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# In Re Flat Glass

Precedential or Non-Precedential: Precedential

Docket No. 03-2920

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PRECEDENTIAL

UNITED STATES COURT OF APPEALS FOR THE THIRD CIRCUIT

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No. 03-2920

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IN RE FLAT GLASS ANTITRUST LITIGATION (MDL No. 1200)

BRIAN S. NELSON, d/b/a Jamestown Glass Service; MEL'S AUTO GLASS, INC.; A. WAXMAN & CO., on behalf of itself, and all others similarly situated; DESIGNER WINDOWS, INC., on behalf of itself and all others similarly situated; MOSES MOORE ALL GLASS ASPECTS, INC., on behalf of itself and all others similarly situated; AAA GLASS, INC., on behalf of itself and all others similarly situated, d/b/a The Glass Doctor; THE LURIE COMPANIES, INC.; VSTB ENTERPRISES, INC., d/b/a Perfecto Auto Glass & Upholstery and its successors; PORT CITY GLASS & MIRROR, INC., on its own behalf and on behalf of all others similarly situated; JOHN HEALY, JR.; COUNTY AUTO GLASS, INC., on behalf of themselves and all others similarly situated; GERARD J. CLABBERS, on behalf of himself and all others similarly situated; KIRSCHNER CORPORATION, INC., t/a Berwyn Glass Company, on behalf of itself and all others similarly situated; HARTUNG AGALITE GLASS CO., d/b/a Hartung Glass Industries; ALL STAR GLASS, INC., on behalf of itself and all others similarly situated; SUPERIOR WINDSHIELD INSTALLATION, INC., on behalf of itself and all others similarly situated; JOVI, INC., on behalf of itself and all others similarly situated, t/a Easton Area Glass; ENGINEERED GLASS WALLS, INC., on behalf of itself and all others similarly situated; BAILES GLASS CO.; INTERSTATE GLASS DISTRIBUTORS, INC., on behalf of itself and all others similarly situated; ORLANDO AUTO TOP, INC.; MAYFLOWER SALES CO., INC., on behalf of itself and all others similarly situated; CARDINAL IG; REED'S BODY SHOP, INC.; BELETZ BROTHERS GLASS COMPANY, INC.; COMPLAST, INC.; WESTERN STATES GLASS, on behalf of itself and all others similarly situated; GRIMES AUTO GLASS, INC.; D&S GLASS SERVICES, INC.;GEORGE BROWN & SON GLASS WORKS, INC.; THERMAL CHEK, INC.; MOBILE GLASS, INC., individually and as a representative of a class; JELD-WEN, INC., an Oregon Corporation; JELD-WEN CANADA LIMITED, a Canadian corporation; JELD-WEN ARIZONA, INC., an Arizona corporation; AVANTI INDUSTRIES, INC., an Arizona corporation; LAKEWOOD CITY GLASS, INC.; CAROLINA MIRROR; ALLSTATE INSURANCE COMPANY; ALLSTATE INDEMNITY COMPANY

v.

PILKINGTON PLC; PILKINGTON LIBBEY-OWENS-FORD CO., INC.; AFG INDUSTRIES, INC.; GUARDIAN INDUSTRIES CORPORATION; PPG INDUSTRIES, INC.; LIBBEY-OWENS-FORD CO., INC.; ASAHI GLASS CO., LTD.; FORD MOTOR CO.; PILKINGTON HOLDINGS; ASAHI GLASS AMERICA, INC.

UNITED STATES OF AMERICA
(Intervenor in D.C.)
(D.C. No. 97-mc-00550)

Class Plaintiffs and Grimes Auto Glass,

Appellants

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On Appeal from the United States
District Court for the
Western District of Pennsylvania
(Dist. Court No. 97-mc-00550)
District Judges: Hon. Donetta W.
Ambrose and Hon. Donald E. Ziegler

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Argued: June 22, 2004

Before: NYGAARD, MCKEE and
CHERTOFF, *Circuit Judges*

(Filed: September 29, 2004)

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OPINION OF THE COURT

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CHERTOFF, *Circuit Judge*.

This case addresses the recurring question of what quantity and quality of evidence suffices to create a genuine issue of material fact as to one particular element of a claim under Section 1 of the Sherman Act: whether a defendant entered into an unlawful agreement. Appellants contend that appellee PPG Industries, Inc. ("PPG") conspired with its competitors to fix the prices of flat glass and automotive replacement glass in the early 1990s. The District Court granted PPG's motion for summary judgment on the ground that there was insufficient proof of an agreement. We will reverse in part, affirm in part, and remand for additional proceedings.

## I. Background

### A. The Flat Glass and Automotive Replacement Glass Industries

PPG manufactures sheets of glass through a method called the "float process." Molten glass is poured over a bath of higher-density liquid, such as molten tin. As the glass floats on top of the bath, it is polished under controlled temperatures. Finally, the glass is fed into an "annealing oven" where it gradually cools and hardens. See In re Flat Glass Antitrust Litigation, 191 F.R.D. 472, 476 n.7 (W.D. Pa. 1999). The glass that PPG produces through the float process—in

various sizes, thicknesses, and tints, see Supp. App. 14 n.16; App. 634—is called "flat glass."

PPG and a handful of other firms—Libbey-Owens-Ford Company ("LOF," a subsidiary of the British glass producer Pilkington LLC); AFG Industries, Inc. ("AFG," a subsidiary of the Japanese glass producer Asahi Glass Co.);[1] Guardian Industries ("Guardian"); and Ford Motor Co. ("Ford")—manufacture well over ninety percent of the flat glass sold in the United States. In 1995, for example, PPG accounted for approximately 28% of domestic flat glass shipments, LOF and AFG each accounted for 19%, and Guardian and Ford each accounted for 15%. Supp. App. 20.[2]

Flat glass produced through the float process may be sold "as is," in which case it is used primarily in construction. Supp. App. 16. Alternatively, many different products may be "fabricated" from flat glass by subjecting it to a variety of processes. A substantial amount of flat glass, for example, is fabricated for use in automobiles. Flat glass may be molded and combined with other parts to produce windshields, for example, or side and rear windows. Supp. App. 19. Some products—called original equipment manufacturer products ("OEM" glass products)—are fabricated for sale to vehicle manufacturers for use in new vehicles. Other products—called automotive replacement glass products—are fabricated for sale and use as automotive replacement parts. Supp. App. 25. These are two separate markets.[3]

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[1] Asahi also owns a company called Glaverbel, which was associated with AFG, and a Canadian-based company called Glaverbec.

[2] A company named Cardinal Glass Industries ("Cardinal") accounted for approximately 3% of domestic flat glass sales in 1995. Cardinal, which is not a defendant in this suit, did not produce flat glass until 1992, when it purchased a flat glass manufacturing plant that AFG built for it. Before that time, Cardinal fabricated products from flat glass it purchased from PPG and others.

[3] The parties fail to adequately explain the relationship between OEM glass parts and automotive replacement parts, which plaintiffs describe as "identical in composition." Plaintiffs' Br. 4. We gather from the record that they differ in two important respects. First, generally (but not always) only one OEM glass producer exists for any particular product. Thus PPG alone might produce a particular windshield that a car manufacturer uses in a particular model car. In contrast, multiple manufacturers typically produce any one type of automotive replacement part. So PPG, Guardian, and LOF might produce the automotive replacement part that would replace the OEM product that only PPG produced and sold to the car manufacturer. Second, OEM glass products are sold to a particular car manufacturer, whereas the

The automotive replacement glass market has a four-tier vertical structure. First, manufacturers—the handful of firms mentioned above—produce flat glass. Second, various companies fabricate the flat glass into different types of automotive replacement glass products. The major United States fabricators of automotive replacement glass products during the class period were PPG, LOF, Ford, Guardian, Safelite, Viracon, Premier/Hordis, and Chrysler. App. 585. Thus a number of firms, such as PPG, both manufacture flat glass and fabricate it into automotive replacement glass products.[4]

Third, the fabricators sell the parts by the "truckload" to wholesale distributors. The wholesale distributors then sell the automotive replacement glass products in less than truckload quantities to the retail installers that sell the products directly to car owners.

PPG operates at every level of the automotive replacement glass market; that is, PPG is "vertically integrated." In addition to manufacturing flat glass and fabricating automotive replacement glass products, PPG runs a wholesale distribution operation that sells less than truckload quantities to retail installers. Yet PPG also sells its products to its downstream competitors. It sells flat glass to automotive replacement glass fabricators, and it sells truckload quantities of automotive replacement glass products to wholesale distributors.

B. The Alleged Conspiracies

In 1993, LOF fired two of its executives—Ronald Skeddle (LOF's President and Chief Executive Officer) and Edward Bryant (LOF's Executive Vice President, the company's second-highest ranking officer)—and a grand jury indicted them for conspiracy, mail and wire fraud, and money laundering. A jury eventually acquitted them of the charges, but in the meantime Skeddle and Bryant alleged that during the early 1990s LOF had conspired with its competitors to fix the price of the glass products it sold. See In re Flat Glass Antitrust Litigation, 288 F.3d 83, 86 (3d Cir. 2002).

Skeddle and Bryant's allegations spurred plaintiffs to file several private antitrust lawsuits against LOF and its competitors (PPG, AFG, Ford, and Guardian), and the Judicial Panel on Multidistrict Litigation eventually consolidated and transferred the actions to the Western District of Pennsylvania. After the District Court certified two subclasses of plaintiffs, see In re Flat Glass Antitrust Litigation, 191 F.R.D. 472, 475 (W.D. Pa.

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corresponding identical automotive replacement glass products are sold to multiple wholesalers and retail installers.

[4] Automotive replacement glass fabricators produced approximately 10,000 different automotive replacement glass products. No one fabricator produced all 10,000. PPG produced approximately 6,000. App. 585.

1999), plaintiffs reached settlements with all defendants except PPG.

Plaintiffs allege that PPG and its competitors conspired to "fix, raise, and maintain" the prices of flat glass and automotive replacement glass. The two alleged conspiracies correspond with the two subclasses that the District Court certified. See In re Flat Glass Antitrust Litigation, 191 F.R.D. at 475. One subclass consists of individuals and entities that purchased flat glass or products fabricated from flat glass from PPG, LOF, Guardian, Ford, or AFG. The other subclass consists of individuals and entities that purchased automotive replacement glass products from any of those same firms. Id.

Plaintiffs' allegations regarding price-fixing in the market for flat glass are relatively straightforward. Several times during the class period, PPG and the other flat glass producers raised their "list prices" for flat glass by the same amount and within very close time frames. Within a twelve-day period in the summer of 1991, for example, PPG and its competitors all raised their list prices for flat glass by the same amounts.[5] Plaintiffs simply contend that PPG and its competitors agreed to raise their prices, rather than doing so independently and with no concerted coordination.

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[5] The District Court catalogued these price increases as follows:

> July of 1991, all defendants raised their prices within days of each other by 7.5-9%, with an effective date of July 29 or August 1, 1991; September of 1992, all defendants raised their prices within days of each other by 5-9% with an effective date of October 1 or October 12; May of 1993, defendants raised their prices within days of each other by 5.5% with an effective date of June 7 or 9; October of 1993, defendants raised their prices within days of each other by 6.5% with an effective date of October 30 or November 1, 1993; April of 1994 all defendants raised their prices by 5-9% with an effective date of May 1 or 2; August of 1994, all defendants raised their prices by 5-8% with an effective date of September 19, 1994; March of 1995, all defendants raised their prices by 6% with an effective date of April 3 or 11.

App. 16 n.4 (internal citations to District Court record omitted).

Plaintiffs' allegations regarding price-fixing in the market for automotive replacement glass are more complicated. According to plaintiffs, PPG and other automotive replacement glass fabricators used a mechanism, called the "NAGS Calculator," to fix prices at supra-competitive levels.

NAGS, which stands for "National Auto Glass Specifications," is a business that produced a catalogue called the "NAGS Calculator." The NAGS Calculator supplied an identifying number for each type of automotive replacement glass product and provided a recommended price for an installer to charge a car owner for the part. NAGS came up with its recommended price for any particular automotive replacement glass product by taking a truckload quantity price of that product and multiplying it by a number (a "multiplier") specific to that product. Generally, NAGS would use the truckload quantity price for the OEM glass product that the automotive replacement glass was intended to replace.

According to plaintiffs, PPG and other automotive replacement glass manufacturers knew the multipliers that NAGS used to devise its recommended prices. Thus PPG could, and plaintiffs allege did, work backwards from the recommended price to determine the truckload price that NAGS used in its calculation. "If the truckload price used by NAGS was different from its own truckload price," plaintiffs argue, "PPG then adjusted its truckload price to match the truckload price used to create the NAGS price, as did the other [automotive replacement glass] manufacturers." Plaintiffs' Br. 33. Thus plaintiffs contend that PPG and its competitors "had an understanding and acted in concert" to use the NAGS Calculator to "align their truckload price lists and stabilize pricing, and as a benchmark for pricing of [automotive replacement glass] at less-than-truckload quantities." Plaintiffs' Br. 30.

### C. The Present Appeal

The District Court granted PPG's motions for summary judgment on both of plaintiffs' price-fixing claims. Before doing so, the Court circumscribed the evidence it considered when deciding PPG's summary judgment motions through a series of *in limine* motions. The Court refused to order Skeddle and Bryant to testify despite their invocation of their Fifth Amendment privileges, for example, and it also excluded many of Skeddle's handwritten notes that plaintiffs argue tend to implicate PPG in a price-fixing conspiracy.

Plaintiffs appeal from the District Court's summary judgment and certain of its evidentiary decisions. After addressing the applicable legal standards, we first address whether summary judgment was warranted based on the evidence the

District Court considered.[6] We conclude that the District Court should not have granted summary judgment on plaintiffs' flat glass price-fixing claim, and we address the District Court's evidentiary rulings so that the Court can further consider what evidence a jury may consider on remand. We affirm summary judgment on plaintiffs' automotive replacement glass conspiracy claim.

## II. Discussion

Section 1 of the Sherman Act provides that "every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce . . . is declared to be illegal." 15 U.S.C. § 1. Despite its broad language, Section 1 only prohibits contracts, combinations, or conspiracies that *unreasonably* restrain trade. See InterVest Inc. v. Bloomberg, L.P., 340 F.3d 144, 158 (3d Cir. 2003). Certain restraints of trade are *per se* unreasonable, while others require more searching analysis under the "rule of reason." Id. at 158-59.

Restraints of trade are *per se* unreasonable when they are "'manifestly anticompetitive' or 'would always or almost always tend to restrict competition.'" Rossi v. Standard Roofing, Inc., 156 F.3d 452, 461 (3d Cir. 1998) (quoting Business Elecs. Corp. v. Sharp Elecs. Corp., 485 U.S. 717, 723 (1988)). Because of their "pernicious effect on competition and lack of any redeeming virtue," Northern Pac. Ry. v. United States, 356 U.S. 1, 5 (1958), these restraints of trade are "conclusively presumed to unreasonably restrain competition 'without elaborate inquiry as to the precise harm [it has] caused or the business excuse for [its] use." Rossi, 156 F.3d at 461 (internal citations and quotations omitted).

Here, plaintiffs allege that PPG engaged in horizontal price-fixing—i.e., "where competitors at the same market level agree to fix or control the prices they will charge for their respective goods or services." United States v. Brown Univ., 5 F.3d 658, 670 (3d Cir. 1993). Since at least United States v. Socony-Vacuum Oil Co., 310 U.S. 150 (1940), the Supreme Court has held that such restraints of trade are *per se* unreasonable. "Whatever economic justification particular price-fixing agreements may be thought to have," the Court explained, "the law does not permit an inquiry into their reasonableness. They are all banned because of their actual or potential threat to the central nervous system of the economy." 310 U.S. 150, 224 n.59 (1940); see also Brown Univ., 5 F.3d at 670.

As a result, plaintiffs need only prove that "the defendants conspired among each other and that this conspiracy was the proximate cause of the plaintiff's

[6] We exercise plenary review over the District Court's grant of summary judgment. See, e.g., InterVest Inc. v. Bloomberg, L.P., 340 F.3d 144, 158 (3d Cir. 2003).

injury." InterVest, 340 F.3d at 159. PPG does not dispute proximate causation. Rather, it argues that it did not agree with its competitors to fix prices.

The existence of an agreement is "[t]he very essence of a section 1 claim." Alvord-Polk, Inc. v. Schumacher & Co., 37 F.3d 996, 999 (3d Cir. 1994). The Sherman Act speaks in terms of a "contract," "combination" or "conspiracy," but courts have interpreted this language to require "some form of concerted action." Id. at 999 & n.1. In other words, there must be a "'unity of purpose or a common design and understanding or a meeting of minds'" or "'a conscious commitment to a common scheme.'" Monsanto Co. v. Spray-Rite Service Corp., 465 U.S. 752, 764 (1984) (quoting Edward J. Sweeney & Sons, Inc. v. Texaco, Inc., 637 F.2d 105, 111 (3d Cir. 1980)).

When faced with whether a plaintiff has offered sufficient proof of an agreement to preclude summary judgment, a court must generally apply the same summary judgment standards that apply in other contexts. See Intervest, 340 F.3d at 159-60. A court shall render summary judgment when the evidence shows "that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." Fed R. Civ. P. 56(c). In making this determination, a court must "view the facts and any reasonable inferences drawn therefrom in the light most favorable to the party opposing summary judgment." Intervest, 340 F.3d at 160. And a court "should not tightly compartmentalize the evidence put forward by the nonmovant, but instead should analyze it as a whole to see if it supports an inference of concerted action." Petruzzi's IGA v. Darling-Delaware, 998 F.2d 1224, 1230 (3d Cir.1993).

Although these normal summary judgment principles apply in antitrust cases, an important distinction exists. As the Supreme Court held in Matsushita Electric Industrial Co. v. Zenith Radio Corp., 475 U.S. 574 (1986), "antitrust law limits the range of permissible inferences from ambiguous evidence in a § 1 case." Id. at 588; see also Monsanto Co. v. Spray-Rite Service Corp., 465 U.S. 752, 763-64 (1984). In other words, certain "inferences may not be drawn from circumstantial evidence in an antitrust case." Intervest, 340 F.3d at 160.[7] This higher threshold is imposed in antitrust cases to avoid deterring innocent conduct that reflects enhanced, rather than restrained, competition.

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[7] The "strictures of Matsushita do not apply" when a plaintiff provides direct evidence of a conspiracy. Petruzzi's, 998 F.2d at 1233. That is because "no inferences are required from direct evidence to establish a fact and thus a court need not be concerned about the reasonableness of the inferences to be drawn from such evidence." Id. In addition, "the focus in Matsushita was on *ambiguous* evidence, and what inferences *reasonably* could be drawn from that evidence." Id. (internal citation omitted).

We explored "exactly what inferences are circumscribed in a section 1 case" in our decision in Petruzzi's. There, we identified "two important circumstances underlying the [Supreme] Court's decision in Matsushita": (1) "the plaintiffs' theory of conspiracy was implausible"; and (2) "permitting an inference of antitrust conspiracy in the circumstances 'would have the effect of deterring *significant* procompetitive conduct.'" 998 F.2d at 1232 (quoting In re Coordinated Pretrial Proceedings in Petroleum Prods. Antitrust Litig., 906 F.2d 432, 439 (9th Cir. 1990)) (emphasis in Petruzzi's). In other words, "the Court stated that the acceptable inferences which can be drawn from circumstantial evidence vary with the plausibility of the plaintiffs' theory and the dangers associated with such inferences." Id.; see also Matsushita, 475 U.S. at 587 ("[I]f the factual context renders [the plaintiff's] claim implausible—if the claim is one that simply makes no economic sense—[a plaintiff] must come forward with more persuasive evidence to support [its] claim than would otherwise be necessary.") (citations omitted).

The plaintiffs in Matsushita alleged that the defendants conspired to engage in predatory pricing, the practice by which "a firm sets its prices temporarily below costs, with the hope that the low price will drive a competitor out of business, after which the 'predatory' firm will raise its prices so high that it will recoup its temporary losses and earn additional profit, all before new firms, attracted by the high prices, enter its market and force prices down." Clamp-All Corp., 851 F.2d at 483. Courts and commentators alike have come to regard predatory pricing as a relatively speculative phenomenon, particularly when its success requires collusion among multiple firms. See Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 226-27 (1993). Inferences about predatory pricing are also inherently weak because the behavior of firms engaged in predatory pricing would largely mirror how firms in a competitive market act: by cutting prices. See Matsushita, 475 U.S. at 594 ("[C]utting prices in order to increase business often is the very essence of competition."). Thus inferring from ambiguous evidence that firms are engaging in predatory pricing would "chill procompetitive behavior." Petruzzi's, 998 F.2d at 1232.

In Petruzzi's, by contrast, the plaintiff alleged that the defendants conspired to allocate customers. "[P]laintiff's theory of conspiracy is not implausible," we explained, rather it made "perfect economic sense." 998 F.2d at 1232. In addition, the challenged activities could not reasonably be perceived as procompetitive. Id. ("After all, refusing to bid on accounts hardly can be labeled as the 'very essence of competition.'") (quoting Matsushita, 475 U.S. at 594). As a result of those circumstances, we concluded that "more liberal inferences from the evidence should be permitted than in Matsushita because the attendant dangers from drawing inferences

recognized in Matsushita are not present." Id.; see also Intervest, 340 F.3d at 162; Alvord-Polk, Inc., 37 F.3d at 1001 ("[T]he meaning we ascribe to circumstantial evidence will vary depending on the challenged conduct.").[8]

Here, like in Petruzzi's, plaintiffs' theory of conspiracy—an agreement among oligopolists to fix prices at a supracompetitive level—makes perfect economic sense. In addition, absent increases in marginal cost or demand, raising prices generally does not approximate—and cannot be mistaken as—competitive conduct.

Yet despite the absence of the Matsushita Court's concerns, this Court and others have been cautious in accepting inferences from circumstantial evidence in cases involving allegations of horizontal price-fixing among oligopolists. See Williamson Oil Co. v. Philip Morris USA, R.J., 346 F.3d 1287, 1300-01 (11th Cir. 2003); Blomkest Fertilizer, Inc. v. Potash Corp. of Saskatchewan, 203 F.3d 1028, 1042-43 (8th Cir. 2000); In re Baby Food Antitrust Litigation, 166 F.3d 112, 121-22 (3d Cir. 1999); Clamp-All Corp. v. Cast Iron Soil Pipe Institute, 851 F.2d 478, 484 (1st Cir. 1988); Apex Oil Co. v. DiMaurio, 822 F.2d 246, 253-54 (2d Cir. 1987); see also Petruzzi's, 998 F.3d at 1232-33.[9] The basis for this circumspect approach is the theory of "interdependence." See Donald F. Turner, The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusals to Deal, 75 Harv. L. Rev. 655, 662-63 (1962).

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[8] As one prominent antitrust commentator has explained:

> Matsushita spoke in the context of a highly improbable twenty-year-long predatory pricing conspiracy and required high-quality evidence to permit such a conspiracy to be presented to a jury. . . . However, Matsushita itself said little about proof requirements in a case where underlying structural evidence indicates that the offense is quite plausible and would be profitable for the defendants.

Herbert Hovenkamp, The Rationalization of Antitrust, 116 Harv. L. Rev. 917, 925-26 (2003) (reviewing Richard A. Posner, Antitrust Law (2d ed. 2001)).

[9] A leading antitrust scholar, who now authors the Areeda treatise, has characterized these cases at least in part as "an unfortunate misinterpretation" of Matsushita. Herbert Hovenkamp, The Rationalization of Antitrust, 116 Harv. L. Rev. at 925 ("[U]nfortunately, many courts have read Matsushita as requiring a certain quantum evidence of verbal agreement before summary judgment can be avoided.").

The theory of interdependence posits the following: In a market with many firms, the effects of any single firm's price and output decisions "would be so diffused among its numerous competitors that they would not be aware of any change." Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law ¶ 1429, at 206 (2nd ed. 2000). In a highly concentrated market (i.e., a market dominated by few firms), however, any single firm's "price and output decisions will have a noticeable impact on the market and on its rivals." Id. Thus when a firm in a concentrated market (i.e., an "oligopolist") is deciding on a course of action, "any rational decision must take into account the anticipated reaction of the other [] firms." Id. at 207.[10]

The result, according to the theory of interdependence, is that firms in a concentrated market may maintain their prices at supracompetitive levels, or even raise them to those levels, without engaging in any overt concerted action. We quote the Areeda treatise at length:

> The first firm in a five-firm oligopoly, Alpha, may be eager to lower its price somewhat in order to expand its sales. However, it knows that the other four firms would probably respond to a price cut by reducing their prices to maintain their previous market shares. Unless Alpha believes that it can conceal its price reduction for a time or otherwise gain a substantial advantage from being the first to move, the price reduction would merely reduce Alpha's profits and the profits of the other firms as well.
>
> Such "oligopolistic rationality" cannot only forestall rivalrous price reductions, it can also provide for price increases through, for example, price leadership. If the price had for some reason been less than X [the price a monopolist would charge to maximize profits], firm Beta might announce its decision to raise its price to X effective immediately, or in several days, or next season. The other four firms may

[10] "For example, in a market of one hundred sellers of equal size, an expansion in output of 20 percent by one of them will result in an average fall in output of only about .2 percent for each of the others, so a seller need not worry in making his pricing decisions about the reactions of his rivals." Richard A. Posner, Antitrust Law 56 (2nd ed. 2001). But if "there are three sellers of equal size, a 20 percent expansion in the sales of one will cause the sales of each of the others to fall by an average of 10 percent—a sales loss the victims can hardly overlook." Id.

> each choose to follow Beta's lead; if they do not increase their prices to Beta's level, Beta may be forced to reduce its price to their level. Because each of the other firms knows this, each will consider whether it is better off when all are charging the old price or price X. They will obviously choose X when they believe that it will maximize industry profits.

Id. at 207-08.

Despite the noncompetitive nature of such conduct, which we have come to call "conscious parallelism," we have held that the Sherman Act does not proscribe it. See In re Baby Foods, 166 F.3d at 121-22. There are two primary bases for this approach, both embodied in a line of scholarship that started with Donald Turner in 1962 and continued in large part in Phillip Areeda's influential antitrust treatise. First, there exists the notion that interdependent behavior is not an "agreement" within the term's meaning under the Sherman Act. See Turner, supra, at 663-65; but see Posner, Antitrust Law, supra, at 94-95. Second, Turner and Areeda argued that judicial remedies are incapable of addressing the anticompetitive effects of consciously parallel pricing. Turner, supra, at 669-71, Areeda, Antitrust Law, supra, ¶¶ 1432d5-1432f, at 232-36; but see Posner, supra, at 98. Indeed, the Supreme Court has described conscious parallelism in dicta as "the process, *not in itself unlawful*, by which firms in a concentrated market might in effect share monopoly power, setting their prices at a profit-maximizing, supracompetitive level by recognizing their shared economic interests and their interdependence with respect to price and output decisions." Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 227 (1993) (emphasis added).

As a result, we have required that plaintiffs basing a claim of collusion on inferences from consciously parallel behavior show that certain "plus factors" also exist. See In re Baby Food, 166 F.3d at 122; Petruzzi's, 998 F.2d at 1243.[11] Existence of these plus factors tends to ensure that courts punish "concerted action"—an actual agreement—instead of the "unilateral, independent conduct of competitors." In re Baby Food, 166 F.3d at

[11] Thus in order to establish illegal concerted action based on "consciously parallel behavior, a plaintiff must show (1) that the defendants' behavior was parallel; (2) that the defendants were conscious of each other's conduct and that this awareness was an element in their decision-making process; and (3) certain 'plus' factors." Petruzzi's, 998 F.2d at 1242, quoted in Intervest, 340 F.3d at 165. It is undisputed that the first two circumstances exist here, and we therefore concentrate on the third and final.

122. In other words, the factors serve as proxies for direct evidence of an agreement.

The question then becomes, what are "plus factors" that suffice to defeat summary judgment? There is no finite set of such criteria; no exhaustive list exists. See Id.; Areeda, supra, ¶ 1434a, at 241-42. We have identified, however, at least three such plus factors: (1) evidence that the defendant had a motive to enter into a price fixing conspiracy; (2) evidence that the defendant acted contrary to its interests; and (3) "evidence implying a traditional conspiracy." Petruzzi's, 998 F.2d at 1244.

In the context of parallel pricing, the first two factors largely restate the phenomenon of interdependence. We candidly acknowledged as much in In re Baby Food, 166 F.3d at 122. See also Areeda, supra, ¶ 1434c1, at 245 ("'[C]onspiratorial motivation' and 'acts against self-interest' often do no more than restate interdependence."); Posner, supra, at 100. Evidence that the defendant had a motive to enter into a price fixing conspiracy means evidence that the industry is conducive to oligopolistic price fixing, either interdependently or through a more express form of collusion. In other words, it is "evidence that the structure of the market was such as to make secret price fixing feasible." In re High Fructose Corn Syrup Antitrust Litigation, 295 F.3d 651, 655 (7th Cir. 2002). Evidence that the defendant acted contrary to its interests means evidence of conduct that would be irrational assuming that the defendant operated in a competitive market. In a competitive industry, for example, a firm would cut its price with the hope of increasing its market share if its competitors were setting prices above marginal costs. Put differently, in analyzing this factor a court looks to "evidence that the market behaved in a noncompetitive manner." Id.

These two plus factors are important to a court's analysis, because their existence tends to eliminate the possibility of mistaking the workings of a competitive market—where firms might increase price when, for example, demand increases—with interdependent, supracompetitive pricing. But since these factors often restate interdependence (at least in the context of an alleged price-fixing conspiracy), they may not suffice—by themselves—to defeat summary judgment on a claim of horizontal price-fixing among oligopolists.[12] The most important

[12] Neither factor is "strictly necessary." In re High Fructose Corn Syrup Antitrust Litigation, 295 F.3d 651, 655 (7th Cir. 2002). Thus this type of economic evidence is neither necessary nor sufficient to conclude that sufficient proof of an agreement exists to preclude summary judgment, but it is relevant and courts should as a general matter consider it.

We also observe that certain types

evidence will generally be non-economic evidence "that there was an actual, manifest agreement not to compete." Id. at 661. That evidence may involve "customary indications of traditional conspiracy,"or "proof that the defendants got together and exchanged assurances of common action or otherwise adopted a common plan even though no meetings, conversations, or exchanged documents are shown." Areeda, supra, ¶ 1434b, at 243; see also Petruzzi's, 998 F.2d at 1244.

We turn to whether plaintiffs here have adduced sufficient evidence of plus factors to preclude summary judgment on their two separate antitrust claims.

A. Flat Glass

We first note that plaintiffs have offered substantial evidence tending to show that PPG had a motive to enter into a price fixing conspiracy because conditions existed in the flat glass industry that were conducive to collusion. As we have described, the flat glass market is concentrated; there are a handful of sellers and there is no "fringe market" of smaller firms. Flat glass is sold primarily on the basis of price, and although it may vary in tint or thickness it is generally a standardized product. Importantly, the demand for flat glass was in decline during the start of the 1990s and PPG and its competitors had excess capacity. Normally, reduced demand and excess supply are economic conditions that favor price cuts, rather than price increases. There are also high fixed costs in the industry. See App. 635. Suffice it to say, the flat glass industry is in many respects a text book example of an industry susceptible to efforts to maintain supracompetitive prices. See generally Richard A. Posner, Antitrust Law 69-79 (2d ed. 2001). PPG concedes as much. See Tr. of Oral Argument 21-22.

Similarly, there is evidence in the record indicating that the price increases PPG and its competitors implemented were inconsistent with competition in the industry. In other words, there is evidence of anti-competitive behavior and that PPG acted "contrary to its interests." The entry of Cardinal into the market, for example, tends to indicate that flat glass producers were charging supracompetitive prices. See Posner, supra, at 89 ("The charging of a monopoly price will attract new competitors to a market who perceive opportunities for unusual profits by reason of the abnormally high price."). More important, no evidence suggests that the increase in list prices was correlated with any changes in costs or demand. Indeed, in

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of "actions against self interest" may do more than restate economic interdependence. For example, non-price acts against self-interest, such as apparently unilateral exchanges of confidential price information, cannot simply be explained as a result of oligopolostic interdependence. See Blomkest Fertilizer, Inc., 203 F.3d at 1046-47 (Gibson, J., dissenting).

July of 1992 a PPG executive noted that "[n]o one . . . believes that demand will be robust enough to support a price increase without significant discipline on the part of all float producers." App. 5841. After the flat glass producers implemented a price increase in September of 1992, the same executive noted that "[b]asic supply and demand do not support this [1992] increase." App. 5908.

All the above indicates that the price increases were collusive, but not whether the collusion was merely interdependent or the result of an actual agreement. We therefore consider whether sufficient "traditional" conspiracy evidence exists from which a reasonably jury could infer that an agreement existed. Plaintiffs argue that evidence that PPG's competitors entered into an agreement—at least amongst themselves—tends to show that PPG too entered the same agreement. They also argue that other circumstantial evidence shows—or at least a finder of fact could infer—that PPG agreed to raise the price of flat glass three specific times: June-July of 1991, September-October of 1992, and May-June of 1993.

As a preliminary matter, however, we address an argument that pervades PPG's briefs, both before us and before the District Court. PPG contends that regardless of the flat glass producers' list prices, the actual transactional prices—that is, the prices at which flat glass producers actually sold their product to customers—declined during the period of the alleged conspiracy. Insofar as PPG argues that plaintiffs cannot establish liability as a matter of law for that reason, it is simply wrong.[13] "An agreement to fix

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[13] PPG argued before the District Court, for example, that "controlling case law precludes an antitrust plaintiff from avoiding summary judgment by reliance on evidence relating to list prices." App. 667. PPG misstates the law. Declining transaction prices will tend to support a conclusion that competitors did not enter into an agreement to fix prices where the other record evidence also fails to sufficiently prove an agreement. See, e.g., Clamp-All Corp., 851 F.2d at 484 ("[T]he fact that [the defendants] often set prices that deviated from their price lists helps support the inference that the similarity of price lists reflects *individual* decisions to copy, rather than any more formal pricing agreement."). Our decision in In re Baby Food is not to the contrary. In the specific factual setting of that case—involving "hundreds of products" and multiple complicated discounts and price promotions—we concluded that plaintiffs' and their experts' use of list price data was insufficient to show that parallel pricing had occurred. 166 F.3d at 128-29. Significantly, the defendants made "similar pricing decisions" 15.5% of the time and priced their products differently 84.5% of the time. Id. at 128. The District Court therefore concluded, in a portion of its decision that we cited with approval, that the plaintiffs were "unable to show that defendants' prices moved in a parallel fashion. That is true both for list prices

prices is . . . a per se violation of the Sherman Act even if most or for that matter all transactions occurred at lower prices." In re High Fructose Corn Syrup, 295 F.3d at 656.

PPG does not—it cannot—seriously contend that the flat glass producers increased their list prices with no intention of affecting transaction prices. "[S]ellers would not bother to fix list prices if they thought there would be no effect on transaction prices." Id. Thus declining transaction prices despite an agreement to fix list prices would constitute a failed attempt to fix prices. But a horizontal agreement to fix prices need not succeed for sellers to be liable under the Sherman Act; it is the attempt that the Sherman Act proscribes. See Socony-Vacuum Oil Co., 310 U.S. at 224 n.59.

1. Evidence of an Agreement Among PPG's Competitors

The District Court concluded that the record "undoubtedly evidences that several of the settling defendants conspired to fix prices." App. 46. We agree. The most compelling basis for this conclusion is a document that LOF submitted to the Department of Justice's Antitrust Division in 1995.

The Antitrust Division had a "Corporate Leniency Policy" in effect at the time under which the DOJ accorded "leniency to corporations reporting their illegal antitrust activity at an early stage, if they meet certain conditions." App. 6459. Among the policy's requirements was that the cooperating corporation "report[] the wrongdoing with candor and completeness and provide[] full, continuing and complete cooperation that advances the Division in its investigation." App. 6460.

LOF sought leniency under the policy in 1995, but the Antitrust Division concluded that LOF had not been sufficiently forthcoming with information of its wrongdoing. "We are surprised that you consider our proffer, which described an agreed upon, across the board price increase for the entire United States," LOF responded, "to be less than a 'full and complete disclosure.'" App. 5003.

LOF's response to the Antitrust Division does not directly state that it agreed with PPG to raise prices. But a reasonable factfinder could infer such an agreement from LOF's reference to an "across the board" price increase. Black's Law Dictionary defines "across-the-board" as "[a]pplying to all classes, categories, or groups." Black's Law Dictionary 24 (7th ed. 1999). One reasonable interpretation of LOF's statement is that LOF agreed with one or more competitor to increase the price of all types of flat glass. Another is that LOF agreed with all its competitors to increase prices on one or more category of flat glass. And yet another is that LOF

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and transaction prices." Id.

agreed with *all* its competitors to increase the price of *all* types of flat glass.[14]

PPG argues that under our decision in In re Baby Food, "the fact that some other glass producers may have attempted to fix prices in this case is irrelevant." PPG Brief 82. We disagree. Even if LOF's statement—and any other evidence—tends to show that PPG's competitors agreed among themselves to raise prices but does not directly implicate PPG, it is surely not irrelevant to whether PPG entered an agreement. If six firms act in parallel fashion and there is evidence that five of the firms entered into an agreement, for example, it is reasonable to infer that the sixth firm acted consistent with the other five firms' actions because it was also a party to the agreement. That is especially so if the sister firm's behavior mirrored that of the five conceded coconspirators. In some circumstances, to be sure, such evidence might not be sufficient alone to defeat summary judgment. See In re Citric Acid Litig., 191 F.3d 1090, 1106 (9th Cir. 1999). But we need not determine whether it can be here, because plaintiffs argue that additional evidence supports their contention that PPG entered into an agreement.

2. The June-July 1991 Increase

On June 7, 1991, AFG announced that it was raising the price of its flat glass. The price increase was to become effective on July 15, 1991. App. 3552. Neither PPG nor any of AFG's other competitors raised their prices in response.[15]

Also on June 7, 1991, top executives from Pilkington's various businesses (including LOF) met in the United Kingdom. Minutes from the meeting state: "There were indications that a price increase of approximately 8% would hold" in the United States. App. 3868.

A week later, on June 13, 1991, two of LOF's board members (Tomoaki Abe and Mr. Matsumora) traveled to Pennsylvania to play golf with Robert Duncan, the Vice President of PPG's Glass Group. The night before they played golf, Abe's administrative assistant sent him a fax relating a message from Glen Nightingale, the Pilkington executive based in London with responsibility for LOF.[16] The fax stated: "Mr. Nightingale

[14] PPG does not argue that LOF's proffer is not admissible, and we therefore assume that it is for purposes of this decision. In any case, however, we would reach the same result even if we did not consider LOF's proffer.

[15] AFG raised the price of its "pattern glass" by 4%, its "thin glass products" by 5%, its "gray and bronze thicknesses" by 9%, and its "4mm-12mm" also by 9%. App. 3552.

[16] LOF's proffer to the DOJ identified Nightingale as an individual "involved in the 1992 activities." App. 5003. It also stated that Nightingale had

requests that you call him on Friday morning [June 14] before you leave your hotel room—it will only take two minutes. He seemed rather firm. . .” App. 3890.

Two weeks later, on June 28, 1991, PPG announced a 7.5-9% price increase—an amount different than the price increase AFG announced on June 7, but notably approximately 8%—to be effective July 29, 1991. App. 5833. PPG’s competitors eventually followed suit with virtually identical price increases, to be effective either July 29 or August 1, 1991. Ford announced its price increase on July 1, app. 3472; LOF announced its price increase on July 8, app. 3474; Guardian announced on July 9, app. 3482; and AFG rescinded its June 7 increase and announced a price increase in line with PPG’s on July 10, app. 3551.

A copy of PPG’s June 28, 1991 announcement produced from the files of John Frazier (manager of PPG’s Knoxville, Tennessee branch) contains a typewritten note on it stating: “ALL OTHER MAJOR GLASS SUPPLIERS ARE CONCURRENTLY RAISING PRICES THE SAME PERCENTAGE.” App. 5833. Evidence suggests that Frazier received this document, together with the typewritten notation, sometime *before* PPG’s competitors had actually matched PPG’s price increase.[17]

On July 2, 1991, a Ford executive sent an email to his regional managers stating that “[w]e must have total support of this industry pricing action and focus our attention on implementing the price increase in an intelligent manner. The actions being taken are important to the industry and will improve the commercial glass profitability.” App. 3553. As of that day, however, neither LOF nor Guardian had announced a price increase. They announced increases on July 8 and July 9, respectively.

A PPG internal document dated September 6, 1991 stated that the “price increase was implemented without any problems.” App. 5831. A similar document, dated September 3, 1991, stated that “[t]he industry price increase was implemented in August by all primary

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“discussions with [an AFG executive] that resulted in a price move.” App. 5004. Nightingale invoked his Fifth Amendment privilege against self incrimination when plaintiffs sought to depose him.

[17] PPG on the other hand argues that there is evidence suggesting that someone typed the note on the June 28 announcement *after* its competitors announced their price increases. PPG is undoubtedly correct; this document’s time frame is a disputed fact and a finder of fact could reasonably reach the conclusion PPG urges us to draw. But a fact finder could also reasonably conclude the opposite, and it is black letter law that we must draw all reasonable inferences in plaintiffs’ favor at this point in the proceedings.

manufacturers, although varying degrees of protection were offered by our competition." App. 5731. An internal LOF document from November of 1991, however, stated that the "[p]rice increase of 8/19/91 is unraveling at several key accounts due to AFG/Glaverbec/ Guardian's failure to hold the line on pricing and PPG's price protected annual contracts through the year end." App. 1712.

To summarize: AFG raised its prices, but no one followed suit. LOF executives expressed their opinion at a board meeting that an 8% increase in flat glass prices would "hold." Two board members met with a PPG executive one week later. Two weeks after the meeting, PPG raised its flat glass prices by essentially the same amount that LOF executives thought would "hold." An internal PPG memorandum, which might have been produced prior to any other firm announcing an increase in its flat glass prices, states that other flat glass producers were "concurrently raising prices the same percentage." The flat glass manufacturers initially felt that the price increase had gone successfully, but they later felt it was unsuccessful because at least some of them failed to "hold the line."

3. The September-October 1992 Price Increase

A July 1, 1992 entry in the pocket calendar for a Ford Regional Sales Manager indicated that LOF was going to announce a price increase on Sept. 22, 1992, effective Oct. 1, 1992, with increases of 9% on clear and tinted glass and 5% on "Eclipse" glass. App. 3628. A few weeks later, on July 24, 1992, Joseph Hudson—PPG's Eastern Zone Manager for Flat Glass Products, app. 5908—noted: "No one, however, believes that demand will be robust enough to support a price increase without significant discipline on the part of all float producers." App. 5841.[18]

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[18] A fuller excerpt from the cited portion of the record states:

> Glaverbec appears to have quieted down just a bit in terms of new aggressive pricing, seemingly for the first time to be content with current absurdly low prices. Significantly, for the first time, Glaverbec is reported to have said that their tank is sold out. All producers, including PPG, continue to react selectively to Glaverbec's pricing and attempt to protect selected customers and selected markets.
>
> Discussion and rumors surrounding a possible price increase later in the year are widespread in the market place. No one, however, believes that demand will be robust enough to support a

In September of 1992, however, the competitors announced a 5-9% price increase: AFG announced its price increase on September 15, 1992, to be effective October 1, app. 3545; Guardian announced a price increase on September 21, to be effective October 9, app. 3547; LOF announced on September 22, to be effective October 1, app. 3476; and both PPG and Ford announced their prices increases on September 23, to be effective October 12, app. 3475, 3549. On September 24, AFG changed the effective date of its price increase from October 1 to October 12. App. 3550.

Between September 22 and September 26, 1992, soon after the price increases were announced, senior executives from the various competitors (PPG, Ford, Guardian, and Pilkington) attended a "Glass Fair" meeting in Germany. A Pilkington executive reported the following in a letter to LOF's Skeddle:

> I was pleased to learn during the Glass Fair that an attempt to raise prices by 9% in the United States had been initially supported by all suppliers in the marketplace. During the Fair, I also had the opportunity to meet with Russ Ebeid of Guardian who assured me that they were fully supportive of the price increase proposition. Clearly, this could make quite a difference to your results if the price increase can stick.

App. 3895. This excerpt was removed from a later version of the letter. App. 7194.[19]

Finally, during the same time period in September of 1992, PPG's Hudson reiterated his July comment that a price increase would not be consistent with market conditions. According to Hudson, "[b]asic supply and demand do not support this [1992] increase." App. 5908.[20]

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> price increase without significant discipline on the part of all float producers.

App. 5841.

[19] Even if this statement does not unambiguously tend to show that flat glass producers agreed ahead of time to raise prices, it at least tends to show that there was an agreement to maintain higher prices despite competitive demands (i.e. to "make it stick").

[20] The full excerpt from the record reads:

> Certainly the hot topic on the pricing front is the industry increase announced during September to be effective in October. Basic supply and demand do not

To summarize: A Ford Regional Sales Manager was aware of the precise date when LOF was going to announce a price increase almost three months ahead of time, as well as the precise amounts of the increase. A PPG executive believed that the market would not support a price increase. Nonetheless, PPG and its competitors raised their prices by the same amount, all within eight days of each other. Soon after the price increases were announced, executives from the various flat glass producers attended a trade show at which a executive from Guardian assured an executive from Pilkington that Guardian was "fully supportive of the price increase proposition."

4. The May-June 1993 Price Increase

In December of 1992, AFG's Roger Kennedy told LOF's Roger Teat that AFG was "considering another increase in May or June [of 1993] of about 5 or 6%." App. 3720, 3456, 3458-59. Teat reported this to superiors at LOF with pricing authority. App. 3721-23, 3456-58.[21]

LOF's preliminary budget for fiscal year 1994, dated January 21, 1993, refers to a "May-June '93 price increase." App. 6432. Similarly, an LOF "CEO's Review Report" from March 30, 1993 stated that there would be "a U.S. domestic price increase in the May-June timeframe." App. 4031.[22] And LOF's revised budget (dated

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> support this increase, so it will require discipline on the part of each manufacturer. Glaverbec, Guardian's mirror operations and AFG's distribution arm are keys to the success of the increase.

App. 5908.

[21] Kennedy was an officer and director of AFG. Although Teat did not have pricing authority, his precise position at LOF is unclear from the record.

[22] A fuller excerpt stated:

> A price increase has been initiated in Eastern Canada by PPG to be effective March 22; 7% increase for all clear, uncased product (2.3mm through 6.0mm) and a 9% increase for clear cased product. It is anticipated that this increase will be a lead into a U.S. domestic price increase in the May-June timeframe. LOF is following the Canadian lead and including heavy clear and tint product with the increase.

App. 4031.

April 5, 1993) also referred to a "May-June price increase." App. 4669.[23]

A few months later, on April 16, 1993, AFG faxed to PPG a "prepublication" copy of its May 17, 1993 5.5% price increase announcement (to be effective in June). App. 6369.[24] It also faxed a copy to Guardian. App. 3711.

PPG announced a 5.5% price increase on May 12, 1993, almost a week before AFG was going to announce its price increase. App. 5840. The rest of PPG's competitors quickly followed suit. LOF, AFG, and Ford announced five days later, on May 17, 1993. App. 3477, 3708, 3478. Guardian announced on May 19, 1993. App. 6105.

After the price increases went into effect, John Musser (from PPG) reported that "[t]he price increase of 5.5% announced in early May by all major float producers for an implementation on or about June 7 has had the effect of stabilizing prices." App. 5906.[25] In a

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[23] In addition, Ford's business plan (dated April 29, 1993) also referred to a 5% price increase. App. 3698. Under the heading "Possible Opportunities and Improvements," it stated: "A 5% market price increase spurred by cyclical recovery with increased industry capacity utilization would increase profits by almost $3 million." App. 3697-98.

[24] PPG urges that AFG did not send the fax on April 16, 1993, arguing that the most likely explanation for the date's appearance on the fax is that the fax machine malfunctioned. PPG is free to make this argument to a jury, but surely a reasonable finder of fact could infer that the date on the fax means that it was sent on that day.

[25] A fuller excerpt stated:

> The price increase of 5.5% announced in early May by all major float producers for an implementation on or about June 7 has had the effect of stabilizing prices. Overall customer reaction to the increase has been favorable, particularly in the mirror and distributor/ fabricator segments. Sash accounts who are not price protected are resisting the increased [sic], to a degree. The modest amount of the increase, the perceived cost justification for the increase, and the firmness to date of all float producers, however, are all positive factors which project that the announced prices will hold. The highest degree of uncertainty resides on the West Coast, which has the lowest level of industry capacity utilization.

App. 5906.

similar vein, an LOF report (dated June 21, 1993) stated: "Price increase is in effect from all major manufacturers. We are monitoring the market to make sure that all stick to the rules and will report any and all information we hear about." App. 3732.

PPG's Central Zone Manager, Thomas Merlitti, stated on June 25, 1993 that "[t]he price increase implemented in June remains firmly in place as all major flat glass producers are holding firm." App. 3507. And Hudson of PPG reported: "The increase which was effective June 7 has been a nearly complete success." App. 5794.

To summarize: AFG and LOF discussed a May-June 1993 price increase during the preceding December, and LOF accounted for such an increase in its forthcoming budget. In April, AFG faxed to PPG a copy of the increase it planned to announce on May 17. PPG announced an identical increase on May 12, and the rest of the flat glass producers followed with identical price increases. LOF was "monitoring the market to make sure that all stick to the rules." The flat glass producers all "held firm," and executives from the firms generally considered the price increase a "success."

5. Analytical Summary

The above evidence is sufficient to provide a finder of fact with a basis to reasonably conclude that PPG agreed with the other flat glass producers to raise prices. Put differently, there is "evidence that would enable a reasonable jury to reject the hypothesis that the defendants foreswore price competition without actually agreeing to do so." In re High Fructose Corn Syrup, 295 F.3d at 661 (citing Matsushita, 475 U.S. at 488).

First, there is the evidence—including LOF's assertion that there was an "across the board" agreement to increase prices—that PPG's competitors entered into an agreement. And viewed collectively and holistically, there is evidence tending to show that PPG was a party to an agreement to raise the price of flat glass on three occasions.

PPG urges us to take a different approach. It appears to propose that we consider each individual piece of evidence and disregard it if we could feasibly interpret it as consistent with the absence of an agreement to raise prices. With regard to the announcement that stated "all other major glass suppliers are concurrently raising prices by the same percentage," for example, PPG argues that the "facts *suggest* that the notation was placed on the announcement after all glass producers had issued their announcements." PPG Br. 25 (emphasis added). Similarly, PPG contends that the "most likely explanation" for the date that appears on an AFG price announcement found in PPG's files "is that the date stamp mechanism malfunctioned." PPG Br. 43. We echo the Seventh Circuit's admonition in In re High Fructose Corn Syrup that the "statement of facts in the defendants' brief combines a recital of the facts favorable to

the defendants with an interpretation favorable to them of the remaining evidence; and that is the character of a trial brief rather than of a brief defending a grant of summary judgment." 295 F.3d at 655. PPG's arguments are well-suited for an argument before a jury, but they are irrelevant to our consideration in the present posture of this case.

Alternatively, PPG appears to contend that we should disregard certain categories of evidence, from various periods of time, because such evidence does not in isolation lead inexorably to the conclusion that PPG entered into an agreement. Tr. of Oral Argument 25. PPG argues, for example, that competitors' possession of each others' price increase announcements or meetings among competitors' executives cannot suffice to preclude summary judgment. To be sure, the mere presence of such evidence does not require a court to deny summary judgment. In In re Baby Food, we observed that "[w]e do not believe that the mere possession of competitive memoranda is evidence of concerted action to fix prices." 166 F.3d at 126. But the price-exchange evidence in In re Baby Food was far less compelling than in this case. The In re Baby Food plaintiffs relied upon testimony of competitors' price information gathered by low-level sales employees in unsystematic fashion. Plaintiffs pointed to a few competitors' memos in sales files, but there was no evidence of how the documents got there. Additional evidence documented some awareness of competitors' price increase plans. Notably, these scraps of evidence of foreknowledge were not correlated to any actual concerted price increase activity among all competitors.

We made two salient points in reviewing this evidence and rejecting the inference of agreement. First, we noted that price discussion among low level sales people has little probative weight; we distinguished the far different situation where upper level executives have secret conversations about price. Id. at 125 & n.8 ("Evidence of sporadic exchanges of shop talk among field sales representatives who lack pricing authority is insufficient to survive summary judgment."). Second, and more important, we emphasized that "there must be evidence that the exchanges of information had an impact on pricing decisions." Id. at 125. The reason for this requirement is that exchanges of price information may be compatible with competition, because they may "'increase economic efficiency and render markets more, rather than less, competitive.'" Id. (quoting United States v. United States Gypsum Co., 438 U.S. 422, 443 n.16 (1978)). The In re Baby Food plaintiffs simply could not correlate information exchanges with specific collusive behavior. Rather, they made the more amorphous claim that the exchanges of information "impacted the market as a whole." Id.

The exchanges of information here, by contrast, are qualitatively different from those in In re Baby Food, particularly when considered in the context of other

evidence. First, there is evidence tending to show that the exchanges occurred at a higher level of the flat glass producers' structural hierarchy. Second, and more importantly, a finder of fact could reasonably infer that the flat glass producers used the information to implement collusive price increases; that is, "the exchanges of information had an impact on pricing decisions." A court must look to the evidence as a whole and consider any single piece of evidence in the context of other evidence. See Big Apple BMW, Inc. v. BMW of North America, Inc., 974 F.2d 1358, 1364-65 (3d Cir. 1992), cited in In re Baby Food, 166 F.3d at 124. So, for example, there is evidence that AFG faxed to PPG a copy of a planned future increase that it had not announced publicly, PPG announced an identical increase before AFG, and the rest of the flat glass producers followed with identical price increases. It would take no stretch of the imagination for a fact finder to infer from this evidence—one piece of which is PPG's possession of a "competitive memoranda"—that PPG engaged in concerted action to fix prices.

In sum, here the exchanges of information are more tightly linked with concerted behavior and therefore they appear more purposive. Several of the key documents emphasize that the relevant price increases were not economically justified or supportable, but required competitors to hold the line. Others suggest not just foreknowledge of a single competitor's pricing plans, but of the plans of multiple competitors. Predictions of price behavior were followed by actual price changes. The inference of concerted rather than interdependent action is therefore stronger. In other words, these facts take the exchanges of pricing information outside the realm of "mere possession." In re Baby Food, 166 F.3d at 126.

We need not speculate as to whether something less than the evidence in this record—two rate increases, for instance, rather than three—would suffice to deny summary judgment. The evidence here, in its totality, is sufficient to go to a jury.

B. Automotive Replacement Glass

As described above, PPG and other automotive replacement glass producers supplied NAGS with their truckload list prices for various automotive replacement glass products. NAGS would select a particular truckload price—usually the truckload price of the identical OEM glass product—to devise recommended retail prices for the products. NAGS devised the recommended price by using a particular "multiplier" for each type of product.[26] The glass producers knew the multipliers NAGS used, and were able to calculate backwards to the truckload price that NAGS had utilized. The producers would then align their truckload list prices with

[26] The multiplier for domestic windshields, for example, was 4.06. App. 2980.

the price that NAGS had used. As a result, the automotive replacement glass producers often increased their prices in parallel fashion.[27]

Plaintiffs argue that the evidence shows that PPG and other automotive replacement glass producers agreed to raise their prices. They provide evidence that although it was against PPG's official policy, PPG provided its truckload pricing information to NAGS. Plaintiffs also refer to the NAGS website, which at one point stated: "[M]anufacturers were in conflict over their published list prices. As a neutral party NAGS was asked to assign list prices to NAGS part numbers, establishing the NAGS List Price." App. 6444-45.[28] In addition, a chart that LOF devised depicts the process. It indicates that producers gave their truckload prices to NAGS, NAGS selected a particular truckload price, the producers issued a "new pricing schedule adjusted to NAGS," and as a result "industry pricing stabilize[d]." App. 4939.

We understand why the NAGS Calculator would raise suspicion in plaintiffs' minds, and why plaintiffs would seek discovery regarding PPG's use of the calculator. Cf. Areeda, supra, ¶ 1435g, at 264-65 (discussing the use of "pricing manuals"). But publication of pricing information can have a pro-competitive effect. As we note above, we should therefore hesitate to rest on inference of improper collusion from this ambiguous, or even pro-competitive, fact. See, e.g., In re Baby Food, 166 F.3d at 126; Petruzzi's, 998 F.2d at 1232. After conducting discovery, plaintiffs have failed to adduce sufficient evidence to create a genuine issue of material fact. First, there is no evidence that PPG or any other automotive replacement glass producer exerted influence over the truckload prices that NAGS selected to formulate recommended prices. And there is no

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[27] PPG, Ford and LOF increased the price of windshields by 7% and tempered parts by 8%, for example, in February-March of 1992. App. 5913, 5917, 7184. Similarly, in January-February of 1992 they increased windshield prices by 9% and tempered parts by 10%. App. 4899, 7192, 7187.

[28] A fuller excerpt states:

> *In the 1950s*, manufacturers were in conflict over their published list prices. As a neutral party NAGS was asked to assign list prices to NAGS part numbers, establishing the NAGS List Price. These prices reflected the industry practice of discounting and were based on manufacturers' truckload prices. NAGS started publishing the part numbers with prices, establishing the 'NAGS calculator'.

App. 6444-45 (emphasis added).

evidence—unlike the evidence we described above regarding flat glass list prices—that the automotive replacement glass manufacturers agreed to adjust their list prices according to the NAGS recommended price. We will therefore affirm summary judgment on this claim.

C. Evidentiary Rulings

The District Court excluded several categories of evidence before it decided PPG's motions for summary judgment. Plaintiffs appeal from four of the District Court's evidentiary determinations. We address them in turn.[29]

1. Fifth Amendment

When plaintiffs sought to depose Skeddle and Bryant—the former LOF executives who were charged with crimes and who alleged that LOF engaged in illegal antitrust activity—they both asserted their Fifth Amendment privilege against self incrimination. The District Court denied plaintiffs' motion in which they urged the Court to compel Skeddle and Bryant to testify. Plaintiffs now challenge the District Court's ruling on appeal. We review the Court's determination for an abuse of discretion. See United States v. Castro, 129 F.3d 226, 229 (1st Cir. 1997).

As a general matter, a court should allow a witness to invoke his Fifth Amendment privilege only if the hazard of incrimination is "substantial and 'real,' and not merely trifling or imaginary." United States v. Apfelbaum, 445 U.S. 115, 128 (1980) (citation omitted). Yet "the trial judge should order the witness to answer questions only if it is perfectly clear, from a careful consideration of all the circumstances in the case that the answer cannot possibly tend to incriminate the witness." United States v. Washington, 318 F.3d 845, 856 (8th Cir.), cert. denied, 124 S. Ct. 251 (2003) (internal quotations and citations omitted); see also United States v. Yurasovich, 580 F.2d 1212, 1215-16 (3d Cir. 1978) ("To support a contempt citation for a refusal to testify on Fifth Amendment grounds . . . it must be 'Perfectly clear from a careful consideration of all the circumstances in the case, that the witness (who invokes the privilege) is mistaken, and that the answer(s) cannot Possibly have such a tendency to incriminate.'").

Plaintiffs argue that the Court erred because (1) all relevant statutes of limitations have run; and (2) the relevant prosecutorial authorities have stated that they do not intend to bring criminal charges against Skeddle or Bryant. It is irrelevant, however, that prosecutorial

[29] We do not address the District Court's other evidentiary rulings, such as its decision to exclude the transcript of Skeddle's grand jury testimony. Plaintiffs opine that the District Court erred when it excluded the testimony, but they do not appeal from that decision. Plaintiffs' Br. 18.

authorities have stated that they do not intend to prosecute Skeddle or Bryant. See Matter of Special Federal Grand Jury, 819 F.2d 56, 58 (3d Cir. 1987) ("[A] promise by the government not to use the testimony to be compelled, even if approved by a court, does not strip the recipient of the protection of that privilege."). And Skeddle and Bryant have sufficiently refuted plaintiffs' statute of limitations argument. To be sure,"if a prosecution for a crime, concerning which the witness is interrogated, is barred by the statute of limitations, he is compellable to answer." Brown v. Walker, 161 U.S. 591, 598 (1896). But, contrary to plaintiffs' assertion, Skeddle and Bryant have identified several state statute of limitations that have not run. In Michigan, for example, a defendant's absence from the state tolls the statute of limitation for certain of the state's antitrust laws. See Mich. Comp. Laws. Ann. §§ 445.781, 767.24(5). The District Court did not abuse its discretion by declining to compel Skeddle and Bryant to testify.

2. Skeddle's Notes

Over the course of the litigation, plaintiffs obtained a large collection of Ronald Skeddle's handwritten notes. The notes fall into two general categories: notes that LOF provided to plaintiffs during discovery and notes that the DOJ produced to plaintiffs pursuant to an order of the District Court. App. 10746, 11154. Skeddle originally provided the latter notes, which the parties have come to call the "Queen's File," to a grand jury empaneled in the spring of 1996 to investigate Skeddle's (and others) allegations of wrongdoing in the flat glass industry.[30]

PPG filed two separate *in limine* motions seeking to exclude both categories of notes, and the District Court granted its motions because it determined that the notes contain "multiple levels of hearsay" and did not fall within any exception to the hearsay rule. App. 47-48, 56-58. "[W]e review the district court's decisions to admit or exclude evidence for abuse of discretion, although our review is plenary as to the interpretation or application of a legal standard underlying such a decision." Robinson v. City of Pittsburgh, 120 F.3d 1286, 1293 (3d Cir. 1997) (citations omitted).

a. Non-Queen's File Notes

Plaintiffs argue that many portions of Skeddle's notes tend to support their contentions that PPG agreed with its competitors to increase prices on at least two of the three occasions we discussed above. With respect to the June-July 1991 price increase, plaintiffs reference a May 31, 1991 note that states: "Glen

[30] There is apparently some amount of overlap between the two categories of notes: LOF had already produced a portion of the notes that plaintiffs also obtained as part of the Queen's File. App. 11154 n.3.

[Nightingale] heard that Glaverbec wants to move upwards in N.E. Reg's." App. 4567. Similarly, a note that plaintiffs argue Skeddle wrote no later than May of 1991 states that Jim Collins, a PPG Regional Sales Manager, "mentioned that PPG is looking at the possibility of an inc this summer." App. 3938.

With regard to the September-October 1992 price increase, plaintiffs refer to notes that purportedly memorialize conversations Skeddle had with Glen Nightingale, of Pilkington. First, a note dated February 6, 1992 provides: "Clearly Glen has had discussions w AFG, Guardian, & probably indirectly w PPG (crystal tower) re price increases, and is asking me now to supply him info so that he can initiate more detailed discussions with his contacts." App. 3877. And a note that plaintiffs contend pertains to a meeting Skeddle had with Glen Nightingale on April 29, 1992 states:

> Glen indicated he would make contacts w AFG and Glaverbel/Glaverbec to see if he could get them to agree to come off their silly low prices and if he could initiate a general price increase w/in the next 2 months.
>
> He indicated he would get back to me to indicate his findings/effect following his calls.

App. 4581. Another note also ostensibly memorializing a conversation Skeddle had with Glen Nightingale states that Nightingale met with AFG's Dee Hubbard. The note mentions an "incremental increase" and states that "AFG will lead—before Labor Day." App. 3891.

Similarly, a note from a meeting Skeddle had with LOF board member Tomoaki Abe and dated November 17, 1992 contains the notation: "Mtgs. w PPG, Guardian re lic'g, prices, etc." App. 10602. Finally, a note that plaintiffs contend memorializes a July 13, 1992 conversation with Nightingale states:

> Glen then related his information on North American flat glass pricing — the info came from Hubbard of AFG, and the top guy at Glaverbel (Asahi) who control Glaverbec in Canada, [illegible] controls AFG in the states.
>
> The indication is that new "targets" have been established for AFG and Glaverbec in Canada @ ~7% above recent experience—letters will be forthcoming to the general mkt place explaining new prices as follows:
>
> [chart omitted]

> These prices should go into effect 17th July.
>
> Glen then related that Hubbard & he have "talked" and have together convinced PPG to take the lead in putting up the price by ~7% with letter to go out in Sept. 92, to take effect Oct. 1, 1992—with PPG taking the lead.

App. 3893.

Plaintiffs argue that these statements are admissible because they are statements of coconspirators under Federal Rule of Evidence 801(d)(2)(E) and therefore not hearsay. Alternatively, they argue that even if the statements are hearsay they are admissible as statements against interest under Federal Rule of Evidence 804(b)(3).

We first consider whether the District Court erred in concluding that the statements were not admissible as against interest under Rule 804(b)(3). A hearsay statement is nonetheless admissible if (1) "the declarant is unavailable as a witness," United States v. Boyce, 849 F.2d 833, 836 (3d Cir. 1988); (2) "the statement is so far contrary to his pecuniary, proprietary or penal interest that 'a reasonable person in the declarant's position would not have made the statement unless believing it to be true,'" id. (quoting Fed. R. Evid. 804(b)(3)); (3) "the trustworthiness and reliability of the statement [is] corroborated by the 'totality of circumstances' in the case," id.; and (4) the declarant had personal knowledge (i.e., he perceived the facts to which the statement relates), see United States v. Ammar, 714 F.2d 238, 254 (3d Cir. 1983); 5 Jack B. Weinstein et al., Weinstein's Federal Evidence § 804.06[4] (2d ed. 2003).[31] The

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[31] Federal Rule of Evidence 804(b)(3) provides:

> (b) Hearsay exceptions. The following are not excluded by the hearsay rule if the declarant is unavailable as a witness:
>
> . . . .
>
> (3) Statement against interest. A statement which was at the time of its making so far contrary to the declarant's pecuniary or proprietary interest, or so far tended to subject the declarant to civil or criminal liability, or to render invalid a claim by the declarant against another, that a reasonable person in the declarant's position would not have made the statement unless believing it to be true. A statement tending to expose the declarant to criminal liability and offered to exculpate the accused is not admissible unless corroborating

second and third requirements are "somewhat redundant" and often require "'a sensitive analysis of the circumstances in which the statement was made and the precise nature of the statement.'" Boyce, 849 F.2d at 836 (quoting United States v. Palumbo, 639 F.2d 123, 127 (3d Cir. 1981)); see also United States v. Moses, 148 F.3d 277, 280 (3d Cir. 1998) ("This determination must be made 'by viewing [the statement] in context' and 'in light of all the surrounding circumstances.'") (quoting Williamson v. United States, 512 U.S. 594, 603-604 (1994)).

Here, the District Court concluded that Skeddle's statements were inadmissible because they "have not been corroborated by the totality of the circumstances." App. 47. Because this was the total of the District Court's analysis, the precise basis for this conclusion is unclear. In its *in limine* motion before the District Court, PPG appears to have offered three reasons why the totality of the circumstances do not corroborate Skeddle's statements: (1) actual events did not occur precisely as the notes indicated they would (e.g., PPG did not "lead" the September 1992 price increase); (2) Skeddle's notes tend to implicate others besides himself; and (3) Skeddle may not have written the notes contemporaneously with the events he described in them. App. 10748-50.

The first two factors do not sufficiently impugn Skeddle's statements. To the contrary, discrepancies between Skeddle's statements and later actual events could tend to reinforce their veracity; statements that exactly mirrored what occurred would arguably be more suspect. And there is no *per se* rule that statements implicating another person in misconduct are not against the interest of the declarant. See Moses, 148 F.3d at 280. We do not agree with PPG's assertion that the statements, which relate the inculpatory statements of his superiors (such as Nightingale), do not also inculpate Skeddle. Skeddle was the President of LOF at the time of the alleged conspiracy. Discussions to increase prices and Skeddle's knowledge of those discussions blanket him with antitrust liability. Indeed, such liability likely forms the basis for Skeddle's invocation of his Fifth Amendment privilege against self incrimination.

We agree, however, that a finding that Skeddle's notes were not contemporaneous would support a conclusion that the statements are not reliable or corroborated by the

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> circumstances clearly indicate the trustworthiness of the statement.

Fed. R. Evid. 804(b)(3). We note that the Confrontation Clause raises some additional issues about admissibility of such testimony in a criminal case, but those concerns are irrelevant in this civil case. See Crawford v. Washington, 123 S. Ct. 1354 (2004).

circumstances. Skeddle left LOF under a cloud of mutual disaffection. Consequently, documenting LOF wrongdoing during a time when LOF was alleging that Skeddle himself had engaged in wrongdoing would tend to impugn Skeddle's motives and therefore also the reliability of the statements. But it is not clear that the District Court excluded Skeddle's notes because it found that they were not contemporaneous. Moreover, it is not clear that the record supports such a conclusion; on their face, many of the notes give no indication that they were ex post fabrications.

The District Court's summary disposition of PPG's *in limine* motion hinders our ability to determine whether it abused its discretion. Cf. Becker v. ARCO Chemical Co., 207 F.3d 176, 181 (3d Cir. 2000) ("Where, however, the district court fails to explain its grounds for denying a Rule 403 objection and its reasons for doing so are not otherwise apparent from the record, there is no way to review its discretion."). Since we conclude that a jury could find an agreement existed even absent Skeddle's notes and we would remand on that basis alone, we believe the best course is to allow the District Court to consider these evidentiary matters in the first instance. We will therefore remand the District Court's determination that Skeddle's statements were not against self interest so that the Court can consider its rulings in light of our decision and more fully explain any bases for its rulings.[32]

Similarly, we will also remand the District Court's determination that the statements in Skeddle's notes were not statements of co-conspirators. "In order for an out-of-court statement to be admissible pursuant to Rule 801(d)(2)(E), the district court must find by a preponderance of the evidence that: (1) a conspiracy existed; (2) the declarant and the party against whom the statement is offered were members of the conspiracy; (3) the statement was made in the course of the conspiracy; and (4) the statement was made in furtherance of the conspiracy." United States v. Ellis, 156

[32] In this regard, the District Court should determine whether, because the statements at issue were diary entries, Skeddle believed that they would be seen by anyone. This may bear on whether they qualify as statements against interest. See Zenith Radio Corp. v. Matsushita Electric Industrial Co., 505 F. Supp. 1190, 1259-60 (E.D. Pa. 1981), issue aff'd In re Japanese Electronic Products Antitrust Litigation, 723 F.2d 238, 300 (3d Cir. 1983), rev'd on other grounds sub. nom Matsushita Electric Industrial Co. v. Zenith Radio Corp., 475 U.S. 574 (1986). We do not categorically hold that diary entries cannot satisfy the requirements of Rule 804(b)(3), see Walker v. Lockhart, 763 F.2d 942, 951 n.18 (8th Cir. 1985) (en banc), but we do believe that a searching inquiry is appropriate here, In re Japanese Electronic Products, 723 F.2d at 300.

F.3d 493, 496 (3d Cir. 1998).[33]

Here, the District Court determined that plaintiffs had not satisfied the second requirement. It concluded that the statements in Skeddle's notes were not admissible as co-conspirator statements because "plaintiffs have failed to adduce sufficient evidence that PPG was a co-conspirator in the alleged price-fixing conspiracy." App. 48.[34] In other words, although the Court concluded that there was evidence that a conspiracy existed, see app. 46, it found that there was insufficient evidence that PPG was a party to the conspiracy.

It was plaintiffs' burden to show by a preponderance of the evidence that the statements in Skeddle's notes were made in the course of and in furtherance of a conspiracy of which the declarant and PPG were members. See United States v. McGlory, 968 F.2d 309, 334 (3d Cir. 1992) (citing Bourjaily v. United States, 483 U.S. 171, 175 (1987)); 5 Jack B. Weinstein et al., Weinstein's Federal Evidence § 801.34[6][a] (2d ed. 2003). And it was the District Court's role to determine whether plaintiffs satisfied their burden. See Bourjaily, 483 U.S. at 175; Ammar, 714 F.2d at 247 n.5. In making this factual determination, a district court is not bound by the rules of evidence. See Bourjaily, 483 U.S. at 178-79; Fed. R. Evid. 104(a). Thus a district court can consider hearsay and other inadmissible evidence. See McGlory, 968 F.2d at 334. And it must consider the content of the alleged coconspirator statement as well, although the statements require independent corroboration. See Fed. R. Evid. 801(d)(2)(E) ("The contents of the statement shall be considered but are not alone sufficient to establish . . . the existence of the conspiracy and the participation therein of the declarant and the party against whom the statement is offered . . . .").

The Court's summary disposition again hampers our review of its decision for an abuse of discretion, however, which is the standard of review we must apply to its Rule 801(d)(2)(E) determinations. See, e.g., United States v. Local 560 (I.B.T.), 974 F.2d 315, 337 (1992). Insofar as the Court based its determination on a conclusion that there was insufficient

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[33] There is no requirement that the declarant be speaking from personal knowledge. See United States v. Ammar, 714 F.2d 238, 254 (3d Cir. 1983); 5 Jack B. Weinstein et al., Weinstein's Federal Evidence § 801.23[2] (2d ed. 2003).

[34] The District Court characterized the admissibility of coconspirator statements as an "exception to the hearsay rule." Rules 803 and 804 set forth exceptions to the hearsay rule; that is, they explain when statements are admissible even though they qualify as hearsay. Rule 801(d), however, sets forth statements that are admissible because they do not constitute hearsay, including statements "by a coconspirator of a party during the course and in furtherance of the conspiracy." Fed. R. Evid. 801(d)(E).

evidence from which a jury could conclude that PPG entered into an agreement to fix prices, the District Court erred for the reasons we set forth above. But simply because a jury *could* find by a preponderance of the evidence that PPG entered into a conspiracy, it is not the case that the District Court *must* find that plaintiffs showed by a preponderance of the evidence that PPG entered into an agreement. Any particular factual determination requires making a number of more particularized factual determinations and weighing the relevant importance of those determinations. And two factfinders could feasibly reach different conclusion, especially under a preponderance of the evidence standard. To be sure, however, "the Federal Rules of Evidence are to be liberally construed in favor of admissibility." United States v. Pelullo, 964 F.2d 193, 204 (3d Cir. 1992).

Because we will remand plaintiffs' flat glass price fixing claim for further proceedings, we again conclude that the best course is to remand the District Court's determination that the statements in Skeddle's notes were not coconspirator statements. See In re Japanese Electronics Products Antitrust Litigation, 723 F.2d 238, 263 (3d Cir. 1983) (remanding Rule 801(2)(E) determination to be reconsidered), rev'd on other grounds sub. nom. Matsushita Electric Industrial Co. v. Zenith Radio Corp., 475 U.S. 574 (1986). Thus the District Court can consider whether the statements in Skeddle's notes are coconspirator statements with the benefit of our discussion of the evidence tending to implicate PPG in a price-fixing conspiracy, and can further explain any bases it might have for its reasoning.[35]

Finally, we note that many of the notes contain multiple levels of hearsay. See, e.g., Carden v. Westinghouse Elec. Corp., 850 F.2d 996, 1001-02 (3d Cir. 1988); Fed. R. Evid. 805. One note states, for example, that Nightingale "related" that he and an AFG executive "convinced PPG to take the lead in putting up the price by ~7% with letter to go out in Sept. 92, to take effect Oct. 1, 1992—with PPG taking the lead." App. 3893. The note itself (Skeddle's statement) and Nightingale's assertion that he convinced PPG to take the lead in increasing prices are both out-of-court statements that plaintiffs seek to use to prove the truth of the matter asserted. Either or both might be admissible as statements of coconspirators as well as statements against interest. Again, we think the District Court should make these determinations in the first instance, taking into account our

[35] PPG argues that the District Court concluded that the statements in Skeddle's notes were not in furtherance of any conspiracy, ostensibly because—as PPG argues—Skeddle did not create the notes at the same time as the events he purports to describe in them. But nothing in the Court's decision indicates that this was a basis for its determination that the statements were inadmissible. The District Court will surely consider PPG's arguments in this regard on remand.

discussion in this opinion.

b. Queen's File Notes

The District Court concluded that the statements in the Queen's File notes, like the statements in the other Skeddle notes, were not admissible as coconspirator statements because "plaintiffs have failed to adduce sufficient evidence that PPG was a co-conspirator in the alleged price-fixing conspiracy." App. 57. It also concluded that the statements were hearsay and the Queen's File was not admissible under the statement against interest exception because "the statements contained therein are not contrary to Skeddle's pecuniary or penal interest" and because "the documents' trustworthiness and reliability are questionable given the totality of the circumstances." App. 57.[36]

Since this was the sum of the District Court's reasoning, we turn to PPG's arguments before the District Court to discern the bases for the Court's decision. Cf. United States v. Himmelwright, 42 F.3d 777, 781 (3d Cir. 1994) (looking to whether bases for district court's decision was "apparent from the record" where the court did not explain the grounds for its decision). PPG argued that most of the notes in the Queen's File "were written after Mr. Skeddle's termination as chief executive officer of LOF on May 10, 1993, when he, Edward Bryant (then LOF's head of manufacturing operations), and Darryl Costin (then LOF's head of technical operations) were fired amidst allegations of actionable self-dealing." App. 11154. Many of the notes appear, on their face, to support PPG's contention. They are written in the third-person, for example, and they refer to events that post-date Skeddle's termination. See, e.g., Supp. App. 437. One note, for instance, refers to the "summer of 1993" in the past tense. App. 11154.

If the District Court concluded that the notes were not contemporaneous, it could have concluded that the statements contained therein were not in furtherance of a conspiracy or corroborated by the totality of the circumstances; that is, it could have concluded that the statements were not admissible as coconspirator statements or statements against interest. If we could conclude that the District Court excluded all the Queen's File notes on that basis, we would affirm the District Court's decision. But PPG concedes that not all the Queen's File notes appear to be non-contemporaneous. See PPG Br. 94, Tr. of Oral Argument 46. We will therefore

[36] The District Court also concluded that the Queen's File and non-Queen's File notes did not fall within the business records exception of Rule 803(6). App. 47, 56-57. And the Court found that the "Queen's File does not qualify as an admission by a party opponent under Rules 801(d)(2)(A), (B), (C), or (D)." App. 57-58. Plaintiffs do not argue that the District Court erred in these determinations, and we therefore do not address them.

remand the District Court's decision to exclude the Queen's File notes for the same reasons we remand its determination to exclude Skeddle's other notes. We think it best for the District Court to have the opportunity to make these evidentiary determinations with the benefit of our discussion here.

3. Evidence Concerning OEM Glass

As we explained above, PPG and others fabricated flat glass into products for use in automobiles. Some of those products—called "original equipment manufacturer" glass ("OEM glass")—were fabricated for use in new automobiles. Others were fabricated for use as automotive replacement parts. The latter products—called automotive replacement glass—are the same as OEM glass products, but the markets for the two are distinct.

In order to prove that PPG conspired to fix the price of flat glass, plaintiffs offered evidence that they argue shows that PPG conspired with LOF to fix the price of OEM glass products. Specifically, plaintiffs argue that meetings and conversations occurred between Edward Bryant—who was LOF's Executive Vice President in charge of the firm's flat glass, automotive replacement glass, and OEM businesses—and Frank Archinaco (the head of PPG's automotive replacement glass and OEM businesses). These meetings and discussions were private and occurred, according to plaintiffs, at "opportune times" for price fixing.

The District Court concluded that while the evidence constituted "other bad acts" evidence under Federal Rule of Evidence Rule 404(b), it was admissible for other acceptable purposes (e.g. motive, opportunity, or intent). Yet the Court excluded the evidence because it determine that the evidence's probative value was substantially outweighed by the danger of unfair prejudice. App. 54-55. This is a standard Rule 403 balance, which we review with "substantial deference." McQueeney v. Wilmington Trust Co., 779 F.2d 916, 922 (3d Cir. 1985).[37]

While evidence that PPG and LOF conspired together in the OEM market would be relevant to plaintiffs' claim that PPG also conspired to fix prices in the market for flat glass, see In re High Fructose Corn Syrup, 295 F.3d at 661 (noting that defendant conceded to having

[37] PPG also argues that we should affirm the District Court's decision because a reasonable jury could not conclude that PPG committed the "other bad acts"—conspiring in the OEM market—that plaintiffs argue tend to show that PPG conspired to fix the prices of flat glass. See Huddleston v. United States, 485 U.S. 681, 689 (1988). The District Court did not exclude the OEM glass evidence on that basis, however, and we need not address PPG's argument since we affirm on other grounds.

fixed prices on related products during the same time frame as the alleged conspiracy), Areeda, supra, ¶ 1421, at 145, plaintiffs' evidence here is not particularly probative of any OEM glass conspiracy. The weakness of this evidence also mitigates any danger of unfair prejudice. But we cannot say that the District Court abused its discretion in weighing these countervailing considerations, and we will therefore affirm the Court's decision to exclude the OEM glass evidence.

## III. Conclusion

We will affirm the District Court's decision granting summary judgment on plaintiffs' claim that PPG conspired to fix the prices of automotive replacement glass. We conclude, however, that there is sufficient evidence in the record—not taking into account evidence the District Court excluded—from which a reasonable jury could find that PPG conspired to fix the prices of flat glass. We will therefore reverse the District Court's judgment and remand for further proceedings. In addition, we will affirm the District Court's decisions declining to compel Skeddle and Bryant to testify and excluding evidence regarding OEM glass. But we will remand the Court's decision to exclude Skeddle's notes so that the Court can consider its ruling in light of our opinion here and have a further opportunity to explain the bases for its decisions.