ Between 2000 and 2004, over 835,000 patents issued, but only 1719 ex parte reexams were filed. Eric Williams, *Remembering the Public's Interest in the Patent System - A Post-Grant Opposition Designed to Benefit the Public*, 2006 B.C. INTELL. PROP. & TECH. F. 110702, at 3.

See American Inventors Protection Act of 1999, Pub. L. No. 106-113, 113 Stat. 1501A-552 (codified as amended in scattered sections of 35 U.S.C.).

¹⁴⁶ Optional Inter Partes Reexamination Procedure Act of 1999, Pub. L. No. 106-113, 113 Stat. 1501A-567 (codified as amended at 35 U.S.C. §§ 311-318).

responses to PTO actions and could appeal the PTO's ultimate validity decision to the Federal Circuit.¹⁴⁷

Notwithstanding these additional safeguards, third parties' reliance on ex parte reexam remained sporadic. This initial hesitancy may have been due to various shortcomings in the proceedings, including: the lack of discovery and cross-examination; the inability to challenge patents issued before 1999; the narrow scope of validity defenses available; and the preclusive effect of the reexam determination in subsequent patent litigation. He with time, however, the use of inter partes reexam began to pick up, at least in part because the costs were much lower than federal court litigation. Between 2009 and 2011, for instance, more than 900 inter partes reexams were initiated. He But as these proceedings grew in popularity, the longer it took the PTO to issue decisions. By 2011, the average pendency for inter partes reexam was over three years. Thus, Congress was called upon once again to reform the system.

2. AIA and Post-Grant Proceedings

Many factors contributed to the call for patent reform that culminated in the AIA's passage in 2011, including the growing concern over patent quality and the need for international harmonization. The AIA—the most comprehensive patent reform legislation in over fifty years—revamped the patent system by switching to first-to-file priority, ¹⁵¹ redefining novelty and prior art, ¹⁵² and expanding prior user rights. ¹⁵³ Perhaps even more fundamentally, however, the AIA includes numerous provisions that have reshaped the PTO's institutional identity. For one, the AIA delegates fee-setting authority to the PTO, ¹⁵⁴ which allows the agency to adjust fees based on its costs. The AIA also empowers the agency to decide matters of patent validity through various post-grant

¹⁴⁷ Congress did not provide the right to appeal to the Federal Circuit in the initial legislation, but amended the AIPA in 2002 to provide for this and other rights to try to promote the use of inter partes reexam. *See INTER PARTES* REPORT, *supra* note 140, at 2-3.

¹⁴⁸ *Id.* at 4, 6-7.

¹⁴⁹ U.S. PATENT & TRADEMARK OFFICE, INTER PARTE REEXAMINATION FILING DATA 1 (2013), https://www.uspto.gov/patents/stats/inter_parte_historical_stats_roll_up_EOY2013. pdf [https://perma.cc/Y64D-J4TV] (indicating that 258 reexams were filed in 2009, 281 in 2010, and 374 in 2011 for a total of 913 reexams filed during the years 2009-2011).

¹⁵⁰ See Jason Rantanen, Lee Petherbridge & Jay P. Kesan, Debate, *America Invents, More or Less?*, 160 U. PA. L. REV. PENNUMBRA 229, 249 (2012) (explaining that inter partes reexam currently takes more than thirty-six months).

¹⁵¹ 35 U.S.C. § 102(a) (2012) (providing that inventions cannot be patented if "patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention").

¹⁵² *Id.* (eliminating the geographic restrictions on prior art).

¹⁵³ Id. § 273.

¹⁵⁴ *Id.* § 41.

adjudicatory proceedings.¹⁵⁵ Much like reexam, these proceedings—which include post-grant review ("PGR"), inter partes review ("IPR"), and review for covered business method patents ("CBM")—are intended to provide a more efficient and less expensive alternative for challenging already-issued patents.¹⁵⁶

A comprehensive discussion of the nature of these new AIA proceedings and how they differ from their predecessors (e.g., reexam) is beyond the scope of this Article. There are a few highlights worth mentioning, though. One is that the PTAB—a panel of PTO judges—rather than the examining corps conducts the review. Another major change is that PGR, IPR, and CBM proceedings must be completed within a limited amount of time. The PTO will generally issue a written decision within eighteen months of the initial petition, although it could take as long as twenty-four months in rare circumstances. Either way, the review process under the AIA is substantially faster than inter partes reexam.

Parties involved in IPR, PGR, and CBM proceedings are also afforded additional procedural protections, including the right to conduct discovery and to have an oral hearing. These safeguards were supposed to help make administrative review a realistic alternative to federal court litigation. In a similar vein, Congress made the preclusive effects of the new AIA proceedings more robust than reexam. Specifically, estoppel attaches as soon at the PTAB issues a written decision, and parties are precluded from relitigating issues that were or could have been raised before the PTO. Moreover, at least with respect to PGR, a broader range of defenses is available to patent challengers than in the past. The challenger, for instance, may contest the patent for lack of adequate written description or improper subject matter, and may raise prior art other than patents and printed publications in challenging the patent on

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¹⁵⁵ *Id.* §§ 311-319 (codifying the procedure for inter partes review); *id.* §§ 321-329 (codifying the procedure for PGR, including the transitional program for covered businessmethod patents).

¹⁵⁶ See Joe Matal, A Guide to the Legislative History of the America Invents Act: Part II of II, 21 FeD. CIR. B.J. 539, 653 (2012).

¹⁵⁷ For a detailed discussion see, for example, Gregory Dolin, *Dubious Patent Reform*, 56 B.C. L. Rev. 881, 909-23 (2015) (arguing that the new AIA proceedings are "not a *replacement*, but rather an *addition* to" the earlier version of ex parte reexam); Wasserman, *supra* note 6, at 1993 (comparing PGR to reexam).

¹⁵⁸ 35 U.S.C. § 6 (establishing the PTAB, which is composed of judges who review rejected patent applications and reexam appeals, and conduct derivation proceedings, IPR, and PGR).

¹⁵⁹ 37 C.F.R. §§ 42.100(c), 42.200(c), 42.300(c) (2016) (requiring that IPR, PGR, and CBM proceedings be administered such that pendency before the PTAB is no more than one year with an extension lasting no more than six months with good cause or in case of joinder). ¹⁶⁰ 35 U.S.C. § 326(a).

¹⁶¹ *Id.* § 315(e) (prohibiting petitioners from raising a claim before the PTO, district court, or ITC if they raised or reasonably could have raised the claim in IPR); *id.* § 325(e) (same with respect to PGR).

anticipation or obviousness grounds. Finally, parties dissatisfied with the PTO's decision in IPR, PGR, or CBM may appeal directly to the Federal Circuit. 63

The goal for these changes was to encourage patent challenges by making it quicker and cheaper to invalidate bad patents. ¹⁶⁴ As Judge Newman recently explained, "[t]he premise [was] that an adversarial evidentiary proceeding in the PTO [would] reliably resolve most issues of patent validity, without the expense and delay of district court litigation, and sometimes even before infringement has occurred." ¹⁶⁵ While the full impact of these new laws remains to be seen, what's already clear is that these PTAB proceedings are further reaching than anticipated.

3. Impact of PTAB Proceedings

Between September 16, 2012 (when the AIA became effective) and September 30, 2016, a total of 5656 IPR, PGR, and CBM petitions were filed. 166 The vast majority of these petitions are IPRs (5143) with CBMs coming in a distant second (476). Only thirty-seven PGRs have been filed because that proceeding applies exclusively to recently granted patents, but those numbers are sure to increase. 167 At this pace, the PTAB will soon be deciding patent validity ex post far more often than federal courts. 168

Yet it's not just the volume of petitions that has caught many off guard, but the substance of the PTAB's decisions as well. Early studies indicate that patent challengers are enjoying high rates of success with these new

¹⁶² *Id.* § 321(b) (allowing petitioner to "request to cancel as unpatentable 1 or more claims of a patent on any ground" that could be raised in federal court litigation).

¹⁶³ *Id.* § 329 (explaining that any party has the right to appeal a decision by the PTAB).

¹⁶⁴ See Matal, supra note 156, at 653 (exploring the legislative history of these provisions, including Congress's intention to provide a cheaper and more efficient alternative to litigation); Sarah Tran, *Policy Tailors and the Patent Office*, 46 U.C. DAVIS L. REV. 487, 498-99 (2012) (detailing the discretion the AIA affords to the PTO to prioritize and expedite patents and "weed out low quality patents").

¹⁶⁵ In re Cuozzo Speed Techs., LLC, 793 F.3d 1268 (Fed. Cir. 2015) (Newman, J., dissenting), aff'd sub nom. Cuozzo Speed Techs., LLC v. Lee, 136 S. Ct. 2131 (2016).

¹⁶⁶ U.S. PATENT & TRADEMARK OFFICE, PATENT TRIAL AND APPEAL BOARD STATISTICS 2 (2016), https://www.uspto.gov/sites/default/files/documents/aia_statistics_september2016A.pdf [https://perma.cc/S8G8-68GR] (detailing the number of AIA petitions filed during this period).

¹⁶⁷ *Id.* (stating the number of PGR petitions filed since the AIA's inception).

¹⁶⁸ See infra notes 187-90 and accompanying text (discussing the downward trend in patent litigation).

¹⁶⁹ See Brian J. Love & Shawn Ambwani, *Inter Partes Review: An Early Look at the Numbers*, 81 U. CHI. L. REV. DIALOGUE 93, 93 (2014) ("As partial data on IPR has trickled out via the blogosphere, interest from patent practitioners and judges has grown to a fever (and sometimes fevered) pitch." (footnote omitted)).

proceedings.¹⁷⁰ In IPRs, petitioners have won complete victories almost two-thirds of the time when pursuing their petitions to a final decision.¹⁷¹ And even when not securing a total win, petitioners have managed to persuade the PTAB to institute IPR on at least one challenged claim in eighty-four percent of proceedings.¹⁷²

Based on these high rates of invalidation, critics have referred to the PTAB alternatively as a "death squad" and a "killing field." Former Chief Judge Rader stated at an intellectual property conference that the PTO "was in tension with itself, with thousand[s] of examiners 'giving birth' to patents and hundreds of judges on the PTAB 'acting as death squads, kind of killing property rights." A former high-level PTO official similarly criticized the agency for "creating" and then "destroying" patents, wondered how long such a "business model" can last, and warned that "if the PTAB continues on this path, the raison d'etre of the Patent Office and the entire patent system will be called into question." ¹⁷⁶

The PTO's initial reaction to this criticism was somewhat defensive. During an AIA roundtable in April 2014, a panel of judges denied that the PTAB is a "death squad." Former Chief Judge Smith said the PTAB does not set out to

 $^{^{170}}$ See id. at 101 (finding that the PTAB invalidated all instituted IPR claims almost 78% of the time).

¹⁷¹ *Id*.

¹⁷² *Id.* at 100. A more recent study finds that the rate at which the PTAB is instituting IPRs has been slowly and consistently declining since 2012. *See* Saurabh Vishnubhakat, Arti K. Rai & Jay P. Kesan, *Strategic Decision Making in Dual PTAB and District Court Proceedings*, 31 BERKELEY TECH. L.J. 45, 78, 107 (2016).

¹⁷³ Rob Sterne & Gene Quinn, *PTAB Death Squads: Are All Commercially Viable Patents Invalid?*, IPWATCHDOG.COM (Mar. 24, 2014), http://www.ipwatchdog.com/2014/03/24/ptab-death-squads-are-all-commercially-viable-patents-invalid/id=48642/ (quoting former Fed. Cir. Chief Judge Randall Rader, Comments at the 2013 American Intellectual Property Law Association Annual Meeting (Oct. 25, 2013)).

¹⁷⁴ Erich Spangenberg, *Patent Predictions for 2015*, IPNAV: BLOG (Dec. 31, 2014), http://www.ipnav.com/blog/erich-spangenbergs-patent-predictions-for-2015/ [https://perma.cc/XsN4-XQRG].

¹⁷⁵ Ryan Davis, *PTAB's "Death Squad" Label Not Totally Off-Base, Chief Says*, LAW360 (Aug. 14, 2014, 5:47 PM), http://www.law360.com/articles/567550/ptab-s-death-squad-label-not-totally-off-base-chief-says [https://perma.cc/7FXK-DCJ6].

¹⁷⁶ Sterne & Quinn, *supra* note 173. While Rob Sterne and Gene Quinn do not identify the "former top USPTO official," I heard John Whealan (former Deputy General Counsel for Intellectual Property Law and Solicitor at the PTO) make these same observations at the Center for American and International Law's 52nd Annual Conference on Intellectual Property Law on November 10, 2014 in Plano, Texas.

¹⁷⁷ Erica Teichert, *PTAB Says It's Not a "Death Squad" for Patents*, Law360 (Apr. 15, 2014), http://www.law360.com/articles/528519/ptab-says-it-s-not-a-death-squad-for-patents [https://perma.cc/ZM56-QZ6L] (citing the panel as saying "only a small fraction of patents under inter IPR end up being completely invalidated").

invalidate patent claims, but instead "approaches its decisions in a very neutral manner." Just a few months later, though, Judge Smith seemed to embrace the label explaining that if the PTAB was not "doing some 'death squadding,' [it] would not be doing what the [AIA] calls on [the PTAB] to do." In other words, words, Judge Smith proclaimed, the PTAB is simply doing what Congress intended.

Whether the PTAB is functioning as hoped is hard to say at this point. On the one hand, the PTAB is canceling a high percentage of challenged patent claims. On the other hand, the patents being invalidated may not be those targeted by the AIA. At least one study shows, for example, that most challenged patents are owned by operating companies, not Patent Assertion Entities ("PAEs") or trolls. What is more, anecdotal evidence suggests that some PTAB proceedings are initiated purely as a negotiation tactic or, even worse, to harass patent owners. The open question, then, is not whether enough but whether the "right" patent claims are being cancelled as a result of administrative review.

Nor is it clear if these new procedures are providing an efficient and inexpensive alternative to litigation as Congress intended. Thus far, the vast majority of PTAB proceedings have been initiated *after* an infringement suit was already filed. 183 Critics claim, therefore, that PTAB proceedings are complicating patent litigation, not streamlining it. 184 Although this argument has

¹⁷⁸ *Id*.

¹⁷⁹ Davis, *supra* note 175.

¹⁸⁰ See Love & Ambwani, supra note 169, at 100-01.

¹⁸¹ See Gregory J. Gonsalves, T.C. Beckett & Barry Leff, *Trends in* Inter Partes *Review and Covered Business Method Review*, INTELL. ASSET MGMT., Mar.-Apr. 2014, at 20, 20 (stating that sixty percent of IPR and CBM proceedings have been filed against patents owned by operating companies, while only twenty-five percent have been filed against those owned by PAEs).

¹⁸² See, e.g., Dolin, supra note 157, at 931-34 (discussing "rent seeking" abuses of PTAB proceedings). The PTO recently released a new set of proposed rules in an attempt to curb these abuses of the PGR system. See Jason N. Mock, Will New PTAB Rules Impact IPRs Filed by Kyle Bass Hedge Fund?, NAT'L L. REV. (Aug. 21, 2015), http://www.natlawreview.com/article/will-new-ptab-rules-impact-iprs-filed-kyle-bass-hedge-fund [https://perma.cc/2GC9-PRJS].

¹⁸³ See Love & Ambwani, supra note 169, at 103 (finding that in eighty percent of IPRs the challenged patent was also asserted in litigation between petitioner and respondent); Vishnubhakat, Rai & Kesan, supra note 172, at 69 ("[A]bout 86.8% of IPR- or CBM-challenged patents are also being litigated in federal courts."). Notably, current data focuses on IPRs and CBMs because only patents issued under the first-to-file system are subject to PGR. To date, only thirty-seven PGRs have been initiated. See U.S. PATENT & TRADEMARK OFFICE, supra note 166, 8-9 (citing the PTAB's trial statistics). With PGRs, however, it is less likely that the patent will be the subject of co-pending litigation since a PGR must be initiated within nine months of the patent's issuance. See 35 U.S.C. § 321 (2012).

¹⁸⁴ See, e.g., Dolin, supra note 157, at 947.

initial appeal, it is not that simple. The data indicate that courts usually stay litigation pending the outcome of PTAB review.¹⁸⁵ If the PTAB cancels one or more patent claims, the litigation will be simplified or even mooted. And even if the court denies a stay, the PTAB's decision could still influence co-pending litigation by narrowing the issues, encouraging settlement, or ending the litigation if the patents-in-suit are invalidated.¹⁸⁶

The bottom line is that it is too early to draw conclusions about either the merit or full implications of these new proceedings. While PTAB review may complicate patent litigation in the short term, perhaps the long-term effects will be different. There is some evidence, albeit speculative, that the mere possibility of PTAB review is discouraging patent owners from filing infringement suits in the first place. Recent studies show that patent infringement suits are on the decline; there was a thirteen percent decline in patent litigation in 2014 compared to the previous year, and an additional two percent decline in 2015. Several factors are likely contributing to this trend, but the threat of PTAB review may be key to this patent litigation decline. If that proves true,

¹⁸⁵ See Love & Ambwani, supra note 169, at 94 ("Litigation proceeding in parallel with an instituted IPR is stayed about 82 percent of the time.").

¹⁸⁶ Meaghan Hemmings Kent et al., *United States: 10 Reasons Every Defendant in Patent Litigation Should Consider Inter Partes Review*, Monday (Apr. 26, 2014), http://www.mondaq.com/unitedstates/x/309504/Patent/10+Reasons+Every+Defendant+in+Patent+Litigation+Should+Consider+Inter+Partes+Review [https://perma.cc/KLL8-Z9PG] ("The longer the patent owner waits to settle, the greater the risk that the PTAB will not terminate the proceeding, and may cancel the claims despite a request to terminate. Petitioners can use this time crunch to pressure the patent owner into earlier settlement in order to save the patent from IPR.").

¹⁸⁷ See Love & Ambwani, supra note 169, at 105 ("[F]or a substantial number of patents, [IPR] appears to act as a complete substitute for litigation."); Dennis Crouch, A Major Drop in Patent Infringement Litigation?, PATENTLY-O (Oct. 9, 2014), http://patentlyo.com/patent/2014/10/patent-infringement-litigation.html [https://perma.cc/Q4GY-63YR] (analyzing the forty percent drop in new patent litigation between October 2013 and October 2014); Richard Lloyd, Alice Decision a Big Reason for Sharp Fall in U.S. Patent Litigation, Says Mark Lemley, IAM (Oct. 9, 2014), http://www.iammagazine.com/blog/detail.aspx?g=dadf4dce-0f75-45dc-9339-dacb0f7bb465.

¹⁸⁸ CHRIS BERRY ET AL., PWC, 2015 PATENT LITIGATION STUDY 3 (2015) [hereinafter PWC STUDY 2015] (concluding that patent litigation declined in 2014 for the first time in five years). This decline, while significant, is not as steep as studies conducted earlier in the year indicated. See Brian Howard, September 2014 New Patent Case Filings Down 40% from September 2013, LexMachina (Oct. 8, 2014), https://lexmachina.com/2014/10/september-2014-new-patent-case-filings-40-september-2013/ [https://perma.cc/76S4-9EJ3] (finding that, as of September 2014, there were forty percent fewer new patent suits filed in federal court compared to 2013).

¹⁸⁹ Chris Berry et al., PWC, 2016 Patent Litigation Study 1 (2016).

then the PTAB proceedings would seem to be fulfilling at least one the AIA's aims: the reduction of patent litigation in federal court. ¹⁹⁰

Whatever future data may reveal, the fact is that administrative review—like district court litigation—has limited capacity to police patent validity. IPR, CBM, and PGR may cost less than traditional litigation, but they are still expensive and the "free rider" problem remains. ¹⁹¹ A petitioner who offensively challenges a patent at the PTO also runs the risk of being sued for infringement in federal court. ¹⁹² And while there are fewer procedural hurdles at the PTAB than in federal court, public interest organizations continue to be stymied in their efforts to challenge patents. In *Consumer Watchdog v. Wisconsin Alumni Research Foundation*, ¹⁹³ for example, a public interest organization initiated an IPR on patents related to human stem cells. ¹⁹⁴ After losing at the PTAB, Consumer Watchdog appealed to the Federal Circuit, as expressly permitted by statute. ¹⁹⁵ The Federal Circuit then raised the question of Article III standing sua sponte, ¹⁹⁶ and ultimately dismissed Consumer Watchdog's appeal, allowing the patent to survive. ¹⁹⁷

Since 1836, Congress has recognized the need to test the validity of already-issued patents. The means for challenging patents ex post have expanded over time, so that patent validity can now be challenged defensively or offensively, in federal court or at the PTO. Some critics believe that it's too easy now to challenge patents, ¹⁹⁸ while others argue an underenforcement problem persists. Without wading too deeply into that debate, this Article makes the point that *all* of those validity challenges—*all* of those enforcement decisions—are being made by private parties. Considering the substantial policy implications of patent validity challenges, at least some of those enforcement decisions should be made by regulators.

¹⁹⁰ See David O. Taylor, *Patent Misjoinder*, 88 N.Y.U. L. Rev. 652, 702 (2013) (identifying the reduction of patent litigation abuse as a goal of the AIA).

¹⁹¹ See Kent, et al., supra note 186 (estimating that PTAB proceedings cost between \$200,000 and \$750,000).

¹⁹² Indeed, only about thirteen percent of patents challenged at the PTAB are not already subject to litigation in federal court. *See* Vishnubhakat, Rai & Kesan, *supra* note 172, at 71. This suggests that private parties are equally reluctant to launch offensive validity challenges at the PTAB as they are through declaratory judgment actions in federal court. *See* La Belle, *supra* note 122, at 53 n.59 (citing studies finding that only between nine to fourteen percent of patent suits are declaratory judgment actions filed by accused infringers).

^{193 753} F.3d 1258 (Fed. Cir. 2014).

¹⁹⁴ *Id.* at 1260.

¹⁹⁵ 35 U.S.C. § 319 (2012) (stating that parties dissatisfied with PTAB decisions may appeal to the Federal Circuit).

¹⁹⁶ Consumer Watchdog, 753 F.3d at 1260.

¹⁹⁷ *Id.* ("Because Consumer Watchdog has not established an injury in fact sufficient to confer Article III standing, however, this court dismisses the appeal.").

¹⁹⁸ See generally Dolin, supra note 157.

III. THE PATENT ENFORCEMENT AGENCY

A commonly stated goal of private enforcement is to supplement the public resources available for discovering, deterring, and vindicating social harms. ¹⁹⁹ Whatever its deficiencies, private litigation is merely a gap-filler or a backstop in areas such as antitrust, securities, environmental, and civil rights, where robust public enforcement regimes exist. Yet private suits are the lone mechanism for policing validity of already-issued patents. There is no equivalent of the antitrust or civil rights division within the DOJ for patents. Nor does the PTO have an enforcement arm like the SEC or the EPA. Though agencies do play some role in patent litigation, it is limited and peripheral. ²⁰⁰ Thus, this Part of the Article sets out to explain the lack of—but need for—agency enforcement of patent validity, why the PTO is the right agency for the job, and how it could be implemented effectively.

A. The Current Lack of Public Enforcement of Patent Validity

There are several potential explanations for why our patent system currently lacks a public mechanism for enforcing patent validity ex post. First, the patent system and the PTO emerged at a different point in history than most other administrative agencies. The SEC, FTC, and many other agencies were created in the 1930s during the New Deal Era, and the EPA was established even later in the 1970s. The PTO, on the other hand, is a relic of the nineteenth century, a period before lawmakers had conceptualized the modern, multifunctional agency imbued with rulemaking, enforcement, and adjudicatory powers.²⁰¹ Stated differently, the powers held by these agencies—or the lack thereof—may simply be "a product of the time they came into existence."²⁰²

Another explanation for the lack of public validity enforcement is that courts mistakenly believed the government could only challenge patents based on fraud. This mistaken belief dates back to two late-nineteenth century decisions from the Supreme Court in disputes between the United States and the American Bell Telephone Company.²⁰³ In the first suit (*American Bell I*), the United States

²⁰³ See United States v. Am. Bell Tel. Co. (Am. Bell II), 167 U.S. 224, 261-69 (1897); United Sates v. Am. Bell Tel. Co. (Am. Bell I), 128 U.S. 315, 370-73 (1888).

¹⁹⁹ See, e.g., Bucy, supra note 77, at 12-13 (providing a brief overview of private justice in the United States).

²⁰⁰ See, e.g., Tejas N. Narechania, Patent Conflicts, 103 GEO. L.J. 1483, 1484-85 (2015) (discussing the image of the PTO as "removed from the practical uses" of the new inventions and discoveries they regulate); Jacob S. Sherkow, Administrating Patent Litigation, 90 WASH. L. REV. 205, 206-07 (2015) (arguing that the PTO has "largely disclaimed a role in reforming patent litigation" and that patent reform efforts have "largely ignored the variety of roles administrative agencies—especially agencies other than the PTO—play in patent litigation").

²⁰¹ See Masur, supra note 9, at 302-03 (explaining that the PTO was created during a period when the United States was "much smaller and economically less complex" and "regulatory agencies (as we understand them today) were essentially unknown").

²⁰² Id. at 303.

¹a. at 505.

sought to cancel two of American Bell's patents on the ground that defendants had defrauded the PTO.²⁰⁴ American Bell countered that the U.S. lacked the authority to bring such a suit, but the Supreme Court rejected that argument.²⁰⁵ In so doing, the Court relied on land patent cases holding that the government had the power not only to cancel patents based on fraud, but patents issued by mistake or error as well.²⁰⁶ The Supreme Court then remanded the case for a decision on the merits as to whether the patents-in-suit were in fact obtained through fraud.²⁰⁷

Almost a decade later, the Supreme Court decided another case in which the U.S. again sought to cancel one of American Bell's patents for fraud (*American Bell II*).²⁰⁸ The Court began its opinion by acknowledging that *American Bell I* established the government's right to maintain such a suit.²⁰⁹ The Court went on to explain:

[Suits] may be maintained by the Government in its own courts to set aside one of its patents, not only when it has a proprietary and pecuniary interest in the result, but also when it is necessary in order to enable it to discharge its obligations to the public 210

Ultimately, however, the government lost on the merits in *American Bell II* because it adduced insufficient evidence to prove the patent was obtained fraudulently.²¹¹

Though both the *American Bell I* and *American Bell II* decisions involved allegations of fraud, neither decision held that the government could only cancel patents when there was fraud. Still, for decades to come, that is how courts and commentators interpreted those two cases.²¹² Seemingly, this confusion should

²⁰⁴ Am. Bell I, 128 U.S. at 353. The patents were issued to Alexander Graham Bell and assigned to American Bell Telephone Co. The government sued both Bell and his company. *Id.* at 350.

²⁰⁵ *Id.* at 358 ("[Prior precedent] establish[es] the right of the United States to bring suits in its own courts to be relieved against fraud committed in cases of that class exactly similar to that charged in the present case.").

²⁰⁶ *Id.* at 365-68.

²⁰⁷ Id. at 373.

²⁰⁸ Am. Bell II, 167 U.S. at 242.

²⁰⁹ *Id.* at 237-38.

²¹⁰ Id. at 264.

²¹¹ *Id.* at 251-52.

²¹² See, e.g., United States v. Glaxo Grp. Ltd., 302 F. Supp. 1, 12-14 (D.D.C. 1969) (refusing to recognize a "dormant" power of the government to invalidate a patent on grounds other than fraud or deceit when defendant in an antitrust action has not asserted its patent as a defense to antitrust claims), rev'd, 410 U.S. 52 (1973); United States v. U.S. Gypsum Co., 53 F. Supp. 889, 895 (D.D.C. 1943), rev'd, 333 U.S. 364 (1948); Improperly Procured Patents: FTC Jurisdiction and Remedial Power, 77 HARV. L. REV. 1505, 1509 (1964) ("[I]t has long been held that the Justice Department has no standing to sue for cancellation of an invalid patent. Although it can procure cancellation of a patent fraudulently procured"

have ended in 1948 when the Supreme Court rejected such an interpretation in *United States v. U.S. Gypsum Co.* and allowed the government to attack a patent's validity.²¹³ In *Gypsum*, an antitrust suit, the Court reversed the lower court's decision that *American Bell I* and *American Bell II* precluded the government from attacking patents absent fraud.²¹⁴ The Court explained that the government should be able to challenge patent validity "because of the public interest in free competition," and stated that "it seems inadvisable to leave the [*American Bell* decisions] as a precedent."²¹⁵

Yet, even two decades after *Gypsum*, courts continued to bar the government from suing to cancel invalid patents. In *United States v. Glaxo Group Ltd.*, for example, the district court narrowly construed *Gypsum* to hold that the U.S. may only attack validity where the patent is raised in defense of an antitrust suit.²¹⁶ Thus, the district court reasoned, there are two exceptions to the general rule that the government cannot cancel patents: (1) fraud (*American Bell I* and *II*) and (2) to defend antitrust suits (*Gypsum*).²¹⁷ Because neither exception applied in *Glaxo*, the court rejected the government's attempt to invalidate the patents.²¹⁸

Although the Supreme Court reversed the district court's holding in *Glaxo* on appeal, the point remains that public challenges to patent validity were prohibited—or confined to a small subset of cases—for the better part of a century. Today, our patent system looks dramatically different than it did fifty years ago, except that we still lack a robust system for publicly policing alreadyissued patents.

B. The Need for Public Enforcement of Patent Validity

There was a time in the not-too-distant past when a consensus had been reached that patent validity was underenforced. Critics claimed there were too many bad patents, yet private parties were generally unwilling to invalidate patents.²²⁰ With the changes that the AIA wrought and the creation of the PTAB, however, some commentators argue that we now have an overenforcement

(footnote omitted)); Wm. Redin Woodward, A Reconsideration of the Patent System as a Problem of Administrative Law, 55 HARV. L. REV. 950, 956 (1942) ("[T]he public authority...cannot attack a patent on behalf of the public except in cases of fraud."); Note, Vulnerability of Patents to Attack in Anti-Trust Suits, 53 YALE L.J. 579, 579, 581-85 (1944) (discussing cases that held the government may not attack patent validity except for fraud).

²¹³ Gypsum, 333 U.S. at 388.

²¹⁴ *Id.* at 386-87.

²¹⁵ *Id.* at 387.

²¹⁶ Glaxo, 302 F. Supp. at 11-12.

²¹⁷ Id. at 11-12, 15.

²¹⁸ *Id.* at 15.

²¹⁹ United States v. Glaxo Grp. Ltd., 410 U.S. 52, 57-60 (1973).

²²⁰ See La Belle, supra note 22, at 64-67 (explaining disincentives that face private parties seeking to challenge a patent's validity in federal court).

problem.²²¹ Indeed, although the PTAB has been operational for just over four years,²²² legislation has been introduced to amend the AIA and to make it more difficult to challenge already-issued patents at the PTO.²²³

When the dust settles and the trends become clear again, I believe we will see that very little has actually changed as a result of these administrative proceedings. First, whether in federal court or at the PTO, parties are disincentivized from challenging patents because there is no monetary recovery and because the "free rider" problem remains. 224 Patent validity enforcement, therefore, is insulated from overdeterrence in a way that securities and antitrust enforcement are not. 225 Second, although there have been a higher-than-expected number of petitions for PTAB review, the vast majority of those have come in cases with parallel litigation. 226 In other words, there are not substantially more patents being challenged, they are simply being challenged in multiple venues. Finally, despite the high volume of petitions, a substantial portion of IPRs will settle or be dismissed without the PTAB making a validity determination, allowing those patents to remain intact. 227

But even assuming for argument's sake that there are too many private validity challenges, there remains an acute need for regulatory action in this area. Enforcement decisions are an integral part of agency policymaking.²²⁸ Agencies

²²¹ See, e.g., Ryan Davis, Innovation Act Would Revamp AIA Reviews to Shield Patents, Law360 (Feb. 10, 2015, 8:07 PM), http://www.law360.com/articles/620442/innovation-act-would-revamp-aia-reviews-to-shield-patents [https://perma.cc/SZ4E-XR4R] (explaining legislative reform bill that would restrict PTAB's use of the broadest-reasonable-interpretation standard when reviewing patents).

²²² See Changes to Implement Inter Partes Review Proceedings, Post-Grant Review Proceedings, and Transitional Program for Covered Business Method Patents, 77 Fed. Reg. 48,680, 48,680 (Aug. 14, 2012) (noting an effective date of September 16, 2012 for the PTO regulations implementing the AIA).

²²³ See Innovation Act, H.R. 9, 114th Cong. § 9 (2015) (changing the claim construction standard for IPR and PGR); Support Technology & Research for Our Nation's Growth (STRONG) Act, S. 632, 114th Cong. §§ 102-103 (2015) (same).

²²⁴ See supra Part II (discussing how parties are reluctant to launch patent challenges because competitors get a "free ride" if the patent is invalidated).

²²⁵ See, e.g., Stephenson, supra note 40, at 127-43 (discussing the overenforcement problem in other private litigation regimes).

²²⁶ Love & Ambwani, *supra* note 169, at 103-05 ("[I]n 80 percent of IPRs, the challenged patent was also asserted in litigation between the petitioner and respondent.").

²²⁷ See id. at 97 n.19 ("An IPR can terminate in one of four ways: settlement, a decision not to institute the petition, a final written decision from the PTAB, or a request for adverse judgment from the patentee.").

²²⁸ See Zachary S. Price, Enforcement Discretion and Executive Duty, 67 VAND. L. REV. 671, 685 (2014) ("Recent presidential administrations, indeed, have repeatedly relied on enforcement discretion as a tool of policymaking."); Catherine Y. Kim, Presidential Control Across Agency Policymaking Forms, at 20 (U.N.C. Legal Studs. Res. Paper No. 2571068, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2571068##

set policies and then carry them out, at least in part, through enforcement actions. By exercising enforcement discretion in some circumstances, but refraining in others, agencies can shape the law and move it in a particular direction. ²²⁹ In the patent context, there are agencies tasked with establishing innovation policy—primarily the PTO—but no agency implements that policy through ex post enforcement. ²³⁰ While the PTO's ex ante review reflects the agency's policies to some degree, ²³¹ given how long patents remain in force, and that validity requirements change, the agency's lack of involvement post-issuance is troubling.

Several recent cases illustrate why public enforcement of patent validity is normatively justified. The Supreme Court has been very active in patent law in the past decade. As had been its practice historically, the Court reviewed many patent cases involving difficult procedural questions, including standing, subject matter jurisdiction, and burdens of proof.²³² Yet the Court has also weighed in on several matters that go to the heart of patent law, including § 101's standard

[https://perma.cc/3UNT-NC7C] ("Agencies . . . possess a range of policymaking tools at their disposal—including rulemaking, the issuance of guidance documents, and the strategic exercise of enforcement discretion").

²²⁹ See, e.g., Adam B. Cox & Cristina M. Rodríguez, *The President and Immigration Law Redux*, 125 YALE L.J. 104, 126 (2015) (describing the interplay between enforcement strategies and congressional momentum towards more finely-tuned legal regimes); Sachin S. Pandya & Peter Siegelman, *Underclaiming and Overclaiming*, 38 LAW & SOC. INQUIRY 836, 850 (2013) (discussing an enforcement strategy that emphasizes efforts to clarify or overturn a legal decision standard).

²³⁰ Several commentators have noted that the Federal Circuit is the primary expositor of patent law, and in that way acts more like an agency than an Article III court. *See, e.g.*, Burstein, *supra* note 9, at 1756-57 ("From the perspective of administration, . . . the two most salient features of the patent system are its reliance on case-by-case adjudication to resolve policy questions in the interstices of the Patent Act and the delegation of that responsibility primarily to the courts rather than to an agency."); Sapna Kumar, *The Accidental Agency?*, 65 FLA. L. REV. 229, 231-32 (2013) ("By reviewing patent agency decisions heavy-handedly, the Federal Circuit has acted like the head of an agency reining in wayward administrative law judges."); Jonathan Masur, *Patent Inflation*, 121 YALE L.J. 470, 500-02 (2011) (describing the unique stake the Federal Circuit has in decisions regarding patent policy); Ryan Vacca, *Acting Like an Administrative Agency: The Federal Circuit En Banc*, 76 Mo. L. REV. 733, 733 (2011) (arguing that certain Federal Circuit practices are akin to the substantive rulemaking undertaken by administrative agencies).

²³¹ See supra Part II (discussing special review programs the PTO has put into place with respect to certain types of patents).

²³² See, e.g., Medtronic, Inc. v. Mirowski Family Ventures, LLC, 134 S. Ct. 843, 846 (2014); Gunn v. Minton, 133 S. Ct. 1059, 1068 (2013); Microsoft Corp. v. i4i Ltd. P'ship, 564 U.S. 91, 95 (2011); MedImmune, Inc. v. Genentech, Inc., 549 U.S. 118, 120 (2007).

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for patentable subject matter,²³³ obviousness under § 103,²³⁴ and definiteness of claim scope as set forth in § 112.²³⁵

There is no doubt that these cases have critically impacted innovation policy in general, and the PTO's policy in particular. *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.* and *Alice Corp. v. CLS Bank International* are prime examples. In *Myriad*, the Supreme Court held that isolated DNA sequences fell outside the scope of patentable subject matter.²³⁶ This was a major shift away from the PTO's long-standing policy of granting patents for such inventions.²³⁷ The *Myriad* decision, and the PTO's response to it, has upended the biotechnology industry. Beginning only hours after the Court issued the opinion in *Myriad*, the PTO published guidance on how patent-eligibility would be assessed, and has provided several different iterations since then.²³⁸ Biotechnology companies have complained about the guidance, claiming that it goes beyond what the Court decided in *Myriad* and is causing the PTO to reject biotech patents "left and right."²³⁹ The agency has continued to tweak its

²³³ See, e.g., Alice Corp. v. CLS Bank Int'l, 134 S. Ct. 2347, 2352 (2014) ("We hold that the claims at issue are drawn to the abstract idea of intermediated settlement, and that merely requiring generic computer implementation fails to transform that abstract idea into a patent-eligible invention."); Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 133 S. Ct. 2107, 2111, 2114 (2013) ("[W]e hold that a naturally occurring DNA segment is a product of nature and not patent eligible merely because it has been isolated "); Mayo Collaborative Servs. v. Prometheus Labs., Inc., 132 S. Ct. 1289, 1294 (2012) (holding that a process for determining proper drug dosage levels did not "transform[] . . . unpatentable natural laws into patent-eligible applications of those laws"); Bilski v. Kappos, 561 U.S. 593, 609 (2010) (rejecting for alternative reasons a patent claim for a process used to hedge transaction risk).

²³⁴ See KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 407, 415-22 (2007) (determining that § 103 was inconsistent with a test for obviousness adopted by the Federal Circuit in the proceedings below).

²³⁵ See Nautilus, Inc. v. Biosig Instruments, Inc., 134 S. Ct. 2120, 2124 (2014) ("This case...concerns the proper reading of [§ 112's] clarity and precision demand.").

²³⁶ See Myriad, 133 S. Ct. at 2111 (justifying the rejection of the patent claim based on prior precedent limiting the granting of patent rights for products of nature).

²³⁷ Ass'n of Molecular Pathology v. U.S. Patent & Trademark Office, 689 F.3d 1303, 1343 (Fed. Cir. 2012) (Moore, J., concurring) ("I believe we must be particularly wary of expanding the judicial exception to patentable subject matter where both settled expectations and extensive property rights are involved."), *aff'd in part, rev'd in part sub nom.* Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 133 S. Ct. 2107 (2013).

²³⁸ Jason Rantanen, *Myriad: The PTO's Preliminary Guidance*, PATENTLY-O (June 14, 2013), http://patentlyo.com/patent/2013/06/myriad-the-ptos-preliminary-guidance.html [https://perma.cc/3L2T-DJLV].

²³⁹ See Austin Donohue, BIO Submits Comments on "Myriad" PTO Patent Guidance, BIOTECHNOW (Aug. 6, 2014), http://www.biotech-now.org/public-policy/patently-biotech/2014/08/bio-submits-comments-on-myriad-pto-patent-guidance [https://perma.cc/BTG7-6R9B].

guidance in response to court decisions and comments from stakeholders, but there is still substantial uncertainty in this area.²⁴⁰

Turning to Alice, the Supreme Court held that the computer-implemented method at issue in that case was not patent-eligible subject matter.²⁴¹ Alice's impact is far reaching, as Judge Moore predicted it would be in the decision below.²⁴² Since the Court issued its decision in June 2014, lower courts have invalidated numerous software patents.²⁴³ And many courts are striking down these patents very early in the proceedings (i.e., on a motion to dismiss or a motion for judgment on the pleadings) before the court conducts claim construction.²⁴⁴ Indeed, some have speculated that *Alice* and the threat of early invalidation are partly responsible for the recent drop in patent litigation. ²⁴⁵ Only time will tell the full implications of this decision.

Whatever one thinks about the merits of Myriad and Alice, their significance to innovation policy is beyond dispute. Yet, no government agency participated in the decision to challenge these patents. Nor were regulators consulted about enforcement strategy, at least not in the early stages of the suit.²⁴⁶

²⁴⁰ See John T. Aquino, Attorneys Tell PTO of Patent Eligibility Uncertainty, BLOOMBERG L. 15. 2015). http://www.bna.com/attorneys-tell-pto-n17179936061/ (Sept. [https://perma.cc/TF9K-K5TV] (noting the effect of uncertainty as to § 101 eligibility determinations on the likelihood that companies will file for patents).

²⁴¹ Alice Corp. v. CLS Bank Int'l, 134 S. Ct. 2347, 2352 (2014).

²⁴² CLS Bank Int'l v. Alice Corp., 717 F.3d 1269, 1313 (Fed. Cir. 2013) (Moore, J., dissenting) ("[I]f all of these claims, including the system claims, are not patent-eligible, this case is the death of hundreds of thousands of patents, including all business method, financial system, and software patents as well as many computer implemented and telecommunications patents."), aff'd, 134 S. Ct. 2347 (2014).

²⁴³ See, e.g., Brian J. Love, Bad Actors and the Evolution of Patent Law, 101 VA. L. REV. ONLINE 1, 11 n.42 (2015) ("As of Oct. 20, 2014, 18 courts have directly relied upon Alice in deciding whether claims were invalid under § 101.... Of those, 14 decisions invalidated claims by applying Alice." (quoting Brian McCall, Lessons from 4 Months of Post-Alice Law360 (Oct. 31, 2014, 10:18 Decisions, AM), http://www.law360.com/articles/590465/lessons-from-4-months-of-post-alice-decisions [https://perma.cc/JZN4-NEV9])).

²⁴⁴ McCall, *supra* note 243 (presenting figures on judgments rendered at various procedural postures).

²⁴⁵ See PWC STUDY 2015, supra note 188, at 2 (stating that the thirteen percent fall in the number of patent lawsuits filed in 2014 was "[d]riven by Alice Corp. v. CLS Bank, which raised the bar for patentability and enforcement of software patents"); Dennis Crouch, A Major Drop in Patent Infringement Litigation?, PATENTLY-O (Oct. 9, 2014), http://patentlyo.com/patent/2014/10/patent-infringement-litigation.html [https://perma.cc/S9BM-NFAQ] (suggesting that Alice is one factor in the recent decline in infringement complaints filed).

²⁴⁶ The PTO and other agencies are involved in patent litigation, generally through amicus briefs or Call for Views of the Solicitor General, but that usually happens when the case is on appeal to the Federal Circuit or the Supreme Court. See, e.g., Brief for United States as Amicus Curiae Supporting Neither Party at 11, Ass'n for Molecular Pathology v. Myriad

Administrators, who should be the ones setting patent law policy, instead find themselves reacting and responding to policies created by private parties and the courts. The recent turmoil within our patent system suggests the need for sound policymaking, and putting a well-designed public enforcement mechanism in place is an important part of that effort.

C. Patent Validity Challenges and Institutional Choice

If we need a public patent enforcer, which agency should it be? This Article has focused primarily on the PTO and, at the end of the day, I believe the PTO is best situated to lead this effort. That said, there are other agencies that operate in the patent space—namely the FTC and the DOJ—that deserve consideration.²⁴⁷

1. FTC

The FTC, which celebrated its 100th anniversary last year, is an independent agency with a dual mission of protecting consumers and promoting competition.²⁴⁸ Specifically, Section 5 of the Federal Trade Commission Act ("FTC Act") proscribes "[u]nfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce."²⁴⁹ The FTC wields various tools to carry out this charge, including the power to conduct investigations, initiate enforcement actions, adjudicate violations, and educate consumers and businesses about their rights and responsibilities.²⁵⁰ Although the FTC's power is strongest when antitrust laws

Genetics, Inc., 133 S. Ct. 2107 (2013) (No. 12-398) ("The public's ability to study and use native DNA would be unduly compromised if changes caused by the extraction of naturally-occurring substances from their native environments were sufficient to trigger patent-eligibility.").

²⁴⁷ The ITC also plays an important role in patent law today. The ITC is charged with hearing complaints arising under Section 337 of the Tariff Act of 1930. *See generally* U.S. INT'L TRADE COMM'N, PUB. NO. 4105, SECTION 337 INVESTIGATIONS: ANSWERS TO FREQUENTLY ASKED QUESTIONS 1 (2009), https://www.usitc.gov/intellectual_property/documents/337_faqs.pdf [https://perma.cc/4GCT-4CXH]. Section 337 forbids "[t]he importation into the United States, the sale for importation, or the sale within the United States after importation . . . of articles that . . . infringe a valid and enforceable United States patent" 19 U.S.C. § 1337 (2012). In enforcing section 337, the ITC, like federal courts, decides questions of patent infringement and validity. However, because the ITC's jurisdiction and expertise is limited to

international trade, it would not be the best agency to enforce patent validity.

²⁴⁸ *About the FTC*, FED. TRADE COMM'N, https://www.ftc.gov/about-ftc/what-we-do [https://perma.cc/AXR4-J48Q] (last visited Sept. 22, 2016).

²⁴⁹ 15 U.S.C. § 45(a)(1) (2012).

²⁵⁰ See id. §§ 45(b), 46(a)-(f).

are implicated, the definition of unfair trade practices is broad and extends beyond the contours of the Sherman and Clayton Acts.²⁵¹

In light of the fact that invalid patents hamper competition and harm consumers, ²⁵² the FTC seems a natural choice for a patent enforcement agency. The FTC has played an active role in patent litigation for the past fifteen or so years, particularly in the pharmaceutical area. ²⁵³ For starters, the FTC has published multiple studies on the anti-competitive effects of "reverse payment" or "pay-for-delay" settlements, whereby branded pharmaceutical companies pay generics to keep their drugs off the market. ²⁵⁴ More to the point, the FTC has been suing firms that enter into these types of agreements since the early 2000s, arguing that they unreasonably restrain trade and harm the public by reducing the availability of generic drugs. ²⁵⁵ While suffering some early setbacks, the

²⁵¹ FTC v. Brown Shoe Co., 384 U.S. 316, 321 (1966) (noting that the FTC may declare unfair acts and practices that contravene the underlying purposes of the Sherman and Clayton Acts); Chuck's Feed & Seed Co. v. Ralston Purina Co., 810 F.2d 1289, 1292-93 (4th Cir. 1987) ("[T]he FTC Act functions as a kind of penumbra around the federal antitrust statutes."); Thomas F. Cotter, *Comparative Law and Economics of Standard-Essential Patents and FRAND Royalties*, 22 TEX. INTELL. PROP. L.J. 311, 328 (2014) (citing Statement of the Federal Trade Commission 1-2, Robert Bosch GmbH, FTC File No. 121-0081, No. C-4377 (Apr. 24, 2013),

http://www.ftc.gov/os/caselist/1210081/121126boschcommissionstatement.pdf [https://perma.cc/EUV8-G6RT]).

²⁵² See, e.g., Shubha Ghosh, Beyond Hatch-Waxman, 67 RUTGERS U. L. REV. 779, 801 (2015) (outlining the negative consequences of invalid patents); Leslie, supra note 93, at 103-04 (arguing that invalid patents create barriers to entry, engender a fear of litigation, stymie consumption and business partnerships, and distort innovation).

²⁵³ See Roundtable Conference with Enforcement Officials, ANTITRUST SOURCE, June 2015, at 1, 22 [hereinafter Roundtable Conference] (statement of Edith Ramirez, Chairwoman, Fed. Trade Comm'n) (stating that the FTC has been focused on the pay-fordelay problem "for a very long time"); see also Sherkow, supra note 200, at 220-27 (detailing instances in which the FTC has been involved in patent enforcement actions in federal courts).

²⁵⁴ Fed. Trade Comm'n, Pay-For-Delay: How Drug Company Pay-Offs Cost

CONSUMERS BILLIONS 1-2 (2010), https://www.ftc.gov/sites/default/files/documents/reports/pay-delay-how-drug-company-pay-offs-cost-consumers-billions-federal-trade-commission-staff-

study/100112payfordelayrpt.pdf [https://perma.cc/W74J-N23V]; FED. TRADE COMM'N, GENERIC DRUG ENTRY PRIOR TO PATENT EXPIRATION: AN FTC STUDY, at i-xi (2002), https://www.ftc.gov/sites/default/files/documents/reports/generic-drug-entry-prior-patent-expiration-ftc-study/genericdrugstudy_0.pdf [https://perma.cc/K3JD-PFMD]. The FTC also published a study on the creation of an abbreviated marketing approval pathway for follow-on biologics similar to the scheme used for pharmaceuticals. *See* FED. TRADE COMM'N, EMERGING HEALTH CARE ISSUES: FOLLOW-ON BIOLOGIC DRUG COMPETITION, at ii-iii (2009), https://www.ftc.gov/sites/default/files/documents/reports/emerging-health-care-issues-follow-biologic-drug-competition-federal-trade-commission-

report/p083901biologicsreport.pdf [https://perma.cc/2KLN-VUDL].

²⁵⁵ See, e.g., Decision and Order, Abbott Labs., No. C-3945 (May 22, 2000),

FTC earned a huge victory in 2013 when the Supreme Court decided in FTC v. Actavis, Inc. 256 that reverse payment settlements are not immune from antitrust attack. 257 Even after Actavis, the FTC has continued its efforts in this area, for example by challenging agreements where the branded company makes a noncash payment in exchange for the generic to stay off the market. 258

Though the FTC has focused on pharmaceutical patents and reverse payment settlements, it has been involved in other aspects of patent law policy too. With the Internet boom came complaints from technology companies about the difficulty of identifying and assessing the validity of potentially relevant patents. ²⁵⁹ In the late 1990s, the FTC held hearings and issued a report addressing the relationship among competition, innovation, and patents. ²⁶⁰ The Commission followed up with a later report concluding that poor quality patents can impede innovation. ²⁶¹ These studies made recommendations—such as the creation of a post-grant review system—that ultimately became law with the AIA. ²⁶² Even after the AIA, the FTC's concern with patent quality has persisted.

https://www.ftc.gov/sites/default/files/documents/cases/2000/05/c3945.do_.htm [https://perma.cc/4DVJ-43H4] (ordering respondent to "cease and desist... from being a party to any Agreement in which . . . the [New Drug Application] Holder provides anything of value to the alleged infringer and the alleged infringer agrees to refrain during part or all of the course of the litigation from selling the Drug Product at issue "); Complaint, Hoechst Marion Roussel. Inc., No. 9293 (Mar. 16. https://www.ftc.gov/sites/default/files/documents/cases/2000/03/hoechstandrxcomplaint.htm [https://perma.cc/C5KC-W7Y3] (asserting that FDA approval of a generic version of a cardiovascular drug was "blocked"); Schering-Plough Corp., 136 F.T.C. 956, 1061 (Dec. 8, 2003) ("We have found that the agreements were unreasonable restraints of trade because they were likely to cause consumer harm that outweighed any associated pro-consumer efficiencies.").

²⁵⁶ 133 S. Ct. 2223 (2013).

²⁵⁷ *Id.* at 2227.

²⁵⁸ See Roundtable Conference, supra note 253, at 22 (discussing the FTC's case against AbbVie, Inc.).

²⁵⁹ See Mozelle W. Thompson & Susan Stark DeSanti, *Foreword*, 19 BERKELEY TECH. L.J. 857, 859 (2004) (calling attention to 2001 FTC hearings in which consensus was reached that reducing the number of "questionable" patents would be beneficial).

²⁶⁰ See generally Fed. Trade Comm'n, Anticipating the 21st Century: Competition Policy in the New High-Tech, Global Marketplace (1996), https://www.ftc.gov/system/files/documents/reports/anticipating-21st-century-competition-policy-new-high-tech-global-marketplace/gc_v1.pdf [https://perma.cc/8NP7-KMZR].

 $^{^{261}}$ Fed. Trade Comm'n, To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy 5 (2003), https://www.ftc.gov/sites/default/files/documents/reports/promote-innovation-proper-balance-competition-and-patent-law-and-policy/innovationrpt.pdf [https://perma.cc/29G5JRXQ] ("Poor patent quality and legal standards and procedures that inadvertently may have anticompetitive effects can cause unwarranted market power and can unjustifiably increase costs.").

²⁶² Leahy-Smith America Invents Act, Pub. L. No. 112-29, sec. 7, § 6, 125 Stat. 284, 313

In 2015, for instance, the Commission submitted joint comments with DOJ regarding the PTO's Enhanced Patent Quality Initiative, making specific recommendations on how to improve the process for granting patents.²⁶³

The FTC has also taken an interest in standard-essential patents ("SEPs") because of their arguably anticompetitive and unfair effects on the market. SEPs are patents that have been declared "essential" to implementing some technological standard, and therefore must be licensed on fair, reasonable and nondiscriminatory ("FRAND") terms. 264 In many cases, however, there is a dispute between the patent owner and potential licensees about what FRAND means. 265 The FTC closely monitors SEPs and FRAND-based licensing, which potentially eliminate competition between market rivals. 266 The FTC has likewise weighed in on the topic of "patent hold up"—a situation in which a patent owner uses the threat of an injunction as "a club to . . . enhance his negotiating stance." 267 The FTC is particularly troubled by this practice arising in the SEP context where patent owners have committed to FRAND licenses. Just a few years ago, for example, the FTC brought enforcement actions against companies that attempted to obtain injunctive relief for infringement of SEPs, including Google and its subsidiary, Motorola. 268

(2011); see also Symposium, Panel I: Do Overly Broad Patents Lead to Restrictions on Innovation and Competition?, 15 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 947, 996-97 (2005) (identifying practical barriers that prevented parties from challenging the validity of patents prior to the AIA).

²⁶³ See Aarti Shah & Dionne Lomax, FTC and DOJ: The PTO's Efforts to Enhance Patent Quality Will Promote Competition, Innovation, and Consumer Welfare, GLOB. IP MATTERS (May 7, 2015), http://www.globalipmatters.com/2015/05/07/ftc-and-doj-the-ptos-efforts-to-enhance-patent-quality-will-promote-competition-innovation-and-consumer-welfare [https://perma.cc/4JFT-FT2X]. See *infra* Section III.D for further discussion of the PTO's Enhanced Patent Quality Initiative.

²⁶⁴ See Jorge L. Contreras, Fixing FRAND: A Pseudo-Pool Approach to Standards-Based Patent Licensing, 79 ANTITRUST L.J. 47, 50-52 (2013) (defining SEPs and explaining why FRAND-based commitments are instituted by standards-development organizations).

²⁶⁵ See, e.g., Microsoft Corp. v. Motorola, Inc., No. C10-1823JLR, 2013 WL 2111217, at *1 (W.D. Wash. Apr. 25, 2013) (determining "reasonable and non-discriminatory" terms for a standards-essential patent), *aff'd*, 795 F.3d 1024 (9th Cir. 2015).

²⁶⁶ See Edith Ramirez, Chairwoman, Fed. Trade Comm'n, Standard-Essential Patents and Licensing: An Antitrust Enforcement Perspective, Address at the 8th Annual Georgetown University Law Center Global Antitrust Enforcement Symposium 4 (Sept. 10, 2014), https://www.ftc.gov/system/files/documents/public_statements/582451/140915georg etownlaw.pdf [https://perma.cc/8C5D-ZRHV] ("Where a licensing agreement harms competition by, for example, eliminating close competition between product or technology market rivals, or harming the incentives of licensees to develop complementary technologies without legitimate justification, the FTC will act.").

²⁶⁷ Foster v. Am. Mach. & Foundry Co., 492 F.2d 1317, 1324 (2d Cir. 1974).

²⁶⁸ Motorola Mobility LLC, 156 F.T.C. 147, 148 (July 23, 2013) (asserting that respondents violated FRAND commitments and predicting harm to consumers by way of

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Last but not least, the FTC has been involved in the debate over PAEs and demand letters.²⁶⁹ The FTC indicated initial interest in these topics when it published a report in 2011 titled *The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition*.²⁷⁰ The FTC is currently conducting a follow-up study "to develop a better understanding of how PAEs may impact innovation and competition."²⁷¹ In a similar vein, the FTC has focused attention on patent owners who send demand letters to large numbers of alleged infringers threatening to sue if they are not paid.²⁷² The Commission launched an investigation against MPHJ Technology, an infamous patent troll that sent out 9000 demand letters to small businesses throughout the country for allegedly infringing its patent on scanning technology.²⁷³ And though unlikely to pass anytime soon, legislation has been introduced that would make the FTC's power to regulate demand letters explicit.²⁷⁴

excluding products or raising prices); Robert Bosch GmbH, 155 F.T.C. 713, 719 (Apr. 23, 2013) (alleging that company's refusal to license on FRAND terms a patent essential for compliance with standards set for refrigerants constitutes a violation of the FTC Act). More recently, however, the FTC's policy on these issues has become muddled. *See infra* notes 288-89 and accompanying text.

²⁶⁹ See, e.g., Press Release, FTC Testifies on Patent Assertion Entities and Legislation to Prohibit Deceptive Patent Demand Letters (May 22, 2014), https://www.ftc.gov/news-events/press-releases/2014/05/ftc-testifies-patent-assertion-entities-legislation-prohibit [https://perma.cc/2PZH-KD7P] (summarizing the agency's position as conveyed in congressional testimony).

²⁷⁰ FED. TRADE COMM'N, THE EVOLVING IP MARKETPLACE: ALIGNING PATENT NOTICE AND REMEDIES WITH COMPETITION 9 (2011), https://www.ftc.gov/sites/default/files/documents/reports/evolving-ip-marketplace-aligning-patent-notice-and-remedies-competition-report-federal-trade/110307patentreport.pdf [https://perma.cc/EYD4-58YE] ("Even if PAEs arguably encourage invention, they can deter innovation by raising costs and risks without making a technological contribution.").

²⁷¹ Patent Assertion Entities (PAE) Study, FED. TRADE COMM'N, https://www.ftc.gov/policy/studies/patent-assertion-entities-pae-study [https://perma.cc/K5NS-N5J3] (last visited Sept. 22, 2016); see also Kristen Osenga, Sticks and Stones: How the FTC's Name-Calling Misses the Complexity of Licensing-Based Business Models, 22 GEO. MASON L. REV. 1001, 1007-08 (2015) (discussing the details of the FTC's current PAE study).

²⁷² See, e.g., Paul R. Gugliuzza, *Patent Trolls and Preemption*, 101 VA. L. REV. 1579, 1635-36 (2015) (summarizing the FTC's investigation of and action against MPHJ Technology).

²⁷³ See Joe Mullin, FTC Ends First Case Against a "Patent Troll" with a Slap on the Wrist, ARS TECHNICA (Nov. 7, 2014, 2:30 PM), http://arstechnica.com/tech-policy/2014/11/ftc-ends-first-case-against-a-patent-troll-with-a-slap-on-the-wrist/ [https://perma.cc/EX7N-84LN] (outlining the case against MPHJ Technology and summarizing the policy climate surrounding the issue of patent trolls).

²⁷⁴ See Gene Quinn & Steve Brachmann, Demand Letter Legislation Must Be Narrowly Tailored, IPWATCHDOG.COM (Mar. 4, 2015), http://www.ipwatchdog.com/2015/03/04/demand-letter-legislation-must-be-narrowly-

In short, the FTC has gained substantial expertise over the past two decades that would serve it well as a patent enforcement agency. Where the Commission's efforts in the patent arena were once rebuffed due to lack of experience,²⁷⁵ it is now a key player in innovation policy.²⁷⁶ Another factor favoring the FTC is that, as an independent agency, it should be more insulated from political pressure.²⁷⁷ The decision to challenge a patent (or a class of patents) may have serious implications for certain industries, and thus will be politically charged. Because the purpose of such enforcement actions would be to promote social welfare—much like proceedings under Section 5 of the FTC Act—the less outside influence on the decisionmaker, the better.²⁷⁸ Not only is the FTC designed to withstand political pressure, but it has also already proven a willingness to take some "heat" by confronting major players in both the pharmaceutical and high technology sectors regarding their patent practices.²⁷⁹ Finally, the FTC has deep investigatory and prosecutorial expertise on which it could rely if tasked with policing invalid patents.

Despite its many strengths, there are potential downsides to selecting the FTC for this role. First and foremost, the FTC lacks the right type of patent law experience. While the Commission has participated in myriad patent litigation matters in recent years, it simply does not practice substantive patent law. 280 The

tailored/id=55365/ (explaining how the STRONG Patents Act would impact the FTC's ability to successfully sue patent trolls).

²⁷⁵ See Stephen Nagin, Federal Trade Commission Tries Its Hand at Patent Law with Disastrous Results, PAT. STRATEGY & MGMT., Oct. 2002, at 5-6 (opining that the FTC's failed tactics in a patent case demonstrates its "lack of trial skill in patent infringement"); Laura J. Robinson, Analysis of Recent Proposals to Reconfigure Hatch-Waxman, 11 J. INTELL. PROP. L. 47, 63 (2003) (remarking that critics blamed the FTC's failure in a patent infringement case on "lack of experience").

²⁷⁶ See, e.g., Jeremy W. Bock, Neutral Litigants in Patent Cases, 15 N.C. J.L. & TECH. 233, 289 (2014) ("[T]he FTC issued authoritative reports in 2003 and 2011 analyzing innovation policy " (footnotes omitted)); Kali N. Murray, The Cooperation of Many Minds: Domestic Patent Reform in a Heterogeneous Regime, 48 IDEA 289, 313-14 (2008) ("Congress has recently strengthened the FTC's 'expertise' role in patent law.").

²⁷⁷ FCC v. Fox Television Stations, Inc., 556 U.S. 502, 547 (2009) (Breyer, J., dissenting) (stating that independent agencies are designed to be insulated from political oversight); see also William E. Kovacic & Marc Winerman, The Federal Trade Commission as an Independent Agency: Autonomy, Legitimacy, and Effectiveness, 100 IOWA L. REV. 2085, 2086-87 (2015) (explaining that the FTC's commissioners have "fixed, seven-year terms and that a commissioner could be removed during his or her term only for cause").

²⁷⁸ See generally Nina A. Mendelson, Disclosing "Political" Oversight of Agency Decision Making, 108 MICH. L. REV. 1127 (2010) (discussing political pressures on agency action).

²⁷⁹ See supra Section III.C (discussing the FTC's enforcement actions against Abbott Labs, Schering-Plough, and Google, among others).

²⁸⁰ See Gregory Dolin, Reverse Settlements as Patent Invalidity Signals, 24 HARV. J.L. & TECH. 281, 304 (2011) (stating that the FTC has "little understanding of—or interest in—the

FTC is not well versed in doctrines like patentable subject matter, novelty, obviousness, and indefiniteness—any of which could be the grounds for an invalidity challenge. Its focus, instead, has been on narrow categories of patents: pharmaceutical patents that are the subject of reverse payment agreements; SEPs that are the subject of requests for injunctive relief; and patents asserted by PAEs against a large number of alleged infringers. While the FTC's efforts with respect to these patents are laudable, there are other problematic patents threatening consumers.

The FTC has also been criticized for painting with too broad a brush and not appreciating the nuances among industries in how they view, procure, utilize, and commercialize patents. The FTC's approach to standard setting organizations ("SSOs") and patent hold-up is a good example. The Telecommunications Industry Association ("TIA"), a leading standards organization for wireless technologies, pronounced that it has never received complaints about patent hold-up, and believes "the FTC is presuming that 'patent hold-up' is a widespread and fundamental problem, without considering the practical experiences of SSOs such as TIA." The American National Standards Institute similarly stated that it has received very few reports of patent hold-up problems. More recently, skeptics—including former FTC Commissioner Joshua Wright—claim that the empirical studies conducted so far suggest that patent hold-up with SSOs is simply not a systematic problem. 283

This provides a good segue into a discussion of another factor that should give pause about the FTC: it is not as politically insulated as one might hope.²⁸⁴ Like other independent agencies, the FTC has never been completely isolated from the political process.²⁸⁵ But as an agency's power grows, so does the potential

intricacies of patent law"); John M. Golden, *Patentable Subject Matter and Institutional Choice*, 89 Tex. L. Rev. 1041, 1098 (2011) ("Although the FTC has shown a capacity to influence patent-law developments by holding hearings or issuing reports, the FTC has not sought to demonstrate expertise in crafting specific patent-law doctrine." (footnote omitted)).

²⁸¹ Letter from the Telecomms. Indus. Ass'n to the Fed. Trade Comm'n 4 (June 14, 2011), https://www.tiaonline.org/gov_affairs/fcc_filings/documents/TIA%20Comment%20 to%20FTC%20-%20Standard-Setting%20Competition%20Issues%20FINAL.pdf [https://perma.cc/DFV2-UCY5].

 282 Response from the Am. Nat'l Standards Inst. 12 (June 10, 2011), $https://www.ftc.gov/sites/default/files/documents/public_comments/request-comments-and-announcement-workshop-standard-setting-issues-project-no.p111204-00006% C2% A0/00006-60456.pdf [https://perma.cc/GQM6-FT5W].$

²⁸³ See Matthew Newman, "Hold-Up" Cases Against Patent Holders Lack "Systematic" Economic Evidence, Wright Says, MLEX (June 12, 2015), http://mlexmarketinsight.com/editors-picks/hold-up-cases-against-patent-holders-lack-systematic-economic-evidence-wright-says/ [https://perma.cc/H8J7-49PN].

²⁸⁴ See Kovacic & Winerman, supra note 277, at 2091 ("The notion that any competition agency is so isolated from the political process is a fiction.").

²⁸⁵ *Id.* at 2090 (observing that "independence . . . cannot mean complete isolation from the political process" and describing the FTC's accountability to courts and the public).

for political influence.²⁸⁶ Stated otherwise, "[f]eeble public institutions generally generally attract tepid interest among politicians."²⁸⁷ Recent events suggest that, as the FTC's power has expanded, politicians—or the special interest groups they represent—may be pressuring the agency to change its ways.

First, as alluded to above, there has been dissension among the FTC Commissioners regarding SEPs, patent hold-up, and injunctive relief.²⁸⁸ This debate, which pits the three Democratic Commissioners against the two Republicans, was aired publicly last year when the two groups submitted competing comments to the ITC on these topics.²⁸⁹ Second, until recently, all of the FTC's reverse settlement suits had been brought on a unanimous, bi-partisan basis.²⁹⁰ But the Commission appears split on this issue too, as evidenced by the fact that the September 2014 decision to file a complaint against AbbVie, Inc. and several other pharmaceutical companies was divided 3-2 along political lines.²⁹¹ Finally, moving beyond patents, there appears to be disagreement among the commissioners about the agency's core powers. More specifically, the commissioners sparred over the agency's authority to police unfair competition under Section 5 of the FTC Act.²⁹² The Republicans—led by former Commissioner Joshua Wright—argued that the FTC should define (i.e., limit) the scope of its authority, ²⁹³ while the Democrats—led by Chairwoman Edith Ramirez—argued that the FTC's scope of authority should continue to be

²⁸⁶ Id. at 2091.

²⁸⁷ Id. at 2091-92.

²⁸⁸ See, e.g., Darren Tucker, Interview with Joshua D. Wright, Commissioner, Federal Trade Commission, 13 ANTITRUST SOURCE, Aug. 2014, at 1, 8-9 (quoting Commissioner Wright's disagreement with the FTC's findings that breaching FRAND commitments and increasing royalty rates to FRAND rates violate the Sherman Act).

²⁸⁹ Leah Nylen, *FTC Divide on SEPs Detailed in Comments to Trade Agency*, MLEX (July 24, 2015), http://mlexmarketinsight.com/editors-picks/ftc-divide-on-seps-detailed-in-comments-to-trade-agency/ [https://perma.cc/F3HN-EQAU].

²⁹⁰ See Seth Silber, Jonathan Lutinski & Ryan Maddock, "Good Luck" Post-Actavis: Current State of Play on "Pay-for-Delay" Settlements, CPI ANTITRUST CHRON., Nov. 2014, at 1, 6 ("All prior FTC 'pay-for-delay' consents and suits since the late 1990s were brought on a bi-partisan basis").

²⁹¹ *Id*.

²⁹² See Michael Macagnone, FTC's Wright Calls for Vote on New FTC Act Section 5 Rules, LAW360 (Feb. 26, 2015, 7:08 PM), http://www.law360.com/articles/625831/ftc-s-wright-calls-for-vote-on-new-ftc-act-section-5-rules [https://perma.cc/U4TY-P3FF] (reporting that Commissioner Wright called for the FTC to vote to limit its authority, while Chairwoman Ramirez disagreed).

²⁹³ Joshua D. Wright, Commissioner, Fed. Trade Comm'n, Section 5 Revisited: Time for the FTC to Define the Scope of its Unfair Methods of Competition Authority, Remarks at the Symposium on Section 5 of the Federal Trade Commission Act 20 (Feb. 25, 2015), https://www.ftc.gov/public-statements/2015/02/section-5-revisited-time-ftc-define-scopeits-unfair-methods-competition [https://perma.cc/LUV5-HTUH].

defined by common law.²⁹⁴ And while some consensus was reached on this issue in 2015 with the FTC announcing a new policy statement on Section 5, it is noteworthy that this policy was not adopted unanimously.²⁹⁵ Republican Commissioner Maureen Ohlhausen dissented because, among other reasons, the policy is "exceedingly brief, highly general," and was adopted without soliciting comments from the public.²⁹⁶

In short, there are pros and cons of charging the FTC with the responsibility of policing already-issued patents. But when all is said and done, the FTC does not appear to be the best agency to lead this effort. Perhaps the other competition agency—the Antitrust Division of the DOJ—would be a better candidate.

DOJ: Antitrust Division

The DOJ, the federal government's primary law enforcement agency,²⁹⁷ also has some experience with patent law. The DOJ—or, more precisely, the Antitrust Division of the DOJ—has inserted itself in the patent arena in much the same way as the FTC,²⁹⁸ though to a lesser degree.²⁹⁹ Together with the FTC, the DOJ has issued joint guidelines regarding the licensing and acquisition of intellectual property,³⁰⁰ and submitted joint comments to the PTO on patent quality.³⁰¹ The DOJ also published a joint report with the PTO supporting the FTC's position regarding injunctions and FRAND-encumbered patents,³⁰² and

²⁹⁴ Edith Ramirez, Chairwoman, Fed. Trade Comm'n, Remarks at George Washington University Law School's Competition Law Center Regarding Section 5 Enforcement Principles 2 (Aug. 13, 2015), https://www.ftc.gov/system/files/documents/public_statements/735411/150813section5spee ch.pdf [https://perma.cc/CS6P-EUM7].

²⁹⁵ *Id.* ("[A] bipartisan majority of the Commission has adopted a statement of principles concerning how we will exercise our standalone Section 5 authority.").

²⁹⁶ Dissenting Statement of Commissioner Maureen K. Ohlhausen: FTC Act Section 5 Policy Statement, 80 Fed. Reg. 57,057, 57,058-59 (Sept. 21, 2015).

²⁹⁷ Michael Herz & Neal Devins, *The Consequences of DOJ Control of Litigation on Agencies' Programs*, 52 ADMIN. L. REV. 1345, 1345 (2000) ("Congress has designated DOJ as the litigator for the United States and its administrative agencies.").

²⁹⁸ See Christopher R. Leslie, *Monopolization Through Patent Theft*, 103 GEO. L.J. 47, 63 (2014) (discussing the Antitrust Guidelines for the Licensing of Intellectual Property, issued jointly by the FTC and the DOJ Antitrust Division).

²⁹⁹ See, e.g., Interview with Renata Hesse, Deputy Assistant Attorney General, Antitrust Division, U.S. Department of Justice, 14 ANTITRUST SOURCE, Apr. 2015, at 1, 1 ("I should first note that the FTC typically takes the lead in antitrust enforcement in the pharmaceutical industry....").

³⁰⁰ See supra note 298.

³⁰¹ See supra note 262.

³⁰² See U.S. Dep't of Justice & U.S. Patent & Trademark Office, Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments 8 (2013), https://www.justice.gov/sites/default/files/atr/legacy/2014/09/18/290994.pdf [https://perma.cc/SLM3-FC7F].

issued a business letter in 2015 regarding a major SSO's proposed update to its patent policy. ³⁰³ And though not initially aligning itself with the FTC on reverse payment settlements in pharmaceutical cases, the DOJ switched gears with the change of administration in 2008. ³⁰⁴ Since then, the DOJ has submitted amicus briefs and taken other actions to curb the anticompetitive effect of these agreements. ³⁰⁵

At times over the past five years, the DOJ has appeared quite committed to and invested in patent law matters. Each spring, the Antitrust Division publishes an update on its competition advocacy efforts during the previous year. The 2013 and 2014 reports focused heavily on patent law, noting that intellectual property "is a key area for competition policy," and that "[t]he relationship between IP rights and competition law remains a central focus for the Division." Reports from other years, however, demonstrate that the DOJ cannot always devote so much time to patents because other important competition matters (e.g., cybersecurity and health care) demand attention. 308

But even assuming the Antitrust Division's interest in intellectual property law remains high, its enforcement power is nevertheless limited. Like the FTC,

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³⁰³ See Letter from Renata B. Hesse, Acting Assistant Att'y Gen., U.S. Dep't of Justice, to Inst. of Elec. and Elecs. Eng'rs, Inc. (Feb. 2, 2015) [hereinafter Letter from Renata B. Hesse] https://www.justice.gov/sites/default/files/atr/legacy/2015/02/02/311470.pdf [https://perma.cc/9GPR-FRMC] (notifying SSO that it would not challenge its updated patent policy).

³⁰⁴ See Jacqueline Bell, DOJ Shift on Pay-for-Delay Puts Focus on Courts, LAW360 (Apr. 14, 2009, 12:00 AM), http://www.law360.com/articles/96772/doj-shift-on-pay-for-delay-puts-focus-on-courts [https://perma.cc/E5PT-ZELT] (reporting that DOJ filed a brief with the U.S. Court of Appeals for the Second Circuit agreeing with the FTC's stance against reverse payment settlements).

³⁰⁵ Competition Advocacy Update 2013, U.S. DEP'T JUST. (July 21, 2015), http://www.justice.gov/atr/public-documents/division-update-spring-2013/competition-advocacy [https://perma.cc/HR4S-JHN2] ("The Division pursues this mission [of competition advocacy] through congressional testimony, filing comments and offering counsel to Federal and state agencies, engaging in workshops and public speaking, [and] filing amicus briefs ").

³⁰⁶ *Id*.

³⁰⁷ Competition Advocacy Update 2014, U.S. DEP'T JUST., http://www.justice.gov/atr/division-update/2014/competition-advocacy-update [https://perma.cc/SZV2-C8E5] (last visited Sept. 18, 2016).

³⁰⁸ See Competition Advocacy Update 2012, U.S. DEP'T JUST. (July 21, 2015), http://www.justice.gov/atr/public-documents/division-update-spring-2012/competition-advocacy-update-2012 [https://perma.cc/72MN-CENQ] (stating that 2012 was "especially busy" for the Division and that "[o]ne area of particular focus has been health care"); Competition Advocacy Update 2011, U.S. DEP'T JUST. (July 13, 2015), http://www.justice.gov/atr/public-documents/division-update-spring-2011/competition-advocacy-update-2011 [https://perma.cc/A7YT-TF6P] (describing the DOJ's efforts to maintain competition in the health care industry).

the Division is a competition agency, *not* an intellectual property or innovation agency; thus, its experience with patents is restricted to their intersection with competition law.³⁰⁹ Also like the FTC, the DOJ lacks substantial knowledge of substantive patent law—a crucial area of expertise for an agency assigned to police patent validity.³¹⁰ What is worse, the Antitrust Division's ability to police patents is even more constrained than the FTC's. Whereas the FTC can regulate "unfair trade practices" even in the absence of antitrust violations, the DOJ's authority is cabined by the Sherman and Clayton Acts.³¹¹ Under current law, circumstances where the use of patents amounts to an antitrust violation are extremely narrow,³¹² so the Division's hands would be tied unless Congress expanded its powers.

Another potential downside of the Antitrust Division—at least as compared to the FTC—is that it is not an independent agency. The Division is part of an executive branch department, and the Assistant Attorney General for Antitrust serves at the will of the President.³¹³ Thus, the DOJ's decision to challenge (or not to challenge) certain patents may be subject to significant political influence from the executive branch.³¹⁴ Yet, some scholars have argued that this assumption about the DOJ is not borne out in reality, pointing out that the Antitrust Division has pursued cases in the face of strong opposition from other executive branch ministries.³¹⁵ *Myriad* provides one such example, where the

³⁰⁹ See, e.g., Letter from Renata B. Hesse, *supra* note 303, at 1 (stating that the DOJ's role is to "advise the requesting party of the Department's present antitrust enforcement intentions regarding the proposed conduct," not to "assess whether [the requesting party's] policy choices are right").

³¹⁰ See supra note 280 and accompanying text.

³¹¹ See FTC v. Sperry & Hutchinson Co., 405 U.S. 233, 239 (1972) (granting FTC authority "to define and proscribe an unfair competitive practice, even though the practice does not infringe either the letter or the spirit of the antitrust laws"); Matthew Fagin, Frank Pasquale & Kim Weatherall, Beyond Napster: Using Antitrust Law to Advance and Enhance Online Music Distribution, 8 B.U. J. Sci. & Tech. L. 451, 550 (2002) (stating that the FTC "covers a somewhat broader area of market and consumer concerns" than the DOJ).

³¹² See, e.g., Letter from Renata B. Hesse, *supra* note 303, at 2 ("Think about the IP laws and the very narrow ways in which the use of IP can be found to be an antitrust violation. That list has been very, very small for a very long time."); *see also* Robin C. Feldman, *The Insufficiency of Antitrust Analysis for Patent Misuse*, 55 HASTINGS L.J. 399, 439-43 (2003) (describing "Reach-Through Royalties as an example of the insufficiency of testing for patent misuse by applying antitrust rules" and stating "the need for clarification on whether Reach-Through Royalties create antitrust or patent misuse problems").

³¹³ See Kovacic & Winerman, supra note 277, at 2100.

³¹⁴ See Herz & Devins, supra note 297, at 1352 (discussing failed efforts to make DOJ an independent agency).

³¹⁵ See, e.g., Kovacic & Winerman, supra note 277, at 2100 ("[T]here are important instances in which the Antitrust Division has proceeded with major cases despite the vehement opposition of other executive branch ministries."); Jonathan E. Nuechterlein, Antitrust Oversight of an Antitrust Dispute: An Institutional Perspective on the Net Neutrality

DOJ argued that isolated DNA sequences are not patentable subject matter, despite the PTO's long history of protecting such inventions.³¹⁶

Still, for all the reasons that the FTC is not the best agency to police patent validity (e.g., focus on competition policy, lack of the right type of expertise) the Antitrust Division isn't either. But what about another division of the DOJ?

3. DOJ: IP Section

Another possibility is to put a DOJ division other than antitrust in charge of policing patent validity. The obvious choice would be the Intellectual Property Section, which is part of the Commercial Litigation Branch within the Civil Division.³¹⁷ The IP Section has relatively broad experience with patent matters.³¹⁸ Its lawyers represent the federal government in infringement actions, as well as suits under the Patent Secrecy Act,³¹⁹ Federal Technology Transfer Act,³²⁰ and Bayh-Dole Act.³²¹ Aside from litigation, the IP Section also prepares and prosecutes patent applications, and represents the government in interference proceedings before the PTO.³²²

In some ways, the IP Section seems better suited than either the Antitrust Division or the FTC to spearhead a patent enforcement effort. First, its focus is on intellectual property law (albeit not exclusively patents) rather than competition law.³²³ Second, IP Section lawyers have expertise in relevant patent law doctrines, namely patent validity. Not only does patent validity arise as an affirmative defense during infringement actions, the IP Section lawyers also grapple with validity questions (i.e., novelty, obviousness, patentable subject matter, and indefiniteness) when drafting and filing patent applications to secure

Debate, 7 J. TELECOMM. & HIGH TECH. L. 19, 64 (2009) ("The Antitrust Division also tends to be more immune from political pressure than the FTC.").

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³¹⁶ Rai, *supra* note 1, at 1241 (stating that, in an amicus brief, the DOJ "urged the court to reject a decades-old PTO practice of treating almost all DNA as patentable subject matter").

³¹⁷ Intellectual Property Section, U.S. DEP'T JUST. (Oct. 20, 2014), http://www.justice.gov/civil/intellectual-property-section [https://perma.cc/H67H-5WZ5].

³¹⁸ See id. (listing the types of cases and issues IP Section attorneys work on); see also Bock, supra note 276, at 291 ("[T]he DOJ... [has] personnel who are experienced in litigating patent-related issues....").

³¹⁹ See Intellectual Property Section, supra note 317 ("The section defends suits for compensation under the Patent Secrecy Act, 35 U.S.C. § 183").

³²⁰ *Id.* (stating that the IP Section "provid[es] assistance and representation to government agencies in disputes relating to the ownership and licensing of technology" where the Federal Technology Transfer Act or Bayh-Dole Act are implicated).

³²¹ Id.

³²² *Id.* ("The IP Section also prepares and prosecutes patent applications for government inventors, and represents the United States in patent interference proceedings.").

³²³ In addition to the patent matters mentioned above, the IP Section represents the government in copyright and trademark infringement suits, and "defends the Register of Copyrights in disputes relating to the registration of works" *Id.*

protection for government inventions.³²⁴ Third, all IP Section attorneys—unlike their counterparts in the Antitrust Division or the FTC—have a scientific or technical degree and are eligible for admission to practice before the PTO.³²⁵ This means that the IP Section should be well equipped to deal with the complex technologies implicated in patent matters.

What is not clear, however, is whether the IP Section has either the reputation or the resources to expand into a full patent enforcement agency. While the IP Section has been involved in formulating the government's position in high profile patent cases, 326 it has acted behind the scenes and taken a back seat to the FTC and Antitrust Division. Because the IP Section lacks a public reputation, stakeholders in the patent system may resist this agency playing such an important role in shaping innovation policy. 327

Even if the IP Section could overcome this reputational deficit, questions about resources remain. The IP Section is one of five sections in the Commercial Litigation branch, which is one of six branches within the Civil Division of the DOJ. 328 Since there are only about 300 lawyers in the Commercial Litigation branch, that means relatively few (approximately sixty if they are divided equally among the sections) are focused on IP. 329 More important than sheer numbers is the fact that the IP Section is not its own division, but merely a secondary subdivision of the DOJ with less autonomy and decision-making

³²⁴ See, e.g., R. Polk Wagner, *Understanding Patent-Quality Mechanisms*, 157 U. PA. L. REV. 2135, 2166 (2009) (referring to prosecution and litigation as the "two phases of patent validity analysis").

³²⁵ See Intellectual Property Section, supra note 317 ("[A]Il attorneys assigned to the section have a degree in one of the physical sciences or in an engineering field and are eligible for admission to practice before the United States Patent and Trademark Office in patent matters.").

³²⁶ See, e.g., John Fargo, U.S. CT. FED. CLAIMS, http://www.uscfc.uscourts.gov/john-fargo [https://perma.cc/F4VT-36SW] (last visited Sept. 23, 2016) (describing the involvement of John Fargo, Director of the Intellectual Property Staff, in preparing the government's briefs in KSR and Mayo).

³²⁷ See Francis E. Rourke, Bureaucratic Power in National Politics 2 (2d ed. 1972) ("[E]ach agency must constantly create a climate of acceptance for its activities and negotiate alliances with powerful legislative and community groups to sustain its position.").

³²⁸ Agencies, U.S. DEP'T JUST., http://www.justice.gov/civil/civil-division-organization-chart [https://perma.cc/7VEV-VJVH] (last visited Sept. 23, 2016) (displaying an organizational chart of the divisions governed by the Office of the Assistant Attorney General, Civil Division). The six branches in the Civil Division are: Appellate, Commercial Litigation, Federal Programs, Immigration Litigation, Consumer Protection, and Torts. *Id.* The sections in the Commercial Litigation branch include Corporate/Financial Litigation, Fraud, National Courts, Office of Foreign Litigation, and Intellectual Property. *Id.*

 $^{^{329}}$ U.S. Dep't of Justice, Choose Justice: Guide to the U.S. Department of Justice for Law Students and Experienced Lawyers 15 (2011), http://www.justice.gov/sites/default/files/careers/docs/legal-careers-brochure.pdf [https://perma.cc/CS77-HDEX].

power than the Antitrust Division or, certainly, an independent agency like the FTC.³³⁰

As our nation's principal law enforcement agency, there are good reasons why the DOJ should be charged with responsibility for policing patent validity. Indeed, Ward Bowman contemplated such an arrangement more than forty years ago when he recommended legislation that would "mak[e] it possible for the Department of Justice to bring an action for patent cancellation on validity grounds." Yet, the proposal never warranted serious attention—perhaps because the DOJ does not have a division dedicated to patents (or even to intellectual property, for that matter). Or maybe the problem is that innovation policy is simply not the DOJ's forte. The PTO, on the other hand, is our premiere innovation agency and therefore best positioned to carry out this mission.

D. PTO as Patent Enforcement Agency

When thinking about who should implement a proposal related to patents, the PTO is the first agency to come to mind. The mission of the PTO, which is housed in the Department of Commerce, is to "create the conditions for economic growth and opportunity by promoting innovation, entrepreneurship, competitiveness, and stewardship." The primary way the PTO fulfills this mission is by granting patents and adjudicating validity challenges, but those are not the agency's sole responsibilities. The PTO advises the President, other executive agencies, Congress, and the courts on IP policy. The agency also plays a key role in the international arena, for example by working "to secure strong IP provisions in free trade and other international agreements." While the obvious choice is not always the best choice, in this case the PTO emerges as the frontrunner to lead the effort to police invalid patents.

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³³⁰ See, e.g., Nuechterlein, supra note 315, at 64 ("Like the Solicitor General, the Antitrust Division reports to the Attorney General and enjoys a long tradition of professional autonomy."); Pierre-Hugues Verdier, Transnational Regulatory Networks and Their Limits, 34 YALE J. INT'L L. 113, 127 (2009) ("While the degree of autonomy possessed by a specific regulator is hard to measure, important dimensions of autonomy include length and security of tenure for senior appointments, autonomous funding sources, judicial review standards, and the relative political strength of other domestic actors.").

 $^{^{331}}$ Ward S. Bowman, Jr., Patent and Antitrust Law: A Legal and Economic Appraisal 254 (1973).

³³² Mission and Organization of the USPTO, U.S. PAT. & TRADEMARK OFF. (Feb. 19, 2013), http://www.uspto.gov/about/stratplan/ar/2011/mda_01.html [https://perma.cc/FWP8-W4EY].

³³³ *About Us*, U.S. PAT. & TRADEMARK OFF., http://www.uspto.gov/about-us [https://perma.cc/Q6E3-Z23M] (last visited Sept. 23, 2016).

³³⁴ *Id*.

1. Why the PTO?

The PTO, first and foremost, possesses the necessary expertise to enforce patent validity ex post because of its technological acumen, fluency in substantive patent law, and position as a leader in innovation policy.³³⁵ Regulators at the PTO are intimately familiar with patent validity requirements. Not only do examiners decide validity questions on a daily basis when granting or rejecting patent applications, but the PTO also shapes validity policy by pursuing cases or filing amicus briefs in the Federal Circuit and Supreme Court,³³⁶ and then interpreting and issuing guidance on those cases once decided.³³⁷ Simply put, patent validity is the "bread and butter" of the PTO.

Another reason the PTO is well suited for this prosecutorial role is because—as the Supreme Court recently acknowledged—the agency already has some of the power it needs to challenge potentially invalid patents.³³⁸ It is well established that the PTO has the power to institute reexamination proceedings sua sponte.³³⁹ Although the grounds for reexamination are limited to patents and printed publications,³⁴⁰ and PTO guidelines say that sua sponte reexaminations should be rare,³⁴¹ there is some precedent for the PTO policing patents ex post. For the most part, the PTO has exercised this power to invalidate "junk" patents.³⁴² But in some cases, the PTO has initiated reexamination because of

³³⁵ See, e.g., Wagner, supra note 37, at 210.

³³⁶ Rai, *supra* note 1, at 1245 & n.29-30 (observing that the PTO's policy-shaping activities frequently occur through its work with the DOJ's Office of the Solicitor General).

³³⁷ See Examination Guidance and Training Materials, U.S. PAT. & TRADEMARK OFF. (Sept. 8, 2016, 11:04 AM), http://www.uspto.gov/patent/laws-and-regulations/examination-policy/examination-guidance-and-training-materials [https://perma.cc/T2QB-E7FD] (providing a compilation of PTO guidance documents interpreting statutes, regulations, and case law in a number of substantive areas).

³³⁸ See Cuozzo Speed Techs., LLC v. Lee, 136 S. Ct. 2131, 2137 (2016) (explaining that the PTO, on its own initiative, can trigger a reexam).

³³⁹ 35 U.S.C. § 303(a) (2012) (providing that the PTO Director may, at any time and on his own initiative, "determine whether a substantial new question of patentability is raised by patents and publications discovered by him"); 37 C.F.R. § 1.520 (2015) (providing that the Director may commence an "*ex parte* reexamination without a request for reexamination" at any time during the period of enforceability for a patent).

³⁴⁰ 35 U.S.C. §303(a); 37 C.F.R. § 1.520.

³⁴¹ U.S. PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 2239 (9th ed. 2015) (explaining that a sua sponte reexamination will only occur in "compelling circumstances"); Marius Meland, *Judge Denies Research in Motion Request for Stay of Appeal*, LAW360 (Nov. 1, 2003, 12:00 AM), https://www.law360.com/technology/articles/217/judge-denies-research-in-motion-request-for-stay-of-appeal [https://perma.cc/EWU3-AG5G] (stating that there were only 146 director-ordered reexams between 1981 and 2003).

³⁴² See, e.g., Director Initiated Order for Reexamination of U.S. Patent No. 6,368,227, Control No. 90/006,289 (May 21, 2002), http://portal.uspto.gov/pair/view/BrowsePdfServlet?objectId=DX9LS849REPSPHX&lang=

pressure from competitors or the public. In NTP, Inc. v. Research in Motion, Ltd., 343 for example, the PTO commenced a director-ordered reexamination 344 after a \$53.7 million jury verdict was entered against RIM, the manufacturer of the popular BlackBerry device, which resulted in a public outcry.³⁴⁵ Whether it was appropriate for the PTO to "flex its enforcement muscles" in these matters is beside the point. What's important is that Congress has already acknowledged that the PTO should be enforcing patent validity ex post.

Moreover, the PTO already has certain mechanisms in place that would facilitate these validity challenges. Starting with the Office of the Chief Economist ("OCE"), it could prepare economic analyses and dispense other advice to ensure the agency's enforcement decisions are sound.³⁴⁶ Since its creation in 2010, the OCE has significantly enhanced the PTO's policymaking abilities.³⁴⁷ The OCE has conducted numerous studies and generated substantial data that has allowed (or will allow) the PTO, other agencies, and academics to undertake empirical research on patent initiatives.³⁴⁸ The PTO's Office of the Solicitor, which serves as legal counsel to the PTO on intellectual property matters, would be instrumental in this effort too.³⁴⁹ The Solicitor's Office has gained extensive patent litigation experience by defending decisions by the PTAB (and its pre-AIA predecessor) in federal court, representing the PTO in

DINO [https://perma.cc/8ST7-CGGW] (ordering the reexamination of "all of the claims" of an existing patent of a method of swinging on a swing); Director Initiated Order for Reexamination of U.S. Patent No. 6,007,340, Control No. 90/006,067 (Aug. 28, 2001), http://portal.uspto.gov/pair/view/BrowsePdfServlet?objectId=DXLJ7PCKREPSPHX&lang =DINO [https://perma.cc/J9BM-RHX8] (ordering the reexamination of an existing patent related to a method and system for measuring leadership effectiveness).

³⁴³ 418 F.3d 1282 (Fed. Cir. 2005).

³⁴⁴ *Id.* at 1326 (affirming in part, reversing in part, and vacating in part the jury verdict).

³⁴⁵ See Amy L. Magas, When Politics Interfere with Patent Examination, 4 J. MARSHALL REV. INTELL. PROP. L. 160, 171-72 (2004) (suggesting that the director-ordered ex parte reexamination was the result of concerns expressed by several telecommunications companies).

³⁴⁶ See Office of the Chief Economist, U.S. PAT. & TRADEMARK OFF., http://www.uspto.gov/ip/officechiefecon/ [https://perma.cc/MS95-CGMT] (last visited Sept. 21, 2016) (explaining that the role of the OCE is to advise "the Under Secretary of Commerce for Intellectual Property and Director of the USPTO on the economic implications of policies and programs affecting the U.S. intellectual property system").

³⁴⁷ See Vacca, supra note 230, at 756 n.128 (stating that the creation of the Office of Chief Economist is "step in the right direction" if the PTO is going to set patent policy); Wasserman, supra note 6, at 2012 (explaining that the OCE has "had an immediate impact on the [PTO's] decision making").

³⁴⁸ See generally Office of the Chief Economist, supra note 346 (providing links to and descriptions of recent research, presentations, and articles produced by the OCE).

³⁴⁹ See Office of the Solicitor, U.S. PAT. & TRADEMARK OFF. (Jun. 28, 2016, 3:00 PM), http://www.uspto.gov/about-us/organizational-offices/office-general-counsel/office-solicitor [https://perma.cc/77AJ-D4FA] (explaining the duties of the Office of the Solicitor).

actions brought pursuant to the Administrative Procedure Act ("APA"), and preparing amicus briefs in numerous Federal Circuit and Supreme Court cases.³⁵⁰ Therefore, the Solicitor could weigh in on litigation strategy and other issues that the enforcement arm would face.

This proposal to monitor patent validity ex post also fits well with the PTO's new Enhanced Patent Quality Initiative ("EPQI"). The goal of the EPQI, which was announced in the Federal Register last year, is to "develop[] a new paradigm of patent quality at the USPTO." The EPQI is managed by the newly created position of Deputy Commissioner for Patent Quality—evidence of the PTO's commitment to improving patent quality. There are four new offices that fall under the Deputy Commissioner's purview, including the Office of Patent Quality Assurance ("OPQA"). OPQA is responsible for assessing and measuring patent examination quality at the PTO, a task it accomplishes by defining patent quality metrics and performing quality reviews of patent examiners' work product. Presumably, OPQA could support and advise the PTO's enforcement arm in much the same way that the OCE and the Office of the Solicitor currently do.

Additionally, the administrative proceedings recently created by the AIA provide a convenient and expedient—yet still robust—way to adjudicate these validity challenges.³⁵⁵ Before revoking a patent, the PTO must satisfy certain

³⁵⁰ See id. (providing a list of the responsibilities of the Office of the Solicitor and access to amicus briefs it has prepared).

 $^{^{351}}$ Request for Comments on Enhancing Patent Quality, 80 Fed. Reg. 6475, 6475 (Feb. 5, 2015).

³⁵² Valencia Martin-Wallace, *Valencia-Martin-Wallace, Deputy Commissioner for Patent Quality at the United States Patent and Trademark Office (USPTO)*, U.S. DEP'T COM.: SPOTLIGHT ON COM. (Feb. 24, 2016, 10:04 AM), https://www.commerce.gov/news/blog/2016/02/spotlight-commerce-valencia-martin-wallace-deputy-commissioner-patent-quality [https://perma.cc/YF5P-768C] (stating "[a]s the Deputy Commissioner for Patent Quality at the United States Patent and Trademark Office . . . , I lead the Organization's Enhanced Patent Quality Initiatives").

³⁵³ See U.S. Patent & Trademark Office, Presentation on USPTO Patent Quality Overview Hosted by NYIPLA and Fordham IP Institute 4-5 (2015), http://www.uspto.gov/sites/default/files/documents/NYIPLA%20Patent%20Quality%20Eve nt%207_29_2015.pdf [https://perma.cc/EDA7-XUDX] (presenting a diagram of the organizational structure of PTO's Office of the Commissioner for Patents). The other three offices are the Office of Process Improvement, Office of Patent Training, and Office of Ombudsman/Stakeholder Outreach. *Id*.

³⁵⁴ See Transcript of Patent Quality Chat, Measuring Patent Quality Presentation, U.S. PAT. & TRADEMARK OFF. (Aug. 11, 2015), http://helix-1.uspto.gov/player/Transcripts/20150811_PatentQuality_trans.htm [https://perma.cc/VFB6-ABQ8] (discussing the details of the work product review process).

³⁵⁵ See Wasserman, supra note 6, at 1976-77 (describing the new post-grant review process). While these enforcement proceedings would generally proceed at the PTO, there may be times when it's preferable or necessary to proceed in federal court, which should also

procedural requirements. Specifically, Congress was careful to afford parties involved in post-grant proceedings a host of protections, including the right to discovery, an oral hearing, cross-examination, and appeal.³⁵⁶ Congress also determined that the PTAB, a panel of impartial administrative judges with no involvement in the initial grant of the patent, would preside over PGR, IPR, and CBM proceedings.³⁵⁷ These additional safeguards ensure that patent owners are provided the process they deserve, and simultaneously allow the PTO to invalidate patents in a streamlined administrative proceeding.

Last, but certainly not least, granting enforcement power to the PTO will help the agency evolve into the nation's primary innovation policymaker. A piecemeal evolution of the agency that began with the AIA, is already underway.³⁵⁸ In the past five years, the PTO's identity and reputation have changed. Not only has the agency expanded in size and geographic scope, 359 its influence is growing as well. For example, the PTAB has significantly overhauled the patent landscape by cancelling thousands of invalid claims. discouraging some patent owners from pursuing infringement suits, and forcing all stakeholders to rethink patent acquisition and litigation strategy.³⁶⁰ What is more, the Federal Circuit—and now the Supreme Court—have determined that the PTO's regulations regarding post-grant proceedings warrant judicial

be an option for the government.

356 See supra Section II.C.2 (discussing the nature of post-grant proceedings under the AIA). But see Robert I. Reis, Smoke and Mirrors: America Invents Act 2011: A Chill in the Air, 6 AKRON INTELL. PROP. J. 301, 325-27 (2012) (arguing that the new PTAB proceedings may violate both a patent owner's constitutional right to a jury trial and the separation of powers doctrine).

357 See Ed Silverstein, Proposed Changes to PTAB Trials Could Lengthen the Process, INSIDE COUNS. (Apr. 13, 2015), http://www.insidecounsel.com/2015/04/13/proposedchanges-to-ptab-trials-could-lengthen-the [https://perma.cc/83E9-UKEN] (reporting an intellectual property litigator's opinion that PTAB judges are "impartial throughout the process").

358 See Sarah Tran, Policy Tailors and the Patent Office, 46 U.C. DAVIS L. REV. 487, 497 (2012) ("[T]he America Invents Act requires the USPTO to set standards for the first time . . . , pushes it to expedite the review of technologies of national importance, and gives it more control over its finances.").

359 See Michelle K. Lee, USPTO Regional Offices Forge Ahead in 2016, U.S. PAT. & Trademark Off.: Director's F. Leadership (May 17, 2016, 10:01 AM), https://www.uspto.gov/blog/director/entry/uspto_regional_offices_forge_ahead [https://perma.cc/2EVH-69K5] (taking note of the opening of the PTO's Texas Regional Office in November 2015, the West Coast Regional Office in October 2015, and the Rocky Mountain Regional office in June 2014).

360 See Amanda Ciccatelli, 3 Years in, Where Do We Stand with Post-Grant Challenges of Patents **Before** the PTAB?, Inside Couns. (Feb. 16, 2016), http://www.insidecounsel.com/2016/02/16/3-years-in-where-do-we-stand-with-post-grantchall [https://perma.cc/8KLX-FD2X] (discussing how the PTAB process has removed "from the books many patent claims that should never have been granted").

deference under *Chevron U.S.A.*, *Inc. v. Natural Resources Defense Council, Inc.*³⁶¹ Each of these modifications has made the PTO look more and more like a typical federal agency. Establishing an enforcement arm within the PTO would be an important—perhaps even the final—step in this evolutionary process.

2. Enforcement Office of the PTO

Though the PTO is poised to meet this challenge, Congress should explicitly grant the agency robust powers to police the validity of already-issued patents. ³⁶² Unlike private parties, who are constrained in post-grant proceedings to challenging certain types patents (e.g., only recently-granted patents may be challenged in PGR) on certain grounds (e.g., only patents and printed publications can invalidate patents in IPR), Congress should permit the PTO to challenge any patent—old or new—for failure to meet any validity requirement. ³⁶³ With such broad powers comes flexibility the PTO will need to effectively police patent validity. For example, the PTO will have the ability to react to changing standards of validity, such as those announced in *Myriad* and *Alice*. While private parties might abuse this flexibility to harass patent owners and promote their self-interest, ³⁶⁴ such a result is far less of a concern with politically accountable government officials in the PTO. ³⁶⁵

To effectively execute these new powers, Congress should create a separate office within the PTO dedicated to this new task of validity enforcement. Because the Enforcement Office will engage in litigation, it could be housed

³⁶¹ 467 U.S. 837, 838 (1984); *see also* Cuozzo Speed Techs., LLC v. Lee, 136 S. Ct. 2131, 2142 (2016) (analyzing the PTO's IPR regulations promulgated pursuant to the AIA through the *Chevron* framework).

³⁶² See supra Section II.C.3 (discussing the limitations of PGR, IPR, and CBM as currently constituted under the AIA).

³⁶³ I would include failure to disclose the best mode among these requirements. A patent applicant must disclose the best mode contemplated for carrying out his invention. *See* 35 U.S.C. § 112 (2012). Under the AIA, however, the failure to disclose best mode may no longer be the basis for challenging patent validity. *See id.* § 282(b)(3)(A). One reason Congress essentially eliminated the best mode requirement was because it was supposedly over-asserted in litigation. *See* Lee Petherbridge & Jason Rantanen, *In Memoriam Best Mode*, 64 STAN. L. REV. ONLINE 125, 126-27 (2012) (observing that both the "realities of the patent system" and the structure of foreign patent laws supported eliminating this requirement). But the best mode doctrine "plays a critical role in establishing the level of 'inventiveness' necessary for a patent that the American patent system has long considered optimal." *Id.* at 127. Thus, a seemingly good compromise would be to allow the PTO to enforce the best mode requirement, even if private parties cannot.

³⁶⁴ See, e.g., Dolin, supra note 157, at 931-34 (discussing how some parties are abusing the post-grant review system).

³⁶⁵ See, e.g., Town of Hallie v. City of Eau Claire, 471 U.S. 34, 45 (1985) ("We may presume, absent a showing to the contrary, that the municipality acts in the public interest. A private party, on the other hand, may be presumed to be acting primarily on his or its own behalf." (footnote omitted)).

with the Office of the Solicitor in the Office of General Counsel ("OGC"). 366 At the same time, the Enforcement Office will have to undertake extensive investigations and work closely with OCE to identify potentially problematic patents and determine which ones to proceed against, so perhaps locating it within the Office of Policy and International Affairs makes sense. However, the best case scenario would likely be for the Enforcement Office to stand on its own and report directly to the Director or Deputy Director of the PTO. 367 Wherever the Enforcement Office is situated, what matters most is that the PTO employees resolving validity challenges are insulated from those employees prosecuting such challenges. 368

It is important that the Enforcement Office have robust powers to identify potentially invalid patents, investigate, and decide whether to pursue cancellation proceedings. That said, the PTO should exercise caution and restraint in exercising these powers. In other words, as William Robinson suggested over a century ago, government-initiated cancellation proceedings should be rare. But this does not mean cancellation proceedings should only be brought in the most extraordinary of circumstances, which is what has happened with director-ordered reexam. Instead, for the Enforcement Office to be effective, it must utilize these powers sparingly and in the right cases.

So, what are the right cases and how does the PTO identify them? This Article does not endeavor to provide a full response to these questions, but offers a few suggestions below. Of course, this is not an exhaustive list, as there are no doubt other types of patents worthy of cancellation, but I leave that for future study.

³⁶⁶ The Office of General Law, which represents the PTO in non-intellectual property matters, and the Office of Enrollment and Discipline, which oversees the regulation of attorneys and agents who practice before the PTO, are also within OGC. *See Office of the General Counsel*, U.S. PAT. & TRADEMARK OFF., http://www.uspto.gov/about-us/organizational-offices/office-general-counsel [https://perma.cc/RKE7-786Q] (last visited Sept. 14, 2016) (listing the three offices within the Office of the General Counsel).

³⁶⁷ See, e.g., Brian J. Serr, Turning Section 1983's Protection of Civil Rights into an Attractive Nuisance: Extra-Textual Barriers to Municipal Liability Under Monell, 35 GA. L. REV. 881, 890 (2001) (discussing the problem of "layers of bureaucracy" and government accountability in the context of § 1983 civil rights claims).

³⁶⁸ See infra Section III.D.4 (discussing the "separation of functions" doctrine).

³⁶⁹ 2 WILLIAM C. ROBINSON, THE LAW OF PATENTS FOR USEFUL INVENTIONS 475 (1890) (explaining that, at common law, once a patent was granted, it was revocable only when: (1) a grant for the same subject matter had been given previously; (2) the grant was procured by fraud; or (3) the subject matter could not legally be patented).

³⁷⁰ See, e.g., Director Initiated Order for Reexamination of U.S. Patent No. 5,838,906, Control No. 90/006,831, at 2 (Oct. 30, 2003) http://portal.uspto.gov/pair/view/BrowsePdfServlet?objectId=DXLS3E0WREPSPHX&lang=DINO [https://perma.cc/VC4M-GVXY] (concluding that reexam is warranted due to extraordinary circumstances).

3. Which Patents Should the PTO Pursue?

When considering this Article's proposal—whether to grant the government the power to police patents ex post—one of the first questions that comes to mind is how the PTO would select the patents to challenge. This is an excellent question without a simple answer. The PTO cannot seek to cancel every invalid patent, nor should it. Instead, like other agencies, the PTO would be entrusted with enforcement discretion,³⁷¹ and would be called upon to make difficult decisions based on a number of factors.³⁷² While the exercise of enforcement discretion is far from a perfect process,³⁷³ there is no reason to believe the PTO is less capable of performing this task than other agencies.

Still, Congress should (and, in fact, must) provide the PTO with guidance on which patents to pursue.³⁷⁴ First, the PTO should focus on patents affected by a change in the law, like those precipitated by *Myriad* and *Alice*. In the wake of landmark cases like these, many questions remain. Let's consider the current state of the law post-*Alice*. Since the Supreme Court handed down this decision in 2014, approximately seventy percent of business method and software patents challenged in federal district courts have been invalidated.³⁷⁵ Yet, some of these patents will survive *Alice*, so the question is, which ones? The PTO should help solve that puzzle by seeking to cancel patents it believes are invalid under *Alice*, particularly where § 101 eligibility is a close call. By selecting those patents, and then articulating reasons why the claims are invalid, the PTO will be shaping and moving innovation policy as agencies typically use enforcement actions to do.³⁷⁶

³⁷¹ See Price, supra note 228, at 683 ("[C]ourts and executive-branch lawyers have come to see prosecutorial discretion as a central constitutional function of the executive branch.").

³⁷² See Heckler v. Chaney, 470 U.S. 821, 831 (1985) (explaining that enforcement decisions "involve[] a complicated balancing of a number of factors which are peculiarly within [the agency's] expertise"). Those factors include "whether agency resources are best spent on this violation or another, whether the agency is likely to succeed if it acts, whether the particular enforcement action requested best fits the agency's overall policies, and . . . whether the agency has enough resources to undertake the action at all." *Id*.

³⁷³ See, e.g., Robert R. Kuehn, Remedying the Unequal Enforcement of Environmental Laws, 9 St. John's J. Legal Comment 625, 640 (1994) ("[F]ew areas of the law invest more discretion in agency employees or are more hidden from the public's view and oversight than an agency's enforcement actions.").

³⁷⁴ Whitman v. Am. Trucking Ass'n, 531 U.S. 457, 472-75 (2001) (explaining that when Congress gives authority to an agency, it must also provide an "intelligible principle" directing the agency's exercise of its authority to avoid nondelegation problems).

³⁷⁵ Robert R. Sachs, *Two Years After* Alice: *A Survey of the Impact of a "Minor Case"* (*Part I*), BILSKIBLOG (June 16, 2016), http://www.bilskiblog.com/blog/2016/06/two-years-after-alice-a-survey-of-the-impact-of-a-minor-case.html [https://perma.cc/6R2C-XKD3] (finding that, between invalidations in U.S. District Court and at the U.S. Court of Appeals for the Federal Circuit, 201 invalidations had occurred out of 287 total decisions).

³⁷⁶ Price, *supra* note 228, at 687-88 (calling enforcement discretion an "attractive policy tool"). *See generally* Andrias, *supra* note 43, at 1039 (explaining that the Executive uses

Second, the PTO should take a hard look at patents that are the subject of extensive litigation and/or licensing campaigns.³⁷⁷ Because licensing campaigns are not publicly known, however, the Enforcement Office would have to hear about them from the targets, so it should put a tip line in place for such reporting.³⁷⁸ The PTO could also collect information from organizations focused on patent-related collective action. Public interest groups, such as EFF or Public Knowledge, and private coalitions like Unified Patents,³⁷⁹ would likely serve as good resources for the PTO. Furthermore, a recent study indicates that there is a trend at the PTAB of patent challengers engaging in collective action, particularly with respect to drug and medical patents, among others.³⁸⁰ Such trends could provide the PTO with important insight about potentially problematic patents.

Finally, the PTO should confer and collaborate with other agencies to identify patents it might wish to pursue. Patents and innovation policy impact the work done by many agencies.³⁸¹ This Article has discussed some of these intersections, focusing on the FTC and DOJ.³⁸² But agencies like the National Institutes of Health, Environmental Protection Agency, and Federal

enforcement discretion to advance policy goals).

³⁷⁷ See John R. Allison, Mark A. Lemley & Joshua Walker, Patent Quality and Settlement Among Repeat Patent Litigants, 99 GEO. L.J. 677, 687 (2011) (finding that the most litigated patents are more likely to be invalidated upon the conclusion of litigation on the merits than patents litigated one time).

³⁷⁸ Many agencies have tip lines for the public to report potential violations. See Report Violations, ENVTL. PROTECTION AGENCY Environmental (July http://www.epa.gov/enforcement/report-environmental-violations [https://perma.cc/G594-NAKU] (providing a page for individuals to report what appear to be possible violations of environmental laws and regulations); Submit a Consumer Complaint to the FTC, FED. TRADE https://www.ftc.gov/faq/consumer-protection/submit-consumer-complaint-ftc [https://perma.cc/35C4-Y2XW] (last visited Sept. 22, 2016) (providing a portal through which individuals can report fraud, identity theft, or unfair business practices, among other consumer complaints); Office of the Whistleblower, SEC. & EXCHANGE COMM'N, https://www.sec.gov/about/offices/owb/owb-tips.shtml [https://perma.cc/DV2N-LPKH] (last visited Sept. 22, 2016) (explaining various methods for submitting a tip to the SEC and explaining how to qualify for the Whistleblower Program).

³⁷⁹ See FAQ, UNIFIED PATS., http://www.unifiedpatents.com/faq/ [https://perma.cc/FL9Z-WF7Q] (last visited Sept. 22, 2016) (explaining how the organization operates to deter aggressive patent owners).

³⁸⁰ Vishnubhakat, Rai & Kesan, *supra* note 172, at 66, 74-75 (explaining that, in this process, "petitioners who are not prior defendants are joining petitions filed by prior defendants").

³⁸¹ See Narechania, supra note 200, at 1485 ("Patent rights and policies collide with regulatory goals in contexts as varied as biotechnology, border control, communications, environmental protection, and tax.").

³⁸² See supra Sections III.C.1, III.C.2 (discussing how the FTC and DOJ monitor certain pharmaceutical patents and SEPs because of their anticompetitive effect).

Communications Commission—just to name a few—regularly operate in the patent space too.³⁸³ Interagency cooperation would not only inform and improve the PTO's enforcement decisions, but may further the non-patent agencies' regulatory goals as well.³⁸⁴

4. Anticipating Critiques

Critics are likely to advance three arguments against the PTO assuming this prosecutorial role, all of which deserve attention when assessing the viability of this proposal. The most persuasive, at least at first blush, is that there is an inherent conflict in having the same agency that grants patents also trying to prove them invalid.³⁸⁵ In actuality, however, it may not be inconsistent at all for the PTO to grant a patent and then possibly demonstrate that the same patent is invalid a short time later.³⁸⁶ During initial examination, the burden is on the examiner to prove that the applicant is not entitled to a patent.³⁸⁷ However, the examiner could have been missing a key piece of prior art during examination that becomes available in the subsequent enforcement action.³⁸⁸ Or maybe the legal standards subsequently changed, so that even though the patent was valid when granted, it is no longer valid because of a decision like *Myriad* or *Alice*. In any event, agencies in other contexts both grant rights and take them away, so the PTO would not stand alone in this regard.³⁸⁹

³⁸³ Narechania, *supra* note 200, at 1486 ("Nonpatent agencies thereby wield important—but inconsistent—influence over the development of the patent regime.").

³⁸⁴ See id. at 1487 (observing that interagency cooperation would ensure that patent policies are "responsive to outside regulatory programs"); see also Joseph Landau, Bureaucratic Administration: Experimentation and Immigration Law, 65 DUKE L.J. 1173, 1190 (2016) (arguing that immigration policy benefits from overlapping authority at both the agency and subagency level because it "creat[es] novel opportunities for dialogue and enhance[es] the potential for different actors—with their respective interests, perspectives, and pedigrees—to influence agency policy").

³⁸⁵ See Davis, supra note 175 (discussing former Judge Rader's remarks about this alleged inconsistency in IPRs).

³⁸⁶ This is somewhat similar to the FDA context where the agency grants approval for a drug or medical device, but can withdraw that approval if it discovers new information (e.g., the drug has dangerous side effects). *See, e.g., Drug Approval Process*, U.S. FOOD & DRUG ADMIN., http://www.fda.gov/downloads/Drugs/ResourcesForYou/Consumers/UCM284393.pdf [https://perma.cc/S8LH-EV2D] (last visited Sept. 22, 2016).

³⁸⁷ See In re Epstein, 32 F.3d 1559, 1570 (Fed. Cir. 1994) (Plager, J., concurring) (finding it odd that an individual seeking "a grant of property" from the government in the form of a patent does not, in fact, bear the burden of demonstrating an entitlement to that patent).

³⁸⁸ Perhaps the threat of a later enforcement action will deter the issuance of bad patents in the first place because applicants will be more forthcoming with the PTO and examiners more willing to reject weak applications.

³⁸⁹ Several agencies engage in licensing, a type of administrative adjudication, where the same agency grants and revokes the license. 5 U.S.C. § 551(9) (2012) (defining "licensing" to include "the grant, renewal, denial, revocation, suspension, annulment, withdrawal,

To be sure, many modern agencies are multifunctional with regulatory, prosecutorial, and adjudicatory arms. It's critical in such an agency, however, to create barriers between these functions in order to maintain the integrity of the agency's work.³⁹⁰ To this end, the Administrative Procedure Act mandates a "separation of functions," meaning that agency employees involved in an investigatory or prosecutorial function are generally prohibited from communicating ex parte with agency employees in the adjudicatory function—i.e., the administrative judges.³⁹¹ Nor may an investigatory or prosecutorial employee be in a position of authority over the administrative judges deciding a matter in which the employee is involved.³⁹² While the separation of functions doctrine may require some restructuring of the PTO, and particularly the PTAB, the details of such a proposal are beyond the scope of this Article.

A second argument is that the PTO is too weak and too easily captured by external interests to effectively carry out these enforcement duties. Critics in this camp will claim that the PTO is more concerned with serving patent applicants (from whom the agency receives fees) than with invalidating patents causing social harms.³⁹³ Whether the PTO ever deserved this reputation is hard to say, but today's PTO looks markedly different from past iterations. In recent years, the PTO has been emboldened by successfully challenging many Federal Circuit decisions, and playing a key role in securing passage of the AIA.³⁹⁴ Further, the creation of the PTAB, post-grant proceedings, and the OCE are some additional

limitation, amendment, modification, or conditioning of a license"). Examples include a broadcast license from the FCC; an EPA permit to discharge pollutants into the water; and a license from the Nuclear Regulatory Commission to build a power plant. See Geraldine F. Baldwin, Section 558(c) of the Administrative Procedure Act: Is a Formal Hearing to Demonstrate Compliance Required Before License Revocation or Suspension?, 51 FORDHAM L. REV. 1436, 1439 n.15 (1983) (providing various examples of federal laws that have delegated licensing authority to federal agencies and explaining the nature of that authority).

³⁹⁰ See, e.g., Rachel E. Barkow, *Institutional Design and the Policing of Prosecutors:* Lessons from Administrative Law, 61 STAN. L. REV. 869, 887-93 (2009) (discussing the "outward and obsessive concern about the consolidation of power in administrative agencies" that has existed since the dawn of the administrative state).

³⁹¹ 5 U.S.C. § 554(d) (providing that "[a]n employee or agent engaged in the performance of investigative or prosecuting functions for an agency in a case may not . . . participate or advise in the decision, recommended decision, or agency review" subject to certain enumerated exceptions).

³⁹² *Id.* § 554(d)(2) (providing that, except in limited circumstances, an employee who presides at an administrative evidentiary hearing under 5 U.S.C. § 556 may not "be responsible to or subject to the supervision or direction of an employee or agent engaged in the performance of investigative or prosecuting functions for an agency").

³⁹³ See, e.g., Masur, supra note 9, at 301-02, 312-15 (discussing the possibility of PTO capture by special interests, but concluding that the PTO may be less susceptible to capture than other similarly situated agencies).

³⁹⁴ Rai, *supra* note 1, at 1238-39 (concluding that, as a result of these actions by the PTO, it is beginning to be treated "as a full-fledged participant in the institutional debate").

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changes that have begun to reshape the PTO's internal organization, procedures, and identity.³⁹⁵ Most recently, the Supreme Court held that the PTO's rules regarding post-grant proceedings are entitled to *Chevron* deference—a sharp departure from the past when the PTO was branded as an agency with no substantive rulemaking authority.³⁹⁶ Charging the PTO with responsibility for policing already-issued patents would continue this evolution from an inept and politically feeble agency,³⁹⁷ to a respected, influential, and trusted institution that that is dedicated to fostering innovation policy that promotes the public good.³⁹⁸

The final critique relates to fees. The contention could be that the fees collected by the PTO (applicant fees and maintenance fees) should not be used to support the efforts of the enforcement (or prosecutorial) arm of the PTO.³⁹⁹ The strength of this argument varies depending on the facts of a particular case. If, for example, the patent owner withheld relevant prior art during prosecution, then there would be nothing unjust about forcing the patent owner to pay for the later validity challenge.⁴⁰⁰ In other circumstances, however, it would be inappropriate for patent applicants and owners to foot the bill (e.g., where the law changed, as after *Myriad* and *Alice*). Because PTO-initiated validity challenges will usually serve the social welfare, taxpayers should generally bear the cost.⁴⁰¹

³⁹⁵ See supra Section II.C.3 (discussing how the PTAB is impacting the PTO's reputation).

³⁹⁶ See Cuozzo Speed Techs., LLC v. Lee, 136 S. Ct. 2131, 2142-45 (2016) (analyzing the PTO's IPR regulations promulgated pursuant to the AIA through the *Chevron* framework); Chris Walker, Some Thoughts on Chevron and Patent Exceptionalism from Today's Supreme Court Decision in Cuozzo, YALE J. ON REG.: NOTICE & COMMENT (June 20, 2016), http://yalejreg.com/nc/some-thoughts-on-chevron-and-patent-exceptionalism-from-today-s-supreme-court-decision-in-cuozzo-by/ [https://perma.cc/8UDV-G8BK] ("Cuozzo seems to signal that the Court is receptive to more aggressive arguments from the PTO for Chevron deference of substantive patent law, especially after the enactment of the America Invents Act.").

³⁹⁷ See Masur, supra note 16, at 1-2 (conceding that the PTO has "come to be viewed as inept and inefficient" due to "poorly designed incentives, a lack of necessary funding, and a type of capture by the patent bar" that have produced delay, added expense, and unreliability in the patent process); Arti K. Rai, Competing with the "Patent Court": A Newly Robust Ecosystem, 13 CHI.-KENT J. INTELL. PROP. 386, 388 (2014) ("Historically, the PTO's position has been particularly weak because it has not been given Chevron deference on questions of substantive law.").

³⁹⁸ See, e.g., John M. Golden, *Proliferating Patents and Patent Law's "Cost Disease*," 51 Hous. L. Rev. 455, 501 (2013) (discussing how the PTO might "evolve into an institution that delivers a socially acceptable form of 'mass justice'").

³⁹⁹ See, e.g., Long, supra note 2, at 1984-85 (explaining that PTO has become entirely self-funded as a result of the patent application and issuance fees and surcharges that it collects).

⁴⁰⁰ Of course, under these circumstances, the patent might also be rendered unenforceable pursuant to the inequitable conduct doctrine. *See, e.g.*, Therasense, Inc. v. Becton, Dickinson & Co., 649 F.3d 1276, 1282 (Fed. Cir. 2011).

⁴⁰¹ See, e.g., Tun-Jen Chiang, The Rules and Standards of Patentable Subject Matter, 2010

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CONCLUSION

Invalid patents, even if unenforced, are problematic. They dampen innovation, hamper competition, and harm consumers. Yet no public agency polices patents after they are issued. We rely instead on private parties, despite the fact that incentives for private validity challenges are seriously lacking. Even with the passage of the AIA and the creation of new and improved administrative proceedings, it is not clear that substantially more patents—or the right type of patents—are being challenged. The time has come (and arguably is long overdue) for a public agency to investigate and enforce patent validity ex post. While the FTC and DOJ have some expertise in patent cases, the newly invigorated PTO—as our nation's top innovation agency—stands ready to lead this charge.

WIS. L. REV. 1353, 1404 n.254 ("[A]lthough the PTO is self-funded, taxpayers still subsidize the administrative cost of the patent system, since patents also require taxpayer-funded courts to administer through adjudging infringement suits.").