

IS GREED GOOD? THE CONSEQUENCES OF THE MERGER OF THE EVIDENCE REQUIRED TO ESTABLISH LOST PROFITS AND PRICE EROSION DAMAGES

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Unlike most property owners, a patent owner need not prove any actual injury to claim damages for the unauthorized use of a patent. The patent laws permit a patentee to recover “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.” 35 USC §284.

Furthermore, a patent at its most fundamental level provides the owner with the right to prevent or exclude others from using the patented invention. *See* 35 USC §283. Thus, permanent injunctive relief is common once a patentee proves infringement. *See e.g.*

Richardson v. Suzuki Motor Co., Ltd., 868 F.2d 1226, 1247 (Fed. Cir. 1989); *KSM*

Fastening Systems, Inc. v. H.A. Jones Co., Inc., 776 F.2d 1522, 1524 (Fed. Cir. 1985)

Both of these remedies are very important, and many patent cases are driven by the need to stop ongoing infringement and to obtain at least a reasonable royalty for past infringement. Certainly, it is difficult for an alleged infringer to ignore the threat that an otherwise thriving business will be shut down by an injunction if the patentee is successful.

A. A Patentee’s Right To Compensatory Damages

In most cases, however, the patentee seeks more than the minimum damages permitted by law, because the real value of most cases is the potential recovery of the patentee’s actual losses due to the infringement. Under 35 USC § 284, a patentee is

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entitled to “damages adequate to compensate for the infringement.” Determining what constitutes “adequate” compensation is often both difficult and hotly disputed.

Patentees typically seek as their actual damages the profits they lost on each of the infringing sales that, but for the infringement, would have gone to the patentee. The patent damages statute, 35 USC §284, however, is not limited solely to lost profits damages; it permits recovery for **all** forms of monetary loss attributable to for the infringement. *See Rite-Hite Corp. v. Kelley Co. Inc.*, 56 F.3d 1538, 1546 (Fed. Cir. 1995). Thus, patentees can, and have, claimed damages for price reductions on the patentee’s own products due to the infringement, lost sales of unpatented products, and other direct and indirect damages. *See e.g. Ericsson, Inc. v. Harris Corp.*, 352 F.3d 1369, 1376-79 (Fed. Cir. 2003) *Rite-Hite*, 56 F.3d at 1544-49; *Lam, Inc. v. Johns-Manville Corp.*, 718 F.2d 1056, (Fed. Cir. 1983).

As a result, judges and juries are frequently asked to imagine the market, customers, pricing and sales in a hypothetical world that **might** have existed absent the infringement. Based on that mental picture of a hypothetical market, they are asked to determine the extent to which the patentee lost profits due to the infringement. The rub, of course, is that the patentee’s picture of that hypothetical market often differs considerably from that offered by the infringer. A patentee is motivated to paint a scene of unblemished success and unparalleled potential for the patented invention. The infringer’s motivation is to paint a much darker vision of brutal competition where the invention provides little if any value compared to other, non-infringing competition.

Early in the Federal Circuit’s jurisprudence, the court adopted rather strict rules for determining whether the patentee’s or the infringer’s vision should apply to claims

seeking lost profit treatment of an infringer's sales. *See e.g. The Gyromat Corp. v. Champion Spark Plug Co.*, 735 F.2d 549, 552 (Fed. Cir. 1984); *Central Soya Co., Inc. v. Geo. A. Hormel & Co.*, 723 F.2d 1573, 1578-1579 (Fed. Cir. 1983). Indeed, the central issue in many lost profit cases was not the marketing and economic impact of an infringement on the patentee. Rather, it was the technical issue of whether other non-infringing alternatives were present in the market. If such alternatives were available and functionally equal to the patented invention, then a patentee's recovery was limited to a reasonable royalty. *See e.g. Smithkline Diagnostics, Inc. v. Helena Labs. Corp.*, 926 F.2d 1161, 1165-67 (Fed. Cir. 1991); *Slimfold Mfg. Co., Inc. v. Kinkead Indust., Inc.*, 932 F.2d 1453, 1458-59 (Fed. Cir. 1991).

The development of the Federal Circuit's jurisprudence since 1982 on compensatory patent damages, however, reflects an increasing sensitivity to the economic and marketing factors that can support or undercut a patentee's lost profits claim. While this generally benefits patentees through potentially increased damage awards, there are trade-offs. The Federal Circuit's increasing acceptance of economic and marketing evidence imposes a greater expectation on patentees to provide more sophisticated expert and fact testimony on the damages issues in a patent case. The changing emphasis on the proofs required to support a damages claim can be seen in the Federal Circuit's decisions on the issue of lost profits and price erosion damages. Since the early 1980's, the Federal Circuit's decisions gradually have moved away from a technology driven approach to one seeking (but not always demanding) economic and marketing data and expert analysis of that data.

As a result, the economic and marketing data necessary to support a middle-of-the road lost profits claim often is very similar to, if not the same as, that required to prove a more aggressive price erosion damage claim. This merger of the evidence required to prove both types of damages claims, provides a greater incentive to pursue both remedies. This in turn makes available to the infringer more tools to challenge such arguable “greedy” demands.

A discussion of leading damages cases from the Federal Circuit illustrates the changing emphasis of its lost profits authorities and the similarities with the proofs required for price erosion damages. As further discussed below, the Federal Circuit’s current stance on lost profits and price erosion damages provides opportunities for both patentee and infringer. This tends to increase the importance of strategic litigation planning in terms of selecting the best damages theory and the expert(s) to help prove it.

B. The Traditional Standards For Lost Profits Treatment Of An Infringer’s Sales

The central focus in lost profits cases is whether *but for* the infringement the patentee actually would have made the infringer’s sales, as well as the patentee’s customary profit on those lost sales. The burden is on the patentee to prove her right to those lost sales by a preponderance of the evidence, and to prove up a reasonable estimate of the amount of her lost profits. See e.g. *Grain Processing Corp. v. American Maize-Products Co.*, 185 F.3d 1341, 1349 (Fed. Cir. 1999); *Stryker Corp. v. Intermedics Orthopedics, Inc.*, 96 F.3d 1409, 1417 (Fed. Cir. 1996). It is unusual for a patentee to be in a position to prove with direct evidence that she would captured each specific sale made by the infringer. In most cases, the patentee must present evidence establishing the

inference that she would have made each of those infringing sales and would have earned her customary profit margin.

Early in its jurisprudence, the Federal Circuit adopted the “*Panduit*” test as one approach to determine whether such an inference can be sustained. *See Gyromat*, 735 F.2d at 552; *Central Soya*, 723 F.2d at 1578. Under the test articulated in *Panduit Corp. v. Stahl Bros. Fibre Works, Inc.*, 575 F.2d 1152, 1156 (6th Cir. 1978)², a patentee is entitled to lost profits on all of his opponent’s infringing sales if he proves (1) demand for the patented invention; (2) absence of acceptable non-infringing alternatives, (3) the patentee’s capacity to make those sales; and (4) the amount of the lost profits. *See e.g. Gyromat*, 735 F.2d at 552; *Central Soya*, 723 F.2d at 1578.

The court recognized that other approaches also might be used. *See e.g. Bio-Rad Laboratories, Inc. v. Nicolet Instrument Corp.*, 739 F.2d 604, 616 (Fed. Cir. 1984). The *Panduit* test, however, was typically the primary test used in the Federal Circuit’s lost profits decisions. *See e.g. Grain-Processing*, 185 F.3d at 1348; *Carella v. Starlight Archery and Pro Line Co.*, 804 F.2d 135, 141 (Fed. Cir. 1986); *Yarway Corp. v. Eur-Control USA, Inc.*, 775 F.2d 268, 275 (Fed. Cir. 1985). Furthermore, in many (if not all) of those cases, the deciding issue was the presence or absence of “non-infringing” substitutes. *See e.g. Id.*

The absence of non-infringing substitutes confirmed that the patentee and the infringer were the only two competitors in the relevant markets. Thus, it was presumed that the patentee necessarily would have made, and earned its customary profits on, all of

² The *Panduit* decision was written by Chief Judge Markey of the Court of Customs and Patent Appeals (by designation), who subsequently was appointed as the first Chief Judge of the Court of Appeals for the Federal Circuit.

the infringer's sales. *See Carella*, 804 F.2d at 141; *Yarway* 775 F.2d at 276. The test for "non-infringing" substitutes usually focused on the technical features of the claimed invention and the alleged substitute. *See e.g. Radio Steel & Mfg. Co., Inc. v. MTD Products, Inc.*, 788 F.2d 1554, 1556 (Fed. Cir 1986); *TWM Manufacturing Co., Inc. v. Dura, Corp.*, 789 F.2d 895, 899-902 (Fed. Cir. 1986); *Datascope Corp. v. SMEC, Inc.* 879 F.2d 820, 824 (Fed. Cir. 1989). Only those products or processes that possessed all of the patented invention's advantages were accepted as "non-infringing" substitutes. *Id.*

The possibility that the pricing of the patented and/or infringing products might also factor into the "non-infringing substitute" question received short shrift. *See TWM*, 789 F.2d at 901-02; *Datascope*, 879 F.2d at 825; *Carella*, 804 F.2d at 141. The Federal Circuit seemed unwilling to consider the possibility that as the price of a product increases, consumers may well be willing to shift to a lower priced product even if it does not include all of the patented features. Indeed, it was rare to see any discussion of the effect of price changes on the demand for the patented products, infringing products and alleged non-infringing substitutes (*i.e.* cross-elasticity of demand). *E.g. Id.*

The consequence of this technology driven approach often resulted in an all or nothing award of lost profits on the infringer's sales. If the infringer failed to meet the often difficult task of demonstrating that the non-infringing substitutes were functional equivalents to the patent invention, then all of the infringer's sales were subject to lost profits treatment. *See e.g. Radio Steel*, 788 F.2d at 1556; *Datascope*, 879 F.2d at 824-26. On the other hand, the presence of acceptable non-infringing substitutes typically denied the patentee lost profits on the infringer's sales, and relegated all of those sales to reasonable royalty treatment (and typically much reduced damages). *See Smith Kline*,

926 F.2d at 1165-67; *Amstar Corp. v. Envirotech Corp.*, 823 F.2d 1538, 1543 (Fed. Cir. 1987).

C. Introduction Of Market Data And Economic Data To Support, Or Refute, Lost Profits Claims On An Infringer's Sales

In *State Industries, Inc. v. Mor-Flo Industries, Inc.*, 883 F.2d 1573, 1577-78 (Fed. Cir. 1989), the Federal Circuit approved one alternative to the all or nothing *Panduit* test. In *State Industries*, the court approved of a damage award blending a claim for lost profits on 40% of the infringer's sales, and a reasonable royalty on the remaining 60% of the infringer's sales. 883 F.2d at 1577-80. The court held that in markets with multiple competitors, some with infringing products and some with non-infringing products, the patentee should be able to establish a claim for lost profits on at least a portion of the infringer's sales. *Id.*

**1. The Use Of Market Shares Under
*State Industries And BIC Leisure Products***

The Federal Circuit permitted the patentee to base its partial lost profits recovery on the patentee's share of the entire market. *State Industries*, 883 F.2d at 1577-80; see also *King Instruments Corp. v. Perego*, 65 F.3d 941, 957 (Fed. Cir. 1995); *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1223-3 (Fed. Cir. 1995) (In both cases, lost profits based on market shares affirmed). Furthermore, the court recognized that the mix of infringer's sales subject to lost profits versus reasonable royalty treatment will be affected by evidence that other competitors in the market also infringe the patent:

If the court is correct in its finding that the other competitors were likely infringers of one or the other of [the patentee's] patents, [the patentee] would have been entitled to their shares of the market on top of its own, and a correspondingly greater share of [the infringer's] sales. If it is wrong in whole or in part, [the patentee] would have been entitled to its current share or to a lesser increase in share.

State Industries, 883 F.2d at 1578.

The court, however, did not provide significant analysis of the patentee's market data, the calculation of its market share, the effects of the patentee's pricing practices, or potential non-infringing alternatives that were available but not "on the market" at the time of the infringement. *Id.* at 1578-80. For example, the Federal Circuit was unwilling to reduce the amount of the infringing sales subject to lost profit treatment based on evidence that the infringer served only a regional market. *Id.* at 1579. In that region, the patentee held a much smaller percentage of the market than was indicated by the patentee's nationwide share. *Id.*

In a subsequent decision, *BIC Leisure Products, Inc. v. Windsurfing International, Inc.*, 1 F.3d 1214, 1217-20 (Fed. Cir. 1993), the Federal Circuit signaled that it was willing to consider more sophisticated economic and marketing evidence reflecting the actual behavior of competitors and consumers in the relevant markets. In *BIC*, the court reversed a district court's award of lost profits on the infringer's sales based on the patentee's overall market share. *Id.* The Federal Circuit found that the relevant market (for sailboards) was fragmented based on different product types and different pricing points. *Id.* at 1218-19.

In this market, the patentee and the infringer occupied different submarkets, with different types of products at different prices, and the same was true for the other competitors in both submarkets. 1 F.3d at 1218-19. The court observed the undisputed fact that the infringer competed in an entry level market segment that was "particularly sensitive to price disparity". *Id.* at 1218. The patentee did not effectively compete in that segment, and "several manufacturers offered sailboards at prices much closer to BIC [the

infringer] than to Windsurfing [the patentee]”, including two of the patentee’s licensees. *Id.* Thus, it was inappropriate to infer that “but for” the infringement the patentee would have captured an amount of the infringer’s sales equal to the patentee’s market share. *Id.* Compare *Crystal Semiconductor Corp. v. TriTech Microelectronics International, Inc.*, 246 F.3d 1336, 1353-57 (Fed. Cir. 2001) (reinstating a jury’s award of lost profits based on market share, as the patentee properly identified market and market structure).

2. The Continuing Recognition That Market And Economic Evidence Is Relevant To Lost Profits Claims

The increasing acceptance of economic and marketing evidence to support lost profits claims also was evident in *Rite-Hite Corp .v. Kelley Co.*, 56 F.3d 1538, 1544-49 (Fed. Cir. 1995) (*en banc*). In that case, the Federal Circuit affirmed the award of lost profits based on the diverted sales of the patentee’s products that were *not* covered by the patent there in suit. *Id.* The infringing products in *Rite-Hite* actually competed with the patentee’s more expensive products that lacked the technology of the patent in suit.³ *Id.* at 1545-49. Nevertheless, the Federal Circuit held that the patent damages statute, §284, permits the award of foreseeable damages that were caused by the infringement:

If a particular injury was or should have been reasonably foreseeable by an infringing competitor in the relevant market, broadly defined, that injury is generally compensable absent a persuasive reason to the contrary.”

Rite-Hite, 56 F.3d at 1546.

The patentee established that “but for” the use of the patented technology the infringer would not have been able to compete against the patentee for sales in the infringer’s sub-market. *Id.* at 1545-49. Thus, *Rite-Hite* encourages patentees, and alleged

³ Those products, however, were covered by another patent held by Rite-Hite. 56 F.3d at 1548.

infringers, to look beyond the traditional *Panduit* and other rules to both the direct *and* indirect effect of an infringement in the market place. This trend was carried further in *King Instruments Corp. v. Perego*, 65 F.3d 941 (Fed. Cir. 1995). In the *King* case, the patentee did not offer a product that actually used the infringed patent in competition with the infringer's product. *Id.* at 947-53. The Federal Circuit recognized that the patentee nevertheless could recover lost profits on the infringer's sales. *Id.*

The court rejected the assertion that only patentees which make or sell the patented invention can obtain lost profits damages. *King*, 65 F.3d at 947-53. The court reasoned that the incentive for innovation represented by a patent is the right to exclude others from using the patented invention. *Id.* at 949-52 The value of that right should be measured by the actual economic impact of an infringement of that right:

Thus, the Patent Act creates an incentive for innovation. The economic rewards during the period of exclusivity are the carrot. The patent owner expends resources in expectation of receiving this reward. Upon grant of the patent, the only limitation on the size of the carrot should be the dictates of the marketplace. Section 284 attempts to ensure this result by deterring infringers and recouping market value lost when deterrence fails.

King, 65 F.3d at 950. Thus, as in *Rite-Hite*, the court focused the lost profits determination on a careful market analysis and the foreseeable economic losses to the patentee as determined by that analysis, whatever their source. *Id.* at 950-53. *See also Stryker Corp. v. Intermedics Orthopedics, Inc.*, 96 F.3d 1409, 1417 (Fed. Cir. 1996)(application of the reasonable foreseeability test and market effect of infringement).

3. *Grain Processing's* Use Of the "Reasonably Foreseeable" Standard For Both The Patentee And The Infringer

The court in *Grain Processing Corp. v. American Maize-Products Co.*, 185 F.3d 1341 (Fed. Cir. 1999), continued the Federal Circuit emphasis on market and economic

evidence of an infringement's impact in the market place. In that case, the court emphasized that full compensation for an infringement "includes any foreseeable lost profits the patent owner can prove." *Id.* at 1349. This gives the patentee considerable flexibility to claim lost profits based on a wide variety of economic effects caused by the infringement. However, to do so, the patentee must provide reliable economic proof of the market that establishes an accurate context to project the likely results 'but for' the infringement. *Id.* at 1350-51.

Such lost profits theories, therefore, typically require a reliable construction of a hypothetical market that might have developed absent the infringement. The court warned, however, that such reconstructions can easily lapse into unsupportable speculation:

Reconstructing the market, by definition a hypothetical enterprise, requires the patentee to project economic results that did not occur. To prevent the hypothetical from lapsing into pure speculation, this court requires sound economic proof of the nature of the market and likely outcomes with infringement factored out of the economic picture.... Within this framework, trial courts, with this court's approval, consistently permit patentees to present market reconstruction theories showing all of the ways in which they would have been better off in the 'but for world,' and accordingly to recover lost profits in a wide variety of forms.

Grain Processing, 185 F.3d at 1350 (citations omitted).

The patentee in *Grain Processing* failed to accurately reconstruct the market and could not justify its lost profits claim. The Federal Circuit held that the patentee failed to take into account the availability of non-infringing alternatives. "By the same token, a fair and accurate reconstruction of the 'but for' market also must take into account, where relevant, alternative actions the infringer foreseeably would have undertaken had he not infringed." *Id.* at 1350-51. Thus, the "foreseeability" test from *Rite-Hite* applies equally

to infringers and the patentees. If it is foreseeable that the infringer would have had an alternative competitive response if the infringement had been avoided, then the economic impact of that alternative response should be considered:

Without the infringing product, a rational would-be infringer is likely to offer an acceptable noninfringing alternative, if available, to compete with the patent owner rather than leave the market altogether. The competitor in the ‘but for’ marketplace is hardly likely to surrender its complete market share when faced with a patent, if it can compete in some other lawful manner. Moreover, only by comparing the patented invention to its next-best available alternative(s) – regardless of whether the alternative(s) were actually produced and sold during the infringement—can the court discern the market value of the patent owner’s exclusive right, and therefore his expected profit or reward, had the infringer’s activities not prevented him from taking full economic advantage of this right.

Grain Processing, 185 F.3d at 1351.

The infringer in *Grain Processing*, established that its non-infringing alternative would have been an adequate replacement for the infringing product in a properly reconstructed hypothetical market. 185 F.3d at 1348, 1354-55. Again focusing on market/economic theory, the court found that the non-infringing alternatives lacked two of the patent’s claimed requirements, but that consumers found those requirements irrelevant in the market place. *Id* at 1354. Thus, the competitor was free to “drop or replace the ‘irrelevant’ elements from its product” and still effectively compete in the relevant market without causing a legally compensable injury to the patentee. *Id.*

More significantly, by relying on market and economic analysis, the court found in this case the non-infringing substitute *need not* have been actually on the market at the time of the infringement. *Grain Processing*, 185 F.3d at 1351-54, 1356. The court simply could not ignore the presence of a readily available alternative technology that could have affected market behavior in the hypothetical, reconstructed market. *Id.*; see also *Fiskars, Inc. v. Hunt Mfg. Co.*, 279 F.3d 1378, 1382-83 (Fed. Cir. 2002)(evidence on

acceptable substitutes may come from expert testimony and analysis of market demand, consumer behavior, etc.).

**D. Similar Market And Economic Analysis
Has Been Applied To Price Erosion Claims**

The progressive emphasis on market and economic evidence for lost profit claims on infringing sales can be contrasted with the treatment of claims for lost profits due to infringement driven price reductions (*i.e.* price erosion). The Federal Circuit’s decisions on price erosion damages have long sought market and economic justification for a patentee’s claims of lost opportunities to charge higher prices on the patented products.

In one of its early decisions, *Lam, Inc. v. Johns-Manville Corp.*, 718 F.2d 1056, 1064-66, 1067-68 (Fed Cir. 1983), the Federal Circuit recognized that a patentee can recover the profits it lost on the patentee’s own sales due to price discounting necessary to compete with an infringer.⁴ The court affirmed the award of price erosion damages where there was a two-supplier market, and the evidence of projected lost sales was “neither remote nor speculative when there is evidence of actual pre-infringement and post-infringement growth rates.” *Id.* at 1068; *see also Vulcan Engineering Co. v. Fata Aluminum, Inc.*, 278 F.3d 1366, 1377 (Fed. Cir. 2002); *Panduit Corp. v. Stahl Bros. Fibre Works, Inc.* 575 F.2d 1152, 1157 (6th Cir. 1978).

The Federal Circuit similarly affirmed a district court’s award of price erosion damages during the period of infringement in *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 1578-1979 (Fed. Cir. 1992). The patentee established that the parties engaged in vigorous price competition, reducing the

⁴ In *Lam*, the patentee also claimed damages for retarded growth due to the infringement, and obtained additional damages on this theory as well. 718 F.2d at 1067-68.

price of the competing, patented and infringing products. 976 F.2d at 1579. The patentee further proved that it would have raised its prices at least 4% per year to account for inflation. *Id.* This was sufficient as “[a]lthough damages may not be based on speculation, they need not be proved with unerring precision either.” *Id.*

As early as the *Panduit* case, however, the courts tended to view price erosion claims with a certain degree of skepticism. The courts generally recognized that charging more or less for a product can increase or decrease a seller’s profits, depending on the market, the products and the nature of the demand for the product. In *Panduit*, for example, the 6th Circuit affirmed the denial of price erosion damages on the (arguably dubious) theory that the patentee’s price reductions resulted in increased sales which more than offset any injury caused by the infringement. 575 F.2d at 1157.

The Federal Circuit in *Minco, Inc. v. Combustion Engineering, Inc.*, 95 F.3d 1109, 1120 (Fed. Cir. 1996), likewise affirmed the denial of price erosion damages because they simply were too speculative. The evidence at trial permitted “the inference that market forces other than infringement” influenced pricing in the patentee’s markets. *Id.* The evidence further suggested that the patentee was the leading price cutter, and that “the record lacks probative economic evidence that consumers would have tolerated higher prices....” *Id.*

Similarly, in *BIC Leisure Products v. Windsurfing International*, 1 F.3d 1214, 1219-20 (Fed. Cir. 1993), the Federal Circuit affirmed the district court’s rejection of a price erosion claim based on much of the same evidence that defeated the patentee’s lost profits claim. This market evidence demonstrated that other forces, not the infringement, caused the patentee to lower its prices. *Id.* at 1220. For example, the market was

changing during the period of infringement and other designs and products were replacing the patentee's patented products. *Id.* As a result, retailers discounted the patent's products in view of the reduced demand and to make room for the new products. *Id.* Thus, the patentee could not justify claiming that it would have charged pre-infringement prices or increased prices on its own patented products, but for the infringement. *Id.*

In *Crystal Semiconductor Corp. v. TriTech Microelectronics International, Inc.*, 246 F.3d 1336, 1357-59 (Fed. Cir. 2001), the Federal Circuit expressly addressed the nature and type of evidence required to support price erosion claims:

[A patentee's] price erosion theory must account for the nature, or definition, of the market, similarities between any benchmark market and the market in which price erosion is alleged, and the effect of the hypothetically increased price on the likely number of sales at that price in that market.

Id. at 1357.

Accordingly, it is the patentee's burden to establish that but for the infringement, the patentee would and could have sold its product at the alleged higher prices. *Id.* at 1357.

The patentee typically must provide an economic analysis that takes into account the possibility that charging higher prices for the patentee's product may result in lower demand and reduced sales (and profits). *Id.* In *Crystal*, for example, the Federal Circuit reversed a jury's award of price erosion damages due to the patentee's failure to present competent economic evidence on the effect of a price increase on the market for the patented products. 246 F.3d at 1359-60. The court further discussed the need for an analysis of the relevant market's reactions to price changes and the degree to which consumers switched to other products rather than pay higher prices, *i.e.* the nature of the relevant demand curves. *Id.*

**E. Recent Federal Circuit Cases Demonstrate
A Convergence Of The Evidence For Lost Profits
On An Infringer's Sales And Those Due To Price Erosion**

The most recent Federal Circuit damages cases illustrate the convergence of the evidence required to support claims for lost profits on an infringer's sales and those due to price erosion on the patentee's sales. Often the same factors of market segments, pricing effects on demand for a product, non-infringing substitutes, and profit levels apply under both damages theories.

The Federal Circuit, in *Ericsson, Inc. v. Harris Corp.*, 352 F.3d 1369, 1376-79 (Fed. Cir. 2003), addressed the economic proof necessary to support a lost profits claim on the infringer's sales as well as for price erosion damages. That evidence need not include all available economic evidence, and an accountant's expert opinion supported by logic and reasonable (if not overwhelming) anecdotal evidence was sufficient under *Crystal Semiconductor's* "sound economic proof" standard to allow the issue to go to a jury. *Id* at 1377-78.

In *Ericsson*, the infringer challenged the award of "lost sales" damages contending that the patentee's damages expert had failed to employ a sound and rigorous economic analysis required by *Crystal Semiconductor*. *Ericsson*, 352 F.3d at 1376-77. The infringer attacked the expert's "market share" approach for failing to define the markets properly, for failing to consider the cross-elasticities of demand for the products, and for arbitrarily allocating infringing sales between two markets without properly considering the availability of non-infringing substitutes. *Id*.

The patentee defended the expert's market definitions in light of the barriers to entry within those markets—namely, the patent itself and the large investments required

for customers to switch to non-infringing technology. *Id.* at 1377-78. The patentee also pointed to other supporting anecdotal testimony and documentary evidence. *Id.* The patentee further defended the expert's treatment of non-infringing substitutes, which were allegedly unavailable in at least in one of the relevant markets. *Id.*

The Federal Circuit reaffirmed that in order to recover lost profits, a patentee must show that "but for" infringement it likely would have enjoyed the sales made by the infringer. *Id.* at 1377. To establish that "but for" causation, "the patentee must reconstruct the market to determine what profits the patentee would have made had the market developed absent the infringing product." *Id.* at 1377.

The court, however, was unwilling to limit the type of evidence or theories that could support such reconstructions. The court observed that it has "affirmed lost profits awards based on 'a wide variety of reconstruction theories in which the patentee has presented reliable economic evidence of 'but for' causation,'" and noted that the type of "market share" analysis utilized by the patentee's expert was within the range of sanctioned approaches. *Id.* at 1377. The court further found that substantial evidence supported the expert's market definitions, sales allocations, the "elasticity" of demand in the relevant markets, and compensation for the effects of any non-infringing substitutes. *Id.* at 1378. "It was ultimately up to the jury, however, to weigh the credibility of the parties' opposing theories and evidence." *Id.*

The infringer similarly challenged the jury's "price erosion" lost profits award. The infringer asserted that the patentee's expert opinion was flawed as a matter of law because it presumed totally inelastic markets, and thereby failed to properly account for decreased sales that would have resulted from any price increase by the patentee. *Id.* at

1378-79. The patentee again relied on the significant barriers to entry in the relevant markets, which it asserted rendered demand elasticity determinations irrelevant. *Id.*

The patentee further pointed to the award of only a fraction of the claimed “price erosion” damages as confirmation that the jury did take into account demand elasticity issues. *Id.* at 1379. The Federal Circuit, again, found sufficient evidence to support the jury’s verdict: “[a]lthough we have recognized that an inelastic market may be ‘rare,’ it was for the jury to determine whether this was such a case based on the evidence before it.” *Id.* at 1379.

In *Ferguson Beauregard/Logic Controls v. Mega Sys., LLC*, 350 F.3d 1327, 1345-46 (Fed. Cir. 2003), the Federal Circuit underscored the basic principle that, to be recoverable, damages must be attributable to the patented feature of a product. Where part of the product’s value is attributable to non-patented features, the failure to account for the value of both patented and non-patented features in a damages model can lead to reversal. *Id.*

In the *Ferguson* case, the patentee succeeded in establishing infringement of only one of the two patents in suit. The infringer, however, challenged an award of lost profits damages because they were based on profit margins earned from the patentee’s sales of product that incorporated elements from both patents. 350 F.3d at 1345-46. The district court failed to properly account for the fact that a portion of the consumer demand for features claimed by the patent that was not infringed. *Id.* at 1346.

The Federal Circuit agreed that the district court “failed to distinguish the allocation of profits that would have been made ‘but for’ the infringement of the [infringed] patent with the profits that could fairly be allocated to customer demand

related to the features embodying the [patent that was not infringed].” *Id.* at 1346. Thus, the court reversed the lost profits award and remanded for a reconsideration of the damages due.

In *Utah Med. Prods., Inc. v. Graphic Controls Corp.*, 350 F.3d 1376, 1380 (Fed. Cir. 2003), a jury awarded \$20,000,000 in damages for the infringement of a medical device, which represented approximately 96% of the lost profits claimed by the patentee. On appeal, the infringer attacked that lost profits award as impermissibly predicated on a “two supplier market” theory. *Id.* at 1385-86. The undisputed evidence at trial identified that a number of other companies that also sold similar devices during the period of infringement, which assertedly were ignored by the jury. *Id.*

The Federal Circuit upheld the jury’s award, relying on evidence in the record supporting the existence of a separate market for patented devices, and that patentee and the infringer were the only competitors in that market. *Id.* at 1385-86. Critical to the court’s conclusion holding the testimony of the patentee’s expert that the patented devices and those sold by other manufacturers were so dissimilar in both price and performance that they could not be said to directly compete with one another for the same customers. *Id.*

**F. The Convergence Of The Evidence For
Lost Profits And Price Erosion Damages Offers
Opportunities For Both Patentees And Infringers**

The increasing economic sophistication of the Federal Circuit’s jurisprudence on damages has important consequences for both patentee and accused infringer. A patentee must carefully weigh the potential value of a lost profits or price erosion claim against the increasing expense of obtaining the detailed factual evidence and expert analysis that may

be required to prove it. If a price erosion claim is made, then multiple experts, including an economist, may be desired or necessary. Even for a more conservative lost profits claim, consideration of the issue of price elasticity may be appropriate if there is an appreciable price difference between the patentee's product and that of the infringer. The good news for a patentee is that additional forms of lost profits may be revealed by a more sophisticated analysis (*e.g.*, lost sales of non-patented products or lost profits due to market impairment). Such losses are increasingly likely to be recognized and recoverable under current law.

For accused infringers, the Federal Circuit's requirement of "sound economic evidence" to support a lost profits damage theory of any type provides fertile ground for *Daubert* challenges, cross-examination, and rebuttal evidence about the potentially dubious economic implications of an overly aggressive damage theory. Further, the evolution of Federal Circuit law exemplified by *Grain Processing's* hypothetical market approach tends to expand the extent of available non-infringing alternatives which can dramatically reduce if not eliminate lost profits damages.

Looking back on the last 20 years of patent damages jurisprudence, one could reasonably argue that patentees' increasingly aggressive damage claims have spawned case law that tends to impose a higher level of economic proof on damage claims, thereby subjecting even traditional, more conservative lost profits claims to greater scrutiny and making them more expensive to prove. In this sense, then, "greed" has been "good" for both patentees and accused infringers.