COMMENT OF THE GLOBAL ANTITRUST INSTITUTE, 
GEORGE MASON UNIVERSITY SCHOOL OF LAW, ON THE NATIONAL 
DEVELOPMENT AND REFORM COMMISSION’S ANTI-MONOPOLY GUIDE ON 
ABUSE OF INTELLECTUAL PROPERTY RIGHTS 

November 12, 2015

This comment is submitted in response to the National Development and Reform Commission’s (NDRC’s) Anti-monopoly Guideline on Abuse of Intellectual Property Rights (Draft Guideline). We appreciate the opportunity to comment and commend the NDRC for its transparency. 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 and antitrust.1

INTRODUCTION

We commend the NDRC for its general approach, as set forth in the preamble and throughout the Draft Guideline, of encouraging the “legitimate” or “legal” use of intellectual property rights (IPRs) and limiting Anti-Monopoly Law (AML) enforcement to conduct that “eliminate[s] or restrict[s] competition.” We, however, respectfully urge the NDRC to recognize explicitly an IPR holder’s core right to exclude as a “legitimate” or “legal” use of IPRs and to revise the Draft Guideline accordingly. We also respectfully recommend that the NDRC incorporate into the Draft Guideline the analytical approach taken by the U.S. antitrust agencies for the last 20 years when assessing the possible competitive effects of the use of IPRs—that is, to compare the competitive impact of the IPR use against what would have happened in the “but for” world in the absence of a license. This important and well-accepted methodological principle is missing throughout the Draft Guideline. Adopting an approach that incorporates these revisions is likely to best serve competition and consumers, as well as China’s goal of becoming an innovation society.

THE ECONOMICS OF INNOVATION

Economic literature shows that IPRs—a central feature of which is the right to exclude—incentivize the creation of inventions, ideas, and original works.2 They also facilitate the sale

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1 The Global Antitrust Institute (GAI) at George Mason University is a leading international platform for research and education that focuses on the legal and economic analysis of key antitrust issues confronting competition agencies and courts around the world. Professor of Law 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 a former Attorney Advisor to then-Federal Trade Commissioner Joshua D. Wright. 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. Professor of Law Bruce H. Kobayashi, Ph.D. (economics), is a GAI Senior Scholar and Founding Director.

and licensing of intellectual property (IP) by defining the scope of property right protection and lowering transaction costs, and they produce incentives to develop alternative technologies as well as improvements and other derivative uses.

The incentive function of IP 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.

The economic literature also focuses on the related issue of the optimal tradeoff between these incentives and the ability 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 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 entirely 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 competitive effort required to spur breakthrough inventions have been made and proven successful, it can be tempting to carve up the benefits and distribute them throughout the economy. Doing so, however, would harm competition, innovation, and consumers. If the government is too willing to step in and appropriate the gains from innovation and dynamic competition, then potential innovators anticipating such interventions will have weak incentives to risk investment in new inventions. Likewise, if the laws governing abuse of IPRs is uncertain or unpredictable (which they would be if the prohibition of “unfairly high pricing” is applied to IPRs), potential innovators will also have weak incentives to innovate.


3 Kobayashi & Wright, supra note 2.

RECOMMENDATIONS ON SPECIFIC PROVISIONS

I. Section I(III)2—Analysis of Eliminating or Restricting Competition

Section I(III)2 sets forth the analysis for determining whether conduct eliminates or restricts competition. We respectfully urge the NDRC to add a sentence specifying that, in conducting its analysis, it will measure the potential concerns against the “but for” world; that is, what would have occurred in the absence of a license. This approach is necessary to account for an IPR holder’s core right to exclude and for situations in which the parties were unable to come to an agreement.

Section I(III)2(2) provides that, in considering whether conduct eliminates or restricts competition, the “possibility of controlling resources such as key technology” may be considered. For the following reasons, we respectfully urge the deletion of this provision or, at the very least, that it be revised to eliminate the possibility of finding an AML violation based upon an essential-facilities type doctrine.

First, although a firm’s competitors may desire to use a particular technology in their own products, there are few situations, if any, in which access to a particular IPR is necessary to compete in a market. Indeed, those who advocate forced sharing of an “essential” facility (or “key technology”) often have underestimated the ability of a determined rival to compete around the facility, with resulting benefits to consumers. This is particularly true with respect to fast moving technologies, where technological and market developments can present multiple opportunities to work around a competitor’s IP, and it is easier to work around an IPR than it is to work around a physical structure. Recognizing these concerns, the U.S. Supreme Court has made it clear that it will treat so-called “essential facilities” claims with great skepticism, stating that courts should be very cautious in recognizing exceptions to the general rule that even monopolists may choose with whom they deal.5

Second, the U.S. approach recognizes that potential inventors may be less likely to undertake the research and development that lead to an invention if the inventor’s reward for its efforts is reduced by having to share its patent. Conversely, if businesses know they can easily gain access to the patents of other firms, then they have less incentive to innovate and more incentive instead to free-ride on the risky and expensive research of others.6 Requiring businesses to grant licenses to competitors wishing to use a patented invention is likely to result in less innovation, which will harm consumers in the long run.

II. Section I(III)3—Analysis of Promoting Innovation and Improving Efficiency

Section I(III)3(2) provides that, in considering whether conduct promotes innovation or improves efficiency, the NDRC will consider whether the “restrictive behavior is indispensable for promoting innovation and improving efficiency.” We respectfully urge the deletion of this provision or, at the very least that it be revised as follows:

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6 See id.
the “restrictive behavior is indispensable reasonably necessary for promoting innovation and improving efficiency.”

This change is necessary to avoid adoption of an overly restrictive standard that is likely to deter innovation and harm incentives to innovate. As the U.S. agencies have explained, in determining whether a restraint is “reasonably necessary to achieve procompetitive efficiencies,” “the Agencies will not engage in a search for a theoretically least restrictive alternative that is not realistic in the practical prospective business situation faced by the parties.”

III. Section III(I)—Unfairly High Licensing Fee (Non-SEPs)

Section III(I) provides that, in determining whether a dominant IPR holder has charged an “unfairly high royalty,” the NDRC will consider the following factors: “(1) The history of licensing relevant IPR or comparable royalty standard; (2) Whether the IPR holder exceeds the scope covered by the IPR when collecting royalty; (3) Whether the IPR holder compels the licensee to accept unreasonable licensing method or period of licensing; and (4) In the case of package licensing, whether the IPR holder compels the licensee to accept expired or invalid IPR.” For the reasons set forth below, we strongly urge the NDRC not to apply the “excessive pricing” provision of the AML to IPRs.

In the alternative, should the NDRC retain this provision, we recommend that, at the very least, it be revised to: (1) explicitly recognize that “reasonable” compensation should reflect the risk-adjusted break-even price; and (2) state that, in determining whether a particular royalty is “unfairly high,” the NDRC will calculate a reasonable royalty as a minimum using the hypothetical negotiation framework described in Section III.B., below. We also commend the NDRC for recognizing that “[t]he collection of royalties by IPR holders are usually not regulated by the Anti-Monopoly Law.” We urge the NDRC to emphasize this critical principle and to explicitly state that the NDRC will only regulate price under exceptional circumstances.

A. The Dangers of Applying an “Unfairly High” Pricing Prohibition to IPRs

The U.S. antitrust agencies do not regulate price. Rather, in the United States, firms are free unilaterally to set or privately to negotiate their prices; it follows that a monopolist is free to


8 See, e.g., Bill Baer, Assistant Att’y Gen., Antitrust Division, Prepared Remarks at the 19th Annual International Bar Association Competition Conference (Sept. 11, 2015) (“We don’t use antitrust enforcement to regulate royalties. That notion of price controls interferes with free market competition and blunts incentives to innovate. For this reason, U.S. antitrust law does not bar ‘excessive pricing’ in and of itself. Rather, lawful monopolists are perfectly free to charge monopoly prices if they choose to do so. This approach promotes innovation from rivals or new entrants drawn by the lure of large rewards.”), available at http://www.justice.gov/opa/speech/assistant-attorney-general-bill-baer-delivers-remarks-19th-annual-international-bar; Edith Ramirez, Chairwoman, Fed. Trade Comm’n, Prepared Remarks at the 8th Annual Global Antitrust Enforcement Symposium, Georgetown University Law Center at 8 (Sept. 10, 2014) (“In contrast to the FTC’s and EC’s approach, media reports indicate that China’s antitrust authorities may be willing to impose liability solely on the royalty terms that a patent owner demands for
charge a monopoly price, which rewards the risk-taking and entrepreneurial behavior by firms that lead to innovation and economic growth.\(^9\)

Requiring by law that prices be “fair” or “reasonable,” or prohibiting a firm from charging “unfairly high” or “unfairly low” prices risks punishing vigorous competition. In general, competition policy should not prohibit a monopolist from charging whatever price for its products and its IPRs it believes will maximize its profits. It is axiomatic in economics and in antitrust law that the “charging of monopoly prices . . . is . . . what attracts ‘business acumen’ in the first place; it induces risk taking that produces innovation and economic growth.”\(^10\) That is especially so in the case of IPRs; the very purpose for which nations create and protect IPRs is to induce investment in risky and costly research and development. To achieve a balance between innovation and the protection of competition, monopoly prices should only be unlawful if they are the result of conduct that is unlawful on other grounds.

Moreover, economics teaches that absent market information it can be especially difficult to identify a “fair” price. Indeed, it is particularly difficult to assess the “fairness” of prices associated with licensing IPRs both because there is no marginal cost to which the price may be compared, and because IPRs themselves are highly differentiated products making price comparisons difficult, if not impossible. The risk of placing too strict limitations on IPR prices is that the return to innovative behavior is reduced, and consumers suffer in the form of less innovation. With such limits in place, IPR holders will face significant uncertainty in determining whether their licensing practices violate the AML.

In addition, in order to determine whether a particular price is excessive, the NDRC would need to calculate a reasonable royalty as a baseline against which to compare the allegedly excessive price. In our experience, competition agencies are generally ill-equipped to calculate royalty rates, a task that is best left to the market or, as a last resort, to the courts.\(^11\)

B. The Appropriate Methodology for Calculating a Reasonable Royalty

While we strongly urge the NDRC not to apply the “unfairly high” pricing provision to IPRs, in the event that the NDRC retains this provision, we recommend that it use the following methodology for calculating a reasonable royalty as a baseline. We note, however, that this is a complex methodology intended for use by the courts upon development of a full record, which usually includes detailed expert reports and opportunities for direct and cross-examination. In addition, it is essential to keep in mind that a reasonable royalty calculation using the

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\(^9\) See, e.g., Trinko, 540 U.S. at 407.

\(^10\) Id.

The hypothetical negotiation framework sets a *minimum* royalty; the patentee should have the opportunity to prove, in addition, its lost-profits as part of its damages, which would seem to be equal to the profits denied by the “unfairly high” pricing provision.\(^\text{12}\) As such, when used in an “unfairly high” pricing investigation, a reasonable royalty calculation should likewise be treated as a minimum to avoid imposing a royalty that undercompensates the patentee—a result that would significantly reduce the patentee’s incentives to innovate.

The goal of a reasonable royalty calculation is to replicate the market reward for the invention in the absence of infringement. It accordingly should depend on what a willing licensee and a willing licensor would have agreed to in a hypothetical negotiation. The seminal case in the United States, *Georgia-Pacific Corp. v. United States Plywood Corp.*, describes the proper measure of damages as “[t]he amount that a licensor (such as the patentee) and the licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been trying in good faith to reach an agreement.”\(^\text{13}\) The central tenet of this framework is the willing licensor/willing licensee model, under which the amount awarded must be acceptable to both parties.

The fifteen factors are:

1. The royalties received for licensing the patent, proving or tending to prove an established royalty.
2. The rates paid by the licensee for the use of other similar patents.
3. The nature and scope of the license, such as whether it is exclusive or nonexclusive, restricted or nonrestricted in terms of territory or customers.
4. The patent holder’s policy of maintaining its patent monopoly by licensing the use of the invention only under special conditions designed to preserve the monopoly.
5. The commercial relationship between the patent holder and licensees, such as whether they are competitors in the same territory in the same line of business or whether they are inventor and promoter.
6. The effect of selling the patented specialty in promoting sales of other products owned by the patent holder; the existing value of the invention to the patent holder as a generator of sales of nonpatented items; and the extent of such derivative or “convoyed” sales.
7. The duration of the patent and the term of the license.
8. The established profitability of the patented product, its commercial success and its current popularity.

\(^{12}\) Specifically, U.S. patent law provides that “[u]pon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.” 17 U.S.C. §284.

9. The utility and advantages of the patent property over any old modes or devices that had been used.

10. The nature of the patented invention, its character in the commercial embodiment owned and produced by the licensor, and the benefits to those who used it.

11. The extent to which the infringer used the invention and any evidence probative of the value of that use.

12. The portion of the profit or selling price that is customary in the particular business or in comparable businesses.

13. The portion of the realizable profit that should be credited to the invention as distinguished from any nonpatented elements, manufacturing process, business risks or significant features or improvements added by the infringer.

14. The opinion testimony of qualified experts.

15. The amount that the patent holder and a licensee would have agreed upon at the time the infringement began if they had reasonably and in good faith tried to reach an agreement.

Factor 15 is the hypothetically negotiated amount; the other 14 factors list categories of evidence. Although the list appears long, the factors can be grouped in sensible ways and not all factors apply in every case.

In constructing the hypothetical negotiation, U.S. courts consider evidence of market factors that the negotiating parties would consider in determining the royalty rate. Because each technology and market is different, the evidence considered and the weight placed on each factor will vary based on the circumstances.

Comparable licenses may be the best available evidence of the market value of the patent. Accordingly, the U.S. Court of Appeals for the Federal Circuit recently held in Éricsson v. D-Link that evidence about comparable licenses based on the end product should properly be considered by the jury in determining patent damages. The court reasoned that “[m]aking real world, relevant licenses inadmissible … would often make it impossible for a patentee to resort to license-based evidence.” 14 Indeed, as a practical matter, most licenses in many high-tech markets, including smartphones, are negotiated on a patent portfolio basis using the end-user device as the royalty base. A number of considerations may dictate private parties’ selection of a royalty base in a freely negotiated license agreement. Industry practice and the convenience of the parties is one such consideration; other commercial dealings between the parties is another. In order to reduce administrative costs, a royalty base is often selected to allow for easy monitoring or verification of units sold; end product prices are often chosen for these reasons.

The Federal Circuit also explained that, while prior licenses “are almost never perfectly analogous to the [licenses at issue in a later] infringement action,” that “generally goes to the weight of the evidence, not its admissibility.” 15 For example, allegedly comparable licenses may cover more patents than are at issue in the current action, or include cross-licensing terms, or

14 773 F.3d 1201, 1228 (Fed. Cir. 2014).
15 Id. at 1227-28.

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cover foreign intellectual property rights, or be calculated as some percentage of the value of a multi-component product. “Testimony relying on comparable licenses must account for such distinguishing facts when invoking them to value the patented invention.”

When considering comparable licenses, it is also important to consider factors such as the circumstances, timing, and relative bargaining position of the parties to those licenses. For example, a license entered when the commercial viability of the technology is uncertain will, in general, result in a lower royalty than a license entered into when the commercial viability of the technology is established or has escalated.

Lastly, we strongly urge that the NDRC not base an AML violation on the existence of expired patents in a portfolio. It would be impractical, if not impossible, for portfolio owners to constantly renegotiate licenses (or provide updated patent lists) every time an IPR in a licensed portfolio expires or, conversely, every time new IPR is added to the portfolio, both of which occur commonly. Portfolios include patents with a variety of expiration dates—often with new patents being added regularly—and the parties to the license take the variety of expiration dates into account when negotiating a price. Indeed, in our experience, we have found that portfolio licenses in which individual patents have a variety of expiration dates are common industry practice that reduces transactions costs and facilitates licensing.

IV. Section III(II)—Refusal to License

Section III(II) provides that a refusal to license by a dominant firm under the following conditions “may” restrict or eliminate competition: “(1) the refusal to license may cause negative influence on competition or innovation in the relevant market and impair consumer interests or public interests; and (2) licensing the IPR will not cause damage to the IPR holder.” We respectfully urge that this provision be revised to adopt an approach similar to that taken by the U.S. antitrust agencies, which have stated that “[a]ntitrust liability for mere unilateral, unconditional refusals to license will not play a meaningful part” in their enforcement efforts.

This approach recognizes that antitrust liability for refusals to license would impair an IPR holder’s core right to exclude, which is likely to lessen the incentive to innovate. In addition, “liability for refusals to license competitors would compel firms to reach out and affirmatively assist their rival, a result that is ‘in some tension with the underlying purpose of antitrust law.”

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16 Id.

17 In *Kimble v. Marvel Entm’t, LLC*, the U.S. Supreme Court, in a patent misuse case, seemed to deemphasize the leverage theory and endorse package or portfolio licenses without requiring a step-down, stating that, with respect to “licensing agreements that cover either multiple patents or additional non-patent rights, . . . royalties may run until the latest-running patent covered in the parties’ agreement expires.” Slip Op. at 6 (June 22, 2015), available at http://www.supremecourt.gov/opinions/14pdf/13-720_jiel.pdf.


19 Id. (quoting *Trinko*, 540 U.S. at 407-08 (setting forth three sources of that tension)).
Section III(II) further provides that justifications for refusing to license “normally” include factors such as “the refused potential licensee lacks the necessary quality, technical support or the ability to pay royalty to ensure the fair use of the technology or the safe[ty] and performance of the products; the refused potential licensee may bring negative influence on energy conservation and environment protection by using the IPR, etc.” We respectfully urge that this provision be revised to recognize explicitly that an IPR holder’s exercise of its core right to exclude constitutes a valid justification for refusing to license. This revision is necessary to protect that core right, as well as incentives to innovate. Indeed, potential inventors may be less likely to undertake the research and development that lead to an invention if the inventor’s reward for its efforts is reduced by having to share its patent with its competitors.

We also urge that this provision be revised to explicitly acknowledge that a patentee’s ability to license may be limited because the patent has been or may be exhausted. Under the patent exhaustion doctrine, once there has been an authorized sale of a patented item, that sale “confers on the purchaser, or any subsequent owner, ‘the right to use [or] sell’ the thing as he sees fit.” Patent exhaustion eliminates the legal restrictions on what authorized acquirers “can do with an article embodying or containing an invention” whose initial sale (or comparable transfer) the patentee authorized. Given the patent exhaustion doctrine, the licensor may choose not to license its IPR to certain persons or at certain levels of the distribution chain.

V. Section III(V)—Discriminatory Treatment

Section III(V) provides that discriminatory licensing “may” eliminate or restrict competition when (1) the IPR holder refuses to license a particular implementer on terms that are “substantially” similar to those found in other licenses, and (2) the discriminatory treatment has a “substantial negative influence on the fair competition by the licensee.” We respectfully urge that (1)-(2) be deleted and replaced with an effects-based analysis that recognizes: (1) discriminatory licensing can serve legitimate, procompetitive ends and enhance consumer welfare; and (2) price discrimination helps a firm with fixed costs to recover its outlays and is

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22 Bowman, 133 S. Ct. at 1766 & n.2.

23 See, e.g., Anne Layne-Farrar, Nondiscriminatory Pricing: Is Standard Setting Different?, 6 J. Competition L. & Econ. 4, 811, 811, 814-17 (Dec. 2010) (the existing literature on price discrimination in traditional markets for goods and services and on licensing intellectual property establishes that “price discrimination is not necessarily harmful, and in some cases can even increase consumer welfare; most IP licensing is characterized by ‘discrimination’ in that rates and terms tend to differ across licensees; proof of market power must remain the first step in any inquiry on allegations of anticompetitive IP licensing discrimination; and as of yet, no widely applicable benchmarks or rules for distinguishing harmful from beneficial or non-harmful licensing discrimination have emerged, meaning that a careful, quantitative effects-based analysis remains the best approach.”) [hereinafter Layne-Farrar].
sometimes necessary for a firm to recovery those outlays.\textsuperscript{24} Indeed, an important aspect to consider in evaluating discrimination in licensing as compared to price discrimination for traditional goods is the nature of IP development. The innovation process typically involves large upfront investments in research and development yet very low marginal costs at the production stage. Economists have observed that price discrimination can be an important mechanism for recovering fixed costs under these circumstances.\textsuperscript{25}

Price discrimination can improve efficiency, grow markets, intensify competition, and enhance consumer welfare. “For example, it can enable price-sensitive consumers to be served when they otherwise would be priced out of the market if uniform pricing were mandated.”\textsuperscript{26} When there are two distinct customer groups, one that is highly price sensitive and another that is not, without price discrimination firms may price relatively high for the latter group to maximize their profits. As a result, the first group will be foreclosed from the market. And, “for certain market structures, price discrimination can also lead to lower overall prices for consumers in comparison with uniform prices.”\textsuperscript{27}

Similarly, discriminatory refusals to license or licensing to different parties on different terms may serve legitimate, procompetitive ends. For example, a business may grant licenses to some, but not all, interested potential licensees in order to ensure that licensees have a greater incentive to promote the licensor’s technology. Alternatively, in order to maximize its incomes from the patent, a business may require higher royalties from a company that has lower sales volume or offer lower royalties to a licensee that can offer valuable consideration in trade, such as a cross-license of its IP, which may be netted against the price of a license.

In the United States, nearly all concern over potentially harmful discriminatory licensing has centered on the practices of vertically integrated firms that both hold patents and practice them in a downstream market. This is because a nonintegrated patent holder, with no downstream operations, has less to gain by discriminating among licensees with whom it does not compete.\textsuperscript{28} Nonintegrated firms will have incentive to engage in anticompetitive licensing

\textsuperscript{24} \textit{Id.} at 827 (citing William J. Baumol & Daniel G. Swanson, \textit{The New Economy and Ubiquitous Competitive Price Discrimination: Identifying Defensible Criteria of Market Power, Symposium on Competitive Price Discrimination}, 70 ANTITRUST L.J. 661 (2003)).

\textsuperscript{25} Layne-Farrar, \textit{supra} note 23 at 827 & n.53-54 (collecting cites).


\textsuperscript{28} See, e.g., Herbert Hovenkamp, Mark D. Janis, & Mark A. Lemely, \textit{Unilateral Refusals to License in the US}, 2 J. COMPETITION L. & ECON. 1, 16 (Mar. 2006).
discrimination only if it increases their total royalty revenues, but often it is increased downstream competition that maximizes upstream patentee’s royalty earnings. If the patent holder is not vertically integrated then the analysis of allegations of discriminatory licensing should be scrutinized even more rigorously because the circumstances under which an upstream patent holder would have an incentive to disadvantage one downstream licensee over another are narrower. Lastly, the possibility of market expansion and other efficiencies, including the coverage of research and development investments, indicates the need for a cautious approach to assessing discrimination in licensing, even when vertically integrated firms are involved.

VI. Section IV—Exercising IPRs Regarding Standard-Essential Patents (SEPs)

We commend the NDRC for recognizing in Section IV that SEPs do not necessarily confer market power. Section IV further provides that “[w]hen analyzing and confirming whether SEP holders possess the dominant market position, the following factors can be considered: (1) The market value and application degree of relevant standards; (2) Whether there are alternative standards; (3) The dependence degree of relevant standards in the industry and the conversion cost of using the alternative standards; (4) The evolution and compatibility between different generations of the relevant standards; (5) The ability of checks and balances between two parties of licensing SEP, etc.” We respectfully urge that this provision be revised to specify that the analysis will focus on the ability of the SEP holder to profitably maintain prices above or output below competitive levels for a significant period of time, and the existence of actual or potential close substitutes that prevent the exercise of market power.

We also respectfully urge the NDRC to clarify that Section IV applies only to SEPs on which the patent holder has made a voluntary commitment to a standard-setting organization (SSO) to license on fair, reasonable, and non-discriminatory (FRAND) terms.

VII. Section IV(i)—Charging Unfairly High Royalties (SEPs)

Section IV(i) provides that, in analyzing whether a SEP holder has charged “unfairly highly royalties,” the following factors can be considered: “(1) the technological value of the licensed SEP; (2) the technical characteristics of related industries; (3) the overall royalty undertaken by the products complying with the relevant standards; (4) the licensing commitment taken by relevant SEP; (5) the licensing history or comparable royalty standard of relevant SEP; and (6) the reasonable profit margin of the upstream and downstream of relevant product market.” For the reasons set forth in Section III, above, we respectfully urge that this provision be deleted in its entirety and that the NDRC not apply an “unfairly high” pricing prohibition to SEPs.

In the alternative, should the NDRC retain this provision—which we strongly urge against—we recommend that, at the very least, it be revised to specify that, in determining whether a particular royalty is “unfairly high,” the NDRC will calculate a FRAND royalty range using a modified-hypothetical negotiation framework, such as the one set forth in a recent

29 Layne-Farrar, supra note 23 at 825.
30 Id. at 828.
decision of the U.S Court of Appeals for the Federal Circuit in *Ericsson v. D-Link*. In the FRAND context, it is important to calculate a *range* as opposed to a specific rate. The Federal Circuit emphasized that there is no one-size-fits-all approach and that the factors used must be tailored to the specific case at issue. As explained in Section III, above, the goal of this exercise is to replicate the market reward for the invention in the absence of infringement.

As explained in Section III, above, comparable licenses may be the best available evidence of the market value of the patent. Accordingly, the U.S. Court of Appeals for the Federal Circuit recently held in *Ericsson v. D-Link* that evidence about comparable licenses based on the end product should properly be considered in determining patent damages. The court reasoned that “[m]aking real world, relevant licenses inadmissible … would often make it impossible for a patentee to resort to license-based evidence.” Indeed, as a practical matter, we have found that most licenses in many high-tech markets, including smartphones, are negotiated on a patent portfolio basis using the end-user device as the royalty base.

Thus far, there are very few cases in the United States in which the courts have addressed the issue of how to calculate FRAND royalties. Of those cases, the majority of U.S. district courts have applied a modified version of the 15 factors set forth in *Georgia-Pacific*. In *Ericsson*, the U.S. Court of Appeals for the Federal Circuit held that “[t]here is no *Georgia-Pacific*-like list of factors that district courts can parrot for every case involving [F]RAND-encumbered patents.” Instead, courts must instruct the jury only on factors that are relevant to the record developed at trial, and must instruct the jury on the actual FRAND commitment at issue. In making this determination, the Federal Circuit decision reflects how the *Georgia-Pacific* factors are typically used in an ordinary patent infringement cases: not every factor will apply to every case and which factors should be emphasized often varies as well.

The court went on to explain that, “[i]n a case involving [F]RAND-encumbered patents, many of the *Georgia-Pacific* factors simply are not relevant; many are even contrary to [F]RAND principles.” Namely, the licensor’s established policy to maintain its patent monopoly (*Georgia Pacific* Factor 4) and the relationship between the SEP holder and the putative licensee (*Georgia Pacific* Factor 5) will never be relevant for an SEP holder that has

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34 773 F.3d at 1235.

35 *Id.* at 1230-31.
committed to FRAND licensing. While an SEP holder can legitimately charge differently situated licensees different rates reflecting the differential value those licensees receive from the patented technologies, the non-discriminatory or “ND” portion of RAND prevents SEP holders from discriminating on the basis of whether it competes directly with the licensee. In addition, depending on the particular SSO IPR Policy at issue, an SEP holder may license only at certain levels of the distribution chain, i.e., at the end-product level as opposed to the component-part level.

The Federal Circuit also held that, in calculating a FRAND royalty rate, courts must refer to the particular patentee’s actual FRAND commitment. This is important because, while the debate often refers to “the FRAND commitment” as if it were a monolithic promise, there are in fact subtle, but important, differences across SSOs with regards to their IPRs policies.36

With respect to royalty stacking (Factor (3) in Section IV(i) of the Draft Guideline), we strongly urge that this provision be revised to explicitly state that the aggregate royalty will only be considered when there is evidence that it would have a severely adverse effect on the product market, or at a minimum severely restrict output. A recent empirical study shows that, contrary to the predictions of the royalty stacking theory, between 1994 and 2013, the non-quality adjusted average selling price of a mobile device fell 8.1% per year on average; the number of devices sold each year rose 62 times or 20.1% per year on average; the number of device manufactures grew from one in 1994 to 43 in 2003; and since 2001, concentration fell consistently and the average gross margin of SEP holders remained constant, neither increasing nor decreasing.37

As the U.S. Court of Appeals for the Federal Circuit explained in Ericsson v. D-Link, the burden is on the implementer to provide evidence establishing the actual cumulative royalty, and that royalty must be assessed to determine whether it is excessive. In so holding, the appeals court rejected the approach taken by some U.S. district courts of considering the aggregate royalties that would apply if one assumed that all SEP holders charged the same or similar rates. The problem with that approach is that not all patents are created equal and FRAND rates should reflect the value of the particular SEPs at issue. Thus, it does not make sense to assume that all SEP holders would charge the same or similar rate as the one at issue in a given investigation. In addition, many licensees do not pay cash royalties for every SEP. Instead, there may be cross-licenses or other business relationships that allow for royalty-free exploitation of some SEPs.

We also strongly urge that the NDRC explicitly recognize the following principles when considering royalty stacking concerns.


First, it is important to distinguish between an aggregate royalty burden that accurately reflects the cumulative value of the various SEPs included in a given standard from an aggregate royalty burden that includes at least some supra-FRAND rates, i.e., individual holdups. The former is simply the cost of making products that benefit from valuable IP, analogous to any other cost of doing business. For example, automakers face an aggregate input cost covering all of the many components needed to produce a car. There is nothing inherently anticompetitive in needing multiple inputs to produce a particular good, nor in each of those input suppliers charging the market price for its contribution.

Second, proper apportionment can eliminate the risks of either hold-up or royalty stacking. As long as the inputs for multi-component products are priced according to the value of the patent’s contribution to the end product, no SEP holder can be faulted for either holdup or stacking. Proper apportionment is a reasonable means to accomplish this goal.

Third, it is critical to distinguish between the number of SEPs and the number of SEP holders. Given the prevalence of portfolio licensing, it is the number of SEP holders and not the number of SEPs that is relevant. Even if a license to 1,000 SEPs were required to implement a given standard, if all of those SEPs were held by a single entity that licensed on a portfolio basis, there would be no stack at all.

Fourth, for a variety of reasons, not all SEP holders seek license payments. As the U.S. Court of Appeals for the Federal Circuit stated in Ericsson v. D-Link, “[t]he mere fact that thousands of patents are declared to be essential to a standard does not mean that a standard-compliant company will necessarily have to pay a royalty to each SEP holder.”

Lastly, one of the assumptions underlying the Cournot complements problem (the theory upon which the royalty stacking theory is based) is that each input supplier will price its inputs without regard to the price charged for other needed inputs. But there is no reason to assume that will necessarily be the case in standard-setting contexts. For example, SEP holders will be cooperating with one another (and all other SSO members) in the development of the standard, and are thus likely to know what patents are expected to be asserted and by whom. As a result, there is no reason to presume that SEP holders will set rates without regard to the full complement of known SEPs.

VIII. Section IV(ii)—Imposing Unreasonable Trading Conditions on SEPs

Section IV(ii) provides that bundling SEPs and non-SEPs, requiring royalty free cross-licensing and grantbacks, charging for expired or invalid patents, and prohibiting licensees from challenging validity “may exclude or restrict competition.” We respectfully urge that this provision be revised to explicitly recognize that bundling, requiring royalty free cross-licensing, and grantbacks may be procompetitive and that the NDRC will analyze these restraints under an effects-based approach in which licensing restraints are condemned only when any anticompetitive harm they cause outweighs any procompetitive benefits they create. In addition, for the reasons set forth below, we strongly urge that the NDRC not base AML violations on

38 773 F.3d at 1234.
charging for expired or invalid patents or entering into agreements that prohibit licensees from challenging validity.

Bundling, grantbacks, and cross-licenses, like other licensing restraints, are generally procompetitive because they may facilitate the integration of complementary technologies, promote the dissemination of a technology, reduce transaction costs, clear blocking positions, and avoid costly patent infringement litigation. Bundling, for example, may be efficiency enhancing when multiple licenses are needed to use a single item of IP. Many economists believe that, in general, tying and bundling are much more likely to be procompetitive than anticompetitive. Grantbacks also provide a means for the licensee and the licensor to share risks and to reward the licensor for possible further innovations based upon or informed by the licensed technology. Finally, the prospect of a grantback is an incentive both for innovation in the first place and for the subsequent licensing of the results of that innovation.

With a royalty-free cross license, each firm is free to compete, both in designing its products without fear of infringement and in pricing its products without the burden of making a per unit royalty payment due to its counterparty. Therefore, cross-licenses can solve the complements problem, at least as between two firms, and be highly procompetitive. Similarly, portfolio licenses may encourage long-term investments in both manufacturing capacity and research and development because the parties do not fear unforeseen and unforeseeable patent infringement litigation.

On the other hand, cross-licenses can have anticompetitive effects in certain limited circumstances, such as when they are used as a cover for price-fixing or market division. Grantbacks may also adversely affect competition if they substantially reduce the licensee’s incentives to engage in research and development and thereby limit rivalry in innovation. Like other licensing restraints, therefore, cross-licenses and grantbacks should be analyzed case by case, under an effects-based approach.

With respect to charging for expired patents, as explained in Section III, above, it would be impractical, if not impossible, for portfolio owners to constantly renegotiate licenses (or

39 See, e.g., DOJ-FTC IP GUIDELINES, supra note 7, §§5.5 and 5.6.
41 See DOJ-FTC IP GUIDELINES, supra note 7, § 5.6.
42 The complements problem, or the “tragedy of the anti-commons,” arises when there are multiple gatekeepers, each of which must grant permission before a resource can be used, the result of which can be to prevent the resource from being used and hence stifle innovation.
provide updated patent lists) every time an IPR expires or new IPR is added to the portfolio. Portfolios include patents with a variety of expiration dates, which the parties to the license take into account when negotiating a price.

Similarly, as a practical matter, particularly when large portfolios are involved, an implementer that insists on challenging validity on a patent-by-patent basis around the world may be engaged in bad-faith licensing delay, or holdout. Nevertheless, implementers have the opportunity to challenge the validity of an SEP at any moment from the time the patent office grants the patent at issue until the time it executes a license with a no-challenge clause. A no-challenge clause constrains the implementer’s ability to challenge the validity of SEPs only after it has already executed a license agreement. When a licensor and a licensee negotiate a license for a large SEP portfolio, both parties understand that some of the hundreds or thousands of SEPs in the portfolio may be invalid. The parties do not invest extensive resources in identifying those invalid SEPs, which would make the transaction prohibitively costly. Instead, the parties assess generally the value of the licensed portfolio and determine a royalty that accounts for the possibility that some of the portfolio’s SEPs may be invalid. In addition, as previously noted, SEP holders typically remove obsolete SEPs from the portfolio and add new SEPs that have become essential since the parties executed the license agreement. This industry practice of portfolio “rebalancing” further reduces the risk that the presence of a few invalid SEPs would impose any significant cost on the licensee. Encouraging a licensee to challenge the validity of individual licensed SEPs invites opportunistic litigation by the licensee so as to delay paying the SEP holder the agreed-upon royalty for the use of the many more valid patents in its licensed portfolio. Thwarting a SEP holder’s ability to receive prompt compensation for its innovative contribution lessens the SEP holder’s incentive to invest in innovation and thus decreases the quality of collective standard setting. Those effects in turn impose significant harm on consumers.

IX. Section IV(iii)—Abuse of Injunctive Relief

Section IV(iii) provides that, in determining whether a SEP holder’s application for injunctive relief excludes or restricts competition, the following factors may be considered: “(1) the real intention for negotiation revealed by the parties during the negotiation; (2) the injunctive relief related commitment taken by the relevant SEP; (3) the licensing conditions and its rationality raised by the parties during the negotiation; and (4) the influence of applying the injunctive relief to the negotiating positions of two parties, the competition in relevant market and downstream market and the consumers’ benefit.” For the reasons set forth in our prior comment (submitted on September 30, 2015), we strongly urge that this provision be deleted in its entirety, and that the NDRC not impose an AML sanction for merely seeking an injunction. As explained in our prior comment, there is no empirical evidence to support the concerns that injunctive relief results in harm to innovation or to consumers, and the burden of establishing any harm from a counterparty’s having sought an injunction should rightly be on those advocating this fundamental policy shift.

In addition, reverse holdup and holdout are equally likely to occur and therefore there are likely to be detrimental consequences to disrupting the carefully balanced FRAND ecosystem by creating an AML sanction for the seeking of injunctive relief.\textsuperscript{45} Indeed, creating an AML sanction for the seeking of injunctive relief significantly alters the critical balance between the interests of SEP holders and the interests of implementers. As the European Court of Justice (ECJ) recognized in \textit{Huawei v. ZTE}, it is essential “to ensure a fair balance between the interests concerned.”\textsuperscript{46} In addition, imposing an AML sanction is likely to reduce incentives to innovate and deter SEP holders from participating in standard setting, thereby depriving consumers of the substantial procompetitive benefits of standardized technologies.\textsuperscript{47} Lastly, injunctions issue only upon a court order. This critical gatekeeper minimizes the risk of any potential harm. As such, the mere seeking of injunctive relief alone does not monopolize the market because courts independently assess whether an injunction is warranted, taking into consideration whether the public interest would be disserved by an injunction.\textsuperscript{48} As for the notion that the mere threat of an injunction may cause harm, the \textit{in terrorem} (or fear from threat) effect of filing for an injunction depends on the likelihood of it being granted.

In the alternative, should the NDRC decide to adopt an AML sanction for seeking injunctive relief—which we strongly urge it not to do—at the very least, it should limit liability to situations in which there is proof that a FRAND-assured SEP holder has engaged in patent holdup, i.e., that the patent holder used the threat of injunctive relief to demand supra-

\textsuperscript{44}Holdup requires lock-in, and standard-implementing companies with asset-specific investments can be locked in to the technologies defining the standard. On the other hand, innovators that are contributing to an SSO can also be locked-in if their technologies have a market only within the standard. Thus, incentives to engage in holdup run in both directions. There is also the possibility of holdout. While reverse holdup refers to the situation when licensees use their leverage to obtain rates and terms below FRAND, holdout refers to licensees either refusing to take a FRAND license or delaying doing so.

\textsuperscript{45}See, \textit{e.g.}, Luke Froeb & Miikael Shor, \textit{Innovators, Implementers, and Two-Sided Hold-Up}, ANTITRUST SOURCE at 3 (Aug. 2015), \textit{available at}, http://www.americanbar.org/content/dam/aba/publishing/antitrust_source/aug15_froeb_7.21f.authcheckdam.pdf (explaining that the curtailing of injunctive relief serves “to shift bargaining power and profits from innovators to implementers,” which “weakens the value of patents and can significantly reduce the incentive to innovate”); Bernhard Ganglmair, Luke M. Froeb & Gregory J. Werden, \textit{Patent Hold Up and Antitrust: How a Well-Intentioned Rule Could Retard Innovation}, 60 J. INDUS. ECON. 249 (2012) (finding that “enforcement of a FRAND commitment, with damages awarded for excessive license fees, solves the holdup problem, but can retard innovation, and it is even possible that this solution is worse than the problem”).


\textsuperscript{47}See Ginsburg, Owings, \& Wright, \textit{supra} note 47 at 2-3, 6.
competitive royalties that are not consistent with prior commitments by the SEP holder. This is necessary to avoid the presumption that an SEP holder who seeks injunctive relief will necessarily use that relief (or the threat of it) to demand supra-competitive royalties.\textsuperscript{49} That presumption would be unwarranted because market mechanisms impose a number of constraints that militate against acting upon the opportunity for holdup. For example, reputational and business costs may deter repeat players from engaging in holdup and “patent holders that have broad cross-licensing agreements with the SEP-owner may be protected from hold-up.”\textsuperscript{50} In addition, patent holders often enjoy a first-mover advantage if their technology is adopted as the standard. “As a result, patent holders who manufacture products using the standardized technology may find it more profitable to offer attractive licensing terms in order to promote the adoption of the product using the standard, increasing demand for its product rather than extracting high royalties”\textsuperscript{51} per unit.

Furthermore, any liability theory that would require an SEP holder to prove that an accused infringer is an unwilling licensee threatens to deter participation in standard setting, particularly if an accused infringer can prove willingness simply by agreeing to be bound by terms determined in a neutral adjudication. If the worst penalty an SEP infringer faces is not an injunction but merely paying, after adjudication, the FRAND royalty that it should have agreed to pay when first asked, then reverse holdup and holdout give implementers a profitable way to defer payment—or if they are judgment proof, to avoid payment altogether—and puts SEP holders at a disadvantage that reduces the rewards to, and therefore can only discourage, both innovation and participation in standard setting.\textsuperscript{52} In short, creating an AML sanction for the mere seeking of injunctive relief is likely to introduce additional delay, or holdout, in FRAND licensing.

Lastly, should the NDRC retain this provision, it should at the very least adopt a safe harbor from AML liability similar to that adopted by the ECJ in \textit{Huawei v. ZTE.}\textsuperscript{53} Specifically,

\textsuperscript{49} See Anne Layne-Farrar & Koren W. Wong-Ervin, \textit{Methodologies For Calculating FRAND Damages}, LAW360 at 3-4 (Oct. 8-10, 2014) (explaining that “the actual practice of hold-up requires two elements: opportunity and action,” listing a number of market mechanisms that militate against the opportunity for holdup), available at \url{https://www.ftc.gov/system/files/attachments/key-speeches-presentations/wong-ervin_methodologies_for_calculating_frand_damages.pdf}.


\textsuperscript{51} \textit{Id.}

\textsuperscript{52} Such delay tactics are magnified when the patent owner has a large worldwide portfolio of SEPs requiring it to file lawsuits around the world to adjudicate a FRAND royalty on a patent-by-patent basis. In such cases, international arbitration on a portfolio basis would appear to be the most efficient and realistic means of resolving FRAND disputes.

an SEP holder that (1) prior to initiating an infringement action, alerts the alleged infringer of the claimed infringement and specifies the way in which the patent has been infringed; and (2) after the alleged infringer has expressed its willingness to conclude a license agreement on FRAND terms, presents to the alleged infringer a specific, written offer for a license, specifying the royalty and calculation methodology, should be free of liability. The ECJ quite properly put the burden on the alleged infringer to “diligently respond” to the SEP holder’s offer, “in accordance with recognized commercial practices in the field and in good faith,” by promptly providing a specific written counter-offer that corresponds to FRAND terms, and by providing appropriate security (e.g., a bond or funds in escrow) from the time at which the counter-offer is rejected and prior to using the teachings of the SEP.54 This approach is necessary to take into account the conduct of both the patentee and the accused infringer when considering whether to impose an AML sanction.

In its decision, the ECJ recognized that SEP holders have “the right to bring an action for prohibitory injunction or for the recall of products,” and made clear that the SEP holder’s right can be limited only in particular and exceptional circumstances.55 The decision recognizes concerns about reverse-holdup, stating that the Court will not tolerate infringers’ “delaying tactics.”56 The ECJ reiterates, in multiple places throughout the decision, that its competition analysis involves a situation involving two competitors, which suggests that the Court’s holding and analysis is limited to matters involving competitors. Lastly, the ECJ analyzed the seeking of injunctive relief as possible exclusionary conduct as opposed to exploitative conduct such as charging excessive or unfairly high royalties.

CONCLUSION

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

54 Id. ¶¶ 66-67.
55 Id. ¶ 65-66, 71.
56 Id. ¶ 55.