United States Court of Appeals,

Eleventh Circuit.

No. 97-8320.

UNITED STATES of America, Plaintiff-Appellant,

v.

ENGELHARD CORPORATION, Floridin Company, U.S. Borax Inc., and U.S. Silica Company, Defendants-Appellees.

Oct. 23, 1997.

Appeal from the United States District Court for the Middle District of Georgia. (No. 6:95-CV-45-WLS), W. Louis Sands, Judge.

Before EDMONDSON and DUBINA, Circuit Judges, and LIMBAUGH^{*}, Senior District Judge.

DUBINA, Circuit Judge:

In this antitrust case, plaintiff-appellant The United States of America ("the Government") appeals the district court's order denying its request for a permanent injunction prohibiting defendant-appellee Engelhard Corporation ("Engelhard") from acquiring the assets of defendant-appellee Floridin Corporation ("Floridin"). The district court refused to enjoin the transaction after concluding that the Government failed to carry its burden of establishing the relevant product market. For the reasons that follow, we affirm the judgment of the district court.

I. BACKGROUND

This case involves a transaction between Engelhard and Floridin—the two leading producers and distributors of gel quality attapulgite clay ("GQA") in the United States. Only three companies currently produce GQA in the United States. Engelhard and Floridin each hold over forty percent (40%) of the GQA market. A third company, Milwhite, holds approximately fifteen percent (15%) of the GQA market.

Attapulgite is a form of clay found throughout the world. In the United States it is found only along the Georgia-Florida border. There are two forms of attapulgite. "Sorbent quality

^{*}Honorable Stephen N. Limbaugh, Senior U.S. District Judge for the Eastern District of Missouri, sitting by designation.

attapulgite," as the name would indicate, has absorbent qualities and is used in products designed to absorb liquids. GQA, the type of attapulgite at issue in this case, is used as a thickening and suspension agent in a variety of industrial products, including suspension fertilizers, animal feeds, paints, asphalt roof-coatings, tape joint compounds, drilling fluids, and molecular sieves. Engelhard and Floridin process both sorbent quality attapulgite and GQA. The Government has raised antitrust concerns solely with GQA.

U.S. Silica, Floridin's parent corporation, decided to get out of the attapulgite business and offered to sell Floridin's assets. Engelhard expressed interest in purchasing Floridin's assets, in large part to acquire Floridin's more modern processing plant in Quincy, Florida. In an attempt to avoid antitrust problems, the parties structured the deal so that Engelhard purchased only the Quincy processing plant and Floridin's sorbent quality attapulgite business, not its GQA business. A third party, ITC Corporation ("ITC"), would purchase Floridin's GQA business. ITC and Engelhard planned to enter a joint venture agreement under which Engelhard would provide ITC with GQA at cost, the companies would share the Quincy processing plant, and would otherwise operate as independent distributors of GQA.

The Government challenged the proposed transaction, arguing that it would substantially lessen competition in the GQA market. After a three-week bench trial, the district court found that the Government failed to carry its burden of establishing the relevant product market. Based on this threshold ruling, the district court did not reach the other issues in the case. The district court entered an interim injunction to allow the Government to seek an injunction pending appeal from this court. We refused to issue the injunction but expedited the appeal. The transaction has since been consummated.

II. DISCUSSION

The Government contends incorrectly that the district court rejected the approach of the U.S. Department of Justice and Federal Trade Commission Horizontal Merger Guidelines §§ 1.0 and 1.11 (1992) (hereinafter, "the Guidelines") as to product market definition. Under the Guidelines, the relevant inquiry is whether there are substitutes to which a customer would switch in response to a "small but significant and nontransitory price increase" in the product in question. *See* AREEDA, HOVENKAMP & SOLOW, ANTITRUST LAW, Vol. IIA, ¶ 537a (1995) (hereinafter, "AREEDA"). The Department of Justice ("DOJ") quantifies a "small but significant price increase" as a five to ten percent (5-10%) permanent increase. The DOJ uses the 5-10% test "to delineate the relevant market, to determine whether the merger is horizontal, to identify the other competitors in the market, and to assess the likelihood of entry." Speech of Assistant Attorney General James Rill, 7 Trade Reg. Rep. (CCH) ¶ 50,032 at 48,639. Under this test, the Government asks whether customers of a particular product, for example Product A, would switch to alternative products in the face of a permanent 5-10% increase in the price of Product A by a hypothetical monopolist, where the increase is not cost justified. If customers would not switch to the alternative product, then the Government believes there is sufficient cross-elasticity of demand so that Product A and the alternative product are in the same product market.

In this case, the Government relied heavily on the 5-10% test at trial. The Government produced evidence that current GQA customers would not switch to alternative products in the face of a 5-10% increase in the price of GQA. Largely on this basis, the Government contends that GQA is the relevant product market and that the district court erred because, according to the Government, it rejected the 5-10% test.

We disagree with the Government's characterization of the district court's order. The district court did not reject the 5-10% test. As the district court stated in its order denying the Government's motion for an injunction pending appeal:

under the facts of record as presented to the Court, the 5%-10% test, *as applied by the plaintiff*, to a limited number of consumers provided contradictory and inconclusive answers as to what, if any, competition exists between gel quality attapulgite and other products for the purposes of relevant product analysis.

Dist. Ct. Order at 4 (RE Tab # 138). In fact, in response to the Government's contention that the district court had rejected the 5-10% test, the court explicitly stated that "[i]n light of the

inadequacies in breadth and scope of the plaintiff's inquiries to consumers, the Court could not hold that gel quality attapulgite constituted a relevant market *even under the plaintiff's 5 to 10 percent standard*." *Id.* at 5. The district court's decision turned on the Government's failure to prove the product market it alleged. Establishing the relevant product market is an essential element in the Government's case. *See U.S. Anchor Mfg., Inc. v. Rule Indus. Inc.,* 7 F.3d 986, 994 (11th Cir.1993) ("Defining the market is a necessary step in any analysis of market power and thus an indispensable element in the consideration of any monopolization or attempt case arising under section 2."). Despite the Government's protestations to the contrary, this case does not touch upon broad antitrust principles, but instead turns on a simple question asked in every civil case—whether the plaintiff carried its burden of proof. Therefore, it is unnecessary for us to address, as a general matter of law, the validity of the 5-10% test.

"The definition of the relevant market is essentially a factual question." *U.S. Anchor*, 7 F.3d at 994. Thus, we review the district court's determination that the Government did not prove the relevant product market under the clearly erroneous standard. *National Bancard Corp. v. VISA U.S.A., Inc.,* 779 F.2d 592, 604 (11th Cir.1986); *Cable Holdings of Georgia, Inc. v. Home Video, Inc.,* 825 F.2d 1559, 1563 n. 6 (11th Cir.1987). In determining the relevant market, "[t]he finder of fact normally is presented with voluminous expert testimony and other evidence. In such a situation, its factual findings are accorded great deference." *National Bancard,* 779 F.2d at 604. Therefore, the issue before us is whether the district court committed clear error in finding that the Government did not prove that GQA is a relevant product market.

"Defining a relevant product market is primarily a process of describing those groups of producers which, because of the similarity of their products, have the ability—actual or potential—to take significant amounts of business away from each other." *U.S. Anchor*, 7 F.3d at 995 (quotations omitted). The boundaries of the product market are determined by "the reasonable interchangeability of use or the cross-elasticity of demand between the product itself and substitutes for it." *Brown Shoe Co. v. United States*, 370 U.S. 294, 325, 82 S.Ct. 1502, 1523-24, 8 L.Ed.2d 510

(1962); *see also*, AREEDA, Vol. IIA, ¶ 530a ("[A] market is the arena within which significant substitution in consumption or production occurs."). Although every product has a substitute, the relevant product market does not encompass all substitutes. *Times-Picayune Publ'g Co. v. United States*, 345 U.S. 594, 612 n. 31, 73 S.Ct. 872, 882 n. 31, 97 L.Ed. 1277 (1953). "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." *Id*.

The district court found that the Government did not prove that GQA was the relevant product market after concluding that the Government's methodology used to gather data was grievously flawed. The court criticized the Government's case on several grounds. Likewise, the Government on appeal has roundly criticized the district court's view of the evidence. However, we need not discuss each disputed fact at issue in this case. Under the clearly erroneous standard, we must affirm the district court unless review of the entire record leaves us "with the definite and firm conviction that a mistake has been committed." *Anderson v. Bessemer City*, 470 U.S. 564, 573, 105 S.Ct. 1504, 1511, 84 L.Ed.2d 518 (1985) (*citing United States v. United States Gypsum Co.*, 333 U.S. 364, 395, 68 S.Ct. 525, 542, 92 L.Ed. 746 (1948)). As long as the district court's findings are plausible, we may not reverse the district court even if we would have decided the case differently. *Anderson*, 470 U.S. at 574, 105 S.Ct. at 1511 ("Where there are two permissible views of the evidence, the factfinder's choice between them cannot be clearly erroneous.").

There are good reasons for our deference to district courts in determining matters of fact. As stated by the Supreme Court:

The trial judge's major role is the determination of fact, and with experience in fulfilling that role comes expertise. Duplication of the trial judge's efforts in the court of appeals would very likely contribute only negligibly to the accuracy of fact determination at a huge cost in diversion of judicial resources. In addition, the parties to a case on appeal have already been forced to concentrate their energies and resources on persuading the trial judge that their account of the facts is the correct one; requiring them to persuade three more judges at the appellate level is requiring too much.

Anderson, 470 U.S. at 574-75, 105 S.Ct. at 1512. This is all the more true in an antitrust case such as this where the district court heard voluminous evidence over the course of a three-week bench trial. *See National Bancard*, 779 F.2d at 604. Thus, rather than discussing each piece of evidence in as much detail as did the district court, we will focus on what, in our view, are the most obvious shortcomings in the Government's case.

First, when determining the relevant market, the question is whether a hypothetical monopolist could *profitably* raise price. If a sufficient number of customers switch to alternative products, then the hypothetical GQA price increase can become unprofitable. Furthermore, it is possible for only a few customers who switch to alternatives to make the price increase unprofitable, thereby protecting a larger number of customers who would have acquiesced in higher GQA prices. To evaluate such possibilities, the Government should have ascertained the size of the GQA market in its different end-use applications. However, the Government's expert, Dr. Bodisch, could not identify the number of companies using GQA in many of its end-use applications. Dist. Ct. Order at 17. This undermines the Government's entire case. No matter how many customers in each end-use industry the Government may have interviewed, those results cannot be predictive of the entire market if those customers are not representative of the market. Without knowing the size of the market, we cannot know if the customers interviewed are representative of that market. In short, under the circumstances of this case, evidence on the size of the GQA market was essential, and its absence casts a shadow over the reliability of all Dr. Bodisch's conclusions.

Second, the Government failed to consider competition in the pre-formulation industrial thickener market—competition before GQA has been selected as an ingredient. In applying the test, the Government asked *current* GQA customers whether they would switch to alternative products in the face of a permanent 5-10% price increase. The evidence showed that they would not. However, the record is replete with evidence that GQA is used in specially formulated products designed to achieve very particular end-use requirements. A change in the type of thickener or suspension agent used may change the product's end-use performance, thus requiring testing and

reformulation before the product will perform properly. In fact, some GQA customers are even reluctant to switch among GQA suppliers for fear of reformulation costs and performance problems. Moreover, some Engelhard customers testified that they would not switch to Floridin GQA if faced with a 5-10% increase in price. This makes clear that current GQA customers consider the high cost of reformulation in their responses to the 5-10% question posed by the Government. Additionally, GQA customers are reluctant to switch because GQA makes up only a small percentage of the final cost of the products in which it is used. *See* Dist. Ct. Order at 8 (finding that GQA makes up 0.1% to 10% of total cost of products in which it is an ingredient and on average makes up 5% or less of total cost). Therefore, a 10% increase in the price of GQA on average will increase the overall cost of a \$100 product by only 50 cents.

Consideration of reformulation costs and the minuscule impact of GQA prices on the price of the finished products in which it is used, explain why current GQA users are reluctant to switch in the face of hypothetical price increases sometimes well in excess of 10%. More importantly, however, it highlights the need for evidence of pre-formulation competition among GQA and other industrial thickeners and suspension agents. Certainly, Engelhard and Floridin are not content to simply hold on to the GQA business they now have; rather, they hope to expand it. As new products of all stripes are developed and old products are reformulated, GQA must compete against other industrial thickeners and suspension agents or become obsolete. For example, if GQA and an alternative product competed at the pre-formulation stage, that competition might protect current GQA users (who would acquiesce in much higher GQA prices) from the exercise of monopoly power. As the district court stated:

[The Government] presupposes that competition can only exist at the post-formulation stage, when GQA has already been chosen as an ingredient in an end-use product ...

[[]This] highlights the failure of the 5-10% test to account for the possibility that purchasers and potential purchasers of GQA could opt to use a substitute substance for the same function when creating a new product or retooling an old one. Such formulation stage competition could very well serve as a restraint against anticompetitive price increases by forcing GQA producers to price their products competitively or price themselves out of the market completely.

Dist. Ct. Order at 11-12. Given the evidence in the record of high reformulation costs and the low cost of GQA in relation to the products in which it is used, evidence on the pre-formulation industrial thickener market was essential.

Although not directly on point, we agree with the district court that the Supreme Court's analysis in *United States v. Continental Can Co.*, 378 U.S. 441, 84 S.Ct. 1738, 12 L.Ed.2d 953 (1964), supports the district court's view of the evidence in this case. *Continental Can* involved the merger of the second largest producer of metal containers and the third largest producer of glass containers. Although the district court found competition between glass, metal, and plastic containers, the district court did not find glass and metal to be in the same market. The Supreme Court reversed. Although customers who pack their goods in cans versus bottles do not switch back and forth each day as prices of cans and bottles vary, the Court held that glass and metal containers could constitute the same product market.

[T]hough the interchangeability of use may not be so complete and the cross-elasticity of demand not so immediate as in the case of most intraindustry mergers, there is over the long run the kind of customer response to innovation and other competitive stimuli that brings the competition between these two industries within § 7's competition-preserving proscriptions ... That there are price differentials between the two products or that the demand for one is not particularly or immediately responsive to changes in the price of the other are relevant matters but not determinative of the product market issue.

Continental Can, 378 U.S. at 455, 84 S.Ct. at 1746. A similar situation exists in the industrial thickener market. Although the demand for GQA is not immediately responsive to changes in the price of GQA or other industrial thickeners, GQA competes with other industrial thickeners when products are being formulated. Over the long run, this pre-formulation competition may protect current GQA users from the exercise of market power.¹ Of course, we do not mean to suggest that

¹Professor Areeda describes a similar problem as the "time factor" of market power. It is illustrative here as well:

A defendant's market power may be greater in the very short run than in some longer period. [B]uyers shift quite rapidly among substantially identical products when relative prices change, quickly revealing the cross-elasticity of demand between brands X and Y. Shifts may take more time when substitute products differ significantly in their physical characteristics. A coal-burning boiler may not be readily convertible to natural gas; a baker's wrapping machine may handle

this pre-formulation competition necessarily would prevent a hypothetical GQA monopolist from profitably raising prices. On this issue, the record is inadequate because the Government did not offer evidence of pre-formulation competition. Without such evidence, determining whether a hypothetical monopolist could *profitably* raise GQA prices is pure guesswork.

The Government's methodology for determining the relevant product market, as applied in this case, was flawed. The Government failed to ascertain the size of the GQA market and did not consider the possibility that pre-formulation competition could restrain GQA prices. After thoroughly reviewing the record, we cannot say the district court was clearly erroneous in holding that the Government failed to carry its burden of establishing the relevant product market.

III. CONCLUSION

For the foregoing reasons, we affirm the judgment of the district court.

AFFIRMED.

AREEDA, Vol. IIA, ¶ 530c.

only cellophane, not wax paper. Despite a rising relative price for coal or cellophane, shifting to gas or paper may not be economical for these users until their boilers or wrapping machines "wear out." Consequently, demand shifts may be gradual, thus delaying their full impact on price for several years, during which the defendant's power would be declining.