# United States Court of Appeals for the Federal Circuit

IGT,

Plaintiff-Appellee,

 $\mathbf{v}.$ 

ALLIANCE GAMING CORPORATION, BALLY GAMING INTERNATIONAL, INC., AND BALLY GAMING, INC. (DOING BUSINESS AS BALLY GAMING & SYSTEMS),

 $Defendants\hbox{-}Appellants.$ 

2011-1166

Appeal from the United States District Court for the District of Nevada in case no. 04-CV-1676, Judge Robert C. Jones.

Decided: December 17, 2012

\_\_\_\_

DEANNE E. MAYNARD, Morrison & Foerster LLP, of Washington, DC, argued for plaintiff-appellee. With her on the brief were ALEXANDER J. HADJIS, BRIAN R. MATSUI and MARC A. HEARRON. Of counsel on the brief was BRETT J. WILLIAMSON, O'Melveny & Myers LLP, of Newport Beach, California.

JENNIFER A. KASH, Quinn Emanuel Urquhart & Sullivan, LLP, of San Francisco, California, argued for defendants-appellants. With her on the brief were CHARLES K. VERHOEVEN and KEVIN A. SMITH.

Before BRYSON, LINN, and REYNA, Circuit Judges.

Opinion for the court filed by *Circuit Judge* REYNA. Dissenting opinion filed by *Circuit Judge* BRYSON.

REYNA, Circuit Judge.

IGT owns several patents related to "wheel games," a type of casino gaming machine containing a secondary bonus game incorporating a spinning wheel. IGT sued Alliance Gaming Corp., Bally Gaming International, Inc., and Bally Gaming, Inc. (collectively, "Bally") for infringement of these patents, and Bally counterclaimed under state and federal antitrust laws. The district court denied the motions for summary judgment on the antitrust issues, granted the motions that the patents were invalid and not infringed, and certified the patent issues for interlocutory appeal. This court affirmed. On remand, the district court granted summary judgment against Bally on its antitrust counterclaims. Because the undisputed facts are insufficient to establish the existence of a relevant antitrust market in wheel games, we affirm.

#### BACKGROUND

IGT specializes in the design, development, manufacturing, distribution, and sales of computerized gaming machines and systems. One of IGT's most popular and successful games was "Wheel of Fortune," a wheel game. In the mid-1990s, IGT applied for and obtained patents related to the wheel feature of the Wheel of Fortune game. At about the same time, Anchor Gaming (Anchor)

developed a wheel game called "Wheel of Gold" and obtained a patent on it. Anchor was eventually acquired by IGT.

Bally, one of IGT's chief competitors, designs, manufactures, operates, and distributes gaming machines, owns and operates a significant number of gaming machines, and owns and operates a casino. Bally began selling wheel games in 2002. Because IGT and Anchor had successfully used their patents to drive competitors out of the wheel game market, Bally became IGT's only wheel game competitor. IGT sued Bally for infringement of its wheel game patents, and Bally responded that the patents were invalid and not infringed. In addition, Bally counterclaimed, alleging that the infringement lawsuit was an attempt to monopolize the wheel game market by asserting patents that IGT knew to be invalid, unenforceable, and not infringed.

In March 2007, the district court granted partial summary judgment on Bally's antitrust counterclaims. The court granted summary judgment against Bally as to the larger market of all gaming machines, reasoning that "Bally ha[d] not presented any evidence as to the gaming machine market as a whole," but instead had only presented evidence related to the narrower wheel game market. The court then denied summary judgment with respect to the narrower wheel game market, finding that disputed issues of material fact existed. The court did not analyze the definition of the relevant market, but instead simply assumed the relevant market to be wheel games.

Following the partial denial of IGT's summary judgment motion, the parties served expert reports and deposed opposing expert witnesses. As part of its patent damages theory, IGT argued that there were no non-infringing substitutes for its wheel games. IGT's patent

damages expert, Richard Troxel, opined that IGT would have leased one of its wheel games for every Bally wheel game a casino bought or leased. Troxel based his opinion on the premise that "the wheel has such a demand and drawing power for consumers." Thus, Troxel reasoned, every sale of a Bally wheel game must represent a casino's desire to purchase a wheel game. Troxel does not appear to have analyzed whether any non-infringing alternatives existed. Instead, Troxel simply assumed that any substitute would necessarily be an infringing wheel game. This assumption appears to have been based on IGT and Bally's assertions that there were no other wheel game suppliers. Troxel had not been asked to opine on the relevant antitrust market, and had not examined price elasticity.

Both parties provided expert testimony regarding the definition of the relevant antitrust market. Bally's expert, Dr. Adams, concluded that a relevant market in wheel games existed. Dr. Adams based this largely on IGT's assertion that "the entry of Bally into the supplying of wheel games has caused IGT to have to lower its price for wheel games." J.A. 8287. He also asserted that the resources IGT expended acquiring and enforcing intellectual property rights related to wheel games established that wheel games are a relevant market. Finally, he addressed the Brown Shoe factors. 1 Dr. Adams identified the "peculiar characteristic" of the product as its wheelshaped bonus feature. He stated that wheel games were recognized as a separate economic activity because internal IGT materials sometimes discussed wheel games separately. Dr. Adams also observed that there were no

<sup>&</sup>lt;sup>1</sup> In *Brown Shoe Co. v. United States*, 370 U.S. 294 (1962), the Supreme Court established several factors helpful in determining whether a submarket exists. *See* discussion *infra* Part II.C.

unique production facilities or customers for wheel games. Subsequently, after receiving price data, Dr. Adams updated his report, concluding that evidence of price erosion showed that the relevant market was wheel games because "[i]f the entry of [Bally] caused the price of wheel games to fall, then wheel games are, by definition, a relevant antitrust product market." J.A. 25056.

IGT's antitrust expert, Professor Ordover, concluded that wheel games were not a relevant market. Ordover described gaming machines as a differentiated market, meaning that "any given machine will embody various characteristics that affect the appeal of the machine to players." J.A. 8088. He explained that gaming machines are "differentiated by such factors as type of display, theme, cabinet design, denomination, progressive vs. nonprogressive, and bonus features." J.A. 8108. games are one of many bonus types; other types include ladders, reels, elevators, and bouncing balls. stated that casinos offer a variety of gaming machines in order to attract and retain customers. He elaborated that the mix of machines on the floor is driven by profitability, and that each game competes for space on the gaming floor. In Ordover's opinion, the price erosion experienced by IGT after Bally introduced its wheel games was "the inevitable result of competition among differentiated products following the entry of a substitute to the product at issue." J.A. 8108.

On October 16, 2008, the court granted Bally's motion for summary judgment of non-infringement of the wheel game patents and granted summary judgment that two of the patents were invalid. In the same order, the court denied IGT's motion for summary judgment on the antitrust issues. The court noted that the definition of the relevant market was a question of fact and that a submarket may be relevant if it meets the *Brown Shoe* fac-

tors. After summarizing evidence related to these factors, the district court concluded that there were genuine issues of material fact about whether wheel games were a relevant market and whether wheel games were a submarket under *Brown Shoe*. The parties appealed the ruling on the patent issues to this court and we affirmed. *See IGT v. Alliance Gaming Corp.*, 334 F. App'x 329 (Fed. Cir. 2009).

On remand, IGT moved for reconsideration of the denial of its summary judgment motion on the antitrust It argued that a market definition of counterclaims. gaming machines with wheel-shaped bonuses was too narrow, pointing to evidence that "casinos mix and match different games on their floor space in order to maximize overall revenues." J.A. 24444. It also pointed to statements from both antitrust experts that gaming machines are differentiated products, meaning that "the products reflect a spectrum of price and quality differences." J.A. 24446. Changing course from its previous rulings, the district court ruled that wheel games were not a relevant market. The court noted that Bally had conceded that there is competition between wheel and non-wheel games. It stated that "it is undisputed that casinos mix and match products to maximize floor-space revenue generation." It therefore concluded that "[b]ecause all gaming machines compete, wheel games are not an economically distinct relevant market," and awarded summary judgment against Bally on its antitrust claims.

Bally appeals. This court has jurisdiction under 28 U.S.C. § 1295(a)(1).

#### DISCUSSION

To prevail in this appeal, Bally must show that the district court erred when it granted summary judgment that wheel games are not a relevant antitrust market.

Bally offers three arguments why this is so: (1) that the district court improperly resolved disputed facts when it determined that wheel games were not a relevant market because wheel games competed with all gaming machines; (2) that the district court erred in concluding that the existence of some substitution between wheel and non-wheel games foreclosed the existence of a wheel game market; and (3) that the district court improperly focused on functional, rather than economic, substitution.

T

When reviewing a district court's conclusion as to the relevant market under antitrust law, this court applies the law of the regional circuit. See Nobelpharma AB v. Implant Innovations, Inc., 141 F.3d 1059, 1068 (Fed. Cir. 1998). We also "review[] the district court's grant or denial of summary judgment under the law of the regional circuit." MicroStrategy Inc. v. Bus. Objects, S.A., 429 F.3d 1344, 1349 (Fed. Cir. 2005). We therefore apply Ninth Circuit law to both issues in this case.

Summary judgment is appropriate when there are no genuine issues of material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56. The Ninth Circuit "review[s] de novo the district court's grant of summary judgment to determine whether, viewing all evidence in the light most favorable to the nonmoving party, there are any genuine issues of material fact and whether the district court correctly applied the relevant substantive law." Whitman v. Mineta, 541 F.3d 929, 931 (9th Cir. 2008). "The party opposing summary judgment must demonstrate that the fact in contention is material, i.e., a fact that might affect the outcome of the suit under the governing law, and that the dispute is genuine, i.e., the evidence is such that a reasonable jury could return a verdict for the nonmoving party." Lindahl

v. Air France, 930 F.2d 1434, 1436 (9th Cir. 1991) (citing Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248-49 (1986)). "Factual disputes that are irrelevant or unnecessary will not be counted." Anderson, 477 U.S. at 248.

II

As a threshold issue in any monopolization claim, the court must identify the relevant market.<sup>2</sup> *M.A.P. Oil Co. v. Texaco Inc.*, 691 F.2d 1303, 1306 (9th Cir. 1982). "The relevant market is the field in which meaningful competition is said to exist." *Image Technical Servs., Inc. v. Eastman Kodak Co.*, 125 F.3d 1195, 1202 (9th Cir. 1997). "Market definition can be broadly characterized in terms of the 'cross-elasticity of demand' for or 'reasonable interchangeability' of a given set of products or services." *M.A.P. Oil*, 691 F.2d at 1306 (quoting *United States v. E.I. du Pont de Nemours*, 351 U.S. 377, 395 (1956)). Definition of the relevant market is a question of fact. *Theme Promotions, Inc. v. News Am. Mktg. FSI*, 546 F.3d 991, 1002 (9th Cir. 2008).

### A. Wheel Games Compete with All Gaming Machines

Bally does not dispute the district court's conclusion that wheel games compete with all gaming machines. Nor does it argue for or against the existence of a relevant market in gaming machines, a position it has abandoned. Nevertheless, Bally contends that the relevant market is a disputed question of fact that the district court improperly decided on summary judgment. We therefore begin by examining the district court's conclusion that wheel games compete with all gaming machines in order to

Two types of relevant markets must be identified: geographic market and product market. *M.A.P. Oil*, 691 F.2d at 1306. Geographic market is not at issue in this case.

ensure that it did not improperly resolve disputed facts and to provide background for the discussion of whether wheel games are a relevant market or submarket.

Both Bally and IGT provided extensive evidence that wheel games compete in the broader gaming machine market. Mr. Isaacs, Bally's corporate designee on the wheel game market, stated that he thought "just about anything may have potentially displaced the Bally wheel game." J.A. 6176. Bally's former Vice President of Business Development explained that Bally's wheel game "compete[d] with everything that's on the floor. The way it works is that you sell a machine and it competes against everything there." J.A. 6240. Bally's Senior Vice President of Domestic Sales provided similar statements, and IGT's Senior Vice President of Product Development stated that "generally speaking, operators will keep on their floor what earns the most." J.A. 6514.

Bally did not rebut this evidence. As Bally has failed to produce evidence to show there is a genuine issue of material fact that wheel games compete with all gaming machines, the district court did not resolve a disputed factual issue. See Rebel Oil Co. v. Atl. Richfield Co., 51 F.3d 1421, 1435 (9th Cir. 1995) (citing Celotex Corp. v. Catrett, 477 U.S. 317, 324 (1986)). Indeed, absent additional facts suggesting otherwise, the district court could conceivably have gone one step farther and concluded that the relevant market was all gaming machines. But Bally does present additional facts, and relied on arguments that evidence that its wheel games forced IGT to lower its prices shows that wheel games are a distinct market. We therefore turn next to whether a relevant market of wheel games exists.

#### B. Wheel Games Are Not a Relevant Market

The district court rejected wheel games as a relevant market because a market limited to wheel games would not encompass all economic substitutes. Focusing on the same undisputed evidence that supported its conclusion that wheel games compete with all gaming machines specifically, that "casinos mix and match products to maximize floor-space revenue generation"—the court reasoned that "the relevant market is significantly broader than 'wheel games' because there is ample evidence that non-wheel games compete with wheel games." The court rejected Bally's argument that this competition does not prevent wheel games from being a relevant market, concluding that "[b]ecause all gaming machines compete, wheel games are not an economically distinct submarket." Bally argues this was error because (1) the existence of some substitution does not preclude wheel games from being a submarket, and (2) the analysis focused on functional, rather than economic, substitution. We address each point in turn.

As discussed above, Bally does not dispute that wheel games compete with all gaming machines. argue, however, that it was error for the district court to conclude that this competition prevented wheel games from being a relevant market. As authority for this argument, Bally points to Unitherm Food Sys., Inc. v. Swift-Eckrich, Inc., in which this court, applying Tenth Circuit law, said: "For every product, substitutes exist. But a relevant market cannot meaningfully encompass that infinite range." 375 F.3d 1341, 1364 (Fed. Cir. 2004) (quoting Times-Picayune Publ'g Co. v. United States, 345) U.S. 594, 613 n.31 (1953)), rev'd on other grounds, 546 U.S. 394 (2006). The truth of this proposition is evident, as is the question it suggests: where should the courts draw the line? The remainder of the quotation from Times-Picayune suggests an answer: "The circle must be drawn narrowly to exclude any other product to which, within reasonable variations in price, only a limited number of buyers will turn; in technical terms, products whose cross-elasticities of demand are small." Times-Picayune, 345 U.S. at 613, n.31. This simply refers to the well-settled relevant market inquiry focusing on economic substitution.

Bally argues that it has shown a lack of economic substitution by satisfying what is known as the small but significant and non-transitory increase in price test ("SSNIP"). Under this test, Bally argues that the relevant question is "whether the degree of substitutability between the two products is sufficiently great that it would restrain a hypothetical monopolist from profitably imposing a substantial price increase." Appellant's Br. 57. Even assuming that SSNIP by itself is the proper test,<sup>3</sup> Bally has not alleged facts that would satisfy it. Bally contends that introduction of wheel games forced IGT to lower its prices. From this assertion, Bally argues that IGT's prior prices were supracompetitive. We accept both of these assertions as true. But Bally next asserts that these supracompetitive prices represented a SSNIP. With this we cannot agree. Bally has not explained what the

<sup>&</sup>lt;sup>3</sup> As support for its assertion that SSNIP is the controlling test, Bally cites *Theme Promotions*, which did allow that "[d]etermining the relevant market can involve" an SSNIP analysis, among other things. 546 F.3d at 1002. But the discussion of SSNIP in *Theme Promotions* was premised on *United States v. Oracle Corp.*, 331 F. Supp. 2d 1098 (N.D. Cal. 2004), which in turn was elaborating on the Department of Justice's Horizontal Merger Guidelines ("the Guidelines"). The Ninth Circuit has stated that the Guidelines are not binding on the courts. *See Olin Corp. v. FTC*, 986 F.2d 1295, 1300 (9th Cir. 1993).

baseline price for wheel games was from which IGT imposed a SSNIP. Although Bally implies that the baseline price should be similar to non-wheel games, no evidence supports this. Indeed, in a differentiated market, one would expect the prices for two differentiated products to be different. Having failed to establish such a baseline, Bally cannot successfully argue that IGT imposed a SSNIP. Furthermore, if we regard the supracompetitive prices as a baseline, Bally has shown that the prices decreased, not that they increased. Thus, even if the Guidelines test governs here, Bally has failed to put forth evidence that would satisfy it.

We also reject Bally's argument that the district court improperly focused on technological substitutions. The basis for this argument is the district court's statement that "it is undisputed that the relevant functionality of gaming machines is revenue generation." The court made this statement in the context of its description of the differentiated market of gaming machines in which wheel games compete. We hold that the court based its ultimate conclusion on competition, not on functionality, and that its recognition of meaningful competition was not error.

#### C. Wheel Games Are Not a Submarket

In addition to its argument that wheel games is a relevant market, Bally also contends that the *Brown Shoe* factors establish wheel games as a submarket.<sup>4</sup> "[A]lthough the general market must include all economic substitutes, it is legally permissible to premise antitrust allegations on a submarket." *Newcal Indus., Inc. v. Ikon Office Solution*, 513 F.3d 1038, 1045 (9th Cir. 2008); *Thurman Indus., Inc. v. Pay 'N Pak Stores, Inc.*, 875 F.2d

<sup>&</sup>lt;sup>4</sup> We assume, although Bally does not explicitly say so, that Bally's argument is that wheel games are a submarket of all gaming machines.

1369, 1374 (9th Cir. 1989) ("In limited settings . . . the relevant product market may be narrowed beyond the boundaries of physical interchangeability and cross-price elasticity to account for identifiable submarkets ...."). To the extent that the standard for defining a submarket differs from the standard for defining a market, it is embodied in the Brown Shoe factors.<sup>5</sup> In Brown Shoe, the Supreme Court listed several "practical indicia" of an economically distinct submarket: "industry or public recognition of the submarket as a separate economic entity, the product's peculiar characteristics and uses, unique production facilities, distinct customers, distinct prices, sensitivity to price changes, and specialized vendors." 370 U.S. at 325. "[T]he Brown Shoe indicia are practical aids for identifying the areas of actual or potential competition and . . . their presence or absence does not decide automatically the submarket issue." *Thurman*, 875 F.2d at 1375. "Whether isolating a submarket is justified turns ultimately upon whether the factors used to define the submarket are 'economically significant." Id. (quoting Int'l Tel. & Tel. Corp. v. General Tel. & Elec. Corp., 518 F.2d 913, 932 (9th Cir. 1975)).

<sup>&</sup>lt;sup>5</sup> A leading antitrust treatise suggests that the two inquiries are the same. See IIB Phillip E. Areeda, John L. Solow & Herbert Hovenkamp, Antitrust Law ¶ 533c (3d ed. 2007) [hereinafter Areeda]. Although at least one district court in the Ninth Circuit has adopted this position, see United States v. Oracle Corp., 331 F. Supp. 2d 1098, 1118-19 (N.D. Cal. 2009), we are aware of no Ninth Circuit case that has done so. See Newcal, 513 F.3d at 1045 (identifying the Brown Shoe factors as one way of showing that a submarket is economically distinct). In any event, we have already determined that Bally did not meet its burden to show that there was a relevant market in wheel games.

The undisputed facts, however, are insufficient to establish the existence of a submarket under the Brown Shoe factors. By definition, the "peculiar characteristic" distinguishing wheel games from other games is the wheel-shaped secondary bonus. It is undisputed that there are no unique production facilities or specialized vendors for wheel games versus ordinary gaming machines; one can just as easily produce a gaming machine with a square bonus as one with a circular bonus. This factor is particularly important in this case. See Brown Shoe, 370 U.S. at 325 n.42 ("The cross-elasticity of production facilities may also be an important factor in defining a product market."); Rebel Oil, 51 F.3d at 1436 ("[D]efining a market on the basis of demand considerations alone is erroneous."); Calnetics Corp. v. Volkswagen of Am., Inc., 532 F.2d 674, 691 (9th Cir. 1976) ("[F]ailure to consider production cross-elasticity [i]s inconsistent with the views of the Supreme Court and of this circuit."); see generally Areeda ¶ 561, at 360-64. It is also undisputed that there are no distinct customers: wheel games. like all gaming machines, are purchased by casinos. Bally's antitrust expert, Dr. Adams, conceded these points.

Bally's argument rests entirely on a single Brown Shoe factor: that "there is substantial evidence that game players, casinos, and IGT all view wheel games as a separate economic activity from non-wheel games." Bally bases this argument primarily on evidence that some players prefer wheel games and that, accordingly, casinos allocate a specific percentages of their floor space to different types of games, including to wheel games. But evidence of player preference for wheel games says nothing about whether there is a public or industry perception that wheel games constitute a separate market; to the contrary, it is in harmony with the rest of the evidence

that gaming machines are a differentiated market and that wheel games compete with all gaming machines to accommodate the spectrum of player preferences.

## D. The Disputed Facts Are Not Material

In addition to its market definition arguments, Bally contends that the district court erred by resolving factual disputes on summary judgment. In particular, Bally contends that IGT and its experts "have repeatedly and consistently testified that non-wheel games are not substitutes for wheel games." Appellant's Br. 56. Although Bally provides no further explanation, we understand this argument to refer to statements IGT and its experts made in support of its patent damages theory.

To prove its patent damages, IGT chose to seek lost profits under the *Panduit* test. Under the *Panduit* factors, IGT was required to prove the absence of acceptable non-infringing substitutes. See Rite-Hite Corp. v. Kelly Co., 56 F.3d 1538, 1545 (Fed. Cir. 1995) (en banc) (citing Panduit Corp. v. Stahlin Bros. Fibre Works, Inc., 575 F.2d 1152 (6th Cir. 1978)). By claiming that the wheel feature was critical, IGT was able to argue that there were no non-infringing substitutes for its wheel game, and that every infringing game sold represented a loss of profits to IGT. According to Bally, by making this argument, "IGT has admitted that there are no substitutes for wheel games and that non-wheel games are not in the same market as wheel games." Appellant's Br. 39-40. disagree.

Even under the summary judgment standard, Troxel's opinion that there were no non-infringing technological substitutes cannot be read to mean that there were no economic substitutes. To do so, Troxel's opinion would need to be able to support a reasonable inference that no economic substitution existed. But, as Bally acknowl-

edges, Troxel simply "relied on Bally's assertion that wheel games are an antitrust market." Appellant's Reply Br. 5. Because Troxel simply assumed that the market was co-extensive with the patent, however, such an inference would be unreasonable. See Rebel Oil, 51 F.3d at 1435 ("In the context of antitrust law, if there are undisputed facts about the structure of the market that render the inference economically unreasonable, the expert opinion is insufficient to support a jury verdict."). And, as discussed above, even if wheel games are a relevant market, the high supply elasticity rendered demand elasticity immaterial. Id. at 1436 (holding that excessive supply elasticity rendered it "immaterial that consumers do not regard the products as substitutes, that a price differential exists, or that the prices are not closely correlated."). We therefore conclude that the district court's order did not resolve disputed issues of material fact.

#### CONCLUSION

The undisputed facts in this case show that meaningful competition exists between wheel games and all gaming machines. Furthermore, even viewing all evidence in the light most favorable to Bally, the *Brown Shoe* factors do not support a conclusion that wheel games should be considered a separate submarket. The district court correctly granted summary judgment that a wheel game market did not exist, and the decision is hereby

### **AFFIRMED**

# United States Court of Appeals for the Federal Circuit

**IGT,**Plaintiff-Appellee,

 $\mathbf{v}$ .

ALLIANCE GAMING CORPORATION, BALLY GAMING INTERNATIONAL, INC., AND BALLY GAMING, INC. (DOING BUSINESS AS BALLY GAMING & SYSTEMS),

Defendants-Appellants.

2011-1166

Appeal from the United States District Court for the District of Nevada in Case No. 04-CV-1676, Judge Robert C. Jones.

\_\_\_\_

BRYSON, Circuit Judge, dissenting.

In my judgment the appellants have presented sufficient evidence to establish the existence of a genuine issue of material fact on the relevant market issue. However counterintuitive it may be to those who are not habitués of gambling establishments, the appellants' evidence raises a triable question of fact as to whether there is a separate market for slot machines that include a secondary bonus game with a spinning wheel, machines

that are referred to as "wheel games" in the gaming industry.

Bally has shown that IGT was charging supracompetitive prices before Bally entered the wheel game market and that Bally's entrance into the market pressured IGT to lower its prices to a competitive level. Ron Rivera, IGT's Senior Vice President of Sales, testified that IGT successfully rebuffed calls for discounts on its wheel games before Bally began manufacturing wheel games, but that it was forced to acquiesce in those demands when customers were able to buy Bally's wheel games. IGT admits that the discounts were the direct and sole result of Bally introducing its wheel games into the market. The fact that IGT's wheel games were subject to price pressure only when other wheel games entered the market indicates that consumers were willing to incur monopolistic pricing without shifting demand to non-wheel games. i.e., that there was very little, if any, cross-elasticity of demand between wheel games and non-wheel games.

IGT's own expert, Richard Troxel, admitted that he saw no need to calculate cross-elasticity of demand because there was such strong demand for wheel games independent of demand for non-wheel games: "[T]he wheel has such a demand and drawing power for consumers that . . . it seemed to me that the price elasticity was not the issue. Price elasticity occurs when you have products that are of a nature that price is going to make a difference to the consumer, and whether or not they would move to a different type of product or not. In this case the wheel was what they wanted." That evidence indicates that there was demand for wheel games separate from casino gaming machines generally and that consumers would rather bear a small but significant non-

transitory increase in price than switch to non-wheel games.

That analysis is consistent with the evidence from Bally's expert, Gregory Adams. While referring to IGT's economic data, he stated that the margin and profit per unit for wheel games is higher than for non-wheel games and that "the demand for wheel games appears to differ from the demand for non-wheel games, even when controlling for [all other variables]." Those statements and the economic data underlying them provide further support for Bally's contention that wheel games form a separate product market.

IGT asserts that Bally was required to calculate crosselasticity of demand and that Bally's failure to do so is fatal to its claim. The case law, however, does not mandate such a showing by an antitrust plaintiff. See, e.g., Knutson v. Daily Review, Inc., 548 F.2d 795, 804 (9th Cir. 1976) (plaintiffs did not have to "produce a numerical value of the cross-elasticity of demand" to prove a relevant market; "[p]roofs of the [Brown Shoe] factors ... would have sufficed"); FTC v. PPG Indus., Inc., 798 F.2d 1500, 1504-06 (D.C. Cir. 1986) (using as relevant factors consumer and manufacturer perceptions and conduct); In re Live Concert Antitrust Litig., 863 F. Supp. 2d 966, 984-86 (C.D. Cal. 2012) (collecting cases standing for the proposition that "while calculating the cross-elasticity of demand (and supply) is the preferred methodology, it is not an absolute requirement"); see also Ericsson, Inc. v. Harris Corp., 352 F.3d 1369, 1376-78 (Fed. Cir. 2003) (crediting expert who purportedly "failed to calculate the cross-elasticities of demand" and finding that the "failure to present all of the economic evidence that Harris now identifies does not mean that Ericsson failed to present sound economic evidence"). Bally's evidence indicates a

clear absence of cross-elasticity of demand between wheel and non-wheel games that obviates the need to quantify the degree of the elasticity.

The majority contends that Bally's relevant market argument fails because it has not offered evidence as to the baseline prices for wheel games from which IGT obtained a premium based on its allegedly monopolistic practices. But Bally offered evidence that, when it introduced wheel games into the market, IGT was required to reduce its prices, and that evidence included the amount by which those prices were reduced when competitive wheel games became available. That is precisely the kind of evidence that shows the effect of the allegedly monopolistic conduct on the market. See 2B Philip E. Areeda et al., Antitrust Law: An Analysis of Antitrust Principles and Their Application §§ 533b, 563a (3d ed. 2007) ("Areeda").

IGT's evidence of lost profits due to patent infringement provides a further indication that the relevant market is limited to wheel games. See Panduit Corp. v. Stahlin Bros. Fibre Works, Inc., 575 F.2d 1152 (6th Cir. 1978). In making its case for damages in the form of lost profits, IGT asserted that there were no acceptable noninfringing substitutes for its wheel games. Mr. Troxel testified that there were no non-wheel game substitutes and that Bally's wheel games replaced IGT's wheel games on a one-for-one basis. Because "Panduit's second factor, properly applied, ensures that any proffered alternative competes in the same market for the same customers as the infringer's product[,]" BIC Leisure Prods., Inc. v. Windsurfing Int'l, Inc., 1 F.3d 1214, 1219 (Fed. Cir. 1993), the lack of any acceptable non-infringing alternatives strongly suggests that the market consisted of only IGT's and Bally's wheel games. In other words, IGT's evidence that there were no alternatives to which consumers could shift their demand other than Bally's products is evidence that the relevant market was limited to wheel games.

IGT's higher prices and profit margins on wheel games cannot be attributed simply to normal economic performance in a differentiated product market that includes wheel and non-wheel games. The court in *United States v. Oracle Corp.*, 331 F. Supp. 2d 1098, 1116 (N.D. Cal. 2004), addressed that issue persuasively, explaining why monopolistic rents do not survive in a differentiated market lacking barriers to entry:

Like a seller in a perfect competitive market, however, sellers in a "competitive" differentiated products market do not obtain monopoly rents. In differentiated product markets with few barriers to entry, firms will introduce products that are increasingly close, although not perfect substitutes, for the other products in the market. The introduction of additional products causes the demand curve faced by each seller to shift downward and leftward until, at long run equilibrium, the demand curve intersects the average cost curve of the seller (defined as economists define costs to include a reasonable profit) eliminating the monopolistic rent . . . .

Although close substitutes, such as reel bonus games and tower bonus games, had been introduced, casinos still sought out wheel games despite the higher prices for those products, indicating the existence of a separate market for wheel games. If a product is priced higher than similar competing products, rational costminimizing consumers will shift to the lower-priced similar products, even if the lower-priced products differ somewhat from the preferred product. If, instead, there

are no similar or acceptable alternatives (as occurs in a monopolized market or where patent protection bars the introduction of competitive alternatives), consumers will bear the increased price for the preferred product because there are no satisfactory alternatives to which demand can be shifted.

Because IGT's patents barred potential competitors from marketing wheel games, the majority's reference to supply elasticity is beside the point. The majority argues that the fact that there are no unique production facilities or specialized vendors for wheel games indicates that there is production cross-elasticity and thus elasticity of supply. But the existence of IGT's patents barred competitors from producing wheel games regardless of how easy it would have been to do so. The whole point of IGT's obtaining patent protection for wheel games was to limit the economic effects of supply elasticity.

Bally's evidence was sufficient to create a genuine issue of material fact as to whether IGT used its patents to maintain a monopoly in a market that was sufficiently separate from the market for other slot machines that IGT was able to demand monopolistic prices over an extended period of time. It is not enough to say that

Supply elasticity is a theory that neither party advanced. In fact, IGT argued that "the critical question in determining an antitrust product market is the "crosselasticity" of demand' between products. . . . Stated differently, the relevant antitrust market is the smallest group of products for which a hypothetical monopolist could profitably impose a 'small but significant and nontransitory increase in price' (SSNIP)." The majority not only assigns weight to the allegedly high supply elasticity for wheel games but, in discussing demand elasticity, disparages the same test that IGT believed to be "the critical question" in resolving this issue.

IGT's wheel games competed with other bonus games or other slot machines in general. It could equally be said that IGT's machines competed with other casino games or even with entertainment activities generally. But that does not overcome Bally's showing that there was a discrete market for wheel games within the overall slot machine, gaming, and entertainment markets, as demonstrated by the persistent monopolistic prices that resulted from the patent-based curtailment of supply and the customer-preference driven specificity of demand. See Areeda § 533c, at 255.2

In light of the record evidence summarized above, I conclude that Bally has presented sufficient evidence for a reasonable finder of fact to find that the relevant product market is limited to wheel games. The relevant market inquiry seeks to determine the scope of the market in which a monopolist can exert market power over buyers.

Rebel Oil Co. v. Atlantic Richfield Co., 51 F.3d 1421 (9th Cir. 1995), on which the majority relies, stands for the unremarkable proposition that a high degree of supply elasticity can bear on the relevant market inquiry and may even be determinative in some cases. In that case the court found that full-serve gas stations were potential competitors of self-serve stations—and thus belonged in the relevant market—because full-serve stations could "easily convert their full-serve pumps, at virtually no cost, into self-serve, cash-only pumps, expanding output and thus constraining any attempt by [the alleged monopolist] to charge supracompetitive prices for self-serve gasoline." Id. at 1436. Critically, however, nothing prevented the full-serve stations from making that change to their business in order to deter or rein in potentially monopolistic pricing by self-serve stations. Here, by contrast, potential suppliers were discouraged from entering the wheel game market by vigorous enforcement of the very patents that are being attacked as unlawful.

Bally alleges, and has introduced evidence to prove, that IGT had market power over buyers in supplying wheel games. I therefore respectfully dissent.