

# ANTITRUST LITIGATION OF STRATEGIC PATENT LICENSING

RYAN FACKLER\*

*Antitrust and patent law exist in permanent tension, with patentholders permitted to engage in conduct that would otherwise be plainly anticompetitive. Given the over five hundred billion dollars of annual R&D investment in the United States, and given the importance of R&D for corporations' long-term economic profits, the broad deference given in antitrust law to patentee conduct is shocking. Continuing such deference misunderstands the purpose of antitrust law and undermines the purpose of patent law. This Note focuses on one area where this tension should be resolved in favor of increased antitrust enforcement: strategic patent licensing arrangements whereby a patentee transfers a share of its monopoly profits in order to control its competitor's R&D. Such strategic arrangements can be used in 1) a duopoly where large competitors agree to divide an existing market; and 2) a platform technology where the patent holder encourages inventions that follow on, rather than compete with, an existing patent. This Note argues that anticompetitive strategic patent licensing is currently addressable under existing antitrust doctrine. By defining a market for research and development, regulators can successfully litigate against strategic licensing without needing to extend existing antitrust doctrine. Defining a market for research and development, moreover, connects the academic push for dynamic antitrust analysis into the existing static antitrust framework, allowing courts to gain experience with dynamic analysis in a more comfortable static setting. Lastly, while this Note is broadly theoretical, this is not by choice, but a byproduct of the broad-scale secrecy surrounding patent license agreements. Accordingly, this Note calls for the FTC to use existing statutory authority to begin investigating the real-world anticompetitive uses of strategic patent licensing.*

INTRODUCTION .....	1106
I. A PRIMER ON ANTITRUST .....	1111
A. <i>Current Dynamic Considerations</i> .....	1115
B. <i>Stepping Stone to Dynamic Analysis</i> .....	1119
II. CONFLICT OF ANTITRUST AND PATENT LAW .....	1121
A. <i>Historic Deference to the Patentee</i> .....	1122
B. <i>Actavis's Rebalancing</i> .....	1124
III. MODELLING PATENT LICENSING'S IMPACT ON COMPETITORS' R&D .....	1125
A. <i>Game Theoretic Model of Strategic Licensing</i> .....	1126
B. <i>Real-World Hypotheticals</i> .....	1131

---

\* Copyright © 2020 by Ryan K. Fackler. J.D., 2020, New York University School of Law; B.S., 2011, Haverford College. I wish to thank Michael Bass, Hannah Fackler, Harry First, Barry Friedman, Scott Hemphill, Sam Himel, and Amy McFarlane, as well as the members of the Furman Scholars and the Lederman Fellowship Program. Special thanks to members of the *New York University Law Review* for their advice and assistance.

1.	<i>Dividing a Duopoly</i> .....	1131
2.	<i>Providing a Platform</i> .....	1133
3.	<i>Characterizing the Payment</i> .....	1134
IV.	PAYMENTS THROUGH PATENT LICENSING IS ADDRESSABLE UNDER EXISTING JURISPRUDENCE .....	1135
A.	<i>The Sherman Act Section 1 Case: Patent Licensing Between Competitors</i> .....	1135
1.	<i>Actavis, While Analogous, Is Not Perfectly Applicable to Strategic Patent Licensing</i> .....	1137
2.	<i>The Differences Are Not So Large, and a Market for R&amp;D Bridges the Gap</i> .....	1138
3.	<i>Section 1 Enforcement Does Not Require Judicial Judgments on Optimal Licensing Rates</i> .	1140
B.	<i>The Sherman Act Section 2 Case: Licensing to Monopolize a Platform</i> .....	1142
V.	FTC AUTHORITY TO INVESTIGATE ANTICOMPETITIVE LICENSING .....	1145
A.	<i>FTC Authority Under Section 46</i> .....	1146
B.	<i>The FTC Can Use This Power Again</i> .....	1147
	CONCLUSION .....	1148

## INTRODUCTION

Antitrust law has a single-minded focus on maximizing consumer welfare by fostering economic competition.<sup>1</sup> Competition for antitrust purposes is not an end in itself, but a means for improving consumer welfare through lowered prices and expanded output for consumers.<sup>2</sup> As a consequence, antitrust laws condemn monopolies for their exclu-

---

<sup>1</sup> PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION* ¶ 100a (last updated May 2019). While other goals—e.g., maximizing total surplus—are defensible goals for antitrust law, in practice consumer welfare is king. As the Federal Trade Commission (FTC) unambiguously declares: “The FTC’s competition mission is to enforce the rules of the competitive marketplace — the antitrust laws. These laws promote vigorous competition and protect consumers from anticompetitive mergers and business practices. The FTC’s Bureau of Competition . . . enforces the antitrust laws for the benefit of consumers.” Fed. Trade Comm’n, *Guide to Antitrust Laws*, FED. TRADE COMMISSION, <http://www.ftc.gov/tips-advice/competition-guidance/guide-antitrust-laws> (last visited Mar. 22, 2020).

<sup>2</sup> In the floor debate over the passage of the Sherman Act in 1890, Senator Sherman described how a cartel “can control the market, raise or lower prices, as will best promote its selfish interests . . . . Its governing motive is to increase the profits of the parties composing it. The law of selfishness, uncontrolled by competition, compels it to disregard the interest of the consumer.” 21 CONG. REC. 2457 (1890).

sionary conduct that raises prices on consumers, not merely for their size.<sup>3</sup>

Patents, however, exist in inherent conflict with antitrust's focus on current consumer welfare. Patents grant an entity a temporary monopoly over an invention, thereby privatizing knowledge that otherwise would be a public good.<sup>4</sup> While this transfer from the public to the private can be justified philosophically as, for example, a "natural right,"<sup>5</sup> or economically by appeal to societal efficiency,<sup>6</sup> a tension is inescapable: A patentee is explicitly permitted to engage in conduct that otherwise violates antitrust law.<sup>7</sup>

This tension between antitrust and patent law stems, in part, from the mismatch in timeframes. Antitrust is static,<sup>8</sup> concerned with cur-

---

<sup>3</sup> See, e.g., *Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 407 (2004) ("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."). Similarly, antitrust laws do not condemn all agreements between competitors, only those that "may suppress or even destroy competition." *Bd. of Trade of Chi. v. United States*, 246 U.S. 231, 238 (1918).

<sup>4</sup> *United States v. Am. Bell Tel. Co.*, 128 U.S. 315, 370 (1888) ("The United States, by issuing the patents . . . , has taken from the public rights of immense value and bestowed them upon the patentee."); see also 35 U.S.C. § 271 (2018) (prohibiting patent infringement and granting patent owners rights over their inventions). Patents are (in some form) an ancient custom, stretching back approximately 2500 years to the Greek city Sybaris. See CHARLES ANTHON, *A CLASSICAL DICTIONARY: CONTAINING AN ACCOUNT OF THE PRINCIPAL PROPER NAMES MENTIONED IN ANCIENT AUTHORS, AND INTENDED TO ELUCIDATE ALL THE IMPORTANT POINTS CONNECTED WITH THE GEOGRAPHY, HISTORY, BIOGRAPHY, MYTHOLOGY, AND FINE ARTS OF THE GREEKS AND ROMANS TOGETHER WITH AN ACCOUNT OF COINS, WEIGHTS, AND MEASURES, WITH TABULAR VALUES OF THE SAME 1273* (1848) (discussing one year long patents for any discovered "refinement in luxury").

<sup>5</sup> See William Fisher, *Theories of Intellectual Property*, in *NEW ESSAYS IN THE LEGAL AND POLITICAL THEORY OF PROPERTY* 168 (Stephen R. Munzer ed., 2001) (discussing several philosophical theories justifying patent rights).

<sup>6</sup> See, e.g., William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325, 326–33 (1989) ("For copyright law to promote economic efficiency, its principal legal doctrines must, at least approximately, maximize the benefits from creating additional works minus both the losses from limiting access and the costs of administering copyright protection.").

<sup>7</sup> E.g., 35 U.S.C. § 261 (permitting exclusive territorial licenses, which would, absent the Patent Act, be condemned per se as horizontal market division). A patentee can trade consumer welfare for producer welfare by, for example, freely dividing territory among distributors, conduct that otherwise would be subject to antitrust scrutiny. See Herbert Hovenkamp, *The Rule of Reason and the Scope of the Patent*, 52 SAN DIEGO L. REV. 515, 542 (2015) [hereinafter Hovenkamp, *Scope of the Patent*].

<sup>8</sup> By "static" this Note—consistent with the economics and antitrust literatures—means: "focused on the short-term consequences to the exclusion of consideration the future." See, e.g., Douglas H. Ginsburg & Joshua D. Wright, *Dynamic Analysis and the Limits of Antitrust Institutions*, 78 ANTITRUST L.J. 1, 1–2 (2012) (discussing the limitations of the static model of antitrust). Readers can feel free to substitute "myopic" or "short-term" for "static" if they would prefer.

rent consumer welfare in the short term.<sup>9</sup> Patents, by contrast, are dynamic,<sup>10</sup> concerned with long-term incentives to innovate.<sup>11</sup> In the short term, however, the patent's monopoly is simply a deadweight welfare loss, inefficiently transferring consumer welfare to the patentee.<sup>12</sup> As such, antitrust law would ignore patents' long-term benefits and unequivocally condemn patents' short-term consumer harms.

To resolve this inherent temporal incompatibility between antitrust and patent law, the Supreme Court has historically deferred to patent law: When conduct falls "within the scope" of the patent's monopoly grant, the conduct is immunized from antitrust scrutiny.<sup>13</sup> Only when the patentholder "steps out of the scope of his patent

---

<sup>9</sup> See *id.* at 1 (2012) ("The static model of competition dominates modern antitrust analysis. . . . In particular, it ignores the impact that competitive activities undertaken today will have upon future market conditions."); see also J. Gregory Sidak & David J. Teece, *Dynamic Competition in Antitrust Law*, 5 J. COMPETITION L. & ECON. 581, 602 (2009) (discussing the lack of antitrust concern with competition for innovation). Sections 1 and 2 of the Sherman Act—the United States' primary antitrust tools condemning anticompetitive agreements and monopolization respectively—do not, for example, allow long-run benefits to offset short-term harms. See *infra* Section I.A. Similarly, in the context of mergers and acquisitions, section 7 of the Clayton Act does permit limited forward-looking defenses, but the concern is grounded in the immediate impact the merger may have on current prices and output. See *infra* Section I.A.

<sup>10</sup> "[C]ommentators have used the term 'dynamic analysis' in at least two different ways. The first refers to incorporating the creation of new products and business models into the static model of competition. The second refers more broadly to the relationship between present competitive activities and future market conditions." Ginsburg & Wright, *supra* note 8, at 1–2. This Note, like Ginsburg and Wright, will adopt the latter definition of dynamic: a forward-looking perspective that incorporates all the consideration of static analysis and also incorporates concern for future welfare. Readers can feel free to substitute "long-term" for "dynamic" if they would prefer.

<sup>11</sup> U.S. CONST. art. I, § 8, cl. 8 (establishing as the purpose of patents the "promot[ion] [of] the [p]rogress of [s]cience") (emphasis added). The question of whether patent rights promote innovation is an incredibly complex empirical task, with mixed evidence. Compare Josh Lerner, *The Empirical Impact of Intellectual Property Rights on Innovation: Puzzles and Clues*, 99 AM. ECON. REV. 343, 347 (2009) ("Adjusting for the change in overall patenting, the impact of patent protection-enhancing shifts on applications by residents was actually negative . . . ."), and Heidi L. Williams, *Intellectual Property Rights and Innovation: Evidence from the Human Genome*, 121 J. POL. ECON. 1, 1 (2013) (estimating a twenty to thirty percent reduction in research and development as a result of a private firm's IP rights over certain human genes), with Cassandra Mehlig Sweet & Dalibor Sacha Eterovic Maggio, *Do Stronger Intellectual Property Rights Increase Innovation?*, 66 WORLD DEV. 665, 665 (2015) (finding that higher levels of intellectual property rights are associated with increased innovation and economic complexity in countries with an above-average level of development).

<sup>12</sup> See, e.g., Ramsi A. Woodcock, *Innovation and Reverse Payments*, 44 FLA. ST. U. L. REV. 773, 792 (2017) (discussing how, statically, "the entire institution of patent protection can only harm consumers").

<sup>13</sup> *United States v. Gen. Elec. Co.*, 272 U.S. 476, 485 (1926). For a broader discussion of the "scope of the patent test," see Hovenkamp, *Scope of the Patent*, *supra* note 7, at 525–30.

rights” does he subject himself to inquiry under antitrust laws.<sup>14</sup> Traditionally, this scope was broad, with courts condemning only a limited set of conduct.<sup>15</sup>

Recently, however, the Supreme Court has begun to cabin the scope of the patent test. In *FTC v. Actavis, Inc.*, the Court analyzed a payment scheme whereby a pharmaceutical patentholder paid a potential generic competitor to delay market entry of a generic version of the drug.<sup>16</sup> The Court held that such a reverse payment—a payment *from* a patentholder *to* a competitor—was anticompetitive, without regard to the underlying validity of the patent, focusing instead on whether the reverse payment “likely seeks to prevent the risk of competition.”<sup>17</sup> The reaction by lower courts to *Actavis* has been limited largely to analogous fact patterns.<sup>18</sup>

This predictable response is short sighted, misunderstands the power of antitrust law, and undermines the purpose of patent law: The temporary consumer harm from a patentee’s monopoly power is only economically justified because this monopoly power serves as a primary driver of innovation.<sup>19</sup> When, accordingly, patentee conduct depresses innovation, the present monopoly grant is unjustified. The

---

<sup>14</sup> *Gen. Elec.*, 272 U.S. at 485. This question of scope was alternatively posed as: “[I]s more being monopolized than what the patent grants, or is the practice merely maximizing the reward attributable to the . . . patent?” WARD S. BOWMAN, JR., PATENT AND ANTITRUST LAW: A LEGAL AND ECONOMIC APPRAISAL 9 (1973). For example, in *United States v. Line Material Co.* the Court condemned a cross-licensing agreement that effectuated a price-fixing scheme because “the possession of a valid patent . . . does not give the patentee any exemption from the provisions of the Sherman Act beyond the limits of the patent monopoly.” 333 U.S. 287, 308 (1948).

<sup>15</sup> See Bruce B. Wilson, Special Assistant to the Assistant Attorney Gen., Antitrust Div., Dep’t of Justice, Patent and Know-How License Agreements: Field of Use, Territorial, Price and Quantity Restrictions, Remarks Before the Fourth New England Antitrust Conference (Nov. 6, 1970) (describing the nine “No-No’s” of patent licensing). While these enumerated “No-No’s” were later repudiated, Charles F. Rule, *The Administration’s Views: Antitrust Analysis After the Nine No-No’s*, 55 ANTITRUST L.J. 365, 365 (1986), judicial deference to patentholder conduct remained strong. See Hovenkamp, *Scope of the Patent*, *supra* note 7, at 516–21 (describing the historical treatment of patentee conduct under antitrust law).

<sup>16</sup> 570 U.S. 136, 147 (2013) (holding that while the patentholder had only restricted competition within the duration of its patent’s term, this did not “immunize the agreement from antitrust attack”).

<sup>17</sup> *Id.* at 157. Chief Justice Roberts’s dissent objected heavily to the majority’s narrow treatment of the patent’s scope. *Id.* at 160–65 (Roberts, C.J., dissenting).

<sup>18</sup> See, e.g., *United Food & Commercial Workers Local 1776 v. Teikoku Pharma USA, Inc.*, 74 F. Supp. 3d 1052, 1058 (N.D. Cal. 2014) (alleging that brand-name distributor and manufacturer of Lipoderm offered free product and deferred competition in exchange for agreement by the generic manufacturer to delay market entry); *In re Loestrin 24 FE Antitrust Litig.*, 45 F. Supp. 3d 180, 189–91 (D.R.I. 2014) (holding that *Actavis* applied only to explicit, cash pay-for-delay schemes), *rev’d*, 814 F.3d 538, 549 (1st Cir. 2016).

<sup>19</sup> See, e.g., U.S. CONST. art. I, § 8, cl. 8 (establishing as the purpose of patents the “promot[ion] [of] the [p]rogress of [s]cience”).

modest reweighting of antitrust and patent law in *Actavis* is insufficient to address such patentee abuses.

This Note argues that antitrust enforcement cannot ignore the direct impact that patentee conduct has on ongoing research and development (R&D). By influencing competitors' R&D decisions, firms can anticompetitively depress future competition.<sup>20</sup> Depressing R&D can benefit colluding horizontal competitors by ensuring each party obtains a share of long-run, stable monopoly profits.<sup>21</sup> Additionally, controlling competitors' R&D decisions can anticompetitively maintain existing monopoly power, by encouraging competitors to innovate on top of, rather than around, a platform technology.<sup>22</sup>

While the anticompetitive possibility of strategic patent licensing—licensing arrangements between a patentholder and its competitors where the terms of the deal are intentionally set by the patentholder to manipulate the competitor's R&D choices—has been theoretically modelled in the economics literature<sup>23</sup> (with “particular concern [for] how the consideration of future competition distorts the licensing relationship”<sup>24</sup>), the existing legal scholarship has devoted vastly insufficient attention to this problem. In particular, no argument has yet been made that such manipulative licensing is addressable under existing antitrust doctrine. This is an unacceptable oversight, especially given the nearly five hundred billion dollars of annual R&D investment in the United States.<sup>25</sup>

This Note fills that lacuna. This Note argues that *Actavis*'s rebalancing of patent and antitrust law makes clear that intentionally depressing R&D, whether done collusively or unilaterally, can be condemned under current antitrust law. That is, because strategic licensing permits a patentholder to transfer a “share of its monopoly profits” in order to either discourage another firm's R&D or secure

<sup>20</sup> See *infra* Sections II.B–III.B; see also Jay Pil Choi, *A Dynamic Analysis of Licensing: The “Boomerang” Effect and Grant-Back Clauses*, 43 INT'L ECON. REV. 803, 804 (2002) (“[I]t is not surprising to witness empirical evidence that firms are often reluctant to license their cutting-edge technologies since they may be giving their rivals the knowledge necessary to develop a better technology.”) (citations omitted).

<sup>21</sup> See *infra* Section III.B.1.

<sup>22</sup> See *infra* Section III.B.2.

<sup>23</sup> See Katharine Rockett, *Property Rights and Invention*, in 1 HANDBOOK OF THE ECONOMICS OF INNOVATION 315, 371–72 (Bronwyn H. Hall & Nathan Rosenberg eds., 2010); see also Nancy T. Gallini & Ralph A. Winter, *Licensing in the Theory of Innovation*, 16 RAND J. ECON. 237 (1985); Michael L. Katz & Carl Shapiro, *R&D Rivalry with Licensing or Imitation*, 77 AM. ECON. REV. 402 (1987).

<sup>24</sup> Choi, *supra* note 20, at 804 (“I analyze the *dynamic* effects of licensing on the competitiveness of the licensor in the *innovation* market . . .”).

<sup>25</sup> Mark Boroush, *U.S. R&D Increased by \$20 Billion in 2015, to \$495 Billion; Estimates for 2016 Indicate a Rise to \$510 Billion*, INFOBRIEF (Nat'l Ctr. for Sci. & Eng'g Statistics, Nat'l Sci. Found., Alexandria, Va.), Dec. 2017, at 1–2.

increased monopoly profits “that would otherwise be lost in the competitive market,”<sup>26</sup> strategic licensing is condemned under *Actavis*. Moreover, while antitrust analysis should become more dynamically focused, this Note argues that controlling competitors’ R&D can nonetheless be addressed using existing, statically-oriented antitrust doctrine, including the currently underutilized option of defining a market for R&D.<sup>27</sup> Lastly, this Note’s proposal to expand the use of R&D markets provides a novel stepping stone for courts: Defining R&D markets allows courts to grapple with dynamic issues while operating within the traditional static framework, and thereby encourages gradual transition into more dynamic antitrust analysis.

This Note proceeds in five Parts. Part I provides an overview of current antitrust doctrine and the treatment of dynamic considerations. Part II describes the tortuous relationship between intellectual property (IP) and antitrust law. Part III summarizes the game theoretic models of strategic patent licensing and then presents two illustrative hypotheticals to ground the discussion. Part IV then analyzes the legal case against both of these hypothetical anticompetitive patent licensing arrangements. The discussion and analysis in Parts III and IV will be exclusively theoretical, but this is not a voluntary narrative choice. Patent licensing agreements are generally private, hindering direct analysis. Accordingly, Part V will shift from theory to practice, recommending systematic reporting of patent license agreements to the Federal Trade Commission (FTC).

## I

### A PRIMER ON ANTITRUST

The existing antitrust legal framework must be mapped before arguing for any expansion. This Part will begin with a discussion of the primary statutory tools underlying civil enforcement of anticompetitive conduct, sections 1 and 2 of the Sherman Act. After this discussion, Section I.A will survey the limited dynamic considerations in current antitrust doctrine. Section I.B will then briefly present a recently developed legal tool, a market definition for R&D, which can function as a stepping stone between static and dynamic analysis.

---

<sup>26</sup> *FTC v. Actavis, Inc.*, 570 U.S. 136, 154 (2013).

<sup>27</sup> See *infra* Section I.B for a discussion of existing jurisprudence on defining a market for R&D. Briefly, antitrust considers the competitive consequences of conduct in technically defined “markets.” See *infra* notes 49–51 and accompanying text. A R&D market can be defined where “a licensing arrangement may adversely affect competition to develop new or improved goods or processes.” U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY 11 (2017) [hereinafter IP GUIDELINES], <http://www.justice.gov/atr/IPguidelines/download>.

The current antitrust landscape is governed by three main sets of laws: the Clayton Act;<sup>28</sup> section 5 of the Federal Trade Commission Act (FTC Act);<sup>29</sup> and, most importantly for this Note, the Sherman Act.<sup>30</sup> While aligned in their general purpose—the protection of consumer welfare from monopolistic or collusive conduct<sup>31</sup>—these laws have different targets and jurisdictional requirements.

Section 7 of the Clayton Act is the primary statutory provision allowing for the prospective blocking and retrospective dissolution of mergers between firms.<sup>32</sup> While mergers are generally outside the scope of this Note, one important feature of Clayton Act jurisprudence is worth notice. Courts have repeatedly held that a merger's beneficial effects in one market<sup>33</sup> cannot absolve a merger that creates harm in another market.<sup>34</sup> That is, when a merger benefits one market and harms another, the court does not weigh the relative harm and benefit but condemns the merger outright.<sup>35</sup>

Unlike the Clayton Act's focus on mergers, sections 1 and 2 of the Sherman Act (and the functionally derivative FTC Act<sup>36</sup>) focus on conduct—actions taken by a firm or group of firms—that harms competition and thereby harms consumer (not competitor) welfare.<sup>37</sup> This

<sup>28</sup> 15 U.S.C. §§ 12–27 (2018). Specifically, section 7 of the Clayton Act prohibits mergers “where in any line of commerce . . . the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.” 15 U.S.C. § 18.

<sup>29</sup> 15 U.S.C. § 45 (“Unfair methods of competition in or affecting commerce . . . are hereby declared unlawful.”).

<sup>30</sup> 15 U.S.C. §§ 1–7.

<sup>31</sup> See *supra* note 1.

<sup>32</sup> See 15 U.S.C. § 18 (prohibiting mergers “where in any line of commerce . . . the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly”); see also, e.g., *FTC v. Staples, Inc.*, 970 F. Supp. 1066, 1093 (D.D.C. 1997) (granting a preliminary injunction under section 7 of the Clayton Act to block the merger of Staples and Office Depot).

<sup>33</sup> The definition of “market” is a technical matter in antitrust doctrine. See *infra* notes 49–51 and accompanying text.

<sup>34</sup> See, e.g., *United States v. Phila. Nat'l Bank*, 374 U.S. 321, 370 (1963).

<sup>35</sup> While this doctrine is a feature of Clayton Act jurisprudence and derives directly from the statutory text, this Note will later argue for extending this doctrine to the Sherman Act. 15 U.S.C. § 18 (2018) (discusses harm to “any line of commerce”); see also *Phila. Nat'l Bank*, 374 U.S. at 370. In particular, this Note will argue that courts should condemn under the Sherman Act conduct that unambiguously and anticompetitively harms one market (e.g., a market for R&D) regardless of the benefit in another market. See *infra* Section IV.A.2.

<sup>36</sup> See AREEDA & HOVENKAMP, *supra* note 1, ¶ 302c (“[U]nder § 5 [the FTC] may condemn conduct that offends the Sherman Act . . . .”); see also William E. Kovacic & Marc Winerman, *Competition Policy and the Application of Section 5 of the Federal Trade Commission Act*, 76 ANTITRUST L.J. 929, 930 (2010) (exploring possibilities for the FTC to go beyond the reach of prevailing “Sherman Act doctrine and instead apply distinctive Section 5 principles to address apparent instances of anticompetitive conduct”).

<sup>37</sup> See AREEDA & HOVENKAMP, *supra* note 1, ¶ 114 (describing the debate over proper goal of the Sherman Act before concluding that consumer welfare is “the most practical



prioritization of consumer harms is more than mere preference for the protection of consumers. There is no balancing of consumer harms against producer benefits. As Professor Herbert Hovenkamp explains, “if consumers are harmed . . . , then this fact trumps any amount of offsetting gains to producers and presumably to others. Theoretically, even a minor injury to consumers outweighs significant efficiency gains.”<sup>38</sup>

Section 1 of the Sherman Act focuses on anticompetitive agreements between firms, prohibiting “[e]very contract, combination . . . , or conspiracy, in restraint of trade or commerce.”<sup>39</sup> Because “every contract restrains; that is its very nature,”<sup>40</sup> courts have added in the traditional common law requirement that the agreements *unreasonably* restrain trade or commerce.<sup>41</sup> Certain conduct, such as price fixing, is condemned per se, without an inquiry into reasonableness.<sup>42</sup> For all other conduct, reasonableness is generally assessed on a case-by-case basis under the aptly named “rule of reason,”<sup>43</sup> which asks whether “the restraint imposed is such as merely regulates and perhaps thereby promotes competition or whether it is such as may suppress or even destroy competition.”<sup>44</sup> That is, the rule of reason asks whether the procompetitive benefits of the conduct outweigh any anticompetitive harms.

Unlike section 1’s focus on multi-firm collusion, section 2 of the Sherman Act condemns individual firms “who shall monopolize, or attempt to monopolize, . . . any part of the trade or commerce among

---

goal of antitrust enforcement”). Perhaps surprisingly for the unfamiliar, a firm’s mental state is largely irrelevant to antitrust enforcement across the three major statutes. “Whenever a restraint appears unreasonable in the light of the defendant’s power and the restraint’s redeeming virtues and alternatives, the defendant’s innocent mental state will not save it.” *Id.* ¶ 1506 & n.6. That is, while *mens rea* may come into play in criminal sanctions for antitrust enforcement, it is largely irrelevant in civil antitrust enforcement. *Id.* The one major exception is a claim of “attempted monopolization” brought under section 2, where the firm’s conduct must be done with “a higher ‘specific intent’ . . . to achieve monopoly power . . . or to exclude competition.” *Id.* ¶ 805a (citations omitted).

<sup>38</sup> Herbert Hovenkamp, *Implementing Antitrust’s Welfare Goals*, 81 *FORDHAM L. REV.* 2471, 2473 (2013).

<sup>39</sup> 15 U.S.C. § 1 (2018).

<sup>40</sup> AREEDA & HOVENKAMP, *supra* note 1, ¶ 1402a5.

<sup>41</sup> *See, e.g.*, *Standard Oil Co. of N.J. v. United States*, 221 U.S. 1, 60 (1911) (“[T]he standard of reason . . . was intended to be the measure used for the purpose of determining whether in a given case a particular act had or had not brought about the wrong against which the statute provided.”). *See generally* Herbert Hovenkamp, *The Rule of Reason*, 70 *FLA. L. REV.* 81 (2018) [hereinafter Hovenkamp, *Rule of Reason*].

<sup>42</sup> *See* Hovenkamp, *Rule of Reason*, *supra* note 41, at 83 (describing the per se rule and its lack of consideration of procompetitive benefits).

<sup>43</sup> *See generally id.* (describing in detail the rule of reason analysis).

<sup>44</sup> *Bd. of Trade of Chi. v. United States*, 246 U.S. 231, 238 (1918).

the several States.”<sup>45</sup> Section 2 does not make being a monopoly a status offense,<sup>46</sup> but condemns situations where: (i) a firm is a monopolist in a defined market and (ii) the firm engages in exclusionary conduct to willfully acquire or maintain its monopoly power.<sup>47</sup> The requirement that a firm be a monopolist *and* engage in exclusionary conduct means that there is a range of conduct that is permissible for firms without market power but impermissible for monopolists.<sup>48</sup>

Accordingly, antitrust enforcement under sections 1 and 2 usually requires definition of the relevant market within which the challenged conduct occurs and then a measurement of market power therein. While the full complexity of market definitions is beyond the scope of this Note, a market for antitrust purposes “is defined with regard to demand substitution, which focuses on buyers’ views of which products are acceptable substitutes or alternatives.”<sup>49</sup> Substitutability is determined by asking whether a hypothetical monopolist could, given control over a collection of products, profitably raise prices above their competitive level.<sup>50</sup> If it is unable to do so because of pricing pressures from products outside its hypothetical control, then that pressing outside product must be included within the market definition.<sup>51</sup>

With this preliminary survey of the antitrust field as a foundation, Section I.A of this Note explains how—despite vociferous academic advocacy for dynamic antitrust analysis—existing antitrust jurisprudence remains stubbornly static, and thereby clashes with the inherently dynamic nature of patent law. Accordingly, Section I.A will

---

<sup>45</sup> 15 U.S.C. § 2 (2018). Section 5 of the FTC Act, like section 2 of the Sherman Act, allows policing of single-firm conduct (specifically “unfair methods of competition”), but without the prerequisite of monopoly power. *See* 15 U.S.C. § 45.

<sup>46</sup> That is, section 2 does not condemn the monopolist merely for being a monopolist. *See supra* note 3 and accompanying text.

<sup>47</sup> *United States v. Grinnell Corp.*, 384 U.S. 563, 570–71 (1966).

<sup>48</sup> *See United States v. Dentsply Int’l, Inc.*, 399 F.3d 181, 187 (3d Cir. 2005) (“Behavior that otherwise might comply with antitrust law may be impermissibly exclusionary when practiced by a monopolist.”). That said, “[p]recisely where market power becomes so great as to constitute what the law deems to be monopoly power is largely a matter of degree rather than one of kind.” U.S. DEP’T OF JUSTICE, COMPETITION AND MONOPOLY: SINGLE-FIRM CONDUCT UNDER SECTION 2 OF THE SHERMAN ACT 20 (2008), <https://www.justice.gov/sites/default/files/atr/legacy/2009/05/11/236681.pdf> [hereinafter SINGLE-FIRM CONDUCT].

<sup>49</sup> SINGLE-FIRM CONDUCT, *supra* note 48, at 25–26.

<sup>50</sup> U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, HORIZONTAL MERGER GUIDELINES 8–9 (2010), <http://www.justice.gov/sites/default/files/atr/legacy/2010/08/19/hmg-2010.pdf> [hereinafter MERGER GUIDELINES] (establishing the hypothetical monopolist test). The price rise must be a small but significant, non-transitory increase in price (SSNIP), or approximately five percent above the competitive level. *Id.* at 9–10.

<sup>51</sup> *See id.*

survey the limited forays of antitrust law into dynamic analysis and explain how each of these attempts have failed to meaningfully dislodge the static perspective.

Yet, as this Note questions the expansive deference given in antitrust law to patentee conduct, with a particular focus on the ability to use strategic patent licensing to anticompetitively control future competition, it is imperative to bring dynamic considerations within the gamut of existing doctrine. Accordingly, Section I.B introduces the possibility of defining a R&D market. By defining a market for R&D, this Note argues that dynamic analysis can be rearticulated in the current static antitrust framework, and can sanction otherwise immune anticompetitive patentee conduct.

### A. *Current Dynamic Considerations*

Antitrust's short-term consumer welfare focus and patent law's long-term justifications are inherently incompatible. Historically, this conflict was resolved with broad deference to patentee conduct,<sup>52</sup> undermining the ability of antitrust law to supervise the nearly five hundred billion dollars of annual R&D investment in the United States.<sup>53</sup> These R&D investments shape long-run competition and consumer welfare. As such, expanding and harmonizing antitrust and patent laws' timeframes must be paramount.

So, for nearly forty years, there has been a cottage industry of legal and economic academic complaints about the need for more dynamic antitrust analysis.<sup>54</sup> Whereas static analysis asks whether a certain behavior is likely to increase prices and decrease output *today*, dynamic analysis not only incorporates static concerns but adds in predictions about the future (for example, innovation, market entry, market consolidation, and long-term pricing decisions). As such, dynamic analysis is normatively superior to purely static considerations, and would, for the specific purpose of this Note, harmonize the timeframes under which antitrust and patent law operate.

While switching to dynamic analysis would harmonize antitrust and patent laws' scopes, this Section will explore the repeated inability of antitrust law to adopt any meaningful dynamic considerations. That is, despite the prevalence of forward-looking predictions in the eco-

---

<sup>52</sup> See *supra* notes 13–15 and accompanying text.

<sup>53</sup> Boroush, *supra* note 25, at 1–2.

<sup>54</sup> See Ginsburg & Wright, *supra* note 8, at 12–13 & fig.1 (discussing and graphing the steady rise of academic interest in dynamic antitrust analysis between 1980 and 2008); Sidak & Teece, *supra* note 9, at 583–84 & n.7 (“Antitrust scholars now actively debate the merits of replacing static competition with dynamic competition in antitrust analysis.”).

nomics literature,<sup>55</sup> these considerations remain limited in modern antitrust enforcement.<sup>56</sup> Where they do exist, dynamic, forward-looking considerations are largely confined to merger analysis under the Clayton Act, not conduct cases judged under the Sherman Act.<sup>57</sup>

The principal exception where dynamic concerns enter Sherman Act enforcement is the analysis of attempted monopolization through predatory pricing, which requires *both* immediate pricing below cost and a showing of a dangerous probability of recoupment of losses in the future.<sup>58</sup> Recoupment is key. Without the hope of recouping short-term losses, there is no anticompetitive conduct; the firm simply is offering low prices. Analysis of recoupment is, also, clearly dynamic; determining recoupment requires regulators and courts to make judgments about the likelihood of behavior and market conditions in the future.<sup>59</sup>

In the merger context under the Clayton Act, courts have been more willing to introduce dynamic considerations in two main areas: delayed consumer benefits and predictions of market entry. Per the Department of Justice (DOJ) and Federal Trade Commission's 2010 Horizontal Merger Guidelines, delayed consumer benefits occur when a merger produces efficiencies that do not realize immediately.<sup>60</sup>

This nod to dynamic considerations is immediately undercut both within the Merger Guidelines themselves and in application by the

---

<sup>55</sup> See, e.g., ANDREU MAS-COLELL, MICHAEL D. WHINSTON & JERRY R. GREEN, *MICROECONOMIC THEORY* 334–41 (1995) (discussing long-run equilibria, where, for example, firm entry and exit are factors in the analysis).

<sup>56</sup> David S. Evans & Keith N. Hylton, *The Lawful Acquisition and Exercise of Monopoly Power and Its Implications for the Objectives of Antitrust*, *COMPETITION POL'Y INT'L*, Autumn 2008, at 203, 239 (surveying the leading antitrust literature and concluding that the models are all fundamentally static).

<sup>57</sup> See Sidak & Teece, *supra* note 9, at 584 (noting that, while retaining a static view of competition generally, the few attempts at dynamic analysis by the DOJ have taken place in the context of mergers).

<sup>58</sup> *Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 224 (1993) (“For the investment to be rational, the [predator] must have a reasonable expectation of recovering, in the form of later monopoly profits, more than the losses suffered.” (alteration in original) (quoting *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 588–89 (1986))).

<sup>59</sup> See C. Scott Hemphill, Note, *The Role of Recoupment in Predatory Pricing Analyses*, 53 *STAN. L. REV.* 1581, 1607–08 (2001) (explaining that recoupment requires analysis of conduct and is only significant when a case is sufficiently developed such that predation can be declared successful or unsuccessful).

<sup>60</sup> *MERGER GUIDELINES*, *supra* note 50, at 30–31 (establishing that, to be considered, efficiencies must be cognizable, merger-specific, and verifiable). For example, in *United States v. Anthem, Inc.*, the merging parties provided—and the district court considered but ultimately rejected—evidence that within five years of the merger's close, the new firm could renegotiate many existing contracts for substantial cost savings that would (purportedly) be passed to consumers. 855 F.3d 345, 358–59 (D.C. Cir. 2017).

courts. The Merger Guidelines sharply dismiss dynamic benefit considerations: “The Agencies normally give the most weight to the results of this analysis over the short term. . . . Delayed benefits . . . will be given less weight because they are less proximate and more difficult to predict.”<sup>61</sup> This limited concern with the future is echoed in the few federal cases that discuss longer-term benefits, with courts repeatedly deeming future considerations to be inherently speculative and flatly dismissing all considerations beyond three years.<sup>62</sup>

Dynamic economic considerations have also begun to be incorporated through analysis of market entry in mergers. When two firms merge, antitrust regulators worry that the new, larger firm will be able to exercise undue market power, raising prices on current consumers.<sup>63</sup> This concern is particularly severe when the two merging firms were previously one another’s closest competitors.<sup>64</sup> To alleviate this concern, the merging parties will claim that the new merged firm will be constrained by either potential or real market entry.<sup>65</sup> In *United States v. Waste Management, Inc.*, the Second Circuit permitted a merger between two waste collection firms in Dallas and Houston, where the merged firm would control nearly fifty percent of the market.<sup>66</sup> Despite this high market share, the court agreed with the firms that the merged firm would be “unable to raise prices over the competitive level because new firms would quickly enter the market and undercut them.”<sup>67</sup>

---

<sup>61</sup> MERGER GUIDELINES, *supra* note 50, at 31 n.15.

<sup>62</sup> *See, e.g., Anthem*, 855 F.3d at 358; *FTC v. CCC Holdings Inc.*, 605 F. Supp. 2d 26, 76–77 (D.D.C. 2009); *In re Application of EchoStar Commc’ns Corp.*, 17 FCC Rcd. 20559, 20634 & n.485 (2002). Some FCC cases stop short of declaring efficiencies realized after closing as inherently speculative but still discuss the time delay. *See, e.g., In re Applications of AT&T Inc.*, 26 FCC Rcd. 16184, app. C at 16337 (2011). For examples of cases that broadly discuss discounting the future without specific horizons, see *id.* at 16281 (2011); *In re Applications of AT&T Inc.*, 24 FCC Rcd. 13915, 13953 (2009); *In re Applications of Cellco P’ship*, 23 FCC Rcd. 17444, 17496 (2008).

<sup>63</sup> *See AREEDA & HOVENKAMP, supra* note 1, ¶ 910a.

<sup>64</sup> *See id.* ¶ 910e.

<sup>65</sup> *See, e.g., United States v. Baker Hughes Inc.*, 908 F.2d 981, 988 (D.C. Cir. 1990) (“If barriers to entry are insignificant, the *threat* of entry can stimulate competition in a concentrated market, regardless of whether entry ever occurs.” (citations omitted)). That is, the merging parties will claim that after their merger, a new firm will enter into the market so rapidly that it mitigates the loss in competition from the merger. *See Chicago Bridge & Iron Co. N.V. v. FTC*, 534 F.3d 410, 436 (5th Cir. 2008) (“The potential entry must face low enough barriers for a threat of potential entry to be likely. Therefore assertions that potential entry may meaningfully constrain market power turns [sic] on the existence of low or no entry barriers.”); *United States v. Waste Mgmt., Inc.*, 743 F.2d 976, 984 (2d Cir. 1984).

<sup>66</sup> 743 F.2d at 984.

<sup>67</sup> *Id.* at 981.

Again, this dynamic consideration of market entry is undercut by the timeframe within which the entry must occur. For the potential entrant to mitigate the loss of competition from a merger, the entry must be “timely, likely, and sufficient in its magnitude, character, and scope to deter or counteract the competitive effects of concern.”<sup>68</sup> In practice, the “timely” feature of market entry reduces this question to a nearly static consideration, as “[t]he Agency generally will consider timely only those committed entry alternatives that can be achieved within two years . . . .”<sup>69</sup>

This clear reluctance to incorporate dynamic considerations—in either Clayton or Sherman Act cases—is not entirely without merit. Pragmatically, predictions about future results become inherently more speculative as they look further into the future.<sup>70</sup> Additionally, forming accurate long-term predictions would require courts to incorporate academic research that provides “deeper understanding of the history and conditions for innovation in different economic sectors regularly at issue in mergers.”<sup>71</sup> This is no simple task for regulators, nor for the courts. While antitrust regulators are familiar with disciplines in economics such as Industrial Organization, it would require a herculean effort to naturally incorporate cutting-edge research from numerous disciplines<sup>72</sup> and to dissect complex and competing advanced statistical narratives.<sup>73</sup>

As Section I.B will present, however, antitrust jurisprudence is not conceptually constrained to either wholly adopt or wholly reject dynamic considerations. Specifically, Section I.B will describe how

<sup>68</sup> MERGER GUIDELINES, *supra* note 50, at 28; *see also Baker Hughes*, 908 F.2d at 987–88 (discussing the evidential standards of the quick and effective market entry requirement); *United States v. Aetna Inc.*, 240 F. Supp. 3d 1, 52–53 (D.D.C. 2017) (explaining that courts rely on the Merger Guidelines’ requirements of timely and likely market entry).

<sup>69</sup> FED. TRADE COMM’N & U.S. DEP’T OF JUSTICE, HORIZONTAL MERGER GUIDELINES § 3.2 (1997). While this two-year presumption has been removed from the 2010 Merger Guidelines, courts nonetheless continue to follow it. *See, e.g., FTC v. Staples, Inc.*, 190 F. Supp. 3d 100, 133 (D.D.C. 2016) (“The relevant time frame for consideration in this forward looking exercise is two to three years.”).

<sup>70</sup> *See supra* note 62 and accompanying text.

<sup>71</sup> Michael L. Katz & Howard A. Shelanski, *Merger Policy and Innovation: Must Enforcement Change to Account for Technological Change?*, 5 INNOVATION POL’Y & ECON. 109, 153 (2005).

<sup>72</sup> *See Ginsburg & Wright, supra* note 8, at 17 (“The antitrust agencies of today, however, are neither organized nor staffed in such a way as to incorporate learning from fields far removed from industrial organization economics.”).

<sup>73</sup> For discussion of a recent failure to understand foundational economic theories, (which does not bode well for understanding sophisticated econometric techniques), *see Steven C. Salop, The AT&T/Time Warner Merger: How Judge Leon Garbled Professor Nash*, 6 J. ANTITRUST ENFORCEMENT 459 (2018).

defining a market for research and development can function as an intermediate step between static and dynamic analysis, permitting certain dynamic concerns to be evaluated within the existing static caselaw.

### B. *Stepping Stone to Dynamic Analysis*

In addition to the limited judicial dynamic considerations described in Section I.A, the DOJ and FTC are beginning to introduce nods to dynamic analysis into their guidance documents for antitrust enforcement. In particular, the FTC and DOJ issued their Intellectual Property Guidelines (IP Guidelines) in 1995<sup>74</sup> and Joint Venture Guidelines (JV Guidelines) in 2000,<sup>75</sup> which specifically discuss the impact that IP may have on ongoing research and development.<sup>76</sup> Section 3.2.3 of the IP Guidelines epitomizes the hope for a novel dynamic approach to IP, stating, “if a licensing arrangement may adversely affect competition to develop new or improved goods or processes, the Agencies may analyze such an impact as a competitive effect in a separate research and development market.”<sup>77</sup>

It may be tempting to infer that regulators are actively concerned with patent licensing’s impact on R&D generally, but any interest has not translated into enforcement action.<sup>78</sup> The FTC and DOJ have defined a market for R&D only in mergers of pharmaceutical or medical device makers<sup>79</sup> and only with respect to extremely narrow

---

<sup>74</sup> U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY (1995). The IP Guidelines were updated in 2017. IP GUIDELINES, *supra* note 27, at 1 n.1.

<sup>75</sup> U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, ANTITRUST GUIDELINES FOR COLLABORATIONS AMONG COMPETITORS (2000), [http://www.ftc.gov/sites/default/files/documents/public\\_events/joint-venture-hearings-antitrust-guidelines-collaboration-among-competitors/ftcdojguidelines-2.pdf](http://www.ftc.gov/sites/default/files/documents/public_events/joint-venture-hearings-antitrust-guidelines-collaboration-among-competitors/ftcdojguidelines-2.pdf).

<sup>76</sup> *See id.* § 3.32(c); IP GUIDELINES, *supra* note 27, §§ 3, 3.2.3.

<sup>77</sup> IP GUIDELINES, *supra* note 27, § 3.2.3.

<sup>78</sup> *E.g.*, ABA Sections of Antitrust Law and Intellectual Property Law, Comments to Proposed Update to Federal Trade Commission and U.S. Justice Department Antitrust Guidelines for the Licensing of Intellectual Property 4 & n.20 (Sept. 26, 2016), [http://www.americanbar.org/content/dam/aba/administrative/antitrust\\_law/at\\_comments\\_20160926\\_salipl\\_ftc.authcheckdam.pdf](http://www.americanbar.org/content/dam/aba/administrative/antitrust_law/at_comments_20160926_salipl_ftc.authcheckdam.pdf) (“The Sections are aware of no reported antitrust cases relating to the licensing of IP in innovation markets.”)

<sup>79</sup> The author can find no cases outside of the medical industry with a R&D market definition. For examples within the medical industry, see Amgen Inc., 134 F.T.C. 333 (2002) (concerning the merger of pharmaceutical makers Amgen Inc. and Immunex Corporation, where the FTC required divestment of Amgen’s assets relating to R&D of “a neutrophil regeneration factor used to treat neutropenia”); Wright Medical Technology, Inc., et al.; Proposed Consent Agreement with Analysis to Aid Public Comment, 60 Fed. Reg. 460 (Jan. 4, 1995) (requiring divestment of the “business of researching and developing orthopedic implants for use in human hands” as part of a consent agreement permitting the merger of Wright Medical and Orthomet, Inc.).

product definitions.<sup>80</sup> That is, the FTC and DOJ have not been concerned with firm or industry level R&D, but only concerned with an imminently developable product.

While underutilized as an enforcement tool, defining a market for R&D provides tremendous potential to bridge existing static analysis with the normatively desirable dynamic analysis. Defining a market for R&D is inherently a static examination. The research is being done today, and any harms to research happen today. That is, defining a market for R&D collapses inherently dynamic issues of innovation and future production into currently existing R&D markets. These current R&D markets function as proxies for dynamic concerns, with harms to the R&D market today translating to dynamic harms tomorrow.

But, while the harms to R&D manifest in the future, by focusing on the market for R&D alone, these future, speculative effects do not need to be quantified or understood. This point is worthy of particular reemphasis: A market for R&D does not need to make value judgments about the specific nature of the R&D being performed (or, for that matter, the extrinsic value in R&D itself) but can look primarily at raw levels of R&D by individual firms within an industry, today. This is the value of R&D as a proxy for innovation. Less R&D conducted today means, in expectation, less innovation and less competition in the future.<sup>81</sup> In this sense, defining a market for R&D reduces the dynamic analysis into a purely static form with which courts are comfortable.

Moreover, following long established precedent that “anticompetitive effects in one market [cannot] be justified by procompetitive consequences in another,”<sup>82</sup> defining a market for R&D further side-steps the empirical concerns about incorporating complex econometric estimates about the long-term consumer benefits to R&D.<sup>83</sup> As such, rather than forcing courts to weigh the present against the future, courts would instead simply need to examine traditional static market effects, just in a new R&D market. Thus, by

---

<sup>80</sup> See, e.g., Wright Medical Proposed Consent Agreement, 60 Fed. Reg. at 461 (defining a market for orthopedic finger implants).

<sup>81</sup> This holds so long as the marginal value of R&D expenditure is non-negative (i.e., that spending more on R&D cannot produce *less* innovation).

<sup>82</sup> *United States v. Phila. Nat'l Bank*, 374 U.S. 321, 370 (1963) (discussing analysis of section 7 of the Clayton Act). Extending the concept of market definition to include a market for R&D is not entirely trivial given that section 7 of the Clayton Act discusses harm to “*any line of commerce*,” 15 U.S.C. § 18 (2018) (emphasis added), which courts have read to specifically condemn mergers with mixed effects across different markets. *Phila. Nat'l Bank*, 374 U.S. at 370.

<sup>83</sup> See *supra* notes 71–73 and accompanying text.



defining markets for R&D, courts can dip their toes into the water of dynamic analysis without jettisoning a century of static analysis.

Before turning to the core argument of this Note, Part II will explain how antitrust doctrine's existing static focus is particularly cumbersome when discussing patentholder conduct. Section II.A will introduce the deference antitrust law has traditionally afforded patentee conduct. Section II.B will then explain how a recent case, *Actavis*,<sup>84</sup> has expanded antitrust's ability to police abusive patentee conduct. After addressing the historic abdication of antitrust law's supervision of patentee conduct, this Note will argue that defining markets for R&D provides an avenue to reclaim antitrust law's power over abusive patentee conduct.

## II

### CONFLICT OF ANTITRUST AND PATENT LAW

Any theory of patents fundamentally demands dynamic considerations.<sup>85</sup> Patents, by their very nature, are a short-term social loss, transferring otherwise public benefits to a private party. Insofar as modern antitrust is concerned with consumer welfare, and specifically with short-term consumer welfare, patents and patent-granted monopolies should be condemned *per se*.<sup>86</sup> *Ex post* (i.e., after an invention), patents increase prices and decrease output relative to a competitive market. While dynamic antitrust analysis would harmonize antitrust and patent law by uniting the timeframe within which they operate, antitrust nonetheless remains static.

In spite of (or because of) this inherent temporal tension, insufficient attention has been given to anticompetitive uses of patents. Accordingly, Section II.A will first introduce how patentee conduct has been traditionally analyzed under existing antitrust law, highlighting the broad deference to the patentee. Section II.B will then discuss how a recent case, *Actavis*, pushes back against the long-standing deference to the patentee, permitting the court to examine more closely patentee conduct.

---

<sup>84</sup> *FTC v. Actavis, Inc.*, 570 U.S. 136, 147 (2013) (holding that the fact that an agreement falls within the scope of a patent does not "immunize the agreement from antitrust attack").

<sup>85</sup> *See supra* notes 8–19 and accompanying text (discussing the inherently dynamic nature of patents).

<sup>86</sup> At least when evaluated statically, patents would satisfy the requirements for *per se* condemnation, as they would "always or almost always tend[ ] to restrict competition and decrease output." *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877, 894 (2007) (quoting *Business Elecs. Corp. v. Sharp Elecs. Corp.*, 485 U.S. 717, 723 (1988)).

### A. *Historic Deference to the Patentee*

Traditionally, courts generally condemned conduct only where a patent facilitated conventionally forbidden conduct: violations occurring with exclusive license arrangements,<sup>87</sup> minimum resale price maintenance,<sup>88</sup> pooling arrangements,<sup>89</sup> or unilateral refusals to license patents.<sup>90</sup> That is, the condemned conduct is essentially just static price fixing with a patent gloss.<sup>91</sup>

Where antitrust concerns specific to patentee conduct arise, the Supreme Court has historically applied broad deference to patentee conduct, developing several formalistic rules establishing the boundary of a patentee's monopoly. Early cases such as *Bement v. National Harrow Co.*<sup>92</sup> and *United States v. General Electric Co.*<sup>93</sup> adopted various, deferential positions towards patentee conduct. *General Electric*, for example, held that so long as the challenged conduct was "reasonably adapted to secure pecuniary reward for the patentee's monopoly," it was immune from antitrust scrutiny.<sup>94</sup> This judicial experimentation culminated with *Motion Pictures Patents Co. v. Universal Film Manufacturing Co.*, where the Court held a patentee is protected (although not outright immune) from antitrust liability so

---

<sup>87</sup> See IP GUIDELINES, *supra* note 27, §§ 4.1.2, 5.4 (explaining that exclusive license arrangements can give rise to antitrust concerns, especially when there are horizontal relationships between the licensor and licensee, but that "[a] non-exclusive license of intellectual property that does not contain any restraints on the competitive conduct of the licensor or the licensee generally does not present antitrust concerns").

<sup>88</sup> See *id.* § 5.2 & n.64 (explaining that vertical licensing arrangements where the downstream firm is required to resell products above a specific price are treated the same as such arrangements involving the outright sale of goods).

<sup>89</sup> See *id.* § 5.5 (discussing situations where two or more patentholders collectively agree to license their patents either internally or to a third-party, with anticompetitive concerns stemming from ancillary pricing, output restrictions, or the explicit intention of reducing competition).

<sup>90</sup> Two cases govern antitrust issues concerning unilateral refusal to license patents. See *In re Indep. Serv. Orgs. Antitrust Litig.*, 203 F.3d 1322, 1327–28 (Fed. Cir. 2000) ("We therefore will not inquire into his subjective motivation for exerting his statutory rights, . . . so long as that anticompetitive effect is not illegally extended beyond the statutory patent grant."); *Image Tech. Servs., Inc. v. Eastman Kodak Co.*, 125 F.3d 1195, 1218 (9th Cir. 1997) (holding that "a monopolist's 'desire to exclude others from its [protected] work is a presumptively valid business justification for any immediate harm to consumers.'" (alteration in original) (quoting *Data Gen. Corp. v. Grumman Sys. Support Corp.*, 36 F.3d 1147, 1187 (1st Cir. 1994))).

<sup>91</sup> See, e.g., *United States v. New Wrinkle, Inc.*, 342 U.S. 371, 380 (1952) (condemning as price fixing a patent settlement arrangement between two firms with conflicting patent claims).

<sup>92</sup> 186 U.S. 70, 91 (1902) (holding, inexplicably, that price fixing was not by its "very nature illegal," and that "[t]he fact that the conditions in the contracts keep up the monopoly or fix prices does not render them illegal").

<sup>93</sup> 272 U.S. 476, 490 (1926).

<sup>94</sup> *Id.*

long as its conduct did not extend the patentee's rights "wholly without the scope of the patent monopoly."<sup>95</sup>

This "scope of the patent" test focuses not on the consequences of the patentee's conduct,<sup>96</sup> but, formalistically, on whether the conduct gives the patentee power beyond the confines of the patent grant.<sup>97</sup> In *United States v. Univis Lens Co.*, the Court described a two-step version of the "scope of the patent" test: As a threshold matter, courts ask whether the conduct "is excluded by the patent monopoly from the operation of the Sherman Act."<sup>98</sup> If and only if the conduct is not protected by the patent grant, then courts examine the conduct's competitive consequences.<sup>99</sup>

Many early cases invoking this "scope of the patent" language focused on tying arrangements, where a patentholder required consumers to purchase an unpatented (or otherwise unwanted) product in order to purchase a desired patented product.<sup>100</sup> For example, Morton Salt was condemned for going beyond the scope of its patent by tying the purchase of Morton's patented machine by smaller salt retailers to the purchase of Morton's unpatented raw salt.<sup>101</sup> Morton's patent provided immunized monopoly power over its machine, but the patent's scope did not extend to raw salt. As such, Morton's tying clearly violates the scope of the patent test, as Morton used its monopoly granted by the patent (the machine) to gain influence in the market for an unpatented product (the raw salt).

As Section II.B will describe, however, the Court in *Actavis* recently departed from its historic deference to patent law, permitting antitrust inquiry to pierce the veil of a patent's monopoly. In so doing, the Court rebalanced the relationship of antitrust and patent law, explicitly over the dissent's objections that antitrust law is fundamen-

---

<sup>95</sup> 243 U.S. 502, 517 (1917) (condemning Motion Picture Patents Co.'s tying of unpatented film to a patented film projector, thereby extending its patent monopoly to the unpatented film).

<sup>96</sup> That is, unlike standard antitrust analysis, the test is initially indifferent to the consumer welfare consequences of certain conduct.

<sup>97</sup> See, e.g., *United States v. Univis Lens Co.*, 316 U.S. 241, 243 (1942).

<sup>98</sup> *Id.*

<sup>99</sup> *Id.*

<sup>100</sup> See, e.g., *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488 (1942); *Carbice Corp. of Am. v. Am. Patents Dev. Corp.*, 283 U.S. 27, 33–34 (1931) (condemning the tying of unpatented dry ice to a patented ice box).

<sup>101</sup> *Morton Salt*, 314 U.S. at 493–94; see also Timothy E. Fine, *Misuse and Antitrust Defenses to Copyright Infringement Actions*, 17 HASTINGS L.J. 315, 315 (1965) (discussing *Morton Salt*).

tally incapable of evaluating the long-term consequences of patentee behavior.<sup>102</sup>

### B. Actavis's Rebalancing

In *Actavis*, a patentholder, Solvay Pharmaceuticals, was concerned about a generic entrant competing with its patented AndroGel, a testosterone gel.<sup>103</sup> Under a “pay-for-delay” agreement (also known as a “reverse payment” settlement), Solvay paid the generic competitor to withdraw its challenge to AndroGel’s patent, which—given idiosyncratic nuances to the Hatch-Waxman Act<sup>104</sup>—functionally immunized Solvay from future generic challengers.<sup>105</sup> This preserved AndroGel’s exclusivity for the full term of the patent grant.

Despite acknowledging that the patentholder’s reverse payment fell within the scope of its patent, the Court held that this fact did not “immunize the agreement from antitrust attack.”<sup>106</sup> For the first time, the Court rejected patentholders’ walled garden. Instead, and over the objection of the dissent,<sup>107</sup> the Court plainly articulated that “it would be incongruous to determine antitrust legality by measuring the settlement’s anticompetitive effects solely against patent law policy, rather than by measuring them against procompetitive antitrust policies as well. . . . [B]oth [are] relevant in determining the ‘scope of the patent monopoly’—and consequently antitrust law immunity . . . .”<sup>108</sup>

This rebalancing of patent and antitrust concerns came despite substantial administrability concerns by lower courts,<sup>109</sup> and, more-

---

<sup>102</sup> See *infra* notes 110–11 and accompanying text (discussing Chief Justice Roberts’s dissenting objections in *Actavis*).

<sup>103</sup> *FTC v. Actavis, Inc.*, 570 U.S. 136, 144 (2013).

<sup>104</sup> Drug Price Competition and Patent Term Restoration Act of 1984, Pub. L. No. 98-417, 98 Stat. 1585 (1984) (codified as amended in scattered sections of the U.S. Code).

<sup>105</sup> See *Actavis*, 570 U.S. at 155 (noting that the reverse payment scheme “remove[d] from consideration the most motivated challenger, and the one closest to introducing competition” (quoting C. Scott Hemphill, *Paying for Delay: Pharmaceutical Patent Settlement as a Regulatory Design Problem*, 81 N.Y.U. L. REV. 1553, 1586 (2006))). Solvay agreed to directly pay the generic entrant Actavis between nineteen and thirty million dollars annually for nine years. *Id.* at 145.

<sup>106</sup> *Id.* at 147.

<sup>107</sup> See *id.* at 162 (Roberts, C.J., dissenting) (supporting the two-step inquiry demonstrated in *Univis*).

<sup>108</sup> *Id.* at 148.

<sup>109</sup> See *id.* at 153 (noting the Eleventh Circuit’s concern that “antitrust scrutiny of a reverse payment agreement would require the parties to litigate the validity of the patent in order to demonstrate what would have happened to competition in the absence of the settlement,” which would be “time consuming, complex, and expensive”); *FTC v. Watson Pharm., Inc.*, 677 F.3d 1298, 1310–11 (11th Cir. 2012) (“We emphasized that ‘[t]he general policy of the law is to favor the settlement of litigation,’ and reiterated that patent litigation

over, came over the dissent's explicit objection that antitrust analysis was fundamentally constrained to traditional, static inquiry.<sup>110</sup> Chief Justice Roberts decried in dissent:

The majority invokes “procompetitive antitrust policies,” but misses the basic point that patent laws promote consumer interests in a different way . . . . “[P]atent policy encompasses a set of judgments about the proper tradeoff between competition and the incentive to innovate over the longrun. Antitrust’s rule of reason was not designed for such judgments and is not adept at making them.”<sup>111</sup>

Chief Justice Roberts may be partially right. Antitrust law has not developed to handle long-run consumer harms and is not currently adept at making such judgments.

Chief Justice Roberts is wrong, however, in concluding that this judicial inability to handle long-run judgments should be the end of the conversation; rather, it should be the start. To this end, Part III will present a previously unrecognized type of anticompetitive conduct, discussed only in theoretical economic literature: By strategically controlling the licensing rates charged to use its patent, the patentholder can choose to depress a competitors’ R&D or influence the direction of its R&D. This conduct is in direct conflict with the foundational goal of patent law to promote innovation.

### III

#### MODELLING PATENT LICENSING’S IMPACT ON COMPETITORS’ R&D

Parts I and II presented the conflict inherent between antitrust’s static focus on present consumer welfare and patents’ dynamic focus on the future. Ex post, patents increase prices and decrease output relative to a competitive market, thereby producing the precise harms that antitrust law exists to avoid. To resolve this conflict, antitrust has traditionally ceded most supervision of patentee conduct. As Section II.B introduced, however, antitrust’s teeth are beginning to reemerge. In *Actavis* the Court pierced the veil of a patent, finding the patentholder used its monopoly to anticompetitively depress competition.

But the exploration of abusive patentholder conduct is just beginning. Section III.A will present economic theory modelling one way—

---

is costly and complex.” (quoting *Schering-Plough Corp. v. FTC*, 402 F.3d 1056, 1072 (11th Cir. 2005))), *rev’d sub nom.* *FTC v. Actavis, Inc.*, 570 U.S. 136 (2013).

<sup>110</sup> *Actavis*, 570 U.S. at 174 (Roberts, C.J., dissenting) (citing Hovenkamp’s conclusion that antitrust analysis is statically concerned with “marketwide output” while patent law is concerned with “the incentive to innovate over the *long run*” (citation omitted)).

<sup>111</sup> *Id.* (citation omitted).

and, to be clear, just one way—that patentholders can anticompetitively license their patents: By controlling the licensing rates to use their patent, patentholders can control competitors’ R&D. While this conduct has been theoretically modelled in the economics literature, the legal scholarship has so far not discussed this possibility.

Section III.B will then translate this economic theory into two real-world hypotheticals that illustrate how strategic licensing exploits antitrust and patent law’s temporal mismatch to harm consumers. Switching to real-world hypotheticals will permit Part IV to present the legal framework through which the conduct can be sanctioned under existing, static antitrust doctrine.

### A. *Game Theoretic Model of Strategic Licensing*

Patent licensing is a historical phenomenon, with prominent inventors such as Thomas Edison, Charles Goodyear, and Elias Howe, Jr. all licensing, rather than personally developing, their patented products.<sup>112</sup> Traditionally, patentholders license the rights to use their patents because they lack the ability to fully commercialize their products.<sup>113</sup> By licensing its patent, a patentholder can directly sell its product while simultaneously obtaining an additional share of revenue from others’ sales. Choosing to license a product can be risky, however. The patentee exposes itself to increased risk of piracy and loses control of how its patent is used.<sup>114</sup> Moreover, licensing risks that the patentee “may lose its technological ‘edge’ by setting up its *future* competitor in *innovation* markets.”<sup>115</sup> Simultaneously, however, insofar as licensing can influence and control competitors’ R&D decisions, licensing has “dynamic effects . . . on the competitiveness of the licensor in the innovation market.”<sup>116</sup>

Like the existing antitrust scholarship, the majority of the economics literature has focused on the effects patent licensing has on the current product market (i.e., the market for the licensed product).<sup>117</sup>

---

<sup>112</sup> See generally Adam Mossoff, *Patent Licensing and Secondary Markets in the Nineteenth Century*, 22 GEO. MASON L. REV. 959, 961–66 (2015) (providing a historic overview of American patent licensing).

<sup>113</sup> Choi, *supra* note 20, at 803 (outlining the motivations for patentholders to license their patent rights).

<sup>114</sup> *Id.*

<sup>115</sup> *Id.* at 803. That is because “granting others the right to use its intellectual property may enable them to develop *new* products, which make the licensed technology obsolete and leave the licensor in the backwater of technology—the so-called ‘Boomerang’ effect.” *Id.* at 803–04.

<sup>116</sup> *Id.* at 804. Choi’s full model goes beyond the current Note’s focus, introducing “grant-back” clauses, through which a licensee can be obliged to share any new, derivative discoveries with the current patentholder. See *id.* at 816–18.

<sup>117</sup> *Id.* at 804.

Licensing, in general, is procompetitive in the current product market, as consumers see either increased output, lower prices, or both.<sup>118</sup> But, how should we think about the innovation market or the market for R&D?

Nancy Gallini presents one model of how strategic licensing can control competitors' R&D decisions.<sup>119</sup> In her stylized model, Gallini considers two firms—Firm A and Firm B—competing through R&D for dominance in a single industry.<sup>120</sup> Firm A represents a current patentholder, who can produce goods at a lower cost than the competition, Firm B.<sup>121</sup> Both firms must choose whether or not to conduct costly R&D, which, if successful, will discover a new technology that lowers the cost of production.<sup>122</sup> In addition to deciding whether to do R&D, the patentholder can choose to license its knowledge to Firm B or to extract the full monopoly profit.<sup>123</sup> By assumption, if licensing occurs, the two firms evenly split the available monopoly profit, with Firm B then paying a flat licensing fee.<sup>124</sup>

Gallini's model predicts that it will be an equilibrium to license without either firm conducting further R&D if licensing provides both firms at least as much profit as available from: (i) rejecting the licensing contract offer made by Firm A and (ii) continuing research alone.<sup>125</sup> In Gallini's simplified model, "licensing contract[s] will always be struck to terminate research that would take place without licensing," so long as the entrant (i.e., the licensee) expects to gain more profit from R&D than the incumbent (i.e., the patentholder).<sup>126</sup> The licensing fee, accordingly, will be set to be just large enough to make the entrant indifferent between declining and accepting the contract.

---

<sup>118</sup> See *id.* at 808 n.14 ("Licensing to other firms operating in the same market invites tough competition and lowers the industry's profit.").

<sup>119</sup> Nancy T. Gallini, *Deterrence by Market Sharing: A Strategic Incentive for Licensing*, 74 AM. ECON. REV. 931, 933–34 (1984); see also Gallini & Winter, *supra* note 23 (proposing a mathematical model of market competitors to examine the incentives of licensing agreements and the impact of licensing on innovation).

<sup>120</sup> Gallini, *supra* note 119, at 932–33.

<sup>121</sup> *Id.* at 932.

<sup>122</sup> The patentee begins with a lower-cost technology. *Id.*

<sup>123</sup> *Id.*

<sup>124</sup> *Id.* at 933. While Gallini acknowledges this assumption is made for "convenience," "[t]he basic results would hold if the equilibrium in production were noncooperative (for example, Cournot) instead of collusive." *Id.* at 933 n.2.

<sup>125</sup> *Id.* at 935.

<sup>126</sup> *Id.* at 936. While the assumption that R&D is more valuable to the entrant than the patentholder is technical, the intuition is straightforward. The entrant currently is using a worse (in Gallini's model, higher cost) technology, so it has a larger potential return from R&D than the patentholder, who is using a better (lower cost) technology. *Id.* at 934. Absent this assumption of asymmetric returns, licensing will never occur. *Id.* at 937.

To illustrate with a numeric example: Consider a world where Firm A has an existing patent that produces \$8 of monopoly profit. If either firm conducts R&D, there is a forty percent chance it will discover a better product earning \$10 of monopoly profit. There is an additional forty percent chance it will discover an equivalent product (albeit separately patented). If Firm A, the patentholder discovers the new technology, it will continue to earn the \$8 alone. If Firm B, the entrant, discovers this new, but equivalent technology, the two firms will split the \$8 profit equally. Assume further that R&D costs \$4.

Table 1 shows the payoffs available to each firm based on their decisions to do R&D if no licensing is offered.<sup>127</sup> Each cell depicts the expected profits of Firm A ( $\pi_A$ ) and Firm B ( $\pi_B$ ) given a pair of actions taken by both Firms.<sup>128</sup> The first column displays outcomes where Firm A conducts R&D, and the second column where Firm A does no R&D. Similarly, the first row displays outcomes where Firm B conducts R&D, and the second row where Firm B does no R&D. Accordingly, the top-left cell shows the outcome where Firm A and Firm B both conduct R&D,<sup>129</sup> with the other cells showing the corresponding combinations of actions.

The shaded cell highlights the unique (Nash) equilibrium without licensing: Firm A will not conduct R&D, but Firm B will. To see why this is the equilibrium, consider whether either firm wants to do a different action conditional on the other firm's action. As Firm B is doing R&D, Firm A's choice is between expected profits of \$3.20 for foregoing R&D or \$1.12 from doing R&D itself. Similarly, as Firm A is not doing R&D, Firm B's choice is between expected profits of \$1.60 from doing R&D itself, or \$0.00 from not doing R&D. For both Firm A and Firm B, the expected profits from continuing their current

<sup>127</sup> Author's calculations.

<sup>128</sup> These are "expected" profits because the outcome of R&D is uncertain. Firm B, for example, may discover the product with \$10 of monopoly profit, may discover the product with \$8 of profit, or may discover nothing. Accordingly, the expected profit of an action (given the other firm's action) is equal to the probability of a given outcome times the profit earned given that outcome.

<sup>129</sup> To illustrate the calculation of expected profits for Firm A when both firms conduct R&D without licensing (i.e., Firm A's profits in the top-left cell), we have:

$$\begin{aligned} \pi_A &= \Pr(\text{Firm A finds the } \$10 \text{ product and Firm B finds the } \$10 \text{ product}) \cdot \frac{\$10}{2} \\ &+ \Pr(\text{Firm A does not find the } \$10 \text{ product and Firm B finds the } \$10 \text{ product}) \cdot \$0 \\ &+ \Pr(\text{Firm A finds the } \$10 \text{ product and Firm B does not}) \cdot \$10 \\ &+ \Pr(\text{Firm A does not find } \$10 \text{ product and Firm B finds the } \$8 \text{ product}) \cdot \frac{\$8}{2} \\ &+ \Pr(\text{Firm A does not find the } \$10 \text{ product and Firm B finds nothing}) \cdot \$8 \\ &- \text{Cost of R\&D} \\ \pi_A &= (40\% \cdot 40\% \cdot \frac{\$10}{2}) + (60\% \cdot 40\% \cdot \$0) + (40\% \cdot 60\% \cdot \$10) + (60\% \cdot 40\% \cdot \frac{\$8}{2}) \\ &+ (60\% \cdot 20\% \cdot \$8) - \$4 = \$1.12. \end{aligned}$$



course (i.e., Firm A does not do R&D while Firm B does) is more valuable, hence an equilibrium. This equilibrium, moreover, is unique, insofar as no other cell possesses this stability.

TABLE 1. PAYOFFS WITHOUT LICENSING

		Firm A	
		R&D	Skip R&D
Firm B	R&D	$\pi_A = 1.12$ $\pi_B = 0.16$	$\pi_A = 3.20$ $\pi_B = 1.60$
	Skip R&D	$\pi_A = 4.80$ $\pi_B = 0.00$	$\pi_A = 8.00$ $\pi_B = 0.00$

Table 2 shows the payoffs available to each firm if Firm A offers to license its existing patent for \$2.<sup>130</sup> The shaded cell again highlights the unique equilibrium: Neither firm will do R&D. Again, this can be seen by comparing the profits available to either Firm A or Firm B from unilaterally choosing a different course of action.<sup>131</sup>

TABLE 2. PAYOFFS WITH LICENSING

		Firm A	
		R&D	Skip R&D
Firm B	R&D	$\pi_A = 2.64$ $\pi_B = -1.36$	$\pi_A = 4.40$ $\pi_B = 0.40$
	Skip R&D	$\pi_A = 4.40$ $\pi_B = 0.40$	$\pi_A = 6.00$ $\pi_B = 2.00$

Comparing these two options, Firm B will accept a licensing contract for \$2, because it prefers the certain \$2 profit from using Firm A’s patent to the risky \$1.60 profit from doing its own R&D. Similarly, Firm A prefers to earn the certain \$6 profit from granting Firm B a license for \$2 and splitting the \$8 monopoly profit, rather than the \$3.20 expected profit from refusing to license. Firm A will thus license

<sup>130</sup> Author’s calculations. The payoff in Table 2 is a modification of Table 1’s payoffs. Unlike Table 1, we now assume (for mathematical convenience) that Firm B is agreeing to pay Firm A \$2 to use the patent regardless of whether a better technology is discovered. This license to use Firm A’s current patent means that unless Firm A or Firm B (or both) discover the \$10 technology, Firms A and B will split the \$8 technology’s profit.

<sup>131</sup> To illustrate this choice when neither firm is presently conducting R&D: Firm A evaluates earning expected profits of \$6.00 from not conducting R&D with \$4.40 expected profits from doing R&D and will prefer not to conduct R&D. Simultaneously, Firm B evaluates earning expected profits of \$2.00 from not conducting R&D with \$0.40 expected profits from doing R&D and will prefer not to conduct R&D.

its patent, intentionally (or, more explicitly, only) to *reduce* Firm B's R&D.<sup>132</sup>

As Gallini describes, "From the incumbent's viewpoint, licensing protects against the risk of the discovery of a lower-cost technology by reducing the entrant's incentive for further research."<sup>133</sup> Rephrasing this sentiment: The patentholder strategically licenses its patent to protect its current profitable position, transferring to the entrant a share of the monopoly profit in order to depress industry-wide R&D. Firm A and B are both better off, but society has unambiguously lost, as a better technology will never be discovered. No new surplus is created. Monopoly profit is merely solidified and reshuffled.

This model certainly does not predict that such strategic licensing will always occur. When, for example, the returns to R&D are more equal across the incumbent and the potential entrant, the ability to strategically license to suppress R&D declines.<sup>134</sup> Nor does this model say that licensing should be per se suspect, as the model demonstrates how "wasteful," duplicative R&D can be avoided through licensing.<sup>135</sup>

While subsequent research on strategic patent licensing is limited, alternative models find similar results.<sup>136</sup> Jay Choi, for example, extends Gallini's intuition by considering how "the innovation process is *cumulative* and licensing of a new technology serves as a stepping stone for further developments of the licensed technology."<sup>137</sup> In particular, Choi considers whether grant-back clauses—where the licensor obtains the right to any new innovations discovered by a licensee—pose an "antitrust concern . . . because they reduce the licensee's incentive to engage in R&D and thereby limit rivalry in innovation markets."<sup>138</sup> Like Gallini, Choi finds that, under certain

---

<sup>132</sup> The above analysis is intentionally illustrative with round numbers. That is, the above tables do not present the precise optimal licensing rate (i.e., the optimal strategies and payoffs were from Firm A selecting its ideal licensing rate). As such, there is another licensing rate (not \$2) that Firm A prefers more than \$2.

<sup>133</sup> Gallini, *supra* note 119, at 936.

<sup>134</sup> *Id.* at 936–37.

<sup>135</sup> *Id.* at 938 (discussing how licensing can avoid the problem of firms simultaneously conducting costly R&D, with the ultimate amount of R&D larger than what an all-powerful social planner would prefer).

<sup>136</sup> *See, e.g.*, Choi, *supra* note 20, at 823 (finding that grant-back clauses can present anticompetitive concerns); Gallini & Winter, *supra* note 23, at 238 (finding that licensing encourages R&D when competing firms' production costs are close but discourages investment in R&D when the costs are asymmetrical); Katharine Rockett, *The Quality of Licensed Technology*, 8 INT'L J. INDUS. ORG. 559 (1990) (analyzing licensors' decisions with regards to both the payment structure of the license and the age of the licensed technology).

<sup>137</sup> Choi, *supra* note 20, at 806–07.

<sup>138</sup> *Id.* at 824.

circumstances, strategic patent licensing (and grant-back clauses) can present anticompetitive concerns.<sup>139</sup>

These game theoretic models are intentionally abstract and should be thought of merely as proofs of concept that, under certain circumstances, a patent license can be used to strategically depress competitors' R&D choices. This anticompetitive conduct has yet to be examined in legal scholarship and translating these theoretic economic ideas into a legal framework is conceptually difficult. As such, Section III.B will present two stylized, real-world hypotheticals that move the game theory presented by Gallini and Choi into a fact pattern analyzable under the ken of the law. Part IV will then argue that the conduct in these hypotheticals can and should be condemned under existing, static antitrust doctrine.

### *B. Real-World Hypotheticals*

The game theory presented in Section III.A provides a clear intuition: Patentholders can strategically license their patents in anticompetitive ways. To translate this economic intuition into a legal framework, let us examine two hypothetical markets: (i) an industrial pipe-making market where existing competitors want to divide the market and avoid costly competition, and (ii) a sophisticated technological platform monopoly, which wants to secure its platform's dominance.

#### *1. Dividing a Duopoly*

Consider a world with two pipe-making firms, CopperCo and LeadCo. Assume that CopperCo currently has a patent on making sophisticated copper piping, but LeadCo does not. Both firms must decide on just two simplified actions: (i) whether to do R&D, and (ii) how much copper pipe to produce using CopperCo's patent. LeadCo is not free to just produce with CopperCo's technology; this would render the patent meaningless. Instead, LeadCo must pay CopperCo a licensing fee to use its patented technology. Accordingly, CopperCo must also decide its licensing fee before LeadCo can decide what it will do.

If CopperCo wanted to be a full monopolist, it simply could refuse to license. If CopperCo instead chose to set the licensing rate to zero, then LeadCo would be free to costlessly produce as much as it wanted. While the exact consequences to CopperCo's profit from any

---

<sup>139</sup> *Id.* at 823 (“I find circumstance in which it can be anticompetitive but, in contrast to conventional wisdom, this inefficiency occurs from reduced output rather than from a reduced incentive to innovate.”).

licensing fee depend on the form of the market, setting the licensing rate to zero will necessarily reduce CopperCo's short-run profits.<sup>140</sup> Given CopperCo's choices, LeadCo will then produce until the marginal cost of its production is equal to or greater than the profit it can earn from one more unit of output.<sup>141</sup>

So, why would either firm conduct R&D? If LeadCo decides to do R&D, it may invent a different technology that could make CopperCo's current patent obsolete. This "creative destruction" follows Joseph Schumpeter's conception of innovation as iterative, with each new technology displacing the past.<sup>142</sup> If LeadCo is myopic—unconcerned about the future—it will never do R&D, as R&D is costly today in exchange for benefits in the future. But what if LeadCo is not myopic and considers the dynamic implications of its actions (i.e., it balances present costs against future benefits)? Then LeadCo has two choices: (i) do not do R&D and accept whatever guaranteed profit is available from its continuing licensing contract with CopperCo, or (ii) do costly R&D and earn the profits from whatever invention it discovers (if it discovers anything at all).

Which of these two options is best for LeadCo depends on a number of factors. Some of these factors are exogenous, such as the cost of R&D and the market's willingness to pay for CopperCo's current invention. Some factors, however, are endogenous, dependent on each firm's respective choices. Most importantly, the guaranteed profit available to LeadCo is a direct function of CopperCo's chosen licensing fee.<sup>143</sup>

This is the crucial revelation: By decreasing the licensing fee, CopperCo can increase LeadCo's guaranteed profit in the future, which decreases the benefit of R&D for LeadCo. This realization is important for CopperCo not because of some altruistic interest in ensuring that its competitor makes a profit. Rather, CopperCo cares

---

<sup>140</sup> Insofar as excluding LeadCo permits CopperCo to extract the maximum monopoly profit, competition from LeadCo can only reduce CopperCo's profit.

<sup>141</sup> While obviously firms' production decisions are more complex in the real world, this assumption of production until marginal cost equals marginal revenue is equivalent to the more general assumption that firms are profit maximizing. If marginal revenue is above marginal cost, more output can be made for a profit. See MAS-COLELL ET AL., *supra* note 55, at 135–37 (describing firm profit maximization).

<sup>142</sup> See Sharon Reier, *Half a Century Later, Economist's 'Creative Destruction' Theory Is Apt for the Internet Age: Schumpeter: The Prophet of Bust and Boom*, N.Y. TIMES (June 10, 2000), <http://www.nytimes.com/2000/06/10/your-money/IHT-half-a-century-later-economists-creative-destruction-theory-is.html> (discussing modern Schumpeterian "creative destruction").

<sup>143</sup> To see, we simply need to observe that the profit available to LeadCo given a licensing rate high enough to entirely exclude LeadCo from producing is less than the profit available given a licensing rate of zero (i.e., free to produce).

about LeadCo's guaranteed profit in the future only insofar as it influences LeadCo's willingness to conduct R&D. If LeadCo does not do R&D, then CopperCo's position as patentholder cannot be disrupted. Furthermore, CopperCo can avoid doing R&D itself (and thereby avoid the cost of R&D) because it does not need to compete with LeadCo's potential future innovations. That is, by sharing some of the profit from the current product market, the patentholder can—given certain exogenous market conditions—dictate how both firms innovate.

## 2. *Providing a Platform*

A patentee may, alternatively, strategically license its technology to funnel a competitor's R&D towards follow-on inventions and away from circumventing technology.<sup>144</sup>

Here, consider a world with one dominant technology company, VoiceCo, that currently has a patent on sophisticated voice recognition software. Consider as well that several smaller technology companies have existing applications that rely on a voice recognition platform. These smaller firms (AppCos) must decide whether to use VoiceCo's platform or to conduct R&D to build around VoiceCo.

VoiceCo is in a very different position than CopperCo. Unlike CopperCo, VoiceCo does not want to suppress *all* R&D; rather, VoiceCo has an incentive to push the AppCos to build on top of and not around its existing platform. Insofar as innovation is sequential or cumulative,<sup>145</sup> AppCos' choices to innovate on top of VoiceCo's existing platform may create a path dependence that locks AppCos into using the platform well into the future.

Given these incentives, VoiceCo has to decide how to license access to its platform. Insofar as (by assumption) VoiceCo has the dominant platform today, it has two main choices in setting its licensing fee: (i) price statically (myopically) to extract as much of AppCos' current profits as possible; or (ii) price dynamically (far-sightedly), keeping in mind how current licensing costs change AppCos' incentives to innovate around VoiceCo's platform. The licensing fee when VoiceCo prices dynamically must be lower than the

---

<sup>144</sup> By this, I mean that the patentee encourages its competitor to conduct R&D on top of the existing patent rather than working to create an alternative to the patent. Such strategic licensing was at issue in Choi's model, which focused on the cumulative nature of innovation and the use of grant-backs. See *supra* notes 136–39 and accompanying text.

<sup>145</sup> See, e.g., Jerry R. Green & Suzanne Scotchmer, *On the Division of Profit in Sequential Innovation*, 26 RAND J. ECON. 20, 20 (1995) (“Knowledge and technical progress are cumulative in the sense that products are often the result of several steps of invention, modification, and improvement.”).

static licensing fee, with this discount (or price reduction) encouraging AppCos to build on top of VoiceCo's platform. Again, VoiceCo's choice to decrease licensing rates to reshape AppCos' R&D is not innocent. VoiceCo transfers some of its currently available monopoly profit to AppCos explicitly to reshape AppCos' desire to conduct R&D.

### 3. *Characterizing the Payment*

While both CopperCo and VoiceCo's licensing contracts may appear, in form, to be a simple discount (relative to the higher, static licensing fee), they function indistinguishably from a payment made by sending a direct cash payment from the patentee to the competitor. Absent the desire to influence its competitor's R&D decision, the patentee would earn full static monopoly profit. Instead, and with the explicit goal of reshaping its competitor's R&D, the patentee foregoes profit and permits its competitor to earn profit. That is, denoting the static licensing fee as  $p_s$  and denoting the dynamic licensing fee as  $p_d$ , then we can say that for the discount,  $d$ , is equal to  $d = p_s - p_d$ . By VoiceCo choosing to charge  $p_d$ , it effectively bundles two transactions: First, VoiceCo chooses a static licensing fee  $p_s$  and second pays the AppCos  $d$  to redirect their R&D. The fact that these two transactions are bundled into a lower licensing fee  $p_d$  should not immunize the direct payment of  $d$ .

Using a licensing contract to effectuate this transfer, moreover, is arguably *more* insidious than a simple cash payment, as a lump-sum transfer made in exchange for an explicit agreement to not conduct R&D does not change either firm's marginal incentives. With a lump-sum transfer, the patentee has paid its competitor to avoid R&D, but the competitor still *wants* to innovate, just secretly. If the competitor could perform secret R&D, it would get the benefit of the payment not to innovate and, also, the benefit from becoming the new dominant firm later in time. The firms' agreement is fragile, especially if the deal were legally unenforceable.

A carefully designed strategic royalty payment scheme, in contrast, changes both firms' marginal incentives. The licensing scheme was specifically designed to ensure that compliance with the plan is optimal (i.e., that it is an equilibrium for AppCos to not build around VoiceCo's platform). This equilibrium is not predicated on an ability to observe the other firm's behavior, and as such, neither the patentee

nor its competitor wants to rock the boat even secretly.<sup>146</sup> It is in both firms' interests that the agreement be maintained.

As Part IV will argue, this conduct—a licensing scheme designed to control competitors' R&D—is antithetical to both the antitrust and patent statutes. With respect to antitrust law, this payment decreases consumer welfare, especially when one considers the full dynamic consequences to the activity. With respect to patent law, this conduct decreases the overall amount of innovation in society, expressly counter to the goal of “*promot[ing]* the progress of science.”<sup>147</sup> Accordingly, Part IV lays out the cases to prosecute such conduct under existing antitrust standards.

#### IV PAYMENTS THROUGH PATENT LICENSING IS ADDRESSABLE UNDER EXISTING JURISPRUDENCE

Part III explained how, by changing the royalty rate, a patentholder can increase its competitor's guaranteed profit in the future and thereby influence the competitor's R&D choice. Depending on market characteristics, it can be optimal for the patentee to intentionally decrease the royalty rate to disincentivize its competitor from performing R&D. This Part will argue that decreasing the royalty rate effectuates a transfer of cash from patentee to competitor and is an impermissible anticompetitive restraint of trade, sanctionable under existing law. Section IV.A will lay out the Sherman Act section 1 case against a patentholder licensing to a competitor intentionally to divide the market and suppress R&D. Section IV.B will argue the Sherman Act section 2 case against a patentholder licensing its platform technology to encourage follow-on innovation and thereby securing its platform's long-term dominance.

##### *A. The Sherman Act Section 1 Case: Patent Licensing Between Competitors*

To see how a patentholder's attempt to divide its market and suppress R&D through a strategic licensing would be treated under existing antitrust laws, let us consider the most extreme possible situation. Two firms explicitly lay out the entire conspiracy. The CEO of

---

<sup>146</sup> While the current cartel (or agreement) is stable, the real world is admittedly full of nuance and complexity. For a more general discussion of factors leading into the stability of cartels, see Margaret C. Levenstein & Valerie Y. Suslow, *What Determines Cartel Success?*, 44 J. ECON. LITERATURE 43, 47–49 (2006).

<sup>147</sup> U.S. CONST. art. I, § 8, cl. 8 (emphasis added).

one company is recorded on tape saying, “In consideration for you not performing R&D, we will share our monopoly profit with you today by licensing our product at a substantial discount,” and the CEO of the other company accepts.<sup>148</sup> This level of evidence would remove all evidentiary hiccups,<sup>149</sup> leaving only the question of law: Can and should this agreement be condemned under current antitrust laws? This Note pushes existing scholarship by answering yes, condemnation of strategic licensing can be achieved by applying and extending the logic of *Actavis*.

As in *Actavis*, a payment facilitated through depressed royalty fees should be challenged under section 1 of the Sherman Act.<sup>150</sup> Section 1’s first requirement of a contract, combination, or conspiracy is trivially satisfied in our hypothetical situation, both by the oral discussion and by the licensing agreement. As such, we can immediately proceed to the question of whether this practice is the type of harmful conduct condemned under section 1.

As in *Actavis*, the depressed royalty case presents novel conduct, which does not fit within preexisting categories of per se condemnation.<sup>151</sup> As such, the depressed royalty fees must be judged under the rule of reason, which requires a three-step inquiry. First, a court asks what harm to competition is threatened or results, and whether the defendants have power to cause this harm. Second, a court asks whether legitimate reasons for the conduct exist. Finally, a court asks if less restrictive alternatives to the conduct could achieve the same ends with less harm.<sup>152</sup> Application of the rule of reason is a tremendously fact-intensive inquiry, sensitive to specific market characteristics.

Given the overtly nefarious conduct laid out in our hypothetical market division case, the crux of the analysis would likely be the first

---

<sup>148</sup> This hypothetical may seem absurd, but it mirrors the flippancy with which Archer Daniels Midlands Co. discussed price fixing in the lysine and citric acid markets. See John M. Connor, *Global Cartels Redux: The Lysine Antitrust Litigation (1996)*, in *THE ANTITRUST REVOLUTION: ECONOMICS, COMPETITION, AND POLICY* 336, 336 (John E. Kwoka, Jr. & Lawrence J. White eds., 6th ed. 2014) (discussing “hundreds of secret tape recordings of the conspirators’ meetings”).

<sup>149</sup> Questions of fact are an omnipresent issue in antitrust litigation. While these questions will certainly be present here, this Note is focused on questions of law.

<sup>150</sup> 15 U.S.C. § 1 (2018); see *FTC v. Actavis, Inc.*, 570 U.S. 136, 141, 158–59 (2013) (finding that reverse payments are not immune from antitrust liability under the Sherman Act).

<sup>151</sup> See *Actavis*, 570 U.S. at 144, 156–59 (describing the conduct and applying the rule of reason rather than a “quick look” approach); AREEDA & HOVENKAMP, *supra* note 1, ¶ 1510 (discussing existing per se categories such as pricing fixing).

<sup>152</sup> AREEDA & HOVENKAMP, *supra* note 1, ¶ 1505; see also *Am. Needle, Inc. v. NFL*, 560 U.S. 183, 203 n.10 (2010) (describing the “classic formulation of the Rule of Reason”) (quoting *Bd. of Trade of Chi. v. United States*, 246 U.S. 231, 238 (1918)).



prong, whether there are antitrust harms. This analysis should nearly follow the logic of *Actavis*, with only insubstantial modifications to the current facts.

Accordingly, Section IV.A.1 will discuss three potential objections to the application of *Actavis* to the question of collusive patent licensing. Section IV.A.2 will then address how these potential issues should pose no meaningful obstacle.

### 1. *Actavis, While Analogous, Is Not Perfectly Applicable to Strategic Patent Licensing*

There are three main differences distinguishing our hypothetical depressed royalty payments from *Actavis*. First, in *Actavis*, the challenged conduct produced a static consumer harm: The reverse payment delayed generic entry, decreased drug availability, and increased the price.<sup>153</sup> As such, despite the broad language in *Actavis* condemning a firm's "shar[ing] of its monopoly profits that would otherwise be lost in the competitive market,"<sup>154</sup> the Court did not explicitly endorse more dynamic consideration of consumer harms.

Second, in *Actavis* there was only one market implicated by the conduct. *Actavis* did not want its patented testosterone gel to compete with the entrant's cheaper and chemically identical generic version.<sup>155</sup> In our hypothetical depressed royalty payments case, however, there are two markets implicated: the market for the current patent and the market for R&D.

Lastly, in *Actavis* the payment was made directly as a cash transfer from the patentee to the competitor.<sup>156</sup> In our hypothetical depressed licensing case, however, the payment made by the patentee to the competitor is indirect. Instead of a direct cash transfer, the patentee "shares . . . its monopoly profits that would otherwise be lost in the competitive market"<sup>157</sup> via the discounted licensing rate. Market transactions (i.e., market sales using the patent) serve as a conduit for the transfer between patentee and competitor.

---

<sup>153</sup> See *Actavis*, 570 U.S. at 153–54 (describing the potential for anticompetitive effects of a reverse payment).

<sup>154</sup> *Id.* at 154.

<sup>155</sup> See *id.* at 144–45 (describing the factual background of the settlement agreement).

<sup>156</sup> In *Actavis*, the patentholder, Solvay, agreed to directly pay between nineteen and thirty million dollars annually for nine years. *Id.* at 145.

<sup>157</sup> *Id.* at 154.

## 2. *The Differences Are Not So Large, and a Market for R&D Bridges the Gap*

None of the concerns, however, meaningfully hinder the extension of *Actavis* to the current situation. Moreover, while incorporating dynamic antitrust analysis would address each of these concerns, the next Subsection discusses how defining a market for R&D would suffice to bring the strategic patent licensing within existing (static) antitrust law.

The first difference—*Actavis* presented exclusive static consumer harms—presents two avenues for the courts: (i) the courts may (and normatively should) decide that anticompetitive uses of patents must incorporate dynamic considerations; or (ii) the court may decide to expand the use of the “market for research and development.”<sup>158</sup> Of these two options, incorporating dynamic concerns is the theoretically justified solution, especially when examining patentee conduct. This could include incorporating sophisticated (albeit fairly routine within economics) models, estimating the loss in future value from the depressed R&D against the current consumer benefit. By beginning this foray into dynamic analysis in the limited sphere of patent licensing, courts and regulators could gain practice with dynamic analysis, eventually extending it outward to more traditional antitrust topics.

Alternatively, and more realistically, the court could consider the static impact this arrangement would have on the market for R&D. Under the IP Guidelines, defining an R&D market is appropriate where “a licensing arrangement may adversely affect competition to develop new or improved goods or processes.”<sup>159</sup> The strategic patent licensing described in Part III does precisely that. The reduced license fees are agreed to specifically to depress R&D, which harms competition to develop new or improved goods or technologies. Defining a market for R&D would serve as a compromise between the existing static analysis and the need to consider effects in the future. It would also facilitate an eventual transition to more dynamic antitrust analysis.

Defining a market for R&D also presents a court with a traditional market division story.<sup>160</sup> The patentee and its competitor have

---

<sup>158</sup> IP GUIDELINES, *supra* note 27, §§ 3.2, 3.2.3.

<sup>159</sup> *Id.* § 3.2.3.

<sup>160</sup> While defining a market for R&D presents a court with a “traditional market division story,” non-specialist judges will nonetheless likely struggle to understand a defined market for R&D. This concern, while entirely valid, should not be determinative of its use. Market definition is a difficult feature of antitrust writ large, with the burden falling on the relevant parties to clearly measure and explain their intended markets. *See generally*

agreed to collusive behavior in market one (the patent) and market two (R&D) in order to divide and control the two markets collectively. This standard market division story would permit the court to apply well-developed existing case law.<sup>161</sup> Courts easily condemn attempts to divide separate markets or geographic territories to avoid competition.<sup>162</sup> This would be no different.

The market division story, moreover, addresses the second difference with *Actavis*: the strategic licensing benefits consumers in one market, unlike *Actavis*'s unambiguous harm. Despite benefit to the market for the patented product created by the reduced licensing fee, the harm to the R&D market is clear. As established in *United States v. Philadelphia National Bank*, “If anticompetitive effects in one market could be justified by procompetitive consequences in another, the logical upshot would be that every firm in an industry could, without violating § 7, embark on a series of mergers that would make it in the end as large as the industry leader.”<sup>163</sup> That is, the court would simply have to extend long-established precedent in merger analysis that one market cannot be sacrificed for another, and the dynamics become irrelevant. While this Clayton Act-specific jurisprudence is not binding on an inquiry under the Sherman Act and no court is obligated to make this extension, the extension is conceptually small and a reasonable move to handle such multi-market problems.<sup>164</sup>

---

Jonathan B. Baker, *Market Definition: An Analytical Overview*, 74 ANTITRUST L.J. 129 (2007).

<sup>161</sup> See AREEDA & HOVENKAMP, *supra* note 1, ¶ 2030a & n.1 (discussing how many anticompetitive agreements between horizontally situated competitors can be considered various types of “market division”).

<sup>162</sup> For example, courts have long condemned—frequently per se—conduct that divides markets between competitors, where firms agree to sell in geographically restricted territories. *See id.* ¶ 2030c (discussing the courts’ treatment of various market divisions); *see also, e.g.*, FMC Corp., 133 F.T.C. 815, 818, 824 (2002) (condemning an agreement where one firm would not compete in the Japanese market if the other did not compete in the North American market). *But see* Bell Atl. Corp. v. Twombly, 550 U.S. 544, 565–66 (2007) (dismissing territorial allocation supported only by “parallel behavior”).

<sup>163</sup> 374 U.S. 321, 370 (1963).

<sup>164</sup> Alternative options to treat this multi-market problem certainly exist. For example, in *Ohio v. American Express Co.*, the Supreme Court considered how to evaluate harms to a two-sided market under the Sherman Act. 138 S. Ct. 2274 (2018). American Express charged merchants higher fees than comparable credit cards (e.g., Visa) and required “antisteering” provisions whereby merchants could not encourage customers to use lower-cost cards. *Id.* at 2282–83. These higher merchant fees were then used to fund greater benefits to American Express’s cardholders. *Id.* at 2282. This conduct implicates two markets: (i) the merchants; and (ii) the cardholders. *Id.* at 2280. When the anti-steering provisions were challenged as anticompetitive, a question facing the Court was how to consider these two markets that are in conflict. *See id.* at 2285–87 (defining the relevant market). In *American Express*, the Court held that “the relevant market consists of both

Lastly, the lack of a direct cash payment from patentee to competitor should pose no conceptual hurdle. The *Actavis* court held that whenever a firm transfers a “share of its monopoly profits that would otherwise be lost in the competitive market” to avoid competition, the conduct should be condemned.<sup>165</sup> Any situation where the patentholder transfers profit to a competitor is economically and practically identical. It is unimportant how the payment occurs, whether a direct transfer of cash, debt forgiveness, discounts on other products, or agreements to decrease competition.<sup>166</sup> The question for the court is simply whether a patentee transfers a “share of its monopoly profits that would otherwise be lost in the competitive market” to avoid competition.<sup>167</sup> As shown in Part III, that sharing is unquestionably occurring in our hypothetical case.

Accordingly, these three differences are only of form, but not of substance.

### 3. *Section 1 Enforcement Does Not Require Judicial Judgments on Optimal Licensing Rates*

One additional hurdle for a court may be apprehension at needing to define the “competitive” licensing rate that would prevail absent the intent to influence competitors’ R&D. This concern explains the cautiousness of predatory pricing jurisprudence: If a court incorrectly condemn current low, but not destructively low, prices, then the court unequivocally harms consumers with judicially imposed

---

sides of the market when the market exhibits significant indirect network effects.” Client Memorandum from Davis Polk & Wardwell LLP, Supreme Court Issues Landmark Decision on Two-Sided Markets 1 (July 3, 2018), <http://www.davispolk.com/files/2018-07-03-supreme-court-issues-landmark-decision-on-two-sided-markets.pdf>. The holding in *American Express* is not immediately applicable to the conduct described in this Note, as there are no network effects. That is, the market for the patented product has no direct bearing on the R&D market. And, as the Court clearly stated: “To be sure, it is not always necessary to consider both sides of a two-sided platform. A market should be treated as one sided when the impacts of indirect network effects and relative pricing in that market are minor.” *Am. Express*, 138 S. Ct. at 2286 (distinguishing the holding in *American Express* from *Times-Picayune Publ’g Co. v. United States*, 345 U.S. 594, 610 (1953), which held that the market for newspaper advertisers could be analyzed separately from the newspaper subscriber base). If, however, the logic of *American Express* were compelling, rather than extending the Clayton Act’s absolute refusal to trade markets, courts would aggregate the two markets (the patented product and the R&D market) and examine the conduct there. While this would certainly be a harder inquiry insofar as it would require valuing the harm to the R&D market, it does not otherwise change the logic of this Note.

<sup>165</sup> *FTC v. Actavis, Inc.*, 570 U.S. 136, 154 (2013).

<sup>166</sup> See C. Scott Hemphill, *An Aggregate Approach to Antitrust: Using New Data and Rulemaking to Preserve Drug Competition*, 109 COLUM. L. REV. 629, 663–66, 682–85 (2009) (discussing a variety of creative pharmaceutical reverse payments).

<sup>167</sup> *Actavis*, 570 U.S. at 154.

higher prices.<sup>168</sup> Here, if a court condemns a low licensing rate, they will necessarily decrease the short-term output and increase the short-term price of the products relying on the patent.

This judicial apprehension at defining a “correct” licensing rate is not new. In industries with standard-essential patents (e.g., telecommunications or the internet),<sup>169</sup> courts and regulators have focused on ensuring the patentholders commit to licensing their patents on Fair Reasonable and Non-Discriminatory (FRAND) terms.<sup>170</sup> Ensuring essential patents are licensed on FRAND terms is necessary because when a patent has been declared an industry standard, the patentee becomes a powerful monopolist, capable of extorting competitors.<sup>171</sup> But this presents a difficult challenge for the court, namely how to police whether the agreed rates are in fact “reasonable.”<sup>172</sup>

Yet analogies to predatory pricing and FRAND licensing are misguided. In both predatory pricing and FRAND licensing, the anticompetitive harm fundamentally relates to the product being priced. In predatory pricing, the low prices for cigarettes today will ensure high prices for cigarettes tomorrow, and in FRAND licensing, unless the

---

<sup>168</sup> Predatory pricing occurs where a firm or collection of firms intentionally price below cost to drive out competition. After driving out competition, these firms then recoup their prior losses by raising prices later. See *Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 222–24 (1993) (describing predatory pricing and articulating the standard of judgment). The *Brooke Group* Court clearly articulated the fear of condemning legitimate price cutting: “[T]he exclusionary effect of prices above a relevant measure of cost either 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 risks of chilling legitimate price cutting.” *Id.* at 223 (citing AREEDA & HOVENKAMP, *supra* note 1, ¶¶ 714.2–3).

<sup>169</sup> See generally NAT’L RESEARCH COUNCIL OF THE NAT’L ACADS., PATENT CHALLENGES FOR STANDARD-SETTING IN THE GLOBAL ECONOMY: LESSONS FROM INFORMATION AND COMMUNICATIONS TECHNOLOGY 1–2, 31–34 (Keith Maskus & Stephen A. Merrill eds., 2013) (describing standard-essential patenting practices across a range of industries).

<sup>170</sup> See generally A. Douglas Melamed & Carl Shapiro, *How Antitrust Law Can Make FRAND Commitments More Effective*, 127 YALE L.J. 2110, 2112–15 (2018) (providing background on FRAND licensing and antitrust analysis). At its core, FRAND pricing seeks to ensure that standard-essential patentholders cannot extract excess rents after their patents are declared “essential.” That is, the patentholder cannot raise licensing costs substantially above a “fair” rate, although “fair” is, unfortunately, ill defined. *Id.* at 2133 & n.78; see also Anne Layne-Farrar, A. Jorge Padilla & Richard Schmalensee, *Pricing Patents for Licensing in Standard-Setting Organizations: Making Sense of FRAND Commitments*, 74 ANTITRUST L.J. 671 (2007) (discussing four competing frameworks to measure whether licensing terms satisfy FRAND obligations).

<sup>171</sup> See Melamed & Shapiro, *supra* note 170, at 2115 (“In particular, by requiring a commitment to license on ‘fair and reasonable’ terms, the FRAND requirement aims to prevent, or at least reduce, the extent of monopoly pricing by SEP holders.”).

<sup>172</sup> See *id.* at 2114 (“Patent law addresses such instances by specifying that patentholders are entitled to ‘reasonable royalties,’ defined as the royalties that the parties would have negotiated prior to the infringement and thus prior to lock-in.”).

chosen standard is licensed “fairly,” the patentee will be given undeserved monopoly profits from its patent. In our hypothetical reduced-licensing-fees case, however, the licensing rates are merely a conduit for anticompetitive harms elsewhere (i.e., in the R&D market).

The question of “fair” licensing rates is therefore a distraction. The alleged harms are to the R&D market and not to the base licensed patent, so courts can use direct evidence that the reduced licensing rates resulted in a substantial harm to the R&D market.<sup>173</sup> That is, rather than asking if the licensing rate is too low, a court can look exclusively at the patentholder and competitor’s R&D choices. A reduction in R&D evidences an entrenchment or market division, thereby directly demonstrating the harm. After section 1 condemnation of the harm to the R&D market, there will be no remaining incentive to continue underpricing licensing rates, and the competitive market results will prevail without any judicial judgments about the appropriate rates.

*B. The Sherman Act Section 2 Case: Licensing to Monopolize a Platform*

And what of the section 2 case against VoiceCo? This Section argues that existing, static antitrust doctrine can address VoiceCo’s strategically licensing its technology to funnel a competitor’s R&D towards follow-on inventions and away from circumventing technology. The ability to funnel competitors’ R&D may seem less insidious than suppressing R&D entirely. However, this Section will argue that strategic licensing can allow a patentee to monopolize a technological platform with serious long-term consumer harms. In situations where the patent creates a platform hosting these follow-on decisions, this control over a competitor’s R&D permits the patentee to secure its market power far into the future, well beyond the patent grant’s natural lifespan.

To see, let us recall VoiceCo’s alleged conduct: VoiceCo is (by assumption) a dominant technology company that currently has a patent on sophisticated voice recognition software. VoiceCo unilaterally (i.e., without any direct or indirect communication) has declared to the smaller AppCos: “Sure, go ahead. You make all the doohickeys you want, but what we want to do is make sure that we’re . . . the one

---

<sup>173</sup> For a general discussion of direct evidence in antitrust, see Eric L. Cramer & Daniel Berger, *The Superiority of Direct Proof of Monopoly Power and Anticompetitive Effects in Antitrust Cases Involving Delayed Entry of Generic Drugs*, 39 U.S.F. L. REV. 81 (2004).

[who] controls it.”<sup>174</sup> That is, VoiceCo is letting the smaller AppCos use its platform at an artificially low cost.

As in the section 1 discussion, let us additionally assume away any evidentiary burden in demonstrating VoiceCo’s motives. Here, assume clear audio of VoiceCo’s CEO saying: “We want to push the AppCos to build on top of and not around our existing platform. AppCos’ choices to innovate on top of VoiceCo’s existing platform may create a path dependence that locks AppCos into using the platform well into the future. Let’s find a way to pay the AppCos to use our platform, rather than innovating around us. If we can get them to use our platform today, they will be stuck with us for the long term.”

Were the case against VoiceCo brought under section 2, a court would begin with an inquiry into whether the patentee is a monopolist. While showing monopoly power is often complex, in our hypothetical reduced-royalty-payment case, it should be fairly straightforward. By assumption, absent the depressed royalty payment, the patentee is a complete monopolist, setting price substantially above cost, and with the power to exclude all other rivals.<sup>175</sup> Accordingly, under any plausible market definition, the patentee will be a complete monopolist, or at least substantial market player (otherwise it would not have the ability to extract monopoly rents).

As such, the only legal question is whether the depressed royalty fees constitute exclusionary conduct. As described previously, the payment achieved through the reduced licensing fee has one explicit purpose: to reduce, eliminate, or control direct competition against the patentee’s monopoly power by controlling the market for R&D. That is, the depressed royalty fee is akin to a tying claim, where the patentee uses its monopoly power from the patent grant to reach out into and control the R&D market.<sup>176</sup> Such an R&D market definition sidesteps the problem of introducing full dynamic antitrust analysis, reducing the problem to a traditional static problem.<sup>177</sup>

---

<sup>174</sup> *Marketplace Morning Report*, NPR 3:48 (Jan. 9, 2019) (mp3 on file with author) (summarizing the behavior of the major voice recognition software platforms).

<sup>175</sup> See AREEDA & HOVENKAMP, *supra* note 1, ¶ 501 (“Thus, the substantial market power that concerns antitrust law arises when the defendant (1) can profitably set prices well above its costs and (2) enjoys some protection against rivals’ entry or expansion that would erode such *supra*competitive prices and profits.”).

<sup>176</sup> *Id.* ¶ 1734a. For example, in *Eastman Kodak Co. v. Image Technical Services, Inc.*, Kodak used its patent-granted monopoly over parts to Kodak copy machines to obtain a monopoly over the copier servicing and repair market. *Eastman Kodak Co. v. Image Technical Services, Inc.*, 504 U.S. 451 (1992).

<sup>177</sup> The definition of an R&D market is entirely analogous to the discussion with respect to section 1 of the Sherman Act. See *supra* Section IV.A.

While a court may (akin to the discussion of section 1) be tempted to judge the monopolist's conduct under existing predatory pricing<sup>178</sup> or limit pricing<sup>179</sup> frameworks, the hypothetical reduced licensing fee should *not* be judged under either of these standards. Limit pricing and predatory pricing fundamentally rely on a firm denying profit, not transferring profit to its competitors. Moreover, whereas limit pricing and predatory pricing are specifically designed to foreclose current competition, depressed licensing fees foreclose *future* competition. Controlling competitors' R&D through depressed licensing fees provides unparalleled ability to shape long-term market composition. Through a payment today, a patentee can ensure its dominance tomorrow. It can ensure that its competitors build on top of, and not around, its patent. It can choose its competitive future.

Lastly, as with the section 1 case, because the alleged harms are to the R&D market and not to the base licensed patent, courts can use direct evidence that the reduced licensing rates resulted in a substantial harm to the R&D market.<sup>180</sup> While such direct evidence would depend on the exact market definition, it could include harms such as: (i) aggregate reduction in market-wide R&D or (ii) specific cessation of R&D on immediately competing projects.

Accordingly, while any attempted monopolization claim is deeply fact-specific, section 2 of the Sherman Act provides a clear pathway to address a patentee who strategically licenses its technology to funnel a competitor's R&D towards follow-on inventions and away from circumventing technology. As discussed in Section IV.A with respect to the Sherman Act section 1 case, by defining a market for R&D, a court can circumvent the challenge of introducing fully dynamic antitrust analysis, while still extending antitrust scrutiny beyond its traditional confines.

---

<sup>178</sup> Predatory pricing occurs where a firm intentionally prices below cost to drive out competition and then recoup losses. *Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 224 (1993) ("The second prerequisite to holding a competitor liable under the antitrust laws for charging low prices is a demonstration that the competitor had a reasonable prospect, or, under § 2 of the Sherman Act, a dangerous probability, of recouping its investment in below-cost prices.").

<sup>179</sup> Limit pricing occurs where a firm lowers the price (though not below cost) to deter entry into the market. *AREEDA & HOVENKAMP*, *supra* note 1, ¶ 2007b1.

<sup>180</sup> *See* *FTC v. Ind. Fed'n of Dentists*, 476 U.S. 447, 456–57 (1986) (accepting direct evidence of anticompetitive harms); *see also* *Cramer & Berger*, *supra* note 173 (providing a general discussion of direct evidence in antitrust).



V  
FTC AUTHORITY TO INVESTIGATE ANTICOMPETITIVE  
LICENSING

The above discussion argues it is possible for patentholders to strategically use their limited patent monopoly to dynamically and anticompetitively shape longer-term market structure. We can marvel at the oddity of major technology companies sacrificing licensing royalties for their advanced voice assistant technology to fight to be the dominant platform.<sup>181</sup> We can think of stagnant duopolies cartelizing the R&D market and thereby stifling dynamic competition and hurting dynamic consumer welfare.

We cannot, however, provide systematic (or even compelling anecdotal) evidence of broad dynamic anticompetitive licensing. While patent ownerships are known, patent sales and patent licensing agreements are private. This lack of knowledge is endemic in the empirical literature on patents. Given the robust debates over optimal patent protections,<sup>182</sup> and given the over five hundred billion dollars of annual R&D investment in the United States,<sup>183</sup> one would be forgiven for assuming we had a robust and well-estimated literature on patents. We do not. Even foundational questions about how to value a patent are outstanding.<sup>184</sup>

This research is crippled by the pervasive lack of data, as firms do not want their patent-related transactions broadly public for clear business reasons. Firms prefer business secrecy not for nefarious anticompetitive reasons, but to avoid unnecessarily aiding their competitors.

Yet, this aporia need not be permanent. This Part calls for the FTC to use existing statutory authority to collect all licensing agreements and gather the missing data. By systematically collecting all patent licensing contracts, the FTC can begin to examine whether the theoretical possibility of anticompetitive licensing is a reality worthy of attention. Section V.A will describe the scope of the FTC's authority and its previous use, and then Section V.B will provide the

---

<sup>181</sup> See *Marketplace Morning Report*, *supra* note 174 (describing the major technology companies vying for dominant position).

<sup>182</sup> See, e.g., F. M. Scherer, *Nordhaus' Theory of Optimal Patent Life: A Geometric Reinterpretation*, 62 AM. ECON. REV. 422 (1972) (extending an early economic model of optimal patent protection); Suzanne Scotchmer, *Standing on the Shoulders of Giants: Cumulative Research and the Patent Law*, 5 J. ECON. PERSP. 29 (1991) (providing an economic model of patenting and innovation to explore how different forms of patent protections can have substantial effects on innovation).

<sup>183</sup> Boroush, *supra* note 25, at 1–2.

<sup>184</sup> See, e.g., Mariko Sakakibara, *An Empirical Analysis of Pricing in Patent Licensing Contracts*, 19 INDUS. & CORP. CHANGE 927, 928 (2010) (describing the paucity of direct empirical research on patent pricing).

specific proposal, which uses a standardized reporting requirement that would balance public interest in research and enforcement with business realities.

### A. *FTC Authority Under Section 46*

Under the FTC Act section 6,<sup>185</sup> the Federal Trade Commission has the authority to issue orders requiring “‘annual or special . . . reports or answers in writing to specific questions’ to provide information about the entity’s ‘organization, business, conduct, practices, management, and relation to other corporations, partnerships, and individuals.’”<sup>186</sup> This authority allows the FTC to pursue lines of inquiry that go beyond simple document subpoenas, forcing order recipients to generate novel answers. Importantly, section 6(f) permits the FTC to “‘make public from time to time’ portions of the information that it obtains, where disclosure would serve the public interest.”<sup>187</sup>

This power has been previously used on patent licensing. As part of increased attention towards the end of the Obama Administration,<sup>188</sup> the FTC issued a report on Patent Assertion Entities (PAEs)—more colloquially known as “patent trolls”—who acquire third-party patents and earn income by challenging alleged patent infringers.<sup>189</sup> The FTC (under section 6(b)<sup>190</sup>) compelled the twenty-two largest PAEs to provide detailed, non-public information that is otherwise impossible for researchers to obtain.<sup>191</sup> The FTC’s

---

<sup>185</sup> 15 U.S.C. § 46 (2018).

<sup>186</sup> *A Brief Overview of the Federal Trade Commission’s Investigative, Law Enforcement, and Rulemaking Authority*, FED. TRADE COMM’N (Oct. 2019) (alteration in original) (quoting 15 U.S.C. § 46(b)), <http://www.ftc.gov/about-ftc/what-we-do/enforcement-authority>.

<sup>187</sup> *Id.* (quoting 15 U.S.C. § 46(f)).

<sup>188</sup> *See, e.g.*, EXEC. OFFICE OF THE PRESIDENT, MARCH 2016 ADDENDUM (2016), <http://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/PatentReportAddendumMarch2016.pdf> (noting that reforms to the patent system are a priority for the Obama Administration).

<sup>189</sup> FED. TRADE COMM’N, PATENT ASSERTION ENTITY ACTIVITY 1 (2016) [hereinafter FTC, PAEs 2016], [http://www.ftc.gov/system/files/documents/reports/patent-assertion-entity-activity-ftc-study/p131203\\_patent\\_assertion\\_entity\\_activity\\_an\\_ftc\\_study\\_0.pdf](http://www.ftc.gov/system/files/documents/reports/patent-assertion-entity-activity-ftc-study/p131203_patent_assertion_entity_activity_an_ftc_study_0.pdf) (describing the business model of Patent Assertion Entities (PAEs)). PAEs have gained particular notoriety in recent years as “small, nonproducing inventors who do not develop or commercialize new technology, who do not manufacture anything, but who do hope to snare other firms in their patent traps.” JAMES BESSEN & MICHAEL J. MEURER, PATENT FAILURE: HOW JUDGES, BUREAURATS, AND LAWYERS PUT INNOVATORS AT RISK 159 (2008).

<sup>190</sup> *See* FTC, PAEs 2016, *supra* note 189, at 38 (discussing the FTC’s authority under 15 U.S.C. § 46(b)).

<sup>191</sup> *Id.* at 38–41. The FTC estimates that the surveyed firms were responsible for 8.8% of all patent suits filed in the United States during the relevant time period. *Id.* at 14 n.34.

information requests were incredibly granular, requiring PAEs to respond to questions across ten broad categories spanning twenty-two pages.<sup>192</sup> For example, the FTC required each PAE to produce detailed case information, such as jurisdictional information, docket numbers, plaintiff and defendant information, asserted patent information, and settlement information.<sup>193</sup> Crucially, unlike any normal researcher, the FTC could compel disclosure of highly secret information, such as “the total revenue the Firm has received under the terms of the settlement agreement from January 1, 2009 to the date of this Request.”<sup>194</sup> This unparalleled information permitted analysis supporting detailed policy recommendations, and it greatly expanded academics’ and practitioners’ knowledge of the harmful nature of PAE activity.<sup>195</sup> This systematic conduct was previously unknown and simply unknowable.

As Section V.B will recommend, the FTC should use its investigatory power under section 6(b) to more broadly examine patent licensing behavior. By expanding and systematizing the FTC’s data collection, the FTC can serve multiple concurrent functions, supporting both existing patent and antitrust enforcement, and encouraging more dynamic considerations.

### B. *The FTC Can Use This Power Again*

Beginning the investigation into the abuses of patentee behavior with an examination of patent trolls was reasonable and certainly topically pressing. This narrowly focused examination should not, however, be exhaustive. It should not take a groundswell of academic, policy, industry, and popular animus towards a particular patentee practice before the FTC conducts regulatory oversight. Rather, the FTC could systematically collect confidential business information on patent licensing and sales using fundamentally similar language as used in the 2016 study.

Expanding and systematizing the FTC’s data collection on patent licensing serves multiple concurrent functions, both in support of existing patent and antitrust enforcement and in support of more

---

<sup>192</sup> *Id.* app. C.

<sup>193</sup> *Id.* app. C at 13–14.

<sup>194</sup> *Id.* app. C at 14.

<sup>195</sup> *Id.* at 8–13 (establishing four broad recommendations for legislative and judicial reform to PAE activity, including expanding FED. R. CIV. P. 7.1 to require greater public disclosure of unnamed parties that have any interest in the outcome of a lawsuit). For example, the FTC’s study discovered that litigation PAEs anticompetitively thrive on the use of “strike suits” (nuisance lawsuits explicitly designed to settle for less than the cost of litigation), while masking the extent of their activity by creating numerous small affiliated entities. *Id.* at 4.

dynamic considerations. First, collection of broad-scale data on patentee behavior will allow for more accurate and timely static antitrust analysis. The very claims presented in Parts III and IV of this Note, for example, while addressable under current antitrust case law, are nearly impossible to observe while patent licensing agreements remain private. Additionally, and more expansively, the FTC could apply machine learning techniques to detect potentially problematic hub-and-spoke-and-rim<sup>196</sup> relationships facilitated by patents, rather than waiting passively to discover competitive harms.

Second, only through the creation of large-scale databases on patent licensing and sales would we ever be able to meaningfully make progress introducing dynamic competitive analysis into antitrust enforcement. Moreover, this Note has made no attempt to provide an exhaustive account of *all* possible abuses. The lack of systematic data on patent licensing provides no opportunity for meaningful empirical research on the dynamic implications for competition and innovation. As such, we can with confidence presume there remain many harms to competition arising out of yet undiscovered and unmeasured conduct.

Lastly—and while far beyond the scope of this Note—creation of a long-term repository of patent licenses would be invaluable to patent law writ large. It could be used to answer foundational questions like: What is the value of a patent?<sup>197</sup> While these questions are not exclusively about licensing, FTC action would ameliorate this pervasive lack of data.

## CONCLUSION

Antitrust and patent law exist in permanent tension, with patentholders permitted to engage in conduct that would be otherwise be plainly anticompetitive. Given the over five hundred billion dollars of annual R&D investment in the United States,<sup>198</sup> and given the importance of R&D for corporations' long-term economic profits, the broad deference given in antitrust law to patentee conduct is shocking. Continuing such deference misunderstands the ken of antitrust law and undermines the purpose of patent law.

---

<sup>196</sup> “In antitrust law, a hub-and-spoke conspiracy is a cartel in which a firm (the hub) organizes collusion (the rim of the wheel or the rim) among upstream or downstream firms (the spokes) through vertical restraints.” Barak Orbach, *Hub-and-Spoke Conspiracies*, ANTITRUST SOURCE, Apr. 2016, at 1. For early antitrust cases on hub-and-spoke arrangements, see *Interstate Circuit, Inc. v. United States*, 306 U.S. 208, 221–27 (1939) and *Am. Column & Lumber Co. v. United States*, 257 U.S. 377, 401–02 (1921).

<sup>197</sup> See, e.g., Sakakibara, *supra* note 184, at 928 (describing the data availability problem and how it hampers empirically measuring the value of a patent).

<sup>198</sup> Boroush, *supra* note 25, at 1–2.

This Note focuses on one area where this tension should be resolved in favor of increased antitrust enforcement: strategic patent licensing arrangements whereby a patentee transfers a “share of its monopoly profits that would otherwise be lost in the competitive market” in order to control its competitor’s R&D.<sup>199</sup> As presented in Part III, such strategic arrangements can be used in a duopoly to facilitate market division, and can be used by a platform monopoly to secure its market dominance well beyond the term of the patent grant.

Most importantly, this Note argues that such anticompetitive strategic licensing is currently addressable under existing antitrust doctrine. Part IV argues that, by defining a market for R&D, regulators could successfully litigate against strategic licensing without needing to extend existing, static antitrust doctrine. Defining a market for R&D, moreover, connects the push for dynamic antitrust analysis into the existing static antitrust framework, allowing courts to gain experience with dynamic analysis in a more comfortable static setting.

Lastly, while this Note is broadly theoretic and hypothetical, this is not by choice. It is not possible to present compelling evidence that patentholders are strategically licensing their patents to control competitors’ R&D so long as patent license agreements remain secret. This Note thus concludes with a clarion call to the FTC: Under the statutory authority granted by § 46, the FTC can and should require that all patent license agreements be reported. Only by gathering a database of such agreements can regulators understand the scope of patentee conduct and ever hope to incorporate dynamic antitrust considerations.

---

<sup>199</sup> *FTC v. Actavis, Inc.*, 570 U.S. 136, 154 (2013).