

# MONSANTO AND THE *QUASI-PER SE ILLEGAL* RULE FOR BUNDLED DISCOUNTS

## INTRODUCTION

The popularity of genetically modified crops has exploded since their introduction in the mid-1990s.<sup>1</sup> In 2000, the percentage of acres planted with transgenic seeds in the United States was 25% for corn, 54% for soybeans, and 61% for cotton.<sup>2</sup> By 2012, those numbers jumped to 88% for corn, 93% for soybeans, and 94% for cotton.<sup>3</sup> With an eye on the bottom line, it is easy to understand why producers adopted genetically modified crops so readily: transgenic seeds hold the promise of increasing crop yields<sup>4</sup> while simultaneously decreasing input costs.<sup>5</sup> However, these benefits come at an increasingly high cost—the United States Department of Agriculture (USDA) estimates that farmers spent \$17.2 billion on seed in 2009, a 56% increase from the \$11 billion spent in 2006.<sup>6</sup> That cost passes onto the consumer in the form of increased food prices and the taxpayer in the form of agricultural subsidies, giving agricultural biotech corporations holding patents on genes the unfettered opportunity to reap the benefits.

In the field of genetically modified seeds, Monsanto has become an industry giant due in large part to its patent on the Roundup Ready gene. The gene allows crops to withstand application of Roundup, an herbicide originally produced solely by Monsanto with the active ingredient of glyphosate, which kills weeds on contact. Although Monsanto's patent on Roundup herbicide expired in 2000, the Roundup Ready gene is the only glyphosate-resistant trait currently available<sup>7</sup>—a boon to Monsanto, as

---

1. JORGE FERNANDEZ-CORNEJO, U.S. DEP'T OF AGRIC., ECON. RESEARCH SERVICE, AGRIC. INFO. BULL. NO. 786, THE SEED INDUSTRY IN U.S. AGRICULTURE 4 (2004), *available at* <http://www.ers.usda.gov/publications/aib-agricultural-information-bulletin/aib786.aspx>.

2. U.S. DEP'T OF AGRIC., ECON. RESEARCH SERVICE, ADOPTION OF GENETICALLY ENGINEERED CROPS IN THE U.S. (2012), <http://www.ers.usda.gov/data-products/adoption-of-genetically-engineered-crops-in-the-us.aspx>. These numbers include all varieties of genetically modified seeds. *Id.* The data was obtained through the Department of Agriculture's National Agricultural Statistics Service in the June Agricultural Survey for 2000 through 2012. *Id.*

3. *Id.*

4. Fernandez-Cornejo, *supra* note 1, at 5–6.

5. See JORGE FERNANDEZ-CORNEJO & MARGRIET CASWELL, U.S. DEP'T OF AGRIC., ECON. RESEARCH SERVICE, ECON. INFO. BULL. NO. EIB-11, THE FIRST DECADE OF GENETICALLY ENGINEERED CROPS IN THE UNITED STATES 9 (2006), *available at* <http://www.ers.usda.gov/publications/eib-economic-information-bulletin/eib11.aspx> (noting that farmers expect to profit from adopting genetically-modified crops due to increased yields and decreased operator labor and pesticide costs).

6. Scott Kilman, *Monsanto Draws Antitrust Scrutiny*, WALL ST. J. (March 11, 2010), <http://online.wsj.com/article/SB10001424052748703701004575113911550788020.html>.

7. Roger Parloff, *Monsanto's Seeds of Discord*, FORTUNE (May 11, 2010), [http://money.cnn.com/2010/05/06/news/companies/monsanto\\_patent\\_full.fortune/index.htm](http://money.cnn.com/2010/05/06/news/companies/monsanto_patent_full.fortune/index.htm).

glyphosate is the most widely used herbicide on agricultural land in the United States.<sup>8</sup> Most of Monsanto's nearly \$12 billion in annual sales in 2009 came from the sale of its transgenic seeds and from licensing its genetic traits to its competitors, such as DuPont, Syngenta, and Dow.<sup>9</sup> Despite the fact that Monsanto permits use of its Roundup Ready gene by its competitors through licenses, which Monsanto calls a "pro-competitive strategy,"<sup>10</sup> Monsanto maintains control over as much as 65% of the traited corn and soybean seed markets in the United States.<sup>11</sup>

Monsanto has faced antitrust scrutiny for its anticompetitive business practices, yet it has escaped largely unscathed thus far. Most recently, DuPont challenged the validity of its licensing agreement with Monsanto, which prohibits a practice known as gene "stacking," where multiple genetic traits are inserted into a single seed.<sup>12</sup> In a pending suit, DuPont argued that Monsanto's licensing agreement—which prohibits stacking of Roundup Ready traits with any other competitor traits, allowing Monsanto to lock its competitors out of the stacked-seed marketplace—constitutes patent abuse and anticompetitive behavior in violation of antitrust law.<sup>13</sup>

---

8. *Herbicides: Introduction*, ENV'T'L PROT. AGENCY, [http://www.epa.gov/caddis/ssr\\_herb\\_int.html](http://www.epa.gov/caddis/ssr_herb_int.html) (last visited Nov. 11, 2012).

9. *The Parable of the Sower*, ECONOMIST (Nov. 19, 2009), <http://www.economist.com/node/14904184>.

10. VANDY HOWELL, ET. AL., MONSANTO CO., COMMENTS SUBMITTED FOR DEPARTMENT OF JUSTICE, ANTITRUST DIVISION WORKSHOP ON AGRICULTURE AND ANTITRUST ENFORCEMENT ISSUES IN OUR 21ST CENTURY ECONOMY, COMPETITION AND INNOVATION IN AMERICAN AGRICULTURE, Comment No. AGW-1392-b, at 43 (2009), available at [http://www.monsanto.com/newsviews/Documents/competition\\_innovation\\_in\\_american\\_agriculture.pdf](http://www.monsanto.com/newsviews/Documents/competition_innovation_in_american_agriculture.pdf).

11. DIANA L. MOSS, AM. ANTITRUST INST., COMMENTS SUBMITTED FOR DEPARTMENT OF JUSTICE, ANTITRUST DIVISION WORKSHOP ON AGRICULTURE AND ANTITRUST ENFORCEMENT ISSUES IN OUR 21ST CENTURY ECONOMY, TRANSGENIC SEED PLATFORMS: COMPETITION BETWEEN A ROCK AND A HARD PLACE?, Comment No. AGW-14383, at 5–6 (2010), available at <http://www.justice.gov/atr/public/workshops/ag2010/comments/254998b.pdf>. Monsanto disputes the extent to which it has market power in the seed industry and claims that these numbers incorrectly include the market share of the seeds it sells to independent seed companies (ISCs). HOWELL, *supra* note 10, at 9. Monsanto claims, "This is a bit like attributing GM's market share to Toyota because GM sources some engines from Toyota." *Id.* However, "[i]f Monsanto has control over the pricing, marketing, and promotion of the ISC brands containing Monsanto traits . . . then the higher shares . . . could well be accurate." MOSS, *supra*, at 6. Although this issue cannot be fully answered with publicly available information, there is evidence suggesting Monsanto's licensing practices impose restrictions supporting the higher numbers. Christopher Leonard, *Monsanto Squeezes Out Seed Business Competition, AP Investigation Finds*, ASSOCIATED PRESS (Dec. 13, 2009), [http://www.huffingtonpost.com/2009/12/13/monsanto-squeezes-out-see\\_n\\_390354.html](http://www.huffingtonpost.com/2009/12/13/monsanto-squeezes-out-see_n_390354.html). See also *infra* Part III.B.2.

12. Leonard, *supra* note 11.

13. *Monsanto Co. v. E.I. Dupont De Nemours & Co.*, No. 4:09CV00686 ERW, 2010 U.S. Dist. LEXIS 3523, at \*6 (E.D. Mo. Jan. 15, 2010). While the trial on the patent issues began in July 2012, DuPont's antitrust claims have been split into a different case, with trial on those claims scheduled to begin in April 2013. Jack Kaskey & Susan Decker, *Monsanto-DuPont Trial Over Roundup-Ready*

The Department of Justice (DOJ) has also questioned the anticompetitive nature of Monsanto's practices. When Monsanto announced that it would acquire Delta and Pine Land Company, a top supplier of cottonseed, for \$1.5 billion, the DOJ halted the merger until Monsanto and Delta and Pine Land agreed to divest a number of valuable assets to prevent further consolidation in the cottonseed market.<sup>14</sup> Last year the DOJ and the USDA launched a joint investigation of Monsanto's anticompetitive market practices.<sup>15</sup> The Obama Administration said that antitrust investigations in the agriculture industry are a top priority, and to that end, the DOJ conducted a series of workshops discussing antitrust issues in agriculture in January 2011.<sup>16</sup>

Despite these inquiries into Monsanto's behavior, few have questioned whether the company abused its patent on the Roundup Ready gene to gain market share in the Roundup herbicide market by tying the two products together.<sup>17</sup> Examination of Monsanto's marketing practices suggests that the company is vulnerable to an illegal bundling claim. It is common practice for companies to bundle the sale of herbicide-tolerant, transgenic seeds with the sale of the herbicide that will be applied to the crop.<sup>18</sup> Monsanto achieves its bundling through licenses that require farmers to sign a technology agreement when purchasing Roundup Ready seeds, which restricts their purchase of herbicide to products that are approved by

---

*Crops to Start*, BLOOMBERG BUSINESSWEEK (July 9, 2012), <http://www.businessweek.com/news/2012-07-09/monsanto-dupont-trial-over-roundup-ready-crops-to-start#p1>. Syngenta and Monsanto settled a similar patent infringement and antitrust dispute in 2008. Laura Myers, *Syngenta and Monsanto Settle and Share*, FORBES (May 23, 2008), [http://www.forbes.com/2008/05/23/syngenta-monsanto-settlement-markets-equity-cx\\_lkm\\_0523markets14.html](http://www.forbes.com/2008/05/23/syngenta-monsanto-settlement-markets-equity-cx_lkm_0523markets14.html).

14. Press Release, U.S. Dep't of Justice, *Justice Department Requires Divestitures in \$1.5 Billion Merger of Monsanto and Delta & Pine Land* (May 31, 2007), available at [http://www.justice.gov/atr/public/press\\_releases/2007/223676.htm](http://www.justice.gov/atr/public/press_releases/2007/223676.htm).

15. Lauren Williamson, *Funny Farms: As Antitrust Allegations Fly, the DOJ and USDA Launch a Joint Examination of Competition in Agriculture*, INSIDE COUNSEL (Jan. 2010), <http://www.insidecounsel.com/2010/01/01/funny-farms>; see also Sheppard Mullin, *Government Targets Agriculture Industry for Increased Antitrust Scrutiny*, ANTITRUST L. BLOG (March 11, 2011), <http://www.antitrustlawblog.com/2011/03/articles/article/government-targets-agriculture-industry-for-increased-antitrust-scrutiny/>.

16. *Agriculture and Antitrust Enforcement Issues in our 21st Century Economy*, U.S. DEP'T OF JUSTICE, ANTITRUST DIV., <http://www.justice.gov/atr/public/workshops/ag2010/>, (last updated Jan. 10, 2011).

17. See *infra* Part III.B.

18. GARY CALLAHAN, COMMENTS SUBMITTED FOR DEP'T OF JUSTICE, ANTITRUST DIVISION WORKSHOP ON AGRICULTURE AND ANTITRUST ENFORCEMENT ISSUES IN OUR 21ST CENTURY ECONOMY, COMMENTS REGARDING AGRICULTURE AND ANTITRUST ENFORCEMENT ISSUES: RESTRAINTS ON COMPETITION IN SALES OF OFF-PATENT AGROCHEMICALS, Comment No. AGW-14481, at 1 (2009), available at <http://www.justice.gov/atr/public/workshops/ag2010/015/AGW-14481.html>.

Monsanto.<sup>19</sup> Although there are numerous generic alternatives, Monsanto also heavily encourages farmers to purchase its brand of herbicide with Roundup Ready seeds through discounting programs.<sup>20</sup> Additionally, Monsanto induces seed dealers to exclusively carry Monsanto products through similar discount programs, a practice that directly impedes competition.<sup>21</sup>

This Note will examine whether Monsanto should be held accountable for unlawful bundling under a theoretical judicial standard that finds both tying and bundling *quasi-per se illegal*—with no need to prove further consumer forcing. The argument is based on Einer Elhauge’s recent critique of the *rule of reason*,<sup>22</sup> a rule that states that tying and bundling schemes are illegal *only if* there is proof of substantial market foreclosure.<sup>23</sup> The trend towards adoption of the *rule of reason* has made it more difficult for challengers to successfully dispute tying and bundling schemes.<sup>24</sup> Such schemes should be susceptible to judicial scrutiny to protect consumer welfare, which is precisely the goal of the Sherman Antitrust Act.

Part I of this Note discusses current antitrust law as it relates to tying and bundling challenges. It will discuss the Sherman Antitrust Act, the initial rule of *per se illegality*, the rise of the single monopoly profit theory, and the resultant *rule of reason*. Part II outlines Einer Elhauge’s argument that the single monopoly profit theory—and the *rule of reason*—are flawed. Borrowing from Elhauge, this Note will argue that the logical extension of the Sherman Antitrust Act’s broad mandate to protect consumer welfare is the application of a rule of *quasi-per se illegality* for tying and bundling

---

19. See *infra* Part III.B.2.

20. See *infra* Part III.B.2.

21. CALLAHAN, *supra* note 18, at 4–5. See also *infra* Part III.B.2 (further discussing the anticompetitive effect of Monsanto’s licenses with seed dealers).

22. Einer Elhauge, *Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theory*, 123 HARV. L. REV. 397, 403–04 (2009).

23. Although courts apparently universally refer to the standard for tying arrangements as a standard of *per se illegality*, scholars note that term is inappropriate because the judicial test for tying requires that a company’s tying arrangement has an “anticompetitive impact,” which is the hallmark of the *rule of reason* in antitrust law. HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY: THE LAW OF COMPETITION AND ITS PRACTICE 392–93 (2d ed. 1999). Although this terminology can be confusing, the important point is that the *rule of reason* only prohibits activity under the Sherman Antitrust Act if there is proof that the tying activity “interfere[s] with competition unreasonably.” RICHARD A. POSNER, ANTITRUST LAW 39 (2d ed. 2001). On the other hand, a standard specifying that certain activity is *per se illegal* suggests an assumption that certain business activity is harmful to the consumer—without further consideration of the market impacts. *Id.*; see also HOVENKAMP, *supra*, at 251 (explaining that the difference between the *per se* rule and the *rule of reason* “lies in how much we need to know before we can make [a] decision” about the legality of an activity).

24. See Christian Ahlborn, David S. Evans & A. Jorge Padilla, *The Antitrust Economics of Tying: A Farewell to Per Se Illegality*, ANTITRUST BULL. 287, 304–05 (Spring 2004) (citing *United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001) (per curiam), *cert. denied* 534 U.S. 952 (2001)).

cases because tying and bundling harm overall consumer welfare. Finally, Part III applies this analysis in the context of agricultural seed production and sales. This Note argues that, under a rule of *quasi-per se illegality*, Monsanto should be held liable for tying its seeds containing the Roundup Ready gene to its Roundup herbicide.

I. CURRENT ANTITRUST LAW: FROM *PER SE ILLEGALITY* TO THE *RULE OF REASON*

A. *Bundling as a Special Type of Tying*

“A tying arrangement occurs when, through a contractual . . . requirement, a seller conditions the sale or lease of one product or service on the customer’s agreement to take a second product or service.”<sup>25</sup> Antitrust law recognizes three types of tying arrangements: “(1) an absolute refusal to sell the tying product without the tied product; (2) a discount, rebate or other financial incentive given to buyers who also take the tied product; (3) technological design that makes it impossible to sell the tying product without the tied product.”<sup>26</sup>

To avoid confusion, this Note will refer generally to the first type of tie as a contractual tie, the second type of tie as a bundled discount, and the third type of tie as a technological tie. A classic example of a contractual tie is the sale of two shoes together as a pair.<sup>27</sup> An example of a bundled discount is a restaurant prix fixe menu, where the consumer receives a discount for purchasing several courses of a meal together.<sup>28</sup> Finally, an example of a technological tie is found in the famous Microsoft case, where Microsoft bundled Internet Explorer software with the sale of its Microsoft Windows operating system.<sup>29</sup> A consumer could not purchase the Microsoft Windows software without also receiving the Microsoft Internet Explorer software. While courts often refer to these types of tying arrangements interchangeably,<sup>30</sup> this Note is primarily concerned with bundled discount arrangements.

It is necessary to clarify some additional terminology that will be utilized throughout this Note. As discussed above, tying arrangements bind

---

25. U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION 103 (2007).

26. HOVENKAMP, *supra* note 23, at 405.

27. *Id.* at 394.

28. U.S. DEP’T OF JUSTICE, *supra* note 25, at 103.

29. *Microsoft*, 253 F.3d at 45.

30. U.S. DEP’T OF JUSTICE, *supra* note 25, at 103 (citing *United States v. Loew’s, Inc.*, 371 U.S. 38 (1962)).

two products together through some mechanism—either through a contract, a discount, or technology. In tying arrangements, the seller conditions the sale of one product—called the “tying product”—on the sale of the other product—termed the “tied product.”

Two primary antitrust statutes govern the permissibility of tying arrangements: the Sherman Antitrust Act and the Clayton Act. Section 1 of the Sherman Act broadly states that “[e]very contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce . . . is declared to be illegal.”<sup>31</sup> Although the Sherman Act does not specifically prohibit tying, it has been applied to such arrangements due to the anticompetitive effects of those arrangements.<sup>32</sup> Relevant to tying arrangements, the Clayton Act states:

It shall be unlawful for any person engaged in commerce . . . to . . . make a sale or contract for sale of goods . . . whether patented or unpatented . . . or fix a price charged therefor, or discount from, or rebate upon, such price, on the condition, agreement, or understanding that the lessee or purchaser thereof shall not use or deal in the goods . . . of a competitor or competitors of the lessor or seller, where the effect of such . . . agreement or understanding may be to substantially lessen competition or tend to create a monopoly in any line of commerce.<sup>33</sup>

The Clayton Act’s broad mandate applies to tying arrangements because such arrangements encourage monopolistic behavior and create anticompetitive effects in the marketplace, which is specifically barred by the Clayton Act. At the most basic level, a tying arrangement is illegal under both statutes if it requires the purchase of multiple goods in a single transaction in a way that restrains competition in the marketplace.<sup>34</sup>

---

31. 15 U.S.C. § 1 (2006).

32. *See, e.g., Eastman Kodak Co. v. Image Tech. Servs.*, 504 U.S. 451, 458 (1992) (applying Sherman Act to Kodak’s practice of requiring customers buying replacement parts for Kodak copy machines to also use Kodak repair services, to the detriment of independent repair companies); *N. Pac. Ry. Co. v. United States*, 356 U.S. 1, 7 (1958) (applying Sherman Act to sale of land contracts with “preferential routing” clauses requiring the purchaser to ship goods over the railways and striking down those agreements as “unlawful restraints of trade”); *Times-Picayune Pub. Co. v. United States*, 345 U.S. 594, 605 (1953) (applying Sherman Act to newspaper’s policy requiring advertising buyers to purchase space in both morning and evening papers).

33. 15 U.S.C. § 14 (2006).

34. HOVENKAMP, *supra* note 23, at 407.

The test for deciding whether tying arrangements are illegal varies by jurisdiction.<sup>35</sup> However, the following five-part test contains all of the elements that courts consider when analyzing the illegality of tying arrangements:

(1) There must be separate tying and tied products; (2) there must be “evidence of actual coercion by the seller that in fact forced the buyer to accept the tied product”; (3) the seller must possess “sufficient economic power in the tying product market to coerce purchaser acceptance of the tied product”; (4) there must be “anticompetitive effects in the tied market”; and (5) there must be “involvement of a ‘not insubstantial’ amount of interstate commerce in the tied product market.”<sup>36</sup>

Prongs two, three, and four of this test are closely related, and as a result, these prongs are often difficult to distinguish. Prongs two and three are both related to coercion. Prong two requires evidence of actual coercion, and prong three requires “sufficient economic power in the tying market” to create coercion. The only distinction between these two steps of the test appears to be that prong two focuses on the buyer, whereas prong three focuses on the seller. Prong four requires proof of actual anticompetitive effects in the tied market, which is essentially the effect if prongs two and three are present. Both consumer coercion and strong economic power in the market are evidence of anticompetitive effects.<sup>37</sup>

Because the evidence required to satisfy these three prongs overlaps, courts have adopted differing requirements for proof of bundling agreements.<sup>38</sup> Moreover, when considering antitrust cases, courts often require differing types and amounts of proof depending on the particular fact pattern present in a case, making it confusing to predict how a court will interpret the requirements of the standard.<sup>39</sup> Understanding the evolution of case law in tying and bundling agreements is therefore helpful to elucidate the current judicial standard that is applied in bundling cases.

---

35. *Id.* at 392. All jurisdictions currently use a similar *rule of reason* test for evaluating tying agreements. However, the standard for evaluating tying arrangements differs depending on the jurisdiction—some jurisdictions utilize a three-part test, some use a four-part test, while others use a five-part test. *Id.* Those jurisdictions using a test with fewer parts simply incorporate multiple elements of the five-part test, so the test operates similarly in any jurisdiction. *Id.*

36. *Id.*

37. *See id.* at 405 (explaining the various meanings for “coercion,” which include forced sale of a tied product and market power in the tying product).

38. *See id.* at 392–93 (explaining how courts utilize each of the prongs in the five-part test).

39. *See id.* at 251–53 (explaining that every inquiry into anti-competitive behavior is “cut off at some point” and that there is a wide spectrum of types of cases where judges will require differing amounts of proof based on empirical knowledge).

### B. Per Se Illegality

Congress enacted the Sherman Antitrust Act in 1890 to combat vast accumulation of wealth through corporate monopoly.<sup>40</sup> Congress achieved this policy goal by prohibiting activities that restrain free competition.<sup>41</sup> As the Supreme Court explained, the Act “rests on the premise that the unrestrained interaction of competitive forces will yield the best allocation of our economic resources, the lowest prices, the highest quality and the greatest material progress.”<sup>42</sup> Broadly speaking, the purpose of the Act “is to protect the public from the failure of the market” by “direct[ing] itself . . . against conduct which unfairly tends to destroy competition itself . . . .”<sup>43</sup>

Early antitrust enforcement focused on breaking up trusts and restricting mergers in the steel, rail, and petroleum industries.<sup>44</sup> Antitrust policy became a contentious issue during the 1912 presidential election in part due to the development of the *rule of reason* established by the Supreme Court in two 1911 decisions—*Standard Oil Co. v. United States* and *United States v. American Tobacco Co.*<sup>45</sup> Both *Standard Oil* and *American Tobacco* involved large-scale, high-profile mergers, which the Court struck down as improper monopolization.<sup>46</sup> Although both cases resulted in antitrust convictions, the Court interpreted the Sherman Act to merely codify preexisting common law notions of what constitutes a violation of antitrust policy.<sup>47</sup> The Court stated, “[I]t follows that . . . the

40. DOUGLAS BRODER, U.S. ANTITRUST LAW AND ENFORCEMENT 6 (2010).

41. See *Apex Hosiery Co. v. Leader*, 310 U.S. 469, 492–93, n.15 (1940) (“It was enacted in the era of ‘trusts’ and of ‘combinations’ of businesses and of capital organized and directed to control of the market by suppression of competition in the marketing of goods and services, the monopolistic tendency of which had become a matter of public concern.”).

42. *N. Pac. Ry. Co. v. United States*, 356 U.S. 1, 4 (1958).

43. *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 458 (1993). Numerous commentators find the legislative history of the Sherman Antitrust Act to be confusing, making it difficult to ascertain the ultimate goal of federal antitrust policies. See, e.g., HOVENKAMP, *supra* note 23, at 47–51 (noting that the legislative history of the corpus of antitrust statutes is “frustrating” and contains “conflicting statements”). However, even the most vigorous critics of antitrust policy seem to agree that at bottom, antitrust laws “have only one legitimate goal,” which is “the maximization of consumer welfare.” ROBERT H. BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF 51 (1993).

44. BRODER, *supra* note 40, at 6.

45. HOVENKAMP, *supra* note 23, at 56.

46. *Standard Oil Co. v. United States*, 221 U.S. 1, 81 (1911); *United States v. Am. Tobacco Co.*, 221 U.S. 106, 180–84 (1911).

47. See *Standard Oil*, 221 U.S. at 51–60 (“[I]t is certain that those terms [referring to ‘restraint of trade’ and ‘monopoly’], at least in their rudimentary meaning, took their origin in the common law . . . . We shall endeavor then, first to seek their meaning, . . . by making a very brief reference to the elementary and indisputable conceptions of both the English and American law on the subject prior to the passage of the Anti-trust Act.”).



*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.”<sup>48</sup>

In 1913, after a successful election, the Woodrow Wilson administration responded to the Supreme Court’s pronouncement of the *rule of reason* by passing the Clayton Act, which took effect in 1914.<sup>49</sup> As discussed above, the Clayton Act explicitly outlawed anticompetitive behavior in the form of price discrimination and tying arrangements, while attempting to create a more “aggressive standard” than that espoused in the Supreme Court’s 1911 decisions.<sup>50</sup> Despite these new statutory tools aimed at strengthening the standards of review for antitrust challenges, enforcement of antitrust regulation waned during World War I, the Great Depression, and World War II.<sup>51</sup>

Antitrust enforcement reached a new height during the 1950s, largely due to the postwar economic boom and the increase of American corporate power.<sup>52</sup> As corporations “grew in size, they once again came to be seen as threats—potential or actual—to the public welfare.”<sup>53</sup> During this period, courts basically adopted a rule of *per se illegality* for cases arising under the Sherman Antitrust Act and the Clayton Act.<sup>54</sup> Under this strict standard, tying arrangements were illegal regardless of whether there was proof of anticompetitive effects.

For example, in *International Salt Co. v. United States*, the Court applied a rule of *per se illegality* to lease agreements for patented machines.<sup>55</sup> International Salt, the country’s largest producer of salt for industrial uses, had patents on several machines for utilizing the salt that the company sold.<sup>56</sup> The lease agreements for the machines required lessees to purchase salt exclusively from International Salt.<sup>57</sup> The Supreme Court held that while the patents gave International Salt a “limited monopoly of the invention,” the company had no similar “right to restrain use of, or trade in, unpatented salt.”<sup>58</sup> The Court held that “it is unreasonable, *per se*, to

---

48. *Id.* at 60 (emphasis added).

49. HOVENKAMP, *supra* note 23, at 56.

50. *Id.*

51. BRODER, *supra* note 40, at 7.

52. *Id.*

53. *Id.*

54. *See, e.g.*, *Times-Picayune Pub. Co. v. United States*, 345 U.S. 594, 692 (1953) (applying rule of *per se illegality*); *United States v. Paramount Pictures*, 334 U.S. 131 (1948) (same); *Int’l Salt Co. v. United States*, 332 U.S. 392 (1947) (same).

55. *Int’l Salt Co. v. United States*, 332 U.S. 392 (1947).

56. *Id.* at 394.

57. *Id.* at 395 n.6.

58. *Id.* at 395–96.

foreclose competitors from any substantial market.”<sup>59</sup> The Court did not engage in any analysis regarding the extent of the market foreclosure. Instead, the Court said, “agreements are forbidden which ‘tend to create a monopoly,’ and it is immaterial that the tendency is a creeping one rather than one that proceeds at a full gallop.”<sup>60</sup>

The Court applied a similar *per se illegality* rule in *Northern Pacific Railway Co. v. United States*, striking down sales contracts of railroad land that required the subsequent landowner to use the Company’s railway shipping services exclusively.<sup>61</sup> The Court stated, “there are certain agreements or practices which because of their pernicious effect on competition and lack of any redeeming virtue are conclusively presumed to be unreasonable and therefore illegal without elaborate inquiry as to the precise harm they have caused or the business excuse for their use.”<sup>62</sup> The Court placed tying arrangements within the group of such *per se* illegal practices because “competition on the merits with respect to the tied product is inevitably curbed.”<sup>63</sup>

The Court restated the basis for the rule of *per se illegality* in *Fortner Enterprises Inc. v. United States Steel Corp.*<sup>64</sup> The case involved contracts for credit to purchase land, which also required the purchaser to erect a prefabricated home manufactured by United States Steel.<sup>65</sup> The Court held that “appreciable restraint results whenever the seller can exert some power over some of the buyers in the market, even if his power is not complete over them and over all other buyers in the market.”<sup>66</sup>

*Fortner* and its preceding cases represent a sweeping antitrust policy that focuses on consumer welfare. Under cases like *Fortner*, any anticompetitive effect negatively affects consumer welfare by creating an imperfect marketplace. This desire to protect the consumer’s interest harkens back to the stated purpose of antitrust legislation: to protect the public interest by ensuring competition.<sup>67</sup> Thus, under a rule of *per se illegality*, there need not be an inquiry into the extent of the market foreclosure resulting from a tied arrangement.

---

59. *Id.* at 396.

60. *Id.*

61. *N. Pac. Ry. Co. v. United States*, 356 U.S. 1, 2 (1958).

62. *Id.* at 5.

63. *Id.* at 6.

64. *Fortner Enters., Inc. v. U.S. Steel Corp.*, 394 U.S. 495, 499–510, 511, 520 (1969).

65. *Id.* at 497.

66. *Id.* at 503.

67. *See BORK, supra* note 43, at 51.

C. *Single Monopoly Profit Theory and the Rule of Reason*

In the 1980s, antitrust enforcement, influenced by the Chicago school of law and economics, began to shift away from the strict rule of *per se illegality*.<sup>68</sup> The Chicago school, made up of academics, lawyers, and judges, held the view that the market is a more efficient way of controlling anticompetitive behavior than government regulation.<sup>69</sup> One justification for this view became known as the single monopoly profit theory, which states that “a firm with a monopoly in one product cannot increase its monopoly profits by using tying to leverage itself into a second monopoly in another product.”<sup>70</sup> The single monopoly profit theory holds that a firm would use a tying arrangement *only if* there were an economic efficiency for doing so.<sup>71</sup> Similarly, a consumer would only accept such a tying arrangement if it is equally, if not more, efficient compared with purchasing the two products separately.<sup>72</sup> Under the single monopoly profit theory, tying arrangements do not harm the competitive marketplace because they promote economic efficiency and consumer welfare.<sup>73</sup>

This theory—and the law and economics movement generally—has influenced recent tying jurisprudence. The single monopoly profit theory essentially stands for the proposition that if tying arrangements exist, they will always result in increased market efficiency, which in turn increases overall consumer welfare.<sup>74</sup> As a result, tying arrangements should be subject to a lenient judicial standard,<sup>75</sup> thus essentially returning to the *rule of reason*.<sup>76</sup>

---

68. BRODER, *supra* note 40, at 9.

69. *Id.*

70. Elhauge, *supra* note 22, at 403.

71. *Id.*; see POSNER, *supra* note 23, at 199 (explaining that a firm with a monopoly in one product will not want to “monopolize a complementary product” because such a tying scheme would increase the price of the final product, and consumers will “demand less of it and therefore buy less of the tying product”).

72. Elhauge, *supra* note 22, at 404.

73. *Id.*

74. See POSNER, *supra* note 23, at 206 (explaining that “virtually all products have components,” so banning all tying arrangements would be “devastating” and that “[w]hat keeps it in check is a tacit assumption that the more obvious combination sales could readily be justified by their lower costs compared to selling the components separately”); BORK, *supra* note 43, at 375–81 (1993) (outlining five justifications for tying arrangements and arguing that banning such arrangements “is unjustified and . . . inflict[s] harm upon consumers”).

75. POSNER, *supra* note 23, at 197.

Under the *rule of reason*, a tying arrangement is illegal only if there is proof that the alleged tying scheme substantially forecloses a share of the market.<sup>77</sup>

The Supreme Court explicitly gave up on the rule of *per se illegality* for tying in *Jefferson Parish Hospital District v. Hyde*.<sup>78</sup> The case involved a contract between a hospital and a group of anesthesiologists, which gave the anesthesiologists exclusive access to patients needing surgery (and anesthesiology services) in the hospital.<sup>79</sup> In discussing whether the agreement linking hospital services to anesthesiology services was an illegal tying arrangement, Justice Stevens, writing for the majority, stated the rule for illegal tying arrangements as follows:

Our cases have concluded that the essential characteristic of an invalid tying arrangement lies in the seller's exploitation of its control over the tying product to force the buyer into the purchase of a tied product that the buyer either did not want at all, or might have preferred to purchase elsewhere on different terms. When such "forcing" is present, competition on the merits in the market for the tied item is restrained and the Sherman Act is violated.<sup>80</sup>

Justice Stevens stated that *per se* condemnation is proper only in cases where "the existence of forcing is probable," or in the alternative, when a "substantial volume of commerce is foreclosed."<sup>81</sup> Forcing can be shown in three instances: (1) if the seller holds a patent or copyright; (2) if the seller's share of the market is high; or (3) if the seller has a unique product that cannot be offered by competitors.<sup>82</sup> Barring one of these three factors, a defendant bears the burden of proving that the tying arrangement resulted in "unreasonable restraint on competition."<sup>83</sup>

The Court concluded that the tying arrangement in question did not illegally force consumers to purchase the anesthesiology services. Consumers typically cannot evaluate the quality of different anesthesiologists, and consumers lack price consciousness for

---

76. BRODER, *supra* note 40, at 50 (noting that the traditional test for tie-ins has been *per se* illegality, but that the requirement that a "plaintiff seeking to make out a claim for *per se* illegality must also prove anticompetitive effects in the tied product market . . . is at odds with the traditional definition of *per se* illegality").

77. Elhauge, *supra* note 22, at 425–26.

78. *Jefferson Parish Hosp. Dist. v. Hyde*, 466 U.S. 2, 28–29 (1984).

79. *Id.* at 4–5.

80. *Id.* at 12.

81. *Id.* at 15–16.

82. *Id.* at 17.

83. *Id.* at 18.

anesthesiology services, making it difficult to “comparison shop.”<sup>84</sup> Therefore, because the tying arrangement did not “foreclose[] a choice that would have otherwise been made ‘on the merits,’” there was no consumer forcing.<sup>85</sup>

As described above, the majority opinion in *Jefferson Parish* maintained the position that ownership of a patent would be sufficient to conclude that consumer forcing is probable. In a concurring opinion, however, Justice O’Connor took the opposite view:

A common misconception has been that a patent or copyright, a high market share, or a unique product that competitors are not able to offer suffices to demonstrate market power. While each of these three factors might help to give market power to a seller, it is also possible that a seller in these situations will have no market power: for example, a patent holder has no market power in any relevant sense if there are close substitutes for the patented product.<sup>86</sup>

Justice O’Connor goes even further, stating that courts must engage in a complex analysis considering the economic effect of a tying arrangement before invalidating it. Under O’Connor’s view, in some instances, “[i]t may . . . be entirely innocuous that the seller exploits its control over the tying product to ‘force’ the buyer to purchase the tied product.”<sup>87</sup> According to O’Connor, consumer forcing is not problematic if the tying arrangement creates a market efficiency outweighing the anticompetitive impact.<sup>88</sup>

The Court resolved the dispute between Stevens’s majority and O’Connor’s concurrence about whether evidence of market power is necessary to invalidate a tying arrangement in *Illinois Tool Works, Inc. v. Independent Ink, Inc.*<sup>89</sup> In *Illinois Tool Works*, the Court considered whether an agreement forcing consumers to purchase a package containing a patented print head, patented ink container, and non-patented ink together constituted illegal tying.<sup>90</sup> The Court adopted O’Connor’s view that a patent is not sufficient evidence of consumer forcing to automatically apply a *per se rule of illegality* and upheld the validity of the tying arrangement.<sup>91</sup>

---

84. *Id.* at 27–28.

85. *Id.* at 28.

86. *Id.* at 37 n.7.

87. *Id.* at 41.

88. *Id.* at 42.

89. *Ill. Tool Works Inc. v. Indep. Ink, Inc.*, 547 U.S. 28, 46 (2006).

90. *Id.* at 31.

91. *Id.* at 42–43.

The Court relied on congressional action narrowing the doctrine of patent misuse to hold that ownership of a patent is not sufficient to apply a test of *per se illegality*.<sup>92</sup> Patent misuse is an affirmative defense that an alleged violator of a patent can assert against the patent holder.<sup>93</sup> The patent violator asserts this equitable defense to argue that the patent holder impermissibly expanded the scope of the patent.<sup>94</sup> A successful patent misuse defense makes the patent unenforceable but does not provide for recovery of damages.<sup>95</sup> In its codification of the patent laws, Congress shielded patent holders from the patent misuse defense by essentially abolishing the presumption that ownership of a patent implies market power.<sup>96</sup> The Court applied the new patent statute to the field of antitrust law, holding that antitrust violations also require additional proof of market power beyond ownership of a patent.<sup>97</sup>

As this Note will argue below, this approach to resolving tying claims involving intellectual property seems misguided and even dangerous. Importing a legal standard from patent law into antitrust law is illogical. Patent law and antitrust law have directly opposing goals: a patent grants a qualified monopoly in order to allow a corporation to regain the up-front cost of technological innovation, while the goal of antitrust litigation is to prevent monopolization and ensure competition in the marketplace.<sup>98</sup> It seems troubling, then, that the Court chose to apply a standard from patent law to the area of antitrust law—the statute was strengthened to protect patent holders from patent misuse claims.<sup>99</sup> As will be argued below, applying a similarly high evidentiary bar for antitrust claims tips the scale too far towards monopoly protection.

---

92. *Id.* at 41.

93. ABA SECTION OF ANTITRUST LAW, ANTITRUST COUNTERATTACK IN INTELLECTUAL PROPERTY LITIGATION HANDBOOK 90–91 (2010).

94. *Id.*

95. *Id.*

96. *Ill. Tool Works Inc.*, 547 U.S. at 41–42 (quoting 35 U.S.C. § 271(d)(5) (2006)). The relevant portion of the statute states:

“(d) No patent owner otherwise entitled to relief for infringement . . . of a patent shall be denied relief or deemed guilty of misuse . . . by reason of his having done one or more of the following: . . . (5) conditioned the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a separate product, unless, in view of the circumstances, the patent owner has market power in the relevant market for the patent or patented product on which the license or sale is conditioned.”

35 U.S.C. § 271(d) (2006).

97. *Ill. Tool Works Inc.*, 547 U.S. at 42–43.

98. Elhauge, *supra* note 22, at 397.

99. See HOVENKAMP, *supra* note 23, at 239 (noting that patent laws have “numerous potential conflicts with antitrust policy” so “the antitrust laws and the federal intellectual property laws must be interpreted so as to accommodate one another . . . neither should be interpreted in such a way as to disregard the other”).

## II. THE RULE OF REASON IS FLAWED

In his recent paper entitled *Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theory*, antitrust expert Einer Elhauge argued that the single monopoly profit theory is flawed.<sup>100</sup> Elhauge argues that the single monopoly profit theory depends on several flawed assumptions.<sup>101</sup> When any one of those assumptions does not exist, then tying arrangements increase market power and result in damage to consumer welfare.<sup>102</sup> As a result of what Elhauge calls “the death of the single monopoly profit theory,” he argues that tying arrangements should be subject to a *quasi-per se standard of illegality*.<sup>103</sup>

Under Elhauge’s preferred standard, tying arrangements should be illegal without proof of foreclosure of the tied product’s market—similar to the earlier rule espoused in *Fortner*.<sup>104</sup> The burden would instead shift to the defendant to show that there is an offsetting market efficiency to justify the tying arrangement—essentially an affirmative defense to the illegal tying claim.<sup>105</sup> This standard presumes that the defendant is engaging in anticompetitive behavior, but the defendant has an opportunity to justify that behavior by showing that there is some social gain resulting from the monopolistic behavior.<sup>106</sup>

More importantly for this Note, Elhauge argues that bundled discounts should be treated similarly to tying arrangements. He begins by arguing against the monopoly theory’s presumption that bundled discounts must lower prices for buyers, and should therefore be deemed presumptively competitive.<sup>107</sup> Instead, bundled discounts produce three primary power effects that permit corporations to engage in bundling to exploit the marketplace and reduce competition by extracting consumer surplus.<sup>108</sup>

---

100. Elhauge, *supra* note 22, at 425–26.

101. *Id.* at 404.

102. *Id.* at 405.

103. *Id.* at 399.

104. See *supra* Section I.B (describing the Supreme Court’s development of a *per se illegality* standard for antitrust cases).

105. Elhauge, *supra* note 22, at 425–26.

106. For example, Posner argues that antitrust objections should take a back-seat to monopoly power when the goal is to “spur invention.” POSNER, *supra* note 23, at 203. In that case, “the effect of higher monopoly profits in inducing more monopolizing may count as a social gain rather than as a social loss. This observation is especially relevant to the many cases in which tie-ins have been imposed by patentees in order to increase their profits from the patented invention.” *Id.*

107. Elhauge, *supra* note 22, at 450. Elhauge writes, “The most important thing to get straight about bundled discounts is that they need not reflect true discounts at all . . . all a bundled ‘discount’ means is that the defendant charges higher prices to buyers who won’t comply with a bundling condition than to buyers who will.” *Id.*

108. *Id.*

Elhauge argues that bundled discounts can result in: (1) extraction of individual consumer surplus; (2) intra-product price discrimination; and (3) inter-product price discrimination.<sup>109</sup> As a result of these three power effects, bundled arrangements should be *per se illegal* when the unbundled price for the linking product exceeds its bundled price.<sup>110</sup>

Before describing Elhauge's power effects, it is necessary to explain the concept of consumer surplus. Consumer surplus measures the benefit consumers gain from purchasing goods and services.<sup>111</sup> It is calculated by determining the difference between the total amount that consumers are willing and able to pay for a good or service, and the total amount that they actually pay.<sup>112</sup> For example, if a consumer—perhaps a caffeine-addicted law student—is willing to pay \$100 for a quality coffee maker, but she can purchase one for \$60, then the transaction has a consumer surplus of \$40. Every transaction in a competitive marketplace will have some amount of consumer surplus because it is impossible for a firm to determine the exact price each consumer would be willing to pay for a product.<sup>113</sup> Even if firms could determine the exact price each consumer would be willing to pay, price discrimination—charging differing rates for differing consumers—is not generally possible in a competitive marketplace.<sup>114</sup> A truly competitive marketplace maximizes consumer surplus because an efficient and fair marketplace allows consumers to benefit from their transactions.<sup>115</sup>

Elhauge argues that bundled discounts allow corporations to extract consumer surplus, decreasing overall consumer welfare. First, bundled discounts extract consumer surplus because “the bundling firm would maximize profits by setting an unbundled price for the linking product that chokes off unbundled purchases.”<sup>116</sup> In other words, bundling permits a corporation to set the unbundled price for both products individually higher and the bundled price for the two products together lower than the sum of

---

109. *Id.* at 451–55. The third effect, inter-product price discrimination, is not relevant to the Monsanto case; therefore, this Note will not discuss it.

110. *Id.* at 451.

111. HOVENKAMP, *supra* note 23, at 5.

112. *Id.*

113. N. GREGORY MANKIW, PRINCIPLES OF ECONOMICS 140–41 (6th ed. 2011) (noting that “[i]n most markets . . . consumer surplus does reflect economic well-being”).

114. *Id.* at 314 (“In a competitive market, many firms are selling the same good at the market price. No firm is willing to charge a lower price to any customer because the firm can sell all it wants at the market price. And if any firm tried to charge a higher price to a customer, that customer would buy from another firm.”).

115. HOVENKAMP, *supra* note 23, at 5. *See also* MANKIW, *supra* note 113, at 316 (showing graphically that a monopolist with perfect price discrimination will eliminate all consumer surplus in the market).

116. Elhauge, *supra* note 22, at 451–52.



the separate items—but still higher than the price the items would cost if the firm were not allowed to bundle the items together.

For example, suppose that a company offers specialized, exclusive coffee makers that are bundled together with coffee beans. Assume the individual monopoly price—the price a firm would charge to maximize profits in a non-competitive marketplace—for the coffee maker is \$100, while the price for a pound of coffee beans is \$25. As a package, the coffee maker and beans together are worth \$150 to the consumer; the transaction produces a consumer surplus of \$25. Bundling allows the company to maximize profits by increasing the price of both the coffee maker and the coffee beans. Assume the company decides to sell the coffee maker for \$110 and the beans for \$40. However, if the consumer opts to purchase the two together, they will receive a “discount” of \$20. The total for the package is then \$130, which seems like a good deal to the discount-minded consumer who thinks the package is worth \$150. However, the consumer has only extracted a surplus of \$20, \$5 less than the surplus under the unbundled example. Moreover, bundling the products allows the company to leverage its dominance in the coffee maker market into the coffee bean market; purchasing just the coffee maker at the increased price of \$110 and coffee beans from a competitor at the market price of \$25 means that the consumer would pay \$5 more for choosing not to take the bundled option. Therefore, bundling allows a corporation with an uncommon product the ability to both extract consumer welfare and to leverage its monopoly in one market into a secondary market.

Bundling also allows intra-product price discrimination.<sup>117</sup> “[A]ssume buyers use varying amounts of the linked product with the linking product and demand for them is positively correlated.”<sup>118</sup> For example, again assume that a company offers a specialized coffee maker. One particular consumer would be willing to pay \$300 for the coffee maker because it has the best steaming functionality of any coffee maker in the marketplace and that consumer’s favorite drink is cappuccino. Because not every caffeine addict drinks three cappuccinos per day and will not place the same high value on the coffee maker, the company prices the coffee maker at \$100 to maximize profits. In such a situation, the consumer is receiving a large consumer surplus of \$200.

If the company can bundle the coffee maker with coffee beans, however, then the company can sell the coffee maker at an even lower cost, say \$50, which is the cost for building the coffee maker (marginal cost),

---

117. *Id.* at 454.

118. *Id.*

along with a loyalty discount program for coffee beans. At such a low price, called the “choke price,” the company would eliminate all buyers wishing to purchase the coffee maker without the bundle of the loyalty program for coffee beans.<sup>119</sup> The company can then charge an increased price for coffee beans purchased through the loyalty program. In that way, the company is engaging in price discrimination: consumers who drink a lot of coffee (use the coffee maker more frequently) end up paying more over time because they purchase more beans via the loyalty program, which sells coffee beans at an increased price relative to the marketplace. Thus, through bundling, the company is extracting consumer surplus through price discrimination, effectively charging those consumers who place a higher value on the coffee maker more through their increased use.<sup>120</sup>

Because bundling allows corporations to extract consumer welfare, Elhaug argues that courts should apply a *quasi-per se rule of illegality* to bundled discounts. He states the proper judicial standard as follows: “When the linking product’s unbundled price exceeds its but-for price, bundled discounts . . . should be treated like ties by applying a similar quasi-per se rule that bases liability on linking market power unless the defendant proves offsetting efficiencies.”<sup>121</sup> In other words, if the linking product’s unbundled price is greater than that same product’s bundled price, the court should apply a *quasi-per se rule of illegality* to discounts involving that product, unless the defendant offers a legitimate justification for engaging in monopolistic behavior.

Elhaug’s proposed standard simplifies the five-prong test described above.<sup>122</sup> Elhaug’s economic analysis shows that any amount of market power in the linking product is sufficient to produce anticompetitive effects, without additional proof of consumer coercion in the tied marketplace.<sup>123</sup> Elhaug would apply a rule similar to the following: (1) there must be separate tying and tied products with separate utilities; (2) the linking product’s unbundled price must be greater than its bundled (but-for) price; and (3) the seller must possess economic power in the tying product market.<sup>124</sup> Once a challenger proves those three elements, the tie should be

---

119. The “choke price” is the price “that eliminates all demand.” *Id.* at 453.

120. *Id.*

121. *Id.* at 468.

122. See *supra* Section I.A (listing elements of five-prong test require to prove illegal tying arrangements).

123. See Elhaug, *supra* note 22, at 420 (concluding that “[t]ying can profitably increase monopoly profits whether the ratios are variable or fixed, whether demand is positively or negatively correlated, and with or without a substantial foreclosure share”).

124. *Id.* at 451 (establishing the legal test for bundled discounts).

*quasi-per se illegal*, unless the defendant corporation can prove offsetting market efficiencies.<sup>125</sup>

### III. MONSANTO'S BUNDLING SCHEME EXAMINED UNDER ELHAUGE'S STANDARD

Monsanto has been the target of numerous antitrust actions. Most of those actions have involved challenges to the restrictive licensing agreements it has on the Roundup Ready trait. For example, recently, DuPont challenged Monsanto's anti-stacking clauses in its licensing agreements, which prohibit a Monsanto competitor with a license to use the Roundup Ready trait in its own seeds from adding any additional traits to the seed with the Roundup Ready trait.<sup>126</sup> These anti-stacking provisions have effectively allowed Monsanto to block its competitors—many of whom hold patents on traits for resistance to different herbicides other than Roundup or glyphosate—from inserting its genes into the majority of U.S. crops, which already contain the Roundup Ready gene.<sup>127</sup> The trial in the DuPont case began in July 2012, but the court will not hear the antitrust claims at issue in the case until April 2013.<sup>128</sup> Syngenta, another Monsanto competitor, settled a similar dispute in 2008.<sup>129</sup>

Most antitrust litigation against Monsanto by individual farmers has arisen after Monsanto brings a patent infringement claim—usually for violating the company's Technology Agreement.<sup>130</sup> Monsanto states that it

---

125. *Id.*

126. *Monsanto Co. v. E.I. Dupont De Nemours & Co.*, No. 4:09CV00686 ERW, 2010 U.S. Dist. LEXIS 3523, at \*6 (E.D. Mo. Jan. 15, 2010).

127. Leonard, *supra* note 11.

128. Kaskey & Decker, *supra* note 13.

129. Myers, *supra* note 13. Notably, the settlement agreement with Syngenta involved trading licenses: Monsanto received a royalty-bearing license to Syngenta's dicamba herbicide tolerance, and Syngenta received a similar license to Monsanto's Roundup Ready 2 soybean trait. *Id.* Monsanto recently announced that in 2014, it will release a new soybean seed that is double-stacked to be resistant to both glyphosate and dicamba and a new dicamba and glyphosate herbicide mix to accompany the new seed. Karen McMahon, *Monsanto to Add Dicamba Tolerant Trait to RR Soybeans*, FARM INDUSTRY NEWS (Mar. 1, 2012), <http://farmindustrynews.com/biotech-traits/monsanto-add-dicamba-tolerant-trait-rr-soybeans>.

130. *Saved Seed and Farmer Lawsuits*, MONSANTO, <http://www.monsanto.com/newsviews/Pages/saved-seed-farmer-lawsuits.aspx> (last visited Nov. 11, 2012). *See, e.g.*, *Monsanto Co. v. Bowman*, 686 F. Supp. 2d 834, 836 (S.D. Ind. 2009) (involving suit against farmer for saving seeds to plant in a subsequent growing season in violation of the technology agreement and rejecting farmer's affirmative defense of patent exhaustion), *aff'd* 657 F.3d 1341 (Fed. Cir. 2011), *cert. granted*, 80 U.S.L.W. 3380 (U.S. Oct. 5, 2012); *Monsanto Co. v. Strickland*, No. 4:05-3062-RBH, 2007 WL 3046700, at \*2 (D.S.C. Oct. 16, 2007) (involving patent infringement claim for saving and replanting seeds in violation of licensing agreement); *Monsanto Co. v. Potts*, No. 2:04-CV-282, 2005 WL 1514130, at \*1 (D. Ohio June 24, 2005) (involving suit against farmer who saved seeds in violation of technology agreement);

has filed 145 suits against farmers since 1997,<sup>131</sup> and the company has faced harsh criticism in the media for its “no-holds-barred tactics” of placing potential patent-offending farmers under strict surveillance before determining whether to bring suit against that farmer.<sup>132</sup>

Due in part to congressional action severely limiting the doctrine of patent misuse, antitrust and bundling claims raised against Monsanto have been unsuccessful.<sup>133</sup> Moreover, as discussed above, judicial doctrine in the area of bundling means that virtually no challenges to Monsanto’s anticompetitive bundling activity have ever been brought—let alone been successful.<sup>134</sup> This is due to the requirement that challengers must prove consumer forcing and market foreclosure. However, application of Elhauge’s economic reasoning and resultant simplified standard suggests that Monsanto’s bundling of Roundup Ready seed with Roundup herbicide is potentially anticompetitive and ought to be condemned. Before applying Elhauge’s analysis to Monsanto’s bundling activity, it is helpful to understand the basis for prior bundling challenges brought against Monsanto and why those challenges have failed.

#### A. *Prior Bundling Challenges Against Monsanto*

One recent case where a court grappled with use of a bundling theory to accuse Monsanto of violating antitrust laws due to its packaging of

---

Monsanto Co. v. Roman, No. Civ.A. 103CV068-C, 2004 WL 1107671, at \*2 (D. Tex. May 17, 2004) (involving failure to sign technology agreement); Monsanto Co. v. Good, No. Civ.A.01-5678 FLW, 2004 WL 1664013, at \*2 (D.N.J. July 23, 2003) (involving suit against individual farmer for failing to sign a Monsanto license agreement after purchase of Roundup Ready seed); Monsanto Co. v. Byrd, No. 7:99-CV-154-F1, 2000 WL 33952260, at \*2 (D.N.C. Dec. 11, 2000) (involving suit against farmer who allegedly saved seeds after signing Monsanto’s technology agreement and subsequently planted and sold them in the next growing season).

131. *Saved Seed and Farmer Lawsuits*, *supra* note 130. Many farmers who choose not to plant genetically modified seeds fear that through natural pollination processes, their crops will be contaminated by neighboring Roundup Ready crops. A group of more than 60 such farmers filed a class action suit against Monsanto, asserting that the company’s patents are unenforceable. The group stated that they felt it necessary to sue preemptively to prevent Monsanto from suing them in the future for infringing the company’s patents on glyphosate resistant seeds as a result of crop contamination. *Farmers and Seed Distributors Sue Monsanto to Protect Themselves from Patents on Genetically Modified Seed*, CAN. BIOTECH. ACTION NETWORK (Mar. 30, 2011), <http://cban.ca/Press/Press-Releases/Farmers-and-Seed-Distributors-Sue-Monsanto-to-Protect-Themselves-from-Patents-on-Genetically-Modified-Seed>.

132. Donald L. Bartlett & James B. Steele, *Monsanto’s Harvest of Fear*, VANITY FAIR, May 2008, <http://www.vanityfair.com/politics/features/2008/05/monsanto200805>.

133. *See supra* Section I.C (discussing how Congress shielded patent holders by abolishing presumption of market power).

134. *See supra* Section I.C (concluding that courts have adopted patent law legal standards in antitrust litigation).

Roundup Ready seeds with the Roundup herbicide is *Monsanto Co. v. Scruggs*.<sup>135</sup> In that case, Monsanto sued a farmer, Scruggs, for infringing the company's patent by failing to sign a required technology agreement upon purchase of Roundup Ready soybean and cotton seeds.<sup>136</sup> The agreement stated, among other things, that the buyer could not retain seeds from the year's harvest to plant in the following growing season.<sup>137</sup> Scruggs, who admitted to retaining seeds and planting them in a subsequent season, asserted several affirmative defenses to the patent infringement claim, including a defense based on antitrust law.<sup>138</sup> The trial court granted Monsanto's summary judgment motion on the antitrust defenses, and the appeals court affirmed that decision.<sup>139</sup>

Scruggs argued that Monsanto's business practices involved invalid tying arrangements for two reasons. First, Monsanto's "grower license agreements between 1996 and 1998 stated that if a grower chose to use glyphosate herbicide . . . then the grower must use Roundup," and Monsanto's seed partner agreements similarly required seed growers to use Roundup exclusively.<sup>140</sup> Second, Monsanto used incentives to give growers benefits if they voluntarily used Roundup herbicide on their Roundup Ready crops.<sup>141</sup> The appeals court quickly rejected the tying argument under the *rule of reason* without much explanation.<sup>142</sup> The agreements forcing growers to exclusively use Roundup herbicide between 1996 and 1998 were valid, according to the court, because Roundup was the only EPA-approved herbicide on the market for that purpose at the time.<sup>143</sup> Furthermore, the court stated that the incentive program was optional; therefore, there was no

---

135. *Monsanto v. Scruggs*, 459 F.3d 1328, 1333 (Fed. Cir. 2006). Texas Grain Storage, Inc., a direct purchaser of Roundup Ready seeds and Roundup herbicide, brought direct antitrust claims against Monsanto alleging illegal tying claims substantially similar to those at issue in *Scruggs*. *Tex. Grain Storage, Inc. v. Monsanto*, Civil No. SA-07-CA-673-OG, 2008 WL 2570530 (W.D. Tex., June 26, 2008). However, those tying claims were dismissed after Monsanto filed a 12(b)(6) motion, stating that Texas Grain Storage lacked standing to sue for illegal tying. *Id.* at \*4. *See also* Pullen Seeds & Soil v. Monsanto Co., Civil Nos. 06-599-SLR, 06-600-SLR, 2007 WL 2071752 (D. Del., July 18, 2007) (dismissing a bundling case for failure to abide by a forum selection clause).

136. *Scruggs*, 459 F.3d at 1333.

137. *Id.*

138. *Id.* at 1333–34.

139. *Id.* at 1332.

140. *Id.* at 1339. Grower license agreements are those agreements Monsanto has with individual farmers at the time they purchase seeds, while seed partner agreements are agreements Monsanto has with companies that market and sell its seeds to individual farmers. *Id.* at 1333.

141. *Id.*

142. *Id.* at 1340.

143. *Id.* at 1339–40. Interestingly, Judge Dyk took issue with the majority's conclusion on this point in a dissent. *Id.* at 1342–43. Judge Dyk wrote, "Substantial competitive risks inhere in such an arrangement. Potential competitors are potentially discouraged from seeking regulatory approval or attempting to have the regulation modified or eliminated." *Id.* at 1343.

consumer coercion.<sup>144</sup> The *Scruggs* court therefore essentially applied the five-prong test explained above and held in favor of Monsanto because *Scruggs* lacked sufficient evidence of consumer forcing and anticompetitive effects—precisely the two prongs that Elhauge’s standard does not require.

*B. Monsanto is Guilty of Illegal Bundling Under Elhauge’s Standard*

Under the less stringent legal standard supported by Elhauge’s economic analysis, Monsanto would likely be held accountable for illegal bundling. Recall that Elhauge’s preferred standard is a three-part test: (1) there must be separate tying and tied products; (2) the linking product’s unbundled price must be greater than its bundled price; and (3) the seller must possess economic power in the tying product market.<sup>145</sup> Once a challenger proves these three elements, the tie should be *quasi-per se illegal*, unless the defendant corporation can prove offsetting market efficiencies.<sup>146</sup> Considering each element in turn, it seems likely that Monsanto is guilty of illegal bundling of Roundup Ready crops with the Roundup chemical.

1. Do Roundup Ready Seeds and Roundup Herbicide Have Separate Markets?

The first element of Elhauge’s tying test is that there be separate tying and tied products. The Supreme Court finds that two products exist when there is separate demand for the products.<sup>147</sup> Put another way, “the alleged

---

144. *Id.* Although the *Scruggs* court found insufficient evidence of consumer coercion, a dissenting opinion in *Monsanto v. McFarling* recognized consumer coercion existed given the conditions of the agricultural seed market. *Monsanto v. McFarling*, 302 F.3d 1291, 1301 (Fed. Cir. 2002). *McFarling* argued that Monsanto was guilty of illegally tying the purchase of its Roundup Ready soybean seeds with an additional technology fee, which the company requires every grower purchasing seeds to pay as a licensing fee. *Id.* at 1297. Judge Clevenger stated that the grower’s choice to obtain either glyphosate-resistant seed or ordinary seed without adhering to the licensing fee is not a free choice: Roundup Ready seeds account for at least 66 percent of the market, and Roundup Ready seeds “are especially important to farmers . . . because [the geographic area in which *McFarling* lives] harbors particular weeds that are difficult to control without glyphosate-based herbicides.” *Id.* at 1301. Clevenger said, “Taken together, these facts indicate that farmers like *McFarling* have little choice but to sign the Technology Agreement if they wish to remain competitive in the soybean market.” *Id.*

145. *See supra* Part II (explaining that Elhauge’s three-prong test does not require additional proof of consumer coercion).

146. *See supra* Part II (explaining that under Elhauge’s three-prong test, if all three elements are proven, defendant is given opportunity to show legitimate justification for engaging in monopolistic behavior).

147. *Jefferson Parish Hosp. Dist. v. Hyde*, 466 U.S. 2, 20 (1984) (explaining that “whether one or two products are involved turns not on the functional relation between them, but rather on the character of the demand for the two items”).

tying and tied items are separate products if the tying item is commonly sold separately from the tied item.”<sup>148</sup> The reasoning for this requirement lies in the rationale for excluding tying arrangements as anticompetitive—that a company must have “foreclosed competition . . . in a product market distinct from the market for the tying item.”<sup>149</sup> Tying arrangements are problematic for the marketplace because such arrangements allow a company to use its dominance in one product market to leverage into another product market.

There is strong evidence suggesting that Roundup herbicide has a market on its own, separate from Roundup Ready seeds. Glyphosate is frequently used to kill weeds on non-Roundup Ready crops. There are three ways consumers can use glyphosate without planting Roundup Ready seeds: (1) selectively spraying fields where weeds are invasive but where no crops will be touched by the herbicide; (2) directly applying the herbicide to entire fields to control weeds prior to planting a cash crop,<sup>150</sup> and (3) spraying weed-ridden areas of personal property in a lawn-and-garden application.<sup>151</sup>

Directly applying Roundup herbicide to a field before planting a crop is a widely used way to control weeds, especially with the development of new methods of farming termed “conservation tillage.”<sup>152</sup> Also known as no-till farming, conservation tillage is a soil conservation procedure that encourages farmers to refrain from using heavy machinery to till their fields to control weeds, saving large equipment and fuel costs.<sup>153</sup> When no-till farming was first introduced, environmental and conservation groups promoted it as a way for farmers to produce crops by burning fewer fossil fuels, spraying fewer chemicals over the growing season, and causing less topsoil erosion. Monsanto quickly began marketing Roundup for this new use.<sup>154</sup> As a result, “[n]early a third of all acres planted in the United States now use some form of conservation tillage, and more than 40 percent of the volume growth for Roundup in the last few years has come from expanded use of conservation tillage practices.”<sup>155</sup> The United States Department of Agriculture’s Economic Research Service (ERS) indicates that about 35.5%

---

148. HOVENKAMP, *supra* note 23, at 410.

149. *Jefferson Parish*, 466 U.S. at 21.

150. MICHAEL V. RUSSO, ENVIRONMENTAL MANAGEMENT: CASES AND MATERIALS 210–11 (2d ed. 2008).

151. *Roundup Weed & Grass Killer*, THE SCOTTS MIRACLE-GRO CO., <http://www.roundup.com> (last visited Nov. 11, 2012).

152. RUSSO, *supra* note 149, at 210–11.

153. *Id.* at 211.

154. *Id.*

155. *Id.*

of cropland in the United States had no-till farming operations in place in 2009.<sup>156</sup> In addition, the rate of no-till land increased by about 1.5% per year between 2000 and 2007. No-till land therefore represents a large market segment that would demand Roundup herbicide but not Roundup Ready seeds.<sup>157</sup>

## 2. Do Roundup Ready Seed Prices Exceed Their Bundled Price?

This second element of Elhauge's test is the most important and represents the largest departure from the current standard utilized to evaluate antitrust claims. Recalling Elhauge's argument, bundled discounts are problematic because they allow corporations to extract consumer surplus.<sup>158</sup> This is true because bundled discounts encourage corporations engaging in bundling to set the unbundled price for the linking product high enough to choke off unbundled purchases.<sup>159</sup> A firm might use a customer loyalty program to make bundled discounts more appealing to consumers. Those loyalty programs in turn permit the company to engage in price discrimination by charging more for the linked product over the course of the relationship with the consumer.

Proving that the unbundled price for the linking product is greater than the price it would be offered but-for the bundle can be difficult. Elhauge offers several ways of getting over the proof hurdle. First, he says internal documents can reveal a corporation's business plan "to raise the unbundled price in order to induce agreement on the bundle."<sup>160</sup> As a second way of proving the unbundled price is greater, he explains that "one might rely on a presumption that unbundled prices that exceed pre-program prices also

---

156. JOHN HOROWITZ ET AL., U.S. DEP'T OF AGRIC., ECON. RESEARCH SERVICE, ECON. INFO. BULL. NO. EIB-11, 'NO-TILL' FARMING IS A GROWING PRACTICE (2010), available at [http://www.ers.usda.gov/Publications/EIB70/EIB70\\_ReportSummary.pdf](http://www.ers.usda.gov/Publications/EIB70/EIB70_ReportSummary.pdf).

157. Since Monsanto's patent on Roundup herbicide expired in 2000, however, it should be noted that because Monsanto demands a higher price for the name-brand herbicide than generic counterparts, no-till farmers are more likely to utilize a cheaper, generic option. RUSSO, *supra* note 149, at 211. However, Monsanto recently announced dramatic changes to its Roundup pricing structure as a result of the increase in generic glyphosate manufacturers, so that its price is only marginally higher than similar generic options. David Frabotta, *Glyphosate Report: Monsanto Secures Its Share of the Homeland*, FARM CHEMS. INT'L, Sept. 2010, <http://www.farmchemicalsinternational.com/companyreports/bigsix/?storyid=2746>. As will be discussed further in the next section, Monsanto uses numerous loyalty programs and gives farmers additional guarantees about the effectiveness of the product, which make up for the price differential. *Id.*

158. Elhauge, *supra* note 22, at 412.

159. *Id.* at 451–52.

160. *Id.* at 469.



exceed but-for prices, rebuttable by some showing that costs have increased over time.”<sup>161</sup>

In the case of Monsanto, either of these methods would be sufficient to show that the unbundled price exceeds the but-for price. There is strong evidence that the company’s business plan was to increase the price of linking product (Roundup Ready seeds) to choke off all sales of seed that did not take advantage of the bundled Roundup herbicide. Furthermore, there is likely no possible efficiency explanation that Monsanto can offer to rebut the presumption that since the unbundled price for Roundup Ready seed exceeds pre-program prices, the unbundled price also exceeds the but-for price.

There is evidence suggesting that Monsanto’s business plan was to increase the price of Roundup Ready seeds so that it would choke off all deals for only the seeds and essentially force consumers into purchasing Roundup herbicide.<sup>162</sup> The company’s biotechnology development strategy has been to provide a “complete agronomic system that hinges on brand loyalty.”<sup>163</sup> As the company’s North American crop protection marketing lead stated, “Growers have trusted and grown up with Roundup’s performance and crop safety, and we are not only trying to accomplish that but also the second piece, which is more important, is driving the use of a *total system* on Roundup Ready cotton, corn or soybean acres.”<sup>164</sup> Monsanto’s insistence on marketing the purchase of its entire line of products to growers is circumstantial evidence that the company is leveraging its dominance in the seed market to gain dominance in the glyphosate market.

To achieve that goal, Monsanto requires farmers to sign a technology agreement upon purchase of any Roundup Ready seed.<sup>165</sup> The technology agreement requires, among other things, that growers must “use on Roundup Ready crops only a labeled Roundup agricultural herbicide or other authorized non-selective herbicide which could not be used in the absence of the Roundup Ready gene.”<sup>166</sup> It is true that the agreement currently does not require growers to explicitly purchase Roundup brand herbicide—it permits “other authorized” herbicides, meaning other EPA-approved herbicides on the market.<sup>167</sup> However, between 1996 and 1998, the agreement required

---

161. *Id.*

162. No direct evidence of such a business plan is available unless Monsanto voluntarily releases internal corporate documents to the public.

163. Frabotta, *supra* note 157.

164. *Id.* (emphasis added).

165. MONSANTO, 2008 MONSANTO TECHNOLOGY/STEWARDSHIP AGREEMENT, *available at* [http://www.monsanto.com/SiteCollectionDocuments/tug\\_sample.pdf](http://www.monsanto.com/SiteCollectionDocuments/tug_sample.pdf) (last visited Nov. 11, 2012).

166. *Id.*

167. Such an explicit requirement would instead be a contractual tie. *See supra* Section I.A.

growers to use only Roundup brand herbicide.<sup>168</sup> Up until 2000, when the patent on Roundup herbicide expired, Monsanto held dual patents on both Roundup Ready seeds and Roundup herbicide.<sup>169</sup> A few years before the patent on Roundup herbicide was set to expire, Monsanto introduced Roundup Ready seeds into the market.<sup>170</sup> At least one commenter argued, “the timing of the introduction of the Roundup Ready seeds with the expiration of the Roundup patent is critical to understanding Monsanto’s market strategy . . . .”<sup>171</sup> The dual patent magnified the anticompetitive effects resulting from the tying arrangement, creating increased demand for Roundup herbicide and permitting Monsanto to keep prices for both products elevated.<sup>172</sup> Monsanto pursued this strategy precisely to become a giant in *all* aspects of the agricultural crop production market.

Monsanto also runs numerous loyalty programs to encourage the purchase of Roundup Ready seeds with the Roundup herbicide. These loyalty programs exist at the grower level and at the seed-dealer level of Monsanto’s sales structure. At the grower level, Monsanto runs a program called Roundup Rewards.<sup>173</sup> The program gives growers a discount for purchasing Roundup seed along with Roundup herbicide.<sup>174</sup> To qualify for the Roundup Rewards program, growers must agree to use only “labeled Roundup brand agricultural herbicides . . . for all applications on any Monsanto trait crop.”<sup>175</sup> The program gives varying incentives depending on which products the grower purchases, but a grower can earn as much as \$3 per acre in discounts.<sup>176</sup> In addition to monetary incentives, the Roundup Rewards program provides yield protection, replant insurance, and other product support.<sup>177</sup> These guarantees give growers peace-of-mind when weather conditions require them to replant a crop, or if the Monsanto product fails to produce its guaranteed yield per acre. It is estimated that

---

168. *Monsanto v. Scruggs*, 459 F.3d 1328, 1339 (Fed. Cir. 2006).

169. Peter Luce, *Monsanto Co. v. Scruggs: Has Federal Circuit Biotechnology Patent Scope Jurisprudence Gone to Seed?*, 9 TUL. J. TECH. & INTELL. PROP. 385, 393 (2007).

170. *Id.*

171. *Id.*

172. *Id.*

173. *Roundup Rewards: 2011 Summary & Requirements*, MONSANTO, <https://www.rounduprewards.com/SiteCollectionDocuments/color.pdf> (last visited Nov. 11, 2012) [hereinafter *Roundup Rewards*].

174. *Id.*

175. *Id.*

176. *Id.* This discount may not seem substantial, but when multiplied by thousands of acres, the rewards add up. In addition, Elhauge reasons that the size of the discount is essentially irrelevant: “Any bundled discount above zero is legally foreclosing. This makes some sense because, as noted above, even a trivial discount can produce anticompetitive effects given buyer collective action problems and effects on rival incentives to cut prices.” Elhauge, *supra* note 22, at 470.

177. *Roundup Rewards*, *supra* note 173.

about 30,000 U.S. farmers participate in the Roundup Rewards program each year.<sup>178</sup>

Recently, Monsanto launched a new marketing strategy emphasizing the Roundup Rewards program. In response to complaints that widespread application of Roundup herbicide is breeding new “superweeds” that are resistant to the herbicide,<sup>179</sup> Monsanto introduced new monetary incentives for growers who introduce an additional chemical—termed a “residual” for its ability to kill additional unwanted weeds—into their growing practices.<sup>180</sup> Under the new Roundup Ready PLUS program, cotton growers can earn as much as \$20 per acre in rebates, and soybean growers can earn as much as \$3 per acre in rebates.<sup>181</sup> The rebate program shows that Monsanto’s marketing strategy is to provide the entire line of products growers need to produce crops. Monsanto used the patents on Roundup Ready seed traits to slingshot itself into herbicide markets—first with Roundup, and now with a new group of “residual” herbicides.<sup>182</sup>

The second level at which Monsanto uses loyalty reward programs to increase its market share is at the seed-dealer level. Monsanto distributes seeds through part-time farmers who sell seeds to other farmers, or through agricultural supply stores, inserting at least one middle-tier individual between Monsanto and the individual grower.<sup>183</sup> Monsanto’s rebate programs with seed dealers encourage dealers to sell Monsanto-brand seeds and herbicides exclusively through “programs that either reward[] or penaliz[e] them based on their sales of Monsanto products versus competing generic products.”<sup>184</sup> To qualify for the maximum rebate, a dealer must purchase a minimum percentage—frequently over 90%—of their supply of seed and herbicide products exclusively from Monsanto over

---

178. Frabotta, *supra* note 157.

179. William Neuman & Andrew Pollack, *Farmers Cope With Roundup-Resistant Weeds*, N.Y. TIMES (May 3, 2010), <http://www.nytimes.com/2010/05/04/business/energy-environment/04weed.html>.

180. Press Release, Monsanto, Monsanto Outlines New Weed Management Platform Under the Roundup Ready PLUS Brand (Oct. 19, 2010), <http://monsanto.mediaroom.com/index.php?s=43&item=888> [hereinafter Monsanto Press Release]; see also *Roundup Ready PLUS*, MONSANTO, <https://www.roundupreadyplus.com/RewardsProgram/Pages/default.aspx> (last visited Nov. 11, 2012).

181. *Id.*

182. Elhauge notes that multiple product discount bundles actually “make[] it easier to procure and enforce buyer agreements to loyalty discounts that discourage discounting,” therefore compounding the coercive effects of the initial bundled agreement. Elhauge, *supra* note 22, at 460.

183. Jorge Fernandez-Cornejo, U.S. DEP’T OF AGRIC. ECON. RESEARCH SERV., AGRIC. INFO. BULL. NO. AIB-786, *THE SEED INDUSTRY IN U.S. AGRICULTURE: AN EXPLORATION OF DATA AND INFORMATION ON CROP SEED MARKETS, REGULATION, INDUSTRY STRUCTURE, AND RESEARCH AND DEVELOPMENT* 29 (2004), <http://www.ers.usda.gov/publications/aib786/aib786g.pdf>.

184. *Tex. Grain Storage, Inc. v. Monsanto Co.*, 2008 WL 2570530 at \*2 (W.D. Tex., June 26, 2008).

other brands, including generic products.<sup>185</sup> While rebates are computed annually, a portion of the payments is reserved and paid in subsequent years.<sup>186</sup> Because the rebate money carries over to future years, this scheme makes it difficult for those enrolled in the rebate program to leave and for newcomers in the marketplace to lure customers away from the Monsanto line of products.<sup>187</sup>

In addition to the rebate programs and business strategy that promotes brand loyalty, there is additional proof that Monsanto has elevated the price of seeds to induce buyers into taking the bundle with Roundup herbicide. The USDA Economic Research Service (ERS) reported that “[b]etween 1999 and 2008, prices paid for seeds rose 146%, with 64% of that rise occurring during 2006-2009.”<sup>188</sup> The ERS attributes this dramatic rise in seed prices to increased demand for seeds with complex genetic traits. It is noteworthy that prices rose 64% between 2006 and 2009, which is the time Monsanto began heavily marketing its Roundup Rewards program. Thus, the overall marketing strategy and promotion of loyalty discounts coupled with the dramatic rise in seed prices circumstantially shows that Monsanto increased seed prices to force growers into buying the Roundup herbicide with the Roundup seeds.

Proof that Monsanto’s bundling behavior increases market efficiency would rebut the evidence indicating that the unbundled price for Roundup Ready seeds exceeds its but-for price. However, it is unlikely that Monsanto can demonstrate any market efficiency by bundling the products together. Packaged sales are necessary for market efficiency when it is “less costly to bundle things together under competitive conditions.”<sup>189</sup> Examples of items that are more efficiently packaged together include shoes and gloves, which are sold exclusively in pairs; cars sold with tires; and computers sold with their hard drives installed.<sup>190</sup> All of those examples involve items that are

---

185. CALLAHAN, *supra* note 18, at 4–5. The specific aspects of Monsanto’s agreements with its dealers are difficult to obtain because the contracts contain strict confidentiality agreements. *Id.* As one example of these types of agreements, Callahan outlines the requirements of a Dow AgroSciences agreement, which would likely be substantially similar to the types of agreements Monsanto has with its dealers. *Id.*

186. *Id.*

187. *Id.*

188. TIMOTHY PARK ET AL., U.S. DEP’T OF AGRIC., ECON. RESEARCH SERVICE, AIS-91, AGRICULTURAL INCOME AND FINANCE OUTLOOK: NET FARM INCOME FORECAST UP 28 PERCENT IN 2011 (2011), available at <http://www.ers.usda.gov/Briefing/FarmIncome/nationalestimates.htm>. The ERS notes that increasing planted acres does not explain the extreme growth in this area, because the acres planted have never exceeded the 327 million acres planted in 2002. *Id.*

189. HOVENKAMP, *supra* note 23, at 410.

190. *Id.*

sold together purely for efficiency reasons—there are few reasons for a consumer to buy a single shoe or tire.

Unlike shoes or gloves, however, there is little reason that selling Roundup Ready seeds with Roundup herbicide will create efficiency. While bundling Roundup Ready seeds with Roundup herbicide gives a grower a simple seed-to-herbicide ratio depending on the number of acres planted, different farmers require different amounts of herbicide. The amount of herbicide used depends on several factors, including the grower's geographic area, the soil type,<sup>191</sup> and the type of equipment the grower has available.<sup>192</sup> Each factor can change the quantity of herbicide needed to control weeds. For example, farmers in certain geographical regions have difficulty controlling weeds because weeds in those areas have begun to develop immunity to glyphosate herbicide.<sup>193</sup> Furthermore, a factor as minor as having a neighbor who does not control weeds effectively can result in increased weed growth on adjoining property.

The type of equipment that a farmer uses can also influence the amount of herbicide needed. A grower with outdated equipment may not be able to apply the herbicide as effectively as a grower with up-to-date machinery equipped with computer systems that take human error out of the equation—a trend in farm machinery known as “precision machinery.”<sup>194</sup> New machinery even uses different application techniques to combat weed growth more effectively, which decreases the amount of herbicide needed.<sup>195</sup> Increased fossil fuel prices are an even greater incentive for growers to decrease the amount of spraying done in each growing season. Therefore, the circumstances of each individual grower dramatically alter the amount of herbicide needed to combat weeds on his or her Roundup Ready seed crop.

Aside from the rebate incentives given to the grower to order and purchase Roundup herbicide early in the season, it is actually less convenient for the grower to purchase a season's worth of herbicide up

---

191. Laura McGinnis, U.S. Dep't of Agric., Agric. Research Service, *Keeping Weeds in Check with Less Herbicide*, 54 AGRIC. RESEARCH MAGAZINE 18, 18 (2006), available at <http://www.ars.usda.gov/is/ar/archive/aug06/weeds0806.pdf>.

192. See Margot Anderson & Richard Magleby, U.S. DEP'T OF AGRIC., ECON. RESEARCH SERVICE, AGRICULTURAL RESOURCES AND ENVIRONMENTAL INDICATORS, 1996-97, at 149 (1997), available at <http://www.ers.usda.gov/publications/arei/ah712/AH7123-4.PDF> (noting the trend towards computerized equipment that “allows precise quantity and placement of inputs such as fertilizer, seed, and pesticides”).

193. Neuman & Pollack, *supra* note 179.

194. Anderson & Magleby, *supra* note 192, at 149.

195. See Cecil Yancy, *Going Under Hood to Treat Pigweed*, AM. AGRICULTURALIST (Aug. 24, 2011), <http://farmprogress.com/story-going-under-hood-to-treat-pigweed-14-53490> (describing a new type of sprayer that uses hoods to lay large weeds down before the herbicide is sprayed to increase the surface of the weed that is in contact with the herbicide).

front, at the same time the season's seed purchase is made. Buying the entire season's worth of supplies in one bulk purchase requires an enormous sum of money all at once.<sup>196</sup> To finance the extremely high costs required up front for a successful farming operation, growers are often reliant on revolving credit lines at banks, which require the grower to pay interest.<sup>197</sup> In addition to the accumulation of interest rates, making pre-season purchases requires growers to be able to properly calculate and predict how much of each product he or she needs several months in advance of actually using the materials.<sup>198</sup> This is especially problematic for an occupation like farming, where success in a growing season depends on unpredictable and uncontrollable factors, such as the weather. If a grower's crop is entirely washed out by flood, or completely damaged by a hailstorm, for example, then he or she will face oversupply of products like herbicide, which are no longer needed. Therefore, requiring buyers to purchase the two products in a bundle is actually less efficient than if the products could be purchased separately. It seems, then, that Monsanto's bundling activities would satisfy the second prong of Elhauge's antitrust test.

### 3. Does Monsanto Possess Economic Power in the Market for Roundup Ready Seeds?

The final prong of Elhauge's antitrust analysis is that the seller must possess economic power in the tying product market. In the case of Monsanto, Roundup Ready seed is the tying product: its sale is conditioned on the use of Roundup herbicide. It would seem, then, fairly obvious that Monsanto has economic power in the seed market since Monsanto

---

196. The USDA's Economic Research Service estimated that agricultural expenses for 2011 would exceed \$300 billion—a \$128 billion, or 67% increase—since 2003. TIMOTHY PARK ET AL., U.S. DEP'T OF AGRIC., ECON. RESEARCH SERVICE, AIS-91, AGRICULTURAL INCOME AND FINANCE OUTLOOK 11, 13 (2011), [http://www.ers.usda.gov/media/247107/ais-12-15-2010\\_1\\_.pdf](http://www.ers.usda.gov/media/247107/ais-12-15-2010_1_.pdf).

197. Steven R. Koenig & Damona G. Dove, *Agricultural Credit Policy*, in THE 2002 FARM BILL: POLICY OPTIONS AND CONSEQUENCES 215, 215 (J.L. Outlaw and E.G. Smith, eds., Sept. 2001), available at <http://www.farmfoundation.org/projects/01-33.htm> (explaining that “a large portion of capital used in farming is borrowed” because “[m]odern agricultural production systems are capital intensive, but relatively low-margin segments of the . . . economy”).

198. See Maureen Kilkenny & Robert W. Jolly, *Are Rural Credit Markets Competitive? Is There Room for Competition in Rural Credit Markets?*, 20 CHOICES MAGAZINE 25, 25 (2005) (noting that “rural banks charge higher interest rates on loans, pay lower interest rates on deposits, and take fewer risks”). Recognizing rural reliance on credit, the federal government has long intervened in rural finance markets due to perceived market failures, such as “information asymmetry, externalities, economic disequilibrium, lack of competition, insufficient lending resources, and incomplete markets.” CHARLES DODSON & STEVEN KOENIG, U.S. DEP'T OF AGRIC., EVALUATING THE RELATIVE COST EFFECTIVENESS OF THE FARM SERVICE AGENCY'S FARM LOAN PROGRAMS (2006), [http://www.fsa.usda.gov/Internet/FSA\\_File/farm\\_loan\\_study\\_august\\_06.pdf](http://www.fsa.usda.gov/Internet/FSA_File/farm_loan_study_august_06.pdf).

maintains a patent on the Roundup Ready seed gene. However, the Supreme Court's decision in *Illinois Tool Works* held that a patent does not automatically prove market power.<sup>199</sup> Therefore, it is necessary to examine how much of the seed market Monsanto controls.

Recent statistics indicate that 90% of the soybeans and 70% of the corn and cotton grown in the United States are Roundup Ready crops.<sup>200</sup> Growers are increasingly feeling the pressure to convert to Roundup Ready crops in order to stay competitive in the marketplace.<sup>201</sup> Monsanto would argue that through its "pro-competitive strategy" of licensing its traits to its competitors, Monsanto has actually encouraged competition in the Roundup Ready seed market and therefore does not have economic power in that market.<sup>202</sup> However, even with its licensing agreements, Monsanto controls upwards of 65% of the Roundup Ready seed market.<sup>203</sup> Those statistics indicate that Monsanto owns a substantial share of the seed market, since it is the only company currently holding the patent on the Roundup Ready trait, and the vast majority of crops in the United States are grown from Roundup Ready seeds.

The fact that Monsanto's patent on the Roundup Ready gene expires in 2014 could diminish Monsanto's market share.<sup>204</sup> However, there are three reasons that the expiration of the patent is unlikely to decrease Monsanto's market share. First, Monsanto's exclusionary market practices will make it difficult for any new competitors to enter the marketplace. The Technology Agreement that Monsanto requires growers to sign states that the "Grower may not plant and may not transfer to others for planting any Seed that the Grower has produced containing patented Monsanto Technologies for crop breeding, research, or generation of herbicide registration data."<sup>205</sup> As a result of that clause, "scientists cannot test a seed to explore the different conditions under which it thrives or fails. They cannot compare seeds from one company against those from another company."<sup>206</sup>

---

199. *Ill. Tool Works, Inc. v. Indep. Ink, Inc.*, 547 U.S. 28, 45–46 (2006). *See also supra* Section I.C (explaining the Court's holding in *Illinois Tool Works*).

200. Neuman & Pollack, *supra* note 179.

201. *See Monsanto v. McFarling*, 302 F.3d 1291, 1301 (Fed. Cir. 2002) (finding that many farmers find it necessary to adopt the glyphosate-resistant soybeans in order to remain competitive, especially in regions with particularly aggressive weeds).

202. Howell, *supra* note 10, at 42.

203. MOSS, *supra* note 11, at 13–14.

204. Parloff, *supra* note 7.

205. 2008 MONSANTO TECHNOLOGY/STEWARDSHIP AGREEMENT, *supra* note 165.

206. Editorial, *Do Seed Companies Control GM Crop Research?*, SCIENTIFIC AM. (Aug. 13, 2009), <http://www.scientificamerican.com/article.cfm?id=do-seed-companies-control-gm-crop-research> [hereinafter Scientific Am. Editorial].

A group of two-dozen corn research scientists criticized the ban on research, stating, “Technology/stewardship agreements required for the purchase of genetically modified seed explicitly prohibit research. These agreements inhibit public scientists from pursuing their mandated role on behalf of the public good unless the research is approved by industry.”<sup>207</sup> These scientific arguments are admittedly more about the inability to understand fully the health and environmental impacts of genetically modified crops;<sup>208</sup> however, the point for antitrust concerns is that such restrictions on research “has the potential to shut off innovation.”<sup>209</sup> Competitors wishing to enter into the seed market need significant lead-time to develop, test, and get regulatory approval of new products.<sup>210</sup> While Monsanto has stated that it will not pursue patent infringement claims against farmers for the next few years, it has said nothing about whether it will continue to enforce its anti-stacking policies prohibiting competitors from developing new seeds containing multiple traits, including glyphosate resistance.<sup>211</sup> Once the Roundup Ready gene patents expire, it will be that much more difficult for competitors to enter the marketplace with a similar product of their own, since Monsanto will not permit any experimentation with the genes prior to expiration.

Moreover, before generic sellers can sell their own product, they need approval from the USDA under the Plant Protection Act.<sup>212</sup> To gain that approval, a generic seller would need to show the USDA that there is sufficient evidence suggesting that the genetically modified plant is not a “plant pest.”<sup>213</sup> Navigating the approval process requires long lead time and would likely involve either proprietary data held by Monsanto about the development of the Roundup Ready gene, or several years for the generic seed seller to develop independent data.<sup>214</sup> Worldwide, the generic seller would face even greater hurdles: “[T]echnical data [is necessary] to update licenses that keep the trait legal in big, important markets like China and the

---

207. Thomas W. Sappington et al., *Conducting Public-Sector Research on Commercialized Transgenic Seed*, GM CROPS, Mar.–Apr. 2010, at 55.

208. Scientific Am. Editorial, *supra* note 205 (noting that “[w]hen scientists are prevented from examining the raw ingredients in our nation’s food supply or from testing the plant material that covers a large portion of the country’s agricultural land, the restrictions on free inquiry become dangerous”).

209. Luce, *supra* note 169, at 394.

210. MOSS, *supra* note 11, at 13.

211. *Id.* Notably, in the pharmaceutical industry, the Hatch-Waxman Act allows for generic drug entry into the market by imposing “a hiatus on patent-infringement claims.” *Id.* There is no similar requirement in the agricultural seed industry. *Id.*

212. *Monsanto Co. v. Geertson Seed Farms*, 130 S. Ct. 2743, 2749 (2010).

213. *Id.*

214. Frank Morris, *Monsanto GMO Ignites Big Seed War*, NPR (Jan. 14, 2010), <http://www.npr.org/templates/story/story.php?storyId=122498255>.



EU.”<sup>215</sup> Monsanto has committed to maintaining foreign registration for the Roundup Ready trait for three years after expiration of the patent.<sup>216</sup> However, some have argued that three years is an insufficient amount of time for competitors to develop their own seeds containing the Roundup Ready trait.<sup>217</sup> Uncertainty about a potential gap between expiration of the foreign licenses and the introduction of generics would discourage developers to invest the large up-front research and development costs associated with bringing a generic version on the market.<sup>218</sup> The ability of a generic seed seller to gain any market power both in the U.S. and abroad is therefore significantly hindered by Monsanto’s restriction on research.

Second, even if competitors do enter the market, they will likely have to bundle a Roundup Ready crop with a glyphosate herbicide to compete with Monsanto. To compete on a level playing field with Monsanto, competitors will seek to provide the full line of products for growers, offering loyalty discount programs to lure customers away from Monsanto.<sup>219</sup> According to Elhauge, multiple firms engaging in bundling practices will not decrease the negative market effects; in fact, the existence of rival bundlers results in market foreclosure share effects.<sup>220</sup> With multiple bundlers in the marketplace, firms can still extract consumer surplus and simultaneously make it more difficult for potential rivals without the ability to offer a bundled set of products to enter the market.<sup>221</sup> Elhauge says the power effects of multiple bundlers should be aggregated to consider the damage to the marketplace under antitrust law, a position that is in agreement with Supreme Court precedent.<sup>222</sup> Rival bundling is already occurring at an alarming rate among Monsanto’s competitors. Monsanto and its major competitors—Syngenta, DuPont, and Dow—have all gained a significant share of the agricultural seed and herbicide market through

---

215. *Id.*

216. MOSS, *supra* note 11, at 13.

217. *Id.*

218. *Id.*

219. See CALLAHAN, *supra* note 18, at 2 (explaining how “clever marketing programs such as this” make it difficult for competitors selling off-patent agrochemicals to compete). See also Elhauge, *supra* note 22, at 476 (“Even when the bundled discount does not itself deter rival bundling, permitting bundling because a rival could offer the same bundle could force other rivals who wish to remain in the market to engage in similar bundling.”).

220. Elhauge, *supra* note 22, at 475 (explaining that “if two significant firms are engaged in bundling, then their cumulative foreclosure of the linked market is even greater, producing an even greater foreclosure share effect on other rivals”).

221. *Id.*

222. *Id.* (citing *Standard Oil Co. & Standard Stations v. United States*, 337 U.S. 293 (1949); *FTC v. Motion Picture Adver. Serv.*, 344 U.S. 392 (1953); and *United States v. Phila. Nat’l Bank*, 374 U.S. 321 (1963)).

merger and acquisition of independent seed companies and companies producing agricultural chemicals.<sup>223</sup>

Therefore, even if rival generic seed sellers are able to enter the market, they likely will not be able to compete with the large agribusinesses like Monsanto and DuPont, unless such generic sellers can bundle seeds with herbicide packages. Even if generic sellers are capable of bundling, however, that activity has market foreclosure effects, extracts even more consumer welfare, and undermines market efficiency. This is an unfortunate catch-22 that can be resolved only if these excessively anticompetitive product bundles are prohibited.

Finally, looking to Monsanto's past behavior as a guide, it is possible that Monsanto will use its current patent on Roundup Ready genes as a springboard for development of a newly patented genetic trait that will rise to dominate the seed market. Monsanto states that it has "more than a dozen crops in different stages of development, or phases."<sup>224</sup> Monsanto has already developed a successor to the initial Roundup Ready gene, called Roundup Ready 2, which will remain under patent after the Roundup Ready patent expires in 2014.<sup>225</sup> DuPont claims that "[i]n 2008, Monsanto began an aggressive campaign to switch independent[] [seed companies] from Roundup Ready to Roundup Ready 2 Yield . . . if they wished to continue licensing a Roundup Ready soybean trait."<sup>226</sup> This policy was viewed as a threat to drive independent seed companies out of the market.<sup>227</sup> Furthermore, the company recently announced that it would introduce the first double-stacked soybean seed, which is resistant to both Roundup and dicamba herbicides, in 2014.<sup>228</sup> Monsanto timed the release of its new double-stacked seed to coincide with the expiration of its initial Roundup Ready patent—precisely the same strategy the company used when its patent on the Roundup herbicide expired. Even though Monsanto will lose its patent on the Roundup Ready gene in 2014, it seems clear that it will

223. Fernandez-Cornejo, *supra* note 1, at 27. Fernandez-Cornejo details the evolution of the major players in the agricultural seed industry. *Id.* at 30–40.

224. *Research and Development Pipeline*, MONSANTO, <http://www.monsanto.com/products/Pages/research-development-pipeline.aspx#/Overview> (last visited Nov. 11, 2012).

225. Andrew Pollack, *As Patent Ends, a Seed's Use Will Survive*, N.Y. TIMES (Dec. 17, 2009), <http://www.nytimes.com/2009/12/18/business/18seed.html>.

226. DUPONT/PIONEER HI-BRED INTERNATIONAL, COMMENTS SUBMITTED FOR DEP'T OF JUSTICE, ANTITRUST DIVISION WORKSHOP ON AGRICULTURE AND ANTITRUST ENFORCEMENT ISSUES IN OUR 21ST CENTURY ECONOMY, COMMENTS REGARDING AGRICULTURE AND ANTITRUST ENFORCEMENT ISSUES IN OUR 21ST CENTURY ECONOMY, Comment No. AGW-15019-a, at 17 (2010), available at <http://www.justice.gov/atr/public/workshops/ag2010/comments/254990.pdf>.

227. *Id.*

228. McMahon, *supra* note 129.

retain its market power for agricultural seeds. Therefore, the final element of Elhauge's bundling standard is met.

#### CONCLUSION

Monsanto is indisputably a giant in the agricultural industry. Although the company has been the target of antitrust litigation, most of that litigation has been unsuccessful. Monsanto has not been held accountable for illegal bundling or tying under the Sherman Antitrust Act or the Clayton Antitrust Act in large part because of the erosion of the *per se illegal* standard previously applied to such challenges. Instead, the courts have moved towards the *rule of reason*, which essentially amounts to a rule of *per se legality* for bundling arrangements.

Einer Elhauge offers a new theory why bundling agreements should be *quasi-per se illegal* as long as the tying product's unbundled price is higher than the price the product would be sold at but-for the bundling agreement. In advocating for this standard, Elhauge turns the basis for the *rule of reason*—the single monopoly profit theory—on its head. Applying Elhauge's standard to Monsanto's strategy for marketing Roundup Ready seeds with Roundup herbicide, it is clear that Monsanto's bundling activity produces anticompetitive effects that directly harm the consumer.

Public awareness about the problems posed by consolidation of the agricultural seed market is increasing, which is evidenced by the Obama Administration's announced interest in antitrust investigations of the agriculture industry and the DOJ and USDA's joint investigation of Monsanto's anticompetitive market practices.<sup>229</sup> As the food industry faces more public scrutiny, it is likely that these antitrust concerns will continue to haunt Monsanto; however, there must be changes in antitrust law before Monsanto's business practices will be legally condemned.

—Emily Dupraz\*<sup>†</sup>

---

229. Williamson, *supra* note 15.

\* J.D. and M.E.L.P. Candidate 2013, Vermont Law School; A.B. 2005, Harvard College. This Note is published as the winner of the 2012 *Vermont Law Review* Note competition.

† The author would like to thank the staff of the *Vermont Law Review* for their editorial assistance, Nicolas Cornell for his encouragement, Andrew Dupraz for offering his expertise, and Charles Dupraz for his inspiration, for the apple doesn't fall far from the tree. See Dupraz v. Aventis CropScience USA Holding, Inc., 153 F. Supp. 2d 1102 (D.S.D. 2001). The author dedicates this Note to the memory of her mother, Beverly Dupraz.

