COMMENT OF THE GLOBAL ANTITRUST INSTITUTE, ANTONIN SCALIA LAW SCHOOL, GEORGE MASON UNIVERSITY, ON THE U.S. ANTITRUST AGENCIES’ PROPOSED UPDATE OF THE ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY

This comment is submitted in response to the request of the U.S. Department of Justice and the U.S. Federal Trade Commission (the Antitrust Agencies or the Agencies) for comments on the Proposed Update of the Antitrust Guidelines for the Licensing of Intellectual Property (Proposed Guidelines). We submit this comment based upon our extensive experience and expertise in antitrust law and economics generally, and specifically with respect to the intersection of intellectual property (IP) and antitrust.1

I. ECONOMIC PRINCIPLES GOVERNING ANTITRUST ANALYSIS OF IP

We commend the Antitrust Agencies for preserving and reinforcing the effects-based approach to antitrust analysis involving intellectual property rights (IPRs) and for continuing to recognize the following general principles:

(1) the Agencies apply the same antitrust analysis to conduct involving IP as to conduct involving other forms of property, taking into consideration the special characteristics of IPRs;

(2) the Agencies do not presume that IP creates market power; and

(3) IP licensing allows firms to combine complementary factors of production and is generally procompetitive.

We respectfully recommend that the Agencies include references throughout the Proposed Guidelines to the substantial economic literature to support these general principles, among others. Adding citations to the relevant academic literature will serve to ground the guidelines in economic theory and evidence, which will serve as a valuable resource to guide both compliance and enforcement, as well as send the right message to foreign enforcers.

1 The Global Antitrust Institute (GAI), a division of the Antonin Scalia Law School at George Mason University, is a leading international platform for economic education and research that focuses upon the legal and economic analysis of key antitrust issues confronting competition agencies and courts around the world. University Professor Joshua D. Wright, Ph.D. (economics), is the Executive Director of the GAI and a former U.S. Federal Trade Commissioner. Koren W. Wong-Ervin is the Director of the GAI and former Counsel for Intellectual Property and International Antitrust at the U.S. Federal Trade Commission. Professor of Law Douglas H. Ginsburg is a Senior Judge, United States Court of Appeals for the District of Columbia Circuit, Chairman of the GAI’s International Board of Advisors, and a former Assistant Attorney General in charge of the Antitrust Division of the U.S. Department of Justice. Associate Dean for Research and Faculty Development and Professor of Law Bruce H. Kobayashi, Ph.D. (economics), is a GAI Senior Scholar and Founding Director.
Industrial organization economics is the touchstone of antitrust analysis generally. Antitrust analysis of IP is no exception. The first and third key principles set forth above derive from, among other things, the burgeoning literature in the 1960-80s on the economics of vertical contractual restraints in the real property context and as applied to intellectual property. Modern experience with antitrust analysis of IP indicates the industrial organization economics toolkit is sufficiently flexible to deal with IPRs.

Similarly, the second key principle derives from basic industrial organization economics. That IP does not necessarily confer market power in the antitrust sense has long been understood by economists and accepted by the Agencies. IP may well guarantee a firm downward sloping demand for its own product or services. However, a firm with downward sloping demand has market power only in the technical economic sense that it can sustain a price greater than its marginal cost, like nearly every firm in the modern economy. Indeed, in IP-intensive industries it is well understood that prices equal to marginal cost would be insufficient to support investment in innovation. The power to sustain a price greater than marginal cost is not the antitrust-relevant power to control market prices and output. Thus, from an antitrust perspective, IP is neither necessary nor sufficient to confer market power.

We also commend the Antitrust Agencies for recognizing an IPR holder’s core right to exclude. Economic analysis and evidence shows that IPRs—the central feature of which is the right to exclude—stimulate the creation of inventions, ideas, and original works. As with real

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6 See, e.g., Wiley, Jr. & Klein, supra note 4, at 628-29; see also United States v. E. I. du Pont de Nemours & Co., 351 U.S. 377, 391 (1956) (“[A] party has monopoly power if it has, over ‘any part of the trade or commerce among the several states,’ a power of controlling prices or unreasonably restricting competition.”) (quoting Standard Oil Co. v. United States, 221 U.S. 1, 82 (1911)); U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, ANTITRUST GUIDELINES FOR THE LICENSING OF INTELLECTUAL PROPERTY § 2.3 (Apr. 6, 1995); U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, HORIZONTAL MERGER GUIDELINES §§ 2.1, 5.3 (Aug. 19, 2010).

7 See, e.g., U.S. CONST. Art. I, § 8, cl. 8, which empowers the Congress “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to . . . Inventors the exclusive Right to their . . . Discoveries” (emphasis added).

property rights, IPRs also facilitate economic exchange. In this case, IPRs facilitate the sale and licensing of IP by defining the scope of property right protection, lowering transaction costs, and producing incentives to develop alternative technologies, improvements, and other derivative uses.

The incentive function of IPRs is illustrated by considering the sale of an invention in the absence of enforceable IPRs. The sale of an invention requires disclosure to the potential buyer. In the absence of enforceable IPRs, the potential buyer—now with knowledge of the invention—has no incentive to purchase or license the invention. This possibility deters the seller from disclosing the invention in the first place. Enforceable property rights solve this problem by allowing the seller to disclose the invention without fear that it will be lawfully appropriated without compensation. The inventor can anticipate the ability to appropriate the returns from investment in producing the invention, which serves as an incentive to invest in producing and to disclose the invention in the first place.

Economic analysis of IP also focuses upon the related issue of the optimal tradeoff between these incentives for inventors and the ability of others to use the invention. Because inventions and works protected by IPRs are non-rivalrous, one firm using a specific IPR does not diminish the ability of another firm to use the same IPR. Also, the cost of having another firm use an existing IPR is effectively zero. As a consequence, from a static welfare perspective, it is desirable to disseminate IPRs to every firm (or consumer) that has a positive valuation for the IPR. Of course, doing so by law would create a strong disincentive to innovate in the first place, to the great detriment of dynamic efficiency, which refers to the gains that result from new ways of doing business. While static efficiency may increase consumer welfare in the short run, economics teaches us that dynamic efficiency, including societal gains from innovation, are an even greater driver of consumer welfare.

After the investments and efforts required to spur a breakthrough invention have been made and proven successful, it can be tempting to increase static welfare by distributing the benefits from successful inventions and distribute them throughout the economy. Doing so, however, would harm dynamic competition, innovation, and consumers. If the government is too willing to redistribute the gains from innovation and dynamic competition, then potential

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9 See e.g., Henry E. Smith, Intellectual Property as Property: Delineating Entitlements in Information, 117 YALE L.J. 1742 (2007) (discussing the economic rationale behind intellectual property’s close relationship with other property).

10 See, e.g., ROBERT COOTER & AARON EDLIN, THE FALCOLN’S GYRE: LEGAL FOUNDATIONS OF ECONOMICS INNOVATION AND GROWTH § 3 (Version 1.4, 2014) [hereinafter Cooter & Edlin].

11 Kobayashi & Wright, supra note 8.

innovators anticipating such interventions will have weak incentives to invest in new inventions.

We strongly urge the Antitrust Agencies to recognize expressly that there is very little empirical basis to presume any systematic relationship between market structure, competition, and innovation. While there is credible causal evidence that market incentives matter, the empirical literature attempting to link market structure—typically measured by the number of firms or market shares in broadly defined markets—and product market competition to innovation are based on cross-section analyses that do not produce causal inference and as a whole yield inconclusive results. While competition certainly can stimulate innovation, economic analysis provides no reason to believe innovation ordinarily will come from within a “market” as defined for the purpose of antitrust analysis; hence there is little reason to believe proxies for dynamic competition will be positively correlated with innovative activity observed in such a market. Richard Gilbert’s careful examination of the empirical record reaffirms that the existing body of theoretical and empirical literature on the relationship between competition and innovation supports neither “the Schumpeterian hypothesis that monopoly promotes either investment in R&D or the output of innovation” nor “a strong conclusion that competition is uniformly a stimulus to innovation.” In other words, market structure, as presently defined by reference primarily to market shares and ease of entry, provides at best a very crude signal of the likely impact a merger or single-firm conduct will have upon future competition.

II. General Comments

We commend the Antitrust Agencies for remaining faithful to the principle that IPRs and real property rights will be analyzed symmetrically. In the Proposed Guidelines, the Agencies preserve the principle that the antitrust framework is sufficient to address potential competition issues involving all IPRs—including both SEPs and non-SEPs. In doing so, the Agencies correctly reject the invitation to adopt a special brand of antitrust analysis for SEPs in which effects-based analysis is replaced with unique presumptions and burdens of proof. As Federal Trade Commission (FTC) Chairwoman Edith Ramirez has explained prior to the Updated Guidelines, “the same key enforcement principles [found in the 1995 IP Guidelines] also guide

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15 See, e.g., Richard J. Gilbert, Looking for Mr. Schumpeter: Where Are We in the Competition–Innovation Debate?, in 6 INNOVATION POLICY AND THE ECONOMY 159, 164 (Adam B. Jaffe et al. eds., 2006) (“The many different predictions of theoretical models of R&D lead some to conclude that there is no coherent theory of the relationship between competition and investment in innovation.”); Joshua D. Wright & Douglas H. Ginsburg, Dynamic Analysis and the Limits of Antitrust Institutions, 78 ANTITRUST L.J. 1, 4-5 (2012).

16 Richard J. Gilbert, Competition and Innovation, in 1 ABA SECTION OF ANTITRUST LAW, ISSUES IN COMPETITION LAW AND POLICY 577, 600 (W. Dale Collins ed., 2008).
our analysis when standard essential patents are involved.” SEP holders, like other IP holders, do not necessarily possess market power in the antitrust sense, and conduct by SEP holders, including breach of a voluntary assurance to license its SEP on fair, reasonable, and nondiscriminatory (FRAND) terms, does not necessarily result in harm to the competitive process or to consumers. Again, as Chairwoman Ramirez has stated, “it is important to recognize that a contractual dispute over royalty terms, whether the rate or the base used, does not in itself raise antitrust concerns.”

As the Antitrust Agencies recognized in their 2007 IP Report, it is important to distinguish between two sources of potential market power: “the market power that comes from the technology on its own and the market power that comes just from the standard, the act of setting a standard that elevates a technology above the competitors.” Empirical research suggests there are limited circumstances in which incorporation in a standard makes a patent a “winner” in the market; instead, more important technologies are natural candidates for inclusion in standards and therefore standard-development organizations (SDOs) tend to “crown winners,” not to create them. For example, a recent study analyzing a database of patents declared essential to a range of standards including telecommunications technology (e.g., W-CDMA) and imaging standards (e.g., MPEG2 and MPEG4) found that inclusion in a standard has no or negligible impact on the value or importance of a patent, measured by forward citations, which suggests the inclusion in a standard in itself does not necessarily or even ordinarily create market power.

Thus, whether a particular SEP holder has market power requires a case-by-case fact-specific inquiry into whether a single SEP constitutes a well-defined relevant market, whether there are potential substitutes, and the degree to which market power is mitigated by complementarities. SEPs are self-declared to SDOs yet no SDO evaluates essentiality, which may change as the standard continues through development. Therefore, until an independent legal and technical review establishes that a particular patent declared “essential” is in fact essential for want of substitutes or of off-setting complementarities, there should be no presumption that an SEP confers market power. Even restricting the analysis to truly essential patents, we cannot conclude that an individual SEP or a portfolio of SEPs constitutes a well-defined relevant market or that the owner possesses market power. SEPs are perfect complements, which creates a connection among patents and patent holders such that SEPs

18 Id. at 11.
21 Id. at 40-43.
cannot be licensed in isolation (i.e., FRAND royalty rates are tied to the value the patented
technologies contribute to the standard, which inherently accounts for all valuable contributions
to the standard). Thus, in contrast to a monopolist, which can set prices without considering the
reaction of other firms, an SEP holder must take into account the value of other SEPs when
setting its royalty rates. In addition, because licensees know they must license other SEPs to be
compliant with a given standard, they push back in negotiations if they think an SEP holder is
attempting to ask for more than its share. This, too, lessens any market power that might be
conferred by a patent having been deemed essential.  

Whether particular conduct involving SEPs, including breach of a FRAND assurance, has
net anticompetitive effects also requires a case-by-case, fact-specific analysis. For example,
whether a refusal to license at the component level (which may or may not violate a FRAND
assurance depending upon the specific SDO IPR policy at issue) results in harm to competition
or consumers depends upon factors such as: (1) whether competition has been substantially
foreclosed, which seems unlikely where the industry practice is not only not to license but also
not to assert SEPs at the component level and instead to license at the end-user device level; and
(2) whether there are any procompetitive or legitimate business justifications for such conduct,
such as avoiding the patent exhaustion doctrine, reducing administrative costs to allow for easy
monitoring or verification of units sold, and following industry practice.

III. SPECIFIC RECOMMENDATIONS

Sections 2.1 and 3 – Refusals to License

We are concerned that the statements regarding refusals to license in Sections 2.1 and 3
of the Proposed Guidelines seem to depart from the general enforcement approach set forth in
the Antitrust Agencies’ 2007 IP Report, which recognizes that: (1) “the unilateral right to refuse
to grant a patent license is a core part of the patent grant,” and “liability [for refusal to license]
would restrict the patent holder’s ability to exercise [this] core part of the patent”; (2) “[a]ntitrust
liability for mere unilateral, unconditional refusals to license patents will not play a meaningful
part in the interface between patent rights and antitrust protections”; and (3) “[a]ntitrust
liability for refusals to license competitors would compel firms to reach out and affirmatively assist their
rivals, a result that is ‘in some tension with the underlying purpose of antitrust law.’”  To bring
the Proposed Guidelines in line with the Agencies’ 2007 IP report, as well as Supreme Court and
federal appellate court rulings, we strongly urge the Agencies to revise the statement in Section
2.1 as follows:

Except in specific limited circumstances, the antitrust laws generally do
not impose liability upon a firm for a unilateral refusal to assist its
competitors, in part because doing so is likely to undermine
incentives for investment and innovation, infringes upon an intellectual
property owner’s core right to exclude, and creates administrative
problems, such as forcing an antitrust agency to dictate the terms of a

22 Id.
23 2007 IP REPORT, supra note 19, at 6 (quoting Verizon Commc’ns Inc. v. Law Offices of Curtis V.
Trinko, LLP, 540 U.S. 398, 407-08 (2004)).
compulsory license. As such, antitrust liability for mere unilateral, unconditional refusals to license will not play a meaningful part of the Antitrust Agencies’ enforcement program.

For the same reasons, we strongly urge the Antitrust Agencies not to qualify with “ordinarily” the statement in Section 3.1 that “[t]he Agencies will not require the owner of intellectual property to create competition in its own technology.” Given that forced sharing alone does not necessarily make a market more competitive, it would require the agencies to act as central planners setting prices and other terms. Alternatively, in the very least, we respectfully request that the Antitrust Agencies clarify that there is no obligation to create competition as a remedy for a unilateral refusal to license but, as noted in the proposed footnote 25, an IP license may be an appropriate remedy in merger cases “to prevent the substantial lessening of competition,” particularly when the parties voluntarily agree to license as an alternative to a more restrictive remedy such as divestiture.

Section 2.2 – “Unreasonable Conduct”

Section 2.2 states, in relevant part, that “even if [an IPR owner] lawfully acquired or maintained [market] power, the owner could still harm competition through unreasonable conduct in connection with such property.” We strongly urge the Antitrust Agencies to delete the phrase “unreasonable conduct” and replace it with a clear statement that conduct will not be found unlawful absent a finding of anticompetitive effects that outweigh procompetitive benefits, i.e., an effects-based approach. In particular, we are concerned that the phrase “unreasonable conduct” lacks any clear definition or boundaries and may be interpreted broadly, particularly by foreign competition agencies that rely upon ambiguous catch-all phrases such as “unreasonable conduct” in lieu of undertaking an effects-based analysis.

Section 3.2.3 – Research & Development Markets

For the following reasons, we respectfully urge the Antitrust Agencies to reconsider the inclusion (or at the very least substantially limit the use) of research and development (R&D) markets: (1) the process of innovation is often highly speculative and decentralized, making it impossible to identify all market participants; (2) the optimal relationship between R&D and innovation is unknown; (3) the market structure most conducive to innovation is unknown; (4) the capacity to innovate is hard to monopolize given that the components of modern R&D—research scientists, engineers, software developers, laboratories, computer centers, etc.—are continuously available on the market; and (5) anticompetitive conduct can be challenged under the actual potential competition theory or at a later time.24

At the very least, we strongly urge the Agencies to revise the guidelines to incorporate expressly the movement within the Agencies (as illustrated by the Agencies’ 2010 Horizontal Merger Guidelines) away from the focus on market definition and market power and towards a focus on competitive effects. As described in Section I, above, this is particularly important with respect to IPRs, for which it is often more difficult to determine market power because IP holders charge more than marginal costs and need to recoup their investment, and there are substantial risks involved in seeking to create and commercialize IP. Relatedly, in high-tech markets involving IPRs, the lines between markets may not be clearly delineated. The risk here is in inferring market power from shares (after delineating markets), an approach that is fraught with error, particularly in high-tech business models involving IP.

First, given that innovation is “intangible, uncertain, unmeasurable, and often even unobservable, except in retrospect,” it is exceedingly difficult to identify all of the firms that belong in an R&D market.\textsuperscript{25} Indeed, inventors often spring up out of nowhere—garages or, more recently, college dormitories—to create entirely new products or processes, creating entirely new demand curves.

Second, “there is no functional relationship between the level of R&D expenditure and the level of innovation at the market level.”\textsuperscript{26} More R&D does not necessarily result in more innovation. For example, a “merger that reduces R&D expenditure may be beneficial if it allows the R&D to be conducted more efficiently.”\textsuperscript{27} Because competing R&D expenditures may be duplicative, “a merger that eliminates redundancy may lead to the same knowledge produced at lower costs, or even to greater knowledge at lower costs.”\textsuperscript{28} Attempting to define market power by R&D expenditures (or “specialized assets or characteristics of specific firms”) is likely to lead the Antitrust Agencies into error.

Third, numerous research projects have tested variations on the “Schumpeterian hypothesis” that monopoly is more conducive to innovation than competition. “These studies have sought to find statistical relationships between firm size or market concentration and various measures relating to R&D and innovation, including R&D expenditure, R&D productivity, patent counts, and counts of significant innovations.”\textsuperscript{29} As explained in Section I, above, the empirical record shows that the existing body of theoretical and empirical literature on the relationship between competition and innovation is inclusive and thus market structure

\textsuperscript{25} Rapp, supra note 25, at 27; see also Carlton & Gertner, supra note 25, at 42 (“[B]ecause the results of R&D are so difficult to predict, the analyst may be unable to determine all, or even most, of the relevant firms who might produce competitive products in the future.”).

\textsuperscript{26} Rapp, supra note 25, at 33. For a summary of the relevant literature, see Jennifer F. Reinganum, The Timing of Innovation: Research, Development and Diffusion, in 1 HANDBOOK OF INDUSTRIAL ORGANIZATION 849 (1989) and F.M. Scherer & David Ross, INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE 630-60 (3d ed. 1990).

\textsuperscript{27} Carlton & Gertner, supra note 25, at 38.

\textsuperscript{28} Id.

\textsuperscript{29} Rapp, supra note 25, at 28.
provides at best a very crude signal of the likely impact a merger or conduct will have upon future competition.

Fourth, “if the main inputs to innovation are continually ‘in play,’ there is no opportunity to corner the market for innovation.” The Agencies’ IP Guidelines attempt to address this point by limiting R&D markets to situations where the Agencies can identify “specialized assets or characteristics,” but “most of the complaints in FTC innovation market cases do not identify the specialized assets [that] triggered the innovation market challenge.”

Section 3.4 – Truncated Analysis

Section 3.4 of the Proposed Update cites the Supreme Court’s decision in FTC v. Actavis in the section that appears to describe when the Antitrust Agencies will apply a truncated rule of reason analysis. We respectfully recommend that the Agencies revise the guidelines expressly to state, as the Supreme Court explained in California Dental and in Actavis itself, that the “abandonment of the ‘rule of reason’ in favor of presumptive rules (or a ‘quick-look’ approach) is appropriate only where ‘an observer with even a rudimentary understanding of economics could conclude that the arrangements in question would have an anticompetitive effect on customers and markets.”

The default method of evaluating antitrust-relevant conduct is the rule of reason, which involves costly, comprehensive weighing of any pro- and anticompetitive effects of the challenged conduct. Truncated analysis, by way of comparison, harnesses decision theory to develop shorthand analytical tools based upon judicial and market experience with the restraint at issue, as well as accumulated economic knowledge to identify conduct that is likely to harm competition. Truncated analysis is appropriate when it, rather than the full-blown or unstructured rule of reason, minimizes the sum of the error costs and the administrative costs of adjudicating antitrust claims. The benefit of truncation is that it economizes on existing judicial and economic knowledge to produce more efficient legal rules. In short, truncated analysis is at its core intended to be an easily administrable, effects-based application of the rule of reason.

30 Id. at 36.
31 Id. at 37.
Given the agencies’ recognition, which is supported by substantial economic literature (described, above in the Section I), that licensing restraints are generally procompetitive, a truncated analysis has little to no place in analyzing licensing restraints.

Miscellaneous

We respectfully recommend that the Antitrust Agencies omit the proposed references to the FTC’s 2011 IP Report to avoid unnecessarily blurring the line between the Commission’s competition advocacy and its enforcement guidelines.

We also urge the Antitrust Agencies to delete the proposed citation to *Broadcom v. Qualcomm* in footnote 33 as the case does not stand for the claimed proposition that “[c]ourts have defined technology markets in a number of cases.” Rather, this case was decided on a motion to dismiss and the court decided only that the plaintiff had adequately alleged a relevant market.

**IV. Conclusion**

We appreciate the opportunity to comment and would be happy to respond to any questions the Antitrust Agencies may have regarding this comment.