PATENT HOLDUP, ANTITRUST AND INNOVATION: HARNESS OR NOOSE?

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Patent Holdup, Antitrust and Innovation: Harness or Noose?

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Abstract

This essay reviews Michael Carrier's analysis of antitrust and standard setting in his new book: *Innovation for the 21st Century: Harnessing the Power of Intellectual Property and Antitrust Law*. While *Innovation for the 21st Century* offers a balanced and informative summary on patent holdup, we find that Carrier's treatment of antitrust and standard setting avoids too many of the critical policy questions. One critical and emerging issue in this area, and one Professor Carrier largely ignores, is the use of Section 5 of the FTC Act to govern the standard setting process, as in *In re N-Data*. We explore and highlight some of the critical legal and economic issues associated the use of Section 5 in the patent holdup context, the standard courts should apply to this conduct under Section 2 of the Sherman Act, and the fundamental issue of whether innovation and economic growth would be better served by relying on contract and patent law rather than antitrust. We conclude that it is highly unlikely that optimal regulation of standard setting activity includes the creation of perpetual contractual commitments backed by the threat of antitrust and state consumer protection remedies, without rigorous economic proof of substantial consumer injury that cannot be reasonably avoided. In our view, the current state of affairs described herein presents a critical threat to standard setting activity and innovation.

* Wright: Assistant Professor of Law, George Mason University School of Law; Stuempfle: JD, George Mason University School of Law (2008). We thank participants the Truth on the Market blog symposium reviewing Professor Carrier’s book for comments and Bruce Kobayashi for valuable discussions on this topic.
I. INTRODUCTION

In his book, Innovation for the 21st Century: Harnessing the Power of Intellectual Property and Antitrust Law, Professor Michael Carrier begins with the premise that the current legal system in the United States threatens rather than promotes innovation.¹ The explicit goal of the book is to advocate policy proposals that will “reverse this trend” by altering the legal system in the areas of copyright, patent, and antitrust.² The proposals are intended to promote innovation at all stages, from invention & discovery to diffusion, during which the intellectual property is introduced to the market.³

Carrier divides his book into sections dedicating an entire section to each area of law. Each section provides a summary of the law being addressed, explains how the current state of the law discourages innovation, and proposes changes to the legal system that will encourage innovation without uprooting the fundamental objectives of each respective area of law.⁴ We leave evaluations of the bulk of the book to our fellow reviewers in this symposium, noting only that Carrier does an excellent job of framing the issues and providing the reader with an elementary understanding of each area of the law. The book is well-written and emerges out of a thoughtful and ambitious project. Carrier successfully

² Id. at 1.
³ Id. at 10.
⁴ Id. at 6-10 (Introductory explanation).
synthesizes many of the most important debates in both antitrust and intellectual property, and in the process has created a provocative and important contribution to the literature.

We will focus on one narrow aspect of Carrier’s work: antitrust analysis of standard setting activities. Carrier’s summary of the state of affairs in antitrust and standard setting in Chapter 14 is balanced, well-written and recommended reading for anyone interested in getting up to speed on the current policy issues.\(^5\) Writing a high-level and accessible treatment of a topic such as antitrust analysis in standard setting comes with understandable tradeoffs. It is difficult to write a comprehensive treatment of the broad spectrum of issues Carrier tackles without leaving out important details. Unfortunately, perhaps in a well intentioned and gracious attempt to spare readers from the technical details of the relevant policy debates while facilitating consensus, Carrier’s treatment of antitrust and standard setting avoids too many of the critical policy questions.

Carrier opens the chapter sensibly, drawing the reader into the discussion with historic examples of how standard setting activities affect innovation and impact end consumers.\(^6\) Carrier then turns to addressing the types of danger posed to competition associated with concerted activities between competitors

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\(^5\) *Id.* at 321-42.
\(^6\) *Id.* at 321-22.
inherent in the standard setting process. He provides a clear and concise explanation of the theories of patent holdup, deceptive conduct, manipulation of the standard setting process, and monopsony power. This is excellent and informative reading for those unfamiliar with the patent holdup policy debate. Carrier frames these theories in terms of the anticompetitive harm they might cause, with a particular emphasis on the risk of monopsony power, and then balances these harms against the procompetitive effects of standard setting practices concluding that “given SSOs significant pro-competitive justifications, courts and the antitrust agencies should consider their activity under the Rule of Reason.” Carrier carves out standard setting organization (SSO) members’ joint decisions to fix prices on the final goods sold to consumers as the only conduct deserving of per se treatment. With all of this, we agree. Given the overwhelming efficiencies that arise from standardization and its relationship with innovation and economic growth, there is simply little role for per se analysis.

Having recognized the areas of our agreement, in the spirit of the genre, we will quickly turn to identifying our central areas of disagreement and some disappointing omissions. Carrier identifies patent holdup involving deception as

\[\text{Id. at 328-336.}\]
\[\text{Id.}\]
\[\text{Id. at 335-342.}\]
\[\text{Id. at 342.}\]
a particular cause for concern under a rule of reason analysis.\textsuperscript{11} While we agree that it makes economic and legal sense to treat both standard setting activities (with the exception of cartel behavior) and IP rules of SSOs as generally procompetitive and thus falling under the rule of reason, we found ourselves either disagreeing with his analysis or hoping for a more complete treatment. In our view, the two most pressing patent holdup policy questions are: (1) what is the appropriate role of antitrust in governing patent holdup?; and (2) if antitrust rules should govern patent holdup, which statute(s) and what type of analysis should apply? In particular, what is the appropriate scope of Section 2 of the Sherman Act and Section 5 of the FTC Act applied to contractual commitments made in the standard setting process? In the remainder of this review, we focus on critical omissions from Professor Carrier’s analysis of patent holdup. In our view, resolution of these critical issues is a prerequisite for satisfying the promise of harnessing antitrust and intellectual property laws in a manner that harnesses rather than impedes innovation and economic growth.

\textbf{II. WHAT IS THE APPROPRIATE ROLE FOR ANTITRUST IN GOVERNING PATENT HOLDUP?}

Antitrust theories of patent holdup contemplate that a patentee participating in the standard setting process can, once the standard is adopted by

\textsuperscript{11} \textit{Id.} at 331-332.
the SSO, “hold up” potential licensees by demanding higher royalty rates than would have prevailed in a competitive process. Licensees who have invested time and money into implementing the standard risk foregoing sunk costs rather than pay the higher license fees.

Patent holdup theories allege either deceptive conduct by the patentee prior to the patent’s adoption (deception theories), or the patentee’s breach of pre-standard licensing agreements setting a reasonable and nondiscriminatory (RAND) royalty (breach theories). Deception theories allege that the patentee withheld or otherwise misrepresented its patent rights to the SSO and that the deceptive conduct caused the SSO to include the patented technology in its standard. After the standard is adopted the patentee can holdup the standard’s implementation by threatening to enforce its patent rights, or by charging higher license fees than would have otherwise prevailed.

The breach theory alleges that the patentee breached a contractual commitment to license its patent at a RAND royalty rate. Once the patent is adopted, the patentee insists on licensing its product at a higher than agreed upon royalty thereby breaching its agreement with the SSO. Both theories allege that the higher licensing fees are passed on to consumers in the form of higher prices.
Carrier presumes that antitrust rules should apply to patent holdup involving both deception and breach theories. While Carrier discusses *N-Data* briefly, his discussion largely focuses on cases, like *Dell* and *Unocal*, involving allegations of deception in the standard setting process as actionable antitrust conduct. One of the reasons that *N-Data* is such an important case for the patent holdup antitrust enforcement agenda is that the Commission did not allege any deception. An emerging literature discussing the risk for patent holdup questions the relative merits of applying antitrust liability in the SSO setting in breach variant cases such as *N-Data*. Indeed, some have argued that contract and patent laws are better suited to remedy the type of harm created in the SSO setting in both breach and deception cases.

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14 *In re Union Oil Co. of Cal.*, No. 9305 (F.T.C. July 27, 2005).

15 See, e.g., Bruce H. Kobayashi & Joshua D. Wright, *Federalism, Substantive Preemption, and Limits on Antitrust: An Application to Patent Holdup*, J. Comp. L. & Econ. (Forthcoming 2009), available at http://ssrn.com/abstract=1349969; Luke Froeb & Bernard Ganglmair, *An Equilibrium Analysis of Antitrust as a Solution to the Problem of Patent Hold-up*, Vanderbilt Law and Economics Research Paper No. 09-11 (Feb. 11 2009). See also Anne Layne-Farrar, *Patents in Motion: The Troubling Implications of the N-Data Settlement*, Global Competition Policy, March 2009 (implying that patent law would have provided a more appropriate remedy, than that provided by antitrust law, to the conduct prosecuted by the FTC in *N-Data* stating “If the worst consequence for infringing a patent is having to pay the licensee fee that was offered years ago ex ante, there is very little incentive indeed to ever take a license. . . If we want to ensure the continued participation of innovative firms in the standard setting process, we must do better than this.”).

16 Kobayashi & Wright, *supra* note 13 (arguing that antitrust rules layered on top of these alternative and superior regulatory institutions threaten to chill participation in the SSO process and reduce welfare).
Whether antitrust should govern the SSO contracting process in the first instance, or as a supplement to contract and patent remedies, is an important policy question. Does antitrust enforcement under Section 2 threaten to deter participation in SSO’s when supplementing these alternative remedies? Do breach of contract remedies combined with patent remedies available under the doctrine of equitable estoppel adequately deter inefficient holdup conduct? Are fears of over-deterrence irrelevant if actions are brought under Section 5 of the FTC Act? Or are follow-on actions under state consumer protection laws, some of which provide private rights of action and generous remedies, a relevant concern to incorporate into our discussion of optimal regulation of SSO contracting?\(^{17}\)

Even more specifically, if the rule emerging from *N-Data* is that deviations from ex ante contractual commitments with SSOs violate Section 5 of the FTC Act as unfair methods of competition and unfair practices, should not this same argument apply to the licensees who infringed by using the patented technology without paying the $1,000 licensing fee?

Whatever the ultimate answers to these and related questions, which are fundamental to understanding the relationship between antitrust enforcement in the standard setting process and innovation, Professor Carrier chooses not to

directly answer these questions or more indirectly join in this debate. The reader of this chapter is left wanting a more direct and complete statement of exactly how antitrust can be used to promote innovation, whether Section 5 liability as applied in *N-Data* and touted by some members of the current Commission, is a friend or foe of this mission, and the role of contract and patent remedies in thinking about the appropriate scope for antitrust.

**III. WHAT ANTITRUST STANDARDS SHOULD APPLY TO PATENT HOLDUP?**

Assuming that antitrust rules should apply to patent holdup (both deception and breach variants), what should the analysis look like? With respect to the Section 2 analysis in claims involving deception, Professor Carrier appears to endorse the proposition that a demonstration of either actual exclusion (e.g., the deception is the “but-for” cause of the adoption of the technology) or higher royalties would be sufficient to support such a claim.\(^1\) Carrier writes that a plaintiff asserting a Section 2 claim must demonstrate “‘(1) that the defendant has engaged in predatory or anticompetitive conduct with (2) a specific intent to monopolize and (3) a dangerous probability of achieving monopoly power.’”\(^2\) In the SSO setting, Carrier notes that a plaintiff must also prove causation with a

\(^1\) Carrier, *supra* note 1 at 342.

\(^2\) *Id.* (citing *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 477, 456 (1993)).
showing that either the deceptive conduct led to the adoption of the technology into the standard or alternatively, higher royalties.\textsuperscript{20}

Carrier is right to focus on the role of causation. The \textit{Rambus} court specifically found the Commission’s case lacking on this issue;\textsuperscript{21} the causal link between holdup and consumer harm is also at the heart of the debate in \textit{N-Data}.\textsuperscript{22} Carrier neglects, however, to address the applicable standard when a plaintiff alleges a breach variant patent holdup claim, such as \textit{N-Data}, under either Section 2 or Section 5. Further, Carrier does not distinguish cases in which the plaintiff asserts that deceptive conduct resulted in adoption of the technology in the standard from cases in which the deceptive conduct resulted in higher royalty rates. Here again, we are left with more questions than answers.

\textbf{A. Section 5 liability and \textit{N-Data}}

No contemporary discussion of patent holdup would be complete without addressing whether and how Section 5 of the FTC Act should apply to both deception and breach variant patent holdup theories. While the Commission’s commitment to the patent holdup agenda, including under Section 2, should not be underestimated by observers, the D.C. Circuit’s \textit{Rambus} decision is a significant blow to the prospects of monopolization theories. Of increasing

\textsuperscript{20} Id.
\textsuperscript{22} \textit{In re Negotiated Data Solutions, LLC}, No. 0510094, Analysis of Proposed Consent Order (F.T.C. Jan. 23, 2008).
importance is the question: should Section 5 of the FTC Act apply to both the deception-based and the “pure breach” variants of patent holdup? These are some of the most pressing issues relating to antitrust analysis of standard setting, but they do not receive sufficient attention from Professor Carrier.

Consider, for example, Chairman Leibowitz citing N-Data as a paradigmatic example of the appropriate application of Section 5:

One category of potential cases [to which Section 5 applies] involves standard-setting. N-Data, our consent from last spring, is a useful example. Reasonable people can disagree over whether N-Data violated the Sherman Act because it was never clear whether N-Data’s alleged bad conduct actually caused its monopoly power. However, it was clear to the majority of the Commission that reneging on a commitment was not acceptable business behavior and that—at least in this context—it would harm American consumers. It does not require a complex analysis to see that such behavior could seriously undermine standard-setting, which is generally procompetitive, and dangerously limit the benefits that consumers now get from the wide adoption of industry standards for new technologies.23

Similarly, Commissioners Leibowitz, Rosch, and Harbour noted in the N-Data majority statement that “there is little doubt that N-Data’s conduct constitutes an unfair method of competition,” describing the renegotiation of the ex ante contractual commitment to license its patent at $1,000 as “oppressive” and an act that threatens to “stall [the standard setting process] to the detriment

of all consumers.”24 But these analyses of N-Data also leave more questions than answers about the utility of antitrust law and Section 5 in governing patent licensing disputes.

Criticisms of N-Data and its implications have come in at least three forms. First, N-Data has been criticized for finding antitrust liability without proof of causation of antitrust harm.25 The Commission’s theory was that by renegotiating the royalty rates for the standardized technology, consumers would be harmed, and the deviation from the contractual commitment constituted both an unfair method of competition and an unfair act under Section 5.26 However, the Commission failed to explain how an increase in royalty rates would result in consumer harm, or to prove that higher royalty rates would in fact be passed on to consumers. As Anne Layne-Farrar pointed out, the economic question here is much more complex than the Commission majority’s presumption lets on: “the extent to which an input cost like patent licensing fees affects downstream prices is a complex determination depending on a number of factors, including the relative size of the input cost for the component at hand as compared to total costs and the degree of competition in the end market.”27

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25 See, e.g., Layne-Farrar, supra note 13 at 4-6; see also Kobayashi & Wright, supra note 13.
27 Layne-Farrar, supra note 13 at 4-5.
Rather than bother with the economic analysis required to demonstrate that end consumers would pay higher prices, the Commission majority simply assumed it so.

In order to find liability under Section 5, however, the Commission must also prove that the “unfair practice” in issue “causes or is likely to cause substantial injury to consumers which is not reasonably avoidable by consumers themselves.”

In order to conclude that any holdup satisfied this standard, “the majority [had to] to treat large, sophisticated computer manufacturers as ‘consumers’” and assume not only that there was some consumer injury but that it was substantial and could not have been reasonably avoided by these sophisticated firms. In our view, it is unlikely that the conduct at issue in N-Data was the type of conduct Congress intended the FTC Act to prohibit since N-Data’s renegotiation of its royalty only proved harmful to large, sophisticated intermediate buyers who were in the best position to avoid the injury through either the SSO’s IP rules, or by operation of contract law and negotiation.

A second criticism of the application of antitrust to the patent holdup context, and in particular the N-Data decision, is that the Commission incorrectly

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30 See, infra Section I. See also Froeb & Ganglmair, supra note 13; Kobayashi & Wright, supra note 13.
applied antitrust law to a contract dispute. Chairman Deborah Majoras, in her dissenting statement noted that:

> [e]ven if N-Data were motivated by a desire to strike a better bargain than National made several years earlier, that alone should not be considered a competition-related offense. If the majority’s theory is that the evasion of contractual price constraints triggers liability under Section 5 without a concurrent determination that the conduct violates the Sherman Act, then we are headed down a slippery slope.

Indeed, the *N-Data* decision does not give any reason to believe that its “evasion of contractual constraint” conception of antitrust liability has any true limiting principles. While some have argued that this form of analysis is limited to the standard setting context, the answer is unsatisfactory. For example, the concept of antitrust liability for evasion of ex ante contractual constraints would lead to a conclusion that the patent licensees who infringed N-Data’s patents without paying the $1,000 royalty also violated Section 5. However, the Commission’s analysis appears to only construe the commitments made by patent holders in this context as enforced by antitrust law in perpetuity. Suffice it to say that such a one-sided rule is logically puzzling and highly unlikely to promote participation in SSOs or innovation.

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31 *Infra* Section I; see, e.g., Froeb & Ganglmair, *supra* note 13; Kobayashi & Wright, *supra* note 13.

32 *In re Negotiated Data Solutions, LLC*, No. 0510094, Dissenting Statement of Chairman Majoras 4 (F.T.C. Jan. 23, 2008),
Layne-Farrar raises the related third critique, arguing that *N-Data* would have been better served by applying patent law as many companies infringed N-Data’s patent by not paying the reasonable royalty negotiated by National years earlier.\(^{33}\) Layne-Farrar argues that *N-Data* undermines the goals of patent (and antitrust) law by limiting the consequences of infringement to the payment of the ex ante royalty rate.\(^ {34}\) By endorsing an approach that offers no significant consequences for infringement, *N-Data* sends a troublesome signal to innovators and patent holders contemplating participation in the standard setting process.

Our goal has been to sketch out important questions in need of answers in the patent holdup debate and offer some of our own thoughts. Unfortunately, despite Professor Carrier’s thoughtful analysis throughout most of the book, he is strangely silent on these issues. One wonders whether Professor Carrier thinks the majority in *N-Data* was correct and Section 5 was correctly applied? Are breach variant holdup claims more appropriately governed under Section 2? If the answer to either of those questions is yes, then whether and on what basis does Carrier believe the application of these mandatory antitrust rules is superior to contract law and patent remedies with their body of substantive doctrine designed to identify and distinguish good faith modifications and renegotiations from attempts at ex post opportunism.


\(^{34}\) Layne-Farrar, *supra* note 13 at 6.
B. Deception resulting in standard adoption versus deception resulting in higher royalty rates without exclusion

In *NYNEX*, the Supreme Court held that a plaintiff asserting Section 2 liability must prove that consumer injury flows “from a less competitive market” and not “from the exercise of market power that is *lawfully* in the hands of a monopolist.” 35 In other words, “[A]n otherwise lawful monopolist’s use of deception simply to obtain higher prices normally has no particular tendency to exclude rivals and thus to diminish competition.” 36 The logic in *NYNEX* applies in the patent holdup setting when (1) the patent holder has market power prior to the deception and (2) the deceptive conduct results in higher royalties but not exclusion of rival technologies. When those conditions are satisfied, *NYNEX*’s holding (which is consistent with much of the Supreme Court’s general jurisprudence about the monopolist’s freedom to optimal pricing), that deceptive or fraudulent conduct that merely results in higher prices but not exclusion cannot be the basis of a Section 2 claim, applies. 37 The D.C. Circuit in *Rambus*, relying on *NYNEX*, held that conduct enabling a firm to avoid a RAND licensing commitment does not without more constitute an antitrust violation because a lawful monopolist’s use of deception to increase price “has no particular

tendency” to diminish competition.38 A reasonable interpretation of Rambus is that it requires the plaintiff in a patent holdup case alleging deception to demonstrate that the NYNEX conditions do not apply. For instance, if the alleged deception does not exclude rival technologies, the plaintiff must demonstrate that the patent holder did not possess lawfully acquired monopoly power at the time it was selected by the standard. The DC Circuit’s decision is best interpreted as calling the Commission to task for failing to meet its burden of demonstrating that the first of these conditions did not apply.39

Carrier, when detailing the elements of a Section 2 claim against SSO activity, does not distinguish between the standard to be applied when deceptive conduct causes the SSO to adopt the defendant’s technology as the standard, and when deceptive conduct results in higher royalty rates but no exclusion.40 Yet, as Rambus indicates, the latter theory includes the burden imposed by satisfying the NYNEX conditions. Does Professor Carrier believe that plaintiffs alleging deception need not prove that the defendant’s conduct is not immunized by NYNEX? If Rambus is wrongly decided on this front, why would innovation be enhanced by allowing antitrust remedies in addition to contract and patent remedies in cases where deceptive conduct in the standard setting process does

38 Rambus, Inc., 522 F.2d at 464.
40 Carrier, supra note 1 at 342.
not exclude rivals but results in higher royalties? Again, Professor Carrier leaves many important questions unanswered.

IV. CONCLUSION

Commentators on all sides of the patent holdup debate agree with Professor Carrier that antitrust and intellectual property laws should not be used to deter innovation. Rather, we believe most would agree with the proposition that antitrust and intellectual property law can and should be used to facilitate and promote innovation, dynamic efficiency and economic growth. The question is how to get there from here. Mandatory antitrust rules imposed on the standard setting process, especially as applied in N-Data, threaten to create perpetual but one-sided ex ante contractual commitments that are backed by the possible threat of follow on state actions. Further, the value of antitrust remedies to supplement available contract and patent remedies might be especially low or even negative if those alternative regulatory institutions can detect and deter contractual opportunism with a lower risk of false positives. On the other hand, many commentators vigorously defend the role antitrust plays in overseeing patent licensing in the SSO context on the grounds that it involves special and unique opportunities for anticompetitive behavior.

We do not suggest here a complete answer to how one might weigh these policy arguments against one another. However, we strongly doubt that optimal
antitrust policy can possibly include the creation of perpetual contractual commitments backed by the threat of antitrust and state consumer protection remedies, as in N-Data, with no rigorous economic proof of substantial consumer injury that cannot be reasonably avoided. In our view, the current state of affairs described herein presents a critical threat to standard setting activity and innovation and raises fundamental questions. While we find much to agree with in Professor Carrier’s general analysis of standard setting, his book and his readers would have benefitted greatly from a more direct and complete confrontation of these pressing matters.