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# Policy Tailors and the Rookie Regulator

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# POLICY TAILORS AND THE ROOKIE REGULATOR

*Sarah Tran*[†]

Commentators have long lamented the lack of policy tailoring in the patent system. But unlike other administrative agencies, who regularly tailor regulatory policies to the needs of specific industries, the U.S. Patent and Trademark Office ("PTO") was widely believed to lack the authority and institutional competence for such policymaking.

This Article provides the first comprehensive analysis of recent legislative reforms to the PTO's policymaking authority. It shows the reforms empower the PTO to have a larger say in patent policy than ever before. The big question is thus: to what extent is it good policy for a rookie regulator to make policy? I argue the courts should give the PTO broad flexibility to use its new powers, and the Agency should use this flexibility to tailor patent policy on an industry-by-industry basis.

In so arguing, I make two novel contributions to the literature. First, I show that, contrary to the conventional wisdom, the PTO is not a policymaking virgin but has tailored the patent review process to the needs of specific industries, such as the renewable energy and pharmaceutical industries. This creates a different baseline of expertise by which the Agency should be judged. Second, I demonstrate that the PTO would create economies of scale for the patent system and further its constitutional goals by tailoring policy on an industry-by-industry basis. Far from leading to agency capture, this proposal would improve information flow to the PTO, render PTO decisions more transparent, and fill a void in innovation policy.

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## INTRODUCTION

For almost eighty years, broad congressional delegations of authority have empowered administrative agencies and other institutions to craft flexible policy measures for their constituents.[1] Debates have raged as to whether Congress should be entitled to delegate its responsibility for policy choices,[2] what criteria the delegates should consider in making

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[1] *See* Lisa Schultz Bressman, Schechter Poultry *at the Millennium: A Delegation Doctrine for the Administrative State*, 109 YALE L.J. 1399, 1405 (2000) (discussing how, since 1935, the Supreme Court has upheld congressional delegations of authority that involved "vague statutory standards"); Richard J. Pierce & Sidney A. Shapiro, *Political and Judicial Review of Agency Action*, 59 TEX. L. REV. 1175, 1179 (1981) ("Almost five decades of heavy reliance on administrative government have resulted in . . . Congress [finding] that it can solve many of our social problems only by relying on delegations of authority that are broad and vague, rather than clear and specific."). *See also* Santise v. Schweiker, 676 F.2d 925, 933 (3d Cir. 1982) ("It is well established, moreover, that Congress may 'delegate [] broad powers to executives to determine [through implementing regulations] the details of any legislative scheme.'" (alterations in original) (quoting United States v. Rock Royal Coop., 307 U.S. 533, 574 (1939)); Ethyl Corp. v. EPA, 541 F.2d 1, 68 (D.C. Cir. 1976) (en banc) (Leventhal, J., concurring) ("Congress has been willing to delegate its legislative powers broadly——and courts have upheld such delegation . . . .").

[2] *Compare* DAVID SCHOENBROD, POWER WITHOUT RESPONSIBILITY: HOW CONGRESS ABUSES THE PEOPLE THROUGH DELEGATION 3–21 (1993) ("When the

policy decisions,[3] and what role the courts should play in constraining agency discretion.[4] Yet the presence of administrative bodies capable of tailoring policy to the needs of specific industries in a political system where Congress lacks the resources, time, incentives, and foresight to address each minute detail of regulatory policy remains a fundamental justification for the administrative state.[5] Among countless other examples

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lawmakers we elect have others make the law, the people lose."); Peter H. Aranson, Ernest Gellhorn & Glen O. Robinson, *A Theory of Legislative Delegation,* 68 CORNELL L. REV. 1, 7, 63–67 (1982) (proposing to "deprive the legislature of its ability to shift responsibility" for policy making); Ernest Gellhorn, *Returning to First Principles*, 36 AM. U. L. REV. 345, 347–52 (1987) ("The constitutional problem that underlies the current dissatisfaction is that Congress has not fulfilled its constitutional responsibilities."); Marci A. Hamilton, *Representation and Nondelegation: Back to Basics*, 20 CARDOZO L. REV. 807, 819-20 (1999) (asserting that "the nondelegation doctrine serves crucial constitutional ends when applied against delegations to the President and against delegation to administrative agencies"); Gary Lawson, *Delegation and Original Meaning*, 88 VA. L. REV. 327, 333 (2002) (arguing that the Constitution contains "a discernable, textually grounded nondelegation principle that is far removed from modern doctrine") *with* David Epstein & Sharyn O'Halloran, *The Nondelegation Doctrine and the Separation of Powers: A Political Science Approach*, 20 CARDOZO L. REV. 947, 950–51 (1999) (viewing delegation as a self-regulated balance of "competing inefficiencies"); Jerry L. Mashaw, *Prodelegation: Why Administrators Should Make Political Decisions*, 1 J.L. ECON. & ORG. 81, 99 (1985) ("[D]elegation to experts [is] a form of consensus building that, far from taking decisions out of politics, seeks to give political choice a form in which potential collective agreement can be discovered and its benefits realized."); David B. Spence, *A Public Choice Progressivism, Continued*, 87 CORNELL L. REV. 397, 398 (2002) (presenting a public choice argument for delegation); David B. Spence & Frank Cross, *A Public Choice Case for the Administrative State*, 89 GEO. L.J. 97, 101–02 (2000) (same).

[3] *See* STEPHEN G. BREYER ET AL., ADMINISTRATIVE LAW AND REGULATORY POLICY: PROBLEMS, TEXT, AND CASES 28 (7th ed. 2011) (discussing how courts have been "invalidating agency action as insufficiently responsive to the new interest in quantitative analysis, tradeoffs, and smart tools").

[4] *Id.* at 17–29 (discussing the evolving attitudes towards the relationship between courts and agencies from 1875 to present). One area that has been particularly controversial has been the question of how courts should discern the breadth of congressional delegations of authority. *See, e.g.,* Lisa Schultz Bressman, Chevron*'s Mistake*, 58 Duke L.J. 549 (2009) ("Rather than focusing heavily or exclusively on the relative clarity of statutory language, courts [should] examine the sorts of considerations that positive political theorists and legal scholars have identified as indications of legislative intent to delegate interpretive issues to agencies.").

[5] *See, e.g.*, David Epstein & Sharyn O'Halloran, *The Nondelegation Doctrine and the Separation of Powers: A Political Science Approach*, 20 CARDOZO L. REV. 947, 950–51 (1999) (viewing delegation as a self-regulated balance of "competing inefficiencies"); Jerry L. Mashaw, *Prodelegation: Why Administrators Should Make Political Decisions*, 1 J.L. ECON. & ORG. 81, 99 (1985) ("[D]elegation to experts [is] a form of consensus building that, far from taking decisions out of politics, seeks to give political choice a form in which potential collective agreement can be discovered and its benefits realized."); David B.

of constructive policy tailoring, the Federal Energy Regulatory Commission has developed an innovative pilot program to encourage the development of renewable energy projects in coastal waters, the Food and Drug Administration has promoted research of drugs that benefit at risk subgroups in the population, including pediatric patients and minorities, and the Environmental Protection Agency has imposed regulations on different industries, such as coal-fired power plants and chemical manufacturing plants, based on industry-specific characteristics.[6]

Given the prevalence of beneficial policy tailoring in other areas of the law, it is unsurprising that commentators have increasingly lamented the patent system's lack of an institution that is willing and able to tailor innovation policy to the needs of specific industries.[7] Professors Mark Lemley and Dan Burk have urged that "[t]he evidence is overwhelming that, at virtually every stage of both the innovation and patent processes, different industries have different needs and experience the patent system differently."[8] Scholars have viewed the U.S. Court of Appeals for the Federal Circuit ("Federal Circuit"), which holds exclusive jurisdiction over appeals from all district court cases arising under the patent laws[9] and

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Spence, *A Public Choice Progressivism, Continued*, 87 CORNELL L. REV. 397, 398 (2002) (presenting a public choice argument for delegation); David B. Spence & Frank Cross, *A Public Choice Case for the Administrative State*, 89 GEO. L.J. 97, 101–02 (2000) (same).

[6] *See, e.g.*, Press Release, Federal Energy Regulatory Commission, FERC Issues First License for Hydrokinetic Energy Project (Dec. 20, 2007), *available at* http://www.ferc.gov/media/news-releases/2007/2007-4/12-20-07-H-1.asp (creating a short-term, conditioned licensing process for wave, tidal, and ocean current projects to give the hydrokinetic industry, a nascent renewable energy industry, a boost); *Strategic Priorities: 2011-2015*, U.S. FOOD AND DRUG ADMIN., 15 (Draft Sep. 29, 2010), *available at* http://www.fda.gov/downloads/AboutFDA/ReportsManualsForms/Reports/StrategicActionPlan/UCM226907.pdf (discussing the agency's intent to prioritize technologies that aid pediatric patients, women, and minorities as these groups have been historically underrepresented in clinical trials); National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources, 74 Fed. Reg. 56,008 (Oct. 29, 2009) (proposing a final rules for chemical manufacturing process units that produces certain hazardous air pollutants).

[7] *See, e.g.*, WILLIAM LANDES & ERIC POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW 306–07 (2003) (showing that academic incentives, rather than patent rights, promote basic research by universities); Arti K. Rai & Rebecca S. Eisenberg, *Bayh-Dole Reform and the Progress of Biomedicine*, 66 LAW & CONTEMP. PROBS. 289, 291 (2003) (asserting that intellectual property rights "may [paradoxically] hinder rather than accelerate biomedical research").

[8] Dan L. Burk & Mark A. Lemley, *Policy Levers in Patent Law*, 89 VA. L. REV. 1575, 1595 (2003).

[9] 28 U.S.C. § 1295 (2010).

"makes broad pronouncements of law that set or change patent policy,"[10] as the most promising actor to tailor innovation policy to the needs of specific industries, but the court has expressed little interest in doing so.[11] The administrative agency responsible for the patent system, the U.S. Patent and Trademark Office ("PTO" or "Patent Office"), has been presumed to be unfit for the task due to the limited nature of its authority, its susceptibility to agency capture, and its lack of institutional competence for policymaking.[12] In contrast to the Federal Circuit, the PTO is viewed as having only a ministerial role to play in the patent system—examining patent applications and issuing patents for new inventions.[13]

Amid increased calls for policy tailoring in the patent system, the lopsided relationship between the Federal Circuit and the PTO has ignited concerns about the peculiar institutional structure of the patent system. The Supreme Court,[14] a faction of Federal Circuit judges,[15] and an assortment of

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[10] Ryan Vacca, *Acting Like an Administrative Agency: The Federal Circuit En Banc*, 76 MO. L. REV. 733, 734 (2011). *See also* Michael J. Burstein, *Rules for Patents*, 52 WM. & MARY L. REV. 1747, 1757 (2011) ("Originally created to bring national uniformity to the patent law, the Federal Circuit has become the most important expositor of the substantive law of patents in the United States. Indeed, the Federal Circuit has generally declined to give any legal weight to the PTO's substantive interpretations of patent law rendered in the process of granting or denying patent applications.") (citing Craig Allen Nard & John F. Duffy, *Rethinking Patent Law's Uniformity Principle*, 101 NW. U. L. REV. 1619, 1620 & n.3 (2007) and Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1, 74 (1989)).

[11] *See* Burk & Lemley, *supra* note 8, at 1579.

[12] *See, e.g.,* DAN L. BURK & MARK. A. LEMLEY, THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT 109 (2009) (dismissing the PTO's capacity to tailor patent policy based on its limited authority and susceptibility to capture); Vacca, *supra* note 10, at 754–55 (explaining that the PTO makes a poor candidate to set patent policy due in significant part to its lack of institutional competence for policymaking and to the Federal Circuit's narrow interpretation of the Agency's rulemaking authority).

[13] 35 U.S.C. § 2(a) (2006).

[14] The Supreme Court has taken a dim view of the Federal Circuit's efforts to craft special rules in patent cases. *See* eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 392–94 (2006) (rejecting the Federal Circuit's special test for issuing permanent injunctions in patent cases); MedImmune, Inc. v. Genentech, Inc., 549 U.S. 118, 136 (2007) (rejecting the Federal Circuit's declaratory judgment test); Dickinson v. Zurko, 527 U.S. 150, 161–64 (1999) (reprimanding the Federal Circuit for crafting a special review standard for PTO decisions and thereby isolating its review of patent appeals from administrative law); *see also* Mayo Found. for Med. Educ. & Research v. United States, 131 S. Ct. 704, 713 (2011) (emphasizing that administrative law should be applied uniformly including to tax law, which was one of the last strongholds of special administrative law rules). The Supreme Court is expected to address the relationship between the Federal Circuit and the PTO again in 2012 when it hears *Hyatt v. Kappos*, 625 F.3d 1320 (Fed. Cir. 2010), *cert. granted*, 131 S. Ct. 3064 (U.S. Jun. 27, 2011).

eminent scholars[16] have supported reforms that would shift greater power to the PTO. Another group of scholars has begun to explore ways in which the PTO has already worked behind the scenes to play a bigger role in shaping patent law policy than once appreciated. Clarisa Long has shown, for instance, that the PTO successfully lobbied Congress for more control over its operations and the Supreme Court for greater judicial deference for its factual findings.[17] Melissa Wasserman and Jonathan Masur have demonstrated ways in which the PTO has indirectly influenced the scope of patentability through its issuance of individual patents and preparation of internal guidance documents.[18] Yet no one has identified ways in which the PTO has directly set patent policy nor has anyone challenged the predominant assumption that the PTO lacks institutional capacity to tailor patent policy on an industry-by-industry basis.

The freshly enacted Leahy-Smith America Invents Act ("America

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[15] *See Hyatt*, 625 F.3d at 1342 (Dyk, J., dissenting) (asserting that the en banc court's holding that 35 U.S.C. § 145, which entitles patent applicants to file civil actions in district courts to determine whether they should be entitled to receive a patent, does not limit the applicant's right to introduce new evidence before a district court "denigrates the important expertise of the PTO, is contrary to established principles of administrative law, finds no support in the language of the statute, and is contrary to decisions of at least five other circuits"); *Tafas v. Doll*, 559 F.3d 1345, 1366 (Fed. Cir. 2009) (Bryson, J., concurring) (agreeing with the PTO that the Federal Circuit should not confine the agency's authority by a distinction between invalid substantive rules and valid procedural rules).

[16] *See* Burstein, *supra* note 10, at 1747 (proposing that Congress restructure the patent system to allow the PTO to engage in full substantive rulemaking so that the Agency could tailor patentability to diverse circumstances); John M. Golden, *Patentable Subject Matter and Institutional Choice*, 89 TEX. L. REV. 1041, 1041 (2011) (arguing "that the enterprise of regulating patentable subject matter should be primarily entrusted to the USPTO, rather than, as it is now, to the courts"); Jonathan S. Masur, *Regulating Patents*, 2010 SUP. CT. REV. 275, 279 (2010) (proposing that Congress endow the PTO with substantive rulemaking authority so that the Agency could craft "intelligent patent policy . . . [and] design rules that respond to particular technological developments in specific fields"); Arti K. Rai, *Growing Pains in the Administrative State: The Patent Office's Troubled Quest for Managerial Control*, 157 U. PA. L. REV. 2051, 2056–57 (2009) (suggesting "ways in which the trend toward [bringing substantive patent law into conformity with administrative law] could be mirrored in the area of procedure").

[17] Clarisa Long, *The PTO and the Market for Influence in Patent Law*, 157 U. PA. L. REV. 1965, 1966, 1974–78 (2009).

[18] *See* Jonathan S. Masur, *Patent Inflation*, 121 YALE L.J. (forthcoming 2011) (suggesting that the structural relationship between the PTO and the Federal Circuit has inflated the boundaries of patentability); Melissa F. Wasserman, *The PTO's Asymmetric Incentives: Pressure to Expand Substantive Patent Law*, 72 OHIO ST. L.J. 379, 385 (2011) (arguing that "the asymmetric review of PTO determinations and the Agency's asymmetric funding generally push the PTO's views on substantive patent law in a patent-protective direction").

Invents Act") gives the PTO opportunities to play a much larger role in policymaking than ever before.[19] Among other reforms that clearly expand the PTO's authority, the Act stipulates that the Patent Office may promulgate rules prioritizing the examination of applications of importance to the national economy or national competitiveness[20]—a power I call the PTO's "Prioritization Authority." Even more significantly, the Act empowers the PTO to set standards for its new and fortified trial-like proceedings, including derivation, post-grant review, and inter partes review proceedings, in which patent rights may be strengthened or terminated.[21] In promulgating the standards for post-grant review and inter partes review, the PTO must consider broad policy considerations, including "the effect of any such regulation on the economy, the integrity of the patent system, the efficient administration of the Office, and the ability of the Office to timely complete [the] proceedings."[22]

This Article provides the first comprehensive analysis of the PTO's reformed policymaking authority and the interrelated power dynamic between the courts and the Agency. It shows that the PTO's new powers create opportunities for the Agency to profoundly alter patent rights and policy. However, the courts, particularly the Federal Circuit and the Supreme Court, will mold the contours of the Agency's new authority through their powers of judicial review. In light of the long overdue need for tailored innovation policy, this Article therefore questions whether the PTO now has the potential to become a policy tailor and concludes that it does. My basic thesis is that the courts should give the PTO flexibility to use its new powers to craft intelligent patent policy, and the Agency should use this flexibility to tailor patent policy on an industry-by-industry basis. In so arguing, I make two novel contributions to the literature.

I first reveal that, contrary to the conventional wisdom, the PTO is not a policymaking rookie whose sole efforts to influence patent policy

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[19] *See* Leahy-Smith America Invents Act, H.R. 1249, 112th Cong. (as passed by House, Jun. 23, 2011) [hereinafter America Invents Act].

[20] *Id.* § 25 (to be codified at 35 U.S.C. § 2(b)(2)(G)) (providing that the PTO "may, subject to any conditions prescribed by the Director [of the PTO] and at the request of the patent applicant, provide for prioritization of examination of applications for products, processes, or technologies that are important to the national economy or national competitiveness without recovering the aggregate extra cost of providing such prioritization, notwithstanding section 41 or any other provision of law").

[21] *See id.* § 6 (granting the PTO powers for derivation proceedings); *id.* § 6 (granting the PTO powers for post-grant review and inter partes review proceedings"); *id.* § 18 (granting the PTO powers over the transitional program for covered business method patents).

[22] *Id.* § 6(a), (d) (to be codified at 35 U.S.C. §§ 316(b), 326(b)).

have been behind the scenes. Rather, the PTO has an established history of setting patent policy that predates the creation of the Federal Circuit. One of the clearest examples of this policymaking is in the PTO's prioritization programs. The PTO has consistently and actively tinkered with patent policy over the past fifty years by identifying socially-valuable patent applications, such as applications relating to counterterrorism,[23] the "safety of research in the field of recombinant DNA,"[24] HIV/AIDS, and cancer,[25] certain biotechnology inventions by small entities,[26] energy resources, and environmentally-beneficial technologies,[27] and developing a variety of programs to prioritize these technologies. To determine which applications to prioritize, the PTO had to judge the relative social values of the underlying technologies and hand pick the most valuable ones. The PTO then had to develop programs that would benefit the affected industries. In essence, the PTO used its seemingly narrow powers to "govern the conduct of proceedings in the Office" and to "facilitate and expedite the processing of patent applications"[28] to tailor the review process to applicants on an industry-by-industry basis. These experiences provide a useful departure point for the PTO to play a larger role in policymaking now that it has broader responsibilities and powers.

Second, I demonstrate that giving the PTO more opportunities to engage in policymaking would enable the Agency to produce economies of scale for the patent system and fill the long overdue void in innovation policy. By using the information it has gathered from prioritizing technologies, such as information indicating which industries need a regulatory boost or which industries receive little benefit from patents, to inform its ongoing efforts to set standards for its new proceedings, the PTO could tailor the patent system to the needs of distinct industries and thereby

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[23] 37 C.F.R. § 1.102(c)(2)(iii) (2011); MPEP § 708.02, subsec. XI (8th ed. Rev. 7, Sept. 2008) (justifying preferential treatment for these technologies "[i]n view of the importance of developing [these] technologies" and "the desirability of prompt disclosure of advances made in these fields").

[24] *See* MPEP § 708.02, subsec. VII (justifying preferential treatment for inventions relating to recombinant DNA on the ground that "[r]ecombinant DNA research appears to have extraordinary potential benefit for mankind").

[25] *See* MPEP § 708.02, subsec. X. The PTO's reason for expediting these technologies is "in view of the importance of developing treatments and cures for HIV/AIDS and cancer and the desirability of prompt disclosure of advances made in these fields." *Id.*

[26] *See* MPEP § 708.02, subsec. XII.

[27] *See* 37 C.F.R. § 1.102(c)(2)(i), (ii); MPEP § 708.02, subsecs. V, VI; Pilot Program for Green Technologies Including Greenhouse Gas Reduction, 74 Fed. Reg. 64,666, 64,667 (Dec. 8, 2009) (providing for expedited review of certain environmentally-beneficial technologies).

[28] *See* 35 U.S.C. § 2(b)(2)(A), (C) (2006).

promote "the Progress of Science and useful Arts,"[29] the constitutional justification for the patent system. This suggestion carries broad implications for patent practitioners, inventors, and society at large given the increasingly widespread recognition that different industries, such as the pharmaceutical industry, government-funded research institutions, and individual entrepreneurs, have different needs and would benefit from tailored patent policy. Yet none of the literature to date has identified a concrete way in which the PTO could contribute to such tailored policy. This Article endeavors to resolve this conundrum.

Critics of proposals to enlarge the PTO's policymaking role may suggest that the malleable nature of the PTO's new powers invites the possibility that the Agency will cave into rent-seeking actors in designing the standards for its proceedings and in selecting which applications to prioritize in its review process.[30] But I demonstrate that giving members of the public more incentives to try to "influence" or "capture" the Patent Office would actually produce tangible benefits for the patent system. It would improve the likelihood that the Agency would receive the information it needs to respond to changing technological and social circumstances. Moreover, if the Federal Circuit takes a broader view of the PTO's authority, the Agency's decisions would be rendered more transparent and less vulnerable to rent seeking behavior as it would be forced to comply with Administrative Procedure Act ("APA") procedures for notice and comment rulemaking.[31]

The remainder of this Article expands upon these arguments. In Part I, I show that the new institutional design of the patent system creates the potential for the PTO to embrace a much larger role in setting patent policy yet the courts will ultimately influence just how large a role the PTO may

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[29] U.S. CONST. art. I, § 8, cl. 8 (granting Congress the power "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries").

[30] *See, e.g.,* Orin S. Kerr, *Rethinking Patent Law in the Administrative State*, 42 WM. & MARY L. REV. 127, 183 (2000) (asserting that agency capture concerns would take on greater significance if the PTO's powers were increased).

[31] *See* Discussion, *infra* Part III.B. Only substantive rules, but not procedural rules, must comply with the APA procedures for providing notice of a proposed rule and soliciting public input. 5 U.S.C. § 553(b) (2010). At least one Federal Circuit judge has viewed voluntary efforts by the PTO to engage public participation in its rulemaking process as evidence that the Agency had engaged in substantive rulemaking, which the court held was beyond the scope of its authority. *See Tafas*, 559 F.3d at 1370 (Rader, J., concurring in part and dissenting in part). The reforms to the PTO's rulemaking authority open up the possibility that the court will recognize the PTO's authority to engage in substantive rulemaking and thus trigger the Agency's obligation to comply with the notice and comment provisions of the APA.

enjoy. I further show that it is unclear whether the Federal Circuit will recognize the PTO's policymaking authority at all although the court is trending in that direction and may soon be prodded along by the Supreme Court. Part II reveals that, contrary to the conventional wisdom, the PTO has played an active role in shaping patent policy over the past fifty years through its prioritization programs. In the America Invents Act, Congress commended the PTO for its efforts and encouraged it to expand them. I further demonstrate how increased deference to PTO policymaking would enable the Agency to create economies of scale for the patent system. This is particularly true if the Agency uses the information it gathers for its prioritization efforts to tailor patent law standards on an industry-by-industry basis. In Part III, I identify important social benefits from an increased PTO role in policymaking that offset the risk of detrimental agency capture. I conclude by highlighting the fact that the historic America Invents Act requires major judicial and regulatory reforms to the patent system. No time could be better for the government actors responsible for the patent system to work together to develop better and more efficient innovation policy for the nation.

## I. INSTITUTIONAL DESIGN

The America Invents Act fundamentally alters the institutional relationship between the PTO and the courts. The Act requires the PTO, rather than the courts, to make core judgments that affect patent policy and substantive patent rights. The Act thereby creates opportunities for the PTO to have a much bigger say in patent law policy than ever before. But the courts, particularly the Federal Circuit and the Supreme Court, will inevitably control just how loud the PTO's voice actually gets through their powers of judicial review.

### *A. Policymaking Potential*

Policymaking is not an incidental aspect of the Agency's reformed authority. Rather, the America Invents Act requires the PTO to set standards for the Agency's new and fortified proceedings and pushes it to expedite the review of technologies of national importance. How the PTO sets standards for its proceedings and ranks technologies for prioritization may profoundly shape innovation policy.[32]

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[32] For an argument that the PTO's new powers are incompatible with the Federal Circuit's view that the PTO may only promulgate procedural rules, see Sarah Tran, *Patent Powers,* 25 HARV. J.L. & TECH. at Part II.B.2 (forthcoming 2012).

The PTO's new Prioritization Authority directly authorizes it to judge the relative value of different inventions. The Act specifies that the PTO

> may, subject to any conditions prescribed by the Director [of the PTO] and at the request of the patent applicant, provide for prioritization of examination of applications for products, processes, or technologies that are important to the national economy or national competitiveness without recovering the aggregate extra cost of providing such prioritization, notwithstanding section 41 or any other provision of law.[33]

To prioritize applications in the patent system, the PTO must determine whether one type of patent application has greater importance for the national economy or national competitiveness than another. Is a new diaper design that could generate billions of dollars for domestic companies more important to the nation than a new hydraulic fracturing technique that could reduce the carbon footprint of drilling operations, enabling drillers to comply with state regulations while creating thousands of jobs? To what degree should the PTO consider the negative externalities that differing technologies produce for the nation, such as the impact of diapers on landfills or of hydraulic fracturing on groundwater and land stability? Should the PTO focus on inventors that can prove they will likely create the most jobs or generate the highest level of revenues, or should the PTO try to give equal opportunities to smaller businesses?

Congress did not answer these tough policy questions in the America Invents Act. The original proposal to grant the PTO Prioritization Authority identified "green technologies designed to foster renewable energy, clean energy, biofuels or bio-based products, agricultural sustainability, environmental quality, energy conservation, or energy efficiency" as examples of technologies that could be prioritized under the PTO's new authority based on their potential to contribute to the growth of green jobs and reduce the nation's reliance on foreign oil.[34] But before Congress approved the amendment, it deleted these examples from the text of the Amendment. As it currently stands, Congress has provided the PTO

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[33] America Invents Act § 25 (to be codified at 35 U.S.C. § 2(b)(2)(G)). Other applications that are not designated as being of national importance must pay a premium of $4,800 to receive expedited review. *See id.* § 11(h)(1).

[34] *See* 157 CONG. REC. S1052 (daily ed. Mar. 1, 2011) (Amendment No. 124 and statement of Sen. Robert Menendez) (applauding the PTO for prioritizing green technologies in the review process); America Invents Act § 25 (granting the PTO a new power to prioritize important technologies).

with no guidance on the types of technologies that deserve prioritization other than that they must carry importance for the national economy or national competitiveness.[35] This structure gives the PTO substantial discretion to choose how to implement the new power. Among countless other potentially relevant factors, the PTO could prioritize technologies on the basis of a given industry's potential to contribute to job creation, past or predicted revenue generation, or urgent need for greater clarity in patent rights. Regardless of how the PTO decides to prioritize, the core purpose of such prioritizing is to make value judgments and set policy. Those inventions that are prioritized receive a stamp of approval from the federal government on top of the benefits of expedited review, which include the possibility of earlier financing, commercialization, and the ability to stamp out competition.[36]

Other powers granted by the America Invents Act require the PTO to make even more complex policy determinations with broader potential ramifications. The PTO's toolbox of new or fortified proceedings in which it may weed out low quality patents now includes post-grant review, inter partes review, supplemental examination, and derivation proceedings, as well as a transitional post-grant review program for certain business methods patents.[37] Congress has given the PTO broad powers over these proceedings. The PTO must "prescribe regulations setting forth *standards* for the conduct of derivation proceedings, including requiring parties to provide sufficient evidence to prove and rebut a claim of derivation."[38] For inter partes review, the Act requires the PTO to set "forth *standards* for the showing of sufficient grounds to institute" the review, set "forth the *standards and procedures* for discovery of relevant evidence, including that such discovery shall be limited to . . . what is otherwise necessary in the interest of justice;" and set "forth *standards and procedures* for allowing the patent owner to move to amend the patent."[39] Similarly, for post-grant review, the Act requires the PTO to prescribe regulations "setting forth the *standards* for the showing of sufficient grounds to institute" a [post-grant] review, "setting forth *standards and procedures* for discovery of relevant evidence, and "setting forth *standards and procedures* for allowing the

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[35] *See* America Invents Act § 25 (to be codified at 35 U.S.C § 2(b)(2)(G).

[36] *See* Sarah Tran, *Expediting Innovation*, 36 HARV. ENVTL. L. REV. at Part II.A (forthcoming 2012).

[37] *See* America Invents Act §§ 6, 18. The PTO's *ex parte* reexamination proceeding, in which a party may request that the PTO reexamine a patent but not participate in the proceeding after filing the request, remains essentially unchanged.

[38] *Id.* § 3(i) (amending 35 U.S.C. § 135(b)) (emphasis added).

[39] *Id.* § 6(a) (to be codified at 35 U.S.C. § 316(a)(2), (5), (9)) (emphasis added).

patent owner to move to amend the patent."[40] The reforms to the PTO's authority were supported by legislative history that signaled Congress' intent for standards to carry a broad meaning.[41]

How the PTO prescribes standards and other rules for its proceedings will, at a minimum, influence patent policy and may dramatically alter it. In promulgating rules for post-grant review and inter partes review, for instance, the PTO must consider "the effect of any such regulation on the economy, the integrity of the patent system, the efficient administration of the Office, and the ability of the Office to timely complete proceedings."[42] Does this requirement authorize the PTO to set standards for its proceedings in a manner that benefits a particular industry, such as the pharmaceutical industry or renewable energy industry, if it believes doing so would benefit the national economy? Probably. That is not to say that the PTO should take such action but merely to point out the fact that it could potentially do so. By forcing the PTO to incorporate broad, policy determinations into its regulations, Congress has given the PTO the potential to assume a key policymaking role in the patent system. Although the PTO lacks the authority that some agencies possess to issue any regulations that are "necessary or appropriate" to administer their organic acts,[43] the breadth of the PTO's new powers now resembles the authority of certain other agencies like the Environmental Protection Agency ("EPA"). The EPA possesses broad discretionary authority under environmental statutes to promulgate regulations that "protect human health and the environment."[44] Thus, Congress tasked both the PTO and the EPA with

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[40] *Id.* § 6(d) (to be codified at 35 U.S.C. § 326(a)(2), (5), (9)) (emphasis added).

[41] *See* Patent Powers, *supra* note 32, at Part II.B.1.

[42] *Id.* § 6(a), (d) (to be codified at 35 U.S.C. §§ 316(b), 326(b)).

[43] *See* Federal Trade Commission Act, 15 U.S.C. § 45 (2006) (detailing the rule-making power of the Federal Trade Commission, which includes making rules and regulations for the purpose of carrying out the provisions of the Section); Federal Food Drug & Cosmetic Act, 21 U.S.C. § 371 (2006) ("The authority to promulgate regulations for the efficient enforcement of this chapter . . . is vested in the Secretary [of Health and Human Services]."); Communications Act of 1934, 47 U.S.C. §§ 154(i), 303(r) (2006 & Supp. IV 2010) (explaining that the Federal Communications Commission "may perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this chapter, as may be necessary in the execution of its functions," and "from time to time, as public convenience, interest, or necessity requires, shall . . . [m]ake such rules and regulations and prescribe such restrictions and conditions, not inconsistent with law, as may be necessary to carry out the provisions of this chapter.").

[44] *See, e.g.,* Resource Conservation and Recovery Act ("RCRA") § 9003(a), 42 U.S.C. § 6991b(a) (2000) (requiring the EPA to promulgate regulations for new and existing underground storage tanks and to establish technical requirements for leak detection and prevention "as may be necessary to protect human health and the environment"); *see also*

prioritizing public goods—the national economy for the PTO and human health and the environment for the EPA. Congress provided little explanation on how to balance the sensitive policy concerns that come into play when trying to promote these public goods. And by ending fee diversion and granting the PTO the authority to set its own fees,[45] Congress has given the PTO the financial means of carrying out a role comparable to other agencies like the EPA.

In summary, the America Invents Act has expanded the PTO's powers and responsibilities. Rather than consign the PTO to a ministerial role of reviewing patent applications and issuing patents, Congress has shown its intent to assign the PTO the complex task of weighing competing social and economic values and setting policy for the patent system through the PTO's Prioritization Authority and fortified proceedings.

### *B. Judicial Review*

The PTO's new powers create opportunities for the Agency to receive greater deference for its decisions than in the past. But the language of the America Invents Act is not a model of clarity. As one scholar noted, "Congress . . . missed the opportunity to clarify the standard of review for decisions of the US Patent and Trademark Office. The big question is how the Federal Circuit (and eventually the Supreme Court) will interpret the Act."[46] In unraveling this "big question," the most unsettled administrative and institutional issue is whether the courts should now recognize and accord deference to the PTO's exercises of policymaking.

If the America Invents Act was found to reflect ambiguity or Congressional silence on a particular issue, administrative law principles should guide the courts in determining how much weight to give to the PTO's interpretation of the statute. The Supreme Court has explained that: "Where Congress has prescribed the governing standard of proof, its choice controls absent 'countervailing constitutional constraints.'"[47] In the absence of such Congressional direction, as is the case with the America Invents Act, courts apply different administrative law standards to agency decisions depending on whether the decisions reflect legal interpretations, policy

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*About EPA*, EPA.GOV http://www.epa.gov/epahome/aboutepa.htm (last visited Mar. 5, 2010) ("EPA's mission is to protect human health and the environment.").

[45] America Invents Act § 10.

[46] Shubha Ghosh, *Guest Post—To Promote Progress in Science and Job Creation*, PATENTLYO (Sep 12, 2011) http://www.patentlyo.com/patent/2011/09/guest-post-to-promote-progress-in-science-and-job-creation.html.

[47] Microsoft Corp. v. i4i Ltd. P'ship, 131 S. Ct. 2238, 2244 (2011) (quoting Steadman v. SEC, 450 U.S. 91, 95 (1981)).

decisions, or findings of fact. Many agency decisions do not fall neatly into only one of these categories. Patent validity, for instance, is recognized as a question of law but the courts must also defer to the underlying findings of fact that the PTO makes when it examines the relevant patent applications,[48] so questions of patent validity essentially constitute mixed questions of law and fact.

Although traditionally the Federal Circuit was reluctant to grant much, if any, deference to any of the three types of PTO decisions, this reluctance is eroding with respect to the PTO's findings of fact and legal interpretations. Supreme Court intervention in 1999 forced the Federal Circuit to use the standards provided by the Administrative Procedure Act ("APA"), rather than the Federal Circuit's own less deferential standards, to guide its review of PTO findings of fact.[49] Since this decision, the Federal Circuit has shown less inhibition about using APA standards in its review of both PTO fact findings and legal interpretations.[50] The Supreme Court continues to watch the Federal Circuit's decisions closely. Indeed the Supreme Court is presently gearing up to hear *Hyatt v. Kappos*,[51] a case in which the Federal Circuit eliminated certain opportunities for the PTO to receive deference for its findings of fact. In *Hyatt*, the Federal Circuit had held that (1) a patent applicant must be allowed to introduce new evidence in a Section 145 civil action filed to challenge a PTO refusal to grant patent rights, and (2) the issues implicated by the new facts must be considered *de novo*[52]—in other words, without any deference to the PTO. Judge Dyk dissented, arguing forcefully that the *en banc* court's holding "denigrates the important expertise of the PTO, is contrary to established principles of administrative law, finds no support in the language of the statute, and is contrary to decisions of at least five other circuits."[53] With recent patent reforms placing more responsibility for weeding out bad patents on the PTO, Judge Dyk's arguments in favor of positioning the PTO as the

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[48] *See id.* at 2242–43.

[49] *See Zurko*, 527 U.S. at 154–165 (rejecting the Federal Circuit's "clearly erroneous" standard for certain PTO fact findings, a less deferential review standard, and holding that the Administrative Procedure Act provides the relevant standard).

[50] *See, e.g., Tafas*, 559 F.3d at 1359–64 (upholding the legality of three of four rules designed to address the backlog and improve the quality of issued patents); Cooper Techs. Co. v. Dudas, 536 F.3d 1330, 1335–37 (Fed. Cir. 2008) (giving *Chevron* deference to the PTO's broad interpretation of which patents are subject to inter partes reexamination); *see also i4i*, 131 S. Ct. at 2242 (upholding the Federal Circuit's view that the Patent Act requires that patent invalidity be shown by clear and convincing evidence).

[51] 625 F.3d 1320 (Fed. Cir. 2010), *cert. granted*, 131 S. Ct. 3064 (2011).

[52] *Id.* at 1323.

[53] *Id.* at 1342 (Dyk, J., dissenting).

primary fact finder, rather than the courts, carry even greater force than when the Supreme Court granted certiorari in *Hyatt*. Thus, the Supreme Court has displayed a keen interest in the institutional structure of the patent system and continues to play a key role in guiding the Federal Circuit's review of PTO legal interpretations and findings of fact.

The PTO's policy determinations represent the only category of agency decision that have not benefited from the Supreme Court's efforts to bring patent law into conformity with administrative law. The relevant standard courts generally use to review policy decisions by administrative agencies derives from section 706(2)(A) of the Administrative Procedure Act. While this provision does not specifically provide a standard for the review of policy decisions,[54] the Supreme Court in *Motor Vehicle Manufacturers Association v. State Farm Mutual Insurance Company* found that the "arbitrary [or] capricious" standard of section 706(2)(A) applies to this type of review.[55] The Court further adopted what has come to be known as "hard look" review and clarified how to perform this review:

> The scope of review under the "arbitrary and capricious" standard is narrow and a court is not to substitute its judgment for that of the agency. Nevertheless, the agency must examine the relevant data and articulate a satisfactory explanation for its action including a "rational connection between the facts found and the choice made." . . . We will, however, "uphold a decision of less than ideal clarity if the agency's path may reasonably be discerned."[56]

In following *State Farm*, courts will invalidate an agency's action if they determine that the agency failed to take a "hard look" at the significant considerations against its position.[57] In engaging in such hard look review, courts acknowledge the ability of agencies to engage in policymaking while simultaneously enjoying ample room to reach their own conclusions about the propriety of the agencies' policy decisions.

The hard look review level of deference is less of a prize to agencies

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[54] *See* 5 U.S.C. § 706(2)(A), (E) (2000).

[55] Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983).

[56] *Id.* (internal quotations omitted).

[57] *See* Nw. Envtl. Advocates v. Nat'l Marine Fisheries Serv., 460 F.3d 1125, 1133 (9th Cir. 2006) ("[W]e review agency decisions to ensure that "the agency has taken a 'hard look' at the potential environmental consequences of the proposed action.") (citing Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt., 387 F.3d 989, 993 (9th Cir. 2004) and quoting Churchill Cnty. v. Norton, 276 F.3d 1060, 1072 (9th Cir. 2001))); El Conejo Americano of Tex., Inc. v. Dep't of Transp., 278 F.3d 17, 19–20 (D.C. Cir. 2002) (applying "hard look" review).

than the deference accorded to findings of fact or legal interpretations.[58] But with the Federal Circuit and the PTO, the question has not been how much deference to give to the PTO's policymaking determinations but whether to give the Agency deference at all. From an agency's perspective, receiving some deference for its policymaking is far preferable to receiving none at all. Deference provides the agency with a sense of security that the time and labor it expends making its decisions, as well as its expertise, will be considered and respected by the courts even if the court ultimately overturns the agency's decision.[59] By providing agency decisions protection from the whims of the courts, deference enhances certainty in administrative affairs and provides agencies with an incentive to be productive.

Although the Federal Circuit has hardly ever given the PTO hard look deference for its policy determinations, the court has shown signs that it may warm up to the idea in the near future. In 2007, Stuart Benjamin and Arti Rai pointed out that "[i]n its review of PTO decisions, the Federal Circuit rarely cites to the foundational Supreme Court case on hard look review—*State Farm*—or refers to its language delineating the sort of review in which appellate courts are supposed to engage" and that the court "has failed to recognize policy decisions as a separate category of PTO behavior."[60] But the following year in 2008, the Federal Circuit stepped out of its comfort zone and explicitly cited to *State Farm* in *Burandt v. Dudas*.[61] In *Burandt*, the court granted the PTO deference for an exercise of discretion (the PTO's decision to deny the plaintiff's request to reinstate his patent for failure to pay the maintenance fee) and upheld the PTO's decision.[62] By deferring to the PTO's exercise of discretion, the court essentially recognized the Agency's ability to engage in policymaking: exercises of discretion constitute a type of policy determination.[63]

The *Burandt* case does not represent a landslide victory for the PTO

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[58] *See* Stuart Minor Benjamin & Arti K. Rai, *Who's Afraid of the APA? What the Patent System Can Learn from Administrative Law*, 95 Geo. L.J. 269, 305 (2007) ("The most common basis courts invoke to strike down agency actions is that the agency failed to take a hard look at the arguments for it to act otherwise.").

[59] *See generally* BERNARD SCHWARTZ, ADMINISTRATIVE LAW § 10.1 (3d ed. 1991) ("If the scope of review is too broad, agencies are turned into little more than media for the transmission of cases to the courts. That would destroy the values of agencies created to secure the benefit of special knowledge acquired through continuous administration in complicated fields.").

[60] Benjamin & Rai, *supra* note 58, at 305, 336 n.192.

[61] 528 F.3d 1329, 1332 (Fed. Cir. 2008).

[62] *Id.* at 1333.

[63] *See* Benjamin & Rai, *supra* note 58, at 301 (explaining that exercises of discretion represent one type of agency policy determination).

but rather a small potatoes win. The court deferred to the Agency's specific determination with regard to one patent holder, not to a broad decision by the Agency that impacted numerous patent practitioners. And the court has not cited to *State Farm* or its language in providing deference to any PTO determinations since this case. Nonetheless, *Burandt* provides a glimmer of hope that the Federal Circuit will be open to the possibility of embracing the PTO's policymaking role in the near future. The Supreme Court also has the opportunity to prod the lower court along in *Hyatt* when it addresses how the recent reforms to the patent system alter the balance of powers between the Federal Circuit and the PTO. Given that the PTO's authority now explicitly empowers it to set standards for its proceedings in light of broad policy factors and to prioritize applications on the basis of their national importance, patent reform creates a compelling reason for the courts to reconsider the PTO's role as a policymaker. As the next section shows, historical and theoretical reasons further support enlarging the PTO's policymaking role.

## II. RETHINKING RESPONSIBILITY FOR INNOVATION POLICY

As the courts grapple to understand precisely how the America Invents Act alters the PTO's role in the patent system, the natural question that arises is whether it is good policy to let the Agency make policy. I argue the answer is "yes" for two key reasons that have not yet been explored in the literature. First, despite the Federal Circuit's narrow view of PTO authority, the PTO is no policymaking virgin. To the contrary, the Agency has a history that extends back over half a century of tailoring the patent review process to the needs of specific industries. Thus, rather than granting the PTO policymaking authority for the first time, the America Invents Act has expanded the Agency's policymaking authority. This creates a different baseline of expertise by which the Agency should be judged and suggests that the courts do not need to treat the PTO as a rookie regulator that should be second guessed at every move. Second, I argue that by using the knowledge it has gained through its prioritization efforts, the PTO could (and should) become a policy tailor. By using the information already at its disposal to tailor patent law standards to meet the varying needs of different industries, the PTO would create economies of scale for the patent system and promote the constitutional rationale for the existence of the patent system.

### *A. A Policymaking Virgin?*

A common basis for concluding that the PTO would not be an effective policymaker is the assumption that the PTO lacks institutional

competence for policymaking.[64] I challenge this assumption. Despite the fact that the Federal Circuit has infrequently deferred to or even recognized the PTO's policymaking efforts,[65] the Agency has played a demonstrable role in policymaking over the past fifty years. The Agency engaged in policymaking each time it chose to grant preferential treatment in its review process to a group of technologies that could combat terrorism, the AIDS epidemic, cancer, pollution, or climate change.[66] Prioritizing these technologies required the PTO to first assess the relative social importance of different technologies and then develop programs to benefit them on an industry-by-industry basis. In directing the PTO to prioritize applications of national importance in the America Invents Act, Congress expressed its explicit approval of the PTO's historic practices of using its statutory authority to make policy judgments and prodded the Agency to do more.[67] As the PTO embraces its expanded role with regard to its Prioritization Authority and responsibility over the new and fortified proceedings, the PTO's learning curve will be smoothed by its long (but previously overlooked) history of policymaking.

1. A History of Policymaking

Prioritizing a class of inventions involves two central policy determinations: (1) that a particular industry is more important than others, and (2) that the "important" industry would benefit from a regulatory boost. For over fifty years, the PTO has used what limited powers it has had to make these policy determinations and create programs that prioritized certain key technologies. From 1959 to 1999, the PTO's primary source of statutory support for its prioritization efforts was its power to establish regulations for the conduct of its proceedings pursuant to 35 U.S.C. § 6 (1952), the predecessor to the Agency's current rulemaking powers in § 2. In 1999, the American Inventors Protection Act gave the Agency a handful

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[64] *See, e.g.,* Vacca, *supra* note 10, at 754–55 (explaining that the PTO makes a poor candidate to set patent policy due in significant part to its lack of institutional competence for policymaking and to the Federal Circuit's narrow interpretation of the Agency's rulemaking authority).

[65] *See* discussion *infra* Part I.

[66] *See, e.g.,* 37 C.F.R. § 1.102(c)(2)(i), (iii) (2011); Pilot Program for Green Technologies Including Greenhouse Gas Reduction, 74 Fed. Reg. at 64,667 (providing for expedited review of certain environmentally-beneficial technologies).

[67] *See* 157 CONG. REC. S1052-53 (daily ed. Mar. 1, 2011) (Amendment No. 124 and statement of Sen. Robert Menendez) (applauding the PTO for prioritizing green technologies in the review process); America Invents Act § 25 (granting the PTO a new power to prioritize nationally important technologies).

of new powers, including a power that provided additional support to the PTO's prioritization efforts: the power to promulgate rules that "facilitate and expedite the processing of patent applications."[68] Applications involving the "safety of research in the field of recombinant DNA,"[69] HIV/AIDS, cancer,[70] semiconductors,[71] energy resources, environmentally-beneficial technologies,[72] prospective manufacture or actual infringement of the claimed invention,[73] and small-entity applicants who submitted an application for a biotechnology invention[74] have all benefited from prioritized examination regulations issued pursuant to these powers.

Just as the PTO has targeted an assortment of technologies to prioritize, it has devised an array of programs to benefit different industries. In 1959, the PTO promulgated regulations that provided three means for applications to be fast tracked: (1) "upon order of the Commissioner to expedite the business of the Office;" (2) "upon a verified showing which, in the opinion of the Commissioner, will justify so advancing it;" or (3) if "the inventions are deemed of peculiar importance to some branch of the public service and the head of some department of the Government requests immediate action for that reason."[75] While the first two of these categories put primary discretion within the control of the PTO, the third category created opportunities for intergovernmental collaboration. Yet even the third category left the PTO with a key policymaking role. To illustrate, in

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[68] 35 U.S.C. § 2(C) (1994 & Supp. V 1999).

[69] *See* MPEP § 708.02, subsec. VII (8th ed. Rev. 7, Sept. 2008) (justifying preferential treatment for inventions relating to recombinant DNA on the ground that "[r]ecombinant DNA research appears to have extraordinary potential benefit for mankind").

[70] *See* MPEP § 708.02, subsec. X. The PTO's reason for expediting these technologies is "in view of the importance of developing treatments and cures for HIV/AIDS and cancer and the desirability of prompt disclosure of advances made in these fields." *Id.*

[71] MPEP § 708.02, subsec. IX. The PTO expedited semiconductor applications after President Ronald Reagan urged the PTO to do so. *See* Ronald Reagan, U.S. President, Remarks at the Federal Conference on Commercial Applications of Superconductivity (Jul. 28, 1987) (transcript *available at* http://www.reagan.utexas.edu/archives/speeches/1987/072887a.htm).

[72] *See* 37 C.F.R. § 1.102(c)(2)(i), (iii) (2011); Pilot Program for Green Technologies Including Greenhouse Gas Reduction, 74 Fed. Reg. at 64,667 (providing for expedited review of certain environmentally-beneficial technologies).

[73] *See* MPEP § 708.02, subsec. I. It makes sense to allow applicants ready for prospective manufacture of an invention or dealing with actual infringement of the invention to petition for special status because these applicants tend to have urgent needs to protect their property rights and make investment decisions.

[74] *See* MPEP § 708.02, subsec. XII. Small-entity applicants that submit biotechnology applications may be granted special status because the subject of their patent applications may represent a major asset of the small entity.

[75] 37 C.F.R. § 1.102 (1959).

1987, President Ronald Reagan deemed patent applications relating to superconductivity to carry peculiar importance to the nation, and he recommended that the U.S. Patent and Trademark Office "speed up the patent process so that it can keep pace with the fast-paced world of high technology."[76] The PTO then granted special status to patent applications involving superconductivity technologies until 2006.[77] Although the idea to prioritize semiconductors was suggested by the President, it was the PTO's rules that allowed this program to happen and it was the PTO's rules that created a standard by which patent examiners judged whether an application was eligible for prioritization. Applicants could receive expedited review upon the payment of the relevant fees and the filing of a petition with reasons that the PTO considered adequate to justify accelerated review.[78] It was also the PTO that decided when to end the program.

In addition to creating opportunities for high priority applications to be prioritized for a fee, the PTO has promulgated regulations permitting certain types of applications to seek expedited review without the payment of fees. For instance, in 1982 the PTO enabled applicants to file petitions to make an application special and thereby receive fast-tracked review[79] without paying a supplemental fee for inventions that purported to materially "(i) Enhance the quality of the environment; [or] (ii) Contribute to the development or conservation of energy resources."[80] In 2004, the PTO added inventions relating to counterterrorism to the list of applications that could seek accelerated review without the payment of a fee.[81]

In 2006, the PTO replaced the majority of the specialized opportunities for expedited review with a new program, the revised

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[76] *See* Remarks at the Federal Conference on Commercial Applications of Superconductivity, *supra* note 71.

[77] *See* MPEP § 708.02, subsec. IX.

[78] 37 C.F.R. § 1.102(d) (1982).

[79] Applications that are accorded special status are typically put on the examiner's special docket throughout its entire course of prosecution before the examiner, and receive special status in any appeal to the Board of Patent Appeals and Interferences (BPAI) and also in the patent publication process. Pilot Program for Green Technologies Including Greenhouse Gas Reduction, 74 Fed. Reg. at 64,666 (citing MPEP §§ 708.01, 1309).

[80] Revision of Patent and Trademark Fees Confirmation, 47 Fed. Reg. 41,276 (Sept. 17, 1982) (revising paragraph (a) and adding paragraphs (c) and (d) to 37 C.F.R. § 1.102); Changes To Support Implementation of the United States Patent and Trademark Office 21st Century Strategic Plan, 69 Fed. Reg. 56,482 (Sept. 21, 2004) (revising paragraph (c) of 37 C.F.R. § 1.102); 37 C.F.R. § 1.102(c)(2).

[81] 37 C.F.R. § 1.102(c)(2)(iii) (2004). Prior to amending § 1.102 in 2004, the PTO had granted special status to applications pertaining to counter-terrorism technologies so long as a fee under 37 C.F.R. § 1.17(h) accompanied the petition.

Accelerated Examination program that was open to all applicants.[82] The revised Accelerated Examination program aims to provide inventors with a final decision on their applications within twelve months, a shorter pendency period than the PTO previously provided to any recipient of special status.[83] However, as part of the quid pro quo for expedited review, the PTO has required applicants who file petitions for the revised Accelerated Examination program to prepare a pre-examination search report and an examination support document.[84] Preparing these documents increases the applicants' workload and expenses, and creates a possibility, albeit a remote possibility, that any resulting patents will be later invalidated on the grounds of inequitable conduct.[85]

In 2009, actions by patent offices around the world prompted the PTO to create a new prioritization program. The United Kingdom Intellectual Property Office ("UK IPO"),[86] the Japanese Patent Office ("JPO"),[87] the Australian Intellectual Property Office ("IP Australia"),[88] and

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[82] *See generally* Changes to Practice for Petitions in Patent Applications To Make Special and for Accelerated Examination, 71 Fed. Reg. 36,323 (June 26, 2006) (describing the revised Accelerated Examination program).

[83] Press Release, U.S. Patent & Trademark Office, USPTO to Give Patent Filers Accelerated Review Option (Jun. 26, 2006), http://www.uspto.gov/news/pr/2006/06-37.jsp.

[84] *See* Changes to Practice for Petitions in Patent Applications To Make Special and for Accelerated Examination, 71 Fed. Reg. at 36,327 (revising procedures for requesting accelerated review).

[85] *See* Tran, *supra* note 36, at Part II.A (discussing reasons the revised Accelerated Examination program has been undersubscribed). The America Invents Act responded to the rise of inequitable conduct claims in the courts—a phenomenon the Federal Circuit had called a "plague" on the patent system—by creating a new procedure that enables patent holders to submit supplemental information to correct errors or omissions in proceedings before the Office. America Invents Act § 6. As a result, concerns about inequitable conduct will likely decrease in the near future.

[86] *See Green Channel Patent Applications Data,* U.K. INTELLECTUAL PROP. OFFICE, http://www.ipo.gov.uk/types/patent/p-os/p-gcp/p-gcp-help.htm (last visited Feb. 11, 2011); Press Release, U.K. Intellectual Prop. Office, Green Patent Database Launched (Jun. 4, 2010), http://www.ipo.gov.uk/about/press/press-release/press-release-2010/press-release-20100604.htm; *see also* Press Release, U.K. Intellectual Prop. Office, UK 'Green' Inventions to Get Fast-Tracked Through Patent System (May 12, 2009), http://www.ipo.gov.uk/about/press/press-release/press-release-2009/press-release-20090512.htm.

[87] *See The JPO Implemented a Pilot Program for Green Accelerated Examination Effective November 1, 2009*, ONDA TECHNO INT'L PATENT ATTORNEYS (Nov. 30 2009), http://www.ondatechno.com/English/ip/patent/report/20091130.html.

[88] *See* Press Release, Richard Marles, Austl. Parliamentary Sec'y for Innovation & Indus., Fast Tracking Patents for Green Technology Solutions (Sept. 15, 2009), http://archive.innovation.gov.au/ministersarchive2010/Marles/Pages/FASTTRACKINGPATENTSFORGREENTECHNOLOGYSOLUTIONS.html.

the Korean Intellectual Property Office ("KIPO")[89] initiated programs to expedite the review of environmentally-beneficial technologies in their patent systems. The United States' patent office created a similar program in December of 2009, the Green Technology Pilot Program.[90] Applications accepted under the Green Technology Pilot Program received special status in any appeal to the Board of Patent Appeals and Interferences ("BPAI"), as well as in the patent publication process.[91] But unlike applications advanced under the revised Accelerated Examination program, which are accorded special status throughout the entire course of prosecution before an examiner, applications proceeding via the Green Technology Pilot Program were only accorded special status prior to the first Office Action,[92] which typically represents only the first of multiple communications from the PTO. Moreover, while a final decision is made on applications reviewed under the revised Accelerated Examination program within twelve months, the PTO indicated the pilot program would only lower the average forty-month wait for a final decision by twelve months.[93]

The PTO's prioritization programs have served a clearly defined need. Over the years, the patent system had become plagued by excessive delays in the patent review process that require inventors to wait almost

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[89] The KIPO program, which KIPO claims provides the fastest examination in the world, made headlines in October of 2009 when the agency reported that one examination was completed in less than a month. *See* Press Release, Korean Intellectual Prop. Office, Thanks to Superspeed Examination, Green Technology Acquires Patent in a Month (Oct. 20, 2009), http://www.kipo.go.kr/kpo/user.tdf?seq=1305&c=1003&a=user.english.board.BoardApp&board_id=kiponews&catmenu=ek20200; *see also Green Technologies Given Special Treatment in the United States, United Kingdom, and South Korea,* NUTTER MCCLENNEN & FISH LLP (May 17, 2010), http://www.nutter.com/publications_events.php?section=13&ReportID=1037.

[90] *See* Pilot Program for Green Technologies Including Greenhouse Gas Reduction, 74 Fed. Reg. at 64,666–67; *see also* David Kappos, Dir., U.S. Patent & Trademark Office, Remarks at Press Conference Announcing Pilot to Accelerate Green Technology Applications (Dec. 7, 2009), http://www.uspto.gov/news/speeches/2009/2009nov07.jsp (describing the Green Technology Pilot Program); Press Release, U.S. Patent & Trademark Office, The U.S. Commerce Department's Patent and Trademark Office (USPTO) Will Pilot a Program to Accelerate the Examination of Certain Green Technology Patent Applications (Dec. 7, 2009), http://www.uspto.gov/news/pr/2009/09_33.jsp [hereinafter Commerce Dep't] (same).

[91] Pilot Program for Green Technologies Including Greenhouse Gas Reduction, 74 Fed. Reg. at 64,666.

[92] *Id.* An Office Action is a written opinion of patentability from the PTO. *See* 37 C.F.R § 1.104(a).

[93] *See* Commerce Dep't, *supra* note 90.

three years on average to receive a patent.[94] Although the PTO lacked the resources and flexibility to fix the troubled patent system entirely, the Agency's prioritization efforts helped ameliorate the delays with respect to those technologies of greatest value to society. A range of benefits for patent applicants, industry competitors, and society flowed from this prioritization. By providing opportunities for applications relating to key inventions to be reviewed more quickly, the PTO helped clarify property boundaries at an earlier stage, enabling patent holders to secure financing for their inventions and commercialize their technologies earlier.[95] At the same time, industry competitors could make better decisions about what activities to engage in without violating another party's patent rights.[96] Moreover, when the PTO's prioritization programs gave inventors ample time and opportunity to focus their research on technologies that they knew could receive expedited review, the programs created additional incentives for parties to innovate high-priority technologies, which benefited the general public.[97] The PTO's prioritization programs did not create benefits for merely a handful of parties, but rather for thousands of parties. For instance, in just two years, the Green Technology Pilot Program enabled over seven hundred patents to issue.[98] Without the program, the underlying applications would likely still be sitting in the PTO's backlog of unreviewed applications and no one would be able to predict the precise scope of the patent rights that would emerge.

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[94] Under the Patent Office's current system of reviewing applications on a first-come, first-served basis, the average time from the filing of an application to patent issuance or abandonment was 34.6 months in fiscal year 2009 and was projected to be 34.8 months in fiscal year 2010. *See* U.S. Patent and Trademark Office, 2010–2015 Strategic Plan 10 (2010), http://www.uspto.gov/about/stratplan/USPTO_2010-2015_Strategic_Plan.pdf.

[95] *See generally* Tran, *supra* note 36, at Part II.A (discussing the significance of the length of the patent review process).

[96] *See id.*

[97] In all likelihood the inventor of pharmaceutical drugs would not be induced to switch from working on drugs to light bulbs or wind turbines to take advantage of a slightly shorter review process. But inventors with more readily transferable skills and more incentives to focus on a particular type of technology could actually do so. The key consideration is the length of time the program is in effect. *See id.* at Part III.B.2 (arguing that the Green Technology Pilot Program could not produce any incentives for innovation as it was implemented on an annual basis for only two years).

[98] *See Green Petition Report Summary*, U.S. PATENT & TRADEMARK OFFICE (Dec. 19, 2011), http://www.uspto.gov/patents/init_events/green_report_summary20111219.pdf (showing that 742 patents, which were processed through the Green Technology Pilot Program, were issued between December 2009 and December 19, 2011).

2. Congressional Encouragement

In the America Invents Act, Congress openly endorsed the PTO's prioritization efforts and encouraged the Agency to expand them. On March 1, 2011, after over five years of debates about patent reform and only about six months before Congress enacted the America Invents Act, Senator Menendez, a democrat representative from New Jersey, proposed that the bill be amended so that the PTO "may prioritize the examination of applications for technologies that are important to the national economy or national competitiveness, such as green technologies designed to foster renewable energy, clean energy, biofuels, agricultural sustainability, environmental quality, conservation, or energy efficiency."[99] Senator Menendez was particularly enamored by the PTO's Green Technology Pilot Program. Referring to this program, Senator Menendez explained that his proposed Amendment "codified an existing, successful program at the Patent Office."[100] He argued that prioritization in the patent review process was a "good commonsense policy that can help America propel forward in the 21st century."[101]

Menendez' proposal faced little opposition. Instead of just prioritizing technologies of national importance, the America Invents Act goes a step further and creates opportunities for all patent applications to receive expedited review upon the payment of a fee of $4,800.[102] The Act enables applications of national importance to receive this expedited processing for free.[103] This freebie is particularly valuable to startup companies and individual entrepreneurs who may lack the resources to pay the additional $4,800 filing fee to file a petition for expedited review on top of the steep and rapidly increasing fees for prosecuting a patent. Additionally, inventors of high-priority technologies who would otherwise

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[99] 157 CONG. REC. S1052–53 (daily ed. Mar. 1, 2011) (Amendment No. 124 and statement of Sen. Robert Menendez).

[100] *Id.*

[101] *Id.*

[102] *See* America Invents Act § 11(h)(1).

[103] It specifies that the PTO

> may, subject to any conditions prescribed by the Director [of the PTO] and at the request of the patent applicant, provide for prioritization of examination of applications for products, processes, or technologies that are important to the national economy or national competitiveness without recovering the aggregate extra cost of providing such prioritization, notwithstanding section 41 or any other provision of law.

*Id.* § 25 (to be codified at 35 U.S.C. § 2(b)(2)(G)).

choose to pay the fee can spend the money on socially-beneficial activities like research or development of new inventions.

Although Menendez' original focus was on green technologies, there is no mention of green technologies or any other specific technology in the language of the PTO's Prioritization Authority. As discussed *supra* in Part I.A., Congress has provided the PTO with no guidance on the types of technologies that it should target for prioritization other than that they must carry importance for the national economy or national competitiveness.[104] This broad language leaves the PTO with substantial latitude to decide for itself which applications deserve prioritization and set policy accordingly.

In summary, over the past fifty years, the PTO has employed a variety of techniques for accelerating the review of socially-valuable applications, changing the types of eligible technologies, the times in the review process that acceleration has occurred, as well as the overall speed it has reviewed applications. Prioritization of applications on an industry-by-industry basis has thus become embedded in the PTO's practices of reviewing patent applications. Although these practices have never been challenged in court, a rule prioritizing a particular class of technologies, such as renewable energy technologies, pursuant to the PTO's authority to facilitate and expedite patent applications or to govern the conduct of its proceedings requires key policy determinations—the determination that renewable energy technologies are more important than other technologies and that they deserve a regulatory boost. Congress has endorsed such policymaking by the PTO and paved the way for the PTO to be more proactive in the future in tailoring patent policy to the needs of specific industries. As the next section shows, by being more proactive in its policymaking, the PTO would be able to produce economies of scale and enhance its effectiveness.

### *B. Tailored Patent Law Standards as Economies of Scale*

In addition to the PTO's lengthy history of policymaking, my second argument in favor of a larger role for the PTO in policymaking is one of efficiency. If the Agency is going to invest the time and resources in determining which industries are of national importance and would benefit from prioritized treatment, it would be wasteful not to use this information for greater purposes than the mere task of prioritizing patent applications. To better optimize the social benefits of providing inventors with a limited monopoly, the PTO should use its new powers over its proceedings to tailor its regulations to the needs of particular industries. Numerous scholars have

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[104] *See id.*

highlighted the need for tailored innovation policy. Until now, however, no one has identified a way in which the PTO could fill this void.

1. Economies of Scale

The principle of economies of scale supports giving the PTO a larger role in policymaking. In microeconomics, economies of scale refer to the cost advantages that an institution perceives when it expands production. As the scale of output is increased, the cost per unit decreases. To illustrate, suppose an author spends one year writing a detective novel and foregoing a salary of $ 100,000. If he makes $ 100 by selling copies of his book to his friends and family members, the cost of the books per unit of his lost salary is $ 1,000. But if he spends $ 1,000 on marketing and sells $ 100,000 worth of books to the general public as well as to his close contacts as a result, the cost per unit of his lost salary is now merely $ 1.01. Similarly, if the PTO has already invested time and money in researching which industries are of greatest importance to national competitiveness or the national economy and would benefit from prioritization, society would only benefit from having the technologies commercialized earlier and from the potential creation of incentives to innovate in the prioritized industries. But if the PTO used the knowledge it gains about the particular benefits different industries receive from the patenting process for broader purposes, such as by varying the standards for the institution of post-grant review or for inter partes review on an industry-by-industry basis, society would reap much greater rewards with only slightly more effort on the part of the PTO.

A hypothetical example helps illustrate how my proposal would work. Say the PTO determined for the purposes of choosing a category of patent applications to prioritize in the review process that the renewable energy industry needed a regulatory boost because concerns about national security, climate change, and competition from Asia were increasing the social value of these technologies.[105] Additionally, suppose the PTO determined that the potential harms generated by the patent system for the renewable energy industry, such as restrictions on access to and transfer of green technologies, were outweighed by the benefits that the patent system could produce for the development and commercialization of these technologies.[106] In making these discoveries, the PTO further learned that

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[105] This hypothetical was based on the PTO's decision to create a Green Technology Pilot Program to expedite the review of renewable energy technologies and other environmentally beneficial technologies.

[106] Of course, highly relevant to such a consideration are congressional and executive initiatives. With regard to green technologies, Congress has unanimously concluded that it

one of the major challenges for the U.S. renewable energy industry was that Chinese firms were destroying the value of U.S. technologies by copying them and filing patent applications in the United States on them without permission. The PTO's new authority to set standards would give it an additional means of correcting this market barrier and providing a regulatory boost to the domestic industry.[107]

One way the PTO could correct the market barrier would be through its new power to "prescribe regulations setting forth standards for the conduct of derivation proceedings, including requiring parties to provide sufficient evidence to prove and rebut a claim of derivation."[108] If an invention disclosed in an earlier filed patent application is found to have been derived from an invention disclosed in a later filed application in the PTO's derivation proceeding, the copycat will lose its ability to acquire or retain patent rights for the disputed invention. Using the knowledge the PTO gained from prioritizing renewable energy technologies, the Agency could tailor a derivation standard to benefit the domestic renewable energy industry. For instance, the PTO could promulgate a regulation creating the following low standard of proof for derivation proceedings involving renewable energy technologies: "The holder of an invention pertaining to a renewable energy technology, as defined by PTO regulation XYZ, will be deemed to have derived the invention from an earlier invention if the inventions primarily include substitutable components." The PTO cannot change the threshold for allowing a party to petition for a derivation proceeding—namely, that the inventions be "the same or substantially the same"[109] but the PTO's powers over derivation proceedings readily encompass the power to clarify how this standard can be satisfied on an industry-by-industry basis.

Another way the PTO could benefit a particular special needs

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is in America's best system to use the patent system to promote these technologies. *See* Foreign Relations Authorization Act, Fiscal Years 2010 and 2011, H.R. 2410, 111th Cong. § 1120A (2009) (unanimously agreeing that the United States should "prevent any weakening of, and ensure robust compliance with and enforcement of, existing international legal requirements ... for the protection of intellectual property rights related to [green technologies]"); Vote on House Amendment 187, GOVTRACK, http://www.govtrack.us/congress/vote.xpd?vote=h2009-323 (last visited Jan. 6, 2011).

[107] Tailoring the PTO's rules to benefit U.S. companies at the expense of foreign companies could raise constitutional, free trade, and fairness concerns. While it is beyond the scope of this Article to address these concerns, I intend to address them in the near future.

[108] America Invents Act § 3(i) (amending 35 U.S.C. § 135(b)). Additionally, the PTO must specify a time period in which parties may resolve derivation disputes by arbitration. *Id.* (amending 35 U.S.C. § 135(f)).

[109] *Id.* (amending 35 U.S.C. § 135(a)).

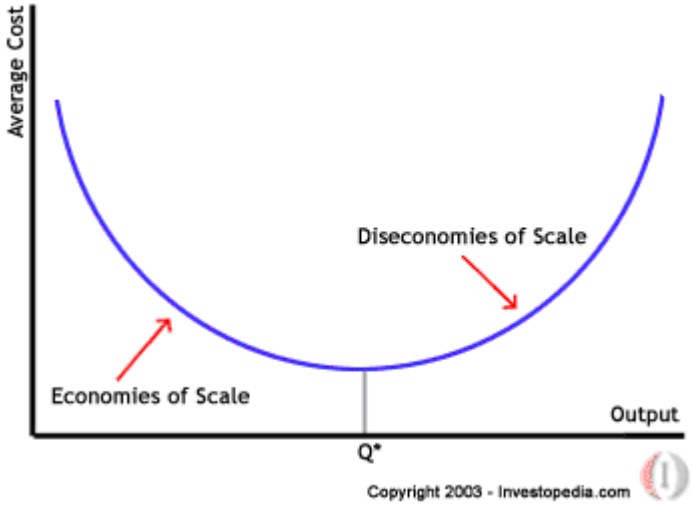
industry, such as the domestic renewable energy industry, would be by using its new powers to set standards for the institution of post-grant review and inter partes review, for discovery of relevant evidence in these proceedings, and for allowing patent owners to move to amend patents during these proceedings.[110] In promulgating these standards for post-grant review and inter partes review, the PTO must consider broad policy concerns such as "the effect of any such regulation on the economy, the integrity of the patent system, the efficient administration of the Office, and the ability of the Office to timely complete proceedings."[111] Certainly, the requirement that the PTO consider the effect of its regulations on the economy empowers it to consider whether tailoring a standard for a particular industry would benefit the U.S. economy. Presuming again that the PTO was concerned about copying of domestic renewable energy technologies by Chinese companies, the PTO could design broad standards for discovery of relevant evidence held by foreign individuals and companies in its proceedings involving renewable energy technologies.

A potential counterargument could be raised that encouraging the PTO to tailor patent standards to the needs of different inventors would lead to diseconomies of scale. As shown in Figure 1, a diseconomy of scale arises when firms experience an increase in marginal cost when output is increased rather than decreasing costs per increase in output. Referring back to the author example used earlier, if the author wants to keep expanding his sales of books, he will need to continue investing in marketing. Eventually the marginal cost to generate additional sales of the book would increase as might be the case if the author concludes that the only way to get more sales was by investing in aggressive marketing strategies, such as by mailing a flyer about the book to every address in the country. Doing such a mailing would increase his sales but would produce a lower yield per dollar spent than the initial marketing efforts.

Figure 1

[110] America Invents Act § 6(a), (d) (to be codified at 35 U.S.C. §§ 316(a)(2), (5), (9), 326(a)(2), (5), (9)).

[111] *Id.* (to be codified at 35 U.S.C. §§ 316(b), 326(b)).




Similarly, if the incremental time and effort the PTO must expend to investigate the needs of particular technologies and adjust its standards accordingly exceeds the incremental benefits to society of tailored policy, the PTO would create a diseconomy of scale.

Although it is impossible to know for certain just how efficient the PTO would be in promulgating industry specific regulations, several factors alleviate the risk that the PTO would create diseconomies of scale for the patent system. Significantly, the PTO does not need to expend much additional effort to tailor the patent system to the needs of the inventive community. The PTO already has fifty years of information about the needs of different industries from its experiences prioritizing applications and must continue to amass such information for its ongoing prioritization efforts.[112] Additionally, every time the PTO promulgates a regulation, such as a standard for its derivation proceedings, it needs to understand how the regulation will affect different sectors of its constituents such as pharmaceutical or business methods inventors. The PTO does not need to know how a regulation will affect a particular inventor and lacks the resources to try to implement standards that would benefit only a few patent applicants. Moreover, if the PTO tried to develop standards for a handful of inventors as opposed to a large group, there would likely be a huge uproar from the inventive community in the rulemaking process on top of the risk of judicial or congressional intervention.[113] Thus, the PTO is already obligated to do the basic research that would lead to economies of scale and

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[112] *See* Discussion, *supra* Part II.A.

[113] It is worth noting that the PTO's past prioritization efforts have never resulted in any suits to challenge the relevant regulations.

appears to have little incentive to spin its wheels on efforts that would generate diseconomies of scale.

In summary, the information the PTO has gathered and will continue to gather as it selects inventions to prioritize in the review process is highly valuable for more purposes than mere prioritization. By using this knowledge to inform its efforts to establish regulations for its proceedings, the PTO would promote efficient use of its resources and further its statutory obligations.

### 2. A Long Overdue Need

In addition to creating economies of scale for the patent system, by making policy on an industry-by-industry basis the PTO would be able to fill a long overdue void. For years, scholars have recognized the value that could be obtained through tailored innovation policy. However, no one has identified a way in which the PTO could contribute to such policy tailoring. This Article demonstrates, for the first time, that the PTO now has the powers it needs to take on that role.

The heart of the patent system is an exchange of a benefit to the public, the promotion of "the Progress of Science and useful Arts," in return for an inventor's ability to hold the exclusive rights to an invention for a limited time.[114] Not every grant of a patent benefits society, however. William Landes and Eric Posner have shown that "basic research is incentivized by a reward system that involves prestigious academic appointments, lecture fees, grants that reduce teaching loads, and the prospect of Nobel and other prizes, while applied research (including, however, instruments and other tools used to conduct basic research) is incentivized by intellectual property rights."[115] Because basic research would be conducted even if the patent system did not exist, the grant of patent rights to basic research does not promote the progress of science and useful arts. Even Congress appears to recognize that certain inventions, such as business methods patents, merit less patent protection than others. In the America Invents Act, Congress created the transitional post-grant review program for business methods patents.[116] This program renders business methods patents more susceptible to being invalidated at the PTO

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[114] U.S. CONST. art. I, § 8, cl. 8. *See* Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 480 (1974) ("The stated objective of the Constitution . . . is to 'promote the Progress of Science and useful Arts.' The patent laws . . . have a positive effect on society . . . by way of increased employment and better lives for our citizens.").

[115] LANDES & POSNER, *supra* note 8, at 306–307.

[116] *See* America Invents Act § 18(a)(1).

than other types of patents.

Eminent scholars have further noted the importance of recognizing that different industries have different needs with respect to the patent system. Mark Lemley and Dan Burk have explained:

> Technology is anything but uniform, . . . and it displays highly diverse characteristics across different sectors. . . . Industries vary in the speed and cost of research and development ("R&D"), in the ease with which inventions can be imitated by others, in the need for cumulative or interoperative innovation rather than stand-alone development, and in the extent to which patents cover entire products or merely components of products.[117]

Based on substantial empirical research, Lemley and Burk concluded that "there is no reason to assume that a unitary patent system will optimally encourage innovation in the wide range of diverse industries that it is expected to cover."[118] Lemley and Burk envisioned the courts (particularly the Federal Circuit) as the appropriate actor to tailor innovation policy to the needs of specific industries, but the Federal Circuit has shown little interest in filling this role.[119] Lemley and Burk dismissed the possibility that the PTO could tailor the patent system to distinct industries based on the Agency's limited powers, susceptibility to agency capture, and lack of institutional competence for policymaking.[120] Other scholars have agreed with this conclusion.[121] However, the recent legislative expansions to the PTO's powers empower the PTO to take on a much more pronounced role in policymaking.[122] With regard to concerns about agency capture, section III infra shows that agency capture concerns may dematerialize in light of the structure of the patent system and APA if the Federal Circuit embraces a broader view of PTO authority.

Given the compelling need for tailored innovation policy, the logical question is how can the PTO make it? In addition to the examples provided in Part II.B.1., the PTO could use its new powers to reduce the benefits of the patent monopoly for industries that do not rely on patent incentives. For

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[117] Burk & Lemley, *supra* note 8, at 1577.

[118] *Id.*

[119] *Id.* at 1579.

[120] *See* DAN L. BURK & MARK. A. LEMLEY, THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT 109 (2009).

[121] *See, e.g.,* Vacca, *supra* note 10, at 754–55 (explaining that the PTO makes a poor candidate to set patent policy due in significant part to its lack of institutional competence for policymaking and to the Federal Circuit's narrow interpretation of the Agency's rulemaking authority).

[122] *See* Discussion, *supra* Part I.A.

instance, if the PTO recognized that basic research by universities was not influenced by patent incentives but rather by academic incentives, the PTO could promulgate regulations with this fact in mind. The PTO could exclude inventions deriving from basic research from any of its prioritization efforts and promulgate standards for discovery and for the institution of a proceeding that make it easier for parties to challenge patents covering basic research. In doing so, the PTO would reduce the problematic tendency of the patent system to supply an unnecessary and socially unproductive patent monopoly to basic research. With substantial empirical evidence supporting the PTO's case, this would be a prime opportunity for the courts to award the PTO deference in upholding its policymaking choice. But if the PTO chose to favor or disfavor an industry for no logical or sound reason, the courts would be well within their jurisdiction in correcting the PTO. The hard look review standard for policy decisions provides courts with significant latitude to reach their own conclusions about the propriety of an agency's policy decisions.[123] Thus, even if the Federal Circuit recognized the PTO's policymaking authority, the court would not be obligated to uphold the PTO's ill-advised policy choices.

In summary, the PTO is now uniquely positioned to tailor patent standards to inventors on an industry-by-industry basis. The knowledge the PTO has gathered from its ongoing prioritization efforts would help the Agency understand the distinct needs and interests of different industries. By encouraging the PTO to put its policymaking expertise to broader applications, the patent system will be more effective at fulfilling the constitutional rationale for the existence of the patent system and the PTO will be more efficient.

## III. AGENCY CAPTURE OBJECTIONS

Some commentators may fear that increasing the PTO's policymaking discretion will increase the potential for the Agency to be captured. For instance, empowering the PTO to discriminate among patent applications on the basis of their value to national competitiveness or to the national economy invites the possibility that the Agency will cave into rent-seeking actors in selecting which technologies to prioritize. If the benefits of prioritization are non-negligible, every self-interested patent applicant will have an incentive to try to persuade the Patent Office to prioritize his or her technology. At least one patent practitioner has observed that the PTO's new prioritization authority "could be abused and it could be controversial in the reconciliation process . . . . If semiconductor technologies are

[123] *See* discussion *supra* Part I.B.

promoted, the pharmaceutical industry or the automobile industry may ask why their technologies are not important to American competitiveness."[124] Professor Orin Kerr has suggested that it is bad policy to give the Patent Office substantive rulemaking authority for precisely this reason:

> Seeking to maximize their return on their investments in the patent system, inventors would have strong incentives to lobby the PTO for patent protection based on political favors, knowing that deferential standards would insulate the PTO's decisions from judicial review.[125]

Thus, Professor Kerr takes the view that increasing the PTO's discretion skews the incentives of inventors, distracting them away from inventing and towards rent seeking behavior:

Several commentators have challenged assertions that the Patent Office is vulnerable to agency capture. For example, Professor Michael Burstein has argued that "powerful interests in patent policy often fall on opposite sides of major questions" so "the likelihood of any single interest capturing the policy process is lower."[126] He has furthered contended that the judicial alternative is not much better.[127] Indeed, a number of scholars have suggested there is no reason to believe the Federal Circuit is any less subject to capture than the PTO.[128] I take a different approach. To the extent that giving the PTO greater policymaking discretion within the confines of

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[124] J. Steven Rutt, Cleantech & Nano Blog, *Patent Reform Legislation & PTO's Green Tech Accelerated Examination* (Jun. 27, 2011), http://www.nanocleantechblog.com/2011/06/articles/legislation/patent-reform-legislation-ptos-green-tech-accelerated-examination/ (citing David Bloch, partner, Winston & Strawn LLP).

[125] Kerr, *supra* note 30, at 183.

[126] Burstein, *supra* note 10, at 1796–97 (2011).

[127] *Id.*

[128] LANDES & POSNER, *supra* note 8, at 335–36 (asserting that the Federal Circuit has become a pro-patent court due in part to special interest groups like the patent bar and its clients); John R. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 AIPLA Q.J. 185, 251 (1998) (showing that the establishment of the Federal Circuit has correlated to a substantial increase in findings of patent validity); Arti K. Rai, *Engaging Facts and Policy: A Multi-Institutional Approach to Patent System Reform*, 103 COLUM. L. REV. 1035, 1110–11 (2003) (arguing that capture has played a role in Federal Circuit decision making). *But see* John M. Golden, *The Supreme Court as "Prime Percolator": A Prescription for Appellate Review of Questions in Patent Law*, 56 UCLA L. REV. 657, 685–86 (rejecting arguments that the Federal Circuit has been captured); Glynn S. Lunney, Jr., *Patent Law, the Federal Circuit, and the Supreme Court: A Quiet Revolution*, 11 SUP. CT. ECON. REV. 1, 3 (2004) (dismissing claims that the Federal Circuit is "pro-patent").

the Patent Act would motivate self-interested actors to try to influence PTO decision making, I argue that such a phenomenon would be healthy and could fundamentally benefit the patent system. I further contend that if the Federal Circuit adopts a broader view of PTO authority, the risks of agency capture will be offset by structural mechanisms in the APA designed to promote agency accountability.

### *A. Beneficial Capture*

The patent system is an inherent public good. The core purpose of the patent system is to balance a benefit to society (increased innovation and disclosure of new technologies) with a burden on society (grants of limited monopolies to patent owners).[129] Because the public bears the burden of the patent monopolies, fairness compels the conclusion that regulatory decision making should reflect the opinions and concerns of interested members of the public. Efforts to influence the Patent Office suggest that affected parties care about the decisions the Agency makes and feel that the regulator will listen to their comments and concerns. The more public input the Patent Office receives, the better it can understand its constituents' needs, the consequences of its decisions, and the relevance of factors it may not have considered otherwise. By giving members of the public more incentives to try to "influence" or "capture" the Patent Office, the courts would actually improve the likelihood that the Agency would receive the information it needs to respond to changing technological and social circumstances.[130] The regulatory process thereby would become more reflective of citizen values. Given the delicate balancing of policy concerns that some of the Patent Office's powers involve, such as prioritizing technologies on the basis of their national importance, providing incentives for public input in the decision making process becomes increasingly important.

Giving members of the public incentives to try to get their voices heard by an administrative agency like the PTO is particularly important given the suboptimal ability of the courts to receive and consider public input. Unlike administrative agencies, who issue rules through an iterative process and decide issues ex ante, courts create rules through a closed-door,

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[129] *See* U.S. CONST. art. I, § 8, cl. 8 (granting Congress the power "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries").

[130] *See generally* Mark Fenster, *The Opacity of Transparency*, 91 IOWA L. REV. 885, 895–910 (2006) (discussing how public participation enables agencies to learn about public priorities and identify means of addressing these priorities).

ex post approach.[131] They do not issue a proposed decision, solicit feedback on it from interested members of the general public, and respond to the feedback before issuing a final decision. Even if courts are interested in hearing what the public has to say or in anticipating a problem before it occurs, they are required to issue their final decisions after hearing only a subset of relevant facts for an existing problem: the facts central to the specific case before them and occasionally facts provided by a few amici. The court system thus provides an inadequate means for members of the public to participate in the development of laws and policies.

Given that the patent system is an inherent public good, regulatory decisions affecting this public good should be a product of active public participation. Thus, the patent system benefits when there are increased incentives for members of the public to let regulators know their preferences. Unlike the PTO, the courts do not have channels to receive such positive public input.

### *B. Structural Safeguards*

The negative side of capture arises when an agency listens predominantly to a narrow group of self-interested actors. Contrary to what may be presumed, there is a greater risk of this occurring if the Federal Circuit takes a narrow view of the Patent Office's authority than otherwise. Prior to the enactment of the America Invents Act, the Federal Circuit construed the Patent Office's authority as limited to promulgating procedural, but not substantive rules.[132] Because the recent patent reforms have greatly expanded the PTO's authority, there are compelling reasons for the court to relinquish the substantive restriction on the PTO's authority in part or in whole.[133] If the Federal Circuit does so, the court would trigger the PTO's obligation to comply with the APA's requirements for substantive rulemaking, which would increase the transparency of the Agency's decisions and the likelihood that they would reflect reasoned decision making. In other words, the more open the PTO's decision making process becomes, the better the legal process would constrain any Agency desires to dole out favors and improve the Agency's accountability.

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[131] *See* Arti Rai, Patentability Policy Across the Executive Branch: What the DNA Patent Controversies Each About Institutional Choice, 61 Duke L.J. 101, 107 (forthcoming 2011) (on file with author) (discussing flaws in ex post adjudication by courts).

[132] *See* Tafas v. Doll, 559 F.3d 1345, 1354 (Fed. Cir. 2009); Merck & Co. v. Kessler, 80 F.3d 1543, 1549–50 (Fed. Cir. 1996) ("[T]he broadest of the [Patent Office's] rulemaking powers . . . [do] NOT grant the Commissioner the authority to issue substantive rules." (citing Animal Legal Def. Fund v. Quigg, 932 F.2d 920, 930 (Fed. Cir. 1991))).

[133] *See* Patent Powers, *supra* note 32.

APA requirements for substantive rulemaking inhibit the ability of agencies to cater to the needs of special interest groups. Specifically, promulgating substantive rules, but not procedural rules, triggers required compliance with 5 U.S.C. § 553 of the APA. This provision includes various mechanisms that force agencies to inform the public about proposed substantive rules and consider the public's comments on the proposed rules. Agencies generally must apprise the public of proposed rulemaking by publishing a notice in the Federal Register.[134] The notice must include information about the proposed rulemaking to give members of the public an opportunity to formulate comments on the legality and substance of the proposal.[135] After giving the public notice, the agency then must "give interested persons an opportunity to participate in the rule making through submission of written data, views, or arguments with or without opportunity for oral presentation."[136] The rules typically need to incorporate a short general statement of the basis and purpose for the rules.[137] Traditionally, the PTO has not needed to provide these opportunities for notice of proposed rules and public participation when it promulgated rules since the Federal Circuit viewed the PTO's authority as limited to promulgating procedural rules, which are exempt from these requirements.[138]

Not only has the PTO not been required to provide the public with notice of its proposed decision making or opportunities to comment on it, the substantive restriction on its authority has given it a perverse incentive not to do so. In *Doll*, Judge Rader viewed the Patent Office's voluntary efforts to provide a notice and comment period for the rules at issue, as well as the overwhelming public participation that resulted, as evidence that the rules were invalid substantive rules, rather than valid procedural ones.[139] Not surprisingly, the Patent Office was reticent to fulfill the public participation obligations of the APA on its own initiative after this decision.[140] However, since the passage of the America Invents Act, the PTO has been bolder about soliciting public comments.[141] So long as the

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[134] 5 U.S.C. § 553(b) (2006).

[135] *See id.*

[136] *Id.* at § 553(c).

[137] *See id.*

[138] Section 553(b) explicitly does not apply to "interpretative rules, general statements of policy, or rules of agency organization, *procedure*, or practice." 5 U.S.C. § 553(b) (2006) (emphasis added).

[139] *Tafas*, 559 F.3d at 1370 (Rader, J., concurring in part and dissenting in part).

[140] *See Expediting Innovation*, *supra* note 36 (discussing how Patent Office officials have acknowledged that they solicited and received comments on the Green Technology Pilot Program but have refused to release the comments to the public).

[141] Changes To Implement the Supplemental Examination Provisions of the Leahy-

Federal Circuit does not expand its distinction between invalid substantive rules and valid procedural rules to the PTO's new powers, the PTO's increased powers will continue to produce expanded opportunities for transparency in the PTO's decisions.

The overarching value of providing mechanisms for public participation in intellectual property decision making has achieved global attention. In late August of 2011, the Global Congress on Intellectual Property and the Public Interest convened over 180 experts from thirty-two countries and six continents to ponder the public interest dimension in intellectual property law and policy. The participants issued the Washington Declaration on Intellectual Property and the Public Interest, which states: "International intellectual property affects a broad range of interests within society, not just those of rights holders. Thus, intellectual property policy making should be conducted through mechanisms of transparency and openness that encourage broad public participation."[142] The goals of using transparency and openness to enable the functioning of the patent system to take into consideration a broad range of interests will be furthered if the courts push the PTO to follow the APA mandates for substantive rulemaking and thereby engage public participation in its decision making processes.

In summary, although increased PTO power may correspond with increased efforts to capture the PTO, this effect would not necessarily be bad. Given the public purposes of the patent system and the sheer breadth of industries affected by it, providing incentives for increased public participation in the regulatory design and implementation of this system makes good sense. Moreover, the risk that special interest groups would

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Smith America Invents Act and To Revise Reexamination Fees, 77 Fed. Reg. 3666 (Jan. 25, 2012); Changes To Implement the Inventor's Oath or Declaration Provisions of the Leahy-Smith America Invents Act, 77 Fed. Reg. 982 (Jan. 6, 2012); Changes To Implement Miscellaneous Post Patent Provisions of the Leahy-Smith America Invents Act, 77 Fed. Reg. 442 (Jan. 5, 2012); Changes To Implement the Preissuance Submissions by Third Parties Provision of the Leahy-Smith America Invents Act, 77 Fed. Reg. 448 (Jan. 5, 2012); Press Release, Leahy-Smith America Invents Act Implementation (Sep. 9, 2011), *available at* http://www.uspto.gov/aia_implementation/index.jsp; Janet Gongola, *Public Comments Urged for Group 2 Proposed Rule Makings by November 15, 2011*, USPTO AIA BLOG (October 28, 2011), http://www.uspto.gov/aia_implementation/blog.jsp#heading-5. It would defy all reason if the fact that the PTO took the commonsense action of soliciting public input on the far-reaching changes of the America Invents Act motivated the courts to hold the regulations invalid.

[142] The Global Congress on Intellectual Property and the Public Interest, *Washington Declaration on Intellectual Property and the Public Interest* (2011), http://infojustice.org/wp-content/uploads/2011/09/Washington-Declaration.pdf.

overtake the Patent Office will likely decrease if the Federal Circuit adopts a broader view of PTO authority as the Agency will be required by the APA to provide more transparency in its regulatory decision making.

## CONCLUSION

Dramatic legislative reforms have spurred the patent system into a state of flux. As a result, traditional expectations about the institutional design of the patent system must now give way to new directions hoped to fix the broken system. Emboldened by the recent reforms, the PTO will likely play a larger and better appreciated role in setting patent policy than it ever has in the past. Though the Agency has widely been viewed by scholars and judges as a rubberstamping agency that lacks institutional competence in policymaking and is overly susceptible to agency capture, I have shown that the PTO is actually well poised to tailor patent policy to the varying needs of different industries that are affected by the patent system. The PTO gained substantial expertise in policymaking over the past fifty years through its practices of identifying socially-valuable inventions and prioritizing them in its review process. The value of this expertise should not be underappreciated. If the PTO uses the knowledge it has acquired through its prioritization efforts to tailor innovation policy on an industry-by-industry basis pursuant to its new powers, a long overdue void in innovation policy would finally be filled. The PTO would create economies of scale by using the information already at its disposal to address the differing needs of varying industries, including the renewable energy industry, government institutions, universities, and independent entrepreneurs. Far from leading to agency capture, this proposal would improve information flow to the PTO and render PTO decisions more transparent.

Ultimately, the courts hold the power to amplify the benefits of tailored PTO policymaking or mute them. By recognizing and granting the PTO deference for its reasoned policy determinations, the Federal Circuit would encourage and enable the PTO to design better patent policy as the Agency fulfills its new obligations under the Patent Act.[143] Thus, amid sweeping changes to the patent system, the Federal Circuit and the PTO now share a rare opportunity to re-envision their administrative roles as well as their relationship to each other. No time could be better for these governmental actors to promote "the Progress of Science and useful

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[143] Even if the Federal Circuit is not ready to accept a sidekick in patent policymaking, the Supreme Court could nudge the lower court in this direction.

Arts,"[144] the core constitutional purpose of the patent system, by helping the patent system surge forward as a flexible system that is responsive to the varied needs of its constituents, industry competitors, and society at large.

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[144] U.S. CONST. art. I, § 8, cl. 8 (granting Congress the power "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries").