

ANTICOMPETITIVE USE OF ADMINISTRATIVE TRIALS IN BARGAINING OVER PATENT RIGHTS

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In response to widespread concerns about the extent to which “trolls” distort the patent process and other deficiencies in the patent system, Congress created two new administrative trial processes by which a third party may challenge the validity of a patent in a more streamlined and less costly way than through a civil trial. Unfortunately, the very features that made these administrative quasi-judicial proceedings efficient also make them ripe for anticompetitive abuse. This behavior is especially problematic when it comes to bargaining over licenses for patents recognized as a “standard” or deemed to be “essential” to a particular industry. In this context, instituting administrative trials to determine patent validity may actually create an inequality in bargaining strength that allows the potential licensee to extract rents from the patent holder—especially if that licensee possesses market power.

This Note explores the source and nature of these anticompetitive harms and recognizes that, as currently applied by the courts, antitrust law cannot be used to reach these abuses. Noerr-Pennington immunity shields firms from exposure to antitrust liability with respect to most government interactions, with only narrow exceptions for sham petitioning and litigating activity. In the patent context, these exceptions are far too narrow and make antitrust liability functionally unobtainable. In particular, this Note argues that the “sham litigation” exception to Noerr-Pennington should be expanded to encompass a wider range of litigation tactics—including instituting an administrative proceeding—to deter anticompetitive behavior that distorts both bargaining over patent licenses and the market more broadly.

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INTRODUCTION

Our regulatory system is organized to correct and prevent market failures that harm consumers.¹ Through regulation, administrative agencies define the contours of the economic system in which firms operate; antitrust law is then used to deter or punish monopolistic² or other anticompetitive conduct—such as price fixing,³ predatory pricing,⁴ or refusals to deal⁵—occurring within the context of that

¹ See THEODORE J. LOWI, *THE END OF LIBERALISM: THE SECOND REPUBLIC OF THE UNITED STATES* 7 (2d ed. 1979) (examining the growth of the administrative state and noting that it “must become capable of controlling, suppressing, and absorbing market forces or the market becomes menace rather than good provider”).

² Monopolistic conduct requires both “the possession of monopoly conduct in the relevant market” and “the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.” *United States v. Grinnell Corp.*, 384 U.S. 563, 570–71 (1966).

³ Bare price-fixing schemes—that is, an agreement between competitors to set the price of goods—“are, without more, unreasonable restraints [on commerce under federal law] because they eliminate competition.” *United States v. Socony-Vacuum Oil*, 310 U.S. 150, 218 (1940) (citing *Ethyl Gasoline Corp. v. United States*, 309 U.S. 436, 458 (1940)).

⁴ The Supreme Court defines predatory pricing as “pricing below an appropriate measure of cost for the purpose of eliminating competitors in the short run and reducing competition in the long run.” *Cargill, Inc. v. Monfort of Colo., Inc.*, 479 U.S. 104, 117 (1986).

⁵ Although the Supreme Court has affirmed the “high value” of the “right to refuse to deal with other firms,” it has held that “[u]nder certain circumstances, a refusal to deal with rivals can constitute anticompetitive conduct” under federal antitrust law. *Verizon Commc’ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 408 (2004).

system. By setting the parameters of competition and then regulating conduct within that system, the regulatory structure and antitrust laws act as complements; they work in tandem to prevent, deter, and punish conduct and commercial speech that would produce deleterious economic effects.⁶

This regulatory dynamic breaks down in markets where entry costs are high and information available to consumers about quality is low (for example, pharmaceuticals)⁷ or normal operation of the markets would discourage important and necessary innovation (for example, patents).⁸ In these situations, administrative or independent agencies pervasively regulate these markets to prevent such market failure.⁹ In exchange—and in contravention of antitrust’s emphasis on competitive markets—regulated actors receive market power in the form of a statutory monopoly.¹⁰ In other words, regulated actors have exclusive rights to sell or produce a particular good.

Intellectual property is the quintessential example. A technology company, for instance, may invent a new microchip that can be used in smartphones. Once the chip is out on the market, however, other companies could easily copy it. This would both deprive the technology company of a return on its investment in developing the chip and *discourage* future investments by other inventors. To solve this market failure, the federal government grants patents to inventors, giving them exclusive rights to both produce and license their inventions.¹¹

⁶ Cf. Grace Heinecke, Note, *Pay the Troll Toll: The Patent Troll Model Is Fundamentally at Odds with the Patent System’s Goals of Innovation and Competition*, 84 *FORDHAM L. REV.* 1153, 1196 (2015) (“Antitrust law and patent law have overlapping goals—they both aim to foster competition and reward innovation.”).

⁷ See, e.g., Barbara J. Evans, *Seven Pillars of a New Evidentiary Paradigm: The Food, Drug, and Cosmetic Act Enters the Genomic Era*, 85 *NOTRE DAME L. REV.* 419, 439, 477 (2010) (describing drug regulations as a “gatekeeping function,” discussing the importance of statutorily required premarket safety trials in confirming the efficacy of drugs, and highlighting 2007 statutory changes to the FDA’s regulatory regime to increase consumer safety).

⁸ Gregory N. Mandel, *Proxy Signals: Capturing Private Information for Public Benefit*, 90 *WASH. U. L. REV.* 1, 4 (2012) (“The most fundamental question in patent law . . . concerns how to identify the level of patent protection that will optimize the incentives to innovate for society.”).

⁹ See, e.g., Daniel J. Gifford, *Antitrust’s Troubled Relations with Intellectual Property*, 87 *MINN. L. REV.* 1695, 1696 (2003) (“Intellectual property laws exist to remedy what would otherwise be a market failure.”).

¹⁰ See Ariel Katz, *Making Sense of Nonsense: Intellectual Property, Antitrust, and Market Power*, 49 *ARIZ. L. REV.* 837, 840 (2007) (“Standard economic analysis . . . assumes that IP rights are designed to confer upon their owners market power in order to solve a market failure . . .”).

¹¹ See, e.g., Thomas M. Jorde & David J. Teece, *Rule of Reason Analysis of Horizontal Arrangements: Agreements Designed to Advance Innovation and Commercialize*

Under some situations, however, parties involved in negotiations over patent rights may attempt to use those rights in unintended anticompetitive ways. In particular, patent holders may use (or, as some would claim, abuse)¹² courts and agencies to gain an advantage when bargaining with firms seeking to license the patented technology through “sham” litigation and petitioning.¹³ Although antitrust laws prevent firms from attempting to monopolize the market or create a cartel, they have not been interpreted by the courts to prohibit political (or political-like) conduct that would produce similar consequences. For example, while companies may not communicate with competitors about setting prices¹⁴ or carving up geographic territories,¹⁵ they are not prohibited from collectively lobbying Congress or an agency head for a change in law or in regulations.¹⁶ Referred to as *Noerr-Pennington* immunity, this doctrine protects firms’ ability to engage in speech and petitioning without exposing the firm to the treble damages that accompany a proven antitrust violation.¹⁷

Over time, however, these protections have been extended too far beyond their original purpose. *Noerr-Pennington* immunity now also acts as a shield for monopolists to use government processes to harass and extort rents from competitors and non-competitors alike

Technology, 61 ANTITRUST L.J. 579, 582–83 (1993) (discussing why intellectual property rights are necessary to prevent free-riding and “maintain adequate incentives to invest in innovative activity”).

¹² See Mario Trujillo, *Patent Reform Clears Key Hurdle in the Senate*, THE HILL (June 4, 2016, 12:32 PM), <http://thehill.com/policy/technology/244039-senate-panel-moves-patent-bill-to-the-floor> (describing the desire of technology companies to pass a bill “to address what they see as the growing abuse of the legal system, with trolls buying up patents solely for the purpose of extracting financial settlements”).

¹³ See, e.g., David Balto, *Using the Full Powers of the FTC to Combat Patent Trolls*, PATENT PROGRESS (Apr. 5, 2013), <http://www.patentprogress.org/2013/04/05/using-the-full-powers-of-the-ftc-to-combat-patent-trolls/> (identifying concerns “at the beginning of the Bush administration . . . [that] brand name drug companies [were attempting] to delay generic entry through abusive regulatory filings, sham litigation, and abuse of the regulatory system”).

¹⁴ See, e.g., Nat’l Collegiate Athletic Ass’n v. Bd. of Regents of the Univ. of Okla., 468 U.S. 85, 100 (1984) (“Horizontal price fixing and output limitation are ordinarily condemned as a matter of law under an ‘illegal per se’ approach because the probability that these practices are anticompetitive is so high . . .”).

¹⁵ See, e.g., Cont’l T.V., Inc. v. GTE Sylvania Inc., 433 U.S. 36, 57–58 (1977) (finding that vertical restraints that carved up geographic territories were subject to analysis under the rule of reason).

¹⁶ *United Mine Workers of Am. v. Pennington*, 381 U.S. 657, 670 (1965) (“Joint efforts to influence public officials do not violate the antitrust laws even though intended to eliminate competition.”); *E.R.R. Presidents Conference v. Noerr Motor Freight, Inc.*, 365 U.S. 127, 141 (1961) (“The proscriptions of the [Sherman] Act, tailored as they are for the business world, are not at all appropriate for application in the political arena.”).

¹⁷ S.W. O’Donnell, *Unified Theory of Antitrust Counterclaims in Patent Litigation*, 9 VA. J.L. & TECH. 2, 5–6 (2004).

with few consequences.¹⁸ For the most part, legal and regulatory activity is protected from antitrust immunity unless it is found to be a “sham.”¹⁹ To be a “sham,” litigation or petitioning activity must be objectively baseless, such that no reasonable litigant would expect to win on the merits, and done with a subjective intent to cause economic harm.²⁰ In many cases, however, these standards can be almost impossible to meet.²¹

In the context of patents, the problem of sham litigation and petitioning (or, at the very least, potential shams) is considered to be acute.²² Patents are grants of statutory right to exclude others from practicing a particular technology or design.²³ Their sanction by Congress and grant by the U.S. Patent and Trademark Office (PTO) reflects a collective determination that, in order to foster innovation and encourage economic growth, it is necessary to protect inventors’ investment in the creation of new and useful technologies.²⁴

Antitrust and patent law have generally been interpreted with a thumb on the scale in favor of the patent holder’s right to exclude. For example, the patentee can demand any royalty or licensing fee from a

¹⁸ See Marina Lao, *Reforming the Noerr-Pennington Antitrust Immunity Doctrine*, 55 RUTGERS L. REV. 965, 969 (2003) (“There is now no meaningful doctrinal limit to the expansive *Noerr* immunity principle.”).

¹⁹ See Einer Elhague, *Making Sense of Antitrust Petitioning Immunity*, 80 CALIF. L. REV. 1177, 1179 (1992) (“The sham exception, the Court has made clear, no longer includes improper petitioning activities if those activities are genuinely intended to influence the government.”).

²⁰ *Prof'l Real Estate Inv'rs, Inc. v. Columbia Pictures Indus., Inc.*, 508 U.S. 49, 59–60 (1993) (setting out a “two-part definition of ‘sham’ litigation” that requires a court to first determine that a litigation is objectively baseless, and only then to examine the litigant’s subjective motivations).

²¹ See Stuart N. Senator & Gregory M. Sergi, *Noerr-Pennington: Safeguarding the First Amendment Right to Petition the Government*, 23 COMPETITION: J. ANTITRUST & UNFAIR COMPETITION 83, 88 (2014) (“While the ‘sham’ exception to *Noerr-Pennington* for adjudicatory petitioning is exceedingly narrow as defined by *PREI*, it is even more narrow, if it exists at all in the legislative context.”); see also Shubha Ghosh & Darren Bush, *Predatory Conduct and Predatory Legislation: Exclusionary Tactics in Airline Markets*, 45 HOUS. L. REV. 343, 365–66 (2008) (“The sham exception is an impossible one to meet, and no reported case has found antitrust liability for engaging in what is essentially a political, rather than a market, process.”).

²² See, e.g., Saami Zain, *Antitrust Liability for Maintaining Baseless Litigation*, 54 SANTA CLARA L. REV. 729, 743–51 (2014) (examining sham litigation in the context of pharmaceutical patents).

²³ See Adam Mossoff, *Exclusion and Exclusive Use in Patent Law*, 22 HARV. J.L. & TECH. 321, 327 (2009) (discussing patent protection as a negative right—the right to exclude—and not a positive right to make, use, or sell an invention).

²⁴ See 157 CONG. REC. S952 (daily ed. Feb. 28, 2011) (statement of Sen. Grassley) (arguing that strengthening the patent system would “incentivize investment in truly innovative technological advances and provide more certainty for investors in these inventions”).

firm wishing to use its patent²⁵—even though the ability to extract rents from the licensee may be inefficient. This occurs relatively often, as many patent disputes occur *after* a patented technology has been incorporated into a commercialized product.²⁶ The ability to extort rents from the licensee is commonly referred to as “holdup.”²⁷

Take, for example, a technology company developing a new smartphone. The technology used in the phone ranges from standard—for example, a micro-USB port—to revolutionary—perhaps holographic technology that would be totally unique among smartphones currently on the market. After investing heavily in developing this phone, firms claiming to hold patents on various components accuse the smartphone maker of infringement. In some situations, the smartphone maker may not even know of the patent’s existence. Often, when this occurs, a non-practicing entity (NPE)²⁸—colloquially (and pejoratively) known as a “patent troll”—threatens to sue an operating company²⁹ (or, in some cases, an end user³⁰) to

²⁵ See Harry First, *Exploitative Abuses of Intellectual Property Rights 2* (Law & Econ. Research Paper Series, Working Paper No. 16-26, 2016) (citing the Supreme Court’s decision in *United States v. General Electric Co.*, 272 U.S. 476, 489 (1926), which held that “the patentee may grant a license . . . under the specifications of his patent for any royalty, or upon any condition the performance of which is reasonably within the reward which the patentee by the grant of the patent is entitled to secure”).

²⁶ All patent infringement suits, by definition, involve a product allegedly incorporating a patented technology that has been made, used, offered for sale, or sold in the United States. 35 U.S.C. § 271 (2012).

²⁷ Holdup can be thought of as a type of market failure resulting from “[t]he division of a single legal entitlement . . . among joint sellers . . . [that] may prevent socially efficient transactions, particularly when the parties possess private information.” Ian Ayres & Eric Talley, *Solomonic Bargaining: Dividing a Legal Entitlement to Facilitate Coasean Trade*, 104 YALE L.J. 1027, 1029 (1995); see also Suzanne Michel, *Bargaining for RAND Royalties in the Shadow of Patent Remedies Law*, 77 ANTITRUST L.J. 889, 911 (2011) (“When the patent owner captures value unrelated to its invention—the holdup value—consumers are deprived of the benefit of competition among technologies and may pay higher prices.”).

²⁸ NPEs are “entities who do not manufacture products themselves, including universities, individual inventors, failed businesses, and speculators who purchase patents from others.” David L. Schwartz & Jay P. Kesan, *Analyzing the Role of Non-practicing Entities in the Patent System*, CORNELL L. REV. 425, 426 (2014). NPEs are known by several different names, including “patent assertion entities” (PAEs) and “patent monetization entities” (PMEs). *E.g.*, U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-13-465, INTELLECTUAL PROPERTY: ASSESSING FACTORS THAT AFFECT PATENT INFRINGEMENT LITIGATION COULD HELP IMPROVE PATENT QUALITY 2, 2 n.6 (2013). Not all NPEs are standalone firms that “derive[] most of their revenue from asserting patents against operating companies.” *Id.* at 19. They are popularly understood as “patent aggregators” who monetize patents by extracting rents from others who use a similar technology that (may) fall under the scope of the patent.

²⁹ Operating companies are “firms that practice patents”—that is, companies that use their patents to produce products. Mark. S. Popofsky & Michael D. Laufert, *Patent Assertion Entities and Antitrust: Operating Company Patent Transfers*, 12 ANTITRUST SOURCE 1, 1 (2013).

force payment in the face of very costly litigation,³¹ despite the questionable validity of many of these patents. Trolls monetize their patents by demanding a royalty or licensing fee.³²

In other cases, a patent may be incorporated into many different operating companies' products due to its status as a "standard essential patent" (SEP).³³ SEPs "cover technologies that are considered an established standard in a particular industry"³⁴ and, in many cases, are designated as such by a standard setting organization (SSO).³⁵ Standards exist to lower production costs and increase "compatibility among various products, so that consumers can easily switch from one product to another."³⁶ For example, SEPs cover "WiFi, USB, and the pervasive 3G and 4G telecommunications standards."³⁷

When an SSO identifies a patent as an SEP, operating companies incorporate the patent's technology into their product. In return, the SEP holder agrees to license the technology at a fair, reasonable, and non-discriminatory (FRAND) rate.³⁸ Such patents are deemed to be "FRAND-encumbered."³⁹ In other words, a patentee agrees to forego exercising the full scope of his rights in exchange for wide adoption

³⁰ End users can be broadly understood to "include those using a patented technology for personal consumption and those using it in business." Gaia Bernstein, *The Rise of the End User in Patent Litigation*, 55 B.C. L. REV. 1443, 1446 (2015).

³¹ See *infra* notes 43 & 92 (discussing the high cost of patent litigation).

³² See Mark A. Lemley & A. Douglas Melamed, *Missing the Forest for the Trolls*, 113 COLUM. L. REV. 2117, 2124 (2013) (explaining that trolls impose excess costs by demanding royalties, damages, and litigation costs).

³³ See Josh Lerner & Jean Tirole, *Standard-Essential Patents 2-3* (Harvard Bus. Sch. Working Paper No. 14-038, 2013), http://www.hbs.edu/faculty/Publication%20Files/14-038_c030ca39-5339-4447-b952-8132110260bf.pdf.

³⁴ Jeffrey C. Johnson, *Standard Essential Patents: The Transactional Side*, BLOOMBERG BNA NEWS (May 24, 2013), <http://www.bna.com/standard-essential-patents-the-transactional-side/>.

³⁵ See Kai-Uwe Kühn, Fiona Scott Morton & Howard Shelanski, *Standard Setting Organizations Can Help Solve the Standard Essential Patents Licensing Problem*, CPI ANTITRUST CHRON., Mar. 2013, at 1, 2, <https://www.competitionpolicyinternational.com/assets/Free/ScottMortonetalMar-13Special.pdf>. SSOs are comprised of a voluntary membership of "organizations that operate in the industry." *Id.* The group employs "established procedures" for determining which technologies will comprise a standard. *Id.*

³⁶ Yoonhee Kim, *Lifting Confidentiality of FRAND Royalties in SEP Arbitration*, 16 COLUM. SCI. & TECH. L. REV. 1, 11 (2014).

³⁷ Jorge L. Contreras, *The FRAND Wars: Who's on First?*, PATENTLY-O (Apr. 17, 2012), <http://patentlyo.com/patent/2012/04/the-frand-wars-whos-on-first.html>.

³⁸ See First, *supra* note 25, at 5-6; see also John D. Harkrider, *Seeing the Forest Through the SEPs*, 27 ANTITRUST 22, 23 (2013) (noting that FRAND terms "ensur[e] that any interested firm can obtain the patent licenses necessary to implement the standard on reasonable terms, without being subject to attempts by SEP holders to engage in 'hold-up' and monopolize the consumer value of the standard").

³⁹ E.g., Maureen K. Ohlhausen, FTC Commissioner, Statement in the Matter of Robert Bosch GmbH, No. 121-0081, 2012 WL 5983337, at *1 (2012) (referring to these types of standard essential patents as "FRAND-encumbered").

throughout an industry, “likely resulting in increased licensing opportunities.”⁴⁰ FRAND terms are then negotiated between the patentee and firms at a later date.⁴¹

In both cases, parties must bargain in the shadow of litigation. If bargaining breaks down or the licensee refuses to negotiate, the patent holder may sue for infringement. During the suit, the licensee will counter by challenging the patent’s validity. This process can be long⁴² and costly.⁴³ Furthermore, even when the patent is low quality, the district court’s presumption of the patent’s validity creates uncertainty as to whether the patent will be adjudged to be valid.⁴⁴ As a result, this incarnation of the holdup problem leads parties to court on a regular basis.⁴⁵

There is one important difference between bargaining with a troll and bargaining with the holder of a FRAND-encumbered SEP. As the holder of a facially applicable patent, the troll is perfectly within its rights to ask for what would seem to be an extortionary rate.⁴⁶ The

⁴⁰ Mark A. Lemley & Carl Shapiro, *A Simple Approach to Setting Reasonable Royalties for Standard-Essential Patents*, 28 BERKELEY TECH. L.J. 1135, 1140 (2013).

⁴¹ *Id.*

⁴² See PRICEWATERHOUSECOOPERS, 2015 PATENT LITIGATION STUDY: A CHANGE IN PATENTEE FORTUNES 14 (2015), <https://www.pwc.com/us/en/forensic-services/publications/assets/2015-pwc-patent-litigation-study.pdf> [hereinafter PATENT LITIGATION STUDY] (finding that the “time-to-trial” in a patent infringement case is about 2.4 years); BAKER & MCKENZIE, GLOBAL PATENT LITIGATION HANDBOOK (2d ed. 2015), <http://globalipsuite.bakermckenzie.com/patentlitigation/> (indicating that “the anticipated length of straight forward civil patent infringement proceedings at the first instance” in the U.S. is roughly 2.5 years).

⁴³ See AM. INTELL. PROP. L. ASS’N, REPORT OF THE ECONOMIC SURVEY (2013), <http://www.ipisc.com/custdocs/2013aipla%20survey.pdf> [hereinafter REPORT OF THE ECONOMIC SURVEY] (finding that the cost of patent infringement litigation varied by amount in controversy and could range anywhere from \$970,000 to \$5.9 million to bring a patent infringement lawsuit through trial).

⁴⁴ Cf. John R. Allison, Mark A. Lemley & David L. Schwartz, *Understanding the Realities of Modern Patent Litigation*, 92 TEX. L. REV. 1768, 1787 fig.4 (2014) (finding that, in all patent validity challenges filed in U.S. district courts in 2008 and 2009, patents were found to be invalid 42.4% of the time); PATENT LITIGATION STUDY, *supra* note 42, at 9 (concluding that, between 1995 and 2014, patent trolls were successful in 26% of suits filed overall but successful in 65% of the cases that went to trial).

⁴⁵ Although figures vary based on the definition of NPE used, data suggest that 45% of patent litigation initiated in district courts is initiated by NPEs. According to one study, NPEs were estimated to have filed suits against 45% of defendants in 2010 and 47% in 2012, although other studies place the figure as high as roughly 60%. Christopher A. Cotropia, Jay P. Kesan & David L. Schwartz, *Unpacking Patent Assertion Entities (PAEs)*, 99 MINN. L. REV. 649, 695 (2014) (citing original data and comparing analysis to that of Robin Feldman, Tom Ewing & Sara Jeruss, *The AIA 500 Expanded: The Effects of Patent Monetization Entities*, 17 UCLA J.L. & TECH. 1, 44 (Fall 2013)).

⁴⁶ See *United States v. Gen. Elec. Co.*, 272 U.S. 476, 489 (1926) (discussing the patent holder’s right to license to another the right to “make, use, and vend” the patented

firm's only recourse is to challenge the validity of the patent.⁴⁷ Firms using technology patented by a FRAND-encumbered SEP, however, possess an additional right to use the SEP for a "reasonable" royalty and may sue the patent holder for failing to provide that rate.⁴⁸ Ideally, an *ex ante* agreement to charge only a "reasonable" rate resolves the holdup problem. In practice, however, the holdup problem may be quite acute due to disputes over "how the requirement of FRAND licensing should be interpreted and enforced."⁴⁹ Since there are no clear standards for what constitutes a FRAND term, these disputes can wind up in arbitration or in court.⁵⁰

Unlike with trolls, however, litigious behavior in the SSO context could be deemed a violation of the Sherman Act, which prohibits firms from monopolizing or attempting to monopolize a market.⁵¹ Imagine a situation in which a monopolist—say, for instance, a smartphone maker—participates in an SSO and develops a phone that incorporates several FRAND-encumbered SEPs into its design. When it comes time to negotiate the royalty rate with the smaller patentee,⁵² the monopolist and the patentee are unable to agree on a rate. The monopolist then threatens to litigate both the reasonable FRAND rate and the validity of the patent. This results in costly litigation that the much smaller firm may not have the resources to defend against.

If this sounds implausible, consider a dispute between Apple and Motorola Mobility. Motorola Mobility held patents deemed to be essential to Apple's iPhone, but the firms were unable to agree on FRAND terms.⁵³ Apple sued Motorola, arguing (among other things) that Motorola had breached its contract by refusing to license its patent at a FRAND rate.⁵⁴ A similar story can be told about a conflict

technology "for any royalty or upon any condition the performance of which is reasonably within" the patent's scope).

⁴⁷ See *supra* notes 23–27 and accompanying text.

⁴⁸ Harkrider, *supra* note 38, at 24 (discussing the "asymmetric litigation options" available to parties negotiating FRAND terms).

⁴⁹ Harkrider, *supra* note 38, at 23.

⁵⁰ See Maureen K. Ohlhausen, Commissioner, FTC, Antitrust Oversight of Standard-Essential Patents: The Role of Injunctions, Speech at the 2015 Intellectual Property and Antitrust Forum (Sept. 12, 2015) (transcript available in the Federal Trade Commission Online Speech Archive) (describing the conflict between Google and Motorola).

⁵¹ 15 U.S.C. § 2 (2012).

⁵² Assume for the sake of argument that the patentee is a smaller firm that does not have the market power of the monopolist.

⁵³ See *Apple, Inc. v. Motorola, Inc.*, 869 F. Supp. 2d 901, 914 (N.D. Ill. 2012) (noting that negotiations between Apple and Motorola broke down but whether Apple "refus[ed] to negotiate for a license" was unclear).

⁵⁴ See, e.g., *Apple, Inc. v. Motorola Mobility, Inc.*, 886 F. Supp. 2d 1061, 1072–73 (W.D. Wis. 2012) (describing Apple's claims against Motorola). This dispute was spread across several different courts, including the Northern District of Illinois, *Apple, Inc. v. Motorola*,

over royalty negotiations for FRAND-encumbered patents between another giant tech firm, Microsoft, and Motorola Mobility.⁵⁵ While Motorola Mobility is hardly a small company—it is owned by Google⁵⁶—one could imagine a situation in which the holder of an SEP has a much weaker economic position. The cost of and risk associated with litigation can be coercive even against large firms—and even more so for smaller firms.

Unlike the behavior of a patent troll, a monopolist's threat to use its massive war chest against a smaller patentee in litigation—with the purpose of forcing an agreement on a royalty rate—would seem to be the epitome of using a government process as a weapon for anticompetitive ends. As a result, not only does this sort of behavior cause economic inefficiency, but also it seems likely to cause an antitrust injury—that is, an “injury of the type the antitrust laws were intended to prevent and that flows from that which makes defendants' acts unlawful.”⁵⁷

To address some of these issues, Congress passed the 2011 America Invents Act (AIA).⁵⁸ This act did not rely on antitrust law to resolve these problems; rather, the AIA enacted deep reforms in the patent system itself.⁵⁹ In particular, Congress sought to prevent exploitative behavior by eliminating questionable or low-quality patents, thereby eliminating trolls' power at their source.⁶⁰

The AIA created the Patent Trial and Appeals Board (PTAB), which is responsible for conducting administrative reviews of patent validity.⁶¹ These administrative trials were designed to provide a “cost-effective alternative to formal litigation” through streamlined administrative procedures.⁶² The proceedings are time-limited,⁶³

Inc., 869 F. Supp. 2d 901 (N.D. Ill. 2012), and the Court of Appeals for the Federal Circuit, *Apple, Inc. v. Int'l Trade Comm'n*, 725 F.3d 1356 (Fed. Cir. 2013).

⁵⁵ See *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872, 878 (9th Cir. 2012) (describing Microsoft's claims that Motorola proposed unreasonable royalty terms, thereby breaching its contractual duties).

⁵⁶ David Goldman, *Google Seals \$13 Billion Motorola Buy*, CNN MONEY (May 22, 2012, 10:20 AM), <http://money.cnn.com/2012/05/22/technology/google-motorola/> (discussing Google's “\$12.5 billion purchase of Motorola Mobility,” which was its “biggest acquisition ever”).

⁵⁷ *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 489 (1977).

⁵⁸ 157 CONG. REC. S1362 (daily ed. Mar. 8, 2011) (statement of Sen. Leahy) (discussing how the AIA will stop patent trolls from “extort[ing] unreasonable licensing fees from legitimate businesses”).

⁵⁹ Prior to the passage of the AIA, the patent system had not been reformed in 60 years. H.R. REP. NO. 112–98, pt. 1, at 38 (2011).

⁶⁰ 157 CONG. REC. S131 (daily ed. Jan. 25, 2011) (statement of Sen. Leahy) (stating that reforms to the Patent Act would encourage “high quality patents”).

⁶¹ 35 U.S.C. § 6 (2012).

⁶² 157 CONG. REC. S951 (daily ed. Feb. 28, 2011) (statement of Sen. Hatch).

employ a lower evidentiary standard,⁶⁴ provide limited opportunities for discovery,⁶⁵ and lack the district court's presumption of patent validity.⁶⁶ As a result, PTAB is much more likely to invalidate patents than the district court.⁶⁷

Through these trials, the AIA has been largely successful in addressing the perceived problem of patent trolls.⁶⁸ PTAB trials are valuable because they may be invoked by parties in the midst of patent litigation and provide a less costly path to invalidating a troll's patent.⁶⁹ By lowering the cost of litigation and increasing the bite of regulatory review, firms targeted by trolls have less of an incentive to settle. When firms have less incentive to settle, more firms will seek PTAB review of a patent's validity. This, over time, should decrease trolls' desire to pursue this type of litigation.

Perhaps counterintuitively, however, PTAB trials may actually exacerbate welfare loss in the context of SSOs. In particular, the availability of these review procedures has given potential licensees a weapon to be used against SEP holders in negotiating a FRAND rate: PTAB trials have dramatically increased the probability that a patent will be found invalid.⁷⁰ As a result, patentees face an increased risk of losing revenue from the patent entirely. In essence, large firms can threaten regulatory arbitrage to force patentees into licensing their patent at a rate less than they would otherwise obtain.

⁶³ See Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,757 (Aug. 14, 2012) (providing a sample timeline for the AIA trial proceedings).

⁶⁴ See 35 U.S.C. § 326(e) (2014); 37 C.F.R. § 42.1(d) (2015).

⁶⁵ See, e.g., 154 CONG. REC. S9988 (daily ed. Sept. 27, 2008) (statement of Sen. Kyl) (justifying the limited nature of discovery before PTAB "out of recognition of the fact that the issues that can be raised in that proceeding are few and thus the need for discovery is less").

⁶⁶ E.g., *Microsoft Corp. v. i4i Ltd.*, 564 U.S. 91, 95 (2011) (noting that 35 U.S.C. § 282 codified the common law presumption that a "patent shall be presumed valid").

⁶⁷ Cf. Rochelle Cooper Dreyfuss, *Giving the Federal Circuit a Run for Its Money: Challenging Patents in the PTAB*, 91 NOTRE DAME L. REV. 235, 254–55 (2015) ("The broader the claim, the more likely the challenger can find prior art to invalidate it on novelty or obviousness grounds, the more abstract it is likely to read, and the less likely it is to be fully supported by the written description, adequately enabled, and distinctly claimed.").

⁶⁸ Cf. Brian J. Love & Shawn Ambwani, *Inter Partes Review: An Early Look at the Numbers*, 81 U. CHIC. L. REV. DIALOGUE 93, 107 app. B (2014) (finding that PTAB proceedings were more likely to be instituted against non-practicing entities than firms that produced products).

⁶⁹ *Id.* at 94 & n.5 (noting that instituted PTAB trials often occur in conjunction with parallel litigation and provide a "quick and cost effective alternative[] to litigation") (citations omitted).

⁷⁰ Compare Allison et al., *supra* note 44, at 1787 fig.4 (2014) (finding that patent holders won in district court about half of the time in infringement cases), with Love & Ambwani, *supra* note 68, at 101 (finding that PTAB invalidated "all instituted claims" in almost 80% of decisions on the merits).

Threats to invoke PTAB proceedings in the context of SSOs should be viewed as economic predation through the regulatory process, which could be remediated and deterred by imposing antitrust liability. But courts' broad construction of *Noerr-Pennington* immunity—that is, antitrust immunity conferred on firms who litigate to assert their rights or petition legislatures or agencies for favorable policies—has prevented this.⁷¹ Firms that engage in sham petitioning and litigating are shielded from antitrust liability and are subject only to narrow exceptions for sham behavior.⁷² Invoking the sham exception in the context of patent validity can be virtually unobtainable given the lack of predictability in patent law.⁷³

Given this difficulty, the sham exception to *Noerr-Pennington* immunity should be broadened to better capture situations in which firms abuse the PTAB trials for anticompetitive ends. In particular, courts should loosen the standards by which litigating or petitioning activity is considered to be a sham. This change would deter anticompetitive behavior through threat of antitrust enforcement and damages.

This Note proceeds in three parts. Part I provides a generalized description of how firms bargain over patent rights. In the context of patents not encumbered by FRAND agreements, PTAB trials both provide information and help equalize the parties' bargaining positions. In this way, PTAB trials may have a *procompetitive* effect. Part II distinguishes bargaining over FRAND-encumbered SEPs from bargaining over non-encumbered patents. When parties are bargaining over a FRAND-encumbered SEP, invoking a PTAB trial creates an imbalance in the parties' bargaining postures, goes against the spirit of the FRAND agreement, and undermines the SSO's important procompetitive work in developing industry standards. Although this use of PTAB trials is at this point largely hypothetical, the administrative proceedings offer strategic tools for monopolists who wish to use their dominant market position to threaten other firms to accede to their particular definition of FRAND rates. Such behavior should be subject to antitrust scrutiny, but courts' wide interpretation of *Noerr-Pennington* immunity makes antitrust enforcement of administrative

⁷¹ Cf. Lao, *supra* note 18, at 984–85 (describing the “narrow two-pronged test” for identifying “sham” litigation or petitioning announced by the Supreme Court); Lars Noah, *Sham Petitioning as a Threat to the Integrity of the Regulatory Process*, 74 N.C. L. REV. 1, 39–40 (1995) (noting that “[b]ecause of the First Amendment interests at stake, courts have given the sham exception a narrow construction”).

⁷² See Lao, *supra* note 18, at 970 (labeling the exceptions to *Noerr-Pennington* immunity as “narrow”).

⁷³ For a discussion of the difficulty of meeting the objectively baseless prong given the complex nature of patent law, see notes 190–98 and accompanying text.

process abuse almost impossible. Part III concludes by arguing for changes in the *Noerr-Pennington* doctrine. In particular, Part III argues that the Supreme Court's test for sham litigation should be modified to capture a broader range of parties' anticompetitive conduct.

I

BARGAINING OVER PATENT RIGHTS AND PTAB TRIALS AS CREDIBLE THREATS

Litigation over patent rights occurs after bargaining between the patent holder and the potential licensee has failed. Bargaining is especially problematic when it occurs *after* a firm has incorporated a patented technology into a commercially successful product. The firm's investment costs and expected returns, as well as the specter of costly litigation, places the firm in a weaker bargaining position than if the royalty rates were negotiated prior to development.

Firms possess a slightly stronger bargaining position if they have incorporated technology covered by a FRAND-encumbered patent. In that case, the firm can demand that the royalty rate be "reasonable." This, too, can present an additional opportunity for litigation, as firms can threaten to sue the patent holder for breaching its FRAND commitment. As a result, in the context of SEPs, both parties can credibly threaten to initiate a court challenge.

The AIA provides an additional bargaining chip through the creation of PTAB review proceedings.⁷⁴ PTAB trials give firms an opportunity to challenge a patent's validity.⁷⁵ These proceedings employ streamlined review processes,⁷⁶ lower evidentiary standards,⁷⁷ and limited opportunities for discovery.⁷⁸ Taken together, patent invalidity becomes a more likely outcome in a PTAB trial than when the matter is decided by a district court.⁷⁹

This Part examines the bargaining process between firms and patent holders. Section I.A examines the situations under which bargaining might break down. Section I.B examines how the presence of AIA's regulatory review processes ameliorates bargaining problems in the context of trolls but exacerbates the bargaining problem in the

⁷⁴ 35 U.S.C. §§ 311, 321 (2012).

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *See id.* § 326(e); 37 C.F.R. § 42.1(d) (2015).

⁷⁸ *See, e.g.*, 154 CONG. REC. S9988 (daily ed. Sept. 27, 2008) (statement of Sen. Kyl) (noting limited opportunities for discovery in PTAB proceedings).

⁷⁹ *See infra* notes 135–39 and accompanying text (discussing differences in patentee's success rates before PTAB and district courts).

case of SEPs. In doing so, this Part seeks to clarify how the AIA's unintended consequences could allow large firms—such as monopolists—additional regulatory tools to engage in economic predation of rivals and smaller SEP holders.

A. Failed Bargaining as the Root of Patent Litigation

Patent rights are not “self-executing.”⁸⁰ When a firm has incorporated a patented technology into a product, the patent holder is responsible for enforcing her rights and bargaining with the firm for a royalty rate. If bargaining fails, the patent holder can credibly threaten to enforce her patent rights in court.⁸¹ If a firm is held liable for infringement, it may be enjoined from selling the product or forced to pay “reasonable” royalties.⁸²

By way of example, return to the hypothetical presented in the introduction. In that situation, a smartphone maker developed a blockbuster new phone that incorporated technologies ranging from standard (such as a micro-USB port) to revolutionary (such as holographic technology). Assume that one of these patent holders comes forward and demands a royalty. The two parties begin negotiations. If bargaining succeeds, the parties avoid litigation. If bargaining fails, however, the patent holder may sue the smartphone maker for infringement; the manufacturer would likely make a counterclaim of patent invalidity.⁸³ Filing the suit, however, may itself be an important part of the bargaining process, as “most [patent] lawsuits settle.”⁸⁴

⁸⁰ Leonard J. Hope, Note, *The Licensed-Foundry Defense in Patent Infringement Cases: Time to Take Some of the Steam Out of Patent Exhaustion?*, 11 GA. ST. U. L. REV. 621, 622 (1995).

⁸¹ See 35 U.S.C. § 271 (detailing the requirements of and possible remedies for patent infringement).

⁸² See *id.* § 284 (2012) (“[T]he court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty . . .”).

⁸³ The smartphone maker could also initiate litigation by suing the patent holder, challenging the validity of the patent in court. This seems unlikely, however, since patent rights are not self-enforcing. If the patent holder did not press the issue in court, the smartphone maker would be able to continue selling its new phone without paying royalties. There would be no reason to go to court on its own.

⁸⁴ See Allison et al., *supra* note 44, at 1777 (noting not only that most cases settle, but also that they “settle before any ruling on the merits”); see also Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1501 (2001) (“The overwhelming majority of [patent] lawsuits settle or are abandoned before trial.”). It is not clear, however, whether these settlements occur because expectations converged at some point during the trial process or whether settlements “consist disproportionately of meritless cases that were resolved via cost-of-defense settlements.” Allison et al., *supra* note 44, at 1777.

Whether (or when) the parties settle is a function of the information available to the parties and the relative costs of trial.⁸⁵ A patent holder, for example, will choose to go to trial when the expected value (the royalties and value of the injunction, weighted by the probability of success) is greater than the cost of going to trial.

The value of the trial is a function of the remedy imposed. If the court finds for the patentee, it may enjoin the firm from selling its new phone, which may be represented as I ,⁸⁶ award damages not “less than a reasonable royalty,”⁸⁷ or both. Damages are a function of both the court’s estimate of a “reasonable rate,” r , and the commercial success of the product, m . Taken together, the patent’s value can be conceptualized as $v + I$, where $v = f(r, m)$, with v increasing in r and m .

Assume that if the patentee loses, the court will invalidate her patent. This occurs with probability $1 - p$. If the court invalidates the patent, it loses its value, v . Taken together, the smartphone maker’s expected value for the outcome of the trial can be expressed as $E(\text{trial}) = -p(v + I) + (1 - p)(v) - c$, and the patent holder’s expected outcome as $p(v + I) - (1 - p)(v) - c$.⁸⁸

If the parties go to trial, however, they are likely to be uncertain about its outcome. The expected value of going to trial reflects the probability that the patent holder will win, p . Each party bases its estimation of p on “individual knowledge of the facts of the dispute and [a] prediction of how these facts will be interpreted by the court or

⁸⁵ See, e.g., J.J. Prescott & Kathryn E. Spier, *A Comprehensive Theory of Civil Settlement*, 91 N.Y.U. L. REV. 59, 69 (2016) (discussing parties’ decisions to settle as opposed to going to trial). Bargaining over patent rights also sits at the intersection of a debate over whether liability or property rules yield more efficient bargaining, as both equitable remedies and damages are available. Compare Ayres & Talley, *supra* note 27, at 1036 (arguing that liability rules can lead to more efficient bargaining outcomes due to their “information-forcing” effect), with Louis Kaplow & Steven Shavell, *Do Liability Rules Facilitate Bargaining? A Reply to Ayres and Talley*, 105 YALE L.J. 221, 229–30 (1995) (finding that property rules “induce[] more gains from trade” than liability rules).

⁸⁶ See, e.g., *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 390 (2005) (holding that “the four-factor test historically employed by courts of equity” for whether to grant an injunction is applicable to “disputes arising under the Patent Act”). This discussion simplifies the courts’ ability to grant an injunction. Courts can structure injunctions to “take any of a number of different shapes having different degrees of effectiveness.” John M. Golden, *Injunctions as More (or Less) Than “Off Switches”*: *Patent-Infringement Injunctions’ Scope*, 90 TEX. L. REV. 1399, 1401 (2012).

⁸⁷ 35 U.S.C. § 284 (2012). Again, this discussion of remedies has been simplified for the purposes of exposition. Upon a finding of infringement, the court may award lost profits.

⁸⁸ Again, this is simplified for the purposes of this discussion. A fully specified model would consider both the discount value of the parties, δ , and differing costs for the licensee, C_L , and patentee, C_P .

jury.”⁸⁹ In other words, the parties’ predictions of success hinge on both the clarity of the law and the facts of the case.

Each firm also incurs monetary and attentional litigation costs, *c.* Monetary costs include attorneys’ fees⁹⁰ and expert witness fees.⁹¹ Depending on the stakes, a run-of-the-mill patent trial can cost anywhere between \$970,000 to \$5.9 million.⁹² Attentional costs—that is, the effort that must be expended while dealing with litigation—while diffuse, may also be extensive. For example, when the DOJ sued Microsoft for various antitrust violations in the late 1990s, Steve Jobs met with Joel Klein, the DOJ’s lead prosecutor, and told him to “keep them tied up in litigation.”⁹³ Jobs reasoned such a distraction would “allow Apple . . . to ‘make an end run’ around Microsoft and start offering competing products.”⁹⁴

Considering these factors, the parties must decide whether to settle or go to trial. Assume that the patent holder will always go to trial if bargaining breaks down. The smartphone maker must choose between the patent holder’s settlement offer, $-s$, and the expected value of the trial to the smartphone maker, $E(\text{trial}) = -p(v + I) + (I - p)(v) - c$. When $s = -p(v + I) + (I - p)(v) - c$, the smartphone maker will choose to settle; otherwise, the smartphone maker will go to trial.⁹⁵

Strategically, the patent holder’s settlement offer will reflect both his perception of p and v . The higher these values, the greater the amount the patent holder will demand, regardless of the patent’s contribution to the overall product or the prevailing market price. Note also how timing could affect the parties’ estimate of the value of the patent at trial. If the two parties go to trial before the smartphone maker has invested heavily in development and marketing, I will be relatively small. A smartphone maker would simply design around the

⁸⁹ George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 13 J. LEGAL STUD. 1, 9 (1984). Note that Priest and Klein more fully specify the parameters of their model of settlement, far beyond what is offered here. Unlike Priest and Klein, this Note does not rigorously derive predictions from a formal model.

⁹⁰ Attorneys’ fees, in “exceptional cases,” may be awarded to the “prevailing party.” 35 U.S.C. § 285 (2012).

⁹¹ The complex nature of patent disputes often requires expert testimony. See Eric J. Lobenfeld, *Expert Issues in Patent Litigation*, IP LITIGATOR 8 (Mar./Apr. 2014), https://www.hoganlovells.com/~media/hogan-lovells/pdf/publication/lobenfeld-article_pdf.ashx (“Although in many cases the use of experts is optional, the Federal Circuit has required the use of experts in cases involving particularly complex legal issues.”).

⁹² REPORT OF THE ECONOMIC SURVEY, *supra* note 43.

⁹³ WALTER ISAACSON, STEVE JOBS 323 (2011).

⁹⁴ *Id.*

⁹⁵ A more complex account would consider the parties’ discount values, normally denoted as δ . This parameter represents how impatient the parties are—that is, how much more they value a payoff today than one tomorrow.

patented technology.⁹⁶ If the smartphone maker has taken it to market, however, *I* will be much higher. As a result, even a patent holder whose patent contributes little to the value of the phone may possess an outsized bargaining chip by threatening to go to trial.⁹⁷ This is the essence of the holdup problem.

The question, then, is under what conditions parties will settle rather than go to trial. Two factors affect this decision: the parties' relative bargaining power and the parties' expectations of the trial's outcome.

The parties' bargaining power is a function of available remedies; each party's strength depends on how much economic pain it is able to inflict on the other. Although bargaining strength is likely to be heavily fact-dependent, one might expect the patent holder to have the bargaining advantage, on average. First, absent a prior commitment to license at a certain rate, the patentee may demand "any royalty . . . reasonably within the reward which the patentee by the grant of the patent is entitled to secure."⁹⁸ The patent holder also may have much less to lose by going to trial than the firm—especially if the patentee is a troll. The patent at issue may be one of many in a portfolio purchased from other investors or inventors, often for a lower price than its potential licensing value.⁹⁹ As a result, losing an infringement suit—or even suffering a finding of patent invalidity—is likely to be less costly for the patent holder than for a firm that has heavily invested in developing and marketing a product.¹⁰⁰ In addition, as a non-practicing entity, a patent troll will likely experience fewer litigation costs, making the troll more willing to go to trial than the firm. These asymmetric discovery costs result from the fact that "parties that do not offer products or services . . . often have far fewer docu-

⁹⁶ But there may be limitations to this line of reasoning. See Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 1991, 2004 (2007) ("[T]he ability to negotiate early enables the downstream firm to negotiate better terms if and *only if* the downstream firm's optimal strategy without a license, and thus its threat point in the early negotiations, is to design its product to avoid infringing the patent.").

⁹⁷ See *id.* at 1992–93 ("The threat that a patent holder will obtain an injunction that will force the downstream producer to pull its product from the market can be very powerful.").

⁹⁸ *United States v. Gen. Elec. Co.*, 272 U.S. 476, 489 (1926).

⁹⁹ See, e.g., Schwartz & Kesan, *supra* note 28, at 428 (noting that non-practicing entities often "purchase patents from . . . patentees who cannot afford to enforce their own patents").

¹⁰⁰ *Cf. id.* at 430–31 ("The argument is that the [non-practicing entity] extracts too high a price for [acting as middleman between the original inventor and infringer] and that the original inventors do not receive sufficient compensation to justify the additional liability on the operating company.").

ments to disclose” than parties who do.¹⁰¹ Finally, firms’ counterclaims of patent invalidity are more likely than not to be unsuccessful before the district court. When construing a patent, district courts assume the validity of the patent¹⁰² and employ the “clear and convincing” standard of proof.¹⁰³ As a result, courts reject 70% of summary judgment motions seeking to invalidate patents.¹⁰⁴ When decided on the merits, invalidity claims are successful in 42.4% of cases.¹⁰⁵

The parties’ decision to settle is also affected by their beliefs about the outcome of the trial. In a world of perfect and complete information,¹⁰⁶ the parties would never go to court and always settle on the reasonable royalty rate that would have been set by the court had the parties litigated (minus, perhaps, the transactional cost of litigation).¹⁰⁷ In other words, the smartphone maker, possessing *perfect* information, would know whether the patent was valid or not and, if valid, whether the court would find the phone infringing.¹⁰⁸ In addition, both parties, possessing *complete* information, would know the

¹⁰¹ U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-13-465, INTELLECTUAL PROPERTY: ASSESSING FACTORS THAT AFFECT PATENT INFRINGEMENT LITIGATION COULD HELP IMPROVE PATENT QUALITY 10 (2013). Asymmetric discovery also occurs in contexts other than patent infringement suits. For example, asymmetric discovery costs exist in class actions and antitrust cases. *Id.* at 10 n.22.

¹⁰² 35 U.S.C. § 282 (2012).

¹⁰³ *Microsoft Corp. v. i4i Ltd.*, 564 U.S. 91, 95 (2011). For a discussion of this standard, see William Alsup, *A District Judge’s Proposal for Patent Reform: Revisiting the Clear and Convincing Standard and Calibrating Deference to the Strength of the Examination*, 24 BERKELEY TECH. L.J. 1647, 1648 (2009).

¹⁰⁴ Allison et al., *supra* note 44, at 1785 tbl.2. But note that “[p]atentees were much less likely to obtain summary judgment of validity.” *Id.* at 1786.

¹⁰⁵ *Id.* at 1787 fig.4. Obviously, there is selection bias occurring here, as only the most difficult cases in which the parties continued to have divergent beliefs about the trial outcome would go to a decision on the merits. *Cf.* Priest & Klein, *supra* note 89 (describing a selection model of litigation).

¹⁰⁶ The concepts of perfect and complete information are used here like they are used in game theory. A player has perfect information if “all information sets are singletons,” meaning that the party knows exactly where in the game they are at all times. JAMES D. MORROW, *GAME THEORY FOR POLITICAL SCIENTISTS* 63 (1994). As a result, a player is said to have imperfect information if, for example, she does not know the *type* of the other player. For example, is the other player weak or strong, honest or a liar? A player with imperfect information does not know with certainty the true state of the world. A player has complete information, on the other hand, if “all the players’ payoffs are common knowledge.” *Id.* That is, at the end of the game, each player knows exactly what all other players will receive for every single possible outcome.

¹⁰⁷ See Jay P. Kesan & Gwendolyn G. Ball, *How Are Patent Cases Resolved?: An Empirical Examination of the Adjudication and Settlement of Patent Disputes*, 84 WASH. U. L. REV. 237, 247 (2006) (“Under perfect information—that is, when both parties know with certainty who would win at trial—no trials would occur.”).

¹⁰⁸ This lack of perfect information persists throughout a trial (including beyond discovery) because “neither player knows the resistance point of their opponent or true

cost of the litigation and, if applicable, any remedies the court would impose. As a result, there would be no need to litigate because both parties would contract so as to achieve that efficient end while avoiding litigation costs.¹⁰⁹

Consider how the conflict described in the smartphone example would play out in such a world. With perfect information, both parties would know that the patent is valid with $p = 1$. With complete information, each party would recognize the value of the patent, v . Recognizing this, both parties can avoid incurring the (known) trial costs, c , and agree to settle for $s = p(v + I) - (1 - p)(v) - c = 1*(v + I) - (1 - 1)(v) - c = v + I - c$.¹¹⁰

But the parties are unlikely to possess perfect and complete information.¹¹¹ For example, the parties may estimate that the patentee will win the trial with probability $p = 0.6$. Even in the face of uncertainty, however, it may be more efficient for the parties to settle as long as they *agree* about the level of uncertainty. In this case, the parties would choose at least $s = 0.6(v + I) - (1 - 0.6)(v) - c = 0.2v + 0.6I - c$.

This uncertainty could also be expressed as inconsistency between the parties' beliefs. In other words, parties may have "divergent expectations" about the outcome of the litigation¹¹² and may "disagree about the plaintiff's probability of winning . . . at trial."¹¹³ These divergent expectations come, in part, from the parties' varying estimates of case quality given the current state of the law.¹¹⁴ For

value of a patent." James Wan, *Application of Game Theory in a Patent Dispute Negotiation*, LES NOUVELLES, Mar. 2015, at 14.

¹⁰⁹ In the context of perfect and complete information, "we know from the Coase Theorem that efficient behavior will result . . ." Kaplow & Shavell, *supra* note 85, at 223; *see also* Kesan & Ball, *supra* note 107, at 248 ("For trials to occur, either the parties must be behaving irrationally, or there must be some uncertainty about the probability of a victory in the courtroom."); *cf.* Prescott & Spier, *supra* note 85, at 69 ("A party accepts a settlement offer if and only if it is better than every other . . . alternative, including options that are always available such as making a counterproposal and rejecting the offer altogether.").

¹¹⁰ This is a simplification of the settlement negotiation described by Priest and Klein, in which the respective parties' demands are a function of the probability of a finding of liability, litigation costs, and settlement costs. Priest & Klein, *supra* note 89, at 12.

¹¹¹ *Cf.* Mark A. Lemley & Carl Shapiro, *Probabilistic Patents*, 19 J. ECON. PERSP. 75, 76 (2005) ("There are two fundamental dimensions of uncertainty: 1) uncertainty about the commercial significance of the invention being patented, and 2) uncertainty about the validity and scope of the legal right being granted.").

¹¹² Joel Waldfoegel, *Reconciling Asymmetric Information and Divergent Expectations Theories of Litigation*, 41 J.L. & ECON. 451, 451 (1998) (discussing "asymmetric information" and "divergent expectations" as two dominant models of explaining why bargaining between parties fails).

¹¹³ *Id.* at 453.

¹¹⁴ *See id.* at 453–54 (discussing how parties form different estimates of case quality).

example, the smartphone maker may believe that the court will uphold the patent and find infringement with probability $p = 0.4$. The patent holder, on the other hand, may believe that $p = 0.6$. Even if the parties possessed complete information about the value of patent, v , they would disagree over the appropriate settlement. The smartphone maker would propose $s = 0.4(v + I) - (1 - 0.4)(v) - c = 0.4I - 0.2v - c$, whereas the patent holder would demand $0.2 + 0.6I - c$. In this situation, the parties would be unlikely to settle.

Divergent expectations may arise from both legal (subjective) and factual (objective) sources. The parties may hold different subjective beliefs about a court's interpretation of patent law. More so than in other areas of law, divergent expectations about legal interpretations have been exacerbated by "prolonged delay in the clarification of long-standing and clearly defined ambiguities in the patent laws, coupled with unpredictable and retroactive judicial expansion of patent doctrine."¹¹⁵

Divergence may also arise from asymmetric objective information. When this occurs, "[o]ne of the parties to the dispute has some private information about factual issues that is relevant to estimating the expected outcome of a trial."¹¹⁶ For example, the patent holder may have conducted extensive research into whether the patent was truly novel when applying for the patent. In other words, the patent holder's private knowledge about his own level of effort in filing the patent informs his estimation of whether a court will find the patent valid.

Incomplete information, on the other hand, concerns the extent to which the parties know each other's private values for the litigation. For example, the patent holder may only have a guess as to how profitable the new smartphone actually is; only the smartphone maker may know the exact figure.¹¹⁷ In other words, even if the patent holder knew the royalty rate (r) the court would choose after a finding of infringement, it would be unable to calculate how much such a rate would actually cost the smartphone maker. As a result, the parties

¹¹⁵ Christopher M. Holman, *Unpredictability in Patent Law and Its Effect on Pharmaceutical Innovation*, 76 MO. L. REV. 645, 651 (2011) (discussing the effect of legal uncertainty on pharmaceutical innovation); see also Kelly Casey Mullally, *Legal (Un)Certainty, Legal Process, and Patent Law*, 43 LOY. L.A. L. REV. 1109, 1126–46 (2010) (discussing the public and private pressures on patent law that create uncertainty, including the heterogeneity in bodies tasked with construing patent claims and the sheer numbers of patents issued).

¹¹⁶ Lucian Arye Bebchuk, *Litigation and Settlement Under Imperfect Information*, 15 RAND J. ECON. 404, 406 (1984).

¹¹⁷ This is another form of asymmetric information, a concept that bridges both imperfect and incomplete information.

may be unable to agree on a settlement prior to learning more information about the patent's true value through a trial.¹¹⁸

Alternatively, each party may only have a sense of the other's litigation costs. For example, if the patent holder is a troll, it may have very little to produce in terms of discovery.¹¹⁹ Incomplete information of this type may be small, on the other hand, if the smartphone maker and the patent holder are firms of similar size and type. But the extent of these costs may be unclear.

Taken together, both imperfect and incomplete information may pose a problem for our hypothetical smartphone maker and patent holder. While settlement may be theoretically more efficient, the parties face uncertainty over outcome and cost that make agreement difficult.

B. Using PTAB Proceedings to Equalize the Parties' Bargaining Positions

Problems with unequal bargaining strength and informational problems may be ameliorated in part by the PTAB trials established by the AIA.¹²⁰ Parties may use these proceedings to challenge patent validity either prior to or during trial. These administrative trials differ from district court proceedings in a variety of ways. Due to these differences, discussed at length below, PTAB judges may be more likely to find a patent invalid than district court judges.¹²¹ As a result, the threat of instituting a PTAB trial can provide some information about the probability of success. Under some conditions, this may be able to harmonize parties' expectations about trial outcomes. In addition, a higher likelihood of patent invalidity also strengthens the licensee's bargaining position, which is likely to produce more reasonable royalty rates in settlement.

This subpart provides an overview of the new trial processes created by the AIA: post-grant review (PGR)¹²² and inter partes review

¹¹⁸ Parties may also choose to litigate because going to trial can reveal useful information about "future dangers" and "influence[] the precautions chosen by future defendants." Xinyu Hua & Kathryn E. Spier, *Information and Externalities in Sequential Litigation*, 161 J. INSTITUTIONAL & THEORETICAL ECON. 215, 220 (2005) (arguing that litigation can provide a social good by revealing information to future parties).

¹¹⁹ See, e.g., Sid Venkatesan, *Examining the Effects of Patent-Troll Legislation on Startups*, TECHCRUNCH (Aug. 3, 2013), <http://techcrunch.com/2013/08/03/effects-of-patent-troll-legislation-on-startups/> ("One of the major reasons NPE litigation is unfair to startups is that a startup defendant may have a lot of documents and files to sift through in order to respon[d] to civil discovery, whereas an NPE may have minimal documents.").

¹²⁰ The new PTAB trials are established by Section 311 and Section 321 of 35 U.S.C.

¹²¹ See *infra* notes 135–39 and accompanying text (comparing the success of patentees before a district court and PTAB).

¹²² 35 U.S.C. § 321 (2012).

(IPR)¹²³. While the two types of trials vary slightly, they have the same strategic value. All else being equal, a patent examined through one of these processes is more likely to be invalidated due to differences in claim construction, standards of proof, and discovery between PTAB and district courts. Next, this subpart describes how these procedural and substantive differences make the outcome of a civil trial more predictable—even if that outcome is heavily weighted in favor of the alleged infringer—and encourages settlement.

1. Regulatory Review Processes as a Means of Resolving Uncertainty

The AIA established one new procedure for challenging patent validity, PGR, and amended an existing one, IPR.¹²⁴ PGR is the broader of the two and may be used to challenge the validity of one or more patent claims¹²⁵ on a wide variety of grounds, including utility, novelty, obviousness, double patenting, or specificity.¹²⁶ To invoke this proceeding, a third party must petition the PTO and demonstrate that “it is more likely than not that at least one claim challenged is unpatentable.”¹²⁷ This process is available in the nine months after the patent is granted or reissued by the PTO.¹²⁸ PTAB is required to issue a decision within a year,¹²⁹ or alternatively, the parties may terminate the proceedings by settlement.¹³⁰

If more than nine months have passed since the patent was issued, a patent may be reviewed through IPR only.¹³¹ The PTO will only institute this proceeding when the petitioner has demonstrated “a reasonable likelihood” of prevailing “with respect to at least [one] of the claims challenged in the petition.”¹³² IPR differs from PGR primarily in scope, permitting review only of claims’ novelty and obviousness, and then “only on the basis of prior art consisting of patents or printed pub-

¹²³ *Id.* § 311.

¹²⁴ See Eric C. Cohen, *A Primer on Inter Partes Review, Covered Business Method Review, and Post-Grant Review Before the Patent Trial and Appeal Board*, 24 *FED. CIR. B.J.* 1, 1–3 (2014) (providing an overview of PGR and changes to IPR).

¹²⁵ 35 U.S.C. § 321(b).

¹²⁶ See *id.* §§ 101–103, 112 (as referenced by 35 U.S.C. § 282(a)–(b)). Third parties are not able to challenge patents based on “best mode.” *Id.* § 282(b)(3)(A).

¹²⁷ *Post Grant Review*, U.S. PATENT & TRADEMARK OFFICE, <http://www.uspto.gov/patent/laws-and-regulations/america-invents-act-aia/inter-partes-disputes> (last visited Sept. 17, 2016); see also 35 U.S.C. §§ 322(a)(2)–(3) (detailing petition requirements).

¹²⁸ 35 U.S.C. § 321(c).

¹²⁹ *Id.* § 326(a)(11). This may be extended by six months for good cause. *Id.*

¹³⁰ See *id.* § 327 (describing settlement procedures).

¹³¹ See *id.* § 311(c)(1)–(2) (noting the IPR filing deadline). Inter partes review is covered by Sections 311–19.

¹³² *Id.* § 314(a).

lications.”¹³³ Finally, like PGR, IPR proceedings are required to be completed within one year.¹³⁴

These proceedings are attractive to potential licensees in the midst of a royalty dispute because the standards and procedures employed by PTAB make invalidation more likely than in district court. Between September 2012 and January 2016, a written opinion was issued in 792 (61.5%) of the 1287 PTAB trials instituted.¹³⁵ PTAB invalidated all challenged claims in 72.1% of their written opinions (571/792) and at least one claim in 86.5% of their written opinions (685/792).¹³⁶ Compare this to outcomes in district courts. In a study encompassing all patent decisions by district courts for cases filed in 2008 and 2009, patentees prevailed on summary judgment motions alleging invalidity on either prior art or obviousness¹³⁷ in approximately 80% of summary judgment motions.¹³⁸ Overall patent invalidity win rates are similar, with patentees winning on prior art and obviousness grounds in 68.9% and 72.2% of cases, respectively.¹³⁹

To increase the probability of patent invalidation before PTAB, Congress and the PTO limited the scope of discovery, broadened the method of claim construction, and widened the standard of proof in PTAB trials.¹⁴⁰ In contrast to civil trials, PTAB trial discovery prohibits supplementary fact-gathering by parties except as necessary “in the

¹³³ *Id.* § 311(b) (referencing §§ 102–103).

¹³⁴ This may be extended by six months for good cause. *Id.* § 326(a)(11). Note that neither proceeding can be instituted when the party petitioning for PTAB review has challenged the patent’s validity in court; this does not apply, however, to situations in which patent invalidity is used as a counterclaim in an infringement lawsuit. In fact, between 2012 and 2014, 79% of IPRs were instituted concurrently with a district court action. Love & Ambwani, *supra* note 68, at 107 app. B.; accord Joseph Casino & Michael Kasdan, *Trends from 2 Years of AIA Post-Grant Proceedings*, LAW360 (Sept. 29, 2014, 10:06 AM), <http://www.law360.com/articles/581512/trends-from-2-years-of-aia-post-grant-proceedings> (noting that “an overwhelming majority . . . [were] filed by defendants involved in concurrent litigation”).

¹³⁵ *Patent Trial and Appeal Board Statistics*, U.S. PATENT & TRADEMARK OFFICE 9 (Jan. 31, 2016), <http://www.uspto.gov/sites/default/files/documents/2016-01-31%20PTAB.pdf>.

¹³⁶ *Id.* Note that the category “all claims found invalid” is a subset of the category “at least one claim found invalid.”

¹³⁷ These are the two grounds on which patents may be invalidated in IPR proceedings. 35 U.S.C. § 311(b); Dreyfuss, *supra* note 67, at 247.

¹³⁸ Allison et al., *supra* note 44, at 1785 tbl.2. These subgroups are actually lower than the overall rate of 30%, which is bolstered by a 54% summary judgment grant rate when a patent is challenged on the ground that the subject matter is not patentable. *Id.*

¹³⁹ Allison et al., *supra* note 44, at 1787 fig.4.

¹⁴⁰ Trial procedures governing these are promulgated by the PTO and published in the *Federal Register*. Amendments to the Rules of Practice for Trials Before the Patent Trial and Appeal Board, 81 Fed. Reg. 18,750, 18,750 (Apr. 1, 2016) (to be codified at 37 C.F.R. pt. 42).

interests of justice.”¹⁴¹ At the same time, the PTO broadened claim construction standards—that is, how the court determines the scope of the patent’s claim.¹⁴² When interpreting claims, PTAB ascribes to the claim its “broadest reasonable interpretation.”¹⁴³ Courts, however, use a somewhat narrower standard of giving claims their “ordinary [and] customary meaning,”¹⁴⁴ and interpret claims so as to “sustain their validity.”¹⁴⁵ As a result, PTAB is more likely to invalidate a claim than is a district judge.¹⁴⁶ Finally, PTAB also employs a lower evidentiary standard. Unlike a court, which both assumes the patent’s validity¹⁴⁷ and employs the “clear and convincing” standard,¹⁴⁸ PTAB does *not* presume validity and requires only “preponderance of the evidence.”¹⁴⁹ This divergence means that the petitioner is more likely to win before a PTAB, all else being equal.¹⁵⁰

¹⁴¹ See 37 C.F.R. § 42.51(b)(2)(i) (2015) (“Where the parties fail to agree, a party may move for additional discovery. The moving party must show that such additional discovery is in the interest of justice . . .”).

¹⁴² See U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-13-465, INTELLECTUAL PROPERTY: ASSESSING FACTORS THAT AFFECT PATENT INFRINGEMENT LITIGATION COULD HELP IMPROVE PATENT QUALITY 10 (2013) (stating that the courts have broad discretion in conducting the process of claim construction).

¹⁴³ *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1278 (Fed. Cir. 2015), *aff’d*, 136 S. Ct. 2131 (2016) (approving of the Board’s use of this standard and noting that “[e]ven if we were to conclude that Congress did not itself approve the broadest reasonable interpretation standard in enacting the AIA, § 316 provides authority to the PTO to adopt the standard in a regulation”).

¹⁴⁴ Dreyfuss, *supra* note 67, at 254; *accord* Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (“[W]ords of a claim ‘are generally given their ordinary and customary meaning.’” (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996))).

¹⁴⁵ Phillips, 415 F.3d at 1327 (quoting Rhine v. Casio, Inc., 183 F.3d 1342, 1345 (Fed. Cir. 1999)).

¹⁴⁶ See Dreyfuss, *supra* note 67, at 254–55 (“The broader the claim, the more likely the challenger can find prior art to invalidate it on novelty or obviousness grounds, the more abstract it is likely to read, and the less likely it is to be fully supported by the written description, adequately enabled, and distinctly claimed.”). Note, however, that the Federal Circuit has recently placed boundaries on the breadth with which PTAB can interpret claims. See *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1298 (Fed. Cir. 2015) (stating that the PTAB cannot interpret claims so broadly that the constructions are unreasonable or legally incorrect, and the constructions “must be consistent with the one[s] that those skilled in the art would reach” (quoting *In re Cortright*, 165 F.3d 1353, 1358 (Fed. Cir. 1999))).

¹⁴⁷ 35 U.S.C. § 282(a) (2012) (“A patent shall be presumed valid. Each claim of a patent . . . shall be presumed valid independently of the validity of other claims . . .”).

¹⁴⁸ *Microsoft Corp. v. i4i Ltd.*, 564 U.S. 91, 95 (2011); *see also* Alsup, *supra* note 103, at 1648–50 (discussing this standard).

¹⁴⁹ 35 U.S.C. § 326(e); 37 C.F.R. § 42.1(d) (2015).

¹⁵⁰ See *generally i4i Ltd.*, 564 U.S. at 102–05 (explaining that Congress established its current standards because a “preponderance standard of proof was too ‘dubious’ a basis to deem a patent invalid” (quoting *Radio Corp. of Am. v. Radio Eng’g Labs., Inc.*, 293 U.S. 1, 8 (1934))).

2. PTAB Trials as a Way to Resolve Patent Holdup

These streamlined procedures have the potential to dramatically affect the probability that PTAB will invalidate a patent. This greater likelihood provides some certainty about the outcome and cost of the trial, ameliorating the problems caused by imperfect and incomplete information. It also strengthens the bargaining position of the allegedly infringing firm. In general, such increased information and converged expectations make settlement more likely.

This is true even after parties have commenced litigation, as most PTAB proceedings occur in the shadow of parallel litigation.¹⁵¹ In these situations, the potential licensee challenges the patent's validity not only as a counterclaim before a district court, but also before a PTAB.¹⁵² Once a PTAB trial is threatened or instituted, the parties are less likely to have divergent expectations about the outcome.¹⁵³

In the context of patent holdup, in which bargaining occurs after a product has been taken to market, this increase in information can promote efficiency by curbing a patent holder's ability to seek rents from the smartphone maker. All else being equal, by lowering the patent holder's probability of success, p , and harmonizing the parties' expectations, the parties are more likely to agree to a *lower* settlement value, s , than without this information.

This dynamic is illustrated in Figure 1, which demonstrates how changes in the value of the injunction, I , and the probability that the patent holder will prevail, p , affect the settlement value, $s = p(v + I) - (I - p)(v) - c$.¹⁵⁴ The injunction value reflects the amount of investment the smartphone maker has made in his product. As a result, commercially successful products, like our smartphone maker's new phone, would likely translate to a high level of I . In other words, the

¹⁵¹ Between 2012 and 2014, 79% of IPRs were instituted concurrently with a trial. Love & Ambwani, *supra* note 68, at 107 app. B.

¹⁵² Parties normally file a motion for a stay around the same time they file for PTAB review. District judges granted about 82% of these motions. *Id.* at 103–04 tbl.8. If the PTO cancels the claims, the district court is bound by this determination. *See Fresenius USA, Inc. v. Baxter Int'l, Inc.*, 721 F.3d 1330 (Fed. Cir. 2013). District courts are not, however, required to accept different constructions *short* of cancellation.

¹⁵³ PTAB proceedings may also eliminate some of the parties' incomplete information. By constraining the overall cost of the proceeding, each party will have some knowledge of the other's litigation costs.

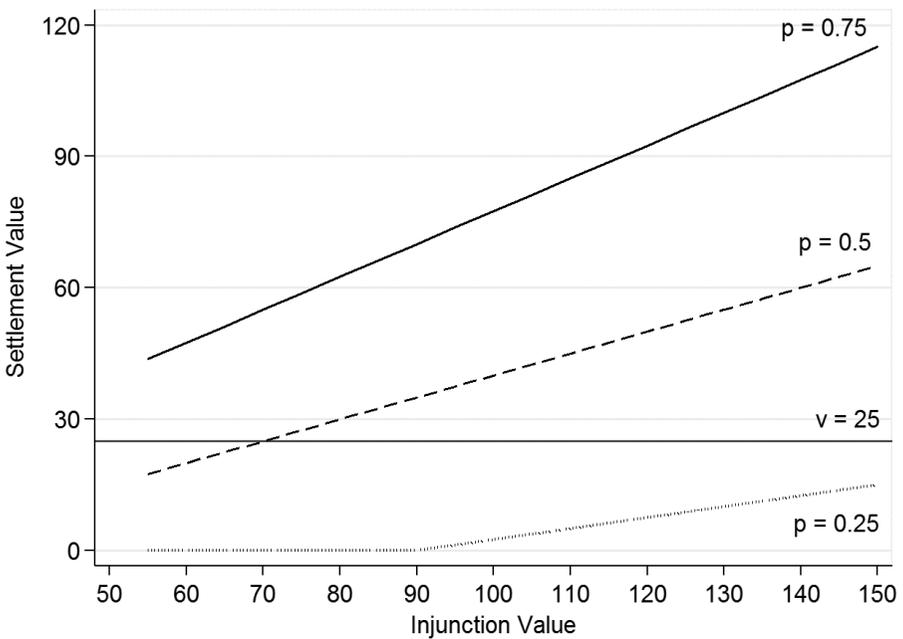
¹⁵⁴ Note that this graph makes a few assumptions. First, the value of the patent is set exogenously, such that the probability of success before the court does not affect the value of the patent. In doing so, the conceptualization of v attempts to mimic the court's valuation, as opposed to the true economic valuation. Second, when the expected value of the trial becomes negative for the patent holder, the settlement value is constrained to be zero (i.e., there is no settlement value paid).

greater a firm’s investment in a product, the costlier an injunction will be.

Note also that as the value of the injunction increases, so too does the settlement value, *independent of the value of the patent*. As a result, holding all else equal, higher injunction values permit the patent holder to extract higher rents. This holdup may occur regardless of the probability of success.

The holdup problem is further exacerbated if the probability that the patent holder will prevail in trial is high. But as the probability of success decreases, so too does the potential settlement value, all else being equal. Whereas a high probability of success at trial ($p = 0.75$) translates into a settlement value greater than the value of the patent, a low probability of success ($p = 0.25$) yields precisely the opposite.

FIGURE 1. THE EFFECT OF HOLDUP ON SETTLEMENT VALUE



This effect persists even when the injunction is only preliminary. Imagine a situation in which both parties know that the patent holder will seek a preliminary injunction at the beginning of the trial. Assume that time is broken up into periods, t , with the trial beginning at $t = I$. For every period the preliminary injunction is in place, the smartphone maker loses revenue equivalent to some fraction of the permanent injunction, βI , where $0 < \beta < 1$. Further assume that the smartphone maker values sales in the current period more than sales

in later periods, such that βI is discounted by δ^t , where $t = 0, 1, 2, 3, \dots T$, and T is the total length of time of the trial. If the patentee is granted a preliminary injunction, and the trial lasts for three periods, the smartphone maker would incur a cost of $-\delta\beta I - \delta^2\beta I - \delta^3\beta I - c$. Note, however, that even if the probability of success on the merits was relatively low, the patent maker would still be able to extract rents based on the threat of seeking a preliminary injunction.

The decrease in uncertainty resulting from PTAB trials is especially useful in the context of patent trolls. By making patent invalidation more likely, trolls may be more cautious about bringing litigation in the first instance. While not conclusive, from 2013 to 2014, after the PTO began instituting PTAB trials, patent litigation dropped thirteen percent.¹⁵⁵ Where litigation continues to occur, the likelihood of invalidation before PTAB can act as an extra inducement for a patent holder to settle or entirely abandon the suit. This hypothesis seems to be borne out by the data. Between September 2013 and January 2016, the parties settled in almost thirty percent (361) of the 1287 trials instituted.¹⁵⁶ Of the 1313 instances in which a petition did not result in trial, the settlement rate was even higher at thirty-seven percent (482).¹⁵⁷

II

USING PTAB TRIALS IN ANTICOMPETITIVE WAYS

The availability of PTAB trials may ameliorate some of the asymmetries in bargaining strength and information experienced by the parties. By tipping the balance in favor of invalidation, PTAB trials enhance the bargaining position of the operating company—that is, the alleged infringer. In addition, by reducing uncertainty, parties may be more likely to settle—eliminating litigation entirely in some cases and limiting the time and cost of trials in others. On the whole, information revealed by PTAB trials may make royalty negotiations more efficient.

Under some conditions, however, parties can use PTAB's dramatically different standards to force a litigant into a weaker bargaining position with inefficient results. This strategy can be problematic in the context of FRAND-encumbered SEPs. In this situation, a patent has been adopted as a standard and widely incorporated by many firms. In exchange, SEP holders must “commit to

¹⁵⁵ PATENT LITIGATION STUDY, *supra* note 42, at 3.

¹⁵⁶ U.S. PATENT & TRADEMARK OFFICE, *supra* note 135, at 9.

¹⁵⁷ *Id.*

license [their patents] on . . . [FRAND] terms,”¹⁵⁸ although what constitutes a FRAND term is not defined in these agreements.¹⁵⁹ Courts have viewed these agreements as enforceable contracts between the SSOs and the FRAND-encumbered SEP holders, to which potential licensees are third party beneficiaries.¹⁶⁰

As a result, negotiations that arise between a firm and a FRAND-encumbered SEP holder occur not only in the shadow of litigation, but also within the confines of preexisting contract. This contract changes the parties’ legal rights and, correspondingly, their bargaining positions. In this situation, the firm challenging the licensee may be able to extract rents *below* a FRAND rate by threatening to challenge the validity of the SEP. Consequently, the patent holder may agree to “forego legitimate patent rights to avoid the likely effects of [PTAB’s] standard[s].”¹⁶¹ Use of PTAB’s proceedings in this way should, under some conditions, be considered an antitrust violation. Unfortunately, anticompetitive uses of litigation and regulatory processes have often been protected from antitrust liability by an overly expansive *Noerr-Pennington* immunity doctrine.¹⁶²

This Part explores the conditions under which bringing or threatening a PTAB proceeding would constitute an antitrust violation but for *Noerr-Pennington*’s sprawling coverage. Section II.A examines how an existing FRAND agreement alters the parties’ economic positions, legal rights, and as a result, bargaining strength. Against this backdrop, Section II.B analyzes the conditions under which use of PTAB trials would be anticompetitive in nature. Finally, Section II.C

¹⁵⁸ Kim, *supra* note 36, at 14.

¹⁵⁹ See *id.* at 16 (noting that “‘FRAND’ is not precisely defined in the patent policies” of SSOs).

¹⁶⁰ See, e.g., *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872, 878 (9th Cir. 2013) (finding that Motorola admitted to “enter[ing] into [a] binding contractual commitment[]” with an SSO to offer RAND terms); *Realtek Semiconductor Corp. v. LSI Corp.*, 946 F. Supp. 2d 998, 1005 (N.D. Cal. 2013) (noting that, in a dispute between a chip maker and a RAND-encumbered SEP holder, “[t]here is no dispute in this case that [the patent holder] entered into a binding contract with the [SSO] to license their declared standard-essential patents . . . on RAND terms, and that [the potential licensee] is a third party beneficiary to that contract”). These commitments may also take the form of Letters of Assurance. See *Microsoft Corp. v. Motorola, Inc.*, No. C10-1823JLR, 2012 WL 5993202, at *2 (W.D. Wash. Nov. 30, 2012) (noting that Motorola had “submitted numerous Letters of Assurance” to the SSO). Although these decisions discuss “RAND” terms, RAND (“reasonable and non-discriminatory”) is interchangeable with FRAND. Jeffrey I.D. Lewis, *What Is “FRAND” All About? The Licensing of Patents Essential to an Accepted Standard*, CARDOZO L., <http://www.cardozo.yu.edu/what-%E2%80%9Cfrand%E2%80%9D-all-about-licensing-patents-essential-accepted-standard> (last visited Sept. 23, 2016) (“FRAND is sometimes referred to as RAND . . . , but they are all similar.”).

¹⁶¹ Brief of InterDigital, Inc. et al. as Amici Curiae in Support of Petitioner at 7, *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131 (2016) (No. 15-446), 2015 WL 6942520.

¹⁶² Lao, *supra* note 18.

considers how such actions would be evaluated under current antitrust law.

A. Bargaining Strength and Informational Asymmetries in Bargaining over Standard Essential Patents

When the patent at issue is not a FRAND-encumbered SEP, PTAB trials can be used to align the parties' expectations, equalize bargaining strength, encourage settlement, and thereby avoid inefficient trials. But when the patent is FRAND-encumbered, the parties possess very different bargaining positions. As a result, PTAB trials have the potential to create different (and much more anticompetitive) effects when two parties bargain over FRAND-encumbered SEPs.

Return for a moment to our hypothetical smartphone maker. In negotiations over a non-encumbered patent—especially negotiations with a troll—the smartphone maker has a comparatively weak bargaining position. By seeking an injunction, the patentee can holdup the smartphone maker and thereby prevent the sale of the manufacturer's phones. In addition, a district court is more likely to uphold a patent's validity.¹⁶³ In the case of a troll, a finding of non-infringement (even if validity is upheld) has fewer comparative economic consequences since the trolls do not actually manufacture the patented product.

In the SEP context, however, this disparity in the parties' bargaining strength is not as severe and, as a result, PTAB trials are not necessary to ameliorate the asymmetry. In particular, because SEPs are adopted by entire industries, firms and SEP holders have more equal levels of economic investment. An invalidity decision would result in a potentially devastating loss for the SEP holder, as any current licensees would not be required to pay royalties.¹⁶⁴

The SEP holder and the licensee also have greater parity in the legal tools available to them to force a settlement. First (and perhaps most obviously), the SEP holder has committed to license his patent on FRAND terms. Courts have tended to see this contractual obligation as placing limits on both the way SEP holders can bargain with potential licensees out of court and the equitable remedies available in court. For example, courts have allowed licensees to pursue suits

¹⁶³ See Allison et al., *supra* note 44, at 1787 (“The fact that most individual validity challenges fail is true not just of summary judgment rulings, but also of overall final decisions on validity.”).

¹⁶⁴ Cf. *Kimble v. Marvel Entm't, LLC*, 135 S. Ct. 2401, 2407 (2015) (holding that “when the patent expires, the patentee’s prerogatives expire too, and the right to make or use the article . . . passes to the public”).

alleging both breach of contract and antitrust claims in situations when bargaining has broken down.¹⁶⁵ In particular, several district courts have declined to dismiss suits by potential licensees alleging that SEP holders have violated the Sherman Act by exploiting their market power as owners of widely adopted patents to raise prices and harm competition.¹⁶⁶ Unencumbered SEP holders, on the other hand, are not presumed to have market power¹⁶⁷ (a prerequisite for finding an antitrust injury) and are thus free to seek “any royalty . . . reasonably within the reward” of the patent.¹⁶⁸

In addition, an SEP holder may have a reduced ability to obtain an injunction on the sale of the infringing goods. For example, in 2013, the FTC charged Google with engaging in unfair methods of competition while bargaining over the licensing of FRAND-encumbered patents and prohibited the firm from seeking injunctive relief during the negotiations.¹⁶⁹ A district court came to a similar conclusion in *Microsoft v. Motorola*.¹⁷⁰ In that case, Motorola held a RAND-encumbered SEP,¹⁷¹ which Microsoft sought to license. After bargaining broke down, Motorola sought injunctive relief in Germany;

¹⁶⁵ See, e.g., *Lotes Co. v. Hon Hai Precision Indus. Co.*, No. 12 Civ 7465(SAS), 2013 WL 2099227, at *2 (S.D.N.Y. May 14, 2013) (finding Hon Hai’s “refus[al] to license certain USB 3.0 [s]tandard patents” despite Lotes’s “repeated good faith attempts to negotiate” problematic, but ultimately dismissing claims based on a jurisdictional issue); *Research in Motion Ltd. v. Motorola, Inc.*, 644 F. Supp. 2d 788, 797 (N.D. Tex. 2008) (holding that Motorola could not block RIM’s legal action because Motorola’s “refus[al] to negotiate fair terms” made court action the only way that RIM will receive “fair licensing terms”).

¹⁶⁶ Specifically, potential licensees have argued that SEP holders have violated section 2 of the Sherman Act, which prohibits any person or firm from “monopoliz[ing], or attempt[ing] to monopolize . . . any part of the trade or commerce among the several States, or with foreign nations.” 15 U.S.C. § 2 (2012); see *Research in Motion*, 644 F. Supp. 2d at 793–94 (“[T]he danger for abuse inherent in Motorola’s position is the very reason [the SSO] required Motorola to promise it would allow competitors to ‘pass through the gates’ on FRAND terms.”).

¹⁶⁷ See *Ill. Tool Works, Inc. v. Indep. Ink, Inc.*, 547 U.S. 28, 45–46 (2006) (concluding that “a patent does not necessarily confer market power” and that “the plaintiff must prove that the defendant has market power”).

¹⁶⁸ *United States v. Gen. Elec. Co.*, 272 U.S. 476, 489 (1926).

¹⁶⁹ FTC Consent Order in the Matter of Motorola Mobility LLC, and Google Inc., File No. 1210120, FTC (July 24, 2013), <https://www.ftc.gov/enforcement/cases-proceedings/1210120/motorola-mobility-llc-google-inc-matter> (settling charges that Google “violated Section 5 of the FTC Act by engaging in unfair methods of competition and unfair acts or practices related to the licensing of standard essential patents” Dorsey and McGuire argue that three recent actions by the Federal Trade Commission and Department of Justice suggest that “the move toward disfavoring injunctive relief for holders of FRAND-encumbered SEPs is here to stay.” Elyse Dorsey & Matthew R. McGuire, *How the Google Consent Order Alters the Process and Outcomes of FRAND Bargaining*, 20 GEO. MASON L. REV. 979, 988–90 (2013).

¹⁷⁰ *Microsoft Corp. v. Motorola, Inc.*, No. C10-1823JLR, 2012 WL 5993202 (W.D. Wash. Nov. 30, 2012).

¹⁷¹ Recall that FRAND and RAND are used interchangeably. Lewis, *supra* note 160.

upon Microsoft's request, the district court enjoined "Motorola from seeking injunctive relief . . . with respect to [its SEP] portfolios."¹⁷²

Courts and the FTC have prohibited injunctive relief out of a concern that an injunction order against the potential licensee will create the very inefficiencies that the FRAND commitment intended to guard against. In particular, the FTC has noted that a "royalty negotiation . . . occur[ing] under threat of an [injunction] may be weighted heavily in favor of the [SEP holder] in a way that is in tension with the [F]RAND commitment."¹⁷³ In other words, the possibility of an injunction may permit a [F]RAND-encumbered SEP holder to "realize royalty rates that reflect [patent] hold-up, rather than the value of the patent relative to alternatives, which could raise prices to consumers while undermining the standard setting process."¹⁷⁴

In taking these steps, agencies and courts have been able to equalize the parties' bargaining strength. Limiting SEP holders' ability to enjoin a potential licensee from selling the infringed product strengthens the licensee's bargaining position by making any court action initiated by the SEP holder a less effective weapon. Combine this with other claims licensees may bring—including breach of contract and antitrust claims—and the SEP holder appears highly incentivized to come to terms with the licensee and avoid a costly trial.

Not only do the parties possess more equal levels of bargaining strength when negotiating over SEPs, they also have slightly more information, and their beliefs about the trial outcome are more closely aligned. In infringement trials for unencumbered patents, the court seeks to determine whether the patent is valid, and, if valid, whether it was infringed.¹⁷⁵ This creates uncertainty regarding whether an injunction will be granted or whether the patent will be held invalid, although courts have historically been more likely than not to uphold patent validity.¹⁷⁶

In suits brought after the breakdown of SEP bargaining, however, the parties have more information about the outcome of the trial—

¹⁷² *Motorola*, 2012 WL 5993202, at *8.

¹⁷³ Tony V. Pezzano & Jeffrey M. Telep, *Latest Developments on Injunctive Relief for Infringement of FRAND-Encumbered SEPs—Part II*, 26 INTELL. PROP. & TECH. L.J. 18, 18 (2014) (citing FTC, Comment Before the U.S. Int'l Trade Comm'n Concerning Certain Wireless Communication Devices, at 3–4 (June 2012), <https://www.ftc.gov/policy/policy-actions/advocacy-filings/2012/06/ftc-comment-united-states-international-trade-0>).

¹⁷⁴ *Id.*

¹⁷⁵ See, e.g., *Gradient Enters. v. Skype Techs.*, 932 F. Supp. 2d 447, 448–49 (W.D.N.Y. 2013) (granting in part and denying in part counterclaims of patent validity in an infringement suit).

¹⁷⁶ See *supra* notes 104–05 and accompanying text (discussing invalidation rates).

although the amount they possess is still far from perfect and complete. For example, whereas the possibility of an injunction causes major uncertainty in cases involving unencumbered patents, courts are unlikely to enjoin our smartphone maker from importing or selling the infringing phones, as discussed above.¹⁷⁷ Parties also have more ex ante information about the possible outcomes of the trial. In the context of SEPs, the disagreement between the parties most often concerns the appropriate licensing and royalty rates—not whether the patent is valid in the first instance.¹⁷⁸

To the extent that the parties have divergent beliefs about what constitutes a FRAND rate, a trial might be desirable because the court would reveal information about how it is likely to interpret the term “FRAND.” But, unlike a non-encumbered patent holder, the SEP will be unable to extract rents from the smartphone maker. This bargaining parity suggests that the smartphone maker should be more likely to come to terms with an SEP holder *outside* of court than would be the holder of an unencumbered patent.

B. The Anticompetitive Effect of PTAB Trials in Bargaining over FRAND-Encumbered Standard Essential Patents

These differences in parties’ legal rights and bargaining positions when negotiating rates over a FRAND-encumbered SEP place the patent holder and the licensee on much more equal terms than two parties involved in a dispute over an unencumbered patent. As a result, a party’s ability to invoke a PTAB proceeding can create an imbalance in bargaining strength, while also imposing additional litigation costs. This disparity can produce anticompetitive effects that, under some conditions, should be viewed as antitrust violations.

In particular, the smartphone maker can use the threat of invalidation as leverage to induce SEP holders to agree to a rate that may be *lower* than that which is economically efficient. This effect is exacerbated by the smartphone maker’s market power. The larger the firm, the more coercive this threat can be. If the smartphone maker is a monopolist or a near-monopolist with a sizeable litigation war chest, it will be able to pour more resources into a validity challenge—thus increasing the patentee’s costs. In addition, because of the monopolist smartphone maker’s market share, it is likely to require a larger concession on royalty rates than if the patentee was pressured by a

¹⁷⁷ See *supra* notes 169–74 and accompanying text (describing courts’ and agencies’ recent decisions to deny injunctive relief to SEP holders).

¹⁷⁸ See, e.g., William F. Lee & A. Douglas Melamed, *Breaking the Vicious Cycle of Patent Damages*, 101 CORNELL L. REV. 385, 428–33 (2016) (discussing conflicts over SEPs).

smaller firm. Alternatively, a near-monopolist could threaten to instigate a PTAB trial in order to negotiate a below-FRAND royalty rate to improperly gain market power. Both of these behaviors would violate section 2 of the Sherman Act, which prohibits firms from monopolizing or attempting to monopolize “any part of the trade or commerce among the several States.”¹⁷⁹

This antitrust violation arises from the underlying agreement between the SSO—an organization of which the licensee is likely a part—and the patentee to offer a FRAND rate. Ordinarily, licensees cannot contract away their ability to challenge a patent’s validity because “[a]llowing even a single company to restrict its use of an . . . invalid patent . . . would deprive . . . the consuming public of the advantage to be derived from free exploitation of the discovery.”¹⁸⁰ But, in the context of SEPs, these concerns are subject to countervailing considerations. For instance, the licensees have implicitly accepted the validity of the patent by adopting the technology as a standard through the SSO. As a result, challenging the patent’s validity *after* its establishment as a patent would seem to violate principles of “good faith and fair dealing.”¹⁸¹

More importantly, permitting licensees to challenge an SEP’s validity undermines the entire standard setting process, which has significant procompetitive effects. This is especially true in technology industries characterized by network externalities, which occur “when the value one user realizes from a product or service depends upon the total number of consumers using compatible technologies”¹⁸² such that there are “increasing returns in consumption.”¹⁸³ For example, a smartphone that could only call other phones on the same network is less useful than a smartphone that could call phones on all networks. As a result, standards that establish interoperability—that is, func-

¹⁷⁹ Sherman Act, 15 U.S.C. § 2 (2012).

¹⁸⁰ *Kimble v. Marvel Entm’t LLC*, 135 S. Ct. 2401, 2407 (2015) (citing *Scott Paper Co. v. Marcalus Mfg. Co.*, 326 U.S. 249, 256 (1945)).

¹⁸¹ *Cf. Microsoft Corp. v. Motorola, Inc.*, 963 F. Supp. 2d 1176, 1184 (W.D. Wash. 2013) (discussing the duties of SEP holders in bargaining RAND rates). The court argued that a party to a contract could “violate the duty of good faith and fair dealing to, for example, (1) evade the spirit of a bargain; (2) willfully render imperfect performance; (3) interfere with or fail to cooperate in the other party’s performance; (4) abuse discretion granted under the contract; or (5) perform the contract without diligence.” *Id.*

¹⁸² Elyse Dorsey, *Building Patent Portfolios to Facilitate Cross-licensing Agreements: Implications for Merger Efficiency Analysis*, 15 COLUM. SCI. & TECH. L. REV. 125, 153 (2013); see also Sean P. Gates, *Standards, Innovation, and Antitrust: Integrating Innovation Concerns into the Analysis of Collaborative Standard Setting*, 47 EMORY L.J. 583, 594 (1998) (“A network externality is a benefit conferred on existing network users by the addition of a new user.”).

¹⁸³ Gates, *supra* note 182, at 594.

tions that allow users to connect with other users—are, in large part, the value of these network industries.¹⁸⁴

Finally, by establishing industry standards, SSOs can encourage cross-licensing, which—in this context—is likely to encourage economic efficiency and lower costs.¹⁸⁵ Any anticompetitive concerns that cross-licensing may blunt competition by excluding competitors are moot in the context of SEP bargaining. Because SEP holders are required to license on FRAND terms, firms with vast IP portfolios are not able to exclude smaller or IP-poor firms.¹⁸⁶

C. *Limits to Antitrust Liability Under Noerr-Pennington Immunity*

Taken together, challenging (or threatening to challenge) the validity of an SEP before PTAB is not only against the spirit of the FRAND agreement,¹⁸⁷ but it also takes on an anticompetitive flavor when a firm with market power can force large concessions and undermine the standard setting process. Despite the economic disruption this could cause, however, courts are unlikely to punish such behavior under current antitrust immunity doctrines, such as under *Noerr-Pennington* immunity.

To determine whether a licensee's threat or use of a PTAB trial constitutes a Sherman Act violation, the patentee must demonstrate that the licensee's invalidity claim was a "sham." To be considered a "sham," the litigation must be objectively baseless—meaning that "no reasonable litigant could realistically expect success on the merits"—and subjectively intended to "interfere *directly* with the business relationships of a competitor . . . through the use [of] governmental *process*—as opposed to the *outcome* of that process—as an anticompetitive weapon."¹⁸⁸

¹⁸⁴ See *id.* at 596 ("For instance, a fax machine is only useful if it is compatible with other fax machines.").

¹⁸⁵ Cf. Joel I. Klein, Acting Assistant Att'y Gen., Antitrust Div., Dep't of Justice, Cross-licensing and Antitrust Law, Address to the American Intellectual Property Law Association (May 2, 1997), in 1997 WL 1187720, at *2. Cross-licensing agreements are "licensing transactions that combine the intellectual property of different owners." *Id.* at *2. In these agreements, each patent holder to the agreement is permitted to exploit the intellectual property of the others.

¹⁸⁶ Cf. *id.* at *2–3 (arguing that while he believes that "by far most cross-licenses and pools are, on balance, procompetitive," cross-licenses could be used to "control[] the terms on which future innovations in the field will reach the market").

¹⁸⁷ Cf. *Microsoft Corp. v. Motorola, Inc.*, 963 F. Supp. 2d 1176, 1184 (W.D. Wash. 2013) (discussing behaviors that may violate the concepts of good faith and fair dealing).

¹⁸⁸ *Prof'l Real Estate Inv'rs Inc. v. Columbia Pictures Indus., Inc.*, 508 U.S. 49, 60–61 (1993) (citing *E.R.R. Presidents Conference v. Noerr Motor Freight, Inc.*, 365 U.S. 127, 144 (1961) and *City of Columbia v. Omni Outdoor Advert., Inc.*, 499 U.S. 365, 380 (1991)) (citations omitted).

For the same reasons that parties may have divergent expectations prior to trial, courts are unlikely to find the licensee's arguments regarding validity to be objectively baseless. The extent to which many standards in patent law are "loosely defined"¹⁸⁹ and to which fundamental questions of law remain unresolved¹⁹⁰ provides a wider range of legal interpretations that could seem "reasonable" to the court. Thus, in the face of legal uncertainty, even outlandish arguments may be objectively reasonable¹⁹¹—even more so when "[i]t is not what the parties think of the merits of their positions that matters[,] it is whether there are, in fact, sufficient objective bases for the positions taken."¹⁹² As the Federal Circuit noted, the intensely factual nature of this inquiry and the complexity of patent law means that "it will be a rare case in which a patentee's assertion of its patent in the face of a claim of invalidity will be so unreasonable as to support a claim that a patentee has engaged in sham litigation."¹⁹³

This is especially true in PTAB trials, where the lower evidentiary standards and broader claim construction rules may make invalidation more likely. The Federal Circuit found that, to demonstrate objective baselessness, plaintiffs must overcome the "presumption of validity and the clear-and-convincing evidence standard for proving invalidity."¹⁹⁴ This implies that a party's claim could be objectively baseless in court and yet still possess merit before PTAB.

Even if the patentee can demonstrate that the licensee's claim was objectively baseless, he must still demonstrate that the licensee subjectively intended to cause an anticompetitive effect. Given the limited opportunities for discovery in PTAB proceedings, the patentee is unlikely to uncover a smoking gun revealing the petitioner's subjective intent to cause anticompetitive harm. As a result, intent must be determined circumstantially.

¹⁸⁹ See Holman, *supra* note 115, at 669 (discussing how decisions by the Supreme Court and Federal Circuit have proliferated ambiguity in patent law).

¹⁹⁰ See S. Jay Plager, *The Federal Circuit as an Institution: On Uncertainty and Policy Levers*, 43 LOY. L.A. L. REV. 749, 754 (2010) (providing a review of several articles in a symposium discussing indeterminacy in patent law).

¹⁹¹ Cf. *In re Terazosin Hydrochloride Antitrust Litig.*, 335 F. Supp. 2d 1336, 1359–60 (S.D. Fla. 2004) (holding that a party's construction of a treaty provision, "while hypertechnical," was "not objectively baseless").

¹⁹² *In re Androgel Antitrust Litig.*, 888 F. Supp. 2d 1336, 1345 (N.D. Ga. 2012) (quoting *In re Busipirone Patent Litig.*, 185 F. Supp. 2d 363, 375–76 (S.D.N.Y. 2002)).

¹⁹³ *Tyco Healthcare Group LP v. Mutual Pharmaceutical Co., Inc.*, 762 F.3d 1338, 1343–45 (Fed. Cir. 2014). This is probably an oversimplified conclusion based on the language of this decision, but it captures the essence of the ruling. In *Tyco*, at the end of the day, the Federal Circuit sent the case back to the U.S. District Court for the District of New Jersey to "determine whether Tyco's factual theory of infringement is objectively baseless." *Id.* at 1345.

¹⁹⁴ *Id.* at 1343–44.

Absent fraud, subjective intent could be shown through evidence that the suit itself was brought in “bad faith.”¹⁹⁵ Courts may infer bad faith when a firm frequently threatens suits or PTAB proceedings, files petitions or complaints, or some other combination of the two. While some courts have split on whether a single action may constitute sham activity,¹⁹⁶ the Supreme Court is clear that bad faith can be inferred from a *course* of anticompetitive conduct. As the Court noted, “a pattern of baseless, repetitive claims may emerge which leads the factfinder to conclude that the administrative and judicial processes have been abused.”¹⁹⁷ This broad view has led lower courts to survey the *entire conflict* between the two parties when determining whether a party has acted in bad faith.¹⁹⁸

Courts’ interpretation of the “sham litigation” doctrine tightly circumscribes the situations under which *Noerr-Pennington* immunity may be stripped. As a result, antitrust law can do very little to deter or punish anticompetitive use of regulatory processes for anticompetitive ends. Given the stakes, antitrust law (and its threat of treble damages) would seem ideally placed to dissuade competitors from using regulatory proceedings from furthering their economic competition.

III

CHANGING *NOERR-PENNINGTON* TO CAPTURE ANTICOMPETITIVE USES OF PTAB TRIALS

The narrowness of the sham exception as described above—and the inequities it causes—has been subject to “sharp criticism.”¹⁹⁹ The stringent standards applied by courts have “allow[ed] more anticom-

¹⁹⁵ See, e.g., James B. Kobak, Jr., *Professional Real Estate Investors and the Future of Patent-Antitrust Litigation: Walker Process and Handguards Meet Noerr-Pennington*, 63 *ANTITRUST L.J.* 185, 198 (1994) (evaluating the Ninth Circuit’s decisions in *Handguards v. Ethicon, Inc.*, 601 F.2d 986 (9th Cir. 1979), *cert. denied* 444 U.S. 1025 (1980) (*Handguards I*); 743 F.2d 1282 (9th Cir. 1984), *cert. denied*, 469 U.S. 1190 (1983) (*Handguards II*), as categorizing “bad faith litigation” as evidence of “subjective intent”).

¹⁹⁶ Compare *Feminist Women’s Health Ctr., Inc. v. Mohammad*, 586 F.2d 530, 543 n.6 (5th Cir. 1978) (holding that the Supreme Court has previously recognized that “a showing of a pattern of repetitive, baseless claims is strong evidence of sham petitioning, but . . . such evidence is *essential* to proof of sham”), with *Sea-Roy Corp. v. Parts R Parts, Inc.*, No. 1:94CV00059, 1997 WL 1046282, at *12 (M.D.N.C. Dec. 2, 1997) (characterizing sham activity as either “misrepresentations . . . in the adjudicatory process” or “a pattern of baseless, repetitive claims,” implying that one suit was insufficient).

¹⁹⁷ *California Motor Transp. Co. v. Trucking Unlimited*, 404 U.S. 508, 514 (1972).

¹⁹⁸ See, e.g., *Tyco*, 762 F.3d at 1348 (discussing the fact that one party’s filing of a citizen petition with the FDA one day after losing a summary judgment motion in district court was intended to cause delay of a competitor’s generic drug).

¹⁹⁹ See Scott D. Makar, *Anticompetitive Actions in the Administrative Forum: Antitrust and State Law Remedies*, 66 *FLA. B.J.* 33, 34 (1992); see also Joseph B. Maher, Comment, *Survival of the Common Law Abuse of Process Tort in the Face of a Noerr-Pennington*

petitive effects than are necessary to protect the basic right to petition government.”²⁰⁰ Given this, the sham exception should be expanded to permit courts to credit behaviors and actions that would otherwise be missed.

This Part argues that courts should soften the requirement that the SEP holder demonstrate objective baselessness of the potential licensee’s claims. As currently applied, it is almost impossible to meet—especially in the context of patent claim construction.²⁰¹ To better capture behavior that will damage both markets and innovation, the objective baselessness standard should be adjusted to recognize strategic efforts to extort rents due to the difference in procedures between PTAB trials and district courts. In practice, this would require that courts always evaluate both the merits of the claim, the bargaining positions of the parties, and whether the PTAB proceeding was subjectively intended to cause an anticompetitive effect. In doing so, courts will be able to deter some of the most egregious behavior in bargaining over FRAND-encumbered SEPs. This Part concludes by examining the benefits of altering the sham litigation exception to *Noerr-Pennington* as compared to other administrative options.

A. Loosening the “Objectively Baseless” Prong of the Sham Exception

In order to make antitrust injuries available—and allow treble damages to serve as a deterrent—the sham petitioning exception must be reformulated to provide a realistic opportunity for litigants to seek remedies for (and thus deter) anticompetitive harms that may distort the patent system. In particular, the objective baselessness standard should be loosened to encompass litigation that “may have some merit and still be ‘vexatious,’ which is defined as ‘without reasonable or probable cause or excuse[,] harassing[,] or annoying.’”²⁰² Such an analysis would force courts to look simultaneously at both whether the validity claim had merit *and* whether it was strategically intended to extract rents from the SEP holder by forcing it into a weaker bargaining position. In particular, instead of asking the dichotomous

Defense, 65 U. CHI. L. REV. 627, 634 n.38 (1998) (referring to the sham exception laid out in *Prof'l Real Estate Inv'rs v. Columbia Pictures Indus.*, 508 U.S. 49, 61 (1993)).

²⁰⁰ Makar, *supra* note 199, at 34.

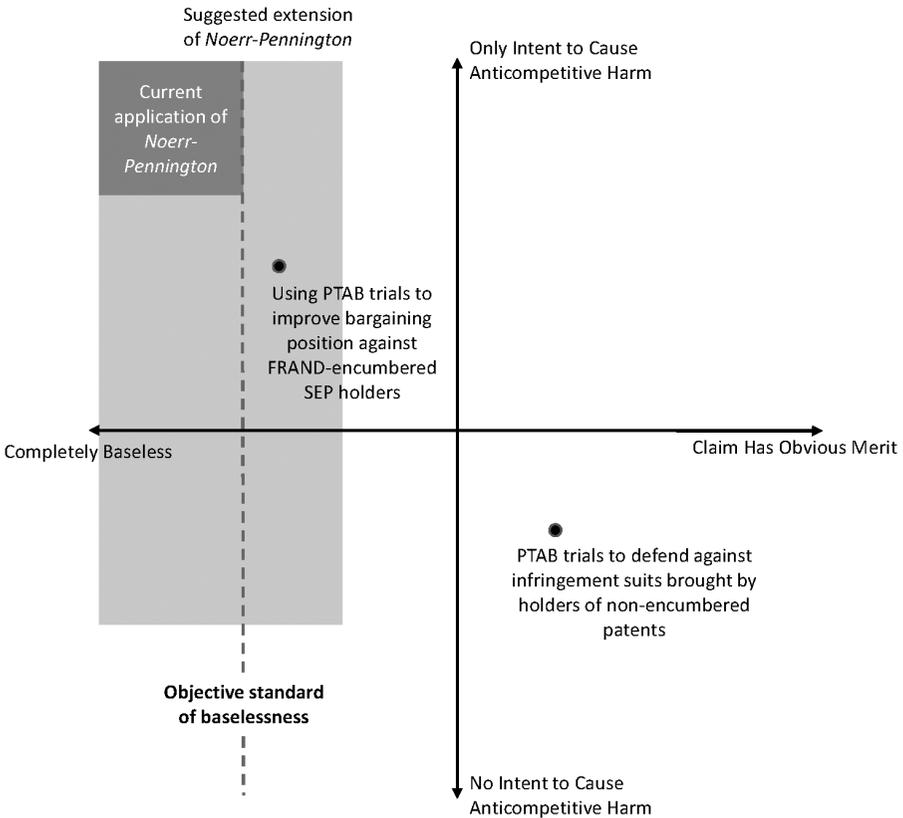
²⁰¹ *Cf. Sosa v. DIRECTV, Inc.*, 437 F.3d 923, 932 n.6 (9th Cir. 2006) (discussing the narrowness of the sham exception as laid out in *Prof'l Real Estate Inv'rs v. Columbia Pictures Indus.*, 508 U.S. at 61).

²⁰² *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872, 886 (9th Cir. 2012) (“Motorola initiated separate proceedings in Germany . . . as a procedural maneuver designed to harass Microsoft.”).

question of whether a reasonable person would expect success on the merits, the court could conceptualize success probabilistically along a continuum.

This more flexible formulation of the *Noerr-Pennington* exception is illustrated in Figure 2. Baselessness is arrayed along a continuum on the x-axis; subjective intent, on the y-axis. Instead of asking whether the claim met the reasonableness standard (indicated by the dashed red line) or not, the court would ask where along the continuum the claim falls.

FIGURE 2. SHAM LITIGATION EXCEPTIONS ALONG A CONTINUUM



In the case of an SEP, the court should weigh two factors heavily in favor of a finding of baselessness: the SSO’s adoption of the SEP as an industry standard and the licensee’s participation in the SSO. Both of these factors indicate that the licensee recognized the patent’s validity—at least in the context of standard setting—and accepted that it would be required to pay a royalty for use.

The evidence for this would be especially strong where the licensee had engaged in a course of harassing or otherwise anticompetitive conduct against the SEP holder. This may be more likely when the SEP holder is the licensee's competitor, as litigation may not only force an opponent into a settlement but also interfere with its operations through attentional costs.²⁰³

B. Changing Noerr-Pennington as Compared to an Administrative Solution

One might argue that eliminating anticompetitive bargaining inequities through a sham exception to *Noerr-Pennington* is inefficient. To hold the licensee accountable for anticompetitive uses of PTAB trials, patentees must assert either an antitrust violation as a counterclaim in ongoing litigation or initiate a new action. In other words, the patentee must go to trial and engage in expensive litigation to protect itself from a licensee's anticompetitive behavior. This may strain the resources of smaller firms and fail to deter licensees from using PTAB trials to gain a greater (anti)competitive advantage in bargaining over licensing and royalty rates.

These costs could be avoided if, instead, PTAB simply prevented firms from invoking administrative trials in the first instance. This alternative, however, would impose its own costs and offer less in terms of deterring licensees from abusing PTAB trials to induce lower royalty rates. In order for PTAB to evaluate whether a petitioner was using a PTAB trial strategically, it would have to require petitioners to submit evidence on this point *prior* to the institution's decision. In particular, PTAB would have to evaluate not only the applicable case law (as it does under the exception's current application), but also other aspects of the parties' relationship, such as whether there was a prior licensing agreement, contract, or communication between the parties indicating the licensee's belief that the patent is valid. This would not only be costly for the petitioner and patent holder, but it would also require PTAB to make a very fact-intensive inquiry into the matters beyond the scope of the patent, such as the parties' relative bargaining strengths, which is an inquiry beyond PTAB's competency.²⁰⁴

²⁰³ See, e.g., ISAACSON, *supra* note 93 (discussing Steve Jobs's desire to tie up Microsoft in antitrust litigation as a distraction).

²⁰⁴ Cf. Caitlin E. Borgmann, *Rethinking Judicial Deference to Legislation Fact-finding*, 84 IND. L. REV. 1, 39 ("Superior legislative fact-finding competence is a chimera . . ."); Catherine M. Sharkey, *State Farm "With Teeth": Heightened Judicial Review in the Absence of Executive Oversight*, 89 N.Y.U. L. REV. 1589, 1605 (2014) (arguing that judicial review has an "information-forcing" effect on an agency's justification of its actions).

In addition to being time consuming and costly, this would stretch the criteria for instituting a PTAB trial beyond the text of the statute. As currently written, PTAB trials may only be instituted if “there is a reasonable likelihood that the petitioner would prevail with respect to at least [one] of the claims challenged in the petition.”²⁰⁵ This “reasonable likelihood” language sounds remarkably like the obverse of the current “objectively baseless” prong—i.e., “no reasonable litigant would realistically expect success on the merits.”²⁰⁶ In other words, if the claim is objectively baseless—in the way currently defined by the courts—the PTO should not institute the proceedings. To prevent anticompetitive use of PTAB trials *ex ante*, however, would require the PTO to consider more information about subjective intent—primarily about the relationship between the parties and the market generally—and the PTO is ill-equipped to handle such an analysis.

Moreover, evaluating the parties’ relative bargaining positions and imposing more stringent requirements to institute a PTAB trial would not necessarily prevent licensees from *threatening* to petition for a PTAB trial, which may have a similar (though weaker) effect on the SEP holder’s decision to offer a rate it considers to be below FRAND. Filing a petition—even with a small chance that the trial would be instituted—would have an even stronger effect, as licensees would be required to expend resources on crafting a reply. As a result, shifting the responsibility to the PTO would be both beyond the PTO’s institutional competency and ineffective in eliminating parties’ anticompetitive use of PTAB trials.

CONCLUSION

When bargaining over patent licenses, firms have every incentive to use legal and administrative processes at their disposal to extract rents from the other side. Depending on the relative bargaining positions of the negotiating firms, however, these tactics can take an uncompetitive turn—especially if one firm is substantially larger than the other.

The availability of PTAB trials to challenge patent validity can, under some conditions, be particularly problematic in this regard. In some situations—such as when two firms are bargaining over a non-encumbered patent—PTAB trials may help to equalize the parties’ bargaining position, resolve uncertainty, and induce settlement at fair

²⁰⁵ 35 U.S.C. § 314(a) (2012) (describing the criteria for instituting inter partes review). The criteria for post-grant review are more stringent, requiring the petitioner to “demonstrate that it is more likely than not that at least [one] of the claims challenged in the petition is unpatentable.” *Id.* § 324(a).

²⁰⁶ *Prof'l Real Estate Inv'rs v. Columbia Pictures Indus.*, 508 U.S. at 61.

rates. When parties possess relatively equal bargaining positions *ex ante*, however—such as when parties bargain over a FRAND-encumbered SEP—PTAB trials can give licensees, especially those with a large market share, the ability to extract rents from the SEP holder.

These tactics have traditionally been protected from antitrust liability under *Noerr-Pennington* immunity. Without this liability, parties are incentivized to use PTAB trials strategically and may be able to create anticompetitive market conditions. To address this, *Noerr-Pennington* should be reformulated to allow a broader number of vexatious claims than the doctrine's current sham litigation exception. Doing so will provide the deterrence necessary to prevent firms from using PTAB trials as a tactic to gain the upper hand in bargaining.