

# The Rule of Law Overrules the Rule of Thumb

Robert P. Schweih, ASA

*A popular rule of thumb often used by experts to establish a baseline royalty rate for a patent has been discredited by the courts in a recent patent infringement case. Those who previously relied on that rule of thumb should consider alternative approaches to arrive at a reasonable royalty rate. This discussion describes the rule of thumb and alternative approaches to measure economic damages in a patent infringement case.*

In certain types of patent infringement litigation, courts expect to hear evidence of what royalty rate would have been reached, hypothetically, if no infringement had occurred. Courts want to know because a recognized remedy that is available for patent infringement is an amount “in no event less than a reasonable royalty for use made of the invention by the infringer.”<sup>1</sup>

Reasonable royalties have become the predominant measure of damages awarded in patent infringement cases.<sup>2</sup> In the recent *Uniloc* decision,<sup>3</sup> the court ruled that, as a matter of Federal Circuit law, the 25% rule of thumb is a fundamentally flawed tool for determining a baseline royalty rate in such a hypothetical negotiation.

Analysts who value patents often are asked to analyze something similar to what the court wants to hear in certain patent infringement cases: the royalty rate that would have been reached between a hypothetical willing buyer and a hypothetical willing seller.

Valuation analysts are familiar with rules of thumb. This discussion explains the 25% rule of thumb, methods available for measuring the value of a patent, and alternative remedies available to measure economic damages from patent infringement when the 25% rule of thumb is not allowed.

## The 25% Rule of Thumb

The basic concept underlying this rule of thumb is that the hypothetical buyer (for purposes of this discussion, the “manufacturer”) and hypothetical seller (for purposes of this discussion, the “patent owner”) of the patent should share in the economic benefit generated by the

product that incorporates the patent. Essentially, the premise is that the parties agree to go into business together and to split the profits (in some percentage) that the business generates.

In some situations, the rule of thumb is also known as the “industry norm” having evolved from actual transactions. Rules of thumb, therefore, usually have as their foundation historical observations (which can no longer be specifically identified and analyzed) of the behavior of participants (i.e., a patent owner and a manufacturer) in actual transactions.

If the manufacturer offers to pay the patent owner 25% of the profits from the sale of the product that incorporates the patent (leaving 75% of the profit for the manufacturer) and the patent owner agrees, then the parties have followed the 25% rule. Of course, a profit split of 25% is not the same as a royalty rate of 25%.

While the parties may have agreed to the 25% rate for the profit split, royalty rates normally are not applied against a profit figure. They are typically applied against a revenue figure. If the projected revenue figure is \$100 and the fully allocated cost to produce the product is \$80, the resulting profit would be \$20 in this simple example. If the 25% rule is applied to that measure of profit, then the royalty would be \$5 (i.e., 25% “split” of the \$20 profit), which is 5% of revenue. In this simple example, the 25% rule of thumb generates a reasonable royalty rate of 5%. By agreeing to a 5% royalty rate based on revenue rather than 25% of profit, the patent owner does not have to be concerned about how the fully allocated cost to produce the product is measured on an ongoing basis by the manufacturer. When auditing the license agreement in the future, it is easier for the parties to agree on the magnitude of the revenue against which the agreed-upon royalty is charged than it is to agree on the magnitude of profit.

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Robert P. Schweih, ASA, is a managing director of Willamette Management Associates in the firm’s Chicago office, rpschweih@willamette.com. He has provided expert testimony in state and federal courts.

The economic benefit to which the 25% rule of thumb has usually been applied is the new profits generated by the product that incorporates the patent. The 25% rule can be applied in either a new profits context or a cost-savings context. In the previous example, the new revenue generated by the product incorporating the patent was \$100 and the expected profit was \$20. Instead, if the patent is expected to reduce the cost to produce the product by \$20 and the product is expected to generate revenue of \$100, then the 25% rule would suggest the same royalty rate of 5% of revenue.

The 25% rule of thumb is appealing because it appears to be a relatively simple arrangement. While simple in concept, a 25% rule of thumb may be hiding important details that differentiate the circumstances of a particular 25% negotiated transaction from the circumstances of the case in litigation.

### Rules of Thumb

In some situations, rules of thumb (or industry valuation formulas) are considered for purposes of arriving at the consideration to be paid to the patent owner when transferring or licensing ownership interests.

If a rule of thumb is widely disseminated and would commonly be referenced by market participants in a particular negotiation, then it probably should not be ignored by the valuation analyst.

To the extent the 25% rule of thumb is recognized in a particular industry as compensation for patented technology, it is likely that prior to commencing the negotiation both sides will have already privately applied this rate to make a preliminary calculation. If a widely recognized rule of thumb were ignored by the analyst, then the analyst's knowledge of the industry and of market participants might be questioned.

When a rule of thumb is recognized in a particular industry, it becomes a self-fulfilling indicator of value because it becomes the source for the rates found in guideline transactions. Guideline transactions are an important source of information to be considered by royalty rate analysts.

While rules of thumb offer ease of calculation, they obscure much important detail. They fail to differentiate either operating characteristics or assets from one company to another. They also fail to differentiate changes in conditions for companies operating from one time period to another.

When a valuation analysis includes a reference to a rule of thumb, the rule of thumb is usually cited as supporting evidence rather than primary evidence of value.

### Patent Valuation Approaches

The valuation of a patent is based on consideration of the three valuation approaches: (1) the cost approach, (2) the market approach, and (3) the income approach.

The *cost* approach is based on the basic economic principle that an investor will pay no more for a patent than the cost to construct a patent of equal utility.

The identification and analysis of equilibrium prices for guideline patents provide important evidence when applying the *market* approach.

In the *income* approach, the value of the subject patent is the present value of the expected economic income to be earned from the use or the licensing of the patent.

When applying the income approach, there are a number of methods that the manufacturer and the patent owner may consider when measuring the fair market value of the patent, such as the following:

1. Methods that quantify incremental levels of economic income (i.e., the manufacturer will enjoy a greater level of economic income by using the patent as compared to using an alternative technology)
2. Methods that quantify decremental levels of economic costs (i.e., the manufacturer will incur a lower level of economic costs—such as capital costs or operating expenses—by using the patent as compared to using an alternative technology)
3. Methods that estimate a relief from a hypothetical royalty or rental payment (i.e., the amount of a royalty or rental payment that a manufacturer would be willing to pay to a third party in order to obtain the use of—and the rights to—an alternative technology)
4. Methods that quantify the difference in the value of the overall business enterprise—or similar manufacturer business unit—as the result of using the patent (and using it in the business enterprise), as compared to not being able to use the patent (and not using it in the business enterprise)
5. Methods that estimate the value of the patent as a residual from the value of an overall business enterprise (or of a similar economic unit), or as a residual from the value of an overall estimation of the total intangible asset value of a business enterprise (or of a similar economic unit)

In the *Uniloc* case, the court rejected the application of the 25% rule of thumb, which is a derivation of the profit split method (i.e., the first method described above). In that case, the court was more interested in an analysis of the royalty payment that would have resulted from a

hypothetical negotiation (i.e., a derivation of the third method described above).

In the context of a patent infringement, it may be instructive to consider these patent valuation approaches and methods before selecting any one method to measure economic damages attributable to the patent infringement.

However, an award of economic damages attributable to the alleged patent infringement is only one available remedy for patent infringement. The analysis of economic damages attributable to the alleged patent infringement should be prepared based on the facts of (and claims alleged in) the litigation and may be different than the analysis of the patent's value.

### Remedies for Patent Infringement

Many issues may be litigated between a patent owner and an alleged infringer before the issue of a reasonable royalty rate is considered.

First, the plaintiff has to establish that it has ownership rights to the technology. Second, the plaintiff has to prove that those ownership rights have been infringed upon by the defendant. Third, a remedy is required to cure the infringement.

Remedies should compensate for past infringement, prohibit future infringement, and deter infringement from occurring in the first place.

There is not any one particular remedy that is appropriate for all patent infringement claims. In most patent infringement cases, several claims are asserted by the plaintiff, and each claim may require a separate remedy and, perhaps, a separate measurement of economic damage.

In some situations, the alleged infringer may be able to remedy the situation by voluntarily ceasing the alleged misbehavior.

If that remedy is not acceptable to the patent owner, then the patent owner may file legal action requesting (1) an injunction against further use by the defendant and/or (2) the payment of the amount of economic damages suffered by the plaintiff.

The economic damages analyst should have an understanding of (1) when the alleged infringement began and (2) when the alleged infringement began to result in economic damage to the patent owner. The economic damage analyst also should have an understanding of (1) when the alleged infringement ended (if it has) and (2) when the alleged infringement no longer results in economic damage to the patent owner.

The period during which the alleged infringement took place (the "infringement period") and the economic damage period may be two different periods. The economic damage period extends between (1) the date

the alleged infringement began to result in economic damage to the patent owner and (2) the date the alleged infringement no longer results in economic damage to the patent owner. In some cases, the economic damage period is expected to continue beyond the date of trial.

Often, the appropriate measure of economic damage is the amount that would be required to put the plaintiff in the same economic position it would have occupied had the alleged infringement not occurred. The financial position the plaintiff would have occupied had the alleged infringement not occurred is measured and compared to the financial position that the plaintiff otherwise occupies.

Economic damages usually are compensatory (and not exemplary or punitive) in nature. Exemplary damages usually are applicable in rare cases of willful misbehavior. Exemplary damages are meant to punish the infringer, and so they award the patent owner more than the amount that would be required to put the plaintiff in the economic position it would have otherwise occupied.

In some contexts, disgorgement of defendant's profits might be the remedy that is sought. When the plaintiff alleges that its patent was infringed upon because the plaintiff was fraudulently induced into entering into an agreement, for instance, disgorgement may be the appropriate remedy.

The general perspective taken by the economic damages expert is to assume that alleged infringement occurred and to assist the court in determining the appropriate amount of compensation for the plaintiff without undercompensating or overcompensating the plaintiff. Both undercompensation and overcompensation lead to distortions that the court prefers to avoid.

### **Undercompensation**

If the court undercompensates the patent owner, then the award is viewed as nothing more than a slap on the defendant's wrist. Undercompensation encourages infringement and "free riding" on someone else's efforts and investments.

Free riding by an infringer occurs when the patent owner is not compensated for the investments made by the patent owner. In addition to creating the idea and legally protecting it, in many situations the patent owner has made significant investments to establish demand and to increase demand for the product. Those investments may give rise to benefits of a technical or marketing nature that accrue to the patent owner. Those investments may benefit future licensees who do not have to make the same investment but reward the patent owner with a higher royalty for having made those investments.

From a public policy perspective, undercompensation reduces innovation, reduces the social benefit of publicly sharing ideas, and, potentially, reduces small business job creation.

### **Overcompensation**

On the other hand, damage awards that overcompensate the patent owner discourage advancement by technology-dependent companies because they restrict the freedom those companies need to practice. When patent owners are overcompensated by the courts, technology-dependent companies may invest more than the optimal amount (1) in investigating alternative technologies and (2) in design-around technology. Overcompensation deters competition and encourages litigation.

If the manufacturer has made significant investments to prove the product or process and is then accused of infringing on a patent that has benefited from those investments, this could lead to the “hold up” problem. In this situation, the strength of the negotiating position of the patent owner has improved and the patent owner is in a position to expect a royalty in an amount that might be greater than it would have been without the manufacturer’s investments.

Finally, while both undercompensation and overcompensation lead to distortions, the court’s remedy should be in an amount “in no event less than a reasonable royalty for use made of the invention by the infringer.” When the amount of the remedy is equal to or less than the amount that the patent owner and the infringer would have reached had there been no infringement, then the patent owner feels like it has been in coin toss with the infringer where the infringer sets the odds: “Heads I win, tails you lose.”

Nevertheless, the independent economic damages expert is charged with measuring the economic damages associated with the infringement without undercompensation or overcompensation.

While there are a variety of factors to consider before selecting the appropriate approaches and methods to apply, economic damage is often measured based on either (1) lost profits or (2) a reasonable royalty, depending on whether the patent owner already offers a product that competes with the alleged infringer.

### **Economic Damage Based upon Lost Profits**

Patent holders who are in the marketplace and already sell a product that competes with the alleged infringer’s product typically will apply the lost profits measure. In this case, the economic position of the plaintiff is measured based on profits lost as a result of the alleged infringement. When the patent holder and the alleged

infringer are competitors, the economic damages analysis usually will consider what have been called the “Panduit factors.”<sup>4</sup>

The four Panduit factors considered by the analyst are the following:

1. The demand for the patented feature of the product
2. Acceptable noninfringing alternatives
3. The patent owner’s capacity to manufacture and market the infringing product
4. The reasonableness of achieving the “lost” profits

Inevitably, simplifying assumptions are necessary to begin to identify relevant factors to consider when measuring economic damages based upon lost profits.

For instance, assume that there are going to be only two competitors in the marketplace: (1) the patent owner and (2) the licensee (i.e., the infringer). Quantifying lost profits from lost sales may not be controversial if the following statements are true:

1. The patent owner’s “but for” price per unit to the infringer’s customers would have been the same as the price charged by the infringer.
2. The performance and features of the product produced by the patent owner and the infringer are the same.
3. The patent owner’s per unit historical costs to produce and sell best represents the costs that the patent owner would have incurred to produce the “but for” units.

When these statements do not hold true, the analysis becomes more complex. For example, using a higher (or lower) “but for” price per unit than that which actually occurred may require an analysis of whether fewer (or more) units would have been sold.

If there are more than two competitors in the market, at least one of whom is not infringing, then the presence of technologies that are available as an alternative to the patent may be difficult to ignore.

In this case of multiple competitors, the economic damages analyst may consider the market potential of the invention outside of the patent owner’s use of the patent and outside of the infringer’s use of the patent. The lost profits analysis should consider whether the alleged infringer could have been able to adapt an acceptable noninfringing alternative to compete with the patent owner rather than leave the market altogether.

For example, when there are multiple competitors, the analyst may consider the following factors from the perspective of an alternative owner/user (e.g., hypothetical willing seller/buyer) of the patent:

1. A different market definition or market size for an alternative owner/user of the patent
2. Different alternative/competitive uses to an alternative owner/user of the patent
3. The patent's ability to create inbound/outbound license opportunities to an alternative owner/user

If there are alternative technologies available that are a close substitute to the patent, then the infringer, in a hypothetical negotiation, would assign little or no value to the patent. At the other end of the range, if the patent owner insisted on too high a license fee for the technology because there was no close substitute, then the economic incentive for the infringer to produce the product may not be attractive and would not produce new revenue.

For the lost profits analysis, it may not be appropriate to assume that all of the sales actually generated by the allegedly infringing product (in hindsight) would have been enjoyed by the patent owner because of limitations of the patent owner's marketing or manufacturing capacity.

The lost profits analysis also should take into consideration the possibility that infringing competition can reduce a patent owner's profits in a number of ways. Infringing products may be diverting sales from the patent owner's product, eroding the patent owner's sales price, and causing the patent owner to lose profits from derivative or convoyed nonpatented products.

The economic damage associated with a lost profits remedy is usually a lump-sum payment to the plaintiff for the infringement that took place prior to the trial plus either (1) an injunction preventing future infringement or (2) a royalty for future use of the patent.

### **Economic Damage Based upon Payment of a Reasonable Royalty**

If the patent holder does not sell a competing product, then the reasonable royalty remedy usually is applied. In this situation, the award provided to the plaintiff is the payment by the defendant of a royalty for past and future use of the patent. In order to arrive at a reasonable royalty, the analysis generally will include consideration of what have been called the "Georgia-Pacific factors."

Over 40 years ago, the court in the *Georgia-Pacific*<sup>5</sup> case described factors that would have been considered in a hypothetical negotiation between the parties. Paraphrased, those factors were the following:

1. Royalties received by the patent owner from licensing the patent to others
2. Royalties paid for the use of other guideline patents
3. The nature and scope of the hypothetical license (e.g., exclusive or restrictive)
4. The patent owner's established policies regarding maintaining the patent monopoly
5. The commercial relationship between the patent owner and the hypothetical licensee
6. The extent of derivative or convoyed sales of nonpatented products by the patent owner and the hypothetical licensee
7. The expected remaining life of the patented technology and the hypothetical license
8. The established profitability of the infringing product and its current popularity
9. The utility and advantages of the patented product over alternatives
10. The benefits to users of the product
11. The value of the infringed product to the infringer
12. The customary profit split or royalty for use of analogous inventions
13. The portion of the profit attributable to the invention as distinguished from significant features or improvements added by the infringer
14. Opinion testimony from qualified experts
15. The amount that the parties would have agreed upon in good faith such that the infringer would have been able to make a reasonable profit

It is not necessary that each of these factors be addressed specifically in every case by the analyst because it is not clear how any one of these factors would justify an increase or decrease from a "base" royalty rate. Each new case has its own special facts and circumstances, so consideration of each of these particular factors is not a universal requirement.

This is the general approach the courts have followed when analyzing the amount of a reasonable royalty that would have resulted from a hypothetical negotiation between the patent owner and the alleged infringer. Generally, courts prefer an analysis that is based upon guideline license transactions.

When guideline transactions are cited as evidence to support the conclusion of a reasonable royalty, the patent owner and the alleged infringer usually will challenge (1) the elements of comparison between the guideline licensing transaction and (2) the point in time during the production process that the hypothetical negotiation would have taken place.

### **Elements of comparison**

There are ten basic elements of comparison that should be considered when selecting and analyzing "guideline" license transactions:

1. The legal rights of patent usage that were conveyed in the guideline transaction
2. The existence of any special financing terms or arrangements (e.g., between the licensee and the licensor)
3. The existence of arm's-length license conditions
4. The economic conditions that existed in the appropriate secondary market at the time of the license transaction
5. The industry in which the patent was—or will be—used
6. The physical characteristics of the guideline transaction patents—compared to the subject patent
7. The functional characteristics of the guideline transaction patents—compared to the subject patent
8. The technological characteristics of the guideline transaction patents—compared to the subject patent
9. The economic characteristics of the guideline transaction patents—compared to the subject patent
10. The inclusion of other assets in the guideline license transaction; this may include the sale/license of a bundle—or a portfolio—of assets that could include tangible personal property and/or real estate, as well as other intangible assets

In a negotiation, the patent owner and the manufacturer would probably consider these factors and many others. The parties would probably consider the opportunity costs of entering into the license agreement.

The patent owner who already sells a competitive product might sell fewer units if the license were to be granted and prices per unit could decline in the future due to competition from the manufacturer. To avoid this kind of price erosion, the patent owner would charge a high enough royalty so that the manufacturer does not price the product lower than the optimum level. Similarly, for the patent owner to avoid suffering losses due to loss of unit volume, the patent owner would set the royalty such that the license revenue equaled the incremental profits lost on the manufacture and sale of the units by the competitor.

In a hypothetical negotiation, the manufacturer would agree to pay an amount no greater than the benefit the manufacturer expects to enjoy from using the patented technology over the next-best alternative technology (plus the cost of acquiring the next-best alternative).

In litigation, when the focus is on the results of a negotiation that hypothetically took place at a point in time much earlier than the date of the trial, both parties typically present different negotiation scenarios. They may not agree on the hypothetical negotiation's most sensitive issues, and, when they do agree on the most

sensitive issues, they typically assign different emphasis to those issues.

When the patented technology becomes an integral part of the product as a result of successful negotiations that took place early in the product development process, there is no reason for the manufacturer to modify its development and production plans because of any concern over the lack of clarity with respect to the right to use the patent.

In many situations, when the infringement allegations are made long after the product development process has been completed, the alleged infringer will begin to modify its marketing plans and product development plans in ways that reduce the alleged infringer's dependence on the specific technology that is covered by the patent. If the patent owner and the manufacturer had agreed earlier to terms in a hypothetical negotiation, then these kinds of behavioral changes by the alleged infringer may not have taken place.

As a result, applying a royalty rate that would have been the result of a hypothetical negotiation to the infringer's *actual* revenue (after the manufacturer has modified its plans in response to the infringement allegation) may not properly compensate the patent owner.

### Hypothetical Negotiation

It is typical to expect that the patent owner will agree with the manufacturer that compensation to the patent owner is going to be a portion of the economic advantage that the manufacturer will enjoy in the future as a direct result of the use of the patent.

The portion of the economic advantage enjoyed by the manufacturer that is acceptable to the patent owner in a good-faith negotiation might be structured as (1) an exchange of technology instead of cash between the patent owner and the manufacturer, (2) a periodic lump-sum cash payment for a certain number of periods, and/or (3) a percentage of some measureable financial statistic.

In contrast, in a patent infringement litigation context, the parties have not already agreed on how the economic contribution of the patent is to be measured, and the parties have not agreed on how to split the economic contribution of the patent. By the time the negotiation has been considered by the court in a patent infringement action, the negotiation is hypothetical and the consideration is limited to a percentage of some measurable financial statistic (the third structure described previously). And, based on the *Uniloc* decision, the court is not interested in considering a split of 25% of profits generated prior to the trial if that percentage is based upon nothing more than a rule of thumb.

Both parties should have a mutual understanding of how and when the economic advantage will be measured.

To the extent that the expected use of the patent involves a product or process that has not yet been sold or used commercially, the manufacturer may have information regarding the potential for commercial success (e.g., market demand, market size, pricing, costs, alternative technology solutions) that is superior to the patent owner's information. Of course, whether the manufacturer's information is superior to the patent owner's information is a matter of debate. Questions about confidentiality of information should be settled, if there is going to be a transparent exchange of knowledge. An honest exchange of information between competitors is doubtful (in a case where the alleged infringer is a competitor).

The more advantageous the patented invention is compared to alternatives, the more customers will prefer it, the greater its economic value, and the greater the market reward to the patent owner. For example, there have been rare cases where the patent protects a product that commands such a decisive cost or quality advantage that other products and competitors become obsolete.

In a good-faith negotiation, the competitor can (1) accept the patent owner's offer of a license and enjoy the associated economic consequences, (2) not accept the patent owner's offer of a license and not enjoy the economic consequences, or (3) use the invention without permission and litigate any infringement claim. From this perspective, a successful license negotiation before any infringement takes place is itself tantamount to a settlement of future potential litigation.

Actual licensing negotiations take place at a certain time in the product development process between patent owners and manufacturers. In a good-faith negotiation, the patent owner and the infringer have completed their negotiations over the reasonable royalty rate at the point in time prior to the commencement of any infringement.

Some negotiations are concluded early in the product development process before significant investment in the product has been made by the manufacturer.

If the hypothetical negotiation is presumed to take place later in the product development process after important information has been revealed that may not have been known earlier, then there is a risk that the patent owner might have a superior negotiation position (previously described as the "hold up" problem). In other words, if the patent owner is negotiating after the manufacturer has made significant investments in developing the product and those investments would be worthless without the patent, then, by conducting the

hypothetical negotiation later in the development process, the patent owner may be in a better position to achieve superior pricing and terms.

The patent owner may be depending on the manufacturer to make investments that will prove the patent's integrity. In this case, the patent owner may be motivated to conduct the negotiation earlier in the development process but to offer an exclusive license only for a limited period of time after which the terms of the license (e.g., exclusivity, royalty rate) would be subject to renegotiation.

In many circumstances, the manufacturer, because it has successfully negotiated the right to the patent to produce product A, generates a significant amount of revenue by selling an extended family of products that do not use the invention but that would not have been available to the manufacturer if not for the patent. The patent owner argues that the economic advantage derived from the entire family of products should be subject to the royalty (i.e., part of the remedy). Conversely, the manufacturer argues that the economic advantage derived from the entire family of products was generated from the manufacturer's business assets and acumen and not related to the invention, and, furthermore, this knowledge would not have been known as of the date of the negotiation.

The results of the hypothetical negotiation could be quite different if the analysis is based upon a selected measurement date, for example, that is before one or more of the following:

- The defendant has chosen to infringe on the patent.
- Alternative technologies have been considered.
- Significant investment has been incurred to prove the concept of the product or process.
- Commercialization of the product has been established.
- Scalability of the manufacturing process has been proven.
- Demand has been stimulated.
- Costs have been minimized.

If the hypothetical negotiation is determined to have been completed before the manufacturer incurred start-up costs (such as development and packaging of the product that depended on the patent), then the economic damage would probably reflect no more than the value it presents over the next best alternative as of that date.

If, on the other hand, the hypothetical negotiation is determined to have been completed later, after more information is known about the use and benefit of the patent, then the economic damage would probably reflect

some of the profits that the infringer actually enjoyed by exploiting the patent.

### Summary and Conclusion

Rules of thumb have their place. They offer ease of communication and calculation. However, rules of thumb are often misinterpreted and misused.

The place for rules of thumb is probably not as primary evidence in a litigated matter. As a matter of Federal Circuit law, analysts who present reasonable royalty testimony in patent infringement cases should expect any reference made to the 25% rule of thumb to be discarded by the court. The 25% rule of thumb, like any other rule of thumb, should not be relied upon as primary evidence.

Valuation analysis often is a helpful companion to economic damages analysis. However, the analysis of the fair market value of a patent is different from the analysis of the economic damages attributable to patent infringement.

There are a number of remedies available for patent infringement. There is not any one remedy that is appropriate for all patent infringement claims. Courts can order remedies such as (1) an injunction against further use by the infringer, (2) disgorgement of the profits the infringer enjoyed from illegal use of the patent, and (3) payment by the infringer of the economic damages suffered by the patent owner.

Typically, economic damage is the amount that would be required to put the patent owner in the same economic position the patent owner would have occupied had there been no infringement on the patent.

Independent economic damages analysts assist the court in determining the appropriate amount that would compensate the plaintiff. Both undercompensating and overcompensating the plaintiff lead to distortions that courts prefer to avoid.

In order to assist the court, the economic damages analyst usually has to assume that infringement did, in fact, occur. The economic damages analyst should have an understanding of the alleged infringement in order to (1) understand the economic damages period and (2) measure the economic consequences that are attributable to the alleged infringement.

When the patent owner competes in the marketplace with the alleged infringer, the economic damage remedy typically is based on some measure of the profits lost by

the patent owner. If, as a result of the alleged infringement, the patent owner and the alleged infringer are the only two competitors, the controversial factors to be considered in the lost profits analysis may be easier to identify than when there are three or more competitors.

When there are three or more competitors, the lost profits economic damages remedy usually has to consider, as of the date the infringement began, the (1) technologies that are available as an alternative to the patented technology and (2) alternative market dynamics. The economic damages analysis usually takes into consideration technologies and market dynamics that have changed during the economic damage period.

When the patent owner does not compete in the marketplace with the alleged infringer, the economic damage remedy typically is based on some measure of a reasonable royalty that would have been paid to the patent owner as if a good-faith, hypothetical negotiation had taken place between the patent owner and the alleged infringer. In a hypothetical negotiation, how and when the patent owner and the alleged infringer negotiate would affect the amount of the royalty to which they would reasonably agree.

### Endnotes

1. 28 USC Section 284.
2. *2012 Patent Litigation Study*, PricewaterhouseCoopers, p. 11.
3. *Uniloc USA, Inc. and Uniloc Singapore Private Limited, Plaintiffs-Appellants, v. Microsoft Corporation, Defendant-Cross Appellant*. 2010-1035, -1055 Appeal from the United States District Court for the District of Rhode Island in Case No. 03-CV-0440, Judge William E. Smith (January 4, 2011). The *Uniloc* court's decision includes three main categories of criticism of the 25% rule of thumb: (1) it fails to account for the unique relationship between the patent and the subject product, (2) it fails to account for the unique relationship between or among the subject parties, and (3) the rule is arbitrary and does not properly simulate a hypothetical negotiation between two unrelated third parties.
4. *Panduit Corp. v. Stahl Brothers Fibre Works, Inc.*, 575 F.2d 1152 (6th Cir. 1978).
5. *Georgia-Pacific Corp. v. Unites States Plywood Corp.*, 318 F. Supp. 1116 (S.D.N.Y. 1970).