FEDERALISM, SUBSTANTIVE PREEMPTION, AND LIMITS ON ANTITRUST: AN APPLICATION TO PATENT HOLDUP

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Federalism, Substantive Preemption, and Limits on Antitrust: An Application to Patent Holdup

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ABSTRACT

In *Credit Suisse v. Billing*, the Court held that the securities law implicitly precludes the application of the antitrust laws to the conduct alleged in that case. The Court considered several factors, including the availability and competence of other laws to regulate unwanted behavior, and the potential that application of the antitrust laws would result in "unusually serious mistakes." This paper examines whether similar considerations suggest restraint when applying the antitrust laws to conduct that is normally regulated by state and other federal laws. In particular, we examine the use of the antitrust laws to regulate the problem of patent hold up of members of standard setting organizations. While some have suggested that this conduct illustrates a gap in the current enforcement of the antitrust laws, our analysis finds that such conduct would be better evaluated under the federal patent laws and state contract laws.

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I. INTRODUCTION

In *Credit Suisse v. Billing*,[1] the Court held that the securities law implicitly precludes the application of the antitrust laws to the conduct alleged in that case. The Court considered several factors, including the availability and competence of other laws to regulate unwanted behavior, and the potential that application of the antitrust laws would result in "unusually serious mistakes." This paper examines whether similar considerations suggest restraint when applying the antitrust laws to conduct that is normally regulated by state and other federal laws. In particular, we examine the use of the antitrust laws to regulate the problem of patent hold up of members of standard setting organizations (SSO). While some have suggested that this conduct illustrates a gap in the current enforcement of the antitrust laws, our analysis finds that such conduct would be better evaluated under the federal patent laws and state contract laws.

The patent hold-up problem has become one of the most controversial issues in antitrust policy. The basic economics of patent hold-up in the standard setting context are generally well understood and related to the more general problem of hold up in the presence of relationship-specific investments:[2] after an SSO has adopted a standard, and investments have been made to commit to the new technology, a patent holder may "hold up" users in a variety of ways that result in more favorable licensing terms than those contracted for *ex ante*. The patent hold up problem has been the subject of a wave of recent Federal Trade Commission enforcement actions in *Dell*,[3] *Rambus*,[4] *Unocal*,[5] and *N-Data*,[6] private antitrust enforcement,[7] as well as enforcement actions in Europe.

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[1] Credit Suisse Securities (USA) LLC v. Billing, 127 S. Ct. 2383 (2007).

[2] See Benjamin Klein, Robert G. Crawford and Armen A. Alchian, *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 21 J.L. & ECON. 297 (1978); OLIVER E. WILLIAMSON, THE ECONOMIC INSTITUTIONS OF CAPITALISM: FIRMS, MARKETS, RELATIONAL CONTRACTING 52-56 (1985). Benjamin Klein and others have emphasized the distinction between contract law and antitrust law in resolving holdup by emphasizing that the correct competitive analysis in cases of *ex post* opportunism occurs *ex ante* at the time of contracting. For instance, in the case of *ex post* contractual opportunism by franchisors against franchisees, the opportunism is generally a contract problem and not an antitrust problem because franchisors generally do not have antitrust market power at the time the agreement was entered into. See, e.g., Benjamin Klein, *Market Power in Antitrust: Economic Analysis after Kodak*, 3 SUP. CT. ECON. REV. 43, 85 (1993); Benjamin Klein, *Market Power in Franchise Cases in the Wake of Kodak: Applying Post-Contract Hold-Up Analysis to Vertical Relationships*, 67 ANTITRUST L.J. 283 (1999).

[3] *Dell*, 121 F.T.C. 616 (1995).

The notion that a patent holder whose technology has been incorporated into a standard can engage in *ex post* hold up has prompted substantial discussion concerning the role antitrust laws can play in regulating this conduct.[8] Economists and legal scholars have discussed various aspects of the patent hold-up problem but have largely emphasized antitrust moments that arise out of the collaborative setting of standards,[9] the use of *ex ante* auctions to identify and mitigate *ex post* opportunism problems,[10] and patent reform.[11] In sum, the patent

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[4] *In re Rambus*, FTC Dkt. No. 9302 (Liability Opinion, July 31, 2006), *rev'd*, Docket Nos. 07-1086, 07-1124 (D.C. Cir. 2007) (available at: http://pacer.cadc.uscourts.gov/docs/common/opinions/200804/07-1086-1112217.pdf).

[5] *In re Union Oil Company of California*, 2004 FTC LEXIS 115 (FTC 2004) ("Unocal"), *available at* http://www.ftc.gov/os/adjpro/d9305/040706commissionopinion.pdf.

[6] *In re: Negotiated Data Solutions LLC*, No. 051-0094 (N-Data) (F.T.C. Jan. 23, 2008) (Majority Statement), available at: http://www.ftc.gov/os/caselist/0510094/080122statement.pdf. Chairman Majoras and Commissioner Kovacic dissented from the Commission opinion, *available at*: http://www.ftc.gov/os/caselist/0510094/080122majoras.pdf (Majoras dissent), and http://www.ftc.gov/os/caselist/0510094/080122kovacic.pdf (Kovacic dissent).

[7] Broadcom Corp. v. Qualcomm Inc., 501 F. 3d 297 (3d Cir. 2007).

[8] Department of Justice and Federal Trade Commission, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition 33-56 (Antitrust/IP Report) (April 2007); Federal Trade Commission and Department of Justice Hearings on Section 2 of the Sherman Act: Single-Firm Conduct As Related to Competition: Hearing on Misleading and Deceptive Conduct (December 6, 2006); ABA SECTION OF ANTITRUST LAW, HANDBOOK ON THE ANTITRUST ASPECTS OF STANDARD SETTING 60-64 (2004). See also M. Sean Royall, *Standard Setting and Exclusionary Conduct: The Role of Antitrust in Policing Unilateral Abuses of the Standard Setting Processes*, ANTITRUST, Spring 2004, at 44. The antitrust treatment of ex *ante* efforts to prevent patent hold up has also been the subject of considerable discussion. See, e.g., Antitrust/ IP Report, at 49-56; Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice, to Robert A. Skitol, Esq. (October 30, 2006) (business review letter), *available at* http://www.usdoj.gov/atr/public/busreview/219380.htm; Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice, to Michael A. Lindsay, Esq. (April 30, 2007) (business review letter), *available at* http://www.usdoj.gov/atr/public/busreview/222978.htm.

[9] See, e.g., J. Gregory Sidak, *Patent Holdup and Oligopsonistic Collusion in Standard Setting Organizations*, working paper (Jan. 8, 2008), available at: http://ssrn.com/abstract=1081997; Robert Skitol, *Concerted Buyer Power: Its Potential for Addressing the Patent Hold-up Problem in Standard Setting*, 72 ANTITRUST L.J. 727 (2005).

[10] Daniel Swanson & William Baumol, *Reasonable and Nondiscriminatory (FRAND) Royalties, Standards Selection, and Control of Market Power*, 73(1) ANTITRUST L.J. (2005); Joseph Farrell et al., *Standard Setting, Patents, and Hold-Up*, 74 ANTITRUST L.J. 603 (2007); Damien Geradin & Anne Layne-Farrar, *The Logic and Limits of Ex Ante Competition in a Standard Setting Environment*, 3 COMPETITION POL'Y INT'L 79 (2007); Damien Geradin & Miguel Rato, *Can Standard Setting Lead to Exploitative Abuse? A Dissonant View on Patent Holdup, Royalty Stacking, and the Meaning of FFRAND* (Apr. 2006), available at: http://www.ssrn.com/abstract=946792; Damien Geradin, Anne Layne-Farrar & A. Jorge Padilla, *The Ex Ante Auction Model for the Control of Market Power in Standard Setting Organizations* (CEMFI Working Paper No. 0703) (2007).

holdup literature has generally assumed that opportunism in the standard setting process is an antitrust problem.

We approach the patent holdup problem from a different perspective, applying insights from the economics of federalism and inspired by the Supreme Court's decisions in *Credit Suisse* and *Nynex v. Discon*, which encourage a careful evaluation of the comparative advantages of regulatory alternatives. In the patent holdup context, this analytical approach calls for an examination of the strengths and weaknesses of antitrust enforcement relative to federal patent law and state contract and tort law.

Part II examines the economics of federalism and discusses the relationship between jurisdictional competition between the states and substantive limits on antitrust. We review the Supreme Court's highly related recognition of the limits of antitrust enforcement when alternative state and federal options are available to regulate the relevant behavior *and* antitrust enforcement is likely to trigger "serious" errors. Further, we discuss *Kodak* and its aftermath as an example of implied repeal of antitrust enforcement and recognition of substantive limits on antitrust.

Part III reviews theories of patent holdup. In particular, we consider two anticompetitive theories: (1) patent holdup involving deception, and (2) patent holdup involving the breach or renegotiation of a FRAND commitment made in good faith. We review the strengths and weaknesses of each theory in light of current law, including the D.C. Circuit's recent *Rambus* decision, as well as recent applications of these theories in agency enforcement actions.

Part IV commences our affirmative case that the marginal benefit of antitrust enforcement in the patent holdup context is slight, and possibly negative if error and administrative costs are taken into account. Our argument begins with an application of the principles espoused in *Credit Suisse*, arguing that a strong case can be made for limiting antitrust enforcement of patent holdup based on the comparative advantages offered by these alternative institutions relative to antitrust. This implied rescission of antitrust by another

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[11] Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 1991 (2007); Mark A. Lemley & Carl Shapiro, *Reply: Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 2163 (2007); Mark A Lemley, *Ten Things to Do About Patent Holdup of Standards (And One Not To),* 48 B. C. L. REV. 149 (2007); John M. 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. 713 (2008).

area of federal law is a natural extension of the Court's jurisprudence in *Credit Suisse* where federal securities law resulted in the implied repeal of antitrust.

In Part V, we extend our analysis to consider the case in favor of implied repeal of antitrust in favor of state contract and tort law. In particular, contract law offers a promising alternative to antitrust enforcement in the case of patent holdup involving breach of modification or FRAND commitments made in good faith as contract doctrine provides tools designed to identify and distinguish holdup from good faith modifications of long-term contracts.

Part VI concludes with our call for an implied repeal of antitrust regulation of patent holdup by federal courts in order to exploit the substantive doctrinal advantages in state common law and benefits of jurisdictional competition while avoiding the social welfare costs associated with erroneous application of the antitrust laws in this setting.

II. ANTITRUST AND THE ECONOMICS OF FEDERALISM REVISITED

A. THE SUPREME COURT HAS RECOGNIZED THE LIMITS OF ANTITRUST WHERE ALTERNATIVE REGULATORY INSTITUTIONS ARE AVAILABLE

Recently, the Supreme Court antitrust jurisprudence has emphasized the limits of antitrust due to the possibility of false positives and the social welfare losses associated with them.[12] In *Brooke Group*,[13] for example, the Supreme Court upheld the dismissal of a 148.8 million dollar jury award. The Court held that plaintiffs alleging that volume discounts amount to predatory pricing under Section 2 of the Sherman Act must demonstrate both that that prices are "below an appropriate measure of cost," and that the defendant had a dangerous probability of recouping its investment in below cost prices. Importantly, the Court noted that the appropriate liability rule for generally pro-competitive discounting conduct was shaped in significant part by error cost considerations. In assessing the possibility that above-cost prices might exclude rivals, the Court noted that any potentially exclusionary effect "reflects the lower cost structure of the alleged predator, and so represents competition on the merits, or is beyond the practical ability of a judicial tribunal to control without courting intolerable

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[12] See generally David S. Evans & A. Jorge Padilla, *Designing Antitrust Rules for Assessing Unilateral Practices: A Neo-Chicago Approach*, 72 U. Chi. L. Rev. 27 (2005) (discussing application of the error-cost approach).

[13] Brooke Group v. Brown & Williamson Tobacco Corp., 509 U.S. 209 (1993).

risks of chilling legitimate price cutting." The critical point is that the Court endorsed the proposition that, stated in terms of the error costs, the Supreme the test for predatory pricing should minimize the probability of a type I error, at a cost of tolerating a higher cost of type II error. Such a standard would make economic sense when the expected costs of type II errors are small relative to the costs of type I errors. This is likely to be the case if successful predation is rare, or when the broader application of the antitrust laws would cause widespread deterrence of procompetitive behavior.[14]

As a general matter, the error cost framework suggests that socially optimal antitrust rules will underdeter. This is because the theoretical and empirical literature examining conduct such as predatory pricing, but also vertical restraints such as resale price maintenance, have demonstrated that these practices generally benefit consumers while producing a competitive threat only in rare instances.[15] In addition, to the extent that competitive threats have been identified, the development of antitrust standards that would address these threats without simultaneously threatening the procompetitive conduct has been elusive. Given the current state of economic theory and empirical evidence, it follows that the social costs associated with false positives in antitrust will be high, as will the judicial error rate. Indeed, the error cost concerns that motivated the Court's design of the predatory pricing standard in *Brooke Group* have been a constant theme in the Court's modern antitrust jurisprudence. For example, social welfare losses associated with false positives also motivated the Court's imposition of antitrust limits on Section 2 in *Trinko*, predatory buying claims in *Weyerhauesuer*,[16] refusals to deal in *NYNEX*, elimination of per se treatment of minimum resale price maintenance in *Leegin*,[17] and stricter pleading

[14] Id. at 220-224. See also Bruce H. Kobayashi, *The Law and Economics of Predatory Pricing,* in THE LAW AND ECONOMICS OF ANTITRUST, K. Hylton, ed., (forthcoming 2009); Frank Easterbrook, *Predatory Strategies and Counterstrategies*, 48 U. Chi. L. Rev. 263 (1981); John R. Lott, Jr., *Are Predatory Commitments Credible? Who Should the Courts Believe?* (1999); John S. McGee, *Predatory Price Cutting: The Standard Oil (N.J.) Case*, 1 J. L. & Econ. 137 (1958) and *Predatory Pricing Revisited*, 23 J. L. & Econ.289 (1980).
[15] See, e.g., James Cooper et al., *Vertical Restrictions and Antitrust Policy: What About the Evidence?,* 1 COMPETITION POL'Y INT'L 45 (2005); Francine Lafontaine & Margaret Slade, *Exclusive Contracts and Vertical Restraints: Empirical Evidence and Public Policy*, *in* HANDBOOK OF ANTITRUST ECONOMICS, X (Paola Buccirossi ed., 2006).
[16] 127 S. Ct. 1069, 1078 (2007).
[17] Leegin Creative Leather Products, Inc. v. PSKS, Inc., 127 S. Ct. 2705 (2007).

requirements under Section 1 of the Sherman Act in *Twombly*.[18] Related to this emphasis on error costs has been the Supreme Court's increasing reliance on economic analysis to inform its opinions. As Brannon and Ginsburg point out, this increased reliance on economic learning has resulted in a trend of more wins for defendants, greater consensus among the Justices, and convergence between the opinions of the Solicitor General and the Supreme Court.[19]

While the Supreme Court has consistently understood the relationship between false positives and limits on antitrust, *Credit Suisse* represents an application of this analysis in the case of overlapping regulations. Specifically, *Credit Suisse* recognizes the value of limiting antitrust enforcement under circumstances where an alternative and competent regulatory apparatus is available *and* antitrust enforcement is likely to result in little additional social value because of the potential for welfare-reducing errors. As noted above, the effect of error costs is a common factor in many of the Court's recent antitrust decisions that served to limit the application of the antitrust laws. In *Credit Suisse,* the Court's analysis explicitly recognizes that the existence of an alternative and competent regulatory apparatus further tips the cost benefit calculus in favor of antitrust limits because the marginal benefits of applying the antitrust laws on top of this regulatory structure are small. The Court also explicitly endorses a similar analysis in *NYNEX v. Discon*, another modern case discussing unilateral conduct and the scope of monopolization liability. In this Section, we establish the legal underpinnings for our claim that the Supreme Court's antitrust jurisprudence supports pragmatic, judicially imposed limits on the application of antitrust law to patent holdup in order to exploit the advantages of jurisdictional competition between the states and avoid the likely consumer welfare consequences of antitrust false positives.

Before we examine *Credit Suisse* and *NYNEX*, we begin by repeating the basis for and scope of our claim. We concede that there is no controversy that the antitrust laws can peacefully co-exist with a federal law, state law, and a variety of regulatory structures. For instance, we do not claim that certain conduct cannot be simultaneously a violation of state tort law and federal antitrust law. Similarly, it is obviously possible that a monopolist who sets fire to a rival's plant can simultaneously and appropriately be held to violate both arson

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[18] Bell Atlantic Corp. v. Twombly, 127 S. Ct. 1955 (2007). On error-cost analysis as a feature of the Roberts Court's antitrust jurisprudence, see Joshua D. Wright, *The Roberts Court and the Chicago School of Antitrust: The 2006 Term and Beyond*, 3(2) COMPETITION POLICY INT'L 24 (2007).
[19] Leah Brannon & Douglas H. Ginsburg, *Antitrust Decisions of the U.S. Supreme Court 1967-2007*, 3(2) COMPETITION POLICY INT'L 3 (Autumn 2007).

and antitrust laws. The appropriate question is not simply whether the two sets of laws can co-exist when some conduct might violate each set. We believe this is the wrong question because it mistakenly presumes that the scope and effectiveness of the alternative set of regulations is and should be independent of defining the appropriate scope of antitrust liability rules. However, the Supreme Court has quite clearly endorsed the proposition that the extension of antitrust liability to conduct that is adequately regulated by alternative legal rules and institutions is appropriately limited when the marginal benefit of antitrust enforcement is low or negative. In this Section, we establish this principle. The remainder of the paper turns to applying the principle by analyzing the marginal benefit of antitrust enforcement in the patent holdup context relative to federal and state alternatives.

The Supreme Court's strongest endorsement of this "marginal analysis" principle appears *Credit Suisse v. Billing*.[20] In *Credit Suisse*, the Court dismissed a variety of antitrust claims brought by investors against underwriters from whom they had purchased securities. More specifically, the plaintiff class alleged that leading underwriting firms had conspired to manipulate the collective initial public offering (IPO) process by driving up the price of less attractive shares in the aftermarket in violation of Section 1 of the Sherman Act. The investment bank defendants argued that the complaint should be dismissed on the grounds that the federal securities laws impliedly precluded application of the antitrust laws. The district court granted the defendants' motion to dismiss on the grounds that the securities laws impliedly repealed federal antitrust laws. The Second Circuit reversed, finding that Congress had not expressly or impliedly demonstrated its intent to immunize the conduct at issue and that the enforcement of the securities laws was not sufficient to trigger immunity from antitrust liability.[21]

The Supreme Court reversed and agreed with the investment banks. In a 7-1 decision, Justice Breyer's majority opinion held that the antitrust claims against the investment banks arising from the underwriting transactions were impliedly preempted under a "clear incompatibility" standard.[22] The court

[20] Credit Suisse Securities (USA) LLC v. Billing, 127 S. Ct. 2383 (2007).

[21] Billing v. Credit Suisse First Boston Ltd., 426 F.3d 130 (2d Cir. 2005).

[22] 127 S. Ct. at 2387, 2389-92 (citing Gordon v. New York Stock Exchange, Inc., 422 U.S. 659, 682 (1975), United States v. National Assn. of Securities Dealers, Inc., 422 U.S. 694 (1975), Silver v. New York Stock Exchange, 373 U.S. 341 (1963)). Justice Stevens concurred in the judgment on the grounds that the defendants' alleged conduct would not violate the antitrust laws, but did not join the majority with respect to its finding of implied repeal. Justice Thomas dissented on the

noted that three of the four "critical" factors underlying the clear incompatibility standard were obviously satisfied: (1) the existence of regulatory authority under the securities law to supervise the activities in question; (2) evidence that the responsible regulatory entities exercise that authority; and (4) whether the affected practices lie squarely within an area of financial market activity that the securities law seeks to regulate. According to the Court, the only factor at issue was factor three, the existence of a risk that the securities and antitrust laws, if both applicable, would produce conflicting guidance, requirements, duties, privileges, or standards of conduct.

The Court's prior holdings in this area focused on the conflicting goals of the antitrust laws and securities laws, specifically the incompatibility of the securities law with the antitrust law's focus on competition, when assessing this last factor.[23] In contrast, the Court in *Credit Suisse* focused instead on the actual operation of the antitrust law, highlighting the role of error costs play in limiting the usefulness of the antitrust laws. Thus, the Court's analysis of this third factor is heavily motivated by the concern that the benefits of antitrust enforcement may not outweigh its costs in this setting. The Court relied on a number of factors in concluding that the need for antitrust enforcement in this setting is "unusually small," the prospect for mistakes "unusually likely," and the likely result of overlapping liability "serious harm to the efficient functioning of the securities markets."[24] With respect to the negligible benefits of antitrust enforcement, the Court emphasized the availability of competent alterative regulatory institutions: SEC enforcement as well as actions for damages under the securities law.[25]

grounds that the savings clause in Section 16 of the Securities Act of 1933 and Section 28 of the 1934 Act preserves antitrust remedies. Justice Thomas therefore would not reach the issue of reconciling any conflict between antitrust and securities regulation. Justice Kennedy did not participate in the decision.

[23] Different standards are likely to result because "the sole aim of antitrust legislation is to protect competition, whereas the SEC must consider, in addition, the economic health of the investors, the exchanges, and the securities industry." *Gordon,* 422 U.S. at 689.

[24] 551 U.S. at __.

[25] Id. Justice Breyer's analysis of the marginal benefit of antitrust enforcement in *Credit Suisse* is consistent with Justice Scalia's assessment of the "slight benefits of antitrust intervention" in *Trinko.* Justice Scalia explicitly calls for an evaluation of these benefits against "a realistic assessment of its costs," noting that "one factor of particular importance is the existence of a regulatory structure designed to deter and remedy anticompetitive harm," and relying upon error cost analysis to determine the appropriate scope of antitrust laws. *Trinko*, 540 U.S. at 412.

In *Credit Suisse*, Justice Breyer notes the potential for antitrust liability in addition to securities regulation to generate large social welfare losses:

> "[W]here conduct at the core of the marketing of new securities is at issue; where securities regulators proceed with great care to distinguish the encouraged and permissible from the forbidden; where the threat of antitrust lawsuits, through error and disincentive, could seriously alter underwriter conduct in undesirable ways, to allow an antitrust lawsuit would threaten serious harm to the efficient functioning of the securities market."[26]

The message from the Court in *Credit Suisse* is that caution and modesty are warranted in considering an expansion of antitrust liability when there is a competent alternative regulatory structure in place and the risks of false positives is significant.[27] The Court determined that the benefits of expanded liability on the margin were simply too slight to justify the costs associated with the use of the blunt instrument of antitrust enforcement.

A second Supreme Court decision predating *Credit Suisse*, *NYNEX v. Discon*,[28] reinforces this message. There, the Court considered whether "an antitrust court considering an agreement by a buyer to purchase goods or services from one supplier rather than another should (after examining the buyer's reasons or justifications) apply the per se rule if it finds no legitimate business reason for that purchasing decision."[29] More specifically, the Court concluded that the defendant (NYNEX) had not engaged in a *per se* illegal

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[26] Credit Suisse Securities (USA) LLC v. Billing, 127 S. Ct. 2383 (2007).

[27] The premise of the error cost framework is that it is socially optimal to adopt the legal rule that minimizes the expected social cost of false acquittals, false convictions, and administrative costs. See generally Frank Easterbrook, *The Limits of Antitrust*, 65 Texas L. Rev. 1 (1984). Subsequently, several commentators have adopted this framework as a useful tool for understanding the design of antitrust rules. *See, e.g.*, David Evans & Jorge Padilla, *Designing Antitrust Rules for Assessing Unilateral Practices: A Neo-Chicago Approach*, 72 U. CHI. L. REV. 73, 98 (2005); C. Frederick Beckner III & Steven C. Salop, *Decision Theory and Antitrust Rules*, 67 ANTITRUST L.J. 41 (1999); Keith N. Hylton & Michael Salinger, *Tying Law and Policy: A Decision-Theoretic Approach*, 69 ANTITRUST L.J. 469 (2001); Luke Froeb et al., *Vertical Antitrust Policy as a Problem of Inference*, 23 INT'L J. INDUS. ORG. 639 (2005).

[28] *NYNEX Corp. v. Discon, Inc.*, 525 U.S. 128 (1998).

[29] 525 U.S. at __.

boycott by switching its purchases from the plaintiff (Discon) to a rival provider of "removal services" (AT & T).[30]

What makes *NYNEX* particularly interesting for our purposes is that the plaintiffs alleged that *NYNEX's* decision to switch its purchases to AT&T was motivated by an attempt to commit regulatory fraud on the agency preventing New York Telephone's exercise of monopoly power and raise telephone rates.[31] As we will discuss in greater detail in Section III.C, *NYNEX* can be reasonably interpreted to exclude expansion of the Sherman Act to those patent hold up cases involving ex post opportunism in the form of renegotiation or breach of contractual commitments made in good faith and in the absence of fraud or deception. Specifically, the Court unanimously held that the exercise of lawfully acquired monopoly power to harm consumers, even where the exercise takes the form of a fraud designed to evade regulatory constraints on pricing power, is not within the scope of the antitrust laws. For our purposes, it suffices to note that the same error cost concerns motivating the Court's analysis in *Credit Suisse* and *Trinko* are important factors in Justice Breyer's opinion that expanding antitrust liability in this instance would "transform cases involving business behavior that is improper for various reasons, say, cases involving nepotism or personal pique, into treble damage antitrust cases."[32] Similarly, Justice Breyer recognized the role of alternative regulatory structures, including state law, in defining the appropriate limits to antitrust liability, noting the availability of remedies from "unfair competition laws, business tort laws, or regulatory laws."[33]

B. FEDERALISM AND ANTITRUST LIMITS

The Supreme Court's recent antitrust jurisprudence has recognized that the benefits of antitrust enforcement are limited when they conflict with other specific laws regulating the same areas and are vulnerable to a high risk of false

[30] While the Court's decision primarily addresses whether Nynex's conduct constituted a per se violation of the antitrust laws under the Court's boycott jurisprudence *Klor's, Inc.* v. *Broadway-Hale Stores, Inc.,* 359 U. S. 207, (1959), the Court also held that the same conduct would not violate Section 2 unless Discon could prevail on its Section §1 claim, which was remanded. For our purposes, the critical feature of *NYNEX* is that the Court suggests that the conduct, evasion of a pricing constraint through regulatory fraud, was outside the scope of the antitrust laws. We believe NYNEX is properly interpreted, to apply to antitrust analysis of unilateral conduct under Section 2. *Accord* Rambus, supra note __.

[31] Id.

[32] 525 U.S. at __.

[33] Id.

positives. In *Credit Suisse* and *Nynex*, the Court's antitrust analysis incorporates these concerns and responds by limiting application of the Sherman Act to the conduct in question. The overarching principle that emerges from these cases with respect to antitrust enforcement is modesty. Where the Court demonstrates little marginal benefit of antitrust enforcement on top of some alternative regulatory structure, the Court has concluded that antitrust should have limited application because of the large expected social costs associated with its enforcement apparatus. Rather than rely on antitrust enforcement in these instances, it is appropriate to rely on the alternative regulatory structure which may include other federal laws and regulations. In this section, we argue that the same pragmatic considerations apply equally to state laws and regulations. This "reverse preemption principle" can be usefully applied to the patent hold up doctrine. We argue that application of this principle, and the substantive superiority of state contract and tort law relative to antitrust law in the patent hold up context, provide the basis for a similar constraint on antitrust enforcement.

It is important to recognize that we are not asserting that state contract and tort law actually preempts federal law. Rather, we have demonstrated above only that the Court's antitrust jurisprudences have been sensitive to the risk that the marginal benefit of antitrust enforcement in the presence of alternative forms of regulation might be outweighed by its costs in some instances, and that the Court has curtailed the scope of the antitrust laws in favor relying on these alternative structures in those instances. One may question as too aggressive our interpretation that *Credit Suisse* and *Nynex* invite an analysis of the marginal benefits of antitrust enforcement and demands an understanding of the potentially heavy error and administrative costs associated with its application in all settings. However, even the most conservative interpretation of these cases must allow for the Court's insistence that these considerations of overlapping regulations and error costs should inform the Court's decisions with respect to defining the scope and substance of federal antitrust law.[34]

Indeed, the Court has chosen to limit the application of the antitrust law in other settings, including its broad immunity for petitioning activity under the

[34] Indeed a similar issue is generated by the existence of multiple antitrust laws that apply to the same transaction or conduct. These include duplicate state and federal enforcement of the antitrust laws, and the simultaneous and uncoordinated enforcement of the antitrust laws of different countries. For and analysis of the problem of overlapping and duplicative enforcement of the antitrust laws, see COMPETITION LAWS IN CONFLICT: ANTITURST JURISDICTION IN THE GLOBAL ECONOMY, Richard A. Epstein & Michael S. Greve, eds AEI Press (2004).

Noerr-Pennington doctrine.[35] And while conflicts between state and federal laws are generally resolved in favor of federal law, the courts have limited the application of federal antitrust laws to activity regulated under state law through the Court's state action doctrine.[36] Easterbrook notes that in many of these cases, the state statutes in question seek to supplant competition, and thus are facially inconsistent with the antitrust laws.[37] Under the Court's state action doctrine, states' conscious acts to replace competition with regulation will not be subject to antitrust scrutiny as long as the state actively supervises the implementation of its policy.[38]

While our thesis does not question and indeed supports the Court's choice to set limits on the application of antitrust law under the state action doctrine, we do question the particular way in which the Court has defined the scope this doctrine. Under the assumption that the antitrust laws serve to increase welfare through promoting competition, to base antitrust immunity for activity regulated by state law on the existence of active supervision by the state is an economic puzzle. If state regulations are anticompetitive schemes to reward politically powerful interest groups, it is far from clear why one would base antitrust immunity on the existence of active supervision by the state, which created the anticompetitive scheme in the first place.[39] Further, active supervision by the state can be an especially costly form of regulation compared to other forms of less supervised regulation, or no regulation at all. That is, compared to alternative mechanisms of regulation, active supervision may be worse for consumers and regulated firms.[40] Thus, the Court's choice of the particular form under which state action immunity from antitrust liability is allowed seems pathological, unless one argues that this scheme is a type of penalty option that serves to suppress the overall demand for anticompetitive state legislation in the first place.[41]

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[35] Eastern R. R. Presidents Conference v. Noerr Motor Freight, Inc., 365 U.S. 127 (1961).

[36] Parker v. Brown, 317 U.S. 341 (1943).

[37] *See generally,* Frank H. Easterbrook, *Antitrust and the Economics of Federalism,* 26 J. L. & ECON. 23, 26 (1983).

[38]Easterbrook, *supra* note _ at 26.

[39] Timothy Brennan, *Trinko v. Baxter: The Demise of U.S. v. AT&T*. 50 ANTITRUST BULL. 635 (2006).

[40] Easterbrook, *supra* note _ at _.

[41] *Id* at 33 (noting argument and positing that such an all or noting choice would result in more costly regulation on net).

Indeed, a similar a critique can be aimed at the Court's holdings discussed in part A of this section that base, in part, the implied repeal of the antitrust laws upon the active supervision and enforcement of the conflicting federal law by a federal regulatory agency. Congress and federal regulators are subject to the many of the same public choice influences as state legislators and regulators. If jurisdictional competition provides an effective constraint on state legislators and regulators, one can argue that such problems are likely to be worse at the federal level than at the state level.[42] Thus, the case for court imposed antitrust limits based on the risk that "antitrust courts are likely to make unusually serious mistakes" may be more compelling when applied to conflicts with state laws than conflicts between federal laws.

Previous authors have examined how the principles of federalism and the potential for jurisdictional competition affect the choice to limit the application of the federal antitrust laws. Easterbrook examined the Court's state action doctrine under such a framework, and found that the Court's rulings in this area were misguided, as they had in fact served to reduce the extent and effectiveness of competition between the states. For example, Easterbrook found that the Court's rulings in this area increased the cost of exit, limited the states to a particularly inefficient form of regulation, and were indifferent to whether the effects of the regulation are internalized by the regulating state.[43] Easterbrook would replace the Court's approach with a rule that could capture the benefits of federalism and jurisdictional competition by allowing states and local jurisdictions to adopt any regulations they choose, subject to a requirement that any adverse effects of the regulation are internalized by residents of that state.

The benefits of federalism also have been used to advocate restraint in applying the federal antitrust laws to areas traditionally regulated by the states. Meese examined the case for federal antitrust regulation of franchisor opportunism, and concluded that competition between the states were more likely to generate efficient rules and institutions governing this area.[44] These

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[42] Furthermore, the fact that Congress has the power to explicitly preempt or limit the application of the federal antitrust laws, while the states do not, also makes the marginal benefits of court imposed antitrust limits for firms subject to alternative state regulations greater than for firms subject to alternative federal regulations, *See, e.g.*, the antitrust exemption for labor contained in the Clayton Act, and the insurance antitrust exemption contained in the McCarran-Ferguson Act.

[43] For a discussion of the conditions under which competitive federalism is effective, see Charles M. Tiebout, *A Pure Theory of Local Expenditures*, 64 J. POL. ECON. 416 (1956).

[44] Alan J. Meese, *Regulation of Franchisor Opportunism and Production of the Institutional Framework: Federal Monopoly or Competition Between the States?* 23 HARV. J. L. & PUB. POL'Y 61 (1999).

include state contract law,[45] and also specific state statutory regulations of the franchisor/franchisee relationship.[46] Meese argues against displacing or augmenting the system of state rules regulating franchisor opportunism, which are influenced by jurisdictional competition, with federal antitrust regulation, which is not.

The hypothetical use of antitrust law to regulate franchisor opportunism indeed illustrates the potential benefits of antitrust limits flowing from avoiding the erroneous application of the antitrust laws. To see this, consider how the application of antitrust to franchisor opportunism would affect the existing system of state by state regulation. Advocates of using antitrust to address franchisor opportunism cite franchise tying, encroachment, and maximum resale price maintenance, enforced through the threat of termination of the franchisee, as examples of franchisor opportunism that could be addressed through the antitrust laws.[47] Moreover, under the Court's decision in *Kodak*,[48] the antitrust laws could be applied to cases of opportunism that do not involve market power in either the sale of franchise opportunities, or the sale of the good or service.

There are many reasons that the application of the antitrust laws to address franchisor opportunism in this setting is likely to result in errors.[49] The Court's opinion in *Kodak* has been widely criticized for confusing the issue of a single firm's power over its own price, and the proper concept of antitrust market power which requires the firm to have the power to control market prices.[50] The former concept can exist in competitive markets where sellers sell

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[45] *Id.*

[46] For a recent discussion of state regulatory statutes, *see* Jonathan Klick, Bruce H. Kobayashi, & Larry E. Ribstein, *The Effect of Contract Regulation: The Case of Franchising* (2006), George Mason Law & Economics Research Paper No. 07-03, available at SSRN: http://ssrn.com/abstract=951464

[47] *See* Warren Grimes, *Antitrust Remedies for Franchisor Opportunism,* 65 ANTITRUST L. J. 105 (1996).

[48] Eastman Kodak Co. v. Image Technical Services, Inc., 504 U.S. 45 (1992).

[49] *See* Roger D. Blair & Jill Boylston Herndon, *The Misapplication of Kodak In Franchise Tying Suits*, 14 J BUS. VENTURING 397 (1999).

[50] *See* Joshua D. Wright, *Missed Opportunities in* Independent Ink, 5 CATO SUP. CT. REV. 333 (2006); Bruce H. Kobayashi, *Spilled Ink or Economic Progress? The Supreme Court's Decision in* Illinois Tool Works v. Independent Ink, forthcoming ANTITRUST BULL. (2008), working paper version available at SSRN: http://ssrn.com/abstract=1084475; Herbert Hovenkamp, *Market Power in Aftermarkets: Antitrust Policy and the Kodak Case,* 40 UCLA L. REV. 1447, 1451-2 (1993).; Benjamin Klein & John Shepard Wiley, *Competitive Price Discrimination as an Antitrust Justification for Intellectual Property Refusals to Deal,* 70 ANTITRUST L. J. 599 (2003); Benjamin Klein, *Market Power in Antitrust: Economic Analysis after Kodak,* 3 SUP. CT. ECON. REV. 43 (1993); Carl Shapiro, *Aftermarkets and Consumer Welfare: Making Sense of Kodak,* 63 ANTITRUST L. J. 483 (1995).

differentiated products, or in cases where parties make relationship specific investments that are subject to opportunistic hold up, and does not require that individual firms in these industries have power over the market price. Thus, one cannot equate power over a firm's own product's price, which occurs frequently within competitive industries, with the ability to affect the market price, which is the proper concern for antitrust policy. Application of the antitrust laws in the absence of antitrust market power will result in frequent type I errors, as the generation of harm to competition from the use of tying, RPM, or the franchisor's choice of new outlet locations is implausible in the absence of antitrust market power. Indeed, as is discussed below, the lower courts have almost uniformly rejected the theory that contractual lock-in creates antitrust market power.[51]

Furthermore, there is widespread evidence that the regulation of franchisor opportunism can be costly. Evidence regarding state laws aimed at regulating franchisor opportunism suggests that such laws are inefficient. For example, empirical studies of automobile dealer regulations found that attempts to regulate franchisor opportunism, including restrictions on encroachment, produced anticompetitive results, decreasing sales and increasing prices.[52] And evidence on the effect of general franchise regulation statutes finds that such statutes interfere with attempts by franchisors to address agency costs and other forms of franchisee opportunism, and cause a reduction in the overall activity level in franchise industries.[53]

In contrast to the factual setting in the Court's state action cases, where the antitrust laws would be used to attack inefficient state laws, use of the antitrust laws to address franchisor opportunism would be used to support rather than disable an inefficient regulatory scheme. More importantly, the potential use of federal antitrust law can serve to disable the desirable effect of regulatory competition in this area. First, outside of regulations directed at automobile dealerships and petroleum marketing, the majority of states do not have statutes that specifically regulate opportunism in franchise contracts. Rather, most states rely upon general contract law principles to regulate opportunism.[54] Thus, use of federal antitrust law to either supplement or fill gaps in state law may serve to extend the effect of these inefficient regulations to non regulating states.

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[51] *See infra* Section II.C.

[52] Richard L. Smith, II., *Franchise Regulation: An Economic Analysis of State Restrictions on Automobile Distribution.*25 J. L. & ECON. 125 (1982); E. W. Eckard, Jr., *The Effects of State Automobile Dealer Entry Regulation on New Car Prices*, 23 ECON. INQ. 223 (1985).

[53] Klick et al., *supra* note _ (listing statutes regulating franchisor opportunism).

[54] Timothy J. Muris, *Opportunistic Behavior and the Law of Contracts,* 65 MINN. L. REV. 521 (1981).

More importantly, the availability of federal antitrust law may negate the significant effect of jurisdictional competition that has operated in this area. Franchisors have used contractual choice of law and forum clauses in order to facilitate exit from the application of franchise regulations to contracts with franchisees located in the regulating states. In *Burger King v. Rudzewicz*, the Supreme Court enforced a clause in a franchise agreement by which a Michigan franchisee consented to jurisdiction in Florida.[55] The court held that the franchisee had established "minimum contacts" with Florida, and had agreed to a contract that had "substantial connections with the forum state," including a provision that provided for application of Florida law. As a result of the Court's holding, the Michigan Franchise Investment Law, which required cause for termination, and also gave the franchisee a right to cure any violations of its franchise contract, did not govern the relationship between Burger King and its franchisees located in Michigan.

Based on empirical evidence that regulations like those contained in the Michigan Franchise Investment law interfere with the franchisor's ability to efficiently prevent franchisee shirking, an important effect of permitting and enforcing free choice of law and forum by contracting parties is to allow parties to escape such inefficient regulations.[56] Contracting parties can exercise effectively and at low cost their exit rights, which are critical to facilitating competitive federalism.[57] This will, in turn, improve lawmaking by reducing interest group incentives to promote inefficient laws. The importance of this effect is demonstrated by Klick, et al. In response to the Court's *Burger King* decision, as well as lower court decisions enforcing choice of law and choice of form agreements, some of the regulating states responded by enacting explicit restrictions on using choice of law or choice of forum clauses to escape the effects of franchise regulations. When the effect of such restrictions on contractual exit are taken into account, Klick et al. find significant negative marginal effects on franchise activity in those states that enacted restrictions on contractual exit over regulating states that did not restrict exit.[58] Moreover, the negative effects of franchise regulation statutes become small and statistically insignificant in the absence of such restrictions.[59] Thus, the evidence suggests that firms have used contractual choice of law to escape the effects of this

[55] *Burger King v. Rudzewicz*, 471 U.S. 462 (1985).
[56] Klick, et al., *supra* note _.
[57] Richard A. Epstein, *Exit Rights Under Federalism,* 55 L. & CONTEMPORARY PROB. 147 (1992).
[58] Klick, et al., *supra* note _.
[59] *Id*.

inefficient regulation. If federal antitrust law is allowed to fill the gaps in state by state regulation of franchise opportunism, this important escape value will be negated by as opportunistic franchisees.

C. THE *KODAK* EXAMPLE

The primary thesis advance in this paper is that the Supreme Court has endorsed the consideration of competent alternative regulatory institutions and the potential for significant error costs in designing antitrust rules, and that contract and patent law are superior regulatory institutions for dealing with the problems associated with patent holdup. Of course, we do not contend that lower courts are *compelled* to conclude that the antitrust laws are preempted by the presence of alternative state of federal laws. Rather, we note that the Supreme Court has encouraged the consideration of these other factors and that these factors militate against the application of antitrust laws to patent holdup. In essence, we argue that our framework provides an analytical backdrop that counsels extreme caution in applying the antitrust laws to this particular problem in favor of allowing operation of state contract and patent law.

There is some precedent for this type of implied substantive repeal. After the Supreme Court's decision in *Kodak*, which arguably opened the door to the application of monopolization liability to aftermarket holdup in franchise and other settings, lower courts have all but entirely overturned aftermarket holdup theories in favor of relying on state law. Goldfine and Vorrasi conducted a survey of all lower court opinions in which the plaintiff alleged a *Kodak* aftermarket lock-in claim, between 1992 and 2003.[60] Goldfine and Vorrasi found that courts have limited *Kodak* in two ways: (1) to situations involving a change in policy; and (2) by focusing on the relevant product definition.[61] Based on their survey of lower court opinions analyzing the *Kodak* opinion, Goldfine and Vorrasi conclude that the lower courts have effectively overruled the Supreme Court's decision by limiting application of the aftermarket holdup theory.[62]

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[60] David A.J. Goldfine & Vorrasi, Kenneth M, *The Fall of Kodak Aftermarket Doctrine: Dying a slow death in the lower courts*, 72 Antitrust L.J. 209 (2004).
[61] *Id.* at 220-22.
[62] *Id. at 230-31.*

We have updated the Goldfine and Vorrasi analysis of all federal district and appellate court decisions citing *Kodak* through January 31, 2008.[63] We found twenty-two cases citing *Kodak* as authority for an aftermarket lock-in claim from 2001-2008.[64] Of these twenty-two cases, twenty were decided for the defendant on a motion to dismiss, motion for summary judgment, or post-trial motion for judgment as a matter of law. Plaintiffs alleging *Kodak* aftermarket tie-in claims prevailed in one motion to dismiss and one defeated a single motion for summary judgment.[65]

Description	1992-2000	2001-2008	Total
Decisions citing *Kodak*	737	985	1,722
Number of *Kodak* Aftermarket Claims	24	22	46
Defendant Wins	22	20	42
Plaintiff Survives Summary Judgment/Mtn to Dismiss	2	2	4
Defendant Win Percentage (%)	91.7%	90.9%	91.3%

[63] Between January 1, 2000 and January 31, 2008, *Kodak* has been cited 7,305 times and examined or discussed 2,290 of these times between January 1, 2000 and January 31, 2008. All results were obtained using Westlaw's list of citing references to the Supreme Court opinion.

[64] The 22 cases include both lower court opinions and the appellate decisions. Therefore, a case may be counted twice, once at the trial level and again on appeal. *See Schlotzsky's, Ltd. v. Sterling Purchasing & Nat'l Distribution Co.*, _ F.3d _, 2008 WL 588640 (5th Cir. 2008); *Newcal Industries, Inc. v. IKON Office Solutions, Inc.*, 513 F.3d 1038 (9th Cir. 2008); *Harrison Aire, Inc. v. Aerostar Int'l, Inc.*, 423 F.3d 374 (3d Cir. 2005); *Maris Distributing Co. v. Anheuser-Busch, Inc.*, 302 F.3d 1207 (11th Cir. 2002); *Hack v. President and Fellows of Yale College*, 237 F.3d 81 (2d Cir. 2000); *Westerfield v. Quizno's Franchise Co.*, 527 F.Supp.2d 840 (E.D. Wisc. 2007); *Delta Kappa Epsilon Alumni Corp v. Colgate College*, 492 F.Supp.2d 106 (N.D. NY 2007); *Static Control Component, Inc. v. Leximark Int'l, Inc.*, 487 F.Supp.2d 861 (E.D. Kent 2007); *Mumford v. GNC Franchising, LLC*, 437 F.Supp.2d 344 (W.D. Pa 2006); *Subsolutions, Inc. v. Doctor's Assoc., Inc.*, 426 F.Supp.2d 348 (D. Conn. 2006); *Newcal Industries, Inc. v. IKON Office Solutions, Inc.*, No. C 04-2776 FMS, 2005 WL 1156028 (N.D. Cal. 2005); *Strawflower Electronics, Inc. v. Radioshack Corp.*, No. C-05-0747 MMC, 2005 WL 2290314 (N.D. Cal. 2005) (unpublished); *Newcal Industries, Inc. v. IKON Office Solutions, Inc.*, No. C04-2776 FMS, 2004 WL 3017002 (N.D. Cal. 2004); *Harrison Aire, Inc. v. Aerostar Int'l, Inc.*, 316 F.Supp.2d 186 (E.D. Pa 2004); *McLaughlin Equipment Co. v. Newcourt Credit Group, Inc.*, No. IP98-0127-C-T/K, 2004 WL 1629603 (S.D. Ind. 2004); *George Lussier Enterprises, Inc. v. Subaru of New England*, 286 F.Supp.2d 86 (D. NH 2003); *Commercial Data Servers, Inc. v. Int'l Business Machines, Corp.*, 262 F.Supp.2d 50 (S.D. NY 2003); *ID Security Sys. Canada v. Checkpoint Sys.*, 249 F.Supp.2d 622 (E.D. Pa. 2003); *Commercial Data Servers, Inc. v. Intern'l Business Machines*, No. 00CIV5008(CM)(LMS), 2002 WL 1205740 (S.D. NY 2002); *Universal Avionics Sys. Corp. v. Rockwell Int'l Corp.*, 184 F.Supp.2d 947 (D. Az. 2001); *Subsolutions, Inc. v. Doctor's Associates, Inc.*, No. 3:98-CV-470IAHN, 2001 WL 1860382 (D. Conn. 2001); *O'Dell v. General Motors Corp.*, 122 F.Supp.2d 721 (E.D. Texas 2000).

[65] See *Newcal Industries, Inc. v. IKON Office Solutions, Inc.*, 513 F.3d 1038 (9th Cir. 2008); *Static Control Component, Inc. v. Leximark Int'l, Inc.*, 487 F.Supp.2d 861 (E.D. Kent 2007).

We claim that the conditions for limits on the antitrust laws identified in *Credit Suisse* and more generally by the Supreme Court's recent antitrust jurisprudence are satisfied in the case of patent holdup. Specifically, we find that the application of the antitrust laws to patent holdup will provide little marginal benefit over and conflict with other specific laws regulating the same area, and also will generate high risk for errors in application of the antitrust laws. Further, the potential benefits of jurisdictional competition between the states, especially with respect to contract law and the regulation of patent holdup, also favor substantive antitrust limits that would favor contract law treatment of this issue. In the remainder of this paper, we analyze the current state of antitrust regulation of patent holdup, the strengths and weaknesses of this approach from a legal and economic perspective, and finally turn to the affirmative case for reliance on federal patent law and state law alternatives to antitrust.

III. ANTITRUST THEORIES OF PATENT HOLDUP

The basic patent holdup problem is well known and related to the conventional ex post opportunism discussed in the economic literature.[66] The basic notion is the patent holder, once its technology has been adopted by the SSO and relationship-specific investments have been made, holds up licensees for higher royalty rates than would have otherwise prevailed because there are fewer effective substitutes ex post after the technology is chosen. These higher royalty rates, in turn, are passed on to consumers in the form of higher prices. The Antitrust/ IP Report describes the holdup problem as follows:

> [A]fter a standard has been adopted and switching to an alternative standard would require significant additional costs, the holder of a patent that covers technology needed to implement the standard can force users of the technology to choose between two unpleasant options: "You either don't make the standard or you accede to the –I don't want to say blackmail, but that's [what it] tends to be in that environment." Anointing a patented technology as the standard improves the bargaining position of the owner of the needed technology in licensing negotiations because "[i]f you are the owner of one of the rights to one of those many equally valuable [technologies], then it is the standard-setting process that will

[66] See supra n. 2.

> reduce the substitution, possibly eliminate the substitutes, and elevate your technology to [be] the most valuable."[67]

But what distinguishes patent holdup from other types of conventional contractual opportunism which result in higher prices but are not generally considered antitrust problems? For example, consider a landlord who signs an initial lease with a tenant under highly competitive conditions which are reflected in the terms. After the tenant has become "locked in," the landlord takes advantage of the incompleteness of the contract to impose a new "parking fee" against the tenant, effectively raising the price. Most would agree this is not and should not be actionable *antitrust* conduct, even if it is a breach of contract. In this situation, the fact that the landlord "evaded a contractual restraint on pricing" is not a sufficient condition for the existence of an antitrust problem. Some have argued that the special competitive concerns surrounding the risk of collusion in the standard setting process justify stricter antitrust scrutiny of patent holdup. Yet, the Sherman Act does not proscribe all conduct by monopolists that results in higher prices. To the contrary, *Nynex* and *Trinko* make clear that the monopolist is entitled to engage in optimal pricing without fear of antitrust liability so long as its monopoly power has been obtained lawfully. The key challenge facing any antitrust relevant theory of patent holdup is to identify conditions results in the *unlawful* acquisition of monopoly power as the result of exclusionary conduct rather than the mere exercise of that power once lawfully obtained.

It is useful to start by distinguishing two lines of cases involving two unique theories of patent holdup as an antitrust problem. The first line of cases involves allegations that the patent holder employs deception or fraud in order to have technology incorporated into the standard and acquire the power to raise price. FTC enforcement actions against *Dell* and *Rambus* both involve allegations of the unlawful acquisition of monopoly power resulting from deception in the form of intentionally failing to disclose relevant patents. Importantly, *Rambus* also created the possibility that deceptive conduct in the standard setting process could constitute "exclusionary conduct" for the purposes of Section 2 of the Sherman Act. The Third Circuit's *Qualcomm* decision also fits this description, allowing Broadcom's complaint to survive because it alleged, among other things, that Qualcomm made and broke an "intentionally false promise to license essential proprietary technology on FFRAND terms."[68]

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[67] Antitrust/ IP Report, at 37-38.

[68] Broadcom Corp. v. Qualcomm Inc., 501 F. 3d 297, __ (3d Cir. 2007).

The "deception" cases are often heralded as examples of "cheap exclusion," involving conduct capable of imposing significant competitive risks without any redeeming pro-competitive virtues at minimal cost. The notion that deception or misrepresentation can potentially constitute exclusionary conduct for a monopolization claim is not controversial. Antitrust law has traditionally recognized that fraud, tortious conduct, or misrepresentation can violate the Sherman Act, though courts have insisted on requiring that plaintiffs demonstrate "a preliminary showing of significant and more than temporary harmful effects on competition (and not merely upon a competitor or customer) before considering a tort as an exclusionary practice."[69] Merely describing some fraudulent conduct or misrepresentation as "cheap exclusion" is not a formula for antitrust liability without a separate showing that the competitive process has been harmed.

A second line of cases and recent scholarly commentary would significantly expand the role of antitrust in policing ex post opportunism in the standard setting context. This view contemplates patent holdup, defined as any deviation from the ex ante contractual commitments, as a sufficient condition for an antitrust violation. Deception or other exclusionary conduct would not be required. In *N-Data*, the FTC successfully extracted a consent decree under Section 5 of the FTC Act from a patent holder who acquired its monopoly power lawfully and made its ex ante contractual commitments in good faith, but attempted to increase royalty rates several years later. In a recent article in the *Antitrust Law Journal*, Farrell et al. argue that virtually any breach of an *ex ante* commitment to the SSO that results in consumer harm either does or should violate the antitrust laws.[70] We discuss each of these theories, how they have fared in recent decisions, as well as their application by the enforcement agencies below.

A. PATENT HOLDUP WITH DECEPTION

Patent holdup involving deception forms the basis for the majority of recent cases involving opportunism against SSOs. For example, intentional deception of the SSO with respect to a royalty commitment formed the basis of

[69] *See* Areeda & Hovenkamp, at ¶ 782a; HOVENKAMP, supra note __, at 174-180. See generally, Joshua D. Wright, *Antitrust Analysis of Category Management: Conwood Co. v. United States Tobacco*, 19 SUP. CT. ECON. REV.__ (2009).
[70] Joseph Farrell et al., *Standard Setting, Patents, and Hold-Up*, 74 ANTITRUST L.J. 603 (2007).

the allegations upheld in *Broadcom*. In *Rambus*, the Commission found Rambus liable for intentionally concealing a patent and relevant applications from the SSO before the D.C. Circuit ultimately overturned the FTC's decision. In *Unocal*, the Commission found a patent holder liable for affirmative misrepresentations. In each of these cases, allegations of deceptive conduct resulting selection into the standard were the crux of the antitrust claim. Recently, the Third Circuit held in *Broadcom* that intentionally deceiving the SSO with respect to a royalty commitment could constitute a monopolization cause of action under the following conditions:

> (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 [Standard Determining Organization'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.[71]

Broadcom relies heavily on the Commission's analysis in *Rambus*, emphasizing the notion that deception is a traditional and conventional antitrust concern,[72] and equating the intentional creation of deceptive FRAND commitments with deceptive nondisclosure of intellectual property rights.

Recall the argument in favor of liability in the case of patent holdup raised by the FTC and Broadcom. The anticompetitive theory is fairly straightforward: (1) ex ante deception allows the patent holder to acquire monopoly power unlawfully; (2) rival technology holders are excluded as a result of this conduct; and (3) consumer welfare is harmed as the monopolist is able to extract supra-competitive royalties. *Broadcom* and *N-Data* endorse the view that ex post opportunism against SSOs in the form of ex ante and intentional deception (*Broadcom*), or even ex post breach or modification of FRAND commitments made in good faith (*N-Data*), are antitrust problems because higher royalty rates to the SSO are passed on to ultimate consumers. In short, conduct that results in monopoly power and harm to consumers is anticompetitive, exclusionary, and actionable.

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[71] *Broadcom*, 501 F.3d at 314.

[72] *Broadcom*, 501 F.3d at 311-12, 314 ("The FTC likened the deception of an SDO to the type of deceptive conduct that the D.C. Circuit found to violate § 2 of the Sherman Act in *Microsoft*" and such a claim "follows directly from established principles of antitrust law").

The Court's holding in *NYNEX* appears to be fatal to these arguments as price increasing conduct by a lawful monopolist, even when that conduct involves fraud or deceit, is not exclusionary conduct. However, at least on its face, *NYNEX* does not appear to exclude the possibility of patent holdup claims involving allegations that the patent holder acquired monopoly power as a *consequence* of the deceptive conduct. The D.C. Circuit apparently disagrees with this interpretation, as it held that *NYNEX* applies with equal force to deception-based claims, concluding that: "an 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." *Rambus* thus appears to run orthogonally to *Broadcom* on this point. Indeed, the D.C. Circuit is explicit in its suggestion that *Broadcom* did not adequately address *NYNEX*:

> While the Commission's brief doesn't mention NYNEX, much less try to distinguish it, it does cite *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297 (3d Cir. 2007). . . . To the extent that the ruling (which simply reversed a grant of dismissal) rested on the argument that deceit lured the SSO away from non-proprietary technology, see id., it cannot help the Commission in view of its inability to find that Rambus's behavior caused JEDEC's choice; to the extent that it may have rested on a supposition that there is a cognizable violation of the Sherman Act when a lawful monopolist's deceit has the effect of raising prices (without an effect on competitive structure), it conflicts with *NYNEX*.

If the Commission's theory depended on the proposition that a lawful monopolist's deceit which raises prices is an antitrust violation, the D.C. Circuit is certainly correct that the proposition conflicts with *NYNEX*. Clearly, conduct by a lawful monopolist which merely results in higher prices is protected under both *NYNEX* and *Trinko*. However, for *NYNEX* to apply to deception claims, it must be the case that the patent holder otherwise is lawfully a monopolist at the time it engages in the deceptive conduct. But this is not the Commission's anticompetitive theory of patent holdup at all. To the extent that the D.C. Circuit argues that *NYNEX* would prevent a claim of misrepresentation or fraud against an SSO as the basis for a monopolization claim, it is mistaken. The D.C. Circuit's statement does not clearly articulate its view concerning the relationship between *NYNEX* and conventional deceptive patent holdup theory -- that is, the defendant's deception results in the acquisition of otherwise non-existing monopoly power and excludes alternative technologies as a consequence. Such theoretical claims, like any others, might fail for factual reasons. Indeed the D.C. Circuit emphasizes the Commission's "inability to find that Rambus's behavior caused JEDEC's choice." The failure to sustain this particular evidentiary burden is not difficult to understand. However, it is difficult to imagine how *NYNEX* could sweep so broadly across all claims involving ex ante deception as a matter of antitrust doctrine.

We do not read the D.C. Circuit as failing to recognize altogether the distinction between patent holdup theories with and without deception. The D.C. Circuit concedes that deceptive conduct can constitute actionable Section 2 conduct so long as the conduct also "impaired rivals in a manner tending to bring about or protect a defendant's monopoly power" and does not merely "raise the price secured by a seller." The Court hints at the type of deceptive conduct that it has in mind, citing favorably to its own analysis in *Microsoft* and the Sixth Circuit's analysis in *Conwood*. But the Court also concludes that Rambus's conduct was not sufficient to have such an exclusionary impact and thus falls within the realm of price-raising behavior by an "otherwise lawful" monopolist carved out by *NYNEX*. A reasonable interpretation of *Rambus* is that the D.C. Circuit has narrowed substantially, but not completely closed, the window for Section 2 claims involving deception. One open question after *Rambus* is whether one can reliably identify what distinguishes deception in the standard setting process, where it is claimed that higher royalty rates are passed through to final consumers, from the deceptive and exclusionary conduct in *Microsoft* and *Conwood*. In other words, precisely what claims involving deceptive conduct in the standard setting context survive both *NYNEX* and give rise to significant enough potential for harm to the competitive process to qualify as exclusionary conduct?

What are the differences between *Rambus* and, for example, *Conwood*, which justify this different antitrust analysis of deceptive conduct? It cannot be the nature of the conduct at issue or the possibility that the conduct has some pro-competitive element. Wright demonstrates that the widespread characterization of *Conwood* as a case involving *only* "cheap exclusion,"[73] or conduct without any redeeming efficiency qualities and therefore worthy of

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[73] Steven C. Salop, *Exclusionary Conduct, Effect on Consumers, and the Flawed Profit-Sacrifice Standard*, 73 ANTITRUST L.J. 311, 317 (2007); A. Douglas Melamed, *Exclusive Dealing Arrangements and Other Exclusionary Conduct -- Are There Unifying Principles*?, 73 ANTITRUST L.J. 375, 392 n.48 (2006); Mark Popofsky, *Defining Exclusionary Conduct: Section 2, The Rule of Reason, and the Unifying Principle Underlying Antitrust Rules*, 73 ANTITRUST L.J. 435, 446 (2006); Susan Creighton, et al., *Cheap Exclusion*, 72 ANTITRUST L.J. 975, 989-990 (2005); Jonathan M. Jacobson, *Exclusive Dealing, "Foreclosure," and Consumer Harm*, 70 ANTITRUST L.J. 311, 361 (2002).

summary condemnation under the antitrust laws, is incorrect.[74] To be sure, the product destruction allegations involve conduct that is certainly not competition on the merits, can properly be described as "naked exclusion," and can certainly give rise to tort claims and damages. However, the less salacious and infrequently discussed aspects of *Conwood* involved UST's efforts to obtain exclusive racks and category management relationships with retailers and also were found to violate Section 2. It is clear that at least some substantial fraction of the defendant's conduct in *Conwood* had potential efficiency justifications. It is not clear that this hybrid conduct at issue in *Conwood* would justify greater scrutiny, or is more likely to be anticompetitive than misrepresentation or deception in the standard setting context.

An alternative distinction is that the D.C. Circuit believes that the conduct in *Microsoft* and *Conwood* was more likely to harm the competitive process than the conduct in *Rambus*. The D.C. Circuit notes that only deception with that potential may be actionable under the antitrust laws. *Broadcom* also recognizes that, while deception is a traditional antitrust concern, it is also the case that conventional antitrust analysis of deception requires a preliminary evidentiary showing that defendant's deception will result in harm to competition.[75] The D.C. Circuit found the evidence that Rambus's deception actually resulted in the exclusion of alternative technologies insufficient. However, the evidence in *Conwood* also makes clear that the defendant's misrepresentations to retailers and product destruction were not likely to have the required impact on the competitive process.[76]

Thus, neither distinction is particularly persuasive. The scope of *Rambus*'s application of *NYNEX* to deceptive conduct, and the conditions under which such deception is sufficiently exclusionary to become actionable under Section 2, remains unclear and is sure to be the subject of future litigation. *Rambus* provides an interesting contrast with *Broadcom*, and supports our claim that *NYNEX* renders antitrust claims involving deviations from FRAND commitments made in good faith inactionable. However, we emphasize that our

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[74] Joshua D. Wright, *Antitrust Analysis of Category Management: Conwood Co. v. United States Tobacco*, 19 SUP. CT. ECON. REV. __ (Forthcoming 2009).

[75] 3A Philip Areeda & Donald F. Turner, ANTITRUST LAW, ¶ 782a ("[T]he antitrust court must, therefore, insist on a preliminary showing of significant and more than temporary harmful effects on competition (and not merely upon a competitor or customer) before considering a tort as an exclusionary practice. In the absence of such a preliminary showing, the defendant should win summary judgment.").

[76] Wright, supra note __.

argument does not depend on *NYNEX* in any particular way. While *NYNEX* suggests that one class of patent holdup theories is outside the scope of antitrust enforcement, at least as a monopolization problem, our claim is that antitrust regulation of patent holdup provides zero or negative marginal benefit. We claim that a marginal comparative advantage analysis of antitrust versus federal patent law and state law alternatives warrants a limitation of antitrust enforcement in this area, where it will likely generate "unusually serious mistakes" and substantial error costs with little additional benefit for consumers.

B. BREACH OF A FRAND COMMITMENT AS AN ANTITRUST VIOLATION: *FTC V. N-DATA*

A second line of patent holdup cases do not involve deception at all. Rather, these cases involve what might be described as "pure" ex post contractual opportunism where the patent holder attempts to renegotiate or deviate from the original FRAND commitment made in good faith, and without deception, in favor higher royalty rates. The FTC's recent enforcement action in *N-Data*, which resulted in a consent decree, as well as recent scholarly commentary, suggest that antitrust liability both does and should extend to this case. The scholarly commentary and the *N-Data* Majority Statement favor a rule which would represent an important deviation from prior patent holdup enforcement actions like *Dell*, *Unocal*, and *Rambus*, and the Third Circuit's decision in *Broadcom*, each which required deception as a precondition for antitrust liability. *N-Data* is significant not only because it assigns antitrust liability without requiring evidence of deception or otherwise exclusionary conduct, but also because it did so with scant evidence of an actual breach of a contractual commitment or of consumer injury. It is also significant that it was brought under Section 5 of the FTC Act rather than Section 2 of the Sherman Act.

We offer two distinct criticisms of the *N-Data* logic, which equates breach of a FRAND commitment to exclusionary conduct under the antitrust laws. The first is specific to *N-Data* itself and relies on publicly available and reported facts, as well as the Commission's decision to apply Section 5 of the FTC Act in the patent holdup setting. We view the application of the Section 5 theory as a significant deviation from the FTC's patent holdup agenda to date, unjustified from a consumer welfare perspective and without limiting principles.[77] Of

[77] One possible "limiting principle" is that ex post breach, renegotiation, or modification of contractual commitments raise antitrust concerns only in the standard setting context. This does not appear to be much of a limit at all. First, there is a substantial amount of economic activity

course, it is often said that bad facts make bad law. And *N-Data* is full of bad facts for the Commission. Specifically, it is unclear whether any contractual commitments were breached in the first instance. There was also very little evidence of consumer harm. Further, the apparent renegotiation was from a nominal $1,000 commitment to a FRAND commitment, not a FRAND commitment breached in favor of a supra-competitive royalty. However, our more general analysis has little to do with the particulars of the *N-Data* analysis and applies equally to the general theory that ex post breach of a FRAND commitment resulting in higher prices and consumer harm is an antitrust problem.[78]

The second criticism is more general: in *NYNEX*, the Supreme Court considered and rejected the underlying economic foundations of the Commission's theory and, for that matter, any other theory that would assign Section 2 liability for a breach of a FRAND commitment made in good faith and *without* evidence of deception or other exclusionary conduct. The D.C. Circuit's recent analysis in *Rambus* supports our position and substantially weakens any argument in favor of applying Section 5 to similar conduct.

Chairman Majoras' Dissenting Statement in *N-Data* recites the basic facts.[79] In 1994, IEEE adopted National's N-Way Ethernet auto-negotiation technology in its 802.3u standard. National committed to license the technology for a one-time fee of $1,000. As Chairman Majoras notes, "no one contends that National deceived SSO members at the time of its initial licensing offer in 1994." Indeed, the FTC did not allege that National engaged in any deception, bad faith conduct, or misrepresentation at the time the technology was adopted. In 1998, National assigned its rights to another company, Vertical. When Vertical attempted to deviate from the 1994 commitments in a 2002 proposal to the IEEE

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involving standard setting. Second, to the extent that this limit derives from the view that holdup is likely to result in consumer welfare losses, the proposed limitation conflicts with *NYNEX* which rejects the extension of Section 2 to conduct evading a "pricing constraint" and similarly resulting in consumer harm. Third, there is nothing in the *N-Data* Majority Statement or the expansion nature of the theory of antitrust harm that suggests such a narrow interpretation was intended.

[78] We also do not consider the case an insignificant outlier and so consider the decision worth criticizing. Indeed, it remains the only case to extend antitrust liability to patent holdup for mere renegotiation of the FRAND commitment without ex ante deception in the standard setting process.

[79] *In re: Negotiated Data Solutions LLC*, No. 051-0094 (N-Data) (F.T.C. Jan. 23, 2008), *available at*: http://www.ftc.gov/os/caselist/0510094/080122majoras.pdf (Majoras dissent).

by altering the licensing terms of the one-time $1,000 fee to a FRAND commitment, the IEEE did not object and requested and negotiated a number of changes in Vertical's proposal before ultimately posting Vertical's letter on its website along with National's 1994 letter. Vertical assigned its rights to N-Data in 2003.

Remarkably, the FTC Majority Statement for the fractured Commission in support of the issuance of the Complaint against N-Data and to accept the consent agreement fails to address the significant deviation of this enforcement action from the prior line of cases involving deception. The Majority Statement, joined by Commissioners Harbour, Leibowitz, and Rosch characterizes N-Data's conduct as "oppressive" and "coercive" and argues that there is "no doubt that the type of behavior engaged in by N-Data harms consumers." It also asserts that "bad faith or deceptive behavior that undermines the [standard setting] process may also undermine competition." However, there is no evidence in the record that there was any bad faith or deceptive conduct and the Majority never responds to Chairman Majoras' point that *N-Data* deviates from the deception line of cases and her charge that the Majority must agree that whatever N-Data's conduct, it is not exclusionary for the purposes of Section 2 analysis. There is no doubt that the Majority viewed N-Data's conduct as detrimental to consumers. The Majority goes so far as to claim that N-Data's renegotiation of National's original 1994 commitments allowed it to "increase the price of an Ethernet technology used by almost every American consumer who owns a computer." This is a serious charge. It is also false. Only three companies entered into agreements for the patents and N-Data had never received royalties on any terms inconsistent with the original 1994 terms.

This last fact suggests a cynical explanation to the puzzle of why the FTC elected to seek liability purely under Section 5 of the FTC Act when the Majority was apparently confident that the conduct at issue would have such dramatic competitive effects and involved the acquisition of monopoly power. The truth is that there was little chance the Commission could have prevailed under the more rigorous Section 2 standard that anchors the liability rule to a demanding standard requiring proof of both exclusionary conduct and competitive harm.[80] One must either accept the proposition that the Commission sought Section 5 liability precisely because there was no evidence of consumer harm or that the Commission believed there was evidence of consumer harm but elected to file

[80] Chairman Majoras' dissent concludes that the FTC Act Section 5(a) and 5(n) claims should fail because neither theory satisfies the consumer injury requirement.

the Complaint based only upon the Section 5 theory in order to encourage an expansive application of that Section, a position several Commissioners joining the Majority Statement have taken in recent years. Neither of these interpretations offers much evidence that *N-Data* is sound as a matter of prosecutorial discretion or antitrust policy.

What is left is the view that the theory in *N-Data* could be extended to any breach of a contractual commitment which might result in increased royalties, or even a good faith modification of a FRAND commitment to the same effect, *always* violates the antitrust laws. When could such a breach of modification not result in antitrust liability under the *N-Data* theory? The breach itself is the exclusionary act and evidence of the requisite monopoly power. No evidence of consumer harm is required. An attempt to renegotiate higher royalty rates is all that is needed. This is unsound antitrust policy. The very asset specificity that allows for the potential for ex post opportunism also requires flexibility between the parties over pricing and other terms over time. Even good faith modifications of SSO commitments, whether those commitments relate to pricing or other elements of the agreement, would satisfy the *N-Data* liability standard.

Thus, there is no principle that would prevent the extension of the *N-Data* theory to the breach of any contractual commitment by a firm resulting in higher prices to some consumers. For example, consider the example of a landlord's opportunistic imposition of a new parking fee against a "locked-in" tenant discussed earlier. While the new "parking fee" against the tenant effectively raises the price above the terms that reflected ex-ante competitive conditions, most would agree this is not and should not be actionable *antitrust* conduct, even if it is a breach of contract. In this situation, the fact that the landlord "evaded a contractual restraint on pricing" is not a sufficient condition for the existence of an antitrust problem.[81]

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[81] One could attempt to distinguish this landlord-tenant example on the grounds that the breach does not necessarily involve an increase in market prices, but the price to a single buyer, whereas the breach of a SSO commitment is likely to be passed on to a large number of consumers and therefore produce greater harm. This is similar to the proposed limitation on patent holdup theories, discussed above, to the SSO context on the grounds that consumer welfare losses are likely to result from holdup. We find such a distinction unsatisfying for a number of reasons. First, we reiterate that *N-Data* discusses no such limitation. To the contrary, *N-Data* assigns liability with little evidence of actual consumer injury, suggesting that the Commission did not consider itself under any such obligation to safeguard against overexpansive application of the theory by ensuring evidence of actual consumer harm. Second, as we've discussed, the Supreme Court has rejected the view that any conduct resulting in consumer welfare harm is an antitrust violation. Rather, the Supreme Court has correctly rejected this view in favor of an under-

C. PATENT HOLDUP THEORIES AND *NYNEX*

Holding aside the factual issues and disputes in *N-Data*, and the controversy over the application of Section 5 as a stand-alone offense, there is a more fundamental flaw in the view that mere *ex post* opportunism or "renegotiating" an *ex ante* licensing commitment can constitute exclusionary conduct for the purposes of a monopolization claim in the absence of deception, fraud, or misrepresentation. Specifically, the view that ex post deviations, breaches or renegotiations of *ex ante* pricing commitments that result in consumer welfare losses are antitrust violations is based on an erroneous interpretation of the "exclusionary conduct" requirement under Section 2 of the Sherman Act as articulated by the Supreme Court.

The *N-Data* Majority and scholarly commentators such as Farrell et al. implicitly or expressly equate actionable antitrust conduct to the evasion of a pricing constraint that harms consumers.[82] In *N-Data*, the patent holder is alleged to have violated the FTC Act by reneging on its original pricing commitment in favor of a FRAND commitment, thus increasing prices to final consumers. Similarly, Farrell et al. argue that patent hold up violates Section 2 of the Sherman Act, regardless of how the pricing constraint is violated, because opportunism against the SSO members is likely to result in higher prices and harm consumers.[83] The basic proposition is that patent holdup without deception is equivalent to patent holdup with deception under the antitrust laws because it results in the same economic effects. Therefore, breach or renegotiation of a FRAND commitment in the absence of bad faith or deception of the type considered by the FTC in *N-Data* would violate Section 2 and therefore also necessarily violate Section 5. Three FTC Commissioners have also endorsed the related proposition that such conduct is a Section 5 violation and seemed willing to entertain arguments concerning Section 2.[84] They are wrong. The Supreme Court has considered and rejected the "pricing constraint" view of exclusionary conduct and therefore the "mere breach" variant of the patent

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deterring approach that recognizes that it is difficult to distinguish pro-competitive from anticompetitive and inefficient conduct and that the antitrust enforcement errors have significant potential to harm consumers.

[82] Joseph Farrell et al., *Standard Setting, Patents, and Hold-Up*, 74 ANTITRUST L.J. 603 (2007).

[83] Id.

[84] *In re: Negotiated Data Solutions LLC*, No. 051-0094 (N-Data) (F.T.C. Jan. 23, 2008) (Majority Statement), available at: http://www.ftc.gov/os/caselist/0510094/080122statement.pdf.

holdup theory must be rejected. The D.C. Circuit's analysis in *Rambus* also supports this conclusion.

The Supreme Court has developed a number of principles and analytical guidelines for evaluating conduct under Section 2 over the past several decades, but the most directly pertinent to the "evasion of a pricing constraint" theory of monopolization comes from *NYNEX*.[85] In *NYNEX*, the conduct at issue was "a deception worked upon the regulatory agency that prevented the agency from controlling New York Telephone's exercise of its monopoly power." The Court conceded that the evasion of the rate regulation constraint "hurt consumers." But the Court rejected the view that the defendant's conduct violated Section 2 because it did not harm the competitive process.[86] Specifically, the Court distinguished the attempt to evade the pricing constraint from the unlawful acquisition or exercise of monopoly power by pointing out that "consumer injury flowed … from the exercise of market power that is lawfully in the hands of a monopolist."[87]

This is a fatal problem for the "evasion of a pricing constraint" monopolization theory of patent holdup based on renegotiation or modification of ex ante contractual commitments made in good faith and in the absence deception. This theory relies on a consumer welfare conception of the exclusionary conduct standard which the Court has considered and rejected. The Court has similarly rejected the view that any conduct by a monopolist that reduces consumer welfare constitutes exclusionary conduct on the grounds that such a decision rule would result in unacceptable levels of error and administrative costs in *Trinko*, *Weyerhaeuser*, and *Brooke Group*.[88]

Consider the application of *NYNEX* to the theory of patent holdup without deception in *N-Data*. The Commission's theory of antitrust liability was not that N-Data acquired monopoly power when the IEEE adopted its Ethernet technology into its standard, as the contractual commitment entered into between N-Data and IEEE constrained N-Data's ability to raise prices. Rather, the theory was that N-Data unlawfully acquired monopoly power at the moment that it violated this contractual pricing constraint with its attempt to renegotiate those prior $1,000 licensing commitments. The proponents of this theory cannot

[85] NYNEX Corp. v. Discon, Inc., 525 U.S. 128 (1998).
[86] Id. at 135-37.
[87] Id. at 129.
[88] *Trinko*, 540 U.S. at 414; *Weyerhaeuser*, 127 S. Ct. 1069, 1078 (2007); *Brooke Group*, 509 U.S. at 223.

argue that monopoly power was acquired at the time the technology was incorporated into the standard because *Trinko* clearly allows the setting of monopoly prices after monopoly power was lawfully obtained. The alternative is to rely on the evasion of pricing constraint theory which asserts that the exclusionary conduct and acquisition of monopoly power occur at the moment N-Data attempts to evade its licensing commitments.[89] However, the Court's reasoning in *NYNEX* indicates that it would have concluded that N-Data lawfully obtained monopoly power at the time its technology was included in the standard and would characterize the renegotiation as the *exercise* of that power. Indeed, *NYNEX* concludes that regulatory fraud by a monopolist, conduct far less economically meritorious than breach of contract, which can be efficient, is not exclusionary even when it generates actual harm to consumers. In sum, there should be little doubt that the Court's decision in *NYNEX* compels the conclusion that ex post opportunism without deception is not exclusionary conduct and not actionable under Section 2.

The rejection of this theory should not be particularly surprising. It is an application of the well-known and oft-cited language in *Trinko* that monopoly pricing "is not only unlawful; it is an important element of the free-market system."[90] This statement applied *a fortori* in the patent context, where the creation of quasi rents that result from such prices serve to give incentives for invention. It is also consistent with the Supreme Court's repeated teaching that antitrust decision rules must be designed in a manner that maximizes consumer welfare, interpreted broadly to include administrative and error costs. While many economists and legal scholars favor a "consumer welfare" test approach to Section 2 liability,[91] critics have noted that it is inconsistent with Section 2

[89] One could conjure up a more nuanced version of this theory in an attempt to circumvent *NYNEX* and its progeny. For example, one could argue that the patent holder's single course of conduct from the time the technology was adopted until the time of renegotiation is the actionable exclusionary conduct. See *Continental Ore Co. v. Union Carbide & Carbon Corp*., 370 U.S. 690, 699 (1962). The only advantage of this "course of conduct" theory would be to recast the ex post renegotiation as somehow connected to the acquisition of monopoly power. In addition to factual problems inherent in connecting two events separated by time, seven years in *N-Data*, this would not be sufficient to transform renegotiation or breach into exclusionary conduct because *NYNEX* still rejects the view that consumer harm is a sufficient condition for such a finding. A simpler solution is to allege that the patent holder intended at the time ex ante licensing commitments were made to later breach them. But this allegation also invokes intentional misrepresentation and deception and not commitments made in good faith.

[90] *Trinko*, 540 U.S. at __.

[91] See, e.g., Steven C. Salop, *Exclusionary Conduct, Effect on Consumers, and the Flawed Profit-Sacrifice Standard*, 73 ANTITRUST L.J. 311 (2006).

jurisprudence which have emphasized the role of administrative and error costs in crafting liability rules.[92] Further, it should be noted that the Supreme Court noted that this style of analysis which admits some instances of consumer harm that does not violate Section 2 is not inconsistent with an economic approach. The limits on Section 2 carved out by *NYNEX, Brooke Group, Weyerhaeuser* and *Trinko* are not trivial nor can they be dismissed as legal technicalities devoid of economic content. To the contrary, the Court has been explicit in its recognition that these rules foster consumer welfare by allowing decision rules that consider both the competitive effects analysis of the business conduct at issue and dynamic consumer welfare considerations such as the chilling of pro-competitive behavior and the burden of administrative costs.

The D.C. Circuit's analysis in *Rambus* also supports this view. While Rambus involved allegations of patent holdup with deception rather than mere breach of the FRAND commitment, the Court was mindful of the Supreme Court's teachings in *NYNEX*. The *Rambus* decision takes on precisely the issue of defining exclusionary conduct under Section 2 in the context of patent holdup, noting that the Commission's theory that Rambus's conduct was exclusionary required the Commission to show either that "Rambus's more complete disclosure would have caused JEDEC to adopt a different standard," or alternatively, that "JEDEC's obtaining assurances from Rambus of FRAND licensing terms, such conduct, alone, could be said to harm competition." The D.C. Circuit found the evidence insufficient to determine whether JEDEC would have adopted an alternative standard and therefore dedicated the bulk of its analysis to the scope of the exclusionary conduct requirement.

The D.C. Circuit relies heavily on *NYNEX* in its analysis and emphasizes its relevance to the patent holdup context. Specifically, the D.C. Circuit notes that, as discussed above, unanimous Court recognized that despite the fact that the defendant's conduct resulted in higher prices for consumers, it was outside the scope of Section 2 because the conduct flowed from already lawfully existing monopoly power. Perhaps most significantly to the present problem, the Court distinguishes the Third Circuit's exclusionary conduct analysis in *Broadcom*:

[92] See, e.g. Gregory J. Werden*, Identifying Exclusionary Conduct Under Section 2: The "No Economic Sense" Test*, 73 ANTITRUST L.J. 413, 428 ("as interpreted by the Supreme Court, Section 2 simply does not permit" application of the consumer welfare approach); Mark S. Popofsky, Defining Exclusionary Conduct: Section 2, Rule of reason, and the Unifying Principle Underlying Antitrust Rules, 73 ANTITRUST L.J. 435 (consumer welfare approach "cannot be reconciled with certain Section 2 rules").

> To the extent that the ruling (which simply reversed a grant of dismissal) rested on the argument that deceit lured the SSO away from a proprietary technology, it cannot help the Commission in view of its inability to find that Rambus's behavior caused JEDEC's choice; to the extent that it may have rested on a supposition that there is a cognizable violation of the Sherman Act when a lawful monopolist's deceit has the effect of raising prices (without an effect on the competitive structure), it conflicts with *NYNEX*.

The D.C. Circuit also recognizes that the possibility of holdup resulting in higher prices is not sufficient to escape *NYNEX*, where the Court also assumed harm to consumers, explicitly rejecting the Commission's contention that "any conduct that permits a monopolist to avoid constraints on the exercise of that power must be anticompetitive" on the grounds that "as in NYNEX, an otherwise lawful monopolist's end-run around price constraints, even when deceptive or fraudulent, does not alone present a harm to competition in the monopolized market."

The D.C. Circuit's analysis in *Rambus*, like *NYNEX*, appears to require rejection of antitrust claims based upon patent holdup which increases royalties so long as the patent holder was included in standard without deception or other exclusionary conduct. In short, *Rambus* appears to significantly undermine the Commission's hopes of extending the *N-Data* line of cases.[93]

To summarize, we have thus far argued that theories of patent holdup involving the mere breach of a FRAND commitment made in good faith, and without deception, are fatally flawed in so far as that such conduct cannot satisfy the exclusionary conduct requirement of Section 2. While *Rambus* renders more difficult deception and misrepresentation based theories of patent holdup, it is also clear that current antitrust jurisprudence allows for the possibility that deception in the standard setting context might constitute exclusionary conduct. Analyzing the potential for antitrust theories to govern patent holdup, and the weaknesses of those theories, however, is just one element of our "comparative advantage" analytical approach. Our argument is incomplete without a demonstration that marginal benefit of applying antitrust laws to patent holdup

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[93] The D.C. Circuit also undermines the application of Section 5 to patent holdup theories more generally, as it warned the Commission against applying a broad Section 5 theory on remand by noting that it had "serious concerns about [the] strength of the evidence relied on to support some of the Commission's crucial findings regarding the scope of JEDEC's patent disclosure policies and Rambus's alleged violations of those policies."

is either zero or, when one accounts for potential error costs, negative. This type of analysis requires a more detailed examination of the type invited by the Court in *Credit Suisse*, of the advantages of alternative regulatory institutions such as federal and state law. In Sections IV we focus on the federal patent law alternative to antitrust, which is analogous to the situation in *Credit Suisse* where the Supreme Court placed limits on antitrust in light of federal securities regulation. In Section V we argue that an extension of the principles articulated in *Credit Suisse* would also justify reliance on state law alternatives to antitrust enforcement, such as contract and tort law.

IV. THE LIMITS OF ANTITRUST: FEDERAL PATENT LAW AS AN ALTERNATIVE TO REGULATE PATENT HOLDUP

A. THE "CONFLICT" BETWEEN ANTITRUST AND PATENT LAW WITH RESPECT TO PATENT HOLDUP

The issue of SSO holdup also implicates conflicts between the federal antitrust laws and the federal patent laws. The patent statute explicitly controls the issues of patentability through the regulation of patentable subject matter,[94] and the requirements of utility,[95] novelty,[96] and non-obviousness.[97] It also regulates the nature and timing of disclosure of patents and patent applications.[98] Moreover, patents are examined for patentability, a task carried out by the Federal Patent and Trademark office. There is also a Board of Patent Appeals and Interferences, as well as a specialized Federal Court of Appeals. And there are also the equitable doctrines to control opportunism and anticompetitive behavior within that patent statute. These include the doctrine of laches, the doctrine of equitable estoppel, and the misuse doctrine. The substantive argument regarding the comparative advantage of patent law over antitrust is presented below in Part B of this Section. In this part, we focus on the preliminary question of whether the patent laws should impliedly or explicitly preempt the antitrust laws.[99]

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[94] 35 U.S.C. § 101.
[95] 35 U.S.C. § 101, 112.
[96] 35 U.S.C. § 102.
[97] 35 U.S.C. § 103.
[98] 35 U.S.C. § 122 (confidentiality and publication)., 35 U.S.C. § 102(b) (on sale bar).
[99] The Court has recent held that federal intellectual property laws can preempt the application of other federal laws. See Dastar Corp. v. Twentieth Century Fox Film Corp., 539 U.S. 23 (2003).

To the extent one focuses upon the four factor test set out in *Gordon*, the patent laws seem an ideal candidate for implied preemption of application of the antitrust laws to SSO patent hold up issues. There is certainly active government supervision and enforcement with respect to the examination and disclosure of patents and their claims. In addition, the issues central to SSO hold-up, including the enforcement, licensing, and disclosure obligations of the patentee, lie squarely within the area patent law seeks to regulate. Moreover, under the Court's analysis in *Credit Suisse*, the third factor also seems to be present, as commentators have noted both the apparent conflicts between the goals of patent and antitrust law,[100] and also how the potential for error can result in antitrust liability interfering with the goals of patent law in practice.[101] Thus, a good case can be made that this setting presents "a good candidate for implication of antitrust immunity, to avoid the real possibility of judgments conflicting with the agency's regulatory scheme 'that might be voiced by courts exercising jurisdiction under the antitrust laws.'"[102]

Moreover, the cases involving SSO patent holdup illustrate the existence of real conflicts between patent and antitrust law. The DC Circuit's opinion suggests that the FTC's decision in *Rambus* appears to be based on a general duty to disclose that was broader than the requirements explicitly set out by the SSO. Specifically, the FTC's finding that Rambus violated the SSO's disclosure policy requires extending the duty to disclose beyond the scope of the SSO's written policy. Specifically, the SSO's written policy required the disclosure of patents

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[100] See, e.g., Ward S. Bowman, *Patent and Antitrust Law: A Legal and Economic Appraisal,* (1973); Herbert H. Hovenkamp, Mark D Janis, & Mark A. Lemley, *IP and Antitrust: An Analysis of Antitrust Principles Applied to Intellectual Property Law,* Aspen (2007) at 1-10 (noting apparent conflict, and also noting that conflict is illusory once simplifying assumptions are dropped).

[101] See, e.g., Michelle M. Burtis & Bruce Kobayashi, *Intellectual Property and Antitrust Limitations on Contract*, in *Dynamic Competition and Public Policy: Technology, Innovation and Antitrus*t Issues, J. Ellig, ed. Cambridge University Press (2001), pp.229-263 (discussing examples); Hovenkamp, et al., *supra* note _, at 1-13 (noting tension in means), Bowman, *supra* note _ (arguing that while both laws have complementary goals in theory, they often do not in practice).

[102] Trinko, *supra* note _ (citing United States v. National Assn. of Securities Dealers, Inc., supra, at 734, and discussing the applicability of this analysis to the telecommunications laws.) Section 211 of Title 35 contains an antitrust savings clause. However, the clause applied only to the chapter dealing with patent rights in inventions made with federal assistance. For analysis of the effect of an antitrust savings clause, see *Trinko, supra* note _ at 406-7 (noting clause in 1996 Telecommunications Act stating that "nothing in this Act or the amendments made by this Act shall be construed to modify, impair, or supersede the applicability of any of the antitrust laws," and noting the savings clause "does not create new claims that go beyond existing antitrust standards; that would be equally inconsistent with the saving clause's mandate that nothing in the Act "modify, impair, or supersede the applicability" of the antitrust laws."

and pending patents relevant to the standard, while the FTC's findings impose an implied duty to also disclose pending applications as well as planned amendments to pending applications. As others have noted, many of the issues in *Rambus* were generated by the SSO's vague and ill defined disclosure requirements.[103] However, the failure of the SSO to adequately specify or broaden its disclosure requirements is not an invitation to generate a broad implied duty to disclose under the antitrust laws.

Indeed, the creation of such a duty would be inconsistent with existing antitrust law, and would create a conflict with the intellectual property laws. There is no general duty or obligation to predisclose information related to innovation.[104] Such a requirement would be hard to reconcile with the inventor's rights under the intellectual property laws, including the disclosure requirements under the patent laws, and also the right to keep secrets under state trade secret law.[105] One could, in theory, also argue that a firm may be required to share an existing technology that is essential to the operation of a standard under an "essential facilities" doctrine. However, the Court in *Trinko* stated that they "had never recognized" such an essential facilities doctrine, and apparently has limited the use of this doctrine.[106]

This is not to imply that the patent laws cannot be improved. For example, some have argued for earlier and uniform disclosure of patent applications.[107] Lemley suggests numerous patent reforms to lessen the ability of patent holder to engage in ex-post opportunism, including limitations on continuation practice to make redrafting patent claims to cover standards more difficult, limiting willfulness and treble damages, limiting the application of injunctive relief, and setting out damages rules in royalty-stacking cases.[108] Moreover, consistent with the thesis of this paper, he rejects expanded use of the antitrust laws and indeed argues that the role for antitrust be curtailed so that

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[103] The SSO's disclosure policies were "not a model of clarity." See Rambus Inc. v. Infineon Technologies AG, 318 F.3d 1081, 1102 (2003). Indeed the modification and clarification of SSO IP disclosure and licensing rules may be one of the most important solutions to the patent holdup problem. *See* Lemley, *supra* note _.

[104] Berkey Photo v. Eastman Kodak, 603 F.2d 263 (2d. Cir1979).

[105] Hovenkamp, et al, *supra* note _ at 12-35.

[106] Trinko, 540 U.S. at 410-11, Herbert H. Hovenkamp, *Standards Ownership and Competition Policy*, 48 B. C. L. REV. 87 (2007).

[107] *See* NAS Report.

[108] Lemley, *supra* note _ at _.

SSOs can find contractual solutions to prevent hold up, including the negotiation of ex-ante FRAND commitments.

B. EQUITTABLE ESTOPPEL PROVIDES A SOLUTION TO PATENT HOLD UP WITH DECEPTION

An additional argument against using antitrust law to address the hold up with deception problem is that an arguably superior solution to this problem current exists within patent law. Again, this suggests that the marginal benefits of applying the antitrust laws, if any, are limited by an existing alternative legal mechanism that would address such problems. Specifically, under the doctrine of equitable estoppel, the patentee that has engaged in deception, including failing to disclose actual or pending patents in violation of SSO disclosure standards, can be barred from obtaining relief from infringement.

The general contours of the equitable estoppel doctrine were set out in *A. C. Aukerman Co. v. R. L. Chaides Construction Co*.[109] In this case, the Federal Circuit, sitting en banc, set out the following factual elements as essential to a claim of equitable estoppel: [1] The actor, who usually must have knowledge of the true facts, communicates something in a misleading way, either by words, conduct, or silence. [2] The other relies upon that communication. [3] And the other would be harmed materially if the actor is later permitted to assert any claim inconsistent with his earlier conduct.[110]

The doctrine has been applied to cases of patent hold up where the patentee engaged in deception.[111] For example, courts have applied equitable estoppel to prevent patentees from enforcing patents in which they misled or were silent regarding patents covering standards adopted by SSOs.[112] The remedy in these cases, the inability to enforce the patent, would adequately cure the potential hold up based on deception problem. Moreover, use of this doctrine and remedy would be limited to cases where there is both a misleading statement and reliance on the misleading statement. The contours of any duty to disclose would be defined and evaluated by the disclosures required by the SSO, and not by a generalized duty to disclose based on the patentee's superior

[109] A. C. Aukerman Co. v. R. L. Chaides Construction Co, 22 U.S.P.Q. 2d 1321 (1992).
[110] *Id.* at 1335-6
[111] *See* Herbert H. Hovenkamp, *Standards Ownership and Competition Policy,* 48 B. C. L. Rev. 87 (2007).
[112] See, e.g., Wang Labs v. Mitsubishi Electronics, 103 F.3d 1571, 1578-9 (1997) (finding that implied license existed under doctrine of legal estoppel).

knowledge. Such an approach would allow SSOs to craft such requirements to maintain incentives for ex-ante disclosure, yet not suppress incentive for improving on the current standard. Further, this approach would not apply to cases such as *N-Data*, where deception is not involved, and thus would not generate the risk of chilling good faith breaches of FRAND commitments.[113] Nor would use of this doctrine implicate extending or modifying current antitrust law beyond it limits. Antitrust law, therefore, would not have to bend to cover situations where proof of actual exclusion or harm to competition is absent. For these reasons, Hovenkamp suggests that use of equitable estoppel or contract law would be more appropriate than antitrust law for addressing such holdup with deception problems.[114]

V. MORE LIMITS ON ANTITRUST: STATE LAW

Thus far, our claim for substantive limits on application of antitrust laws to patent holdup have relied on the strict conditions set out by the Court in *Credit Suisse* in evaluating whether federal securities regulation warranted an implied repeal of the antitrust laws. However, we argue that the principles articulated in *Credit Suisse* in the context of an implied repeal of antitrust in favor of alternative federal law also support a marginal analysis of the benefits of antitrust enforcement relative to *state law* alternatives.

Our position is not without support in the Supreme Court's antitrust jurisprudence. In *NYNEX*, the Court notes its concern that attaching antitrust liability to all forms of business conduct "would transform cases involving business behavior that is improper for various reasons, say cases involving nepotism or personal pique, into treble-damages antitrust cases."[115] In making its case that the scope of antitrust liability should be a function of these error cost concerns, the Court went on to note the importance of alternative regulatory structures. In doing so, the Court concluded that "other laws, for example, 'unfair competition' laws, business tort laws, or regulatory laws, provide remedies for various "competitive practices thought to be offensive to proper standards of business morality."[116] For our purposes, the critical point is that the Court's embrace of the principle the limits on antitrust might be appropriate

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[113] See, e.g., Symbol Technologies, Inc. v. Proxim, Inc., No. Civ. 01-801-SLR, 2004 WL 1770290 (D. Del. July 28, 2004).
[114] Hovenkamp, *supra* note _ at _,
[115] Nynex, supra note __, at __.
[116] Id. (citing 3 P. Areeda & H. Hovenkamp, Antitrust Law ¶651d, p. 78 (1996)).

under conditions of potential conflict and substantial error costs does not appear to be limited to federal law.

Two obvious candidates for state regulation of patent holdup are state contract and tort law. As we did with respect to federal patent law, we examine the comparative advantage of regulating the patent holdup problem through these state law alternatives and without antitrust.

A. THE COMPARATIVE ADVANTAGE OF CONTRACT LAW IN REGULATING BREACH OF FRAND COMMITMENTS

We first examine the case for use of contract rules as a mechanism to regulate and deter opportunism. In many cases, explicit contracting or use of alternative forms of organization and other forms of self help will be the least cost method of avoiding holdup and litigation. These include explicit contract terms, including ex-ante term adjustment provisions, use of reputational bonding mechanisms, and vertical integration.[117]

However, in other cases, their use can be prohibitively expensive or otherwise ineffective. For example, use of direct and explicit contracting to anticipate all possible forms of opportunism can increase the costs of contracting and decrease the contracting parties' flexibility. Reputational bonding mechanisms, which can be an efficient way to prevent opportunistic behavior when the contracting parties anticipate significant future interaction, will not be effective in the absence of repeated interaction. Ex-ante term adjustments and vertical integration can be inferior substitutes. The former can result in sub-optimal incentives, and the latter form of organization can be costly in the face of organizational diseconomies of scale, or when a firm is forced to take on activities in which it does not have a comparative advantage.

When self help is very costly or otherwise unfeasible, legal rules that respond to opportunism by voiding contracts or regulating the terms of contracts through the enforcement of implicit terms can be efficient. By voiding contracts or contract modifications whose terms reflect opportunistic behavior, the benefits from investing in creation of such opportunistic behavior is reduced. Moreover,

[117] See, e.g. Benjamin Klein, Robert G. Crawford, and Armen A. Alchian, *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 21 J. L. & ECON. 297 (1978); Benjamin Klein and Keith Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 J. POL. ECON. 615 (1981).

potential victims of opportunism can economize on investments in avoiding opportunism, and the threat to deterring potentially valuable contracts will be minimized. Contract law also matters because contracting parties largely accept it as given and do not "opt-out" of all inefficient doctrine, thereby saving significant resource costs by relying on what amounts to an exogenously imposed and impartial set of terms. Because the law matters, efficient contract doctrine sets rules that allow courts to identify terms parties would have adopted when contractual arrangements breakdown because some unspecified contingency occurs. In other words, efficient contract doctrine should set rules that allow the court to interpret an incomplete contract to reflect the terms the parties would have adopted ex ante had they contracted over those contingencies, and voiding contracts or contract modifications involving ex post opportunism.

The courts' ability to actually increase welfare by enforcing implicit contracts to control opportunism will depend upon the accuracy through which they can distinguish between opportunistic hold up by the patentee and the lawful and the lawful and desirable exercise of his intellectual property rights. Because of the complexity of the task and the subtleties involving in discerning whether opportunism has occurred, courts may find it difficult to discern reliably between opportunism and the legitimate exercise of the patent holder's property right. If these error rates are high, courts attempts to enforce implicit terms could, in theory, decrease welfare. High error rates will make it difficult to discern the rule that applies to their transaction, and can result in more litigation.

The issue of distinguishing opportunism from efficient adjustment of a relational contract in the presence of asset specificity is one that is well known to the contract literature. It is also precisely the issue raised by the case of ex post opportunism against SSOs, and so it is relatively odd that the discussion of patent holdup in the antitrust literature, and cases like *N-Data*, do not attempt to distinguish opportunism from efficient modification. From our perspective, both *Credit Suisse* and the economic principles of federalism provoke the following question: does contract law outperform antitrust when it comes to the successfully identification and regulation of ex post opportunism associated with patent holdup? We argue that contract law is better suited for this task in this setting and more likely to reduce transaction costs and welfare losses.[118]

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[118] On contract law and opportunism generally, see Timothy Muris, *Opportunism and the Law of Contracts*, 65 MINN. L. REV. 821 (1981); Charles J. Goetz and Robert E. Scott, *Principles of Relational Contracts*, 67 VA. L. REV. 1089 (1981). For an analysis of the contractual issues

Consider a patentee's attempt to holdup SSO members by renegotiating a FRAND commitment made in good faith and in without any deceptive conduct. The most obvious contractual solution is that SSO members may bring a claim for breach of contract against the patentee to enforce the commitment. The first question that must be asked is how courts are to identify opportunistic behavior as opposed to good faith modifications of contract terms or efficient breach. Contract law seeks to identify and enforce the intent of the transacting parties and includes substantive doctrines and rules of interpretation designed to carry out this task. For example, both the Uniform Commercial Code and Restatement (2nd) of Contracts require that the modification be made in "good faith" by the transacting parties, which would include factors such as losses suffered by the parties under the current terms and market changes since formation of the original agreement.[119] These doctrines can, in principle, be applied to minimize hold-up behavior by identifying attempts to hold-up a transacting party and preventing parties from using the court to facilitate a hold-up. Muris argues that "when viewed through the lens of opportunism, many aspects of the law previously regarded as diverse in nature should be recognized as containing a common unifying principle" and that "judges can, and often do, act to lower important costs of transacting."[120]

Consider Uniform Commercial Code (UCC) 2-209,[121] which governs modifications of contracts for the sale of goods. The distinguishing feature of UCC 2-209 is that it eliminates the requirement of consideration in favor of enforcing all modifications which satisfy the duty of good faith imposed by the Code. UCC 2-209's good faith standard allows contract law, in principle, to distinguish between mutually beneficial modifications and holdup in the form of post-contractual opportunism. The comments to UCC 2-209 are instructive with respect to what types of obligations satisfy this standard, mentioning specifically ''a market shift which makes performance come to involve a loss.''[122] The

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associated with SSO IP rules, see Mark A. Lemley, *Intellectual Property Rights and Standard Setting Organizations*, 90 CAL. L. REV. 1889 (2002).

119 Restatement (2nd) of Contracts §§ 89, 175, 176; UCC § 2-209 (cmt. 2). Contract law also includes a covenant of good faith, implied in all contracts, which prevents one party from taking actions that deprive the other party of its legitimate expectations under the agreement. Restatement (2nd) of Contracts § 205; Uniform Commercial Code, 1-203, 2-103 (1) (b). Photovest Corp. v. Fotomat Corp., 606 F.2d 704, 708 (7th Cir. 1979).

120 Muris, supra note __, at __.

121 U.C.C. § 2-209(1)

122 See also Restatement (2nd) of Contracts § 89D (a) (modifications are valid if "fair and equitable in view of circumstances not anticipated by the parties when the contract was made" and

common law takes a similar approach, distinguishing those modifications motivated by unanticipated changes in market circumstances from opportunism. This flexible inquiry enables judges to, as Muris demonstrates, minimize holdup behavior and lower transaction costs.[123]

To be sure, application of contract law is sure to result in some errors in identifying holdup. However, the substantive superiority of contract law is clear. The most obvious advantage is that where antitrust law would find a violation in any modification of a FRAND commitment, with the remedial consequences in private and state follow-on litigation of such a finding, contract law allows for the economic reality that long-term relationships frequently involve modification over time. Further, the error rate under contract law is likely to be much lower than antitrust since substantive antitrust doctrine contains nothing that would allow it to engage in the flexible inquiry invited by contract law. In addition, cases like *N-Data* suggest that antitrust enforcers have little interest immunizing good faith modifications of SSO commitments from antitrust liability.

Not only is the error rate likely to be significantly higher in antitrust law than under contract law, but the social welfare losses associated with errors are likely to be much larger when antitrust liability is involved. If this were not the case, one might argue that overlapping contract and antitrust liability are appropriate. However, the case for the comparative advantage of contract law is made stronger because antitrust liability threatens to produce social welfare losses in this setting. There are several reasons for this.

First, the conventional argument that breach of contract does not have any efficiency justification and so amounts to "cheap exclusion" is incomplete. Modifications of long-term agreements where asset specific investments have been made frequently require flexible ex post adjustments by the parties to maximize efficiency. Modification of SSO commitments can be efficient. Further, unlike socially wasteful conduct typically raised as examples of "cheap exclusion," such as setting fire to a rival's plant, breach of contract may be efficient in the sense that it results in greater social welfare.

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requiring an "objectively demonstrable reason for seeking" it). See generally Muris, supra note __, on the operation of UCC 2-209 and Restatement (2nd) 89 in practice to distinguish opportunism from good faith modification motivated by unanticipated changes in market conditions.

123 Muris, *supra* note _ at _.

Second, because modification of breach of FRAND commitments might increase social welfare in some circumstances, efficient conduct might be over-deterred as a result of antitrust liability. Whereas the conventional argument in favor of treble damages is that super-compensatory damages are necessary to compensate for a low probability of detection of the violation, that argument does not make sense in the case of holdup. "Holdup," as the definition suggests, requires the patent holder to announce to the SSO that it is violating the prior terms and "holding up" its members. The likelihood that this conduct would go unnoticed by the SSO members, whether the holdup is successful or otherwise, approximates zero. The case of treble damages for this sort of "open and notorious" conduct is weak. The concerns with over-deterrence are even greater when one considers follow-on private litigation and state remedies. To the contrary, the payment of expectation damages under contract law is not likely to generate these over-deterrence concerns.

Third, to the extent that one accepts the arguments, based on the analysis in *NYNEX* and *Rambus*, that breach of a FRAND commitment made in good faith involves an attempt by a lawful monopolist to raise prices, the Supreme Court has consistently made clear that the Sherman Act does not condemn high prices alone. Rather, as the Supreme Court notes in *Trinko*, the returns to the lawful monopolist are related to the pro-competitive incentive to innovate:

> The opportunity to charge monopoly prices—at least for a short period—is what attracts "business acumen" in the first place; it induces risk taking that produces innovation and economic growth. To safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful unless it is accompanied by an element of anticompetitive conduct.

In sum, antitrust enforcement creates the potential for significant error costs, increased transactions costs, and reduced social welfare.

While substantive contract law and contact remedies are better suited to detect patent holdup and distinguish it from good faith modification or efficient breach, it would do little good if there were no appropriate parties to enforce FRAND commitments. Indeed, the debate in the antitrust community has largely ignored the superiority of substantive contract doctrine in favor of an analysis that narrowly focuses on whether a sufficient number of parties could enforce FRAND commitments in a breach of contract action. Commentators have pointed to the fact that standing would be limited to SSO members as a weakness of the contractual approach to regulating patent holdup because losses to non-members and, more importantly, consumers would not be actionable.[124] We view this standing critique as incomplete and unpersuasive.

It is incomplete because the discussion largely ignores the question of how much enforcement would be optimal from a social welfare perspective. It is certainly correct as a matter of law that non-SSO members lack standing to enforce the FRAND commitment. Commentators typically argue that contract enforcement is insufficient because injured consumers do not have standing, and thus antitrust enforcement is justified. These arguments typically assume both that: (1) all ex post modifications of FRAND commitments are inefficient; and (2) treble damages are required for optimal deterrence of patent holdup. As we've discussed above, both assumptions are likely incorrect. Some modifications or breaches of FRAND commitments are efficient, and therefore a rule that deters such conduct is likely to result in social welfare losses. Further, because the probability of detecting patent holdup is nearly certain, the case of requiring treble damages and antitrust remedies is weak in this setting. Contract law damages are less likely to over-deter efficient conduct.[125]

Finally, a number of alternative common law doctrines might allow some recovery for non-SSO members. For example, third parties might be able to recover reliance interests under the doctrine of promissory estoppel where the third party knew of the patent holders promise to the SSO and the patent holder had reason to know that the third party would have expected to benefit from the promise.[126] In addition, as discussed above, patent law might grant an "implied license" to third parties on the grounds that the third parties might reasonably assume that they are entitled to use the standard at the FRAND royalty rate.[127]

To be sure, judicial application of these alternative state and federal doctrines is fraught with opportunities for error in distinguish good faith

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[124] Non-SSO members presumably lack standing to bring this claim and are not unlikely to be considered third party intended beneficiaries. Restatement (2nd) Contracts § 302; Mark A. Lemley, *Intellectual Property Rights and Standard Setting Organizations*, 90 CAL. L. REV. 1889 (2002).

[125] The conventional damages measure would include what the party injured by the breach expected to gain from performance under the contract.

[126] Lemley, supra note __, at __. Restatement (2nd) of Contracts § 90.

[127] See Section IV.C, *infra* (discussing equitable estoppel); Lemley, supra note __ , at __ (discussing "implied license").

renegotiation from bad faith hold up, interpreting SSO terms, and identifying breach of those terms where appropriate. Our claim is not that contract law handles these claims perfectly. Indeed, it is transacting parties' ability to contract around most contract default rules that mitigates these error costs where they are significant. Rather, we note that the case for federal antitrust regulation depends on the notion that the welfare losses associated with patent holdup are sufficiently great after accounting for the mitigation of those harms through state law regimes. In our view, the substantive superiority of contract law undermines any potential justification for the application of the heavy and inflexible machinery of antitrust law in the patent holdup context.

The substantive superiority of contract law also provides the basis for rejecting the possibility that the Commission should incorporate the flexible standards of UCC 2-209 into antitrust law, exclusively through the application of Section 5 of the FTC Act and without Section 2 of the Sherman Act, in order to improve its analysis of patent holdup to account for the possibility of good faith modification. While such a development would provide a marginal improvement over the status quo, largely because the threat of private follow-on actions and treble damages would be minimized, any benefits from such a change would be superficial and would come at a significant cost. First, as discussed, it should be noted that *N*-Data suggests that the Commission is not interested in distinguishing good faith modification from opportunism. Rather, N-Data appears to adopt the view that any deviation from an ex ante FRAND commitment amounts to a violation of the antitrust laws. Second, *N-Data* also suggests that the Commission might be more than willing to apply a monopolization theory under Section 2 in a case with similar facts to *N-Data*, involving only the renegotiation of ex ante FRAND commitments made in good faith. The language in the N-Data majority to this effect gives us reason to treat with skepticism the argument that the Commission is likely to limit itself to application of Section 5. Finally, and most importantly from our economics of federalism perspective, is such a policy change by the Commission would amount to federalizing contract law and would eliminate any benefits from jurisdictional competition between the states on substantive doctrine.

Thus, while it is clear that use of such rules to void or modify contract terms can usefully reduce opportunism, use of such devices must be limited to avoid expropriation of the patent holder, and to maintain incentives for the contracting parties to control these problems ex-ante through lower cost, alternative mechanisms. These conflicting effects suggest appropriate limits be places on legal intervention aimed at addressing contractual opportunism.

Under contract law, the costs generated by courts' errors in distinguishing between opportunistic and legitimate contracts are mitigated through the use of default rather than mandatory rules. Default contract rules allow the parties to opt out of undesirable or uncertain litigation outcomes by explicitly contracting out of the default rule ex-ante. If courts choose inefficient default rules, the benefits of implied contract rules will be minimized (i.e., such inefficient rules will result in a high rate of contracting around the rule, and as a result will apply to few transactions, and have little economizing effect of the cost of contracting). However, if courts enforce contracts that explicitly contract around these inefficient default rules, the cost of error will also be small, as the parties explicit terms, and not the erroneous default rule, will govern the contractual relationship. Thus, the fact that contract rules are default rules that can be contracted around by the parties and are not mandatory rules that cannot be waived serves as an important way parties limit the application of contract rules.

This analysis can be applied to examine the use of antitrust law to regulate opportunism by patentees. If mandatory contract rules are not appropriate to control contractual opportunism, the use of antitrust law or patent misuse to control opportunism is not appropriate for the same reasons. First, in contrast to default contract rules, antitrust laws, and also the law of patent misuse, cannot be waived or otherwise contracted around by the parties. Thus, the mandatory nature of these rules does not allow parties to avoid the inappropriate or uncertain application of these rules when efficient to do so ex-ante. Moreover, antitrust laws feature remedies that include treble damages and fee shifting for prevailing plaintiffs, while contract remedies are limited, in large part to prevent the enforcement of inefficient contracts. Thus, application of the antitrust laws lacks two of the primary safety valves that exist in contract law to control the error costs of erroneous or uncertain enforcement.

Moreover, the erroneous application of mandatory antitrust rules can broadly interfere with the parties' attempts to mitigate opportunism by using explicit contract terms. For example, an antitrust rule that failed to distinguish, for example, between opportunistic and non opportunistic increases in price will discourage firms from entering into contractual commitments that may be efficient to breach or rescind later. Under contract law, parties can explicitly contract for a fixed or spot price. Moreover a breach results in contract damages, which are set so that efficient breach is not deterred. Under the antitrust laws, parties are not able to contract around the rule, and damages, including treble damages are set to deter. [128]

We argue that, for these reasons, the courts have limited the ability to challenge the enforcement of patent owners for enforcing their patents. For example, the ability to challenge attempts to enforce patents through litigation as antitrust violation is limited to "objectively baseless" claims under the sham exception to the *Noerr-Pennington* doctrine, [129] and to attempts to enforce patents procured by fraud on the patent office under *Walker Process*. [130] Similar considerations underlie the recognition that patentees do not have a duty to deal, and the Court's reluctance to regulate prices or licensing terms through the antitrust laws. These limitations recognize the uncertainty and error costs that would be generated if antitrust lawsuits were not so constrained. In contrast, an antitrust rule that attempted to define opportunism based on the evasion of explicit or implicit contractual price constraints as an antitrust offense would not respect these limits, and would likely intrude on the contracting process and the patentee's intellectual property rights.

B. TORT LAW AS AN ALTERNATIVE

While *Rambus* cites *Conwood* favorably as an example of deception rising to the level of exclusionary conduct under Section 2, *Conwood* actually exemplifies some of the pitfalls of antitrust enforcement when applied to deceptive or tortious conduct. Rather than engaging the record to determine whether there was sufficient foreclosure, the Sixth Circuit assumed that UST's aggregate "bad" conduct was sufficiently widespread to create competitive injury. While the record supports Conwood's allegations that UST engaged in at least some intentionally tortious conduct, there is very little evidence to support an inference of harm to competition.[131] Specifically, the Sixth Circuit's failure to distinguish authorized from unauthorized product removal, or systematic product destruction from

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[128] For analyses of optimal antitrust damages, see William M. Landes, *Optimal Sanctions for Antitrust Violations*, 50 U. Chi. L. Rev. 652 (1983), (adopting optimal deterrence model); Herbert H. Hovenkamp, *Antitrust's Protected Classes*, 88 Mich. L. Rev. 1 (1989), (arguing for a broader definition of compensable antitrust claims); William H. Page, *Optimal Antitrust Penalties and Competitors' Injury*, 88 Mich. L. Rev. 2151 (1990) (criticizing broader approach).

[129] Professional Real Estate Investors, Inc. v. Columbia Pictures Industries, 508 U.S. 49 (1993) (requiring that those challenging the filing of lawsuits as antitrust violations show the suit to be "objectively baseless" in order to qualify for the sham exception to *Noerr-Pennington* antitrust immunity.

[130] Walker Process Equipment, Inc. v. Food Machinery, 382 U.S. 172 (1965).

[131] Wright, supra note __.

limited, one-time events, allowed harm to a competitor to substitute for evidence of harm to competition. Despite the state of evidence insufficient to support an inference of anticompetitive effect, the Sixth Circuit affirmed a $1.05 billion award, the largest verdict in the history of antitrust law at the time.[132] As such, commentators have heavily, and correctly, criticized *Conwood*.[133]

Antitrust claims involving deceptive conduct conventionally require a preliminary showing of harm to competition on the grounds that this type of conduct is rarely egregious enough to exclude rivals and impair the competitive process.[134] However, *Conwood* demonstrates that in cases involving conduct that is perceived to be immoral or tortious, these requirements may be set aside in favor of more lenient standards.[135] For example, the Sixth Circuit did not require the plaintiff to document that the defendant's conduct resulted in substantial foreclosure, to distinguish authorized from presumptively unlawful unauthorized product removal, or that the conduct was causally linked to any alleged antitrust injury.

The lessons of *Conwood* for antitrust enforcement of patent hold up are both clear and related to our primary analytical point. Where the defendant's conduct involves deception and alleged misrepresentation, the potential for assigning antitrust liability without sufficient evidence of harm to competition is substantial and invokes the potential for the "serious mistakes" discussed in *Credit Suisse* in support of creating antitrust limits. When antitrust treble damage

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[132] Several private follow-on treble damage actions were also filed against the defendant United States Tobacco.

[133] Herbert Hovenkamp, THE ANTITRUST ENTERPRISE: PRINCIPLE AND EXECUTION 180 (Cambridge Press 2005) (describing *Conwood* as "deeply troublesome and offensive to antitrust policy"); Wright, supra note __.

[134] In the context of false or misleading statements about a rival, a substantial preliminary burden must be satisfied. See American Professional Testing Serv., Inc. v. Harcourt Brace Jovanovich Legal & Prof'l Publ'ns, Inc., 108 F.3d 1147, 1152 (9th Cir. 1997) ("while false or misleading advertising directed solely at a single competitor may not be competition on the merits, the [conduct] in question must have a significant and enduring adverse impact on competition itself in the relevant markets to rise to the level of an antitrust violation").

[135] The conventional approach to assessing the anticompetitive effects of potentially exclusionary conduct under Section 2 is evident in decisions involving exclusive dealing contracts. See, e.g., Omega Envtl., Inc. v. Gilbarco Co., 127 F.3d 1157, 1163-64 (9th Cir. 1997); R.J. Reynolds Tobacco Co. v. Philip Morris Inc., 199 F. Supp. 2d 362 (M.D.N.C. 2002), *aff'd per curiam*, 67 F. App'x 810 (4th Cir. 2003). *See generally* Joshua D. Wright, *Antitrust Law and Competition for Distribution*, 23 YALE J. REG. 169 (2006).

remedies are applied to conduct that does not have the potential to create antitrust injury, pro-competitive conduct, such as participation in standards, can be chilled and consumers harmed. Thus, antitrust enforcement of fraudulent or deceptive non-disclosure of intellectual property rights in the standard setting context can give rise to substantial social welfare losses.

But does antitrust offer any benefits relative to the alternative of common law tort liability? For instance, a fraud or misrepresentation theory might be applied in settings where the patentee knowingly fails to disclose the existence of an intellectual property right.[136] Such a claim would have the advantage, from the plaintiff's perspective, of avoiding the burden of defining markets or demonstrating harm to competition. On the other hand, standing to bring a fraud claim would likely be limited to SSO members, excluding consumers and non-members. Another important difference is that tort liability would not include treble damages.[137] While commentators have noted that both contract and tort damages are likely to be insufficient to vindicate injuries to consumers, who would not have standing to bring either claim, these arguments seem to assume without justification that more deterrence is always better from a social welfare perspective. As discussed above, because the probability of detection for this sort of deceptive conduct followed by a rate increase is very high, we are skeptical that treble damages are necessary for optimal deterrence. Because of the possibility of punitive damages in the tort context, however, it is unclear whether fraud damages would be closer to the optimal level than antitrust treble damages *ex ante*. For this reason, equitable estoppel would appear to be a superior approach to fraud claims in the standard setting context.

While the primary potential advantage of tort-based fraud theories over antitrust is that the former avoids the potential for the type of substantial error costs described in our *Conwood* discussion, the benefits of federalism also weigh in favor of restraining application of antitrust laws to deceptive conduct in the standard setting context. Courts are especially susceptible to making errors when applying antitrust laws to deceptive conduct because it is perceived as without efficiency justification, immoral, and worthy of condemnation.

[136] Rambus, Inc. v. Infineon Tech Corp., 318 F.3d 1081 (Fed.Cir.2003) (Finding that Rambus did not have a duty to disclose patent applications, and thus did not commit fraud under Virginia Law). See generally, Lemley, supra note __, at __ (discussing common law fraud claims in the standard setting context); Richard H. Stern, *Rambus v. Infineon: The Superior Aptness of Common-law Remedies Than Antitrust for Standardisation Skullduggery*, 2001 Eur. Intell. Prop. Rev. 495.
[137] However, fraud allegations classified as intentional torts may give rise to punitive damages which might well exceed antitrust treble damages.

Applying the antitrust laws to such settings is likely to result in type I errors and social welfare losses. In light of this analysis, we conclude that jurisdictional competition in state contract and tort law is more likely to generate efficient rules and institutions than antitrust.

VI. CONCLUSION

The problem of patent hold up starkly illustrates the potential conflict between the patent and antitrust laws. As Ward Bowman pointed out long ago, a conflict in the goals of antitrust and patent laws is illusory. Patents are not monopolies, and antitrust law and patent law can both be viewed as institutions that seek to maximize consumer welfare. However, in practice, the patent and antitrust laws may generate significant conflicts.   Indeed, the Supreme Court's recent holdings on implied preemption of the antitrust laws have recognized the risk of error as a central factor in limiting application of the antitrust laws. In this paper, we argue that these considerations, coupled with the benefits of competitive federalism, suggest that courts and policy makers seriously consider limiting application of federal antitrust laws when a superior state law regime exists. We argue that the issue of patent hold up of SSOs presents such a case and that reliance on state contract and tort law, as well as on provisions of the federal patent laws, would be superior to extending antitrust law to address this problem.