

Patent Holdup, Patent Remedies, and Antitrust Responses

The Role of Patent Remedies and Antitrust Law in Dealing with “Patent Holdups”

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I. Introduction

A. In recent years, influential scholars, practicing lawyers, government officials, government commissions, enforcement agencies, and courts have all identified the phenomenon of “patent holdup” as a serious problem that may require various reforms to both patent and antitrust law. *See, e.g.*, Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 1991 (2007); Mark A. Lemley & Philip J. Weiser, *Should Property or Liability Rules Govern Information?*, 85 TEX. L. REV. 783 (2007).

B. Within the last year or so, however, critics of this view have become increasingly vocal. Some scholars have argued that, as an empirical matter, the frequency and magnitude of patent holdup costs are exaggerated. Others focus more on perceived theoretical vulnerabilities of the patent holdup literature—arguing, for example, that holdup is not necessarily inefficient, and that neither patent law nor economic theory provides a baseline from which to evaluate whether patentees’ royalty demands are so excessive as to constitute holdups. Finally, some argue that the reforms sometimes proposed to remedy patent holdup—such as eliminating the presumption of injunctive relief in patent infringement cases, changing the method by which courts calculate reasonable royalties, and permitting standard setting organizations (SSOs) to engage in collective bargaining with member patent owners over proposed licensing terms—threaten worse harms than the harms they would deter. *See, e.g.*, Einer Elhauge, *Do Patent Holdup and Royalty Stacking lead to Systematically Excessive Royalties?*, 4 J. COMPETITION L. & ECON. 535 (2008); Damien Geradin et al., *The Complements Problem Within Standard Setting: Assessing the Evidence on Royalty Stacking*, 14 B.U. J. SCI. & TECH. L. 144 (2008); John Golden, “Patent Trolls” and Patent Remedies, 85 TEX. L. REV. 2111 (2007); J. Gregory Sidak, *Holdup, Royalty Stacking, and the Presumption of Injunctive Relief for Patent Infringement: A Reply to Lemley and Shapiro*, 92 MINN. L. REV. 714 (2008).

C. This discussion document, based on a forthcoming article, addresses the theoretical critique referred to above. In addition, it focuses on two sets of policy tools for responding to patent holdup if and when holdup occurs, namely the law of patent remedies (leaving proposed reforms to substantive patent law aside, for now) and the law of antitrust.

II. Defining Patent Holdup

A. Most of the literature on patent holdup takes as its starting point an assertedly commonplace fact pattern in which a downstream user (or users) makes, uses, or sells an end product that incorporates multiple components, one or more of which components is covered by (or may be covered by) a patent owned by another entity.

1. In such a case, the risk that a patentee could obtain an injunction against the manufacture, use, or sale of the end product, absent a license on the part of the downstream user, provides the patentee with leverage to extract a greater share of the

value derived from the manufacture, use, or sale of the end product than would be attributable to the economic value of the patent alone (measured in terms of the actual profit or cost saving attributable to the patent alone).

2. The intuition is that sometimes patentees use the threat of injunctive relief to extract larger royalties than would be attributable to the patented invention alone, and that in doing so patentees (1) obtain rents in “excess” of what they “deserve,” and (2) threaten to “impede” or “discourage” innovation on the part of downstream users. There is, in other words, potentially both a static (short run) and a dynamic (long run) efficiency loss.

3. On this view “patent holdup” is simply one of many “holdup” or “holdout” phenomena identified by law and economics scholars over the years.

a. For example, if a developer is seeking permission from multiple landowners to develop a tract of land for a shopping center, each landowner has an incentive to “hold out”—to be the last to agree to sell his or her land—but if every landowner attempts this strategy, the development may never get underway. Eminent domain may be one solution to this problem in the real property context.

b. In the patent context, efforts to engage in holdup may provide patentees with rewards disproportionate to the value of their inventive contribution, and may discourage users from making asset-specific investments in new technologies or standards, out of fear that those technologies or standards will be subject to holdup *ex post*.

B. Some critics find fault with patent holdup analysis on the grounds, *inter alia*, that there is no normative baseline within patent law itself that would define what an “excessive” royalty is; that the “intrinsic” worth of a patent is hardly obvious; that in other contexts courts have stated that patentees are entitled to charge whatever the market will bear; and that efforts to “cure” patent holdup may generate worse consequences than the problem itself.

C. Critics arguably raise a valid point that, defined too broadly, much innocent conduct on the part of patentees could be mislabeled as patent holdup. Nevertheless, a reasonable case can be made for an appropriately narrow definition of patent holdup, which would require all or most of the following elements to be present:

1. *The patent reads on a small component of a larger end product.* Particularly in high tech industries, end products can incorporate hundreds of potentially patentable aspects.

2. *The infringement is, in some meaningful sense, inadvertent.* Although patents

are public records as of the date of issue (and often before), a number of factors—including the sheer number of patents, the difficulties of construing the meaning of patent claim terms, and the ability of patentees to exploit the patent continuation process—contribute to the vast majority of acts of patent infringement being inadvertent.

3. *The value of the patent ex post greatly exceeds its value ex ante.* Once a firm is locked into a certain technological path, the value of the patent in comparison with the next-best alternative may greatly exceed its value prior to lock-in. As a result, injunctive relief may reward the patentee disproportionately to the value of the patent in relation to its contribution to the art.

III. Possible responses of patent law to the patent holdup phenomenon

A. To the extent patent holdup exists, various reforms to substantive or procedural patent law (e.g., tightening up the nonobviousness doctrine, or reining in the continuation process) may help to alleviate the problem. Questions would then focus on whether the perceived benefits would give rise to unintended consequences or other costs.

B. The law of patent remedies might help to alleviate patent holdup in at least one important respect.

1. Following the Supreme Court's decision in *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006), courts are required to employ traditional equitable principles to determine whether prevailing patent owners are entitled to injunctive relief.

2. In the wake of *eBay*, some courts appear more likely to award reasonable royalties, in lieu of injunctive relief, when the patentee is a nonpracticing entity (NPE). *See* *z4 Techs., Inc. v. Microsoft Corp.*, 434 F. Supp. 2d 437, 440-41 (E.D. Tex. 2006); *Paice LLC v. Toyota Motor Corp.*, No. 2:04-CV-211-DF, 2006 WL 2385139, at *3-5 (E.D. Tex. Aug. 16, 2006).

3. This reasoning may cut too broadly, however, if the patentee and potential users are, in general, better positioned than courts or juries to estimate patent value. Some law and economics scholars have argued that courts generally should award prevailing patent owners injunctive relief, because of the parties' informational advantage in estimating patent value, among other reasons. *See, e.g.*, ROGER D. BLAIR & THOMAS F. COTTER, *INTELLECTUAL PROPERTY: ECONOMIC AND LEGAL DIMENSIONS OF RIGHTS AND REMEDIES* 38-41 (2005). Moreover, displacing the availability of injunctive relief in such a large swath of cases puts the United States at risk of violating article 28 of the TRIPs Agreement, which states that the patentee shall have the right "to prevent third parties not having his consent from the acts of: making, using, offering for sale, selling, or importing" products covered by the

patent.

4. Nevertheless, there may be good reasons to award reasonable royalties in lieu of injunctive relief when the factors that are indicative of patent holdup are present, e.g., the patented component contributes only a small portion of the value of the end product; the infringement is inadvertent; the cost of designing around ex post (that is, after the infringement) exceeds the cost of designing around ex ante; and the probability of detection is high. *See* Vincenzo Denicoló et al., *Revisiting Injunctive Relief: Interpreting eBay in High-Tech Industries with Non-Practicing Patent Holders*, 4 J. COMP. L. & ECON. 571, 582, 596-98 (2008).

5. Some case law suggests that in cases in which courts find for the patentee but (following *eBay*) decline to award injunctive relief, they should provide the parties an opportunity to negotiate a post-trial license before judicially crafting an ongoing damages award. *See, e.g.*, *Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 1315 (Fed. Cir. 2007); *id.* at 1317 (Rader, J., concurring); *see also* *Amado v. Microsoft Corp.*, 517 F.3d 1353, 1362 (Fed. Cir. 2008) (stating that post-trial damages “should take into account the change in the parties’ bargaining positions, and the resulting change in economic circumstances, resulting from the determination of liability”); *Telecordia Techs., Inc. v. Cisco Sys., Inc.*, ___ F. Supp. 2d ___, ___ (D. Del. 2009); *Ariba, Inc. v. Emptoris, Inc.*, 567 F. Supp. 2d 914, 917 (E.D. Tex. 2008). If, however, a rationale for declining injunctive relief is to avoid patent holdup in cases in which the relevant holdup factors are present, is this approach—asking the parties to negotiate a license after the trier of fact has determined liability—consistent with that rationale?

C. Alternatively, if courts (or juries) are to set the amount of reasonable royalties, what factors should guide their analysis?

1. Courts often recite the familiar *Georgia-Pacific* list of factors that are supposedly relevant to determining the amount of a reasonable royalty. *See* *Georgia-Pacific Co. v. United States Plywood Co.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970), *mod’d*, 446 F.2d 295 (2d Cir. 1971).

2. The amount the parties would have agreed to ex ante is one of these factors. Nevertheless, some recent cases have highlighted that, as a legal matter, reasonable royalty awards may exceed the amount the parties would have agreed to; indeed, may exceed the defendant’s entire expected profit from the use of the patent. *See, e.g.*, *Mars, Inc. v. Coin Acceptors, Inc.*, 527 F.3d 1359, 1373 (Fed. Cir. 2008); *Monsanto Co. v. Ralph*, 382 F.3d 1374, 1384 (Fed. Cir. 2004); *Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1338 (Fed. Cir. 2004); *Parker-Hannifin Corp. v. Champion Labs., Inc.*, No. 1:06-CV-2616, at *7 (N.D. Ohio Aug. 4, 2008). Does this make economic sense?

3. Much recent debate has centered on whether, or when, courts should allow reasonable royalties to be calculated using the “entire market value” of the end product as a royalty base; or whether reasonable royalties should be based upon the value of the invention in relation to the prior art. Expect to see further debate in connection with the next version of the Patent Reform Act.

IV. Antitrust responses

A. Two principal antitrust issues relate to patent holdup. The first is whether antitrust law should provide a remedy for a form of patent holdup sometimes referred to as “patent ambush,” in which a member of a standard setting organization (SSO) allegedly deceives other SSO members into adopting a standard that is or will be covered by a patent or patents owned by the SSO member. The second issue centers on the type of joint activity that SSO members may engage in, without running afoul of antitrust law, in order to prevent or mitigate the effects of patent holdup.

B. Is patent ambush an antitrust offense?

1. In several instances over the last decade, public and private antitrust enforcers have alleged that patentees have abused the standard setting process by inducing an SSO to adopt a standard that incorporated patented or soon-to-be patented technology, and then, once lock-in has occurred, demanding higher royalties than the patentees would have been able to negotiate *ex ante*. See *Rambus, Inc. v. FTC*, 522 F.3d 456, (D.C. Cir. 2008), *cert. denied*, ___ S. Ct. ___ (2009); *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297, 314 (3d Cir. 2007); *Townshend v. Rockwell Int’l Corp.*, 55 U.S.P.Q.2d 1011, 1020–21 (N.D. Cal. 2000); *Negotiated Data Solutions LLC*, Analysis of Proposed Consent Order to Aid Public Comment, 73 Fed. Reg. 5846-01 (Jan. 31, 2008) [hereinafter *N-Data*]; *In re Union Oil Co. of Cal.*, Docket No. 9305, Opinion of the Commission (July 6, 2004) [hereinafter *Unocal*], available at <http://www.ftc.gov/os/adjpro/d9305/040706commissionopinion.pdf>; *In re Dell Computer Corp.*, 121 F.T.C. 616 (1996).

2. In *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297 (3d Cir. 2007), the plaintiff (Broadcom) alleged that Qualcomm had induced the European Telecommunications Standards Institute (ETSI) into incorporating Qualcomm technology into a third-generation telecommunications standard, by representing that Qualcomm would license that technology on fair, reasonable, and nondiscriminatory (FRAND) terms. Broadcom asserted that Qualcomm had breached this agreement by demanding discriminatorily higher patent licensing fees from firms that used cellular phone chipsets manufactured by firms other than Qualcomm. The district court concluded that this theory did not state a claim under Sherman Act § 2, but the Third Circuit reversed, holding “that (1) in a consensus-oriented private standard-setting environment, (2) a patent holder’s intentionally false promise to license essential proprietary technology on FRAND terms, (3) coupled with an SDO’s reliance on that

promise when including the technology in a standard, and (4) the patent holder's subsequent breach of that promise, is actionable anticompetitive conduct.”

3. By contrast, in *Rambus Inc. v. FTC*, 522 F.3d 466 (D.C. Cir. 2008), *cert. denied*, ___ S. Ct. ___ (2009), the FTC had alleged that the patent owner (Rambus) violated a disclosure policy of the Joint Electron Device Engineering Council (JEDEC) by failing to disclose several patent applications that were pending during the time Rambus was a JEDEC member (from 1992-98). During and after its membership on JEDEC, Rambus had amended the claims of many of these applications (all of which derived from a common parent application filed in 1990) so that the resulting patents would read on standards approved by JEDEC. Rambus thereafter sought royalties from computer bus manufacturers whose compliance with the JEDEC standards allegedly rendered their devices infringing of Rambus's patents. The FTC concluded that Rambus's conduct violated § 2, but the D.C. Circuit reversed. Without deciding the issue, the *Rambus* court was willing to assume that a patent holder's use of deception to induce an SSO to use the patent holder's technology in lieu of an alternative nonproprietary technology could amount to a willful acquisition of monopoly power, in violation of § 2. But if a patent owner's deception merely enables it to extract higher patent licensing fees by avoiding an obligation to license on FRAND terms, as was possibly the case in *Rambus*, the patent owner does not violate § 2.

4. While it is true that merely exercising, as opposed to willfully acquiring, monopoly power does not violate § 2, reasonable minds may differ over whether the D.C. Circuit properly characterized Rambus's conduct as merely exercising monopoly power.

a. But for the alleged deception, Rambus may have had monopoly status, but it would not have been able to exercise monopoly power.

b. As a general matter, a variety of prudential considerations generally counsel against penalizing the mere exercise of monopoly power. These include concerns that the prospect of exercising lawfully acquired monopoly power provides an incentive for firms to invest in providing better goods or services; that the administrative and error costs of determining when monopoly prices are excessive are substantial; that penalizing monopoly pricing might generate substantial “false positives,” i.e., erroneous determinations of anticompetitive conduct; and that the existence of other causes of action or defenses governing the type of conduct at issue may sometimes render antitrust enforcement unnecessary. Nevertheless, it is arguable whether these considerations apply to the type of conduct at issue in *Rambus*. The additional incentive to engage in inventive activity, resulting from the ability to practice patent holdup, may be minimal; courts could require the patentee, as a penalty, to license the patent for the reasonable

royalty that would be assessed as damages in a patent infringement action; false positives may not be a serious problem; and the existence of other claims or defenses (e.g., breach of contract actions, fraud claims, equitable estoppel or implied waiver defenses) may not suffice to adequately deter the conduct at issue.

C. Joint negotiations by SSOs

1. The other holdup-related antitrust problem that has received much attention as of late involves the question of whether an SSO may negotiate patent license terms, including price, with patent owners who are also members of the SSO.

2. In recent years, SSOs have experimented with or considered various policies designed to minimize the risk of patent holdup. These policies may include requiring members to disclose existing patents or pending patent applications that relate to a standard under consideration; or requiring SSO members/patent owners to commit to licensing their technology, if at all, on RAND terms. As a general matter, antitrust lawyers and scholars, as well as the enforcement agencies, have concluded that these types of policies pass muster under the rule of reason because the procompetitive benefits of avoiding holdup outweigh the potential anticompetitive consequences. *See, e.g.*, 2 HERBERT HOVENKAMP ET AL, IP AND ANTITRUST., §§ 35.6c2, 35.6c3 (2008).

3. More aggressive anti-holdup measures might include requiring SSO members/patentees to disclose the maximum price and other terms that they would demand in exchange for patent licenses, or even allowing the SSO to negotiate on behalf of its members with individual SSO members/patent owners over the terms of patent licenses, including price terms.

4. In theory, either policy could have the negative consequence of facilitating a conspiracy to fix prices or an unlawful refusal to deal. Nevertheless, the Department of Justice (DOJ) on two recent occasions has issued Business Review Letters stating that it would evaluate the first type of policy (requiring the disclosure of maximum royalty rates) under the rule of reason, and that in the cases under consideration it did not intend to prosecute. *See* Business Review Letter from Thomas O. Barnett, Ass't Att'y Gen., Antitrust Div., U.S. Dep't of Justice, to Michael A. Lindsay, Esq., Dorsey & Whitney (Apr. 30, 2007) [hereinafter IEEE Business Review Letter], *available at* <http://www.usdoj.gov/atr/public/busreview/222978.pdf>; Business Review Letter from Thomas O. Barnett, Ass't Att'y Gen., Antitrust Div., U.S. Dep't of Justice, to Robert A. Skitol, Esq., Drinker, Biddle & Reath, LLP (Oct. 30, 2006) [hereinafter VITA Business Review Letter], *available at* <http://www.usdoj.gov/atr/public/busreview/219380.pdf>.

5. Similarly, a large segment of the antitrust community advocates that the

second type of policy, involving joint negotiations over price, also receive only rule of reason scrutiny. In the two Business Review Letters mentioned above, for example, the DOJ suggested that this would be its position. *See* VITA Business Review Letter, *supra*, at 9 n.27 (stating that, if the proposed policy allowed for joint negotiations, the Department of Justice “likely would evaluate any antitrust concerns . . . under the rule of reason because such actions could be procompetitive”); IEEE Business Review Letter, *supra*, at 7 n.47 (similar). Others lining up in support include the Antitrust Modernization Commission, individual DOJ and FTC staff members (including one FTC commissioner), and a number of antitrust commentators.

6. With respect to joint negotiations in particular, however, there are a few dissenting voices. The principal critique appears to be that joint negotiations amount to price fixing, and that either as a matter of legal doctrine or policy or both, this practice should be *per se* illegal.

a. Professors Baumol and Swanson, for example, express concern that “the integration and efficiencies needed to justify outright collective bargaining on royalties,” such as were present in *Broadcast Music, Inc. v. Columbia Broadcasting System*, 441 U.S. 1 (1979), are “in the case of the typical SSO . . . in short supply.” Daniel G. Swanson & William J. Baumol, *Reasonable and Nondiscriminatory (RAND) Royalties, Standards Selection, and Control of Market Power*, 73 ANTITRUST L.J. 1, 13 (2005). In particular, Baumol and Swanson do not view the desire on the part of SSO members to suppress patent licensing fees as a cognizable justification for a joint restraint on price.

b. Critics also express concern that joint action to suppress patent licensing fees may have two undesirable consequences. First, to the extent an SSO collectively exerts monopsony buying power, the SSO threatens to distort competitive pricing and output. Second—and probably more importantly--suppressing patent licensing fees could undermine the incentive to innovate by reducing patentees’ expected returns on innovation.

c. Moreover, even if joint negotiations are subject to scrutiny only under the rule of reason, what does that mean in the present context? How would courts apply the rule of reason, and what sort of advice could lawyers provide to SSOs to avoid liability?

7. One possibility might be a structured rule of reason approach.

a. Under this approach, SSO members’ desire merely to keep licensing fees down might not qualify as a cognizable precompetitive justification for joint negotiations. On the other hand, joint conduct that is intended to

overcome potential harms to *dynamic* efficiency resulting from patent holdup might be at least plausibly procompetitive, thus inviting further inquiry. Put another way, when SSOs negotiate jointly with members over price, the first issue that should be addressed is the reason for joint conduct. If the purported justification for joint bargaining is solely to prevent patent owners from exercising lawfully-obtained market power, that justification falls short of being a cognizable reason for the proposed conduct. If, on the other hand, the purported justification is to prevent holdout behavior that threatens the adoption of a potentially superior technology—particularly one that may stimulate follow-up innovation—that justification is at least plausibly procompetitive and should lead to further analysis under a structured rule of reason approach.

b. Where that further analysis would lead would depend upon the facts.

(1) Once a plausible procompetitive justification for a restraint has been identified, the usual next step is to assess the antitrust defendants' market power. In the present context, therefore, an SSO's lack of market power would be dispositive in the SSO's favor, though probably in many (most?) instances the SSO will possess some degree of market power.

(2) If market power is present, antitrust enforcers next would have to evaluate, as an empirical matter, how serious the threat of holdup is to the attainment of dynamic efficiency: is the plausible justification real? An SSO therefore should be prepared to demonstrate that joint negotiations are reasonably necessary to prevent the posited harm to dynamic efficiency, while the antitrust plaintiff may need to show that less restrictive means exist to attain this procompetitive end.

(3) Finally, the presence of other factors also may affect the analysis. The existence of *ex ante* competition among technologies for inclusion within a standard, for example, may mitigate some of the risk that SSO members' joint conduct is simply an attempt to eliminate price competition among themselves. Similarly, joint negotiations may be less problematic if SSO members retain the freedom to negotiate their own individual deals with patentees.

8. Time will tell whether SSOs attempt to engage in joint negotiations over price, or whether the remaining uncertainties, risks of liability, or other factors deter them from doing so.

V. For further reading, interested persons may wish to consult, in addition to the sources cited

above, the following sources (among many others).

- A. ABA SECTION OF ANTITRUST LAW, HANDBOOK ON THE ANTITRUST ASPECTS OF STANDARD SETTING 71-73 (2004).
- B. ANTITRUST MODERNIZATION COMMISSION, REPORT AND RECOMMENDATIONS 119-21 (Apr. 2007).
- C. Thomas F. Cotter, *Reflections on the Antitrust Modernization Commission's Report and Recommendations Relating to the Antitrust/IP Interface*, 53 ANTITRUST BULL. 745 (2008).
- D. Joseph Farrell et al., *Standard Setting, Patents, and Hold-Up*, 74 ANTITRUST L.J. 603 (2007).
- E. Bruce H. Kobayashi & Joshua D. Wright, *Federalism, Substantive Preemption, and Limits on Antitrust: An Application to Patent Holdup* (June 10, 2008), available at <http://ssrn.com/abstract=1143602>.
- F. Miguel Rato & Damien Geradin, *Can Standard-Setting Lead to Exploitative Abuse? A Dissonant View on Patent Hold-up, Royalty Stacking and the Meaning of FRAND*, 3 EUR. COMPETITION J. 101 (2007).
- G. U.S. DEP'T OF JUSTICE & FEDERAL TRADE COMM'N, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION 33-56 (Apr. 2007).