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USING SETTLEMENT LICENSES IN REASONABLE ROYALTY DETERMINATIONS

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ABSTRACT

Reasonable royalty determinations are an essential and nearly universal element of patent infringement cases. They represent the minimum compensation a patent holder should receive for the unauthorized use of its intellectual property. Fact-finders consequently enjoy substantial discretion in selecting, considering and weighing evidence used to determine reasonable royalties in patent infringement proceedings, so that patent holders can be adequately compensated for infringement. The central message of this article is that settlement licenses can be—and should be—considered along with all other available evidence in reasonable royalty determinations.

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INTRODUCTION

Under U.S. law, reasonable royalty damages are the minimum compensation owed to a patent holder whose patent has been infringed.¹ Accordingly, in virtually all patent litigation, the fact-finder must determine the level of compensation necessary to adequately compensate a patent holder for infringement. In light of this challenge, fact-finders are generally afforded substantial discre-

³⁵ U.S.C. § 284 (2006); Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1118 n.1 (S.D.N.Y. 1970), modified and aff'd, 446 F.2d 295 (2d Cir. 1971).

tion and latitude in making reasonable royalty determinations.² Consequently, fact-finders have relied upon a range of approaches and evidence in making such determinations.³

With regard to the evidence that can be considered in conducting reasonable royalty analyses, a recurring question is whether evidence derived from settlement licenses may be considered and, if so, how such information should be used.

Many courts have been reluctant (or have even refused) to consider evidence derived from settlement licenses in their reasonable royalty determinations. These courts have concluded that such evidence is inadmissible or inherently unreliable. This article explores issues related to the use of settlement license evidence in reasonable royalty determinations. In particular, this article considers the legal arguments used to prevent consideration of such evidence, as well as the economic implications of incorporating settlement license evidence into reasonable royalty analyses.

This article offers three broad conclusions regarding the consideration of settlement licenses in the context of reasonable royalty analyses. First, a blanket legal rule that excludes settlement license evidence from reasonable royalty determinations is unjustified and inappropriate. Second, as a general matter, the terms of settlement licenses are not inherently less illuminating or useful than non-settlement licenses (which are routinely considered in reasonable royalty determinations) for the purpose of assisting the fact-finder in determining adequate compensation in patent infringement cases. Finally, the appropriate use of evidence derived from settlement licenses can be valuable in rendering reliable damages determinations in many patent infringement cases.

The first section of this article discusses the definition of a "settlement license." The second section presents background concerning patent damages calculations. The third section discusses the legal treatment of settlement licenses in reasonable royalty determinations. Finally, the fourth section examines the economic question of whether settlement licenses provide information that might be useful in a reasonable royalty determination.

I. DEFINITION OF SETTLEMENT LICENSE

The term "settlement license" refers to a license granted by a patent holder that (1) permits the licensee to practice the patented subject matter, and

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² Georgia-Pacific, 318 F. Supp at 1120.

³ *Id.* at 1120–21.

⁴ See infra Part III.

(2) was negotiated as part of an agreement to resolve a patent infringement dispute. Such settlement licenses include not only licenses negotiated in conjunction with the dismissal of an existing lawsuit, but also licenses negotiated after the parties have explicitly recognized the potential for litigation even if no formal legal proceeding has begun.⁵ The key consideration in determining whether an agreement qualifies as a settlement license is whether the terms of the agreement are influenced by the belief that, absent the agreement, the dispute is likely to be argued before (and potentially resolved by) a third party such as a court or an arbitration panel.

As a general matter, settlement licenses can be divided into two types: retroactive settlement licenses and forward-looking settlement licenses. Retroactive settlement licenses grant the alleged infringer authorization for its past use of the patent-at-issue in exchange for compensation to the patent holder. Under such licenses, the licensee does not receive permission to use the patent in the future and is expected to cease its infringing activity after the agreement is executed. From a practical perspective, such licenses eliminate both the need for infringement litigation (because the parties have agreed to appropriate compensation) and the need for future litigation, assuming the licensee ceases its unauthorized use of the patent-at-issue.

In contrast, in a forward-looking settlement license, the parties agree to terms that permit the alleged infringer to continue using the patent-at-issue in exchange for compensation to the patent holder. In effect, such licenses are very similar to other patent licenses (*i.e.*, non-settlement licenses) in that the agreement results in the former infringer becoming an authorized user of the patent-at-issue. For the patent holder, this means that the terms of the forward-looking settlement license must include adequate compensation to account for expected future use of the patent-at-issue by the licensee. For the licensee, this means that the terms of the forward-looking settlement license must be economically reasonable—the terms should permit the licensee to earn an adequate return on future sales, after paying any license or royalty payments. If the proposed compensation for ongoing use of the patent is unacceptable to either party, the parties can negotiate a more limited, retroactive settlement license that

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This definition is consistent with the definition of settlement offers and agreements covered by Federal Rule of Evidence 408. *See, e.g.*, Affiliated Mfrs. Inc. v. Aluminum Co. of Am., 56 F.3d 521, 527 (3d Cir. 1995) ("[Fed. R. Evid. 408] exclusion applies where an actual dispute or a difference of opinion exists, rather than when discussions crystallize to the point of threatened litigation.").

In many cases, forward-looking settlement licenses also include (implicitly or explicitly) retroactive license terms in which the patent holder is also compensated for unauthorized patent use that occurred prior to the signing of the agreement.

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resolves only the disputes over past infringement without authorizing future use of the patented technology.

II. OVERVIEW OF PATENT INFRINGEMENT DAMAGES

Recovery for patent infringement is governed by 35 U.S.C. § 284:

Upon 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.

. . . .

The court may receive expert testimony as an aid to the determination of damages or of what royalty would be reasonable under the circumstances.⁷

This provision has been interpreted to mean that the holder of an infringed patent should be placed in the same financial position the holder would have been in had its patent not been infringed.⁸

A variety of measures are available to ascertain the patent holder's damages. As a practical matter, these measures can be divided into two types: (1) measures of the patent holder's "actual" damages and (2) measures of the patent holder's "reasonable royalty" damages.

A. Actual Damages

"Actual" damages are intended to quantify specific losses suffered by the patent holder that are attributable to the infringement at issue. Actual dam-

³⁵ U.S.C. § 284 (2006); *see* Grain Processing Corp. v. Am. Maize-Prods. Co., 185 F.3d 1341, 1349 (Fed. Cir. 1999) ("The phrase 'damages adequate to compensate' means 'full compensation for "any damages" [the patent owner] suffered as a result of the infringement." (alteration in original) (quoting Gen. Motors Corp. v. Devex Corp., 461 U.S. 648, 654–55 (1983))).

Weinar v. Rollform Inc., 744 F.2d 797, 807–08 (Fed. Cir. 1984) ("[D]amages [are] compensation for the pecuniary loss suffered from the infringement 'without regard to the question whether the defendant has gained or lost by his unlawful acts.' The measure, when its calculation is possible, is an amount needed to return the patent owner to the position it would have occupied had there been no infringement." (citing Coupe v. Royer, 155 U.S. 565, 582 (1895) and Yale Lock Mfg. Co. v. Sargent, 117 U.S. 536, 552 (1886))).

Proctor & Gamble Co. v. Paragon Trade Brands, Inc., 989 F. Supp. 547, 600 (D. Del. 1997) ("A determination of lost profits or an established royalty are methods of assessing the actual damages suffered by the patentee." (internal citations omitted)).

ages include lost profits damages, price erosion damages and lost royalty revenues where an established royalty for the patent-at-issue exists.¹⁰

Lost profits damages are defined as the difference between "but-for" profits that the patent holder would have made if there had been no infringement and "actual" profits that the patent holder made in the presence of the infringement. In order to be eligible for lost profits damages, the patent holder is required to prove that infringing sales would have been made by the patent holder in the absence of infringement, quantify the number of sales displaced and demonstrate the amount of profit that the patent holder would have made on these lost sales. In the patent holder would have made on these lost sales. In the patent holder would have made on these lost sales. In the patent holder would have made on these lost sales. In the patent holder would have made on these lost sales. In the patent holder would have made on these lost sales. In the patent holder would have made on these lost sales. In the patent holder would have made on these lost sales. In the patent holder would have made on these lost sales. In the patent holder would have made on these lost sales. In the patent holder would have made on these lost sales. In the patent holder would have made on these lost sales. In the patent holder would have made on these lost sales. In the patent holder would have made on these lost sales. In the patent holder would have made on the patent holder would have made on the lost sales. In the patent holder would have made on the lost sales. In the patent holder would have made on the lost sales. In the patent holder would have made on the lost sales. In the patent holder would have made on the lost sales. In the patent holder would have made on the lost sales. In the patent holder would have made on the lost sales. In the patent holder would have made on the lost sales were the lost sales. In the patent holder would have made on the lost sales were the lost sales. In the lost sales were the lost sa

Price erosion damages measure the extent that the patent holder's profits were reduced because the infringement forced the patent holder to lower its prices.¹³ As a general matter, price erosion damages are calculated as the difference between the amount of profit that the patent holder actually earned (or would have earned)¹⁴ on its discounted sales during the infringement period and the amount of but-for profit that the patent holder would have made on those sales if it had not been forced to reduce its prices.¹⁵ To be eligible for price erosion damages, the patent holder must demonstrate that the infringement was the reason for the price reductions.¹⁶

When an established royalty exists for a particular patent, the market has, in effect, objectively determined the price of practicing that patent and, more importantly, the amount that the patent holder should receive in exchange for granting access to the patent.¹⁷ Under such circumstances, the extent of the

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¹⁰ *Id*.

Gregory K. Leonard & Lauren J. Stiroh, A Practical Guide to Damages, in Economic Approaches to Intellectual Property Policy, Litigation, and Management 27, 27 (2005).

Panduit Corp. v. Stahlin Bros. Fibre Works, Inc, 575 F.2d 1152, 1156 (6th Cir. 1978).

Vulcan Eng'g Co. v. Fata Aluminium, Inc., 278 F.3d 1366, 1377 (Fed. Cir. 2002) ("For price erosion damages the patentee must show that, but for the infringement, it would have been able to charge and receive a higher price.").

Price erosion damages may also be associated with lost sales that are identified as part of the lost profits analysis, described above.

In calculating price erosion damages, the number of units sold "but-for" the infringement should generally be lower than in reality because demand is likely to be lower when prices increase. The price elasticity of demand for the product-at-issue determines the extent of this adjustment.

Minco, Inc. v. Combustion Eng'g, Inc., 95 F.3d 1109, 1120 (Fed. Cir. 1996).

See BRYAN W. BUTLER, PATENT INFRINGEMENT: COMPENSATION AND DAMAGES § 4.01 (Law Journal Press 2008) ("The legal theory behind calculating an award based on an established royalty is that had the infringer taken a license, the terms and conditions of [the license]

harm caused by the infringement is the specific stream of revenues that would have been generated for the patent holder under a license to the infringer.¹⁸ As a practical matter, this lost stream of revenues corresponds to lost profits for the patent holder, since the cost of granting access to the technology is likely to be zero.

The standard for establishing the existence of an established royalty is very high and, consequently, is seldom satisfied.¹⁹ To qualify as an "established royalty," a royalty rate must meet the following standard: (1) it must have been paid prior to the infringement at issue; (2) it must have been "paid by a sufficient number of persons" as "to indicate the reasonableness of the rate"; (3) it must have been uniform; (4) the royalty rate must not have been set under the threat of a lawsuit or in settlement of a litigation; and (5) it must apply to a comparable set of rights or uses as are at issue in the litigation under consideration.²⁰ Assuming all of these requirements are met, the amount of lost royalty revenue calculated using this established royalty constitutes actual damages suffered by the patent holder as a result of the infringement.²¹

In each of these cases, the goal of the damages calculation is to quantify the specific, actual harm suffered by the patent holder due to the infringement at issue.²² Reimbursement of these damages should put the patent holder in the same financial position it would have been in had its patent not been infringed.

B. Reasonable Royalty Damages

Even if the degree of actual damages cannot be established, a patent holder is entitled to, at minimum, "reasonable royalty" damages.²³ A reasonable royalty is a legal construct designed to ensure that the patent holder will receive "adequate compensation" for the unauthorized use of the patent holder's intel-

would have been identical to other licensees. Thus, the actual injury the patent owner has suffered is the revenue that would have been realized had the infringer taken that license.").

¹⁹ Mobil Oil Corp. v. Amoco Chems. Corp., 915 F. Supp. 1333, 1342 (D. Del. 1995).

BUTLER, supra note 17, § 3.02; see Rude v. Westcott, 130 U.S. 152, 164-65 (1889); Mobil Oil, 915 F. Supp. at 1342.

See Del Mar Avionics, Inc. v. Quinton Instrument Co., 836 F.2d 1320, 1328 (Fed. Cir. 1987) ("The principle underlying damage measurement is unchanged even when there is an established royalty, for it is reasonable to assume that this royalty is a fair measure of the actual damage to a patentee who has authorized others to practice the patented invention.").

²² See id.

³⁵ U.S.C. § 284 (2006); see Panduit Corp. v. Stahlin Bros. Fibre Works, Inc., 575 F.2d 1152, 1157 (6th Cir. 1978).

lectual property, as required by 35 U.S.C. § 284. To this end, courts are afforded significant flexibility and discretion in determining the reasonable royalty in particular cases and rely upon a wide variety of considerations in reaching their determinations. As explained by the court in *Georgia-Pacific Corp. v. United States Plywood Corp*:²⁴

[T]here is a multiplicity of inter-penetrating factors bearing upon the amount of a reasonable royalty. But there is no formula by which these factors can be rated precisely in the order of their relative importance or by which their economic significance can be automatically transduced into their pecuniary equivalent. In discharging its responsibility as fact finder, the Court has attempted to exercise a discriminating judgment reflecting its ultimate appraisal of all pertinent factors in the context of the credible evidence.²⁵

In its attempt to appraise all of the pertinent factors, the *Georgia-Pacific* court identified fifteen factors that had been found in previous cases to provide useful insights:

- 1. The royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty.
- 2. The rates paid by the licensee for the use of other patents comparable to the patent in suit.
- 3. The nature and scope of the license, as exclusive or non-exclusive; or as restricted or non-restricted in terms of territory or with respect to whom the manufactured product may be sold.
- 4. The licensor's established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.
- 5. The commercial relationship between the licensor and licensee, 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 of the licensee; that existing value of the invention to the licensor as a generator of sales of his non-patented 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 product made under the patent; its commercial success; and its current popularity.
- 9. The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results.

²⁴ 318 F. Supp. 1116 (S.D.N.Y. 1970), modified and aff'd, 446 F.2d 295 (2d Cir. 1971).

²⁵ *Id.* at 1120–21.

- 10. The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention.
- 11. The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use.
- 12. The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.
- 13. The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.
- 14. The opinion testimony of qualified experts.
- 15. The amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee—who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention—would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license.²⁶

These factors constitute a non-exhaustive checklist of evidence that may provide insight into the reasonable royalty needed to adequately compensate the patent holder for the infringement.²⁷

The last of the Georgia-Pacific factors is actually a description of a commonly applied approach used to determine a reasonable royalty, which is often referred to as the "hypothetical negotiation approach" or the "willing licensee/licensor approach."²⁹ Under this approach, the reasonable royalty is determined based on an evaluation of what would have resulted from a hypothetical arm's-length negotiation between a willing patent owner and a willing potential licensee of the patented invention at the point infringement is first alleged. The hypothetical negotiation approach makes five assumptions: (1) the patent is "known to be valid" and enforceable "at the time infringement commences"; (2) the patent is known to be infringed; (3) the patent holder "is willing to issue a license"; (4) the licensee is "willing to take a license"; and (5) the

Id. at 1120.

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See, e.g., BUTLER, supra note 17, § 4.02.

See, e.g., John Skenyon et al., Patent Damages Law & Practice § 1.14 (West Group 2000).

appropriate "relevant business facts" (even subsequent to the point of negotiation) "are deemed known to both parties." ³⁰

The willing licensee/licensor approach can be a very useful tool for analyzing reasonable royalty damages. In relying on this approach, however, it is important to remember that this framework is simply a tool designed to assist in determining the compensation adequate to compensate a patent holder for an infringement of its patent. Accordingly, courts have cautioned that a hypothetical negotiation at the time of first infringement used in a reasonable royalty determination is not the same as a negotiation between truly willing parties prior to the date of first infringement.³¹ Thus, "[t]he willing licensee/licensor approach must be flexibly applied as a 'device in the aid of justice,'"³² where "justice" refers to providing adequate compensation to the patent holder for the infringement.³³

C. Reasonable Royalty v. Established Royalty

For the purposes of this article, it is important to distinguish between two distinct royalty concepts: the reasonable royalty and the established royalty. Both of these concepts are often discussed in patent damages analyses.³⁴ However, there are important differences between the concepts that should not be overlooked.³⁵

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See Paul M. Janicke, Contemporary Issues in Patent Damages, 42 Am. U. L. REV. 691, 722–24 (1993).

See, e.g., Stickle v. Heublein, Inc., 716 F.2d 1550, 1561 (Fed. Cir. 1983); Panduit Corp. v. Stahlin Bros. Fibre Works, Inc., 575 F.2d 1152, 1159 (6th Cir. 1978).

TWM Mfg. Co. v. Dura Corp., 789 F.2d 895, 900 (Fed Cir. 1986).

Procter & Gamble Co. v. Paragon Trade Brands, Inc., 989 F. Supp. 547, 600 (D. Del. 1997) ("A reasonable royalty... is a measure of recovery 'intended to provide a just recovery to persons who for evidentiary or other reasons cannot prove lost profits or an established royalty." (citations omitted) (quoting Hayhurst v. Rosen, No. CV-91-4496, 1992 WL 123178, at *13 (E.D.N.Y. May 18, 1992))).

In fact, the first Georgia-Pacific factor refers to the existence of "established royalties," supra note 26, which introduces discussions of "established royalties" into most Georgia-Pacific analyses.

Courts sometimes appear to ignore the distinction between reasonable royalties and established royalties in their consideration of reasonable royalty damages. *See, e.g.*, Spreadsheet Automation Corp. v. Microsoft Corp., 587 F. Supp. 2d 794, 800–01 (E.D. Tex. 2007) (discussing Rude v. Westcott, 130 U.S. 152 (1889) and Hanson v. Alpine Valley Ski Area, Inc., 718 F.2d 1075 (Fed. Cir. 1983), which examined the value of settlement licenses in proving an established royalty).

The fundamental difference between an established royalty and a reasonable royalty is that an established royalty represents an actual, transaction-based measure of the market value or price—under specific terms and conditions—of a particular patent, while a reasonable royalty is an estimate of damages owed to a patent holder due to the infringement of his or her patent.³⁶

It is easy to understand how these concepts can become linked in patent damages analyses. In cases where an established royalty exists, this objectively-determined market price for the patent is often deemed to be the best measure of the reasonable royalty that should be paid by an infringer.³⁷ In fact, in articulating the factors used to determine a reasonable royalty, the *Georgia-Pacific* court referred to "royalties . . . proving or tending to prove an established royalty" in the first factor.³⁸

In conducting patent damages analyses, however, it is important to recognize that an established royalty and a reasonable royalty are two distinct concepts. For the purposes of this article, three differences between established and reasonable royalties are particularly relevant.

The first important difference is the frequency with which each type of royalty can be found. As discussed above, established royalties are relatively rare, because courts have established stringent and narrowly defined requirements that must be met before an observed royalty rate may be considered "established."³⁹ In contrast, a reasonable royalty exists, by definition, for every infringed patent. After all, 35 U.S.C. § 284 establishes the reasonable royalty as the minimum compensation that a patent holder should receive in the event of

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See Butler, supra note 17, § 4.01 ("Established royalty and reasonable royalty are actually two different measurements of damages. The legal theory behind calculating an award based on an established royalty is that had the infringer taken a license, the terms and conditions of [the license] would have been identical to other licensees. Thus, the actual injury the patent owner has suffered is the revenue that would have been realized had the infringer taken that license. On the other hand, the reasonable royalty is intended to provide justice in the form of a recovery when lost profits or an established royalty cannot be proven.").

See Rude v. Westcott, 130 U.S. 152, 165 (1889) ("It is undoubtedly true that where there has been such a number of sales by a patentee of licenses to make, use, and sell his patents as to establish a regular price for a license, that price may be taken as a measure of damages against infringers."); see also Studiengesellschaft Kohle m.b.H. v. Dart Indus., Inc., 666 F. Supp. 674, 680 n.6 (D. Del. 1987) ("An established royalty rate is used in a case in which prior negotiated royalties to the time of infringement are paid by sufficient persons to indicate the reasonableness of the rate, are uniform, are not paid under threat of litigation, and are for comparable rights under the patent.").

Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970), modified and aff'd, 446 F.2d 295 (2d Cir. 1971).

³⁹ See supra Part II.A.

infringement. Thus, while it may be possible—even likely—that a court will find that no established royalty exists in a given litigation, a court cannot conclude that no reasonable royalty exists.⁴⁰ Given this statutory mandate, courts are understandably willing to entertain a broad range of evidence and considerations in determining reasonable royalties.⁴¹

The second important difference between established royalties and reasonable royalties is the degree of precision involved in determining each type of royalty. As a general matter, the measurement of an established royalty must be very precise. After all, a royalty rate observed in a number of existing licenses cannot be deemed to be established unless the rate paid by multiple licensees is uniform.⁴² In effect, this uniform royalty rate represents the specific market value that should be paid for the use of the patent-at-issue. In contrast, reasonable royalty analyses rarely render the same level of precision, as explained by the court in *Faulkner v. Gibbs*:⁴³

There is no mathematical formula for the determination of a reasonable royalty. The property loss of a patentee from infringement may arise from such varying facts and circumstances that each case must be controlled by those peculiar to it and except in rare instances the loss can only be determined by reasonable approximation.⁴⁴

The third important difference between established and reasonable royalties is the nature of the evidence needed to determine each. In the case of an established royalty, the evidence needed to prove the existence and magnitude of such a royalty should include licenses with a variety of licensees, all of which have uniform licensing terms, such as royalty rates, authorized uses and so on. ⁴⁵ Based on such evidence, the court can ascertain the existence and size of the established royalty. ⁴⁶

In contrast, reasonable royalty determinations require much more inclusive and integrative analyses. Such analyses consider any evidence that might shed light on the compensation required to adequately compensate a patent

^{40 35} U.S.C. § 284 (2006); see, e.g., Dow Chem. Co. v. Mee Indus., Inc., 341 F.3d 1370, 1381–82 (Fed. Cir. 2003).

See Georgia-Pacific, 318 F. Supp. at 1120.

⁴² Rude, 130 U.S. at 165; BUTLER, supra note 17, § 3.02.

⁴³ 199 F.2d 635 (9th Cir. 1952).

⁴⁴ *Id.* at 639.

See Rude, 130 U.S. at 164–65; see also Mobil Oil Corp. v. Amoco Chems. Corp., 915 F. Supp. 1333, 1342 (D. Del. 1995); BUTLER, supra note 17, § 3.02.

See supra Part II.A.

holder for an infringement.⁴⁷ Interestingly, courts may consider whether an established royalty exists as evidence of a reasonable royalty, but the existence of an established royalty merely sets a floor for the reasonable royalty.⁴⁸ Even in such cases, however, courts are expected to determine whether other evidence in the proceeding might show that the established royalty is inappropriate to use as the reasonable royalty before concluding that the established royalty rate should be used.⁴⁹

III. LEGAL TREATMENT OF SETTLEMENT LICENSES IN PATENT LITIGATION

Courts exercise broad discretion with regard to the evidence that can be considered in reasonable royalty determinations.⁵⁰ In exercising this discretion, courts have adopted a variety of positions concerning whether information gleaned from settlement licenses may be or should be considered in analyzing reasonable royalties. As a general matter, court decisions concerning the use of settlement licenses can be divided into three categories: (1) refusals to consider settlement licenses on evidentiary or policy grounds; (2) refusals to consider settlement licenses due to lack of probative value; and (3) selective consideration of settlement licenses for the purpose of determining a reasonable royalty. Each of these positions is discussed below.

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Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120–21 (S.D.N.Y. 1970), modified and aff'd, 446 F.2d 295 (2d Cir. 1971).

SKENYON, supra note 29, § 3.11; see Syntex (U.S.A.) Inc. v. Paragon Optical Inc., 7 U.S.P.Q.2d 1001, 1040 (D. Ariz. 1987) ("Although pre-existing royalty rates are evidence of a reasonable royalty, the law is explicit that prior royalty rates establish only a minimum floor below which reasonable royalty damages cannot fall.").

Evidence that would discourage the use of the "established royalty" as the "reasonable royalty" includes proof that the "established royalty" was set during a period of time in which there was widespread infringement of the patent, which would tend to unfairly depress the market price of the patent. In contrast, "reasonable royalties" are determined based on an assumption that the patent-at-issue is valid, enforceable and infringed—a condition that is rarely present when "established royalties" are set (i.e., "established royalties" are determined when the validity, enforceability and infringement of a patent are uncertain). This difference suggests that "established royalties" are likely to be systematically lower than "reasonable royalties" for the same patents.

See Georgia-Pacific, 318 F. Supp. at 1120.

A. Disregarding Settlement Licenses Based on "Inadmissibility"

A common starting point for any discussion of the potential use of settlement-related information in litigation is Rule 408 of the Federal Rules of Evidence, which limits the admissibility of such evidence:

- (a) *Prohibited uses.*—Evidence of the following is not admissible on behalf of any party, when offered to prove liability for, invalidity of, or amount of a claim that was disputed as to validity or amount, or to impeach through a prior inconsistent statement or contradiction:
 - (1) furnishing or offering or promising to furnish—or accepting or offering or promising to accept—a valuable consideration in compromising or attempting to compromise the claim; and
 - (2) conduct or statements made in compromise negotiations regarding the claim, except when offered in a criminal case and the negotiations related to a claim by a public office or agency in the exercise of regulatory, investigative, or enforcement authority.
- (b) *Permitted uses.*—This rule does not require exclusion if the evidence is offered for purposes not prohibited by subdivision (a). Examples of permissible purposes include proving a witness's bias or prejudice; negating a contention of undue delay; and proving an effort to obstruct a criminal investigation or prosecution.⁵¹

Some courts have interpreted the language of Rule 408 as barring consideration of settlement licenses in reasonable royalty determinations. For example, the court in *Universal Athletic Sales Co. v. American Gym, Recreational & Athletic Equipment Corp.* ⁵² relied on Rule 408 in concluding that "we cannot consider evidence as to amounts paid or agreed upon to settle other litigation. This is not a proper basis for calculating damages consisting of lost reasonable royalties." Furthermore, the court in *Vardon Golf Co. v. BBMG Golf Ltd.* ⁵⁴ denied discovery concerning settlement license issues, in part, because "amounts paid in as settlements may not be used to compute a reasonable royalty." ⁵⁵

As a general matter, courts have justified the exclusion of information relating to settlement offers and settlement agreements from consideration in

⁵² 480 F. Supp. 408 (W.D. Pa. 1979).

⁵⁴ 156 F.R.D. 641 (N.D. III. 1994).

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⁵¹ FED. R. EVID. 408.

⁵³ *Id.* at 414.

⁵⁵ *Id.* at 651.

litigation on two grounds, which are articulated in the advisory committee's notes to Rule 408:

(1) The evidence is irrelevant, since the offer may be motivated by a desire for peace rather than from any concession of weakness of position. The validity of this position will vary as the amount of the offer varies in relation to the size of the claim and may also be influenced by other circumstances. (2) A more consistently impressive ground is promotion of the public policy favoring the compromise and settlement of disputes.⁵⁶

Although these explanations may provide adequate justification for excluding consideration of evidence relating to settlement negotiations and settlement agreements in many settings—for example, drawing inferences regarding liability—their persuasiveness in the context of a patent damages determination is limited.

In fact, there are at least three reasons that Rule 408 should not be used to preemptively exclude information obtained from settlement licenses from consideration in reasonable royalty determinations.

First, the inadmissibility provisions of Rule 408 do not appear to apply in the reasonable royalty context. Under the language of Rule 408, settlement-related evidence is inadmissible for damage calculation purposes only if the evidence is offered to prove the amount of a claim that was disputed as to the amount.⁵⁷ Strictly speaking, evidence considered in reaching a reasonable royalty determination does not purport to "prove" the amount of the claim.⁵⁸ Rather, in a reasonable royalty analysis, settlement-related evidence would be used in conjunction with all other relevant evidence to assist the fact-finder in determining an amount of damages that would adequately compensate the patent holder for the infringement at issue.⁵⁹ In this regard, it is worth noting the

CHRISTOPHER B. MUELLER & LAIRD C. KIRKPATRICK, FEDERAL RULES OF EVIDENCE: WITH ADVISORY COMMITTEE NOTES AND LEGISLATIVE HISTORY 90 (Aspen 2005).

⁵⁷ Id. ("Since [Fed. R. Evid. 408] excludes only when the purpose is proving the validity or invalidity of the claim or its amount, an offer for another purpose is not within the rule." (emphasis added)).

⁵⁸ See BUTLER, supra note 17, § 4.01.

See Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120–21 (S.D.N.Y. 1970), modified and aff'd, 446 F.2d 295 (2d Cir. 1971); see also Smithkline Diagnostics, Inc. v. Helena Labs. Corp., 926 F.2d 1161, 1168 (Fed. Cir. 1991) ("[T]he determination of a reasonable royalty must be based upon the entirety of the evidence and the court is free to, indeed, must reject the royalty figures proffered by the litigants . . . where the record as a whole leads the court to a different figure."); Faulkner v. Gibbs, 199 F.2d 635, 639 (9th Cir. 1952) ("There is no mathematical formula for the determination of a reasonable royalty. The property loss of a patentee from infringement may arise from such varying facts and circum-

differences between a reasonable royalty and an established royalty discussed above.⁶⁰ An established royalty is considered a measure of the market price of the patent, while a reasonable royalty is a legal construct used to ensure just compensation to patent holders.⁶¹ It would therefore be appropriate to find that evidence from settlement licenses is inadmissible for the purpose of proving the magnitude of an established royalty, but that such evidence is admissible for the purpose of assisting the fact-finder in determining reasonable royalty damages.

A second reason that evidence derived from settlement licenses should not be preemptively excluded from consideration in assessing reasonable royalty damages is that Rule 703 of the Federal Rules of Evidence explicitly permits experts to rely on inadmissible evidence in rendering their opinions under appropriate circumstances:

The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence in order for the opinion or inference to be admitted. Facts or data that are otherwise inadmissible shall not be disclosed to the jury by the proponent of the opinion or inference unless the court determines that their probative value in assisting the jury to evaluate the expert's opinion substantially outweighs their prejudicial effect. 62

The law specifically authorizes and anticipates the involvement of experts⁶³ in reasonable royalty proceedings to assist the court in rendering its determination on reasonable royalty damages.⁶⁴ The combination of Rule 703 and 35 U.S.C. § 284 suggests that the appropriate standard for determining whether settlement license evidence should be considered in assessing patent damages is whether the evidence gleaned from settlement licenses is "of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject."⁶⁵ Thus, the standard focuses on whether the use of settlement

stances that each case must be controlled by those peculiar to it and except in rare instances the loss can only be determined by reasonable approximation.").

⁶⁰ See supra Part II.C.

⁶¹ See supra Part II.

⁶² FED. R. EVID. 703 (emphasis added).

An "expert" is simply a witness who possesses knowledge, skill, experience, training or education whose testimony may assist the trier of fact in understanding the issues and facts of a given case. FED. R. EVID. 702.

See 35 U.S.C. § 284 (2006) ("The court may receive expert testimony as an aid to the determination of damages or of what royalty would be reasonable under the circumstances.").

⁶⁵ FED. R. EVID. 703.

File: Chapman 313 357 C

licenses provides information that can improve the accuracy and reliability of the expert's analysis. It seems clear, however, that experts should be permitted to consider settlement-related evidence under Rule 703—even if it is technically inadmissible—if the use of such information improves the expert's ability to provide useful guidance to the fact-finder. Accordingly, it appears inappropriate to disregard such evidence based solely on an "inadmissibility" determination under Rule 408.

The third reason that preemptive exclusion of evidence related to settlement licenses is inappropriate is that permitting consideration of such evidence would have little impact on the public policy favoring the compromise and settlement of disputes.

As an initial matter, a proposed settlement license that includes terms that are unfavorable to the patent holder may become less acceptable and less attractive to a patent holder if such a license could also later be used in the determination of a reasonable royalty in a subsequent patent litigation. However, careful consideration of the decision-making process that generates a settlement license suggests that the mere possibility that the terms of a settlement may be considered in some future reasonable royalty analysis is likely to have a limited impact on parties' willingness to settle ongoing litigation in most cases.

Assuming that the parties to the agreement are unrelated, settlement licenses are arm's-length transactions in which each party enters into the license based on its own assessment of the costs and benefits of the agreement relative to the costs and benefits provided by other available options.⁶⁷ In this context, the expected cost of having the terms of the license considered in a subsequent damages proceeding is likely to have little, if any, impact on the decisions of the parties to settle, or from a public policy perspective, on the likelihood of settlement.

In this regard, the possibility that the terms of the settlement license could be used in a later proceeding is likely to be largely irrelevant to the al-

The trade-off between the probative value of information derived from settlement agreements and the potential prejudicial effect of hearing such information is an issue that may affect the presentation of the expert's testimony at trial—assuming that the trial is a jury trial and not a bench trial. See, e.g., Spreadsheet Automation Corp. v. Microsoft Corp., 587 F. Supp. 2d 794, 800–01 (E.D. Tex. 2007) (finding the settlement probative because it had taken place after the determination that the patent was valid and infringed). However, such concerns do not provide a valid justification for a blanket rule excluding settlement licenses, as these concerns are not likely to matter in the vast majority of patent cases, very few of which are ultimately resolved by a determination by a jury.

Bruce L. Hay & Kathryn E. Spier, Settlement of Litigation, in 3 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 442, 442 (Peter Newman ed., Stockton Press 1998).

leged infringer or licensee because the alleged infringer's or licensee's interest in subsequent litigation concerning the patent-at-issue is likely to be negligible.⁶⁸ Therefore, the alleged infringer's/licensee's willingness to enter into a settlement license is unaffected by whether the terms of the license will be considered in a later reasonable royalty determination.

In fact, the patent holder is the primary party with a direct interest in whether the terms of the settlement license are considered in future damages proceedings. In this regard, the patent holder's main concern would be that accepting a low royalty rate in a settlement license would establish a precedent that could be used to reduce a reasonable-royalty-based damages award in a later proceeding. The influence of such a concern on the patent holder's decision to grant a settlement license—and on the likelihood of settlement—is likely to be minimal in most cases. As a general matter, a patent holder's decision to grant a settlement license, or any other license, involves a cost-benefit analysis in which one expects the patent holder to seek maximum compensation in exchange for permission to practice the patent.⁶⁹ In such an analysis, the concerns about costs associated with the possible consideration of the terms of settlement in a potential future patent infringement proceeding are not likely to be a determining factor in the patent's holder's decision to settle. After all, if a patent holder would not want the terms of a license (settlement or non-settlement) even to be considered in the context of a possible reasonable royalty determination in the future, it is likely that the terms of the agreement are not particularly favorable to the patent holder—which would tend to discourage acceptance of the agreement regardless of the possibility of future consideration of the license in a litigation context. In most circumstances, the incremental costs associated with possible consideration of a settlement license in subsequent litigation are likely

One circumstance in which the alleged infringer/licensee is likely to have an interest in sub-sequent litigation concerning the patent-at-issue is when the patent holder is suing the alleged infringer's competitors concerning the same patent. In such a case, the alleged infringer/licensee would not want the competitor to obtain a license on better terms than it received, which would tend to put the alleged infringer/licensee at a competitive disadvantage. Under these circumstances, the alleged infringer/licensee would prefer to have the terms of the settlement license considered in determining the reasonable royalty of its competitor, which would reduce the chances that the reasonable royalty paid by the competitor would be better than the terms of the settlement agreement.

Another circumstance in which the alleged infringer/licensee is likely to have an interest in subsequent litigation is when a subsequent alleged infringer is able to invalidate the patent at issue. Under such a circumstance, the terms of settlement agreements would have no bearing on the subsequent litigation, because no reasonable royalty determination would be required (because the alleged infringer prevailed on liability). See 35 U.S.C. § 284 (2006).

⁶⁹ Hay & Spier, *supra* note 67, at 442.

to be too small relative to other considerations that affect a patent holder's decision to settle. Accordingly, concerns about the effects of considering settlement licenses in reasonable royalty determinations on the public policy goal of encouraging settlements are misplaced or overstated.

Another reason that consideration of settlement licenses in reasonable royalty determinations should not have a material impact on the likelihood of settlement is that inappropriate settlement licenses, such as those that are biased or coerced, can be given little or no weight in setting the reasonable royalty.⁷⁰ In this regard, it is important to remember two things: (1) consideration of a particular license in a reasonable royalty determination does not imply reliance on the license, and (2) reasonable royalties are intended to ensure that the patent holder received adequate compensation for the infringement.⁷¹ An expert or fact-finder has discretion to give little weight to the terms of a settlement license if those terms are inconsistent with other available evidence concerning the reasonable royalty rate in a given case.⁷² Moreover, to the extent that a patent holder is persuaded or pressured to accept an unreasonably low level of compensation due to the circumstances of a particular negotiation,⁷³ the process of determining a reasonable royalty is sufficiently flexible to permit the patent holder to explain the rationale behind the settlement license and to demonstrate to the experts or fact-finder that the reasonable royalty is higher than the rate implied by the settlement license.⁷⁴ This minimizes any potential harm to the patent holder in a subsequent reasonable royalty determination that may flow from accepting a disadvantageous settlement.

Thus, the preemptive exclusion of settlement license from consideration in reasonable royalty analyses based on concerns about the admissibility of settlement-related evidence is unnecessary and inappropriate.

⁷⁰ See Faulkner v. Gibbs, 199 F.2d 635, 639 (9th Cir. 1952).

⁷¹ See supra Part II.B.

⁷² See Faulkner, 199 F.2d at 639.

If a potential deal is so adverse to the patent holder that he or she would be opposed to the consideration of the deal in a later reasonable royalty analysis, it is likely that the deal would not be attractive to the patent holder on a stand-alone basis—that is, even if there were no reasonable royalty determination to worry about. Thus, acceptance of such a deal is likely to be the result of compelling persuasion by the alleged infringer, an imbalance in bargaining leverage between the parties or some other special circumstance—all of which could be accounted for in the weight given to the license in the reasonable royalty analysis.

See Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120–21 (S.D.N.Y. 1970), modified and aff'd, 446 F.2d 295 (2d Cir. 1971). Similarly, in the event that a settlement license provides for royalty terms that are "excessive," the alleged infringer has the opportunity to argue for giving such a license limited weight due to differences in circumstances between the settlement and the proceeding at issue.

B. Disregarding Settlement Licenses Based on Lack of Probative Value

While some courts have preemptively excluded settlement licenses from reasonable royalty determinations on grounds of inadmissibility, other courts have done so based on the presumption that such licenses lack probative value. The Supreme Court explained the rationale for such a position in *Rude v. West-cott*: 16

It is clear that a payment of any sum in settlement of a claim for an alleged infringement cannot be taken as a standard to measure the value of the improvements patented, in determining the damages sustained by the owners of the patent in other cases of infringement. Many considerations other than the value of the improvements patented may induce the payment in such cases. The avoidance of the risk and expense of litigation will always be a potential motive for a settlement.⁷⁷

This position was more recently articulated in the context of a reasonable royalty determination by the court in *Rite-Hite Corp. v. Kelley Co.*:⁷⁸

It is undoubtedly true that where there has been such a number of sales by a patentee of licenses to make, use and sell his patents, as to establish a regular price for a license, that price may be taken as a measure of damages against infringers. . . . In order that a royalty may be accepted as a measure of damages against an infringer, who is a stranger to the license establishing it, it must be paid or secured before the infringement complained of; it must be paid by such a number of persons as to indicate a general acquiescence in its reasonableness by those who have occasion to use the invention; and it must be uniform at the places where the licenses are issued.

Id. Nevertheless, the above-referenced language from *Rude* has been used by courts as a justification for barring consideration of settlement licenses in reasonable royalty determinations. *See, e.g.*, Spreadsheet Automation Corp. v. Microsoft Corp., 587 F. Supp. 2d 794, 800–01 (E.D. Tex. 2007) ("A payment of any sum in settlement of a claim for alleged infringement cannot be taken as a standard to measure the value of the improvements patented, in determining the damages sustained by the owners of the patent in other cases of infringement." (quoting *Rude*, 130 U.S. at 164)).

Rite-Hite Corp. v. Kelley Co., Inc., 774 F. Supp. 1514, 1535 (E.D. Wis. 1991); see Total Containment, Inc. v. Environ Prods., Inc., 921 F. Supp. 1355, 1404 (E.D. Pa. 1995) ("Settlement-induced royalty agreements are determined largely by factors that are not considered in the hypothetical royalty negotiation analysis and are, therefore, not an accurate measure of a reasonable royalty.").

⁷⁶ 130 U.S. 152 (1889).

Id. at 164. It should be noted that the Court's analysis in *Rude v. Westcott* involved a determination of whether settlement licenses could be used in a determination of an established royalty, not a reasonable royalty. *Id.* at 165. The Court wrote:

⁷⁸ 774 F. Supp. 1514 (E.D. Wis. 1991).

[S]ettlement-induced royalty agreements are determined largely by factors that are not considered in the "hypothetical royalty negotiation" analysis that this court must perform. In negotiating a settlement, the typical patentee is constrained by the risk and expense of litigating a patent suit. Risk and expense are not factors in the hypothetical royalty negotiation, however, because the patentee is presumed to know that the patent is valid and infringed. Settlement agreements are therefore not an accurate gauge of a reasonable royalty.79

In effect, these courts have summarily dismissed settlement licenses from consideration in reasonable royalty determinations because they assumed that settlement licenses provide inherently inaccurate information concerning the reasonable royalty associated with the patent-at-issue.

As with exclusion of settlement evidence based on inadmissibility concerns, the exclusion of evidence based on settlement licenses due to an assumed lack of probative value is inappropriate in the context of a reasonable royalty determination. The fundamental flaw in a decision to exclude evidence obtained from settlement licenses based on a lack of probative value is that the accuracy and utility of such evidence depends heavily on the specific circumstances of each case. These circumstances include the status of the liability dispute at the time of the settlement, the beliefs of the parties at the time of the settlement, the rights conveved to the licensee as part of the settlement and many other considerations that are specific to a given case.⁸⁰ Expert analysis and testimony can be—and often is—very helpful in comparing similar, but not identical, licensing situations to determine the extent to which the results of one negotiation provide useful guidance in predicting the outcome of another negotiation.81 Consequently, a blanket rule that excludes evidence derived from settlement licenses based on a lack of probative value inappropriately dismisses settlement license evidence that, in many circumstances, could be useful to the court in determining the reasonable royalty.

The possibility that royalty rates established in a settlement context "are determined largely by factors that are not considered in the 'hypothetical royalty negotiation"82 does not imply that such royalty rates cannot provide useful information in determining an adequate royalty rate to compensate a patent holder

See infra Part IV.A.

Id. at 1535; see Total Containment, 921 F. Supp. at 1404 ("Settlement-induced royalty agreements are determined largely by factors that are not considered in the hypothetical royalty negotiation analysis and are, therefore, not an accurate measure of a reasonable royalty." (citing Rite-Hite, 774 F. Supp. at 1535)).

See Leonard & Stiroh, supra note 11, at 49-50.

Rite-Hite, 774 F. Supp. at 1535.

for the unauthorized use of his or her patent. First, the observation that factors that are not considered in a hypothetical negotiation may affect the terms of a settlement license is not unique or dispositive because the same observation can be made concerning non-settlement licenses. For example, both settlement and non-settlement licenses tend to be negotiated in the shadow of uncertainty as to whether the patent-at-issue is valid, enforceable and infringed.⁸³ Experts who rely on existing licenses in conducting reasonable royalty analyses routinely account for the impact of such differences in circumstances when rendering their opinions.⁸⁴

Second, it is important to remember that "[t]here is no mathematical formula for the determination of a reasonable royalty," and such determinations often "can only be determined by reasonable approximation." Therefore, the proper test of whether evidence from settlement licenses should be considered in analyzing reasonable royalty damages is not whether the royalty rate in the settlement license is the "right" rate. Rather, it is whether the royalty rate in the settlement license helps the fact-finder determine a royalty that would adequately compensate the patent holder for the infringement. This question cannot be answered in isolation from the facts of the particular case, which means that a blanket rule against consideration of evidence from settlement licenses due to a purported lack of probative value is unfounded and inappropriate.

C. Selective Consideration of Settlement Licenses

Some courts have explicitly considered evidence derived from settlement licenses in reaching reasonable royalty determinations, while noting that the weight given to such evidence may be limited.

For example, the appellate court in *General Motors Corp. v. Black-more*⁸⁷ ruled that the district court was correct in admitting and relying on evidence based on settlement agreements in determining the reasonable royalty rate in a dispute involving patented automobile curtain rods:⁸⁸

We see no reason why the . . . settlements between Collins and Blackmore for Chevrolet purchases . . . should not be received in evidence as tending to show what was a reasonable royalty in the opinion of the plaintiffs and under the

84 See infra Part IV.A.

See infra Part IV.A.

⁸⁵ Faulkner v. Gibbs, 199 F.2d 635, 639 (9th Cir. 1952).

⁸⁶ Id

⁸⁷ 53 F.2d 725 (6th Cir. 1931).

⁸⁸ *Id.* at 730.

prevailing conditions, to be paid by one having the production of defendant. The fact of a general infringement to which defendant in a very true sense contributed, might qualify and limit the effect to be given to these other contracts at lesser rates, but they should nevertheless be given careful considera-

In Faulkner, the appellate court endorsed the lower court's consideration of evidence based on an agreement that was "a compromise to avoid mutually hazardous and expensive litigation,"90 yet noted that the amount of weight that should be given in the final determination of the reasonable royalty was limited due to the circumstances of the agreement. 91 In both Faulkner and General Motors, the courts considered evidence based on settlement agreements in reaching their reasonable royalty determinations and afforded the evidence the limited weight that was appropriate based on the facts of the case.⁹²

In Studiengesellschaft Kohle m.b.H. v. Dart Industries, Inc., 93 the court not only condoned the consideration of settlement license evidence, but also confirmed a lower court determination that, under the circumstances of that case, consideration of settlement license evidence was necessary for a valid reasonable royalty determination.⁹⁴ The relevant settlement license in *Studienge*sellschaft Kohle was negotiated in the middle of a patent litigation after a determination of patent enforceability and infringement, but before a final damages determination and before any decision concerning a permanent injunction. The court determined that the royalty rate established in such a license was "highly probative of a reasonable royalty":

The settlement in *Phillips* transpired after the Fifth Circuit had reversed the District Court's finding of no infringement. At the time of the Phillips negotiations, then, Ziegler had the same strength that is ascribed to him in a hypothetical negotiation—an unquestionably valid patent. Ziegler and Phillips agreed to a lump sum settlement of 5 million and a future running royalty of 1.5%....

... This brand of post-infringement evidence is distinct from other postinfringement evidence because both Phillips and Ziegler knew that the next

⁸⁹ Id.

⁹⁰ Faulkner, 199 F.2d at 640.

Id. at 639.

Id.; Blackmore, 53 F.2d at 730.

⁶⁶⁶ F. Supp. 674 (D. Del. 1987).

Id. at 682 (supporting the exclusion of evidence based on several settlement licenses, but noting that one settlement license could provide guidance due to the specific circumstances surrounding its negotiation).

step in the process was the exact type of accounting exercise that is being undertaken in this case. 95

An important lesson from the three cases discussed above is that preemptive exclusion of settlement licenses is not necessary to ensure that reasonable royalty determinations are fair and accurate. In these cases, the courts were able to consider the evidence derived from a settlement license to the extent that the data were useful and to make a determination based on the facts of the particular case.

IV. ECONOMIC RATIONALE FOR CONSIDERING SETTLEMENT LICENSES IN REASONABLE ROYALTY ANALYSIS

In addressing the legal question of whether settlement licenses may be or should be considered in assessing reasonable royalty damages, courts are necessarily confronted with the fundamental economic question of whether the terms of a settlement license are likely to contain information that could be useful for determining the amount of compensation needed to adequately compensate the patent holder for infringement. From an economic perspective, if settlement license evidence is useful to the fact-finder in determining a reasonable royalty, it would be inappropriate to ignore this evidence in assessing reasonable royalties.

This section examines how settlement licenses, in some cases, can be used to inform the determination of reasonable royalties in patent proceedings. This examination consists of three parts. In the first part, the use of non-settlement licenses in reasonable royalty proceedings is discussed to demonstrate the manner in which negotiated licenses typically contribute to reasonable royalty determinations. In the second part, similarities and differences between settlement and non-settlement licenses are examined to determine whether there are any inherent characteristics of settlement licenses that preclude treating settlement and non-settlement licenses in a similar fashion. The last part examines the contention that settlement licenses are unreliable indicators of the value of a patent and, therefore, should not be considered in reasonable royalty determinations.

⁹⁵ *Id*.

See, e.g., id. (allowing the use of a settlement license negotiated after a finding of infringement).

A. Routine Reliance on "Non-Settlement" Licenses in Reasonable Royalty Determinations

Before assessing the potential usefulness of settlement licenses in reasonable royalty determinations, it is useful to understand how non-settlement licenses are used in such determinations.

As discussed above, a primary framework used to determine reasonable royalties is the "hypothetical negotiation approach." Under this approach, the terms of a hypothetical license—particularly the reasonable royalty—are determined based on an evaluation of what would have resulted from a hypothetical arm's-length negotiation between a willing patent owner and a willing potential licensee of the patented invention.⁹⁷ One of the common tools used to predict the outcome of such a hypothetical negotiation is the "Comparables Method"98 or "Market Approach." Under this approach, the fact-finder, typically aided by experts, seeks to identify licenses that are comparable to the hypothetical license at issue and relies upon these licenses to estimate the terms of a hypothetical license that would adequately compensate the patent holder for the unauthorized use of his or her patented technology. 100

As a general matter, comparable licenses can be extremely valuable in assessing not only the amount of compensation that the patent holder should receive for the infringement, but also the appropriate form of compensation whether a lump-sum payment, running royalty or both. 101 After all, comparable licenses provide an objective arm's-length market-based reference for the

See supra Part II.B.

See, e.g., Leonard & Stiroh, supra note 11, at 49–50 (explaining the "Comparables Method" and how it is applied for reasonable royalty determination).

See, e.g., GORDON V. SMITH & RUSSELL L. PARR, INTELLECTUAL PROPERTY: VALUATION, EXPLOITATION AND INFRINGEMENT DAMAGES 169-84 (2005) (explaining the "Market Approach" method and applying it to specific historical examples).

See Leonard & Stiroh, supra note 11, at 49–50 (discussing the Comparables Method); SMITH & PARR, supra note 99, at 173-75 (discussing the considerations in determining comparability). For example, in real estate, home prices are often based on information derived from other recent home sales. If the four homes sold for \$500,000 in the past year are comparable to my home, then it is reasonable to assume that my home should be priced at roughly \$500,000. Some adjustments may be required depending on the characteristics of my home compared to the other sold houses or changes in market conditions that have occurred during the relevant period.

See Leonard & Stiroh, supra note 11, at 49-50 (discussing the need for a quality comparable); SMITH & PARR, supra note 99, at 173-75 (discussing considerations that may affect comparability of intellectual property).

amount and form of compensation for access to the technology in question.¹⁰² Of course, the more comparable the transactions are to the transaction under consideration, the more helpful the information is for assessing a reasonable royalty.

Potential comparable licenses or transactions can differ from the hypothetical license in many ways, including: the parties to the transaction, the time of the transaction, the existing and projected market conditions, the nature of the IP or asset transferred, the scope of the license, the strength of the IP or asset transferred, the costs of design-around and the relative bargaining strength of the parties.¹⁰³ Given the number of different variables for any given pair of transactions, it is virtually impossible to find two identical transactions.

Fortunately, for the purposes of applying the Comparables Method and determining a reasonable royalty, identical transactions are not required.¹⁰⁴ The method simply requires comparable licenses and relies upon the expert and fact-finder to adjust the terms of the comparable licenses to account for the differences between the observed license and the hypothetical license.¹⁰⁵

In the context of patent licenses, several differences between comparable licenses and the hypothetical license are particularly noteworthy. In many cases, an important difference between the hypothetical license and the comparable licenses considered is the technology covered by the licenses. ¹⁰⁶ The comparable licenses used to determine the reasonable royalty often involve technologies and applications that are similar, but not identical, to the technology and applications at issue in the patent infringement proceeding. ¹⁰⁷ In this regard, one inherent challenge in applying the Comparables Method is identifying a set of licenses that involve technologies and applications that are sufficiently similar to the hypothetical license to provide meaningful guidance in determining the reasonable royalty. ¹⁰⁸

Another common difference between the comparable licenses and the hypothetical license is that the hypothetical license is assumed to be a "naked" license; that is, a license to the patent without any rights to know-how or other complementary intellectual property. Comparable licenses, however, often pro-

¹⁰⁵ See SMITH & PARR, supra note 99, at 367–74.

Leonard & Stiroh, supra note 11, at 49–50.

See id. at 52–64 (discussing various considerations that affect the negotiation of licenses).

¹⁰⁴ *Id.* at 49–50.

See id. at 173–75 ("Even within the same industry, intellectual properties may not be influenced to the same degree by emerging technology.").

¹⁰⁷ See id. at 367–74.

¹⁰⁸ See id.

vide the licensee with rights or access to assets beyond the naked right to practice the patent-at-issue. ¹⁰⁹ This difference tends to make the royalty rates under the comparable licenses greater than the expected royalty rates for the hypothetical license.

Another common difference is that the hypothetical license is assumed to be negotiated in a setting where both parties know with certainty that the patent-at-issue is valid, enforceable and infringed, while comparable licenses are normally negotiated against a backdrop of some uncertainty regarding the validity and enforceability of the patent-at-issue, and uncertainty as to infringement by the potential licensee. This uncertainty tends to put downward pressure on the royalty rates set in the comparable licenses, thus making the royalty rates under comparable licenses lower than the royalty rates expected for the hypothetical license.

A fourth important difference between a comparable license and a hypothetical license is the timing of the negotiation. Hypothetical licenses are assumed to be negotiated at the time of the first infringement by the accused infringer. Comparable licenses, however, could have been negotiated before, after or contemporaneously with this hypothetical negotiation. This difference in timing can have an impact on the outcome of the relevant negotiations, particularly when market conditions change. For example, changes in demand or new technological developments could affect the alleged infringer's willingness and ability to enter into a license agreement or the patent holder's incentives to license rights to the patent. In particular, the passage of time may alter the options and alternatives available to the licensee in ways that affect each party's bargaining position. For example, newly available design-around options will substantially reduce the alleged infringer's willingness to enter into a license agreement.

Given the many potential differences between the hypothetical license and comparable licenses, using the Comparables Method in a reasonable royalty analysis involves carefully comparing the circumstances surrounding comparable licenses with those surrounding the hypothetical license. The expert and

See Edward F. Sherry & David J. Teece, Royalties, Evolving Patent Rights, and the Value of Innovation, 33 Res. Pol'y 179, 179–91 (2004) (discussing the various considerations used to determine the value of a patent).

⁰⁹ See Russell Parr, Intellectual Property Infringement Damages 194–95 (1993).

See id. at 184–85 (providing a numerical example demonstrating the reason royalty rates are lower for a comparables license than for a hypothetical license).

See Wang Labs., Inc. v. Toshiba Corp., 993 F.2d 858, 870 (Fed. Cir. 1993) (citing Fromson v. Western Litho Plate & Supply Co., 853 F.2d 1568, 1574 (Fed. Cir. 1988) (noting that hypothetical negotiations occurred when the infringement started)).

fact-finder examine the totality of the evidence concerning the comparable licenses and determine a reasonable royalty that reflects not only the terms of the licenses considered, but also the key differences that require adjusting the rates reflected in the comparable licenses.¹¹³ In patent cases, the results of these assessments and adjustments are routinely accepted as a proper basis for reasonable royalty determinations.

B. Comparison of Settlement and Non-Settlement Licenses

If reliance on non-settlement licenses is well-accepted and non-controversial for determining a reasonable royalty, a natural question is whether the differences between settlement and non-settlement licenses are sufficient to justify excluding settlement licenses when determining a reasonable royalty. This section examines that question in three steps. First, the ambiguity in the labels "settlement license" and "non-settlement license" is considered. In the second step, key similarities between settlement licenses and non-settlement licenses are highlighted. In the third step, key differences between settlement licenses and non-settlement licenses are considered, along with the impact of those differences on the consideration of settlement licenses in reasonable royalty analyses.

1. Ambiguity of Labels

In comparing settlement and non-settlement licenses, it is important to recognize that the dichotomy implied by the labels "settlement license" and "non-settlement license" is deceptive. These labels suggest that all licenses can be divided into two, mutually exclusive and objectively determined categories. In reality, these labels, particularly in the context of patent infringement litigation, merely identify points on a spectrum of license characteristics that reflect varying degrees of awareness of and concern about the potential for litigation between the parties involved.

Attempts by some courts to establish rules that would provide a clear dividing line between settlement and non-settlement situations reveal the artificial distinction between settlement and non-settlement licenses. One of the key challenges is distinguishing normal business communications, which can give

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¹¹³ See Golight, Inc. v. Wal-Mart Stores, Inc., 216 F. Supp. 2d 1175, 1182 (D. Colo. 2002) ("Rather than merely accepting the royalty figures advanced by the litigants, the Court must make its determination of a reasonable royalty based on the entirety of the evidence, and is not restricted to any particular figure.").

rise to admissible "non-settlement" licenses, from settlement negotiations, which cannot. For example, in *Big O Tire Dealers, Inc. v. Goodyear Tire & Rubber Co.*, 114 the Tenth Circuit admitted evidence pertaining to early discussions between the parties on the following grounds:

Since Rule 408 applies only to compromise negotiations, the district court's ruling that the communications were "simply business communications" is sustainable. A careful perusal of all the testimony relating to the communications convinces us that the court did not commit manifest error in ruling they were business communications and not compromise negotiations. The discussions had not crystallized to the point of threatened litigation, a clear cut-off point, until after October 10, the date of the conversations between Big O's president and Goodyear's executive vice-president. 115

Such reasoning makes it appear that a license negotiated before a specific threat of litigation could be considered in determining a reasonable royalty, while a license negotiated after such a threat could not.¹¹⁶

To some extent, a reasonable royalty determination may rest entirely on the language used to communicate a willingness or intent to license to the patent holder. For example, Attorney Craig Rogers described the following approaches that might be used in preliminary communications between a patent holder and a potential licensee:

There are three basic approaches or tones your attorney can take in your notification letters, depending on your competitive stance.

- Soft approach. In its mildest form, a notification letter will simply inform your competitor that you have received a patent relating to a particular technology and invite them to contact you if they are interested in licensing.
- *Medium approach*. Under a more direct approach, notification might inform your competitor that you have received a patent relating to a specific technology, identify their potentially affected products and ask them to contact you to discuss licensing opportunities.
- Heavy approach. Under the most direct approach, the notification would inform your competitor of your patent, identify their affected products as "infringing," and demand that they immediately stop making and selling those products. Before you send such a letter, you must be certain that their product truly infringes on your patented technology and should therefore obtain an opinion letter from your patent counsel.

Craig Rogers, Leveraging Your Patented Invention, SOFTWARE ASS'N OF OREGON NEWSLETTER, November 2005, http://www.sao.org/Resource_Center/newsletter_articles/200511/200511_craig_rogers_legal.php (last visited Apr. 13, 2009). From the standards described above, licenses within the "Soft Approach" category are likely to be admissible, while any licenses negotiated under the "Heavy Approach" would not. Assuming that the negotiation circumstances are comparable, there seems to be no logical basis

¹¹⁴ 561 F.2d 1365 (10th Cir. 1977).

¹¹⁵ *Id.* at 1373.

In deciding whether a particular license should be considered in determining a reasonable royalty, *any* clear dividing line drawn between settlement and non-settlement licenses is likely to be problematic for at least two reasons. First, any such line is arbitrary, at best. It is important to remember that the potential for litigation does not, in most cases, magically appear the moment a threat of litigation is first articulated. Rather, in virtually all disputes, the parties are aware that litigation is a possibility if no resolution can be achieved—and the perceived likelihood of litigation increases the longer the dispute persists without resolution. Under these circumstances, the mere articulation of a threat of litigation would not create a sudden change in the parties' negotiating environment to justify different treatment of agreements made after such a threat was articulated.

In the context of patent litigation, the arbitrary distinction between settlement and non-settlement licenses is particularly problematic because a "threat of potential litigation" is inherent in virtually any communication that involves patent licensing.¹¹⁷

By definition, a patent grants its holder a legally-enforceable right to exclude others from practicing the claims of the patent. Inherent in this right is the potential for litigation whenever the patent holder offers a license to a party who may be practicing—or wants to practice—the invention embodied within claims of a patent. Thus, the mere failure to take a license exposes the unauthorized practicing party to potential litigation. In effect, the initiation of a conversation by a patent holder with a potential or unauthorized user merely suggesting that the user should consider taking a license carries an implicit threat of potential litigation in the event that a license cannot be negotiated. The possibility of litigation provides the patent holder and the user with the incentive to discuss licensing in the first place.¹¹⁸

The terms "settlement" and "non-settlement" licenses do not therefore define two distinct categories of licenses. Rather, these terms represent different points on a spectrum of circumstances where a license is taken. At one end of the spectrum are "non-settlement" licenses negotiated under conditions where

for treating the resulting licenses differently because of the tone used in the opening communication

See Joseph Farrell & Carl Shapiro, How Strong Are Weak Patents?, 98 Am. Econ. Rev. 1347, 1347 (2008) ("[A] patent holder cannot exclude its rivals or extract royalties without at least threatening to go to court.").

The patent holder's ability to enforce the patent provides the patent holder with some hope of recovering compensation for unauthorized use of the patented technology. On the other hand, the potential for litigation and court-ordered compensation encourages the alleged infringer to take a license and eliminate potential liability for patent infringement. *See id*.

each party is aware of the possibility of litigation, but the chances of litigation are remote. At the other end of the spectrum are clear "settlement" licenses negotiated after a lawsuit has been initiated. In between these points are licenses negotiated under circumstances where the perceived likelihood of litigation is unclear and which reasonable minds could differ on the category of the agreement.¹¹⁹

2. Similarities Between Settlement and Non-Settlement License

Even when operating under the assumption that settlement and non-settlement licenses *can* be reasonably distinguished, both kinds of license have a great deal in common, particularly with regard to the decision-making processes involved in negotiating such licenses.

Both settlement and non-settlement licenses similarly arise from arm's-length negotiations in which each party independently decides whether entering into the license is in its best interest. In this regard, a prerequisite for any licensing agreement is the existence of a mutually-beneficial trade. Mutually-beneficial trade arises when the maximum amount that the potential licensee is willing to pay for access to the relevant intellectual property exceeds the minimum amount that the patent holder is willing to accept for granting a license. The difference between these numbers is a trade surplus that results from an agreement. If a license agreement can create a trade surplus, both parties have a mutual interest in reaching an agreement. Even in cases where a surplus exists, however, the parties still maintain opposing interests in allocating the trade surplus, with each party hoping to obtain the maximum amount of the pos-

In view of the court's holding in *Studiengesellschaft Kohle*, another middle ground between a settlement and non-settlement license is a license negotiated after litigation has begun, but before all disputed issues have been resolved. *See* Studiengesellschaft Kohle m.b.H. v. Dart Indus., Inc., 666 F. Supp 674, 682 (D. Del. 1987) (noting that the settlement occurred after the Fifth Circuit reversed the district court's ruling of no infringement).

For example, a potential seller is willing to sell her used car for a minimum value of \$10,000 and a potential buyer is willing to pay up to \$15,000 for the car. If the parties agree to a price of \$10,000, the buyer would enjoy a surplus of \$5,000 because he paid \$10,000 to obtain a car that he valued at \$15,000. Alternatively, if the agreed-upon price were \$15,000, the seller would receive a surplus of \$5,000 because she received \$15,000 for a car she valued at \$10,000. Finally, if the final sale price were \$12,500, the buyer and seller would both enjoy a surplus of \$2,500.

¹²¹ See Abhinay Muthoo, A Non-Technical Introduction to Bargaining Theory, WORLD ECON., Apr.—Jun. 2000, at 146.

sible surplus.¹²² Thus, the negotiating process determines how the parties will divide the benefits of an agreement—or whether an agreement can be reached at all.

Regardless of whether a licensing negotiation involves a settlement or a non-settlement license, several considerations influence the outcome of the negotiation, including the allocation of the trade surplus between the parties.¹²³ These considerations include:

- Best Alternative to a Negotiation Agreement ("BATNA"): Neither party is likely to enter into an agreement that provides fewer benefits than the party could obtain by refusing to enter into the agreement.¹²⁴ A more attractive BATNA will increase a party's bargaining power and increase the share of any trade surplus that the party can obtain in the final agreement.¹²⁵
- *Risk Preferences*: As a general matter, "a player's share of the net surplus is smaller the more averse to risk she is relative to the other negotiator," because the more risk-averse party is willing to make concessions to the other party in order to achieve the certainty afforded by an agreement.
- *Impatience*: ¹²⁷ A more patient negotiator generally has greater bargaining power (and therefore, can command a greater share of the trade surplus generated by an agreement). ¹²⁸

See id. at 145 (providing an introduction to the economics behind bargaining theory).

In a bargaining context, "impatience" manifests as a willingness to forego some pay-off in the long run in exchange for a quick resolution to the disagreement. It is often driven by differences in the resources of the negotiating powers (e.g., negotiators with deep pockets can "wait out" cash-strapped opponents whose ability to bear the costs of delayed compensation is more constrained) or asymmetries in the consequences of delay (e.g., if on-going litigation prevents the launch of a new product with potential first mover advantages, the value of the product at issue could be permanently affected by delay).

¹²² Id

For example, consider a patent that enables its users to reduce production costs by \$10 a unit, which is the trade surplus that would be generated by a licensing agreement. If the potential licensee for this patent also has the option to license a comparable patent (*i.e.*, a patent that provides the same cost savings) at a price of \$8 per unit, then the maximum amount that the potential licensee will pay for a license to use the patent-at-issue is \$8 per unit.

¹²⁵ See Muthoo, supra note 121, at 154–57.

¹²⁶ *Id.* at 154.

See Muthoo, supra note 121, at 151.

- Asymmetric Information: As a general matter, knowledge advantages confer bargaining advantages. In a patent infringement context, the patent holder often has a better understanding of issues such as the strength and scope of the patent, while the potential licensee often has a better understanding of available alternatives to practicing the patent, as well as the importance of the patent to its overall value proposition.
- *Bargaining Skills*: The bargaining skills of the parties can significantly influence the outcome of a licensing negotiation.

To a large degree, these factors—which can determine the outcome of a negotiated license—are closely related to basic characteristics or circumstances of the negotiating parties, and they apply equally regardless of whether the negotiation is classified as settlement or non-settlement. For example, the parties' relative risk preferences and degree of impatience are likely to depend on the characteristics of the decision-makers in each organization and the importance of the patent-at-issue to each party, rather than on whether litigation has been threatened or initiated in a particular dispute. Similarly, the extent of information asymmetries between the parties does not necessarily depend on whether litigation has been threatened or initiated (although, as discussed below, the process of litigation can reduce information asymmetries in many cases).

In short, many of the same considerations shape the terms of both settlement licenses and non-settlement licenses. The most important among these considerations is the basic requirement of economic rationality—regardless of whether a license arises from settlement, the terms must satisfy each party's belief that entering into the license is in its own best interests.

3. Key Differences Between Settlement and Non-Settlement Licenses

Although the decision-making processes, negotiation practices and tactics are fundamentally similar between settlement and non-settlement license negotiations, the anticipation and initiation of litigation between the negotiating parties can change the circumstances surrounding the negotiation in ways that can affect the outcome of the negotiation. This, in turn, affects the information provided by the negotiated settlement license to a future reasonable royalty determination.

¹²⁹ See id. at 165.

Because litigation-related concerns change negotiating conditions, they can affect the terms of a settlement license in a number of ways that do not affect non-settlement licenses, including: (1) introducing litigation-related expenses into the parties' decision-making, ¹³⁰ (2) altering expectations regarding the consequences of a failed negotiation and (3) changing the parties' understanding of the facts underlying the dispute—for example by reducing information asymmetries through discovery and reducing uncertainty as the court issues decisions on key issues, such as claim interpretation during the course of litigation. ¹³² The impact of each of these concerns on whether settlement licenses can provide useful guidance for a reasonable royalty determination is discussed in more detail below.

a. Litigation Expenses

Patent infringement litigation can be expensive. The median cost of a patent infringement suit with less than \$1 million at stake is estimated to be \$350,000 through discovery, with an estimated total cost of \$600,000 through the end of trial. In cases with more than \$25 million at risk, median litigation costs are \$3 million through discovery and \$5 million through the end of trial. These potentially high expenses are a strong incentive for both parties to resolve their dispute through some form of negotiated agreement. These economic incentives largely explain why the vast majority of filed patent cases are resolved without going to trial.

Although litigation expenses clearly incentivize the parties to settle their dispute, an equally important issue is whether the terms of the resulting settlement license are necessarily biased or distorted in a way that might render them inherently unreliable in a reasonable royalty determination.

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See infra Part IV.B.3.a. Some awareness of the avoidance of potential litigation expenses is also likely to be reflected in most non-settlement licenses. See supra Part IV.B.1.

See infra Part IV.B.3.b.

See infra Part IV.B.3.c.

¹³³ AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION LAW PRACTICE MANAGEMENT COMMITTEE, AIPLA REPORT OF THE ECONOMIC SURVEY I-90 (2007).

¹³⁴ *Id.* at I-91

See WILLIAM O. KERR, CHRISTOPHER P. LOZA & MICHELE M. RILEY, PATENT INFRINGEMENT DAMAGES 30–31 (IPRA, Inc. 2004). This report indicates that between 1990 and 2003, 63.1% of patent cases settled, 14.4% were decided by a judge or jury and 22.5% were dismissed or resolved in some other manner. *Id.* The authors noted that the proportion of cases settled rose during this period while the proportion of cases that decided by a judge or jury declined. *Id.*

Litigation expenses can affect bargaining outcomes in a number of ways. As an initial matter, "the costs of litigation may push the settlement amount well above or well below the value of the expected judgment." For example, assume that the parties agree that the expected judgment in a particular case is \$1 million and that each party faces litigation costs of \$100,000. Ignoring litigation costs, the expected settlement payment under such circumstances would be \$1 million. When litigation expenses are considered, the minimum settlement amount that the patent holder would accept would be \$900,000 (\$1 million less \$100,000 in avoided litigation expenses), and the maximum settlement amount that the defendant would pay would be \$1,100,000 (\$1 million plus \$100,000 in avoided litigation expenses). Under these circumstances, the settlement agreement could be reached at any point between \$900,000 and \$1,100,000, with the allocation of this trade surplus determined by the bargaining skills and leverage of each party.

Generally, if the negotiating parties face symmetric litigation expenses and possess the same bargaining skills, the introduction of litigation costs will make the outcome of the bargaining process less certain, but the introduction of symmetric litigation costs will not bias the expected outcome relative to settlements where litigation costs are absent. If, however, litigation expenses are asymmetric, then such expenses will tend to alter the expected outcome of settlement negotiations. In this regard, litigation expenses can be asymmetric in at least three ways.

First, litigation expenses can be asymmetric in *magnitude*, if one party faces higher expected costs than the other. All other considerations being equal, the party facing higher litigation expenses will have a greater incentive to negotiate a settlement. The party facing higher litigation expenses is likely to garner a smaller portion of the benefits generated by the settlement. Thus, the extent of the impact on the agreed-upon settlement terms depends on the degree of difference between the parties' expenses.

In patent litigation, there may be significant differences in the magnitude of litigation expenses incurred by the patent holder and the party accused of infringement. These expense differences are likely to arise during the discovery process, where the amount of effort required by the litigating parties may be very different. For example, in a case where a small non-manufacturing patent

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Hay & Spier, *supra* note 67, at 445.

See id. ("[C]ases will generally settle for an amount roughly equal to the expected judgment at trial.").

See id. ("[T]he costs of litigation may push the settlement amount well above or well below the value of the expected judgment.").

holder asserts an infringement claim against a large company, the discovery-related expenses of the alleged infringer are likely to be higher. Specifically, the large company may have a substantial information-gathering challenge during the discovery process. The substantial costs of producing information for discovery are an additional incentive for the alleged infringer to settle the dispute. This incentive to settle tends to bias the settlement terms in favor of the patent holder

A second asymmetry related to litigation expenses that may impact the outcome of a licensing negotiation is the extent of the *burden* that litigation expenses impose on the negotiating parties. This asymmetry focuses not on the absolute magnitude of the litigation expenses, but rather on the magnitude of the litigation expenses relative to each party's available resources to meet those expenses. For example, in the previous example where the small non-manufacturing patent holder is suing a large company for patent infringement, \$500,000 in litigation expenses could be catastrophic for the patent holder, while \$2 million could be a relatively minor expense for the large company. Under these circumstances, the asymmetric burdens imposed by litigation expenses could bias the outcome of the negotiations in favor of the alleged infringer.

A third asymmetry in litigation expenses that may impact the outcome of a licensing negotiation is the *timing* of litigation expenses. Although the expected total litigation expenses in a particular litigation may be roughly the same for both parties, the timing of those expenses is usually asynchronous, particularly in the early stages of litigation. For example, in a typical case the patent holder bears an initial expense identifying and researching its patent infringement and damages claims. During this phase of the case, the alleged infringer does not incur litigation expenses. However, after the case is filed, the alleged infringer is likely to face substantial litigation expenses during the discovery process, as it compiles the information necessary to respond to the patent holder's allegations. As the case progresses, the parties' litigation expenses may fluctuate on an alternating basis. A spike in the patent holder's litigation expenses when its expert reports are due may be followed by a spike in the alleged infringer's expenses as it responds to the patent holder's experts.¹³⁹

This pattern of expenses can affect the terms of the expected settlement. For example, if a settlement will enable one party to avoid imminent and substantial expenses, that party will have a greater incentive to enter into a settle-

However, the extent of such fluctuation should not be overstated because, in most cases, the work on expert reports for the opposing parties begins well before the due dates of the expert reports.

ment before incurring the expenses. This greater incentive to settle results in less favorable settlement terms for the party facing the imminent expenses. As the case progresses further, the payment of expenses steadily reduces both parties' incentives to settle as anticipated costs are progressively transformed to sunk costs. As noted above, over half of the expected costs of a patent litigation suit are expended during the discovery process. Accordingly, as each party discharges its discovery obligations, the incentives provided by avoiding litigation expenses decline, thus minimizing the effects of such expenses on the terms of a final settlement.

In light of the foregoing, the mere fact that the terms of a settlement license may be influenced in part by a desire to avoid litigation expenses does not mean that settlement license terms are inherently biased or unreliable for the purpose of determining a reasonable royalty. The effect of litigation costs on the terms of the settlement license can be examined, considered and weighed in the reasonable royalty analysis to determine the extent to which the terms of the settlement license provide useful guidance for determining an amount of compensation that will adequately compensate the patent holder for infringement. For example, a settlement agreement between an accused infringer and a patent holder in which the accused infringer pays \$10 million (i.e., an amount well above expected litigation costs) to the patent holder for a license to practice the patent-at-issue is likely to provide useful guidance as to the amount adequate to compensate the patent holder for the unauthorized use of the patent, even though the avoidance of litigation costs may have influenced the final terms of agreement to some degree. Similarly, a settlement agreement for \$50,000—less than the expected costs of litigation—is likely to provide valuable information about the value of the underlying infringement claim. In the latter case, a reasonable inference that the value of the claim is less than the expected costs of litigation can be drawn, unless some other rationale is provided to explain the patent holder's willingness to accept such a settlement. 141

Economic experts use a similar approach when applying a Market Approach or Comparables Method to analyze non-settlement licenses to ascertain

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¹⁴⁰ See AIPLA, supra note 133, at I-90 (noting that an average of \$350,000 for litigation expenses are expended through discovery and an average of \$600,000 for total expenses are expended through the end of trial).

See supra Part IV.B.3.a.

Other rationale could include, for example, the patent holder's lack of resources to pursue litigation, significant uncertainty in establishing liability, or strategic licensing considerations (such as a desire to gain a licensing foothold to support a broader licensing program or a reluctance to adopt an aggressive licensing stance against a key customer).

the terms of a hypothetical license. There is no reason that this expertise cannot be applied with comparable confidence and reliability to settlement licenses.

b. Expected Outcome of Litigation

The initiation of litigation tends to reframe the parties' perceptions of important aspects of the dispute. Before litigation begins, business considerations are likely to drive patent licensing negotiations. The patent holder seeks to maximize its expected licensing revenues while the accused infringer seeks to gain rights to practice the contested intellectual property at the lowest possible cost. During this phase of negotiations, the parties may not have a common understanding of the issues to be resolved, such as the specific scope of the intellectual property at issue or the extent of the accused infringer's use of the intellectual property.

When a patent infringement suit is filed, the parties begin to define the boundaries of the dispute. For example, the patent holder must specify the scope of the patents at issue, as well as the specific infringing products or activities involved in the dispute. Further, the initiation of a patent infringement suit clarifies the consequences of non-agreement between the parties. If the parties cannot reach an agreement, the court will resolve the conflict. Thus, the initiation of litigation creates a new "alternative to a negotiated agreement"—a court-determined and enforced outcome—that did not exist prior to the start of litigation.

This new "alternative to a negotiated agreement" becomes a new reference for the negotiating parties. Each party considers the expected outcome of the litigation in deciding whether to settle. In this context, the expected outcome of the litigation depends on (1) the expectation that the patent holder successfully establishes patent validity, enforceability and infringement and (2) the estimated damages award if liability is established. Simply put, each party determines its expected damages by multiplying the probability of the patent holder's success by the expected damages if the patent holder prevails. A successful settlement agreement will provide each party with benefits at least as

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The jurisdiction where the complaint was filed may have an impact on the parties' assessment of the expected outcome of the dispute. Specifically, the case may be filed in a jurisdiction in which a particular party may be perceived to enjoy an advantage.

¹⁴³ Hay & Spier, *supra* note 67, at 442.

For example, if the patent holder believes that it has a 50 percent chance of success and expects a damages award of \$1 million, the expected damages for the patent holder is \$500,000. The alleged infringer's expectations could change with regard to the likelihood of successful litigation, the amount of the expected damages award, or both.

large as each party would expect from a court decision. Such cases will generally settle for an amount roughly equal to the expected judgment at trial.

The observation that an expected outcome in litigation can influence the parties' negotiating positions does not necessarily mean that the outcome of such negotiations are unable to provide useful guidance in determining a reasonable royalty. Two considerations suggest that there is valuable information contained in settlement licenses that often make such licenses useful for reasonable royalty determinations.

First, in patent litigation, the purpose of determining damages is to fairly compensate the patent holder for unauthorized use of the patent-at-issue.¹⁴⁷ Because the parties expect this result, a settlement agreement that corresponds to an expected damages award provides useful insight into an appropriate reasonable royalty for a comparable technology. For example, if both parties expect the patent holder to win an award of \$1 million in compensatory damages for past infringement, then the expected settlement amount should be about \$1 million. In this example, the \$1 million settlement amount represents a useful reference to determine a reasonable royalty for infringement of a patent covering comparable technology. However, the \$1 million does not necessarily represent the market value for rights to the patent because the \$1 million also reflects other considerations: the likelihood that the patent holder will prevail in the proceeding, the desire to avoid litigation costs incurred before a court could render judgment and other case-specific considerations such as the amount of sales and extent of use of the disputed technology. Nevertheless, the \$1 million settlement can inform a subsequent reasonable royalty analysis by identifying the appropriate magnitude of the reasonable royalty, particularly when the other considerations are considered.

A second reason that many settlement licenses can provide useful information for reasonable royalty determinations is that the forward-looking portions of many settlement licenses are very similar to non-settlement licenses. Both non-settlement and forward-looking settlement licenses usually provide licensees with rights to the patent at issue for the remaining life of the patent. Granting future rights to make, use and sell the patented product or process is

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The relevant benefits should consider the costs associated with ongoing litigation, including direct litigation expenses and the costs of delaying the resolution of the matter.

See Hay & Spier, supra note 67, at 445. One of the obstacles to settlement is that the parties may not share the same assumptions or beliefs regarding the expected outcome of the litigation. See id. at 443–45.

¹⁴⁷ 35 U.S.C. § 284 (2006).

generally beyond the scope of remedies imposed by a court.¹⁴⁸ When negotiating these licenses, the patent holder must conclude that the payments by the new licensee are adequate compensation for the rights granted by the license, and the new licensee must conclude that the terms of the license agreement allow the licensee to profit. Because of these similarities between forward-looking settlement licenses and non-settlement licenses, forward-looking settlement licenses provide valuable insight in determining a reasonable royalty.

c. Developments Within The Litigation Process

A third difference between settlement and non-settlement licenses is the information available to the parties. As a general matter, the litigation process facilitates the exchange of information between the parties and provides an opportunity for judicial resolution of the parties' legal disputes. The litigation process thereby enhances each party's ability to make informed licensing decisions. These better-informed licensing decisions allow settlement licenses to provide insightful information concerning an appropriate reasonable royalty.

One of the primary differences between non-settlement licenses used in a Comparables Method analysis and hypothetical licenses used in a reasonable royalty analysis is the assumption that the parties in these hypothetical licenses know that the patent-at-issue is valid, enforceable and infringed. On the other hand, non-settlement licenses are negotiated with uncertainty regarding key issues, such as patent validity, enforceability and infringement. These uncertainties tend to result in non-settlement licenses with royalties that are generally less than those expected in a hypothetical negotiation.

The degree of uncertainty—and therefore, the downward bias in estimating the terms of the hypothetical license—is likely to be lower with settle-

Generally, court-determined remedies compensate the patent-holder for past infringement; they generally do not compensate for ongoing, future use of the patent-at-issue. Instead, in most patent infringement cases, the court-determined prospective relief is a permanent injunction that prohibits future infringement. Thus, any prospective licensing terms in the settlement license are less likely to be affected by the expected outcome of the litigation. However, the Supreme Court's decision in *eBay*, *Inc. v. MercExchange*, *L.L.C.*, 547 U.S. 388 (2006) has expanded the number of cases in which a permanent injunction might not be granted. *See generally* Doug Ellis, John Jarosz, Michael Chapman & L. Scott Oliver, *The Economic Implications (and Uncertainties) of Obtaining Permanent Injunction Relief After* eBay v. MercExchange, 17 FED. CIR. B.J. 437 (2008). When an injunction is not sought or not likely to be granted, forward-looking settlement license terms may reflect the parties' expectations concerning the likely form of future relief that might be granted by the court.

See Janicke, *supra* note 30, at 722–24.

¹⁵⁰ Sherry & Teece, *supra* note 110, at 184–85.

ment licenses than non-settlement licenses because the litigation process reduces and eliminates both factual and legal uncertainties present in non-settlement licenses.

From a factual perspective, the discovery process facilitates information-sharing that enables the parties to create a common pool of facts and understandings regarding key aspects of the dispute between them. However, in a non-settlement negotiation, each party is likely to have a substantial amount of private information that it does not share with the opposing party. For the patent holder, such private information may include details of the patenting process, which may affect the opposing party's assessment of the patent's validity or enforceability. The alleged infringer or potential licensee may have private information regarding the alleged infringer's design-around options, its ability to pay for access to the patent-at-issue and intimate knowledge of the inner workings of its product that would affect the likelihood that the product infringes the patent-at-issue. Thus, the outcome of the licensing negotiation is likely to be shaped, in part, by each party's ability to leverage its own private information and manage the other party's perceptions of the private information—a patent holder may exaggerate the strength of the patent-at-issue and the alleged infringer may downplay the extent to which its product practices the patent-atissue.

During litigation, the scope of each party's private information is likely to shrink, as the discovery process forces each party to share critical information with the other party. As information becomes available to both parties, the parties will begin to operate from a common set of facts and understandings. ¹⁵¹ This common set of facts and understandings permits a settlement license negotiated using this information to reflect a more accurate assessment of the value of the patent-at-issue. ¹⁵²

A substantial number of cases settle "on the courthouse steps" because at that time the parties have had a chance to exchange a substantial amount of information, including each party's litigating positions. *See* Hay & Spier, *supra* note 67, at 444.

see Hynix Semiconductor Inc. v. Rambus Inc., No. CV-00-20905 RMW, 2006 WL 1991760, at *2 (N.D. Cal. July 14, 2006) (noting that reducing the uncertainty during settlement negotiations provides useful guidance in a reasonable royalty determination). The court observed that Rambus had granted a number of non-settlement licenses, prior to the initiation of patent litigation, at rates ranging from 0.75% for SDRAM products to 3.5% for DDR products. *Id.* Further, Rambus had granted one settlement license after initiation of patent litigation that set rates at 1% for SDRAM products to 4.25% for DDR products. *Id.* The court interpreted the increase in royalty rates after initiation of the patent suit as evidence of "the removal of some of the uncertainty about infringement or invalidity of the Rambus patents [which] may justify a similar higher rate." *Id.*

In addition to the *factual* clarity provided by the litigation process, the litigation process also provides the parties with important *legal* information that contributes to the parties' assessments of the value of the patents at issue and permits settlement licenses to better reflect the terms of a hypothetical license than a non-settlement license. For example, consider a non-settlement license negotiated under conditions in which the parties are uncertain about the legal strength of the patent. Under such conditions, the agreed-upon royalty rate is generally lower than if the parties knew that the patent was valid, enforceable and infringed—each side would discount the agreed-upon royalty to reflect the chance that the patent would not hold up under legal scrutiny.¹⁵³ In addition, at the time of the non-settlement license negotiation, the scope of the patent-atissue, which depends on detailed analyses of the language of the patent, may also be unclear. Uncertainties about the validity, enforceability and scope of the patent can affect the outcome of a negotiation in numerous ways—particularly because neither party may fully understand exactly which products infringe the patent, or how easily the patent can be drafted around. As litigation progresses, legal uncertainties are gradually resolved by the court. For example, in patent disputes, the trial court will often issue a Markman ruling relatively early in a case. The Markman ruling defines the boundaries of the patent by providing a clear explanation of the scope and meaning of each of the patent's asserted claims. 154 Armed with this construction of the claims, the parties can reappraise the patent-at-issue and more accurately assess a fair compensation for its use. Court resolution of legal uncertainties informs the parties' licensing negotiations and can result in a settlement license negotiated under conditions that strongly resemble the "hypothetical negotiation."

Some courts have recognized that settlement licenses can inform reasonable royalties. For example, in Studiengesellschaft the court ruled that a settlement license agreement negotiated in Zeigler v. Phillips¹⁵⁵ was "highly probative of a reasonable royalty."156 The settlement was negotiated after the patent-at-issue was found enforceable and infringed but before any final decision regarding damages or a permanent injunction has issued. The court articulated its reasoning: "The settlement in *Phillips* transpired after the Fifth Circuit had reversed the District Court's finding of no infringement. At the time of the

See Sherry & Teece, supra note 110, at 179–91.

See LAWRENCE M. SUNG, PATENT INFRINGEMENT REMEDIES 40–45 (BNA Books 2004).

⁴⁸³ F.2d 858 (5th Cir. 1973).

Studiengesellschaft Kohle m.b.H. v. Dart Indus., Inc., 666 F. Supp. 674, 682 (D. Del. 1987).

Phillips negotiations, then, Ziegler had the same strength that is ascribed to him in a hypothetical negotiation—an unquestionably valid patent."¹⁵⁷

In short, a settlement license negotiated sufficiently late in the litigation process may be negotiated under circumstances that closely approximate the conditions assumed for a hypothetical license—with little or no uncertainty regarding validity, enforceability and infringement. Such a settlement license may therefore be very useful in determining a reasonable royalty.

4. Summary of Comparison of Settlement and Non-Settlement Licenses

There are several general similarities and differences between settlement and non-settlement licenses. These similarities and differences are probative of whether settlement licenses can provide useful information that can be used in a "Comparables Method" or "Market Approach" analysis to assess reasonable royalty damages.

As an initial matter, both settlement and non-settlement licenses are based on arm's-length negotiations in which both parties seek to maximize their own interests. Consequently, absent evidence that the payoffs to each party are attributable to the existence of—or potential for—litigation, there is no reason to expect significant differences between the settlement license and non-settlement license.

The initiation or anticipation of litigation can alter the positions of the negotiating parties by: (1) introducing concerns about litigation expenses, (2) adding new alternatives to a negotiated outcome that can influence the parties' understanding of the consequences of a failed negotiation and (3) changing the factual and legal information available to the parties during litigation. These differences may have a meaningful impact on the terms of the negotiated license. Such impact depends on the specific circumstances of the licensing situation.

Even where the circumstances are likely to alter the terms of a settlement license relative to a non-settlement license, an expert or fact-finder can determine the extent to which the settlement license terms are influenced by the initiation or anticipation of litigation. By considering the settlement license terms and the circumstances leading to the settlement, an expert or fact-finder can appropriately adjust the settlement license terms for use in a reasonable royalty determination. Such adjustments are routinely made in reasonable royalty analyses that rely on non-settlement licenses. Thus, there is no reason to believe

¹⁵⁷ *Id*.

that experts would be unable to make such judgments with regard to settlement licenses.

In light of the foregoing, there does not appear to be a reasonable economic rationale for preemptively barring settlement licenses from consideration in reasonable royalty analyses. To a large extent, settlement and non-settlement licenses provide comparably useful information to the fact-finder in the assessment of fair compensation for the patent holder for infringement. The challenge facing the fact-finder relying on settlement or non-settlement licenses is separating useful information in such licenses from the less relevant elements in such licenses to properly determine a reasonable royalty.

V. CONCLUSION

Reasonable royalty determinations are an essential and nearly universal element of patent infringement cases. They represent the minimum compensation a patent holder should receive for the unauthorized use of its intellectual property. Fact-finders consequently enjoy substantial discretion in selecting, considering and weighing evidence used to determine reasonable royalties in patent infringement proceedings, so that patent holders can be adequately compensated for infringement. The central message of this article is that settlement licenses can be—and should be—considered along with all other available evidence in reasonable royalty determinations.

Many courts have barred evidence from settlement licenses from consideration. This prohibition is generally due to concerns about the admissibility of such evidence, the impact of the willingness of parties to settle disputes on the settlement terms and the reliability of such evidence in determining adequate compensation for injured patent holders.¹⁵⁸ These concerns are misplaced.

With regard to *admissibility* of settlement-related evidence, it is important to recognize that evidence used to inform a reasonable royalty analysis is not, strictly speaking, being used to prove the value of a particular claim. Thus, the restrictions imposed by Rule 408 of the Federal Rules of Evidence may not apply to such evidence. Moreover, even if such evidence were deemed inadmissible under Rule 408, experts assisting the fact-finder in determining a reasonable royalty are explicitly permitted by Rule 703 to consider inadmissible evidence in developing their opinions.¹⁵⁹ Thus, this evidentiary rationale for excluding evidence of settlement licenses from reasonable royalty determinations is not persuasive.

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See supra Part III.

See supra Part III.

Second, using settlement licenses in reasonable royalty determinations does not frustrate the public policy of encouraging the settlement of disputes. The mere possibility that a settlement license will be used to determine a reasonable royalty in a possible future patent infringement proceeding is likely to have a limited impact on either party's decision to settle. After all, the alleged infringer is likely to have a relatively small stake in the outcome of the later patent infringement proceeding, and the patent holder's interests in obtaining the best deal possible from a given settlement licensing negotiation is not likely to be significantly affected by the prospect of future litigation. Even if a particular settlement license negotiation results in a license that the patent holder would not want considered in a subsequent reasonable royalty analysis, the patent holder can freely argue that the terms of the settlement license should be given little weight in the subsequent analysis. This minimizes the potential adverse impact of settlement licenses that would otherwise make the patent holder reluctant to enter into the settlement agreement. Simply put, mere consideration of a given license does not imply substantial reliance on that license, so concerns about reliance on "bad" settlement licenses do not provide an adequate basis to arbitrarily and universally exclude all settlement licenses from consideration.

Finally, with regard to the *reliability* of evidence derived from settlement licenses for the purpose of assessing a reasonable royalty, there is no objective reason to believe that the quality of information provided by settlement licenses is inherently worse than information provided by non-settlement licenses, which are routinely used by experts and fact-finders to inform their reasonable royalty analyses. In fact, settlement and non-settlement licenses share a number of fundamental similarities; the most important similarity is that both types of license are the product of arm's-length negotiations between independent parties pursuing their best interests during negotiation. Accordingly, both kinds of licenses provide useful insight into how parties in a hypothetical negotiation would determine an adequate and fair level of compensation for infringement of the patent-at-issue.

Despite the potentially different impacts of the negotiating circumstances in settlement and non-settlement licenses, experts and fact-finders routinely make adjustments for such differences in reasonable royalty determinations. Thus, there is nothing sufficiently different or complicated about the settlement process that would prevent an expert or a fact-finder from considering settlement licenses in the determination of a reasonable royalty.