

# Antitrust In Wonderland: Regulating Markets of Innovation

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## I. INTRODUCTION

In 1995, the U.S. Department of Justice and Federal Trade Commission, known collectively as the Agencies, published the Antitrust Guidelines for the Licensing of Intellectual Property<sup>1</sup> (Antitrust-IP Guidelines) to serve as a roadmap for navigating the waterways between antitrust enforcement and intellectual property (IP) licensing.<sup>2</sup> These guidelines identify advisory standards for antitrust regulation in three particular IP markets: (1) goods,<sup>3</sup> (2) technology,<sup>4</sup> and (3) innovation.<sup>5</sup> The focus of this article is on the Antitrust-IP Guidelines’ treatment of innovation and both the industry and the Agencies’ consideration of innovation effects as a factor in antitrust analyses. This article further addresses the Antitrust Modernization Committee’s concern with “New Economy” issues on innovation, i.e., the research and development (R&D) aspect of technology and whether markets of innovation

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<sup>1</sup> U.S. Dep’t of Justice & Fed. Trade Comm’n, Antitrust Guidelines for the Licensing of Intellectual Property (1995), <http://www.usdoj.gov/atr/public/guidelines/0558.pdf> [hereinafter *Antitrust-IP Guidelines*].

<sup>2</sup> The Guidelines articulate the antitrust enforcement policy of the Agencies with respect to the licensing of IPs to assist entities in predicting whether the Agencies will challenge a practice in the innovation and technology industries as anticompetitive. *Antitrust-IP Guidelines supra* note 1, at § 1.0. *See also infra* Part III.B.1.

<sup>3</sup> *Id.* at § 3.2.1.

<sup>4</sup> *Id.* at § 3.2.2.

<sup>5</sup> *Id.* at § 3.2.3.

should be treated differently under the antitrust laws.<sup>6</sup>

The Agencies characterize innovation factors as fundamental if not imperative to its antitrust analyses of these industries.<sup>7</sup> However, the actual weight given to innovation factors remains minimal. This may be attributed to the overbroad Tripartite Test<sup>8</sup> currently outlined by the Agencies in the Antitrust-IP Guidelines. In effect, this Tripartite Test applies a rule of reason analysis to IP licensing activity, but fails to account for the peculiarities characteristic of innovation markets. Standard tools for antitrust analysis are definitely applicable to R&D firm activity, but only if the Agencies follow what they acknowledge, which is that the unique characteristics of any industry must be accounted for in the analysis.<sup>9</sup> When the Agencies overlook the unique characteristics of R&D activity they end up suppressing innovation or, at the very least, not using it as a substantive factor.<sup>10</sup> Ironically, the Agencies cite the advancement of innovation as one of their primary objectives for scrutinizing R&D activity.<sup>11</sup>

The standards set forth in the Antitrust-IP Guidelines present the innovation factor as merely an idyllic banner that gives the Agencies the veneer of allegiance to “the Progress of Science and useful Arts”<sup>12</sup> without supplying definite measuring tools to evaluate markets of innovation.<sup>13</sup> Therefore, this article proposes amendments to the current Tripartite Test which includes enlarging the current 20% “safety zone” and permitting R&D firms *not* in direct competition to merge. Leniency during the inception of innovation mergers is the best way to promote innovation. With that being said, the Agencies should also impose harsher penalties when these firms purposely suppress the technology they innovated,<sup>14</sup> act in a manner that is unreasonably anti-competitive,<sup>15</sup> or undertake activities that harm consumers. Maximum freedom to innovate creates an optimal forum for competition, which drives at the very core of antitrust law’s purpose.<sup>16</sup> Nonetheless, where there are consumers, there should be policing of iniquitous conduct.

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<sup>6</sup> See *infra* Part III.B.

<sup>7</sup> *Antitrust-IP Guidelines*, *supra* note 1, at § 1.0.

<sup>8</sup> *Infra* Part III.B.3.

<sup>9</sup> *Antitrust-IP Guidelines*, *supra* note 1 at § 2.1.

<sup>10</sup> See generally Richard J. Gilbert & Willard K. Tom, *Is Innovation King at the Antitrust Agencies?: The Intellectual Property Guidelines Five Years Later* (Institute of Business and Economic Research, Working Paper No. E01-301, 2001), available at <http://repositories.cdlib.org/iber/econ/E01-301>((discussing agencies’ increased concerns about the innovation effects of mergers). See also *infra* Part III.

<sup>11</sup> *Antitrust-IP Guidelines*, *supra* note 1, at § 1.

<sup>12</sup> U.S. Const. art. I, § 8, cl. 8 (“To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the *exclusive* Right to their respective Writings and Discoveries.”) (emphasis added).

<sup>13</sup> See *infra* Part V.

<sup>14</sup> An example of this is a “submarine patent” where a company with a particular patent chooses not to exercise its rights in that patent, allowing that invention to remain submerged, and then later surfacing when a competitor, who has no knowledge of the “submarine patent,” uses that technology. The patent-owning company can then negotiate licensing agreements that are extremely advantageous to itself to the detriment of the licensee company. Tomima Edmak, *Surprise attack – submarine patents* (Entrepreneur, 1998), available at

<http://www.entrepreneur.com/magazine/entrepreneur/1998/november/16738.html>.

<sup>15</sup> The analysis for this would be the same as the analysis utilized in IP law to determine whether there has been misuse of the IP rights.

<sup>16</sup> *Antitrust-IP Guidelines*, *supra* note 1.

Innovation markets are no exception. The Agencies should be patient and take a step back to give R&D firms room to innovate; however, when R&D firms inflict harm on consumers and competition, the Agencies need to strike and penalize such practices, just as they would in traditional markets.

## II. HOW ANTITRUST, THE NEW ECONOMY AND MERGERS OF IDEAS PLAY INTO THE CONTEXT OF INNOVATION ISSUES

In 1890, after the first industrial revolution's spawn of iron production, steam engines, railroads and the like, Congress enacted the Sherman Act ("the Act").<sup>17</sup> In the following years, the tide for a second industrial revolution rose and a sophisticated telecommunications system germinated.<sup>18</sup> Then, a hundred years after the birth of the Act, a third industrial revolution hit the economy—commerce based on information technology.<sup>19</sup> New industries came about, such as personal computers, software programs, Internet-based goods and services, biotechnology, all of which revolutionized telecommunications and retail distribution.<sup>20</sup> Scholars and commentators refer to this third industrial revolution as the "New Economy."<sup>21</sup> The bulk of the products and services in the New Economy are the embodiment of ideas, which usually manifests itself as a piece of intellectual property, such as "a line of computer code, a new connecting device[,] . . . or new knowledge about genetic profiling."<sup>22</sup> Since IP law grants a legal monopoly to the owner of the right,<sup>23</sup> the role of century-old antitrust laws in the New Economy<sup>24</sup> emerges as a highly contested issue.<sup>25</sup> In particular, this article addresses the role of antitrust policies in markets of innovation, the third of three markets identified by the Agencies as

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<sup>17</sup> David S. Evans, *Antitrust and the New Economy*, SF63 ALI-ABA 41, 43 (Sept. 14, 2000); see 15 U.S.C. § 1 (2000) ("Every contract, combination in the form of a trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal").

<sup>18</sup> Evans, *supra* note 17, at 43. This included the innovation of telephones, electricity, and other such industries. *Id.*

<sup>19</sup> *Id.*

<sup>20</sup> *Id.*; See also Robert Pitofsky, Chairman, Federal Trade Commission, *Antitrust and Intellectual Property: Unresolved Issues at the Heart of the New Economy*, Prepared Remarks Before the Antitrust, Technology and Intellectual Property Conference at the Berkeley Center for Law and Technology (Mar. 2, 2001) (on file with author)(discussing the antitrust issues of the "New Economy").

<sup>21</sup> See, e.g., Pitofsky, *supra* note 20 (explaining the characteristics of the "New Economy").

<sup>22</sup> *Id.* More and more, deals concerning the licensing of intellectual property are among the largest and most important transactions in both the U.S. and global economics. See Sheila F. Anthony, *Antitrust and Intellectual Property Law: From Adversaries to Partners*, 28 AIPLA QUARTERLY JOURNAL 1, 1 (Winter 2000) (noting that the recent efforts made by the Agencies testify to the growing importance of intellectual property to national and international commerce).

<sup>23</sup> U.S. Const. art. I, § 8, cl. 8.

<sup>24</sup> In antitrust cases involving intellectual property in the New Economy, the most relevant statutes are Sections 1 and 2 of the Sherman Act. Section 1 of the Sherman Act prohibits agreements between two or more unrelated entities that unreasonably restrain trade. 15 U.S.C. § 1 (2000). Section 2 prohibits the willful acquisition or maintenance of a monopoly or attempt to do so. 15 U.S.C. § 2 (2000). Note, however, that growth or development resulting from "superior product, business acumen, or historical accident" is not considered violations. *U. S. v. Grinnell Corp.*, 384 U.S. 563, 570-71 (1966).

<sup>25</sup> E.g., Evans, *supra* note 17, at 44; Pitofsky, *supra* note 20.

governed by the Antitrust-IP Guidelines.<sup>26</sup> The term “innovation” applies to scientific development, inventions, and improvement or modification of products or techniques.<sup>27</sup> Thus, “innovation” markets generally pertain to the R&D of new or improved goods or processes.<sup>28</sup> Mergers of firms in the innovation market often do not have any products or technology “ready to be bottled and sold”<sup>29</sup> at the time the merger is proposed.<sup>30</sup> Thus, these forms of high technology mergers are dubbed the “merger of ideas.”<sup>31</sup>

#### A. Tweedledee and Tweedledum: The Relationship Between Antitrust and IP Law

[T]he aims and objectives of patent and antitrust laws may seem, at first glance, wholly at odds. However, the two bodies of law are actually complementary, as both are aimed at encouraging innovation, industry and competition.<sup>32</sup>

While the Antitrust-IP Guidelines offer much rhetoric insisting that IP and antitrust law share a “common purpose,”<sup>33</sup> a large pool of commentators still view the two branches of law as adversaries.<sup>34</sup> Antitrust law *penalizes* monopolies<sup>35</sup> to allow *room* for competition, including innovation, while IP law *grants* monopolies as *rewards* for innovation.<sup>36</sup> Owners of IP rights may engage in exclusionary

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<sup>26</sup> *Antitrust-IP Guidelines*, *supra* note 1 at § 3.2. The fundamental purpose for the Guidelines is to “minimize, and reconcile where possible, the inherent conflicts between antitrust and the intellectual property laws.” Anthony, *supra* note 22.

<sup>27</sup> Anne K. Bingaman, Assistant Attorney General, U.S. Department of Justice, Antitrust Division, Address Before the Stanford Law School Program on Antitrust and Intellectual Property (Oct. 7, 1994) (transcript available at <http://www.usdoj.gov/atr/public/speeches/0116.pdf>) (“Innovation itself, of course, can and does take many forms. The term is applied to basic scientific breakthroughs, important commercial inventions, product modifications and new production techniques.”)

<sup>28</sup> See *Antitrust-IP Guidelines*, *supra* note 1 at § 3.2.3 (characterizing innovation markets as consisting “of the research and development directed to particular new or improved goods or processes, and the close substitutes for that research and development”).

<sup>29</sup> Sumanth Addanki, Vice President of National Economic Research Associates, Inc., Antitrust Analysis of High Technology Mergers: The Role of Potential Competition, Testimony Before the Federal Trade Commission (Oct. 25, 1995) (on file with author).

<sup>30</sup> *Id.*

<sup>31</sup> *Id.* Usually, “mergers of ideas” occur between two firms with busy research and development (R&D) facilities, but as of yet, no sales, no product, and no viable technology. *Id.*

<sup>32</sup> Atari Games Corp. v. Nintendo of Am., Inc., 897 F.2d 1572, 1576 (Fed. Cir. 1990).

<sup>33</sup> *Antitrust IP Guidelines*, *supra* note 1 § 1.0 (asserting that intellectual property and antitrust laws “share the common purpose of promoting innovation and enhancing consumer welfare”).

<sup>34</sup> See Anthony, *supra* note 22, at 1 (discussing the historical adversarial relationship between antitrust and IP law). Commissioner Anthony, however, notes that this “adversarial” thinking is outdated. *Id.*

<sup>35</sup> However, antitrust law does not absolutely prohibit monopolies, especially if such monopolies result from natural growth. In *U. S. v. Aluminum Co. of Am.*, 148 F.2d 416 (2d Cir. 1945), Judge Learned Hand said that “[t]he successful competitor, having been urged to compete, must not be turned upon when he wins.” *Id.* at 430. Thus, antitrust law *does* take into account dynamic efficiencies and even permits conduct that is often considered exclusionary, e.g., price discrimination, tying, or exclusive dealing, when such activity proves to be pro-competitive. F. Scott Kieff & Troy A. Paredes, *The Basics Matter: At the Periphery of Intellectual Property*, 73 GEO. WASH. L. REV. 174, 184 (Nov. 2004).

<sup>36</sup> Daniel B. Ravicher & Shani C. Dilloff, *Antitrust Scrutiny of Intellectual Property Exploitation: It Just Don't Make No Kind of Sense*, 8 SW. J. L. & TRADE AM. 83, 89 (2001-2002) (noting that the goal of IP law is to provide incentives for innovation by establishing enforceable property rights for creators of new and useful products).

conduct<sup>37</sup> to protect consumers from the fraudulent practices of infringers<sup>38</sup> and also to maximize efficient use of technology.<sup>39</sup> However, the Agencies may challenge exclusionary conduct with precisely the same aims in mind.<sup>40</sup> Thus, the perception of tension between the two bodies is understandable. Nevertheless, the Guidelines stress that the two bodies of law are in alliance.<sup>41</sup> Advocates of antitrust scrutiny in R&D mergers do not view antitrust and IP law as rivals using the same sword to fence at each other.<sup>42</sup> Instead, they see the two together on the same side, fighting any opponents that suppress innovation.<sup>43</sup>

#### B. The Nine No-Nos of Yesteryear

In the 1970s, antitrust scrutiny of cases involving intellectual property encompassed a tenet known as “The Nine No-Nos.”<sup>44</sup> The first “No-No” condemned a patentee from requiring a licensee to furnish a grantback.<sup>45</sup> However, the Agencies have since changed their stance on grantbacks and now acknowledge the procompetitive nature they possess.<sup>46</sup> Second, royalty payments for sales of a patented product could not be set in disproportionate amounts to the sales.<sup>47</sup> Today, such conduct would be slow to raise red flags, especially if the licensor lacks substantial market power.<sup>48</sup> Third, tying of unpatented supplies was prohibited.<sup>49</sup> Courts traditionally held that a patent or copyright created a presumption of market power that prevented the holder of such intellectual property rights from tying

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<sup>37</sup> *See id.* (“The essence of the rights conferred by the intellectual property laws is the power to exclude others from exploiting the protected intellectual property”).

<sup>38</sup> *Id.* Without IP protection, infringers could exploit and copy the works of IP owners and reduce the commercial value of innovation, which would ultimately deprive consumers of the highest quality goods at the lowest possible cost. *Id.*

<sup>39</sup> *Id.*

<sup>40</sup> *See id.* Just as IP laws promote innovation by rewarding it and protect consumers by protecting the quality of innovative goods, the objectives of antitrust law aim to safeguard consumer welfare and promote technological advancements. *Id.*

<sup>41</sup> *Antitrust-IP Guidelines, supra* note 1, at § 1.0.

<sup>42</sup> *See generally* Makan Delrahim, *Maintaining Flexibility in Antitrust Analysis: Meeting the Challenge of Innovation in the Media and Entertainment Industries*, 23 COLUM. J.L. & ARTS 343, 343-45 (2005)(discussing the role of antitrust in the marketplace for ‘new media’).

<sup>43</sup> *See generally* Gilbert & Tom, *supra* note 10 (discussing how agencies increasingly scrutinize mergers for effects on innovation).

<sup>44</sup> Anthony, *supra* note 22 (citing Bruce B. Wilson, *Patent and Know-How License Agreements: Field of Use, Territorial, Price and Quantity Restrictions*, in ANTITRUST PRIMER: PATENTS, FRANCHISING, TREBLE DAMAGE SUITS 11, 14 (1970)).

<sup>45</sup> A “grantback” is “an arrangement under which a licensee agrees to extend to the licensor of intellectual property the right to use the licensee’s improvements to the licensed technology.” *Antitrust-IP Guidelines, supra* note 1, at § 5.6.

<sup>46</sup> *Id.* (“Grantbacks can have pro-competitive effects, especially if they are nonexclusive”). Furthermore, grantbacks offer a means for a licensee and licensor to share the risk, along with allowing innovation to prosper. *Id.*

<sup>47</sup> Bruce B. Wilson, *Patent and Know-How License Agreements: Field of Use, Territorial, Price and Quantity Restrictions*, in ANTITRUST PRIMER: PATENTS, FRANCHISING, TREBLE DAMAGE SUITS 11, 14 (1970).

<sup>48</sup> Anthony, *supra* note 22. Also, the Guidelines promulgated in 1995 by the Department of Justice and Federal Trade Commission establish that there is no presumption that IPs create market power in the antitrust context. *See infra* Part II.C.2.

<sup>49</sup> *See* Wilson, *supra* note 47, at 12-14 (discussing the illegality of tying arrangements).

arrangements.<sup>50</sup> Now, however, there is no presumption of market power<sup>51</sup> and owners of IP rights have more latitude in bundling patented or copyrighted products with other goods and services.<sup>52</sup>

Other proscriptions under “The Nine No-Nos”<sup>53</sup> included restrictions on how patented products were resold,<sup>54</sup> tie-outs,<sup>55</sup> the veto power of a licensee over a licensor’s grant of future licenses,<sup>56</sup> mandatory package licensing,<sup>57</sup> restrictions on sales of unpatented products resulting from patented processes,<sup>58</sup> and price specifications on how much a licensee could charge for resale of licensed products.<sup>59</sup>

### C. Born To Be King: The Inherent Monopolistic Tendency of IP Licensing

Industries of innovation, which focus on research and development, tend to display concentrated market structures, causing the unwitting dominance of single firms.<sup>60</sup> This can be attributed to the presence of strong “network effects,” where the value of the product increases with the number of consumers purchasing the product.<sup>61</sup> Although network effects may potentially benefit consumers, barriers to entry and the gravitational pull toward monopolies intensify.<sup>62</sup>

Network effects touch on the most basic antitrust inquiries into market definition and competitive effects.<sup>63</sup> In the event that the dominant firm engages in anticompetitive transactions or conduct, consumers have no practicable or cost-effective alternatives.<sup>64</sup> Product definition is consequently narrowed and monopolies are easy to find.<sup>65</sup>

In 1998, the Federal Trade Commission issued a complaint against Intel for holding a monopoly and abusing its monopoly power in the worldwide market on

<sup>50</sup> See *Jefferson Parish Hospital Dist. No. 2 v. Hyde*, 466 U.S. 2, 16 (1984) (holding that “if the Government has granted the seller a patent or similar monopoly over a product, it is fair to presume that the inability to buy the product elsewhere gives the seller market power”).

<sup>51</sup> *Antitrust-IP Guidelines*, *supra* note 1, at § 2.0. See also *supra*, note 30 and accompanying text.

<sup>52</sup> See, e.g., *Ill. Tool Works*, slip. op. at 1 (addressing the question of whether a patented product gives rise to a presumption of market power, as a matter of antitrust law) The Court held that the mere fact a tying product is patented does not automatically confer such a presumption and a plaintiff has the burden of proving the defendant’s market power. *Id.*

<sup>53</sup> Anthony, *supra* note 22.

<sup>54</sup> Wilson, *supra* note 47, at 12-14.

<sup>55</sup> *Id.*

<sup>56</sup> *Id.*

<sup>57</sup> *Id.*

<sup>58</sup> *Id.*

<sup>59</sup> Wilson, *supra* note 47, at 12-14.

<sup>60</sup> *Id.*

<sup>61</sup> *Id.* (citing Michael L. Katz & Carl Shapiro, *Systems Competition and Network Effects*, 8 J. ECON. PERSP. 93, 93 (1994). “Network effects” further implies that the value of the product is directly proportional to the number of firms supplying complements to that product. *Id.* One person’s demand for a certain high-tech service becomes relative to how widespread the use of it is by others. *Id.* The more widespread the use, the more goods and services companies develop for or in conjunctive use with that high-tech service. *Id.* The more conjunctive goods there are, the more likely a person will demand that certain high-tech service. *Id.* The bottom line result of this circuitry is the natural formation of a monopoly, which antitrust law usually frowns upon. *Id.*

<sup>62</sup> Gilbert & Tom, *supra* note 10, at 5.

<sup>63</sup> David Balto & Robert Pitofsky, *Antitrust and High Tech Industries: The New Challenge*, 606 PLI/PAT 513, 526 (2000).

<sup>64</sup> *Id.*

<sup>65</sup> *Id.*

microprocessors.<sup>66</sup> Intel's market dominance reflected an 80 percent market share and, as a result, erected high barriers to entry in the industry.<sup>67</sup> The Commission's complaint against Intel alleged that the corporation took active measures to preserve its market dominance, mainly by denying advance technical information of its microprocessors to OEMs, or original equipment manufacturers.<sup>68</sup> OEMs develop, produce, and distribute computer system products<sup>69</sup> based on Intel's microprocessor information.<sup>70</sup> Thus, access to advance technical information on these microprocessors was essential for these OEMs to thrive.<sup>71</sup> The Commission found that Intel's refusal to give advance product information paralleled a denial of actual parts because lacking such information disabled the OEMs from designing new computer systems on a competitive schedule with other OEMs.<sup>72</sup>

#### D. Distinguishing Markets of Innovation From Traditional Markets

It is unduly simplistic to assert that intellectual property is like all other forms of property. . . . But it is also unduly simplistic to conclude, as some have urged, that because of the differences, antitrust enforcement has little or no role to play when it comes to market power based on intellectual property.<sup>73</sup>

In addition to the strong presence of "network effects,"<sup>74</sup> innovation markets differ from traditional markets in three main ways.<sup>75</sup> First, the R&D industries

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<sup>66</sup> Intel Corp.; Analysis to Aid Public Comment and Commissioner Statements, 64 Fed. Reg. 20134, 20134 (Apr. 23, 1999). "A microprocessor is an integrated circuit that serves as the central processing unit (or CPU) of computer systems. Microprocessors are sometimes described as the 'brains' of computers because they perform the major data processing functions essential to computer systems." *Id.*

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

<sup>68</sup> *Id.* A firm's market dominance achieved by unjustified means, such as exclusionary conduct, has long been held by the courts as gravely anticompetitive. *See, e.g., Eastman Kodak Co. v. Image Technical Servs.*, 504 U.S. 451, 483, n.32 (1992); *Aspen Skiing Co. v. Aspen Highlands Skiing Co.*, 472 U.S. 585, 596 n.19 (1985); *U. S. v. Grinnell Corp.*, 384 U.S. 563, 570-71 (1966).

<sup>69</sup> These products include, but are not limited to, servers, workstations, desktop computers and laptops. Intel Corp., *supra* note 66, at 20134.

<sup>70</sup> *Id.*

<sup>71</sup> *See id.* (discussing the necessity of access to OEMs).

<sup>72</sup> *Id.* at 20135. In particular, Intel's refusal disrupted the business of three well-established OEMs: Digital Equipment, Intergraph, and Compaq Computers. *Id.* Intel's refusal ultimately forced Compaq and Digital to enter cross-licensing arrangements with Intel. *Id.* Intergraph, however, resisted the pressure to cross-license. *Id.* It obtained a preliminary injunction from a federal district court requiring Intel to resume and continue supplying it with advance product information. *Id.*

<sup>73</sup> Pitofsky, *supra* note 20 While Pitofsky stresses the importance of recognizing the distinctions between IP and traditional product markets, he also cautions against exaggerating the implications of these distinctions. *Id.*

<sup>74</sup> Although pronounced network effects appears more frequently in markets characterized by intellectual property, other markets, such as that for credit cards, also experience the same. *Id.*

<sup>75</sup> Gilbert & Tom, *supra* note 10, at 3. The authors list four main differences between innovation and traditional markets, the fourth being the strong inclination of R&D markets to display "network effects." However, this component has been discussed earlier in this article. *See supra* notes 63-67 and accompanying text. Also, among the listed distinctions, intellectual property is more susceptible to misappropriation than traditional forms of property. Gilbert & Tom, *supra* note 10, at 3. Although the exclusive rights a holder of an IP right has is considered comparable to tangible property by the Guidelines, patent grants, for example, often empower its owner with abilities to exclude that exceed the exclusionary powers of tangible property owners. *Id.* Furthermore, to commercialize an IP product and

undergo rapid rates of technological change, much more so than traditional markets.<sup>76</sup> Second, R&D industries endure extremely high fixed costs for research and development, though the variable costs for production of goods once products have been developed tend to be low.<sup>77</sup> Third, the industries face what economists call “knowledge spillovers.”<sup>78</sup>

### 1. Rapid Rates of Technological Change

The rapid rates of technological change make R&D industries particularly difficult to predict.<sup>79</sup> The king-size firms of today become the technological guppies of tomorrow. Hasty attempts to forecast market power in these industries may lead to a recurrence of the government’s claim against IBM in 1969,<sup>80</sup> an event that Commissioner Pitofsky referred to as a “debacle.”<sup>81</sup> At the time that the government brought suit, IBM exemplified a “New Economy” firm at the cutting edge of innovation.<sup>82</sup> Due to its massive and arguably alarming market power in 1969, the government pursued the case under Section 1 of the Sherman Act.<sup>83</sup> Seven years of copious discovery and six years of trial passed, including a trial presentation covering 104,000 pages of transcript.<sup>84</sup> Then in 1982, the government dismissed the case on the grounds that by then, IBM no longer threatened the marketplace as a monopolist.<sup>85</sup>

Relevant R&D markets are difficult to define and “subject to U-turns or radical morphing with every new development.”<sup>86</sup> Rapid technological changes result in markets where competition through innovation only provides temporary market dominance and can easily be displaced by the next wave of research and

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earn a substantial return, a large number of complementary inputs with some degree of market power usually need to be brought together, thus “network effects,” in a sense, necessarily must be present. *Id.* And finally, the bounds of intellectual property are more difficult to survey than tangible property. *Id.* Nonetheless, the Antitrust-IP Guidelines contend that ordinary antitrust analysis can adequately take all these differences into account and the application of a fundamentally different principle is not required. *Antitrust-IP Guidelines, supra* note 1, at §§ 2.0, 2.1.

<sup>76</sup> See Part II.A.2.a.

<sup>77</sup> See Part II.A.2.b.

<sup>78</sup> See Part II.A.2.c.

<sup>79</sup> Gilbert & Tom, *supra* note 10, at 3.

<sup>80</sup> *U. S. v. Int’l Bus. Machs. Corp.*, 163 F.3d 737 (2d Cir. 1998) (hereinafter *IBM*).

<sup>81</sup> Pitofsky, *supra* note 20 (noting that “one cannot help but think of the debacle when the U.S. Government brought a monopolization case against IBM” when addressing institutional issues on whether current antitrust enforcement policies adequately deal with “New Economy” markets such as markets of innovation).

<sup>82</sup> *Id.*

<sup>83</sup> *IBM*, 163 F.3d at 738.

<sup>84</sup> Pitofsky, *supra* note 20.

<sup>85</sup> *Id.*; See also *U. S. v. IBM*, 1997-1 Trade Cas. (CCH) ¶ 71, 786 (S.D.N.Y. 1997) (“It has been established beyond any real question that whereas IBM formerly had a great deal of market power in an antitrust sense, that market power has been substantially diminished, and is continuing to diminish, to the point of its disappearance in the sense of a threat of antitrust violation.”) *aff’d*, 163 F.3d 737 (2d Cir. 1998).

<sup>86</sup> Charles T.C. Compton, *IP Issues in the Antitrust Treatment of Mergers* 4, The Berkeley Conference on Antitrust in the Technology Economy, June 9, 2005, available at [http://www.wsgr.com/PDFSearch/Berkeley\\_Conf\\_PaperJune\\_05.pdf](http://www.wsgr.com/PDFSearch/Berkeley_Conf_PaperJune_05.pdf).

development.<sup>87</sup> Thus, high market concentration does not necessarily mean anticompetitive market power, especially when such markets themselves are short-lived.<sup>88</sup>

The *IBM*<sup>89</sup> case serves as a classic illustration of this. In the early 70s, the Agencies' investigation into the company led them to conclude that in the relevant market, IBM possessed a market power that plausibly characterized it as a monopoly.<sup>90</sup> But by the 80s, due to the lack of market power durability in high-technology and innovation-dependent industries, IBM's market power diminished so significantly that the government had little choice but to dismiss the case.<sup>91</sup> Had the government's assessment of market definition been more liberal, taking into account the fluctuations of such a highly volatile market, the IBM "debacle" could have been avoided. The natural monopolies of the "innovation" market are almost always short-lived.<sup>92</sup>

However, this is not to say that this warrants an absolutely "hands-off" approach to "innovation" markets by antitrust law. A market dominance of 10 to 20 years in these industries takes enormous resources out of the economy and stifles both innovation and competition.<sup>93</sup> The IBM case serves merely as testament that market definition in markets of innovation should not be narrowly construed.<sup>94</sup> Where the interchangeability query includes "future goods" not yet in existence, an optimistic attitude toward what innovation will accomplish should be adopted, and thus much more flexibility and latitude granted in market definition of R&D industries.<sup>95</sup>

## 2. *High Fixed Costs, But Low Variable Costs*

Accompanying its extreme unpredictability, R&D industries differ from traditional markets by bearing high fixed costs up front, which require large initial investments prior to development of any goods or services.<sup>96</sup> Once a product has been developed, the variable cost, or price for reproduction, is marginal in comparison.<sup>97</sup> Traditional product markets generally experience the opposite: the model of perfect competition is characterized by low fixed costs and higher variable costs.<sup>98</sup> Due to the enormous initial investment for the research and development, industries in the innovation market would have no incentive to invent and develop

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<sup>87</sup> *U. S. v. Microsoft Corp.*, 253 F.3d 34, 49 (D.C. Cir. 2001) ("Rapid technological change leads to markets in which firms compete through innovation for temporary market dominance, from which they may be displaced by the next wave of product advancements.")

<sup>88</sup> See Compton, *supra* note 86, at 4 (explaining innovation market theory).

<sup>89</sup> See *supra* notes 83-88 and accompanying text.

<sup>90</sup> See Pitofsky, *supra* note 20 (discussing the changes in IBM's monopoly status).

<sup>91</sup> *Id.*

<sup>92</sup> Compton, *supra* note 86, at 4.

<sup>93</sup> *Id.*

<sup>94</sup> Pitofsky, *supra* note 20.

<sup>95</sup> See generally, e.g., Adam Thierer & Clyde W. Crews, Jr., *The Libertarian Vision for Telecom and High-Technology*, 1 *TECHKNOLWEDGE* (Apr. 3, 2001), <http://www.cato.org/tech/tk-index.html> (suggesting that policymakers "be patient" and "embrace change" in emerging markets).

<sup>96</sup> Gilbert & Tom, *supra* note 10, at 4. There are other industries other than those of the New Economy that also deal with high fixed and low variable costs, such as incinerators and the transport industries. See Pitofsky, *supra* note 20.

<sup>97</sup> Gilbert & Tom, *supra* note 10, at 4.

<sup>98</sup> See *id.* (explaining the difference between the model of perfect competition and high-technology markets).

high-tech goods if the government required these firms to have symmetrical product prices and production costs.<sup>99</sup> In this sense, market power, or the ability to set prices above marginal costs,<sup>100</sup> is necessary for the survival of R&D industries.<sup>101</sup>

### 3. *Knowledge Spillovers*

Innovation firms investing in research and development generally create knowledge that benefits the society at large, including the firms' competitors.<sup>102</sup> This trend is known as a "knowledge spillover."<sup>103</sup> Thus, despite the exclusivity granted to holders of IP rights, the strength of those rights are not usually enough to contain the large share of knowledge benefits from "spilling."<sup>104</sup> As a means of appropriating these knowledge benefits, R&D firms will form alliances and share the information.<sup>105</sup> This causes the market to become concentrated, which traditionally is seen as contrary to antitrust policies.<sup>106</sup> Yet such alliances may end up benefiting consumers, since the alliances may reduce the development costs of the firms and, in turn, reduce the product costs for the consumers as well.<sup>107</sup>

### 4. *What These Distinctions Mean and Do Not Mean*

Critics of antitrust patrol in markets of innovation cite these distinguishing characteristics (perhaps at times even hyperbolize them) to support the removal of antitrust analysis from intellectual property law.<sup>108</sup> However, these characteristics may be found in numerous other industries as well, which remain under antitrust scrutiny with minimal objection.<sup>109</sup> The rapid change of technologies, high fixed costs of research, and knowledge spillovers represent specific attributes that the Agencies need to be sensitive to when balancing the diverging interests in its rule of reason analyses.<sup>110</sup> Distinctions between innovation markets from traditional markets need to be accounted for as factors during antitrust analysis, and not simply as oversimplified pretext for rejecting Agency intervention.<sup>111</sup>

### E. Whether 'Tis Nobler for Innovation to Suffer the Slings and Arrows of Outrageous Monopoly, Or Take Arms...

Despite the drift toward monopolization due to single firm dominance and network effects, it is well settled that market power arising from superior business

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

<sup>100</sup> See Andrew Chin, *Antitrust Analysis in Software Product Markets: A First Principles Approach*, 18 HARV. J.L. & TECH. 1, 2 (2004) (defining market power).

<sup>101</sup> Gilbert & Tom, *supra* note 10, at 4.

<sup>102</sup> *Id.*

<sup>103</sup> *Id.*

<sup>104</sup> *Id.*

<sup>105</sup> Gilbert & Tom, *supra* note 10, at 4.

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

<sup>107</sup> *E.g., id.* (discussing how concentrated market structures can benefit consumer).

<sup>108</sup> Clyde W. Crews, Jr. & Adam Thierer, *When Rights Collide: Principles to Guide the Intellectual Property Debate*, TECHKNOLWEDGE (Jun. 4, 2001), available at <http://www.cato.org/tech/tk/010604-tk.html>.

<sup>109</sup> See *infra* note 189 and accompanying text. See also Addanki, *supra* note 29.

<sup>110</sup> *Id.*

<sup>111</sup> *Antitrust-IP Guidelines*, *supra* note 1, at § 2.1.

acumen<sup>112</sup> should not be penalized.<sup>113</sup> To be clear, IP and antitrust are neither forces at odds nor identical in pursuit.<sup>114</sup> Rather, they both serve to protect innovation through different means.<sup>115</sup> The U.S. Constitution grants a lawful and limited monopoly to owners of IP rights to reward authors and inventors for their contributions to the “progress of science and useful arts.”<sup>116</sup> Antitrust law, on the other hand, maintains competitive markets in which competition among authors and inventors provides the spur to innovate.<sup>117</sup> This sets the stage for arguments in favor of and against antitrust scrutiny of “innovation” markets.<sup>118</sup>

### 1. *The Benefits of Permitting Unhindered Market Power in Innovation Industries*

Proponents of allowing innovation markets to be concentrated without antitrust scrutiny argue that in an oligopoly-like setting, an R&D firm may reap greater rewards for innovation because its market power shields its profits from “excessive” competitive pressure.<sup>119</sup> Arguably, providing room for large financial incentives induces more motivation and effort on the part of these R&D firms to innovate and invest more into research and development.<sup>120</sup> Hence, one view on the relationship between markets of innovation and antitrust is that the Agencies should adopt a more “hands off” approach than what presently transpires.<sup>121</sup>

In the Federal Trade Commission’s case against Intel,<sup>122</sup> many saw the Complaint as an inappropriate agency intervention of the innovation markets.<sup>123</sup> Critics of the Commission’s Complaint against Intel do not regard Intel’s dealings with the three OEMs as unfair use of its monopoly power or, as Chairman Pitofsky put it, “coercion that forces customers to license away patent rights on unfavorable terms.”<sup>124</sup> Rather, these critics interpret Intel’s conduct as acts defending against attacks by these OEMs, or using “self-help.”<sup>125</sup> Intel faced vigorous competition in

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<sup>112</sup> U. S. v. Grinnell Corp., 384 U.S. 563, 570-71 (1966) (acknowledging that although the Sherman Act penalizes the possession, willful acquisition, or maintenance of monopoly power, this is “as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident”). See also 15 U.S.C. § 2 (2000).

<sup>113</sup> E.g., Crews & Thierer, *supra* note 108.

<sup>114</sup> Susan DeSanti, Director of Policy Planning, Federal Trade Commission, before the Antitrust for High-Tech Companies Business Development Associates Conference, San Francisco, California (Feb. 2, 1996), available at <http://www.ftc.gov/speeches/other/desanti1.htm> (“Intellectual property law focuses on providing inventors and creators with a return on their work that is intended to remedy various ‘public good’ problems that may arise in connection with intellectual property. Antitrust law focuses on maintaining competitive markets in which competition among inventors and creators provides the spur to innovation.”)

<sup>115</sup> *Id.*

<sup>116</sup> U.S. CONST. art. I, § 8, cl. 8 (“To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.”)

<sup>117</sup> DeSanti, *supra* note 114.

<sup>118</sup> See generally Xavier Vives, *Innovation and Competitive Pressure* 49 (INSEAD and CEPR, Working Paper No. 4369, 2004) (examining the effects of competition on innovation).

<sup>119</sup> *Id.*

<sup>120</sup> Crews & Thierer, *supra* note 108.

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

<sup>122</sup> Intel Corp., *supra* note 66, at 20134. See also notes 68-73 and accompanying text.

<sup>123</sup> *Id.* at 20138.

<sup>124</sup> Intel Corp., *supra* note 66, at 20136 (statement of Chairman Robert Pitofsky & Commissioners Sheila F. Anthony and Mozelle W. Thompson).

<sup>125</sup> See Intel Corp., *supra* note 66, at 20138, n.5 (statement of Commissioner Orson Swindle).

its microprocessor business to personal computers under \$1,000.<sup>126</sup> Moreover, in its business for mid-range to high-end segments, the corporation found itself rapidly losing its market power.<sup>127</sup> With such challenges against Intel, the main criticism of the Complaint rested on the absence of any adjudicative record proving that Intel had a monopoly or monopoly-like power.<sup>128</sup>

The *Intel* Complaint seemed to suggest that a corporation is not entitled to withhold aid or information regarding its own IP rights and instead, if it wanted to prevent the serious harm to its own business that it foresaw as a result of assisting the three OEMs, then Intel should have “hir[ed] lawyers and take[en] its disputes through lengthy and expensive litigation.”<sup>129</sup> Finally, the Commission failed to articulate a “coherent theory of how [Intel’s] dealings harmed consumers.”<sup>130</sup> Consumer welfare is the “touchstone of antitrust enforcement.”<sup>131</sup> If there is no clear evidence that Intel’s dealings with Digital, Intergraph, and Compaq adversely affected consumers, then “one can question the very basis for . . . injecting a government agency into the dynamic workings of a fast-moving, high-technology industry.”<sup>132</sup>

## 2. *The Drawbacks of Less Room for Free Competition in Innovation Industries*

While one school of thought recognizes tolerance of market power as the key to innovation, another school believes the key is competition.<sup>133</sup> In a competitive industry, financial earnings come from success and success depends on out-competing rivals. Therefore, firms in highly competitive industries would be more willing to invest in innovation as a means of out-competing other firms in the respective market.<sup>134</sup> In addition, since cost of production typically is reduced when quantity of goods increase, R&D firms are more likely to invest up front in research and development if they anticipate large quantities of production. If more competition stimulates more production and more production means a lesser burden on costs for R&D, then these firms will be more willing to invest in R&D, hence competition bolsters innovation. Advocates of this principle call for proactive antitrust enforcement in markets of innovation. They believe that protecting a free forum for competition *is* promoting a free forum for innovation.

At the very least, anecdotal evidence showing that innovation thrives in competitive market structures exists.<sup>135</sup> However, no compelling evidence has been proffered to demonstrate that more concentrated markets, as those against antitrust

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<sup>126</sup> *Id.* at 20137.

<sup>127</sup> *Id.* at 20138.

<sup>128</sup> *See id.* (Commissioner Swindle expressing concern that the lack of an adjudicative record does not dispel questions of whether Intel has monopoly power).

<sup>129</sup> *Id.*

<sup>130</sup> Intel Corp., *supra* note 66, at 20138.

<sup>131</sup> *Id.*

<sup>132</sup> *Id.*

<sup>133</sup> Note, however, that sound “economic theory and empirical investigations have not established a general causal relationship between innovation and competition.” FTC Staff Report, *Anticipating the 21st Century: Competition Policy in the New High-Tech, Global Marketplace*, Vol. I, ch. 7, at 16 (May 1996).

<sup>134</sup> Gilbert & Tom, *supra* note 10.

<sup>135</sup> *See, e.g.*, MICHAEL PORTER, *THE COMPETITIVE ADVANTAGE OF NATIONS* (1990) (discussion different countries’ industries that have become globally competitive).

enforcement in innovation markets have suggested, are directly beneficial for encouraging innovation.<sup>136</sup> Thus, this article agrees with the Agencies' stance<sup>137</sup> that innovation's best ally is competition.

### 3. *How Crucial Have Innovation Effects Been to Antitrust Analyses of Innovation Markets?*

Due to lack of transparency in how the Agencies weigh each competitive concern in their antitrust enforcement decisions, the precise role of the innovation effects, as either a mere foundation for merger policy or a requisite component of the analysis on the same rank as competitive effects or consumer welfare, is tough to verify.<sup>138</sup> Based on the public announcements that the Agencies issue, many scholars have concluded that, although the Agencies tout innovation, they rarely apply it as a crucial factor.<sup>139</sup> Instead, antitrust analyses, even for markets of innovation where no comparable goods or services yet exist, generally focus on: (1) price effects, (2) quality, (3) and availability of the goods and services.<sup>140</sup>

These factors alone, however, do not render accurate assessments of "innovation" markets where market definition is based on the interchangeability of "future goods," or products that are foreseen to exist in the figurative tomorrow, but not tangible today.<sup>141</sup> More so than any other market, when "future goods" are part of the equation, innovation market analysis should be obligatory. Price effects, quality, and availability of the goods and services are important factors in determining anticompetitive effects, not necessarily innovation. Applying the same analysis for determining anticompetitive behavior to innovation runs the risk of confusing the two.<sup>142</sup> In the antitrust balance of interests, innovation and competition are not an indistinguishable and formless amalgamation, but rather are two distinct weights to be individually considered.<sup>143</sup> Presently, the Antitrust-IP Guidelines do not provide a sufficiently distinct standard for evaluating innovation effects separate from competition.<sup>144</sup>

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<sup>136</sup> Gilbert & Tom, *supra* note 10. The authors acknowledge, however, that certain combinations such as research joint ventures have indeed produced positive results for innovation. *Id.*

<sup>137</sup> *Antitrust-IP Guidelines*, *supra* note 1 at § 1.0.

<sup>138</sup> See Gilbert & Tom, *supra* note 10, at 9 (noting that the only way to retrace the steps of antitrust analysis that the Agencies take are through their public announcements, which can often be equivocal).

<sup>139</sup> *Id.* at 2-3.

<sup>140</sup> *Id.* at 9.

<sup>141</sup> *Id.*

<sup>142</sup> Addanki, *supra* note 29.

<sup>143</sup> Cf. Gilbert & Tom, *supra* note 10, at 3 (discussing how innovation has become an increasing concern of antitrust agencies).

<sup>144</sup> Cf. *Antitrust-IP Guidelines*, *supra* note 1, at § 2.0 (The "Tripartite Test" standard embodying "three general principles: (a) for the purpose of antitrust analysis, the Agencies regard intellectual property as being essentially comparable to any other form of property; (b) the Agencies do not presume that intellectual property creates market power in the antitrust context; and (c) the Agencies recognize that intellectual property licensing allows firms to combine complementary factors of production and is generally procompetitive.")

### III. INNOVATION THROUGH THE LOOKING GLASS OF ANTITRUST: ASSESSING MERGERS OF IDEAS

Although mergers of ideas or mergers between two R&D firms may not yet have a tangible, viable product or technology ready for packaging and sales, such mergers nonetheless pose antitrust concerns, at least conceptually.<sup>145</sup> Throughout the past decade, the Agencies' concern with innovation issues intensified exponentially.<sup>146</sup> By applying the standards set in the Agencies' 1995 *Antitrust Guidelines for the Licensing of Intellectual Property* (Antitrust-IP Guidelines),<sup>147</sup> the Agencies demonstrated their confidence in the Antitrust-IP Guidelines' ability, at least in theory,<sup>148</sup> to comb out the anticompetitive innovation mergers from the pro-competitive.<sup>149</sup> After the Agencies issued the Antitrust-IP Guidelines, challenges to mergers increased nearly tenfold.<sup>150</sup> In the overwhelming majority of those cases, innovation concerns were not decisive.<sup>151</sup> Most of these challenged mergers would have also come under scrutiny based on adverse impacts on competition.<sup>152</sup> Thus, many scholars have argued that innovation concerns pose a neutral factor in merger determinations.<sup>153</sup> They further conclude that, under the current framework for antitrust scrutiny of innovation markets, the likelihood of finding an antitrust violation in an R&D merger is usually slim.<sup>154</sup>

#### A. Antitrust Guidelines for the Licensing of Intellectual Property

The Antitrust-IP Guidelines embody three core principles.<sup>155</sup> First, for the purpose of antitrust analysis, the Agencies treat intellectual property as comparable to any other form of property.<sup>156</sup> Second, no presumption of market power exists

<sup>145</sup> Addanki, *supra* note 29.

<sup>146</sup> Gilbert & Tom, *supra* note 10, at 1 (noting that the Agencies increased their attention to the effects of mergers and firm conduct on innovation).

<sup>147</sup> See *supra* Part II.C.

<sup>148</sup> Addanki, *supra* note 29.

<sup>149</sup> George Bittlingmayer, *The Antitrust Emperor's Clothes*, REG. (CATO INST.) 46, 51 (Fall 2002), available at <http://www.cato.org/pubs/regulation/regv25n3/v25n3-11.pdf> ("Under the concept of 'innovation markets,' [the U.S. Department of Justice and Federal Trade Commission] argue that they can predict which deals ultimately will lead to less innovation and some combination of poorer products and higher prices.")

<sup>150</sup> See Gilbert & Tom, *supra* note 10, at 1-2 (noting that while only four cases cited innovation effects as a reason for challenging mergers in the earlier half of the 1990s, by the second half, the Agencies challenged over forty-seven cases on innovation grounds).

<sup>151</sup> *Id.* at 2.

<sup>152</sup> *Id.* In the forty-seven cases challenged by the Agencies between 1995 and 1999 where effects on innovation was named as a main concern, the relief obtained would have been the same based solely on an analysis of the likely price effects the merger would have in the relevant market for existing goods and services. *Id.* at 9.

<sup>153</sup> See *id.* at 2 (asserting that the Agencies' decisions to oppose mergers would not have changed even if innovation had been excluded from the antitrust analysis).

<sup>154</sup> Addanki, *supra* note 29 (noting how different the approach and analysis for analyzing mergers of ideas are from ordinary merger analysis, and that "the chances that one would find any antitrust problem are remote").

<sup>155</sup> *Antitrust-IP Guidelines*, *supra* note 1 at § 2.0.

<sup>156</sup> *Id.* ("[F]or the purpose of antitrust analysis, the Agencies regard intellectual property as being essentially comparable to any other form of property.") The Agencies acknowledge that there are marked differences between intellectual property and other forms of property. But standard antitrust analysis (e.g., the rule of reason) accounts for specific market circumstances, and thus despite the unique

merely because a party has an intellectual property right.<sup>157</sup> Third, the Antitrust-IP Guidelines recognize the licensing of intellectual property to be generally pro-competitive.<sup>158</sup> Essentially, throughout the Antitrust-IP Guidelines, the clearly articulated reprise is the equal application of antitrust analysis to both tangible and intangible goods, thus treating intellectual property as the Agencies would treat any other good or service.<sup>159</sup>

The Agencies often cite innovation and the effects on innovation that a merger may potentially have as important considerations. Between 1995 and 1999, right after the publication of the Antitrust-IP Guidelines, the Agencies challenged 269 mergers and acquisitions,<sup>160</sup> with approximately 20 percent of these cases citing the likely impact on innovation as one of their main concerns of the merger.<sup>161</sup> Closer examination of the Agencies' treatment of these cases shows that their judgments turned on other factors, such as competition effects, and not necessarily on innovation as a determinant factor, as the Antitrust-IP Guidelines have been interpreted to imply.<sup>162</sup>

## B. How the Antitrust-IP Guidelines Have Been Applied to Markets of "Innovation"

### 1. *Deferential Safety Zone*

In deference to innovation, the Agencies define a "safety zone"<sup>163</sup> within which research and development firms<sup>164</sup> may enter licensing agreements with little opposition from the Agencies. If two firms in either technology or innovation

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characteristics of intellectual property, an entirely separate method of analysis is not necessarily warranted. *See id.* at § 2.1.

<sup>157</sup> *Id.* ("[T]he Agencies do not presume that intellectual property creates market power in the antitrust context"). *See also id.* at § 2.2 (noting that "there will often be sufficient actual or potential close substitutes for such product, process, or work to prevent the exercise of market power.")

<sup>158</sup> *Id.* ("The Agencies recognize that intellectual property licensing allows firms to combine complementary factors of production and is generally pro-competitive"). *See also id.* § 2.3.

<sup>159</sup> *Id.* at § 2.1. *See also* Raymond A. Jacobsen, Jr. & Stefan M. Meisner, *Recent Developments in Antitrust and Intellectual Property Law*, THE ANTITRUST REVIEW OF THE AMERICAS 2004 (SPECIAL REPORT), GLOBAL COMPETITION REVIEW 40 (2004), available at <http://www.mwe.com/info/pubs/antitrust0504.pdf>.

<sup>160</sup> Gilbert & Tom, *supra* note 10, at 6.

<sup>161</sup> *Id.* Finding that "investigation shows that in recent years the antitrust enforcement agencies have increasingly expressed concerns over the effects of particular mergers and firm conduct on innovation." *Id.* at 3.

<sup>162</sup> *Id.* at 2. The authors conclude that: "In the merger area, our investigation shows that innovation concerns were decisive in only a few cases. Most of the merger cases that alleged effects on innovation likely could have been challenged based on adverse impacts on competition in markets for existing goods and services. We do not mean to imply that innovation impacts were unimportant in these cases. Instead, we make the more limited point that the decisions to oppose these mergers likely would not have been different if innovation had been excluded from the analysis." *Id.*

<sup>163</sup> *See Antitrust-IP Guidelines, supra* note 1, at § 4.3 n.29 (noting that this "safety zone" only applies to licensing arrangements that are related to the use of licensed intellectual property). To determine whether a restraint falls within the "safety zone," analysis of the relevant market will only be in reference to goods markets, unless the analysis of goods markets alone would not adequately address the effects of the licensing arrangement on competition in R&D. *See id.* at § 4.3.

<sup>164</sup> *Id.* at § 3.2.3.

markets collectively account for less than 20 percent of the relevant markets<sup>165</sup> and the arrangement is not “facially anticompetitive,”<sup>166</sup> then generally the government will not challenge the arrangement.<sup>167</sup> This “safety zone” provides entities in the innovation market who wish to enter IP licensing agreements a degree of certainty “in those situations in which anticompetitive effects are so unlikely that the arrangements may be presumed not to be anticompetitive without an inquiry into particular industry circumstances.”<sup>168</sup>

Despite the specificity of the antitrust “safety zone,” more often than not, the rule turns out to be inapplicable because the great majority of IP licensing arrangements do not fall within the scope of the zone.<sup>169</sup> When an IP licensing arrangement exceeds the 20 percent mark, the Agencies adopt a slight variation on the “rule of reason” approach to antitrust analysis.<sup>170</sup>

## 2. Antitrust Analysis of IP Licensing Arrangements Beyond the “Safety Zone”

Since intellectual property may be treated as any other form of tangible property,<sup>171</sup> the Agencies apply the “rule of reason”<sup>172</sup> in a manner similar to the rule’s application in ordinary antitrust analysis.<sup>173</sup> Under the “rule of reason,” a

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<sup>165</sup> *Id.* at § 4.3 (noting the relevant market condition is met if “there are four or more independently controlled technologies in addition to the technologies controlled by the parties to the licensing arrangement that may be substitutable for the licensed technology at a comparable cost to the user” or there are “four or more independently controlled entities in addition to the parties to the licensing arrangement possess the required specialized assets or characteristics and the incentive to engage in research and development that is a close substitute of the research and development activities of the parties to the licensing agreement”).

<sup>166</sup> *Id.* at n.30 (defining “facially anticompetitive” as “restraints that normally warrant per se treatment, as well as other restraints of a kind that would always or almost always tend to reduce output or increase prices”).

<sup>167</sup> *See id.* at § 4.3 (stating that “[a]bsent extraordinary circumstances, the Agencies will not challenge a restraint in an intellectual property licensing arrangement that may affect competition in an innovation market if (1) the restraint is not facially anticompetitive and (2) four or more independently controlled entities in addition to the parties to the licensing arrangement possess the required specialized assets or characteristics and the incentive to engage in research and development that is a close substitute of the research and development activities of the parties to the licensing agreement”). The Guidelines further affirm that this “safety zone” is consistent with congressional intent in enacting the National Cooperative Research Act. *See id.* at n.31 (citing H.R. REP. NO. 98-1044, at 10 (1984) (Conf. Rep.)).

<sup>168</sup> *Antitrust-IP Guidelines, supra* note 1, at § 4.3.

<sup>169</sup> *See id.* (expressly acknowledging and emphasizing that simply because a licensing arrangement falls outside the scope of the “safety zone,” it is not necessarily anticompetitive; moreover, many of such licenses falling outside the safety zone are entirely lawful and pro-competitive).

<sup>170</sup> *Id.* at § 3.4. (noting that typically restraints in IP licensing arrangements are generally evaluated under the rule of reason where the Agencies inquire whether the restraint is likely to have anticompetitive effects and, if so, then the Agencies ask whether such a restraint is reasonably necessary to achieve pro-competitive effects that will outweigh the anticompetitive effects; *see also* Phillip E. Areeda and Herbert Hovenkamp, 7 ANTITRUST LAW § 1502 (2d ed. 1986)).

<sup>171</sup> *See supra* note 159 and accompanying text.

<sup>172</sup> A finding of antitrust liability under the rule of reason analysis, outlined in the *Antitrust-IP Guidelines*, requires that the plaintiff show: (1) an actual, significant, facially apparent adverse affect on competition, *e.g.*, *NCAA v. Bd. of Regents*, 468 U.S. 85, 104-5 (1984), or (2) the existence of market power sufficient to imply the requisite adverse effect, *e.g.*, *Cont’l T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 45 (1977).

<sup>173</sup> *See Jacobsen & Meisner, supra* note 159. However, courts have at times found intellectual property licensing arrangements to be per se unlawful when such licenses appeared to be a pretext for a market allocation scheme or presumed to be facially anti-competitive. *Id.* Nonetheless, for the majority of cases

relevant market is defined and the pro-competitive benefits weighed against the anti-competitive harm.<sup>174</sup> When the balance tips in favor of the pro-competitive benefits, the licensing arrangement is generally deemed lawful.<sup>175</sup>

### 3. *Determining Market Power of R&D Entities: The Tripartite Test*

In mergers between two R&D firms that potentially wield market power, the Agencies look to see if the merged firm would “unilaterally reduce the pace of innovation.”<sup>176</sup> The merged firm must have both the ability and the incentive to suppress innovation.<sup>177</sup> To determine whether two R&D firms who want to merge have the ability and the incentive to suppress innovation, the Agencies use a three-step inquiry,<sup>178</sup> a “Tripartite Test.”

First, the Agencies need to show that the two R&D firms hold specialized assets that are needed to develop their technology and that these assets are not available to any entities outside these two firms.<sup>179</sup> These assets may be particular laboratories, equipment, facilities, or specialized knowledge, etc.<sup>180</sup> A main consideration is the uniqueness of such assets.<sup>181</sup> The asset must be so unique that if the two firms decided to lag development, no other entity would have the means of continuing the research.<sup>182</sup>

Second, there must be substantial proof that the merged firm would have some incentive to slow the pace of innovation.<sup>183</sup> For example, if prior to the merger the primary motivation for the first R&D firm is to outdevelop the second firm and vice versa, then after the two firms merge, that primary motivation to develop is lost.<sup>184</sup> Effectively, the Agencies need to prove that there is no other competition against these two firms but each other.<sup>185</sup> Thus, the merger does not merely take the market down from five contenders to four or four to three, but from two to one.<sup>186</sup>

Third, the Agencies must establish that no other entity could possibly acquire or copy the two R&D firms’ assets.<sup>187</sup> If the Agencies prove all three prongs, then usually the merger will be impermissible.<sup>188</sup> However, the three prongs have been

involving antitrust and intellectual property, the “rule of reason” reigns. *Id.* See also Anthony, *supra* note 34 (noting that the Agencies usually analyze restraints involving IP licenses under the “rule of reason”).

<sup>174</sup> Jacobsen & Meisner, *supra* note 159, at 40.

<sup>175</sup> *Id.* See also Anthony, *supra* note 22 (arguing that the balance tips in favor of the pro-competitive benefits when the restraint on competition is reasonably necessary to achieve economic efficiencies).

<sup>176</sup> Addanki, *supra* note 29.

<sup>177</sup> *Id.*

<sup>178</sup> *Id.*

<sup>179</sup> *Id.*

<sup>180</sup> *Id.*

<sup>181</sup> See Addanki, *supra* note 29 (discussing the factors to be considered in an antitrust analysis of R&D firms with no sales).

<sup>182</sup> *Id.*

<sup>183</sup> *Id.*

<sup>184</sup> E.g., Susan B. Garland & Andy Reinhardt, *Making Antitrust Fit High Tech. Uncle Sam’s balancing act: Patent rights vs. competition*, BUSINESSWEEK ONLINE (Mar. 22, 1999), [http://www.businessweek.com/1999/99\\_12/b3621076.htm](http://www.businessweek.com/1999/99_12/b3621076.htm).

<sup>185</sup> See Addanki, *supra* note 29 (discussing the factors to be considered in an antitrust analysis of R&D firms with no sales).

<sup>186</sup> *Id.*

<sup>187</sup> *Id.*

<sup>188</sup> *Id.*

criticized to be highly susceptible to being overbroad or too narrow,<sup>189</sup> depending on the subjectivity of the individual applying the analysis. In essence, the Tripartite Test can be interpreted as either the Agencies' great deference toward innovation markets and not wanting to hinder research and development or, if too narrowly construed, as Agency intervention of research and development to the point of unwittingly suppressing innovation.

#### IV. THE MAD-HATTERS OF WONDERLAND: HOW THE AGENCIES TRAP THEMSELVES WITH CONFUSING AND NEBULOUS STANDARDS

##### A. Examining the Functionality of the Antitrust-IP Guidelines

Although the Agencies instruct that mergers between two R&D firms comprising of less than 20 percent of the market will ordinarily not be challenged, the Antitrust-IP Guidelines do not explain how such a market should be defined.<sup>190</sup> The Agencies intersperse the Antitrust-IP Guidelines with a sentence or two on market definition, with minimal instruction for how R&D firms wishing to license their IP should steer through this murky terrain.<sup>191</sup> As it currently stands, the "safety zone" leaves many IP deals in unknown territory because they just do not fall within the 20 percent maximum market share.<sup>192</sup> Since these firms base their products on intellectual property, which is inherently exclusive, there usually is not the requisite four other firms competing against them, especially if the market definition is narrow.<sup>193</sup> This holds especially true for pharmaceutical companies.<sup>194</sup> Single-firm dominance plagues high-technology firms as well, such as companies specializing in data processing systems.<sup>195</sup>

Moreover, how the market should be defined is a key issue. If the Agencies base market definition analysis on interchangeability with respect to existing products or services, then often the market share of the R&D firms will appear enormously high. Since their products are patented, copyrighted, or the subject of trade secrets which no other firm has, there will likely be little, if any interchangeability with other products.<sup>196</sup> The Antitrust-IP Guidelines provide an alternative route to interchangeability if the R&D arrangement cannot adequately be assessed in the

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<sup>189</sup> Michelle M. Burtis & Bruce H. Kobayashi, *Intellectual Property and Antitrust Limitations on Contract*, George Mason Law & Economics Research Paper No. 00-06, DYNAMIC COMPETITION AND PUBLIC POLICY: TECHNOLOGY, INNOVATION AND ANTITRUST ISSUES, J. Ellig, ed., Cambridge University Press, pp. 229-263 (2001), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=210088](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=210088).

<sup>190</sup> *Antitrust-IP Guidelines*, *supra* note 1, at § 3.2.3.

<sup>191</sup> See Katz & Shapiro, *supra* note 61 (commenting that "although there are many places in the [Antitrust-IP] Guidelines where markets are mentioned, the difficult questions inherent in defining high-technology markets are ignored"). The authors further point out that "[t]he Guidelines do give some insight to the theoretical mode of analysis in which the Antitrust Division engages before bringing an action, but it is beginning to appear that the current administration's fascination with industrial policy may inhibit it in bringing actions against successful U.S. companies in the high technology sector." *Id.*

<sup>192</sup> See Addanki, *supra* note 29 (discussing how there may be few firms involved in the emerging market).

<sup>193</sup> *Id.*

<sup>194</sup> *Id.*

<sup>195</sup> *Id.*

<sup>196</sup> *Id.*

context of the current goods and technology markets.<sup>197</sup> Thus, for R&D arrangements, market definition is likely to be based on the arrangement's effects on the innovation of goods not yet in existence.<sup>198</sup>

#### B. To What Extent Do Current Standards Achieve Antitrust Objectives?

Notwithstanding the tireless efforts of the Agencies to set a standard for evaluating "innovation" market activity, discussed *supra*, using the Antitrust-IP Guidelines to predict the anticompetitive or pro-competitive effects of an IP licensing agreement may be likened to dowsing for water with a divining stick: skepticisms of the efficacy of such exercises abound.<sup>199</sup> Nonetheless, a definite and articulate antitrust standard for determining the permissibility of R&D mergers is indispensable.<sup>200</sup> In setting the standard, three goals need to be upheld: (1) facilitate transparency, (2) promote innovation, and (3) further competition.<sup>201</sup>

##### 1. Whether the Tripartite Test Facilitates Transparency

Defining markets of innovation and determining the likelihood of entry into a particular R&D industry signify important aspects of antitrust analysis.<sup>202</sup> Yet there are no clear instructions in the Agency standards on these issues.<sup>203</sup> Thus, as much as the Agencies urge that firms be transparent with their business activities to prevent antitrust challenges, the Agencies themselves need to be more transparent with how, precisely, they go about analyzing markets of innovation.

The Antitrust-IP Guidelines provide extensive theoretical constructs, i.e., the three general principles, the complementary nature of IP and antitrust law, and broad overviews of the aspects of IP licensing arrangements that strike antitrust concerns.<sup>204</sup> Nonetheless, how the Agencies use the standards mentioned by the Guidelines to investigate and challenge an R&D merger remains a mystery. Firms should be able to use the Guidelines to ascertain the permissibility of their merger. Their own conclusions should be reasonably reconcilable with the Agencies' investigations. To do so, there needs to be more transparency with respect to how the Guidelines' standards are applied and they should not be so vague as to rest on inconsistent interpretations, which, unfortunately, is often the outcome.

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<sup>197</sup> See *Antitrust-IP Guidelines*, *supra* note 1, at § 3.2.3.

<sup>198</sup> *Id.*

<sup>199</sup> See Jonathan A. Mukai, *Joint Ventures and the Online Distribution of Digital Content*, 20 BERKELEY TECH. L.J. 781, 805 (2005) ("There is no clear way to differentiate an attempt to control a new technology, in order to serve the interests of the venturers, from an industry attempt to guide the adoption of a new technology to ensure that it is implemented in an efficient manner.")

<sup>200</sup> Daniel B. Ravicher & Shani C. Dilloff, *Antitrust Scrutiny of Intellectual Property Exploitation: It Just Don't Make No Kind of Sense*, 8 SW. J.L. & TRADE. AM. 83, 109 (2001-2002) ("To ensure that consumer demand is fulfilled at maximum quantity and minimum price, government regulation of the marketplace is necessary").

<sup>201</sup> *Id.* ("[A] properly structured entity, founded on the principles of transparency, innovation and competition, can legitimately generate substantial pro-competitive benefits.")

<sup>202</sup> See, e.g., Geoffrey A. Manne & E. Marcellus Williamson, *Hot Docs vs. Cold Economics: The Use and Misuse of Business Documents in Antitrust Enforcement and Adjudication*, 47 ARIZ. L. REV. 609, 635 (Fall 2005) (discussing the importance and the challenge of market definition).

<sup>203</sup> *Id.*

<sup>204</sup> See, e.g., *Antitrust-IP Guidelines*, *supra* note 1, at §§ 1.0, 2.0, 2.1, 3.1.

## 2. *Whether the Tripartite Test Promotes Innovation*

The shortcomings of the 1995 Antitrust-IP Guidelines pivot on the ambiguity of the language used in conveying the standards. As a consequence, for all its hoopla on the value and importance of innovation, the “safety zone” and tripartite test, in effect, often end up suppressing innovation more than the monopolizing R&D firms themselves.<sup>205</sup> Although this article supports the 1995 Guidelines and advocates that it be given more authority and significance than it has been given in the past, the present Guidelines are more notional than practicable.

Innovation effects should become a key factor in antitrust determinations for IP licensing arrangements. It is crucial that antitrust laws systematically examine markets of innovation. No aspect of the economy should be categorically exempt from antitrust scrutiny. Thus, not only do the standards crafted by the Guidelines need to be lucid, but they also need to put the innovation factor at the forefront of the analysis.

## 3. *Whether the Tripartite Test Furthers Competition*

While antitrust laws endure the reputation of being an enemy of entrepreneurship, they are really to the contrary.<sup>206</sup> They police the arena, encouraging all to compete freely, but at the same time, keep an eye on the contenders to ensure fair play.<sup>207</sup> Promoting innovation and furthering competition must go hand in hand, and never be at odds.<sup>208</sup> When they are at odds, rather than permit either innovation or competition to trump, the law should establish a middle ground. Furthermore, efforts to educate on the compatible relationship between “Tweedledee” and “Tweedledum,” antitrust and intellectual property law respectively, should be increased to combat the resentment that still exists for their incongruities. The Guidelines need to defend innovation and competition jointly. As applied, the current rules lead to decisions that let either “Tweedledee” or “Tweedledum” take precedence at the expense of the other.<sup>209</sup> Reforming the present antitrust approach to markets of innovation would alleviate this conflict.

## V. MODIFICATIONS FOR A MORE ARTICULATE STANDARD

Even without tangible, viable goods, R&D mergers in markets of “innovation” may nonetheless present antitrust concerns.<sup>210</sup> This article agrees that maximum competition triggers maximum innovation. Therefore, in analyzing arrangements between R&D firms, the first question that should be asked is whether the two firms

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<sup>205</sup> Gilbert & Tom, *supra* note 10, at 6.

<sup>206</sup> *Id.*

<sup>207</sup> *See id.* (summarizing the agencies’ antitrust activities between 1995 and 1999).

<sup>208</sup> Often when antitrust law and intellectual property law bump heads, the courts tend to favor antitrust law. In light of this came the notion that the duel between these two bodies result in the picking and choosing between either competition or innovation, and that only one principle will prevail in any given case. *See generally* Gilbert & Tom, *supra* note 10.

<sup>209</sup> *See generally* Kevin J. Arquit & Richard Wolfram, *Mergers and Acquisitions: United States Government Antitrust Analysis and Enforcement*, 1251 PLI/Corp 317, 324, Corporate Law and Practice Course Handbook Series, Practising Law Institute, 42nd Annual Antitrust Law Institute (2001) (discussing market definition and measurement).

<sup>210</sup> *See* Mukai, *supra* note 199 at 805 (“Joint ventures provide ample potential for anticompetitive behavior”).

are in direct competition with each other. If yes, then one course of inquiry is taken.<sup>211</sup> If no, then a different course ensues.<sup>212</sup>

#### A. When Two “Innovation” Firms are in Direct Competition

Mergers that slow down the pace of innovation in their field should not be permitted. Thus, when two R&D firms propose to merge, the Agencies should first look at whether the two firms are in direct competition with each other. If Firm A, for example, develops for the sake of getting ahead of Firm B and a factual inquiry proves this to be the commanding reason for Firm A to acquire Firm B, then the Agencies should definitely challenge the merger. If Firm A and Firm B merged under this scenario, they would inevitably slow down the pace of innovation because of the strong incentive to do so. Before, both firms primary drive to innovate was to out-develop the other rival company. Once merged, they no longer pose competitive threats to each other and can sit back on their IP and relax. This is not what antitrust law should promote. However, taking into account the high fixed costs of R&D, it is in innovation’s best interest to allow firms to combine their assets and resources to more efficiently develop technology.

The 20 percent “safety zone” should undergo two main changes: (1) articulate how precisely the market will be defined<sup>213</sup> and (2) increase the safety zone. First, in lieu of defining markets as narrowly as possible, only firms that are attempting to develop similar technology to serve similar purposes in the same industry should be considered as part of the same market. It does not matter whether these firms already have such technology, are in the midst of developing, or intend to develop such technology. Interchangeability, which is the test for traditional market definition, should not matter in this instance. IP rights are inherently exclusive, novel in their conception or expression, thus inherently *not* interchangeable. In consideration of the unique nature of IP rights, the Agencies cannot apply interchangeability as a test for market definition.<sup>214</sup> Doing so ignores the fragile balance between the two bodies of law.<sup>215</sup> Meanwhile, simply omitting interchangeability as a factor makes the standard

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<sup>211</sup> See *infra* Part V.A.

<sup>212</sup> See *infra* Part V.B.

<sup>213</sup> See *Antitrust-IP Guidelines*, *supra* note 1, at § 3.2.2 (noting that “the Agencies will delineate the relevant market by identifying other technologies and goods which buyers would substitute at a cost comparable to that of using the licensed technology”); § 3.2.3 (determining that “[a]n innovation market consists of . . . the close substitutes for that research and development. The close substitutes are research and development efforts, technologies, and goods that significantly constrain the exercise of market power with respect to the relevant research and development.”)

<sup>214</sup> *Cf.* U. S. v. Microsoft Corp., 253 F.3d 34, 52 (D.C. Cir. 2001) (internal citations omitted) (stating that “the relevant market must include all products reasonably interchangeable by consumers for the same purposes”); U. S. v. E.I. du Pont de Nemours & Co., 351 U.S. 377, 395 (1956) (finding market definition to rest on the identifying of products “reasonably interchangeable by consumers”). See also James L. Seal, *Market Definition in Antitrust Litigation in the Sports and the Entertainment Industries*, 61 ANTITRUST L.J. 737, 737 (Spring 1993) (“[I]n formulating product market definitions to be used in evaluating the lawfulness of any challenged restraint under the antitrust laws, the task of product market definition cannot be divorced from either the nature of the substantive restraint being challenged or the type of antitrust injury allegedly suffered by the party making the challenge.”)

<sup>215</sup> Due to the nature of R&D firms, market definition would need to include a consideration of “future goods” that would be foreseeable competition against the proposed merger. Any attempt at defining a market in “future goods” under an interchangeability test will inevitably become a test of the factfinder’s

more precise, i.e., whether two firms are in similar pursuit of similar technology rather than whether two firms' products, if they even have tangible products, may replace each other in the eyes of the consumer. This will alleviate some of the mystery in trying to predict what will and will not be part of the proposed merger's goods market. Second, rather than identifying four other such firms before invoking protection of the safety zone, only three other firms need to be present in that defined market. This increases the current 20 percent safety zone to 25 percent, creating such technology for initial R&D mergers and arrangements without putting too great a restraint on free competition.

For arrangements beyond the scope of the safety zone, if the R&D firms are in direct competition under the proposed standard (i.e., firms that are attempting to develop similar technology to serve similar purposes in the same industry), then the rule of reason should be applied, on the condition that the innovation factor is distilled from the competition factor. In other words, the Agencies need to really focus on innovation effects. To do so, the Tripartite Test should be replaced with the following standard: (1) Permit the R&D merger on a limited 10-year basis, (2) evaluate the intentions of the parties to ensure that they are under a good faith intent to innovate rather than suppress or eliminate competition, and (3) determine whether the intended use of the R&D firms' IP is within the scope of the IP rights granted to them, i.e., the firms are not using the merger as a means of circumventing the limits of IP law and engaging in misuse or inequitable conduct.

During the 10-year window to innovate, extensive communication should occur between the agencies and the R&D firms. Rather than channel agency resources to litigate against R&D firms, these resources can be used to support but monitor the progress of their innovation. Periodic reports will be issued from the R&D firms to the agencies. The agencies will then respond with concrete, tangible guidelines that the R&D firms can use to make sure their conduct remains within the scope of the law. Intentional withholding of any information or knowledge on the part of the R&D firms will make them liable for inequitable conduct and would be immediate grounds for the agencies to revoke the 10-year window and reject the merger.

There should also be a determination that the R&D firms have a good faith intent to innovate, rather than eliminate competition. Factors the agencies may use include any history between the two firms that may indicate rivalry, whether there are "underdog" firms in the same market that the proposed merger is trying to stamp out, the nature of the market definition, and whether the R&D firms, post-merger, are sitting on any of their IP rights, meaning whether or not they actually are using their IP to innovate.

Finally, merger standards for innovation markets should never become an opportunity for R&D firms to expand the scope of their IP rights. At all times, the merged firm must be using its IP within the bounds of IP law. Any misuse of IP rights under the law will be grounds for the agencies to revoke permission for the merger.

Combating initial single-firm dominance in a new R&D industry by dragging these firms to court would merely be an oversimplified "political solution to the

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psychic abilities. Relying on the Agencies psychic abilities leads to situations similar to the *IBM* "debacle." See *supra* notes 79-85 and accompanying text.

complex problems posed by the realities of the new digital economy.”<sup>216</sup> The solution here is to be patient, to do no harm that would dampen the pace of R&D, and, to the extent that it does not hurt consumers, to permit temporary single-firm dominance in markets of innovation.<sup>217</sup> This is, perhaps, the best way to ensure that the agencies facilitate transparency, promote innovation, and further competition.<sup>218</sup> Applying the rule of reason in the context of innovation markets means that individual or collective market power will be assessed. In doing so, the current framework suggested by the Antitrust-IP Guidelines leaves much room for interpretation in favor of challenging mergers as monopolistic, without any sensitivity to the nature of the IP rights involved.<sup>219</sup> If the agencies want to protect innovation, then they should permit some liberty to R&D firms in the new economy for expansion to the extent that consumers are not harmed.<sup>220</sup> Where old economy interests may object to the emergence of these new technologies, the agencies should not allow old economy industries to pressure them into regulation against the new competitors.<sup>221</sup>

#### B. When Two “Innovation” Firms Are Not in Direct Competition

Scholars have suggested that antitrust challenges involving intellectual property can often be addressed either on antitrust grounds or IP grounds, and few cases demand the courts juggle both bodies of law.<sup>222</sup> In fact, blurring the two bodies of law may be the root of all the confusion.<sup>223</sup> Since IP grants the owner the right to exclude others and set prices, cases arise where a firm’s practice would be unlawful per se but for the presence of that IP.<sup>224</sup> Normally, the agencies or courts will

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<sup>216</sup> See Thierer & Crews *supra* note 95 (advocating that innovation markets should be allowed to develop naturally and that policymakers should “respect the natural discovery process of the free market, and the spontaneous ordering of our fast-paced technological society. As these markets expand, evolve, and mature, they will exceed any top-down creation of politicians”).

<sup>217</sup> *Id.*

<sup>218</sup> See *supra* Part III.

<sup>219</sup> This further seems to run contrary to one of the long-established notions of antitrust law, which holds that size alone does not determine the existence of a monopoly (but, rather, exclusion of competitors, unnatural growth, wrongful intent, and undue coercion were the determinative elements). *U. S. v. Aluminum Co. of Am.* 148 F.2d 416, 429 (2d Cir. 1945) (asserting that “size does not determine guilt; that there must be some ‘exclusion’ of competitors; that the growth must be something else than ‘natural’ or ‘normal’; that there must be a ‘wrongful intent,’ or some other specific intent; or that some ‘unduly’ coercive means must be used”). Despite this, in antitrust challenges involving IP rights, the natural and legal monopoly granted by the IP tend to be overlooked in favor of subconsciously factoring in size and market power. See, e.g., *Sensormatic Electronics Corporation*; Proposed Consent Agreement with Analysis to Aid Public Comment, 60 Fed. Reg. 5428 (F.T.C. Jan. 27, 1995) (notice of proposed consent agreement); *Wright Medical Technology, Inc., et. al.*, 60 Fed. Reg. 460 (F.T.C. Jan. 4, 1995) (notice of proposed consent agreement); *American Home Products Corp.*, 59 Fed. Reg. 60,807 (F.T.C. Nov. 28, 1994) (notice of proposed consent agreement).

<sup>220</sup> See generally Thierer & Crews, *supra* note 95 (emphasizing the importance of flexibility and patience in dealing with emerging markets and technologies).

<sup>221</sup> *Id.*

<sup>222</sup> Herbert Hovenkamp, Mark Janis, & Mark A. Lemley, *Anticompetitive Settlement of Intellectual Property Disputes*, 87 MINN. L. REV. 1719, 1724 (2003) (asserting that in most cases involving antitrust challenges to IP settlements, the presence or absence of IP rights is irrelevant).

<sup>223</sup> See *id.* (explaining that correct placement of cases into either antitrust or IP grounds is critical because cases in the “problematic middle set” are more difficult to resolve).

<sup>224</sup> *Id.*

proceed with traditional rule of reason analysis.<sup>225</sup> Professor Herbert Hovenkamp,<sup>226</sup> a leading authority in antitrust law, contends that the traditional rule of reason analysis “is not a good fit” for such situations.<sup>227</sup> As an alternative, when the merits of the IP are an integral part of the antitrust dispute, then an inquiry should be conducted “into the validity, enforceability, and infringement issues in the underlying case, with particular sensitivity to both the type of IP right at issue and the industrial context of the dispute.”<sup>228</sup> This article adopts a variation on Professor Hovenkamp’s theme when analyzing R&D mergers between firms that are *not* in direct competition with each other.

When two R&D firms that are not in direct competition with each other (i.e., they do *not* develop similar technology and do *not* serve similar purposes in the same industry) there should be minimal antitrust scrutiny of the merger. This is the most practical and realistic way of removing government barriers to potential innovation. The agencies expressly state that one of their objectives is to promote innovation,<sup>229</sup> or the “Progress of Science and Useful Arts.”<sup>230</sup> Coincidentally, this is also one of the main objectives of intellectual property law.<sup>231</sup> The agencies need to rest assured that IP law can handle IP arrangements that prove to be anticompetitive. Regular defenses available in IP infringement suits such as invalidity, inequitable conduct, and so forth, address unreasonably restrictive licensing agreements. Patent misuse, for example, directly attacks such conduct and does so adequately without agency interference.

However, minimal does not mean absolutely no antitrust scrutiny. When R&D arrangements act in such a way that their exercise of monopoly power is so unreasonable as to be jarring to the senses, then the agencies need to step in and impose the criminal sanctions that IP law might not otherwise administer.<sup>232</sup>

## VI. CONCLUSION

For the purpose of antitrust analysis, intellectual property licensing arrangements *can* be comparable to any other form of property.<sup>233</sup> Thus, the same general principles for evaluating conduct in traditional markets may be effectively applied to New Economy markets of innovation.<sup>234</sup> However, for the particular market

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<sup>225</sup> *Id.*

<sup>226</sup> AUTHOR OF ANTITRUST LAW: POLICY AND PROCEDURE: CASES AND MATERIALS, WITH E. THOMAS SULLIVAN (1988); ANTITRUST, BLACK LETTER SERIES (1999); ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION, WITH PHILLIP AREEDA (2001); IP AND ANTITRUST: AN ANALYSIS OF ANTITRUST PRINCIPLES APPLIED TO INTELLECTUAL PROPERTY LAW, WITH MARK D. JANIS AND MARK A. LEMLEY (2002); FUNDAMENTALS OF ANTITRUST LAW, WITH PHILLIP AREEDA (2002); THE ANTITRUST ENTERPRISE: PRINCIPLE AND EXECUTION (2005).

<sup>227</sup> See Hovenkamp et al., *supra* note 222, at 1724 (explaining why the rule of reason analysis is inappropriate for “practices that would be unlawful per se but for the presence of an IP claim”).

<sup>228</sup> *Id.* at 1720.

<sup>229</sup> *Antitrust-IP Guidelines, supra* note 1, at § 1.0.

<sup>230</sup> See generally Crews & Thierer, *supra* note 108.

<sup>231</sup> *Id.*

<sup>232</sup> Patent infringement, for example, is a civil action. 35 U.S.C. § 281 (2000). Criminal proceedings are not recognized for patent infringement in the United States. *Id.*

<sup>233</sup> *Antitrust-IP Guidelines, supra* note 1, at § 2.0.

<sup>234</sup> See *id.* § 2.1. (explaining that antitrust analysis can adequately account for the special characteristics of intellectual property since the rule of reason inherently accounts for specific and particular market circumstances).

circumstances of IP products to be adequately gauged, the innovation factor needs to be the linchpin of the antitrust analysis. The Agencies currently speak at length about the importance of innovation and evaluating innovation markets; yet in practice, innovation is treated as a neutral factor. Once the Antitrust-IP Guidelines pull the innovation factor into the limelight, especially in studying IP licensing arrangements in markets of innovation, then the discrepancies between antitrust and intellectual property law may be more effectively reconciled.