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## Balancing the Conspiracy's Books: Inter-Competitor Sales and Price-Fixing Cartels

Christopher R. Leslie

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## **BALANCING THE CONSPIRACY’S BOOKS: INTER-COMPETITOR SALES AND PRICE-FIXING CARTELS**

**CHRISTOPHER R. LESLIE\***

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## INTRODUCTION

Price fixing is antithetical to a free-market economy. Competitive markets supply goods and services to consumers at the lowest efficient prices. Unfortunately, many businesses would prefer not to compete because they can increase their profits by conspiring to raise price. By refraining from competition, each firm in a price-fixing cartel can maximize its profits at the expense of its customers. Price-fixing conspiracies injure consumers by reducing output below the efficient level and transferring wealth from consumers to conspirators. Fortunately, cartels are often unstable because each member of the conspiracy can maximize its short-term profits by cheating on the cartel agreement by selling more than its cartel allotment or charging less than the cartel price.

Cartels try to create stability through enforcement regimes. In order to deter cheating and to remedy cheating when it occurs, stable cartels need to develop enforcement mechanisms that monitor the sales (and prices) of cartel members, penalize firms that sell more than their cartel allotment, and compensate those who have not received their agreed-upon share of the cartel profits. Common monitoring schemes include firms hiring a third-party auditor or reporting their sales figures to a central cartel manager. When such monitoring detects deviations from the assigned cartel quotas, a cartel ringleader may require those firms that have oversold to funnel money

to their cartel partners that have undersold.

When cartel managers can solve the enforcement problems inherent in price-fixing conspiracies, cartels can survive for decades. Depending on the size of the market that has been cartelized, price-fixing conspirators can overcharge their consumers by billions of dollars. And while some consumers are being fleeced, other consumers are priced out of the market altogether and denied access to products and services that they would be able to purchase in a truly competitive market.

Antitrust law is designed to deter and dismantle price-fixing cartels. Section One of the Sherman Act condemns price-fixing agreements as *per se* illegal. Section One is both a criminal and a civil statute. If criminally convicted, individuals face up to ten years' imprisonment. Corporations convicted of price fixing are subject to fines of nine figures or higher. On the civil side, consumers who paid illegally inflated prices can sue for the overcharge. Antitrust damages are automatically tripled, and successful plaintiffs are entitled to their attorneys' fees and costs. When the threat of enforcement of antitrust laws is genuine, rational firms can be dissuaded from conspiring to fix prices. When firms nonetheless persevere in their price fixing, effective antitrust enforcement can disgorge the ill-gotten gains and compensate the victims of the price-fixing conspiracy.

The success of the antitrust regime depends on courts being able to recognize price fixing and to hold price fixers accountable. Unfortunately, courts often do not appreciate the mechanics of cartelization. Most federal judges have not studied the theory and practice of price fixing. They are unfamiliar with the ubiquity of international cartels and the case studies of price fixing in American history. More importantly, judges are generally unversed in how conspirators structure cartel activities to avoid detection or to appear innocent to outsiders untrained in the art of price fixing. This gives actual price fixers confidence that they can conspire to illegally restrain competition while evading liability in court.

This Article focuses on the legal significance of competitors buying products from each other. Such inter-competitor sales stabilize price-fixing conspiracies by providing a mechanism to balance the cartel's books. When one price-fixing conspirator sells more than its cartel quota to its customers, the other conspirator firms that have undersold will demand some form of compensation. Absent some form of reimbursement, an underselling firm may decide the risks of price fixing are not worth the benefits, which are now less than negotiated when its partners are not honoring the letter of the agreement. If one major firm leaves the cartel, the entire enterprise may collapse, and all of the firms may find themselves in a competitive market. To avoid that scenario, some price-fixing conspiracies arrange to have over-sellers purchase products from under-sellers, which funnels money from the

former to the latter. This can preserve the life of the cartel, improving the cartel's coffers at its customers' expense.

If federal judges do not understand how price-fixing conspiracies use inter-competitor sales to enforce their cartel arrangements, then judges may be more prone to dismiss price-fixing claims or grant summary judgment to defendants who have, in fact, conspired to fix prices. This Article seeks to reduce the likelihood of that outcome by explaining how cartels use inter-competitor sales—sometimes called buybacks or true-ups—as a mechanism to balance the cartel's books. Using a combination of economic analysis and empirical case studies, this Article examines the critical role that buybacks can play—and have played—in price-fixing conspiracies.

Part One of this Article lays out the legal framework for proving price fixing through circumstantial evidence. Because direct evidence of price fixing is rarely available, most plaintiffs rely on circumstantial evidence, which requires them both to show that the defendants engaged in parallel pricing and to present “plus factors.” Plus factors are types of evidence that indicate that the parallel conduct is a function of collusion, not of independent decision-making. Through the common-law process, federal courts have recognized over a dozen different plus factors.

Part Two discusses how courts have addressed the significance of inter-competitor sales as evidence of a price-fixing conspiracy. Until recently, all federal courts to consider the issue have held inter-competitor sales to be a plus factor. These opinions, however, generally have little discussion about the mechanics of cartelization and how price-fixing conspirators often purchase products from each other as a way to balance accounts among cartel members. Nevertheless, the law seemed reasonably settled. In 2017, however, in *Valspar Corp. v. E.I. Du Pont De Nemours & Co.*,<sup>1</sup> a divided panel of the Third Circuit—claiming a lack of precedent on the issue—held that inter-competitor sales among manufacturers of titanium dioxide had no probative value, and consequently affirmed summary judgment for the defendants, even though the defendants had engaged in thirty-one parallel price increases and other plus factors were present. The *Valspar* opinion risks upending settled precedent, while claiming that no such precedent exists.

Using both economic theory and empirical evidence, Part Three explains why inter-competitor sales are inherently probative of collusion. To be stable in the long run, a price-fixing conspiracy requires a mechanism for cartel members who sell more than their quota to compensate their under-selling cartel partners. Inter-competitor sales provide an ideal compensation instrument because buybacks funnel money from one firm to its rivals

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1. 873 F.3d 185 (3d Cir. 2017).

without appearing as suspicious as a one-way cash transfer. Inter-firm transactions provide a plausible excuse for why competitors are meeting and discussing the price of their products. Also, buying from rivals removes product from the market in order to create artificial scarcity and, thereby, drives up the market price. Empirically, actual price-fixing cartels have used inter-competitor sales to balance their books. For example, in the early and mid-twentieth century, the international cartels in dyestuffs and aluminum employed company-to-company sales to ensure that each cartel member received its agreed-upon shares of the cartel's profits. More recently, modern price-fixing conspiracies in citric acid, lysine, and vitamins—which collectively overcharged their customers by billions of dollars—used inter-competitor sales as a cartel enforcement mechanism.

Part Four examines the Third Circuit's *Valspar* opinion in detail. In discounting inter-competitor sales as a plus factor, the Third Circuit committed several errors. It is important to expose and explain these errors so that future federal judges do not follow in the Third Circuit's footsteps and replicate these mistakes. For example, the *Valspar* opinion created the false impression that no precedents or studies exist showing the link between inter-competitor sales and price-fixing conspiracies. It also misanalyzed the facts before it, for example, by seeming to treat the presence of intellectual property licensing agreements as sapping inter-competitor sales of their probative value. Ultimately, because the *Valspar* majority did not understand how price-fixing conspiracies operate, the opinion failed to appreciate the legal significance of inter-competitor sales.

Finally, Part Five explains how inter-competitor sales are an important plus factor that help demonstrate that the defendants' parallel pricing is the product of collusion, not independent decision-making. The presence of inter-competitor sales is a plus factor, in and of itself, because cartels commonly use them as an enforcement device. Such sales also help establish other recognized plus factors, including conduct against the parties' independent economic interests. Part Five concludes by explaining how the probative value of inter-competitor sales increases significantly under certain conditions, including when the purchasing firm has inventory or excess capacity, when the transactions are correlated with the competing firms reporting their sales data to each other, when the market is characterized by stable market shares, and when the inter-competitor sales take place at non-market prices.

#### I. PROVING ILLEGAL PRICE FIXING THROUGH PLUS FACTORS

Price-fixing cartels are incompatible with a competitive marketplace. When competitors conspire to increase price, they necessarily reduce output

below the efficient equilibrium. Consumers are denied access to products and services that they would be able to purchase in a free market. Inefficient producers are protected by the inflated cartel price.<sup>2</sup> Congress enacted the Sherman Act based on the premise that “ultimately competition will produce not only lower prices, but also better goods and services.”<sup>3</sup> Price-fixing cartels create artificial scarcity, which means some consumers will pay elevated prices, while other consumers will not be able to acquire the product at all.<sup>4</sup> All consumers are injured. When operating effectively, antitrust law helps markets improve the lives of consumers by expanding output, reducing price, and improving quality and innovation.<sup>5</sup>

To achieve the advantages of competitive markets, Section One of the Sherman Act condemns agreements that unreasonably restrain trade.<sup>6</sup> An antitrust plaintiff can prove that an agreement unreasonably restrains trade through one of three legal tests.<sup>7</sup> First, the per se rule condemns agreements “that would always or almost always tend to restrict competition and decrease output.”<sup>8</sup> If an agreement falls into a per se category, then the agreement is presumed to unreasonably restrain competition as a matter of law.<sup>9</sup> The plaintiffs need not prove any actual anticompetitive effect. Second, if the agreement among the defendants does not fall in a per se category, it can still be condemned under the quick-look rule, which is “an intermediate standard” that “applies in cases where per se condemnation is inappropriate but where no elaborate industry analysis is required to demonstrate the anticompetitive character of an inherently suspect restraint.”<sup>10</sup> Third, if the agreement is neither per se illegal nor subject to quick-look condemnation, the court will apply the Rule of Reason, which

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2. GEORGE W. STOCKING & MYRON W. WATKINS, *CARTELS IN ACTION* 352 (1946) (noting that cartels increase the average production costs in industries).

3. *Nat'l Soc. of Prof'l Eng'rs v. United States*, 435 U.S. 679, 695 (1978).

4. Christopher R. Leslie, *Antitrust Damages and Deadweight Loss*, 51 *ANTITRUST BULL.* 521, 524–26 (2006).

5. Christopher R. Leslie, *Antitrust Law as Public Interest Law*, 2 *U.C. IRVINE L. REV.* 885, 886 (2012).

6. 15 U.S.C. § 1 (2012).

7. See CHRISTOPHER R. LESLIE, *ANTITRUST LAW AND INTELLECTUAL PROPERTY RIGHTS: CASES AND MATERIALS* 26–27 (2011) (explaining differences among the three modes of antitrust analysis).

8. *Nw. Wholesale Stationers, Inc. v. Pac. Stationery & Printing Co.*, 472 U.S. 284, 289–90 (1985) (quoting *Broad. Music, Inc. v. Columbia Broad. Sys., Inc.*, 441 U.S. 1, 19–20 (1979)).

9. *N. Pac. Ry. Co. v. United States*, 356 U.S. 1, 5 (1958) (Agreements that fall in a per se category are “conclusively presumed to be unreasonable and therefore illegal without elaborate inquiry as to the precise harm they have caused or the business excuse for their use.”).

10. *Deutscher Tennis Bund v. ATP Tour, Inc.*, 610 F.3d 820, 830 (3d Cir. 2010) (quoting *United States v. Brown Univ.*, 5 F.3d 658, 669 (3d Cir. 1993)). Under the quick-look approach, the defendant has the burden of proving that the agreement has procompetitive effects that warrant the court applying a full Rule of Reason analysis. *Buccaneer Energy (USA) Inc. v. Gunnison Energy Corp.*, 846 F.3d 1297, 1311 (10th Cir. 2017).

requires the court to “consider ‘both a practice’s likely anti-competitive effects and its beneficial business justifications.’”<sup>11</sup> Price-fixing agreements are per se illegal,<sup>12</sup> which means that such agreements are illegal as a matter of law, and that defendants cannot argue that their agreement to fix price did not unreasonably restrain trade.

Because price-fixing firms take great efforts to conceal their illegal activity, direct evidence of price-fixing agreements is generally not available. Consequently, courts allow antitrust plaintiffs to prove such agreements through circumstantial evidence.<sup>13</sup> This entails two steps. First, plaintiffs must prove conscious parallelism—the fact that the defendants are engaging in the similar conduct, such as uniformly raising their prices.<sup>14</sup> Second, antitrust plaintiffs must present evidence of plus factors, which are factors that tend to show that the defendants’ parallel conduct is the result of collusion, rather than of independent decisions.<sup>15</sup> There is no minimum number of plus factors that a plaintiff must plead or prove. However, the more plus factors that the plaintiff can present, the more likely that the price-fixing claim will survive a defendant’s motion for summary judgment and the more likely that a jury will conclude that an agreement existed among the defendants.

Because plus factors are necessary for plaintiffs to prove price fixing through circumstantial evidence,<sup>16</sup> much antitrust litigation focuses on the issue of whether and when certain conduct constitutes a plus factor. Courts have not advanced a “finite or exhaustive list of plus factors, and different

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11. *Sterling Merch., Inc. v. Nestle, S.A.*, 724 F. Supp. 2d 245, 263 (D.P.R. 2010), *aff’d*, 656 F.3d 112 (1st Cir. 2011) (quoting *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877, 909 (2007)).

12. *Nat’l Collegiate Athletic Ass’n v. Bd. of Regents of Univ. of Okla.*, 468 U.S. 85, 100 (1984) (describing horizontal price fixing as “perhaps the paradigm of an unreasonable restraint of trade”).

13. *In re Text Messaging Antitrust Litig.*, 630 F.3d 622, 629 (7th Cir. 2010) (“Direct evidence of conspiracy is not a sine qua non, however. Circumstantial evidence can establish an antitrust conspiracy.”).

14. *Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 227 (1993) (describing conscious parallelism 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”).

15. *In re Flat Glass Antitrust Litig.*, 385 F.3d 350, 360 (3d Cir. 2004) (“Existence of these plus factors tends to ensure that courts punish ‘concerted action’—an actual agreement—instead of the ‘unilateral, independent conduct of competitors.’”) (quoting *In re Baby Food Antitrust Litig.*, 166 F.3d 112, 122 (3d Cir. 1999)); *Petruzzi’s IGA Supermarkets, Inc. v. Darling-Del. Co.*, 998 F.2d 1224, 1232–33 (3d Cir. 1993) (“[A] plaintiff also must demonstrate the existence of certain ‘plus’ factors, for only when these additional factors are present does the evidence tend to exclude the possibility that the defendants acted independently.”).

16. *In re Baby Food*, 166 F.3d at 122 (describing plus factors as “necessary conditions for the conspiracy inference”).



courts articulate the relevant factors in different ways.”<sup>17</sup> Commonly recognized plus factors include: “a motive to conspire,” “evidence that the defendants acted contrary to their economic self-interest,” and “evidence of a traditional conspiracy, such as a high level of interfirm communications that would suggest that the defendants consciously agreed not to compete.”<sup>18</sup> Other examples of plus factors include that the defendants have exchanged price information, that the defendants have proffered pretextual explanations for their parallel or suspicious conduct, and that the market structure of the industry at issue is concentrated or otherwise conducive to collusion.<sup>19</sup> The list of plus factors is not a closed set. Because antitrust law is common law,<sup>20</sup> courts can recognize new plus factors as economic theory and the facts of individual cases dictate.

## II. THE JUDICIAL TREATMENT OF INTER-COMPETITOR SALES AS A PLUS FACTOR

This Article focuses on why inter-competitor sales constitute a plus factor that can comprise part of an antitrust plaintiff’s circumstantial case for proving price fixing. As their name suggests, inter-competitor sales are simply transactions in which rivals sell their products to each other. These inter-rival transactions are inherently suspicious because classic microeconomic theory informs us that rival firms are supposed to be competing against each other to sell their products to the ultimate customers, not cooperating with each other at this level.<sup>21</sup>

Federal courts have seldom explicitly discussed the legal significance of inter-competitor sales. Nevertheless, several federal courts have recognized inter-competitor sales as an important plus factor.<sup>22</sup> Most significantly, the Seventh Circuit, in Judge Richard Posner’s opinion in *In re High Fructose*

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17. *In re Pool Prods. Distribution Mkt. Antitrust Litig.*, 988 F. Supp. 2d 696, 711 (E.D. La. 2013); see also *In re Flat Glass*, 385 F.3d at 360 (“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.”).

18. *In re Ethylene Propylene Diene Monomer (EPDM) Antitrust Litig.*, 681 F. Supp. 2d 141, 166–67 (D. Conn. 2009).

19. *In re Pool Prods. Distribution*, 988 F. Supp. 2d at 711; see also RICHARD A. POSNER, ANTITRUST LAW 69–93 (2d ed. 2001) (listing plus factors).

20. See *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877, 899 (2007) (“From the beginning the Court has treated the Sherman Act as a common-law statute.”).

21. Cooperation among competitors is understandable when each has a necessary input, and they need to cooperate with each other in order for either of them to bring a product to market. However, this paper and the cases and case studies presented use “inter-competitor sales” to refer to sales of final products for which no inter-competitor cooperation is necessary.

22. See, e.g., *In re Ethylene Propylene Diene Monomer (EPDM) Antitrust Litig.*, 681 F. Supp. 2d 141, 168 (D. Conn. 2009); *In re Linerboard Antitrust Litig.*, 296 F. Supp. 2d 568, 579 (E.D. Pa. 2003) (treating evidence of “extraordinary inter-defendant sales of containerboard” as evidence of a price-fixing conspiracy in the containerboard market); *In re High Fructose Corn Syrup Antitrust Litig.*, 261 F. Supp. 2d 1017, 1024 (C.D. Ill. 2003).

*Corn Syrup Antitrust Litigation*,<sup>23</sup> held that inter-competitor sales are an important plus factor, recognizing that “[a] seller who experiences a surge in demand, but meets the surge by buying what it needs from another seller rather than by expanding its own production, protects the other firm’s market share and so preserves peace among the cartelists.”<sup>24</sup> Until 2017, the published precedent fell in line with treating inter-competitor sales as probative of price fixing.

The Third Circuit in a two-to-one split panel decision, however, has recently created a circuit split on how courts should evaluate inter-competitor sales in the plus-factor analysis. In *Valspar Corp. v. E.I. Du Pont De Nemours & Co.*,<sup>25</sup> the Third Circuit considered the plaintiff’s claims that the defendants had fixed prices in the multi-billion dollar market for titanium dioxide. To make its circumstantial case, the plaintiff first showed that the defendants had engaged in thirty-one parallel price increases over a ten-year period.<sup>26</sup> The plaintiff then sought to demonstrate that this uniform pricing was the result of a well-heeled, long-term cartel and not simply market forces. By way of plus factors, the plaintiff presented evidence that the titanium dioxide market was conducive to price fixing, that the defendants had a strong motive to conspire, that the defendants’ data sharing through their trade associations facilitated their price fixing, that several internal emails were suggestive of price fixing, and, finally, that the defendants’ sales to each other—sometimes at below-market prices—were evidence of an underlying price-fixing conspiracy.<sup>27</sup>

In arguing that the defendants’ sales among themselves were indicative of an underlying conspiracy, the plaintiff relied upon a *Michigan Law Review* article (“the *Michigan* article”) authored by William E. Kovacic, Robert C. Marshall, Leslie M. Marx and Halbert L. White.<sup>28</sup> The plaintiff quoted the article for the proposition that “[i]f one seller buys anything from another at nonmarket prices, then a resource transfer is made for which there is no reasonable, noncollusive explanation.”<sup>29</sup> The *Michigan* article explained why inter-competitor sales at non-market prices and without “productive unilateral motivations” represented not just a plus factor, but a

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23. 295 F.3d 651 (7th Cir. 2002).

24. *Id.* at 659.

25. 873 F.3d 185 (3d Cir. 2017).

26. *Id.* at 194.

27. *Id.* at 196–201.

28. William E. Kovacic, Robert C. Marshall, Leslie M. Marx & Halbert L. White, *Plus Factors and Agreement in Antitrust Law*, 110 MICH. L. REV. 393, 408 (2011). The authors’ credentials are discussed *infra* note 123.

29. *Valspar*, 873 F.3d at 201 (3d Cir. 2017) (quoting Reply Brief for Plaintiff at 21 (quoting Kovacic et al., *supra* note 28, at 423)).

so-called “super plus factor” in creating a circumstantial case to demonstrate an anticompetitive agreement among defendants.<sup>30</sup>

Both the district court and the divided Third Circuit panel in *Valspar* deprived the inter-competitor sales and the *Michigan* article of their respective probative and persuasive values. Despite the plaintiff’s evidence of parallel pricing and multiple plus factors, the district court granted the defendant’s motion for summary judgment. With respect to the defendants’ inter-company sales, the district judge held that the “sales [were] just as consistent with non-collusive activity as with conspiracy.”<sup>31</sup> The Third Circuit affirmed, reasoning that the sales volume was too low to cause “large shifts of market share,” that DuPont needed to purchase titanium dioxide from a rival because Hurricane Katrina had damaged one of its plants, and that some of the sales were made “pursuant to a cross-licensing agreement in order to avoid patent litigation.”<sup>32</sup> Because the decision came at the summary judgment stage, the court essentially accepted the defendant’s explanation for the sales to be true as a matter of law, denying the plaintiff the opportunity to explain to a jury why inter-competitor sales are indicative of price fixing.

With respect to the *Michigan* article, which explained why inter-competitor sales are probative of price fixing, the Third Circuit mocked the plaintiff for

put[ting] all its eggs in the basket of a single law review article. But that law review article: (a) spends only one paragraph on this theory; (b) cites no precedent or economic studies to support it; (c) recognizes that patent licensing and cross licensing can be legitimate; and (d) seems to limit its analysis to “interfirm transfers of resources that are largely void of productive unilateral motivations.” In the face of DuPont’s reasonable explanations to the contrary, we decline to give this isolated quotation the force of law.<sup>33</sup>

Each one of the court’s assertions is flawed, misleading, or both. As will be demonstrated below, the *Michigan* article accurately represented the consensus among cartel scholars regarding the import of inter-competitor sales. Ultimately, the Third Circuit opinion seems to deprive inter-competitor sales of their probative value in proving price fixing. By

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30. Kovacic et al., *supra* note 28, at 423. The authors use the phrase “super plus factors” to “refer to plus factors, or groups of plus factors, that lead to a strong inference of explicit collusion.” *Id.* at 396–97.

31. *Valspar Corp. v. E.I. Du Pont De Nemours*, 152 F. Supp. 3d 234, 244 (D. Del. 2016), *aff’d*, 873 F.3d 185 (3d Cir. 2017).

32. *Valspar*, 873 F.3d at 201.

33. *Id.* at 201 (quoting Kovacic et al., *supra* note 28, at 423.).

illustrating the practical and empirical significance of inter-competitor sales in a price-fixing conspiracy, the following Part seeks to correct the record.

### III. THE PROBATIVE VALUE OF INTER-COMPETITOR SALES

This Part explores the role of inter-competitor sales in price-fixing conspiracies. Cartels need to make many decisions, from determining price and allocating market shares, to creating monitoring mechanisms and enforcing the cartel's rulings. Disagreements over how to distribute cartel profits can lead cartels to unravel temporarily or permanently.<sup>34</sup> After agreeing on the profit split among the cartel partners, cartels need a method for redistributing cartel profits. Historically, cartels have fined their members who sold more than their cartel allotments.<sup>35</sup> But cartel enforcement regimes based on fines are likely to provide tell-tale evidence of price fixing. So, conspirators have developed an alternative compensation system that seems less facially suspicious, namely, inter-competitor sales.

#### A. *The Logic of Cartels Using Inter-Competitor Sales*

Inter-competitor sales can perform many functions for price-fixing conspiracies. Most immediately, such buybacks provide a mechanism for conspirators to allocate cartel profits. This section explains how inter-competitor sales can stabilize cartels more effectively than other modes of compensation.

##### 1. *Balancing the Cartel's Books*

Price-fixing firms invest much effort negotiating the relative market shares of the cartel's members.<sup>36</sup> Even when cartel members reach consensus on the cartel's terms, actual sales figures will often diverge from the agreed-upon numbers. Deviations from script can occur for many reasons. In many instances, firms simply breach the cartel agreement, selling more than their cartel allotment in order to maximize their short-term

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34. Jonathan B. Baker, *Mavericks, Mergers, and Exclusion: Proving Coordinated Competitive Effects Under the Antitrust Laws*, 77 N.Y.U. L. REV. 135, 164 n.127 (2002) ("Margaret Levenstein interprets the largest price wars among U.S. bromine producers between 1885 and 1914 as breakdowns of collusion resulting from disagreements among cartel participants regarding the distribution of rents from collusion.") (discussing Margaret C. Levenstein, *Price Wars and the Stability of Collusion: A Study of the Pre-World War I Bromine Industry*, 45 J. INDUS. ECON. 117, 135 (1997)).

35. Christopher R. Leslie, *Trust, Distrust, and Antitrust*, 82 TEX. L. REV. 515, 616 (2004) (noting examples including in the nitrogen, salt, steel, aluminum, cement, and coal cartels).

36. See Herbert Hovenkamp & Christopher R. Leslie, *The Firm as Cartel Manager*, 64 VAND. L. REV. 813, 831-34 (2011).

profits. Indeed, some price fixers instigate the conspiracy, fully intending to cheat on the pact. Many deviations, however, are more innocent.<sup>37</sup> For example, the cartel managers may not correctly predict customer demand.<sup>38</sup> Alternatively, salespeople who are unaware that their employer is conspiring with rivals will sometimes aggressively compete for sales, causing the firm to oversell its cartel quota.<sup>39</sup> In other instances, cartel members may be afraid to decline to make sales that would put them over their cartel allotment because declining the sale would look suspicious and, perhaps, make the customer suspect that the firms have illegally agreed to divide the market.<sup>40</sup>

Stable cartels generally need a mechanism to penalize cartel firms that sell more than their allotment and to compensate those who undersell. Because deviations—both innocent and premeditated—are common, cartel managers must monitor sales to ensure strict compliance with the agreement.<sup>41</sup> When actual sales deviate from the agreed-upon market shares, cartel members must balance the books so that every firm sells its cartel allotment at the cartel-fixed price. In their study on cartel duration, Professors Margaret Levenstein and Valerie Suslow found that one third of the cartels in their sample had adopted formal compensation rules to rectify deviations.<sup>42</sup>

Direct money payments are perhaps the most efficient way to balance the books. Side payments reconfigure cartel profits.<sup>43</sup> A system of side payments can remedy imbalances whether they are caused by cheating or

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37. JOHN M. CONNOR, *GLOBAL PRICE FIXING* 31 (2d ed. 2008) (“Thus, even a well-intentioned market-share agreement may be difficult to maintain with great precision over time. Some cartel members, despite their best efforts, may overshoot or undershoot their target market shares.”).

38. Margaret C. Levenstein & Valerie Y. Suslow, *Breaking Up Is Hard to Do: Determinants of Cartel Duration*, 54 J.L. & ECON. 455, 475 (2011).

39. Executives in price-fixing firms must often keep their sales force and other employees out of the loop, lest one of the employees disclose the cartel inadvertently and expose the cartel to antitrust officials in exchange for leniency. See Christopher R. Leslie, *Cartels, Agency Costs, and Finding Virtue in Faithless Agents*, 49 WM. & MARY L. REV. 1621, 1690 (2008).

40. Some illegal cartels have been exposed and punished because customers faced with firms refusing to make sales have reported their suspicions of price fixing or have initiated antitrust lawsuits. See, e.g., DAVID BOIES, *COURTING JUSTICE* 233 (2004) (“Interviews conducted in the spring and summer of 1997 confirmed our suspicion that something had happened around 1990. Before then, customers had the opportunity to purchase vitamins from two or more different suppliers; beginning around 1990, however, they found it difficult to get more than one major vitamin manufacturer to offer quotes on a particular vitamin.”); CONNOR, *supra* note 37, at 321 (discussing exposure of the vitamins cartel, in part, because customers were suspicious when firms declined to pursue their business).

41. Leslie, *supra* note 35, at 611–15 (reviewing monitoring mechanisms used by cartels). See also *Dimidowich v. Bell & Howell*, 803 F.2d 1473, 1479–80 (9th Cir. 1986) (treating defendants’ refusal to sell products to plaintiff, followed by seemingly pretextual excuse for refusal, as “evidence that tends to support an inference of concerted action”).

42. Levenstein & Suslow, *supra* note 38, at 475–76.

43. Baker, *supra* note 34, at 159 n.108 (“Side payments are ways of sharing profits. With side payments, some firms will pay others, so a firm’s profits are not necessarily equal to the difference between its sales revenues and production costs.”).

by innocent circumstances.<sup>44</sup> Early cartels relied on side payments because of their relative ease and efficiency as a way to bring cartel profits into balance.<sup>45</sup> For example, members of the early twentieth century bromine cartel “provided direct monetary compensation—from one cartel member to another—when actual sales were not allocated as contemplated by the cartel agreement.”<sup>46</sup> When cartels were legal in European countries during the inter-war years, the international cartels in aluminum, steel, and cement fined members that sold more than their cartel allotment and funneled that money to those members who undersold.<sup>47</sup> Some modern cartels, such as the graphite electrode cartel, have also employed side payments as a compensation mechanism.<sup>48</sup> A managed system of side payments stabilizes the cartel by eliminating the perceived benefits of cheating on the cartel agreement.<sup>49</sup>

This method of balancing the cartel’s books, though, has the significant downside of appearing inherently suspicious if it is detected. Side payments generally create a paper trail.<sup>50</sup> Thus, side payments risk cartel exposure.<sup>51</sup> As Jonathan Baker notes, side payments may “be difficult to negotiate and impossible to enforce given the risk that a prosecutor and court would infer an unlawful (even criminal) agreement to fix price.”<sup>52</sup>

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44. Louis Kaplow, *An Economic Approach to Price Fixing*, 77 ANTITRUST L.J. 343, 394 (2011) (“Another mechanism is the use of side payments, for example, to share industry profits more equally when some firms need to make greater sacrifices or when it turns out ex post that one firm sold more than its allotted share of output (whether due to cheating or luck; rivals may be unable to tell which).”).

45. John Shepard Wiley, Jr., *Antitrust and Core Theory*, 54 U. CHI. L. REV. 556, 576 n.70 (1987) (“Bittlingmayer reports similarly that the pipe cartel made large internal payments to member firms that ‘did relatively little work,’ and he acknowledges the importance of side payments to efficient coordination.”) (citation omitted).

46. Levenstein & Suslow, *supra* note 38, at 476 n.47.

47. STOCKING & WATKINS, *supra* note 2, at 252–53 (“Members were penalized if they exceeded their assigned quotas; they received compensation for underselling their quotas.”); Philip C. Newman, *Key German Cartels Under the Nazi Regime*, 62 Q.J. ECON. 576, 594 (1948) (explaining the agreement among European cement producers to prevent further dips in price by imposing quotas, prices, and payments owed for exceeding quotas); Daniel Barbezat, *Cooperation and Rivalry in the International Steel Cartel, 1926–1933*, 49 J. ECON. HIST. 435, 437 (1989) (“The cartel had penalties for production in excess of the quota.”).

48. Margaret Levenstein & Valerie Y. Suslow, *Contemporary International Cartels and Developing Countries: Economic Effects and Implications for Competition Policy*, 71 ANTITRUST L.J. 801, 835 (2004).

49. *Id.* (“Second, there are side-payments among colluding firms that neutralize any gains from cheating. If there is uncertainty about demand that leads actual market shares to differ from agreed-upon market shares (even in the absence of cheating by cartel members), these side-payments may occur in equilibrium.”).

50. Levenstein & Suslow, *supra* note 38, at 476 (“However, side payments leave a paper trail that increases the likelihood of antitrust prosecution.”).

51. Andrew R. Dick, *Coordinated Interaction: Pre-Merger Constraints and Post-Merger Effects*, 12 GEO. MASON L. REV. 65, 78 n.55 (2003) (“But reaching a consensus to implement this allocation rule almost certainly would necessitate explicit communications and side-payments between suppliers. These types of activities would expose companies to the risk of criminal antitrust penalties.”).

52. Baker, *supra* note 34, at 164.

Louis Kaplow has observed that “[s]ide payments are widely accepted as evidence of coordinated oligopolistic price elevation, for why else would a competitor make a payment to a rival for no consideration.”<sup>53</sup> In light of the risks that attend side payments, modern cartels seem to avoid side payments despite their efficiency.<sup>54</sup> Indeed, given the inherent suspiciousness of monetary side payments, some cartels that initially employ side payments eventually abandon them for less suspicious methods of evening out cartel profits.<sup>55</sup> One of those methods is inter-competitor sales.

In terms of cartel compensation mechanisms, inter-competitor sales have a major advantage: they balance the cartel’s books and appear less suspicious than direct monetary payments.<sup>56</sup> Empirically, in order to avoid inherently suspicious direct payments, some cartels have balanced their books by having cartel members who sold more than their cartel allotment make purchases from cartel members who sold less than their cartel allotment.<sup>57</sup> Thus, buybacks allow one firm to send its rival cash while having the patina of a legitimate, non-collusive business transaction.<sup>58</sup>

## 2. *The Advantages of Inter-Competitor Sales for Cartel Management*

### a. *Inter-Competitor Sales as a Compensation Mechanism*

Cartel leaders can utilize buybacks in order to achieve three related purposes of an effective compensation system. First and foremost, by funneling money to a cartel member that has sold less than its cartel allotment, inter-competitor sales provide monetary reimbursement so that every conspirator receives its agreed-upon share of the cartel’s profits. Without this assurance, many firms would decline to participate in the cartel. Some cartels are explicit in their view that buybacks exist solely for compensatory purposes. For example, Joseph Harrington noted that the

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53. Kaplow, *supra* note 44, at 394.

54. See Levenstein & Suslow, *supra* note 38, at 476 n.47 (“Direct compensation raises the risk of detection by competition authorities and is not observed in our sample.”).

55. For example, although the graphite electrode cartel originally used informal side payments, it later transitioned to a formal system of monitoring sales and adjusting member sales accordingly. Levenstein & Suslow, *supra* note 48, at 835.

56. Kaplow, *supra* note 44, at 394 (“A more subtle form of the practice involves cross-purchases. That is, a firm that sold more than its allotted share might buy from firms that sold less; if such purchases are at the elevated oligopoly price, compensation will have been accomplished.”).

57. See *infra* Part III.B.

58. ROBERT C. MARSHALL & LESLIE M. MARX, *THE ECONOMICS OF COLLUSION: CARTELS AND BIDDING RINGS* 43 (2012) (“The large firm explains that simply sending cash to one another is not good, but nothing precludes them from engaging in interfirm transactions at nonmarket prices that are the equivalent of sending cash.”).

“organic peroxides cartel was explicit that the buy-back was done for purposes of compensation as it was to reflect the firms’ foregone profit.”<sup>59</sup>

Second, inter-competitor sales disgorge the excess gains of firms that sell more than their cartel allotment. Compulsory buybacks are less punitive than other forms of cartel discipline; after all, the overseller is merely redistributing its unwarranted gains to its co-conspirator pursuant to the terms of an agreement that they both negotiated beforehand.<sup>60</sup> In contrast, some forms of cartel enforcement resemble true penalties that can render cheating on the cartel not cost-beneficial. For example, some cartel leaders will punish cheaters with price wars that cause an overselling firm to lose much more than it gained from overselling in the first place.<sup>61</sup> While buybacks are less retributive than price wars, the threat of more serious punishments can help a buyback scheme function. For example, some cartel oversellers may acquiesce to purchasing unneeded products from a cartel partner in order to avoid being subjected to a more brutal punishment, such as a full-on price war.<sup>62</sup>

Third, although buybacks are required regardless of whether a cartel member’s overselling was intentional or inadvertent, the presence of a buyback protocol reduces the expected financial gains from cheating on the cartel agreement by selling more than one’s quota.<sup>63</sup> So long as the cartel’s monitoring mechanism is reasonably accurate, cheating is not a profit-maximizing strategy because the cartel managers will use buybacks to balance the cartel books at regular intervals.<sup>64</sup> By minimizing all conspirators’ incentives to cheat, a system of inter-competitor sales stabilizes the cartel in the long run.

#### *b. Inter-Competitor Sales Facilitate Trust*

The absence of trust is a fundamental problem for many cartels. In order to be stable in the long run, cartel members need to trust each other not to cheat and to compensate each other when actual sales deviate from cartel

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59. JOSEPH E. HARRINGTON, JR., *HOW DO CARTELS OPERATE?* 60 (2006).

60. *See id.* (noting that under a buyback scheme “if a deviating firm is only required to ‘return excessive sales’ than it is not much of a punishment at all”).

61. Leslie, *supra* note 35, at 615–21.

62. HARRINGTON, *supra* note 59, at 60 (hypothesizing that in order “to ensure that buy-backs were paid,” cartels may use “the threat of aggressive pricing”).

63. Levenstein & Suslow, *supra* note 38, at 475–76 (“[R]equir[ing] cartel members who have sold more than their share to purchase output from those who have undersold . . . lessens a cartel member’s incentive to cheat and sell more than its quota.”). *See also* MARSHALL & MARX, *supra* note 58, at 42–43 (“But the incentive is clear—do not get ahead of your share allocation because you will find yourself having to be on the buy side of a costly true-up.”).

64. Levenstein & Suslow, *supra* note 48, at 835 (“Given this compensation system, and assuming that sales monitoring is sufficiently accurate, there is no incentive to cheat on the agreement. At the end of the year, everyone will have in fact sold their cartel quota.”).



allotments. In the absence of trust, the cartel will have a hard time forming in the first place and, if formed, will be more likely to collapse into competition. Cartel managers invest significant time and resources to make themselves appear trustworthy<sup>65</sup> and to encourage the cartel partners to trust each other. The development of effective enforcement regimes can help cartel partners overcome the problem of mutual distrust. Inter-competitor sales can facilitate trust. For example, when two members of the citric acid cartel—Haarmann & Reimer and ADM—were in a dispute because the former had oversold its cartel allotment while the latter had undersold, a high-level executive from Hoffmann-La Roche (a major player in the cartel) intervened to counsel H&R that it must purchase products from ADM because mandatory inter-competitor sales were “an essential part of the agreement and . . . non-compliance on this point would undermine the trust necessary to maintain the cartel and would therefore be harmful to all participants.”<sup>66</sup>

While some price-fixing cartels have treated inter-competitor sales as mandatory,<sup>67</sup> other cartels have treated such book-balancing sales as optional. For example, “[i]n the organic peroxides cartel, buy-backs were not presented as something compulsory but rather that it was an option to a firm to request it when it sold below quota.”<sup>68</sup> But even when inter-competitor sales were not compulsory, they have represented an important goodwill gesture among cartel members. Such voluntary inter-competitor sales to restore cartel balances may be important as trust-generating devices. As Judge Posner explained, a price fixer’s decision to purchase from a co-conspirator instead of expanding its own production “preserves peace among the cartelists.”<sup>69</sup> Even when a cartel member has available supply, it may purchase product from a cartel partner who has undersold its quota. Such goodwill gestures are common among cartelists who want to engender trust among the co-conspirators.<sup>70</sup>

Cooperating even when one does not have to can create goodwill that will lead to greater mutual cooperation in the long run.<sup>71</sup> Empirical evidence shows that in order to generate goodwill among cartel partners, cartel members forego sales, create business relationships, and stay out of entire

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65. See Leslie, *supra* note 35 at 562–99; see generally Christopher R. Leslie, *Antitrust Amnesty, Game Theory and Cartel Stability*, 31 J. CORP. L. 453 (2006) (discussing relationship between trustworthiness and cartel stability).

66. HARRINGTON, *supra* note 59, at 59.

67. *Id.* (discussing citric acid cartel).

68. *Id.* at 60.

69. *In re High Fructose Corn Syrup Antitrust Litig.*, 295 F.3d 651, 659 (7th Cir. 2002).

70. See Leslie, *supra* note 35, at 568–72.

71. Leslie, *supra* note 35, at 522.

product lines.<sup>72</sup> This calculated benevolence can create trust among natural rivals and thereby stabilize a cartel agreement.<sup>73</sup> Similarly, inter-firm sales may act as a type of goodwill gesture that facilitates trust and, thus, strengthens the cartel. By funneling money to a rival through product purchases, a cartel member signals to its co-conspirator that it is committed to the long-term success of their illegal venture.

Inter-competitor sales—especially at below-market prices—can help rivals establish trust even before the formalization of an anti-competitive agreement. For example, when Dow Chemical Company wanted to cartelize the market for magnesium in the 1920s, it knew that it would have to keep Alcoa, its rival in other metals markets, out of the market for magnesium.<sup>74</sup> Already the largest manufacturer of aluminum in the United States, Alcoa would likely enter the magnesium market if the magnesium cartel raised the price of magnesium. In order to induce Alcoa not to enter the magnesium market, Dow Chemical approached Alcoa and offered to sell it magnesium at fifty-five cents a pound, which was twenty cents less than the then-prevailing market price.<sup>75</sup> Although initially skeptical of Dow's intentions, Alcoa eventually agreed and purchased its magnesium requirements from Dow at below-market prices in exchange for staying out of the magnesium market, thus allowing Dow to lead a more disciplined cartel. Although Dow and Alcoa were not actual competitors in magnesium at the time of the sales, they were potential competitors and Dow's below-cost sales to its rival in the wings helped the two metal giants enter a separate series of anti-competitive contracts.<sup>76</sup>

*c. Inter-Competitor Sales Create Artificial Scarcity*

In some industries, inter-competitor sales may help stabilize price by removing product from the market. A dominant firm in a cartel may purchase products from a cartel partner with excess inventory in order to remove the latter's temptation to sell more than its cartel quota. During the Great Depression, for example, the international aluminum cartel purchased the unsold output of its members, operating essentially as a merchant firm that regulated the flow of aluminum into the market.<sup>77</sup> Then, as now, such

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72. *Id.* at 568 (discussing examples from the international uranium, nitrogen, aluminum, and magnesium cartels).

73. *See id.* at 568–73.

74. STOCKING & WATKINS, *supra* note 2, at 279–81.

75. *Id.* at 280–81.

76. *Id.* at 283.

77. MARCO BERTILORENZI, THE INTERNATIONAL ALUMINIUM CARTEL, 1886-1978: THE BUSINESS AND POLITICS OF A COOPERATIVE INDUSTRIAL INSTITUTION 219 (2015).

inter-competitor sales perform the function of manipulating market output in order to raise price.

Cartel members will also sometimes make purchases from non-cartel members in order to deplete available supply and, thus, put upward pressure on the market price. For example, members of the B2 vitamin cartel grew concerned when the American brewer Coors built a production facility with sufficient capacity to affect the world market price for the vitamin. To prevent Coors from exporting B2, Swiss-based Roche purchased half of Coors's output.<sup>78</sup> This sale was suspicious given Roche's lack of need, as demonstrated by Roche's sale of some of Coors's B2 to its cartel partner BASF, which allowed the firms to share the cost of creating artificial scarcity. This episode illustrates two separate ways that inter-rival sales can facilitate—and demonstrate—an underlying price-fixing conspiracy. First, some inter-company sales are designed to create artificial scarcity, which allows a cartel to increase the prevailing price. Second, inter-competitor sales can preserve the relative market shares as agreed to by the conspirators. Thus, the sales from Roche to BASF ensured that each sold its cartel-allocated amount of B2.<sup>79</sup> In short, a cartel member may purchase product from non-cartel members so that they cannot disrupt the cartel's manipulation of market output and, thus, market price.<sup>80</sup>

Antitrust law condemns agreements that create artificial scarcity because this manufactured paucity increases prices and thus constitutes per se illegal price fixing.<sup>81</sup> Most notably, the Supreme Court in *United States v. Socony-Vacuum Oil Co.*<sup>82</sup> condemned an agreement among oil companies to purchase oil on the spot market in order to drive up the market price as per se illegal price fixing even though the defendants did not fix a specific price. Whether or not the inter-competitor sales are taking place between cartel partners or between one conspirator and an innocent rival, these sales can

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78. CONNOR, *supra* note 37, at 294.

79. *Id.* ("Roche then sold a portion of its purchased product to BASF in an amount that preserved their relative quotas. This was a cunning, if expensive solution to foiling large-scale entry into the cartel's market."). See also MARSHALL & MARX, *supra* note 58, at 43 n.50 (quoting EC decision in *Vitamins* at para. 287) ("In order to prevent Coors from disrupting their arrangements by the export of its production surplus, Roche and BASF agreed that the former would contract to purchase 115 tonnes of vitamin B2 (representing half of Coors's capacity) in 1993. BASF in turn would purchase 43 tonnes from Roche . . ."). See also HARRINGTON, *supra* note 59, at 66 ("One response to increased non-cartel supply was to have the cartel members purchase the supply. This was used in the vitamin B2 market.").

80. Randal D. Heeb, William E. Kovacic, Robert C. Marshall & Leslie M. Marx, *Cartels As Two-Stage Mechanisms: Implications for the Analysis of Dominant-Firm Conduct*, 10 CHI. J. INT'L L. 213, 225 (2009) (noting that members of vitamins "cartel purchased the product of non-cartel rivals to prevent that supply from disrupting the cartel agreement and the cartel's attempts to increase price").

81. *United States v. Andreas*, 39 F. Supp. 2d 1048, 1059 (N.D. Ill. 1998), *aff'd*, 216 F.3d 645 (7th Cir. 2000) ("Output restrictions are classic per se violations which personify the law of supply because product scarcity causes consumers to pay inflated prices to satisfy demand.").

82. 310 U.S. 150 (1940).

raise price by reducing the amount of product available to consumers. Under either scenario, the inter-competitor sales can facilitate an underlying price-fixing conspiracy.

*B. The Actual Use of Inter-Competitor Sales by Cartels*

The advantages of inter-competitor sales are not merely theoretical. The history of cartelization cannot be told without reference to inter-competitor sales. Empirically, price-fixing cartels have employed this method of cartel accounting for almost a century. During the pre-World War II era, cartels dominated many international markets. These early cartels often used inter-competitor sales as a mechanism to balance their cartel books and to create uniform prices within an industry.

Beginning in the late 1800s and continuing through most of the twentieth century, international trade in aluminum was controlled by an aluminum cartel operated out of Europe. Because European nations generally encouraged international cartels, the aluminum cartel operated relatively openly.<sup>83</sup> One iteration of the aluminum cartel in the early twentieth century used the cartel's central organization as a clearinghouse of sorts to purchase product from cartel members who sold less than their cartel allotment.<sup>84</sup> The managers of the aluminum cartel assigned market quotas for each participant, and "if a member exceeded its quota, it was compelled to buy metal from the others."<sup>85</sup> Every three months, the aluminum cartel managers would balance the books by compelling oversellers to purchase product from an underselling cartel member.<sup>86</sup>

Another example involves the dyestuffs cartel, which effectively implemented an arrangement in which no dye-maker manufactured every product line and instead "even major manufacturers depend[ed] on their

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83. BERTILORENZI, *supra* note 77, at 358.

84. STOCKING & WATKINS, *supra* note 2, at 264.

85. BERTILORENZI, *supra* note 77, at 136–37.

86. Marco Bertilorenzi explained:

The contract provided that there would be neither sales agencies in common, nor the territorial division of sales. AA [the Aluminium Association, a European cartel] would only ensure that each firm would sell its annual share respecting the selling price fixed by the cartel and, in the case where a company breached the sales, every three months there would be a rebalancing in order to meet the assigned quotas. This rebalancing operation would be carried out through methods that would be decided from time to time but which allegedly foresaw the purchase of the sale of metal amongst the firms of the cartel. The firms that made more sales than was allocated by their quotas would purchase from the firms which were in deficit. The price of these operations would be lower than that of AA (a price defined 'rebalancing price'). In this way, the 'rebalancing price' represented the lower limit for market quotations, which worked as a guarantee to avoid unfair attitudes of the cartel members.

BERTILORENZI, *supra* note 77, at 139.

competitors for certain [products].”<sup>87</sup> Division of product lines is a common characteristic of cartel arrangements in broad industries with a range of products.<sup>88</sup> In the case of the dyestuffs cartel, for example, in 1939 DuPont and General Aniline purchased over \$2 million worth of product from each other.<sup>89</sup> Across the dyestuff industry, companies sold products to each other at discounted prices.<sup>90</sup> Stocking and Watkins explained that the dyestuffs cartelists sometimes used their inter-competitor sales contracts to “stipulate[] uniform sales prices for dyes produced under the contract. By such practices the dominant producers [] virtually eliminated price competition in dyestuffs markets.”<sup>91</sup> The system of inter-competitor sales, while not employed as a traditional buyback scheme as with the aluminum cartel, provided a critical component of the dyestuffs cartel.<sup>92</sup>

The use of inter-competitor sales by cartels is not just a historical curiosity. Many of the largest exposed price-fixing conspiracies of recent years have used inter-competitor sales as an important mechanism for cartel accounting and management. For example, during the 1990s, major international corporations conspired to fix prices in the market for citric acid, a preservative added to many foods.<sup>93</sup> The cartel overcharged American buyers by over \$100 million; some estimates put the total overcharges paid by American consumers at above \$309 million.<sup>94</sup> Although the cartel overcharges were directly paid by food processors, consumers were the cartel’s ultimate victims.

The members of the citric acid cartel negotiated sales quotas and created a reporting system whereby each firm submitted monthly sales data to a designated cartel member who would compile reports that showed which firms were selling more than their cartel quota and which firms less.<sup>95</sup> Any divergences between allotted sales and actual sales were corrected through a buyback system where oversellers purchased product from undersellers.<sup>96</sup> The European Commission explained that the citric acid cartel’s managers constructed a buyback program “to penalise those companies selling above their assigned sales quota and at the same time compensate those that did

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87. STOCKING & WATKINS, *supra* note 2, at 405.

88. See, e.g., Leslie, *supra* note 35, at 570 (“Standard Oil and IG Farben sought to stabilize their overall cartel relationships by each ceding a major market to the other, petroleum to Standard and chemicals to Farben.”).

89. STOCKING & WATKINS, *supra* note 2, at 405.

90. *Id.*

91. *Id.*

92. *Id.* (“The dyestuffs industry most clearly exhibits a cartel pattern colored by the practice of intercompany purchases and sales.”).

93. CONNOR, *supra* note 37, at 159.

94. *Id.* at 165.

95. *Id.* at 143.

96. *Id.*

not reach it.”<sup>97</sup> For example, members of the citric acid cartel utilized this buyback mechanism when German-based Haarmann & Reimer sold more than its cartel allotment while Illinois-headquartered Archer Daniels Midland (ADM) undersold.<sup>98</sup> Although Haarmann & Reimer was displeased with having to compensate ADM by purchasing citric acid from it, the parties reached a buyback agreement in order to preserve the cartel arrangement.<sup>99</sup> Cartel economist John Connor noted that “[t]his arrangement was kept almost perfectly” by the cartel’s members until the conspiracy was exposed.<sup>100</sup>

Similar to the citric acid cartel, in the 1990s, several of the world’s major agribusinesses conspired to collectively control the international market for lysine, an amino acid added to animal feed.<sup>101</sup> In less than four years of operation, the lysine cartel illegally overcharged its customers between \$200 and \$250 million,<sup>102</sup> \$80 million of which was paid by U.S. customers.<sup>103</sup> Consumers ultimately paid these overcharges in the form of higher prices for chicken, pork, and other animal products.<sup>104</sup>

The lysine cartel was able to maintain its price-fixing scheme, in part, through the use of inter-competitor sales. ADM, which served as the primary manager of the cartel, appointed Terry Wilson as ADM’s point person. Wilson had no background in lysine but had a solid resume in price fixing; he had managed ADM’s participation in the international citric acid cartel.<sup>105</sup> Wilson organized a system whereby each cartel firm would report its lysine sales figures, which would then be distributed among the cartel membership.<sup>106</sup> These numbers were then used to determine whether any inter-competitor sales were necessary to balance the cartel’s books. Applying his experience from the citric acid cartel, Wilson convinced the other lysine manufacturers that “[s]ticking to the allocated shares would

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97. HARRINGTON, *supra* note 59, at 57–58 (“If a company went over its assigned quota in any one year, it would be obliged to purchase product from the company or companies with sales below their quota during the following year.”) (quoting 2001 O.J. (L 239/18) 88 (citric acid decision)).

98. HARRINGTON, *supra* note 59, at 57–58.

99. *Id.* at 59.

100. CONNOR, *supra* note 37, at 143. These facts about the citric acid cartel are not closely guarded secrets; the cartel’s operations, including its use of inter-competitor sales, were reported in the popular business press. See Susan B. Garland, *Justice’s Cartel Crackdown*, BUSINESSWEEK, Jul. 27, 1998, at 51 (noting that in the citric acid cartel, “any company that had sold more than its allotted share was required in the following year to buy the excess from a conspirator that had not reached its volume-allocation target in the preceding year”).

101. CONNOR, *supra* note 37, at 168.

102. *Id.* at 235.

103. *Id.* at 8.

104. *Id.* at 235–36.

105. See *United States v. Andreas*, 216 F.3d 645, 665 (7th Cir. 2000).

106. JAMES B. LIEBER, RATS IN THE GRAIN: THE DIRTY TRICKS AND TRIALS OF ARCHER DANIELS MIDLAND 148 (2000) (“Each month the member companies would report their sales figures to the witness and he would distribute them to the group.”).

work because of a system of guaranteed ‘buy-ins.’ If a lysine maker became aggressive and sold more than its share, then it would have to buy product from producers who sold less. In this way, the rigged fractions would be preserved.”<sup>107</sup> This buyback structure helped ensure that the members of the lysine conspiracy did not exceed their cartel quotas.<sup>108</sup> James Griffin, a former Deputy Assistant Attorney General, who is an expert in the operation of price-fixing conspiracies, described the lysine cartel’s use of buybacks as “typical.”<sup>109</sup>

The largest exposed cartel of the modern era has been the multi-billion dollar vitamins cartel, which was actually composed of several separate, but related, cartels in individual vitamins that were added to animal feed, human food, or supplements.<sup>110</sup> The cartel caused inflated prices in hundreds of consumer markets, including meat, poultry, fish, eggs, milk, and even cosmetics.<sup>111</sup> Ultimately, the overcharges from the vitamins cartels exceeded \$15 billion.<sup>112</sup>

Many of the individual vitamins cartels employed buyback protocols. For example, the cartel managers had to utilize its buyback program in 1996 and 1997 when Roche and BASF sold more than their allotted quotas of vitamins A and E and had to purchase products from their cartel partners who undersold during those years.<sup>113</sup> Members of the vitamins A and E cartels provided monthly sales reports to cartel managers, who would monitor whether cartel firms were over- or underselling.<sup>114</sup> In finding these vitamins manufacturers liable for violating European competition law, the European Commission noted: “Any company that sold more than its allotted share was required in the following year to purchase the excess from another conspirator that had not reached its volume allocation target.”<sup>115</sup> It is not clear whether every arm of the vitamin cartel employed buybacks, but “most

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107. *Id.*

108. CONNOR, *supra* note 37, at 197.

109. James M. Griffin, *An Inside Look at a Cartel at Work: Common Characteristics of International Cartels*, 115, 124 in *CARTELS VOLUME I* (Margaret C. Levenstein & Stephen W. Salant eds. 2007) (“The compensation scheme used by the lysine cartel is typical and worked as follows. Any firm that had sold more than its allocated or budgeted share of the market at the end of the calendar year would compensate the firm or firms that were under budget by purchasing that quantity of lysine from any under-budget firms.”).

110. *Id.* at 238.

111. *Id.*

112. *Id.* at 337 (“Measured in 2005 dollars, the damages from the vitamins cartels of the 1990s amounts to \$15.6 billion . . .”).

113. *Id.* at 281.

114. HARRINGTON, *supra* note 59, at 58.

115. Robert C. Marshall, Leslie M. Marx & Matthew E. Raiff, *Cartel Price Announcements: The Vitamins Industry*, 26 INT’L J. INDUS. ORG. 762, 765 n.22 (2008). (citing U.S. DEP’T OF JUSTICE, INTERNATIONAL COMPETITION POLICY ADVISORY COMMITTEE TO THE ATTORNEY GENERAL AND ASSISTANT ATTORNEY GENERAL FOR ANTITRUST FINAL REPORT (2000) [<https://perma.cc/4P7D-PLC4>]).

of the vitamins cartels had compensation policies. Whenever a company exceeded its quota, that firm was obligated to sell the excess production at cost to an under-achiever in the cartel. Resale of the transferred product would restore the planned division of monopoly profits.”<sup>116</sup> These buyback provisions helped to stabilize the multi-billion-dollar vitamins cartels until they were eventually exposed and successfully prosecuted.

All of these examples prove the simple point that price-fixing conspiracies often plan to—and do—engage in inter-competitor sales as a mechanism to stabilize their cartel arrangements. These cases are not atypical.<sup>117</sup> Cartel scholars Margaret Levenstein and Valerie Suslow have explained that while cartels may experiment with different mechanisms to balance the cartel’s books, “[t]he *most common* compensation procedure requires cartel members who have sold more than their share to purchase output from those who have undersold.”<sup>118</sup> In short, inter-competitor sales are commonly associated with price-fixing activity.

#### IV. JUDICIAL MISHANDLING OF INTER-COMPETITOR SALES

Until 2017, antitrust precedent was consistent in recognizing inter-competitor sales as a plus factor for proving price-fixing conspiracies. In creating a circuit split on the evidentiary significance of inter-competitor sales, the Third Circuit’s *Valspar* opinion committed a number of mistakes, some minor and some significant. This Part identifies these errors and explains why these mistakes are important. It concludes by arguing that *Valspar* is not viable precedent moving forward.

##### A. *The Scholarly and Precedential Record*

The *Valspar* majority began its discussion on the probative value of inter-competitor sales by belittling the persuasive authority of the *Michigan* article, asserting that the “law review article [] spends only one paragraph on this theory.”<sup>119</sup> This characterization is deceptive.<sup>120</sup> The use of buybacks by cartels is not a mere “theory”; it is a fact that for the past century, cartels have employed buybacks to compensate cartel members who have sold less

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116. CONNOR, *supra* note 37, at 315.

117. Cartel members in other recent international cartels, such as the sorbates and the organic peroxides cartels, also constructed versions of buyback schemes in order to stabilize their price-fixing conspiracies. HARRINGTON, *supra* note 59, at 61 (sorbates); *id.* at 60 (organic peroxides).

118. Levenstein & Suslow, *supra* note 38, at 475–76 (emphasis added).

119. *Valspar Corp. v. E.I. Du Pont De Nemours & Co.*, 873 F.3d 185, 201 (3d Cir. 2017).

120. As a trivial first matter, the court’s reference to “only one paragraph” is inaccurate because the article contains two paragraphs focused solely on inter-competitor sales, albeit one in a footnote.



than their cartel quotas.<sup>121</sup> The practice is well documented in both historical cartels and modern ones.<sup>122</sup> The fact that it is a single law review article should be irrelevant if the article's analysis and conclusion are correct. The Third Circuit provides no reason to believe that the four authors of the *Michigan* article are wrong.<sup>123</sup>

The Third Circuit seemed to try to create the illusion that the *Michigan* article was anomalous or uncorroborated. The *Valspar* majority, for example, chastised the *Michigan* article because it "cites no precedent or economic studies to support" the proposition that inter-competitor sales are a plus factor.<sup>124</sup> In some ways, this is a self-defeating critique given that the *Michigan* article is itself an economic study of collusion in which economic experts explain the probative value of many factors, including notably inter-competitor sales, as circumstantial evidence to show the existence of an underlying price-fixing conspiracy.

To the extent that the majority was attempting to imply that neither precedent nor studies exist, that insinuation is incorrect. With respect to its sources, the *Michigan* authors explained that they "derive[d] these possibilities from [their] review of the published records of the vitamins cartel and other producer conspiracies prosecuted in Europe and in the United States," and they cited their previous scholarship on the vitamins cartel.<sup>125</sup> Moreover, the Third Circuit's emphasis on a lack of scholarship supporting the plaintiff's position that buybacks are indicative of cartel activity is odd because a significant amount of legal, economic, and historical scholarship had also noted that cartels often use inter-competitor sales as an accounting mechanism.<sup>126</sup> Indeed, every major scholar of cartel

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121. It matters little to the Third Circuit that the *Michigan* article's "one paragraph" accurately reflects consensus of scholars and judges who have studied the role of inter-competitor sales in price-fixing conspiracies and who have considered the legal significance of such sales. One wonders how many paragraphs the *Valspar* majority considers to be the minimum necessary to establish a noncontroversial point in the relevant scholarly field.

122. See *supra* Part III.B.

123. The Third Circuit failed to appreciate the credentials of the *Michigan* article's authors. They are among the leading scholars on how cartels operate and how antitrust law should be interpreted to best deter and penalize price-fixing activity. William Kovacic, for example, served as a member of the Federal Trade Commission and has been one of the leading authorities on antitrust law for several decades. Robert Marshall and Leslie Marx are respected economics professors who have studied and written extensively on collusion, including a full-length book on the subject that contains several discussions of inter-competitor sales. Before his passing, Halbert White was a noted econometrics expert with a PhD from MIT. Combined, these authors have written some of the most compelling economic modeling of collusion and analysis of actual cartel operating procedures.

124. *Valspar*, 873 F.3d at 201.

125. Kovacic et al., *supra* note 28, at 408 & n.70 (citing William E. Kovacic et al., *Lessons for Competition Policy from the Vitamins Cartel*, in *THE POLITICAL ECONOMY OF ANTITRUST* 149 (Vivek Ghosal & Johan Stennek eds., 2007)).

126. See, e.g., CONNOR, *supra* note 37, at 40 ("Many cartels have agreed on internal fines to be paid by members that exceed their quotas; an alternative tactic is to agree on compensation of under-quota members through the inter-firm sale of product at a competitive price.").

conduct has confirmed that many price-fixing conspiracies employ inter-competitor sales as a cartel-stabilizing device.<sup>127</sup>

With respect to the Third Circuit's insinuation that no precedent supports the argument that inter-competitor sales constitute a plus factor, that, too, is wrong. Several courts have held that inter-competitor sales have probative value and should be considered a plus factor.<sup>128</sup> Most significantly, as noted previously, the Seventh Circuit in *In re High Fructose Corn Syrup Antitrust Litigation*<sup>129</sup> held that inter-competitor sales are an important plus factor.<sup>130</sup> The private litigation against the members of the high fructose corn syrup (HFCS) cartel stands in contrast to the private antitrust lawsuits brought against the lysine, citric acid, and vitamins cartels. The private plaintiffs suing the latter cartels did not have to rely on inter-competitor sales as evidence to prove the conspiracy because the defendants had already pled guilty to price-fixing, and private plaintiffs could use the successful government cases as definitive proof of an illegal agreement.<sup>131</sup> Thus, even though those cartels used inter-competitor sales, the plaintiffs never had to present *any* plus factors.<sup>132</sup>

Although the HFCS cartel included some members of these other price-fixing conspiracies, the private antitrust lawsuits against the defendants in the HFCS market were more fraught. Because the government declined to prosecute the HFCS cartel, the cartel's victims were left on their own to prove a price-fixing agreement. In the absence of a successful government prosecution or direct evidence, plaintiffs sought to prove an agreement among the HFCS manufacturers through circumstantial evidence.

The district court initially did not appreciate the probative value of the inter-competitor sales among the HFCS defendants and granted them summary judgment.<sup>133</sup> The Seventh Circuit reversed, explaining in detail why inter-competitor sales are an important plus factor. In particular, Judge Posner observed that “[a] seller who experiences a surge in demand, but meets the surge by buying what it needs from another seller rather than by

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127. See, e.g., CONNOR, *supra* note 37; Harrington, *supra* note 59; STOCKING & WATKINS, *supra* note 2; Hovenkamp & Leslie, *supra* note 36; Kaplow, *supra* note 44, at 394; Levenstein & Suslow, *supra* note 48.

128. See *supra* notes 22–24 and accompanying text.

129. 295 F.3d 651 (7th Cir. 2002).

130. *Id.* at 659.

131. 15 U.S.C. § 16 (2012).

132. In affirming the criminal convictions of the ADM executives who led the lysine price-fixing cartel, the Seventh Circuit highlighted the role of inter-competitor sales in the conspiracy. If a member of the lysine cartel sold more than its cartel allotment, “the agreement required the over-limit producer to purchase an amount equal to its excess from a producer who had fallen short. This would erase the effect of the surplus sales, returning the producer to a state as if it had limited its output.” *United States v. Andreas*, 216 F.3d 645, 667 (7th Cir. 2000).

133. *In re High Fructose Corn Syrup Antitrust Litig.*, 156 F. Supp. 2d 1017, 1048–49 (C.D. Ill. 2001), *rev'd*, 295 F.3d 651 (7th Cir. 2002).

expanding its own production, protects the other firm's market share and so preserves peace among the cartelists."<sup>134</sup> On remand, the district court better appreciated the empirical use of inter-competitor sales by price fixers when it noted that "[l]ike the conspiracies identified by the Department of Justice in the lysine and citric acid markets, the corn syrup conspiracy was allegedly accomplished by [] executives . . . negotiating inter-company purchases among themselves when required to balance volume discrepancies . . ."<sup>135</sup> In particular, the district judge noted the plaintiffs' evidence showing greater inter-competitor sales among price-fixing conspirators during periods of illegal cartelization.<sup>136</sup> After the district court subsequently recognized the inter-competitor sales as an important plus factor to proving the existence of a conspiracy and denied the defendants' motion for summary judgment, the HFCS defendants settled, paying hundreds of millions of dollars to the cartel's customers.<sup>137</sup>

The *Valspar* court should have been aware of the Seventh Circuit opinion. In parallel antitrust litigation challenging the same alleged titanium dioxide price-fixing conspiracy that the *Valspar* plaintiff was challenging, the federal district court in Maryland quoted Posner's opinion talking about the suspicious nature of inter-competitor sales. The Maryland court cited Judge Posner's opinion for the proposition that "a seller that buys product from a competitor when it has excess capacity acts against its competitive self-interest."<sup>138</sup> The *Valspar* Third Circuit panel was aware of this parallel litigation, including the Maryland court's decision, as it noted that the Maryland court reached a different conclusion than the *Valspar* court on "substantially the same record."<sup>139</sup> Given the ubiquity of Judge Posner's opinion explaining the significance of inter-competitor sales,<sup>140</sup> it seems odd for the Third Circuit to imply that no precedent exists.

In sum, the Third Circuit was wrong to suggest that there was no precedent for holding that inter-competitor sales are relevant and probative evidence that can form part of the circumstantial case for inferring a price-fixing agreement.

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134. *In re High Fructose Corn Syrup*, 295 F.3d at 659.

135. *In re High Fructose Corn Syrup Antitrust Litig.*, 261 F. Supp. 2d 1017, 1020 (C.D. Ill. 2003).

136. *Id.* at 1024.

137. CONNOR, *supra* note 37, at 403.

138. *In re Titanium Dioxide Antitrust Litig.*, 959 F. Supp. 2d 799, 827–28 (D. Md. 2013) (citing *In re High Fructose Corn Syrup*, 295 F.3d at 659).

139. *Valspar Corp. v. E.I. Du Pont De Nemours & Co.*, 873 F.3d 185, 190 (3d Cir. 2017) (citing *Valspar Corp. v. E.I. Du Pont De Nemours*, 152 F. Supp. 3d 234, 252 (D. Del. 2016)).

140. The Seventh Circuit opinion is also considered in the ABA Antitrust Section publication on proving antitrust conspiracies, which discusses Posner's opinion and notes that "[t]his plus factor was also established sufficiently to raise an inference of conspiracy in *In re High Fructose Corn Syrup Antitrust Litigation*." ABA ANTITRUST SECTION OF ANTITRUST LAW, PROOF OF CONSPIRACY UNDER FEDERAL ANTITRUST LAWS 70–71 (2010) (footnote omitted) (citing 295 F.3d 651 (7th Cir. 2002)).

Furthermore, even if there were no published precedent, a court would not be precluded from properly finding that inter-competitor sales constitute a plus factor. Antitrust law is common law.<sup>141</sup> All of the currently recognized plus factors were generated one court decision at a time as judges came to understand how price-fixing conspiracies operate.

### *B. Valspar's Mistakes*

In addition to failing to appreciate the scholarly and precedential lay of the land, the Third Circuit committed a series of factual and legal errors en route to its split decision to affirm summary judgment for the price-fixing defendants. This section details four mistakes that the *Valspar* court made in its treatment of inter-competitor sales.

#### *1. The Size of Sales*

The *Valspar* court minimized the significance of the inter-competitor sales by suggesting that the sales volume among the titanium dioxide manufacturers was not high enough to indicate cartel activity. The Third Circuit attached great importance to the quantity of inter-competitor sales, opining that “Valspar’s expert conceded that the sales were at such low volumes that they would not have resulted in large shifts of market share, thus largely defeating Valspar’s theory of profit redistribution.”<sup>142</sup> The court implied that if inter-competitor sales do not cause “large shifts of market share,” then they have no probative value.<sup>143</sup> The court’s reasoning, however, is flawed and raises more questions than it answers.

First, the court refused to state the dollar volume of the inter-competitor sales that occurred among the titanium dioxide manufacturers. The court redacted that information from the public record, including the plaintiff’s and defendant’s briefs. Thus, we don’t know what numbers the court characterized as too low to indicate collusion, or what precisely constitutes a “large shift[] of market share.”<sup>144</sup> The court gave no indication of how much money would need to change hands in order for an inter-competitor transaction to be part of a cartel arrangement instead of a non-cartel-related sale.<sup>145</sup> The court provided absolutely no basis for asserting that the volume

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141. See *supra* note 20.

142. *Valspar*, 873 F.3d at 201.

143. The district court opinion, which the Third Circuit affirmed, asserted that because the volume of intercompany sales was too low to cause large shifts in market share, “these intercompany sales . . . fail—under the theory advanced by Dr. Williams—to be probative of conspiracy.” *Valspar*, 152 F. Supp. 3d at 244 (D. Del. 2016), *aff’d*, *Valspar Corp.*, 873 F.3d 185 (3d Cir. 2017).

144. *Valspar*, 873 F.3d at 201.

145. It did not because it cannot.

of sales among the defendants was too low to be part of a cartel's accounting procedures.

These omissions gut the case's precedential value on this point because future litigants cannot properly analogize or distinguish the facts of their case to the facts of *Valspar*. The redactions are also puzzling: If inter-company sales are perfectly benign conduct that we expect to see in competitive markets, why is the court concealing this information? More importantly, the court's suppression of the numbers makes it harder to evaluate the court's reasoning.

Second, if the sales were so insignificant, then why did they take place at all? The sales were sufficiently important to the companies for the sales to occur. If the seller sold the titanium dioxide to make a profit on the sales, then it is an amount of money large enough for the seller to care about. The court's apparent notion that inter-competitor sales are not evidence of cartel bookkeeping unless they result in a "large shift [] of market share" displays a fundamental unawareness of how business executives—including price fixers—operate.<sup>146</sup> The vast majority of legitimate business contracts are for sales that amount to a value less than a fraction of a single percentage point of market share, and yet businesses routinely sue to enforce these agreements when they are breached. Similarly, when a firm's cartel partner violates the cartel agreement by selling more than its quota, the underselling firm will pursue the remedy provided by the cartel, which is often a compelled inter-competitor sale.<sup>147</sup>

Third, relatively low-volume imbalances in cartel shares still get corrected. When cartel members demand remedies for perceived cheating by their cartel partner, the level of cheating and the amount of the remedy are generally quite low when measured in terms of the overall market.<sup>148</sup> Cartels negotiate, haggle, and bicker at the margins, over much less than a single percentage point share of the market. For example, when the vitamin A and E cartels were in operation, top-level executives negotiated "small adjustments to company quotas"<sup>149</sup> and regional cartel managers met quarterly "to make small changes in prices in local currencies."<sup>150</sup>

In the face of perceived violations of the cartel agreement, many a slighted cartel member would not hesitate to invoke the inter-competitor

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146. Their illegality aside, from the participants' standpoint, cartel relationships are simply business arrangements.

147. See *supra* Part III.B.

148. Honoring commitments when the stakes are low also builds trust, which is necessary for cartels to survive in the long run. See *supra* notes 65–70 and accompanying text. If cartel partners cannot be trusted to keep their promises when the stakes are relatively low, they will not be trusted when the stakes are high.

149. CONNOR, *supra* note 37, at 280–81.

150. *Id.* at 281.

sales remedy. The managers of the citric acid cartel allocated “market shares to within  $\frac{1}{10}$  of 1%.”<sup>151</sup> In short, cartels routinely deal in minutia.

Fourth, relatively small intercompany sales can completely balance the cartel’s books for a given reporting period. Inter-competitor sales do not need to lead to “large shifts of market share.”<sup>152</sup> That is not their function. Inter-competitor sales are an accounting measure to balance the books, not to fundamentally redistribute market share. It is important to note that past price-fixing conspiracies that indisputably used inter-competitor sales to balance their cartel books did not use them to affect large shifts in market share, but rather to fine tune the distribution of cartel profits. For example, in the citric acid cartel, such compensatory sales were less than a single percentage point of the market.<sup>153</sup> The price fixer who sells more than its cartel allotment purchases products from its cartel partner not to shift large market shares, but to honor its cartel commitments.<sup>154</sup> The inter-competitor sales are not supposed to effect wide swings in market share. The sales are simply a way to balance the books at scheduled intervals. Thus, the fact that the dollar value of the inter-competitor sales did not constitute a large market share in no way indicates that such sales are not being used as a cartel book-balancing device.

Finally, in most price-fixing conspiracies, inter-competitor sales were employed only after other efforts to manipulate sales failed to achieve the cartel’s sales quotas for each individual cartel member. Cartel managers are tasked with preventing significant imbalances in sales.<sup>155</sup> Cartels, such as those in organic peroxides, amino acids, and vitamins, often assigned a cartel member to track members’ sales and adjust output, which would reduce the size of any side payments or buybacks at the end of the reporting period.<sup>156</sup> Joe Harrington has observed that “cartels actively sought to avoid

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151. *In re High Fructose Corn Syrup Antitrust Litig.*, 156 F. Supp. 2d 1017, 1048–49 (C.D. Ill. 2001), *rev’d*, 295 F.3d 651 (7th Cir. 2002).

152. *Valspar Corp. v. E.I. Du Pont De Nemours & Co.*, 873 F.3d 185, 201 (3d Cir. 2017).

153. To the extent that Haarmann & Reimer’s compensation to its rivals “never exceeded 2% of its total global sales,” HARRINGTON, *supra* note 59, at 59 (quoting Haarmann & Reimer executive), and Haarmann and Reimer had less than 50% of the market, then 2% of its total sales would be less than 1% of the global market.

154. Honoring one’s contractual commitments ultimately builds trust among cartel partners. *See Leslie, supra* note 35, at 570.

155. HARRINGTON, *supra* note 59, at 58 (In vitamins A and E cartels, “if one was seen to be selling more than its allocated quota, it would have to ‘slow down’ sales to enable the others to catch up.”); *id.* at 57–58 (discussing citric acid cartel).

156. MARSHALL & MARX, *supra* note 58, at 35 n.25 (““If the exchange of figures shows that the sales of a party in any country have exceeded the quota for any category then that party will modify its sales policy in succeeding months with the object of arriving eventually at a tonnage for the whole of the calendar year which does not exceed his percentage quota.” (EC decision in *Organic peroxides* at para. 85”); *id.* at 35 n.26 (““ADM named Ajinomoto as the office to which each lysine producer would provide monthly sales figures. Ajinomoto’s job would be to keep track of the figures so that the producers could make adjustments in their sales to limit the overall annual sales to the agreed

the necessity of buy-backs.”<sup>157</sup> Indeed, because “regular and large inter-firm purchases may have created suspicions about collusion, . . . it would make sense for cartel members to strenuously avoid the necessity of having to engage in inter-firm sales.”<sup>158</sup> Given that inter-competitor sales are done after other adjustments,<sup>159</sup> it is hardly surprising that the transactions’ values may appear low.

In short, inter-competitor sales can be probative of price fixing even if the amount of those purchases does not rise to the level of producing “large shifts of market share.”<sup>160</sup> Inter-competitor sales are often intended to effect minor adjustments, not major redistributions of market share. For the Third Circuit to suggest that low-volume inter-competitor sales necessarily have little or no probative value reveals a lack of understanding regarding how price-fixing cartels operate.

## 2. *The Significance of Cross-Licensing Agreements*

The district court and the Third Circuit majority in *Valspar* afforded much weight to the possibility that the inter-competitor sales among titanium dioxide manufacturers may have taken place pursuant to a cross-licensing agreement. For example, the district court emphasized that “it is undisputed that the sales from DuPont to Kronos were largely attributable to a cross-licensing agreement reached to avoid litigation.”<sup>161</sup> Similarly, the Third Circuit noted that “a number of these sales were made by DuPont to Kronos pursuant to a cross-licensing agreement in order to avoid patent litigation.”<sup>162</sup> The judges seemed to think that because cross-licensing agreements are legal, the presence of inter-competitor sales is necessarily innocuous if they take place in the context of such licenses.

This line of thinking is wrong for several reasons. First, although the *Valspar* opinions tried to paint inter-competitor sales as an ordinary part of a cross-licensing agreement, they are not. Cross-licensing agreements are simply enforceable promises among patent owners not to sue each other for infringing their intellectual property rights. Licensing agreements generally

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maximums.’ (EC decision in *Amino acids* at para. 122.”); Levenstein & Suslow, *supra* note 38, at 475–76 (“For example, in the vitamin A cartel, ‘if one was seen to be selling more than its allocated quota, it would have to “slow down” sales to enable the others to catch up.’”) (citing Case COMP/E-1/37.512, par. 196).

157. HARRINGTON, *supra* note 59, at 58 (“[T]he citric acid and vitamins A and E cartels engaged in ‘continuous monitoring’ to assess how sales matched up with quotas and, where a firm was at a pace to sell too much by the year’s end, the firm was expected to slow down their sales.”).

158. *Id.* at 59.

159. Levenstein & Suslow, *supra* note 38, at 475–76.

160. *Valspar Corp. v. E.I. Du Pont De Nemours & Co.*, 873 F.3d 185, 201 (3d Cir. 2017).

161. *Valspar Corp. v. E.I. Du Pont De Nemours*, 152 F. Supp. 3d 234, 244 (D. Del. 2016), *aff’d*, 873 F.3d 185.

162. *Valspar*, 873 F.3d at 201.

do not involve the sale of physical products. When a cross-licensing agreement does include the sale of physical goods, the goods are normally not the final manufactured product.<sup>163</sup> The fact that the cross-licensing agreements among the titanium dioxide manufacturers entailed regular sales among rivals does not render the inter-competitor sales above-board; rather, it warrants some antitrust skepticism about the licensing agreements themselves.

Second, the presence of cross-licensing agreements does not remove any appropriate misapprehension about rivals purchasing products from each other. Price-fixing conspiracies often use IP licensing relationships as a subterfuge to hold cartel meetings and to facilitate cartel payments.<sup>164</sup> Moreover, the cross-licensing of patents is sometimes part and parcel with inter-competitor sales of an overall scheme to fix prices.<sup>165</sup> For example, the dyestuffs cartel used patent licenses to “provide not only for intercompany sales at special prices, but . . . [also to] stipulate[] uniform sales prices for dyes produced under the contract.”<sup>166</sup> Through these “practices[,] the dominant producers have virtually eliminated price competition in dyestuffs markets.”<sup>167</sup> Even if the licensing agreements are the product of a settlement to infringement litigation, settlements are an easy decoy for monetary side payments that would be too suspicious if unaccompanied by the cover story that the rivals are settling a legal dispute.<sup>168</sup> Disguising a cartel payment as a settlement of infringement litigation provides a mechanism for cartel partners to balance the cartel’s books while seeming legitimate and allowing the firms to justify why the transaction is secret.<sup>169</sup>

The *Valspar* court took the plaintiff’s concession that a legitimate cross-licensing agreement *could* theoretically include the sale of a physical product and transformed this bland acknowledgement into a judicial holding that the presence of a cross-licensing agreement must, as a matter of law, deprive inter-competitor sales of any probative value. This is wrong. Whether inter-competitor sales are indicative of an underlying price-fixing

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163. A licensee may purchase a proprietary physical input to be used in conjunction with a patented process.

164. MARSHALL & MARX, *supra* note 58, at 129 (“Patent licensing, cross-licensing, and patent pools have been an ongoing source of concern for antitrust authorities because they provide ideal cover for communication and interfirm transfers by colluding firms as well as establishing artificial entry barriers and facilitating monitoring.”).

165. *See, e.g.*, *United States v. United States Gypsum Co.*, 333 U.S. 364 (1948).

166. STOCKING & WATKINS, *supra* note 2, at 405.

167. *Id.*

168. Kovacic et al., *supra* note 28, at 436 n.117 (“It is a relatively simple matter for firms in an oligopoly to engage in contractual relationships with regard to a broad range of activities, many of which are completely meaningless from a productivity standpoint, and to use allegations of contract breach, and ensuing settlements, to legitimize cartel side payments.”); *see also* MARSHALL & MARX, *supra* note 58, at 43–44 (explaining how cartels can use settlements as side payments).

169. MARSHALL & MARX, *supra* note 58, at 129.



conspiracy depends on the facts of an individual case. The mere presence of a licensing agreement does not cleanse suspicious behavior of its probative value. Furthermore, the court never discussed the actual cross-licensing agreements between the titanium dioxide manufacturers to determine whether the inter-competitor sales at issue truly took place pursuant to the terms of those agreements.

Applying these insights to the facts of *Valspar* demonstrates how the Third Circuit erred. It is possible that the titanium dioxide manufacturers created their cross-license relationships in order to conceal their price-fixing arrangement. Patent cross-licensing agreements can be employed as part of a cartel arrangement in order to funnel money from one conspirator to another in a way that appears innocent.<sup>170</sup> The Third Circuit may have fallen into this precise trap by assuming that the mere presence of a cross-licensing agreement necessarily sapped all inter-competitor sales of any probative value.

Moreover, the Third Circuit seemed to misrepresent the *Michigan* article's teachings on the significance of patent licensing. The Third Circuit noted that the *Michigan* article "recognizes that patent licensing and cross licensing can be legitimate."<sup>171</sup> The Third Circuit improperly conflated possibility with actuality. The fact that licensing *can* be legitimate does not mean that it necessarily is. It is up to the factfinder to determine whether or not the licensing in the case at hand represents a legitimate arms-length transaction or the enforcement apparatus of a price-fixing conspiracy. The *Michigan* article explicitly notes that patent cross-licensing agreements may be used as "a means for dividing the collusive gain," and the existence of such agreements may be evidence of an underlying collusive agreement.<sup>172</sup> The four authors argued that some "transactions require scrutiny, such as patent licensing, cross-licensing, and patent pools, as well as the settlement of seemingly frivolous lawsuits."<sup>173</sup> The authors argued that patent cross-licensing does not prove the innocence of inter-competitor sales, but rather requires enhanced antitrust scrutiny.

In sum, the *Valspar* court was wrong to suggest that inter-competitor sales raise no antitrust suspicion so long as the sales occurred pursuant to a patent licensing agreement or cross-licensing agreement. Courts should not misinterpret the presence of a cross-licensing agreement as somehow depriving inter-competitor sales of their probative value in developing a circumstantial case from which a price-fixing conspiracy can be inferred. To do so would essentially allow a price-fixing cartel to employ a traditional

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170. Kovacic et al., *supra* note 28, at 408.

171. *Valspar Corp. v. E.I. Du Pont De Nemours & Co.*, 873 F.3d 185, 201 (3d Cir. 2017).

172. Kovacic et al., *supra* note 28, at 408.

173. *Id.* at 423.

cartel enforcement mechanism—inter-competitor sales—while depriving it of its probative value simply by also entering into a sham cross-licensing agreement. Courts should not grant price fixers the ability to eliminate the evidentiary value of their cartel enforcement mechanisms. The presence of a cross-licensing agreement does not render inter-competitor sales non-probative of price fixing.

### 3. *Non-Market Prices*

The *Valspar* court also failed to attach any significance to the fact that many of the inter-competitor sales between titanium dioxide manufacturers were at non-market prices. The district court acknowledged that “[t]hroughout the Conspiracy Period, DuPont and the other defendants made intercompany sales at below-market prices. It is undisputed that these sales existed . . . .”<sup>174</sup> The court nonetheless asserted that these sales at below-market prices did “not advance Valspar's ball very far.”<sup>175</sup> The Third Circuit ignored the significance of these non-market prices and endorsed the district court's finding that the inter-competitor sales at below-market prices were “just as consistent with non-collusive activity as with conspiracy.”<sup>176</sup> Like the district court, the Third Circuit majority focused on the argument that DuPont needed to purchase titanium dioxide because Hurricane Katrina had disabled one of its plants.<sup>177</sup> At most, the court explains why DuPont needed to buy titanium dioxide, but not why its rivals needed to sell to it, let alone why DuPont's competitors would sell it at prices “sometimes lower than the average prices for non-defendants.”<sup>178</sup> Beyond these sales, for which the defendants proffered an explanation, there were other inter-competitor sales at non-market prices. For example, the *Valspar* dissent noted that “when DuPont would sell Kronos TiO<sub>2</sub>, Kronos paid an average of 16% *less* for the TiO<sub>2</sub> than DuPont's own customers did. DuPont also sold TiO<sub>2</sub> to Millennium at below-market prices. One of Valspar's experts, Dr. Williams, was able to identify years of below-market sales between the TiO<sub>2</sub> manufacturers.”<sup>179</sup> No simple explanation was given for these non-market transactions. As explained below, inter-competitor sales at non-market prices are particularly suspicious and probative of price fixing.<sup>180</sup>

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174. *Valspar Corp. v. E.I. Du Pont De Nemours*, 152 F. Supp. 3d 234, 244 (D. Del. 2016), *aff'd*, 873 F.3d 185 (3d Cir. 2017).

175. *Id.*

176. *Valspar*, 873 F.3d at 201 (quoting *Valspar*, 152 F. Supp. 3d at 244).

177. *Id.*

178. *Id.*

179. *Valspar Corp. v. E.I. Du Pont De Nemours & Co.*, 873 F.3d 185, 210–11 (3d Cir. 2017) (Stengel, J., dissenting).

180. *See infra* notes 244–252 and accompanying text.

#### 4. *Confusing Proffers and Proof*

The *Valspar* majority suggested that the *Michigan* article was not applicable to the case before the court because the article “seems to limit its analysis to ‘interfirm transfers of resources that are largely void of productive unilateral motivations.’”<sup>181</sup> Taking the *Michigan* article’s reasonable caveat as its guide, the *Valspar* majority set out to find a “productive unilateral motivation” for the defendants’ inter-competitor sales. The judges hypothesized about non-collusive reasons why DuPont may have purchased titanium dioxide from its rival, including that DuPont needed titanium dioxide because Hurricane Katrina had damaged one of its manufacturing facilities.<sup>182</sup> The defendant never proved that DuPont actually had shortages that compelled it to purchase the titanium dioxide from its rivals. The court did not cite evidence in the record that DuPont bought titanium dioxide from its rivals for legitimate reasons unrelated to price fixing. Instead, the court relied primarily on the plaintiff’s expert’s reasonable concession that this was *hypothetically* possible.<sup>183</sup> The district court, for example, took the defendants’ asserted justifications for its inter-competitor sales as irrefutable proof that these were the actual motivations and that the defendants did not conspire as a matter of law.<sup>184</sup> The Third Circuit characterized the defendant’s explanation of its inter-competitor sales as “reasonable.”<sup>185</sup> But the issue is not whether DuPont’s explanations are reasonable; the issue is whether or not the explanations are true. The defendant’s mere proffer of an explanation for why it bought products from a rival does not deplete the inter-competitor sales of their probative value.

As a procedural matter, the court was too quick to take this issue away from the jury. In its prior price-fixing cases, the Third Circuit has repeatedly held that “defendants are [not] entitled to summary judgment merely by showing that there is a plausible explanation for their conduct.”<sup>186</sup> It is up to a jury to determine whether the defendants’ inter-competitor sales were part and parcel of a price-fixing conspiracy or the consequence of independent

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181. *Id.* (quoting Kovacic et al., *supra* note 28, at 423).

182. *Valspar Corp. v. E.I. Du Pont De Nemours*, 152 F. Supp. 3d 234, 244 (D. Del. 2016), *aff’d*, 873 F.3d 185 (3d Cir. 2017).

183. *See id.* (“Dr. Williams expressly concedes that the purchases made by DuPont during this period ‘might be explained by DuPont’s temporary decrease in capacity due to its DeLisle plant being shut down from September 2005 through February 2006 following Hurricane Katrina.’”) (quoting D.I. 247, Ex. 106 ¶ 103 n.157) (emphasis added).

184. *See id.* (“In short, these transfers had ‘productive unilateral motivations’ and therefore do not tend to exclude the possibility of independent action.”) (quoting Kovacic et al., *supra* note 28, at 423).

185. *Valspar*, 873 F.3d at 201 (“In the face of DuPont’s reasonable explanations to the contrary, we decline to give this isolated quotation the force of law.”).

186. *In re Chocolate Confectionary Antitrust Litig.*, 801 F.3d 383, 397 (3d Cir. 2015) (quoting *Rossi v. Standard Roofing, Inc.*, 156 F.3d 452, 467 (3d Cir.1998)).

decision-making. Even if DuPont's need to buy product because its factory has been temporarily placed off-line was a legitimate explanation for inter-firm purchases, it is the jury's job to decide whether this is what actually motivated DuPont to purchase titanium dioxide from its rival. The *Valspar* court overstepped its bounds by holding that a defendant's proffered reason is true as a matter of law.<sup>187</sup>

After the plaintiff has presented a prima facie case that the defendants have engaged in price fixing, the defendants are afforded the opportunity to rebut the plaintiff's case. In particular, the defendants may argue that the plaintiff's plus factors are not indicative of collusion because the defendants have benign explanations for their seemingly suspicious conduct, such as inter-competitor sales. The mere possibility that the inter-competitor sales between the defendants may have been prompted by reasons unrelated to an underlying price-fixing conspiracy does not mean that evidence of such sales has no probative value. The plaintiff must have the opportunity to explain to the jury *why* the defendants' proffered explanation for its suspicious conduct is untrue. The plaintiff should have the ability to cross-examine the defendants' employees who claim that they engaged in inter-competitor sales because of the firms' actual, legitimate short-term needs, and not in order to balance the books of a cartel. This is often a question of witness credibility. That is a jury function.

The inter-competitor sales remain admissible evidence, for which the parties in litigation can present competing theories of significance to the jury. The plaintiff can argue that the inter-competitor sales were used as a cartel enforcement mechanism. In response, the defendants can argue that they had a benign reason for these sales unrelated to price collusion. Federal judges who have never heard the witnesses are not supposed to substitute their perceptions for those of the jury. At the pre-trial stage, inter-competitor sales are probative of price-fixing.

In sum, the defendants must be given the opportunity to prove that their suspicious behavior was the product of independent decision-making, not collusion. But a proffer is not proof. The Third Circuit conflated the two and let the defendant's proffered explanation outweigh the expert opinion of leading scholars and the plaintiff's economist's testimony.<sup>188</sup> In holding that

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187. Under the *Valspar* approach, a defendant seems entitled to summary judgment so long as it can proffer any hypothetical justification for its conduct that would otherwise constitute a plus factor. This guts antitrust law and comes dangerously close to precluding plaintiffs from proving collusion through circumstantial evidence. This is dangerous because direct evidence is rarely available.

188. *Valspar*, 873 F.3d at 201. See *supra* note 172. In his expert opinion, Dr. Williams concluded that the inter-competitor sales were evidence of an underlying price-fixing conspiracy. *Valspar*, 152 F. Supp. 3d at 243–44 (“*Valspar*’s expert, Dr. Williams, argues that these sales are evidence of conspiracy because they could be ‘true-ups.’ That is, they could be redistributions of gains or losses in share in accordance with the terms of an agreement.”). The court disregarded the expert’s actual analysis and

the defendants' proffered explanations outweighed the plaintiff's evidence, including the plaintiff's expert witness testimony and the persuasive authority of four noted experts in the field, the Third Circuit invaded the province of the jury.

### C. *Valspar* as Precedent?

The Third Circuit opinion creates the risk that subsequent courts will cite it for the proposition that there are no precedents and no economic studies showing that inter-competitor sales are probative of price fixing. That would be wrong. Precedent exists;<sup>189</sup> studies exist.<sup>190</sup> No future court should cite *Valspar* for the proposition that neither precedent nor studies exist to prove that price-fixing conspiracies use inter-competitor sales to enforce their illegal cartel agreements. Neither should future courts rely on *Valspar*'s assertions that inter-competitor sales are not indicative of price fixing if the sales volume is low, if the defendants are parties to cross-licensing agreements, or if the defendants proffer a non-collusive explanation for their inter-firm transactions. Although such evidence may be admissible, it is not dispositive.

Independent of these mistakes, the *Valspar* opinion is best read as limited to its facts. The Third Circuit noted that the district court opinion was based on "looking to the specific facts present here."<sup>191</sup> The precedential value of *Valspar* is compromised by the court issuing a fact-specific opinion while withholding important facts by redacting the details of the inter-competitor sales that the court found non-probative.

In sum, courts should not rely on *Valspar* for the proposition that inter-competitor sales are not a plus factor. The real danger of *Valspar* is that it could help price-fixing conspiracies solve the enforcement problem. The absence of a credible method of balancing the cartel's books can doom a cartel before it ever starts. If courts provide cartels with some measure of assurance that their method of balancing the cartel's books will not be used as a plus factor, this could embolden more industries to consider price fixing as a profit-maximizing strategy. Conversely, when antitrust law discourages cartel enforcement mechanisms, it can better deter price fixing from occurring. For example, the suspiciousness of providing direct side

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conclusion, and instead granted summary judgment to the defendant based on expert's mere acknowledgement of the possibility that the inter-competitor sales might not have taken place to balance the cartel's books.

189. See *supra* notes 22 to 24 and accompanying text.

190. See *supra* notes 56 to 118 and accompanying text.

191. *Valspar*, 873 F.3d at 201. The district court specified that "*these* intercompany sales . . . fail . . . to be probative of conspiracy." *Valspar*, 152 F. Supp. 3d at 244 (emphasis added).

payments makes cartelization more difficult and, thus, less likely.<sup>192</sup> Similarly, by assigning inter-competitor sales their appropriate probative value, courts can deter their use and make price-fixing conspiracies less stable. That is precisely how antitrust law is supposed to function.<sup>193</sup>

## V. THE PROPER ROLE OF INTER-COMPETITOR SALES IN ANTITRUST ANALYSIS

Inter-competitor sales among rival firms are a plus factor in antitrust analysis. This Part explains why and discusses how such sales are even more incriminating under some market conditions. Ironically, cartel managers understand the probative value of inter-competitor sales better than federal judges and try to avoid the need for inter-competitor sales precisely because it is indicative of price-fixing activity.<sup>194</sup>

### A. *The Role of Inter-Competitor Sales in Plus-Factor Analysis*

Inter-competitor sales can play multiple roles in a plus-factor analysis. Such sales can be seen as a plus factor in and of themselves. But they can also help establish the existence of several other plus factors.

#### 1. *Inter-Competitor Sales as an Independent Plus Factor*

Plus factors are essentially facts that increase the likelihood that the defendants' parallel pricing or other suspicious conduct is the product of collusion and not independent decision-making by the defendant firms. For example, the Eleventh Circuit has defined plus factors as "any showing by appellants that 'tend[s] to exclude the possibility of independent action.'"<sup>195</sup> The presence of inter-competitor sales satisfies this definition.

Evidence of inter-competitor sales is an important plus factor for the reasons laid out in Part Three. Inter-competitor sales provide a mechanism for cartel managers to ensure that every member of the conspiracy receives its agreed-upon share of the cartel's profits. By supplying a seemingly legitimate means of transferring money across co-conspirators, a buyback

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192. See Baker, *supra* note 34, at 164 ("[C]oordinating firms may not be able to allocate the monopoly rents they achieve in a manner satisfactory to all the participants, because they may be unable to compensate each other directly.").

193. Leslie, *supra* note 35, at 622–35.

194. See HARRINGTON, *supra* note 59, at 59 (noting that one cartel overseller tried to balk at purchasing product from its cartel partner perhaps because "regular and large inter-firm purchases may have created suspicions about collusion").

195. Williamson Oil Co. v. Philip Morris USA, 346 F.3d 1287, 1301 (11th Cir. 2003) (quoting City of Tuscaloosa v. Harcros Chems., 158 F.3d 548, 572 n.35 (11th Cir. 1998)).

scheme gives conspirators confidence in the cartel and less reason to cheat by selling more than their cartel allotment.

Empirically, inter-competitor sales are often associated with cartel activity. From the legal European cartels of the inter-war era to the illegal conspiracies in citric acid, lysine, and vitamins of the 1990s, competitors intent on fixing prices have often employed inter-competitor sales as a means of stabilizing their market-manipulation arrangements. This historical record should translate into persuasive evidence in antitrust litigation. As economist John Connor concluded from his studies of the vitamins cartels:

Even the best-intentioned criminals will exceed their grasp. Therefore, most of the vitamins cartels had compensation policies. Whenever a company exceeded its quota, that firm was obligated to sell the excess production at cost to an under-achiever in the cartel. Resale of the transferred product would restore the planned division of monopoly profits. Thus, increases in interfirm, intra-industry sales are indicators of cartel activity.<sup>196</sup>

As an “indicator[] of cartel activity,” inter-competitor sales should be treated as an important plus factor. This accords with the conclusion of Robert Marshall and Leslie Marx’s major economic study of collusion that “[i]nterfirm transfers within a broad class of settings are inconsistent with unilateral conduct and, additionally, not part of tacit collusion by definition. Such transfers are a super-plus factor.”<sup>197</sup>

Treating cartel inter-competitor sales as a plus factor facilitates the purposes of antitrust law more broadly. Antitrust law is designed to make price-fixing conspiracies less efficient and, thus, less likely.<sup>198</sup> By treating the traditional mechanisms that cartels use to enforce their illegal conspiracies as plus factors, antitrust law can better hold price fixers accountable and, perhaps, deter price fixing in the first place.

## 2. *Inter-Competitor Sales as Proving Other Recognized Plus Factors*

Inter-competitor sales also implicate other established plus factors. For example, the opportunity to conspire is a recognized plus factor.<sup>199</sup> If firms are engaging in inter-firm sales, this proves the rival firms are having direct discussions and negotiations, most worrisomely about price, which necessarily establishes the plus factor of opportunity to conspire. Similar

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196. CONNOR, *supra* note 37, at 315.

197. MARSHALL & MARX, *supra* note 58, at 229.

198. See Leslie, *supra* note 35, at 632–34.

199. See, e.g., *Re/Max Int’l, Inc. v. Realty One, Inc.*, 173 F.3d 995, 1009 (6th Cir. 1999).

to—but more specific and damning than—mere opportunity to conspire, the exchange of price information among competitors is a plus factor from which a factfinder can infer an agreement to set prices.<sup>200</sup> Inter-company sales give competitors an opportunity to communicate and to exchange price information.<sup>201</sup> Indeed, one reason that price-fixing conspiracies may choose to use inter-competitor sales as their method of balancing the cartel's books is that these—seemingly innocent—transactions “provide an avenue for interfirm communication about topics that specifically concern each firm's price, customers, and capacity utilization.”<sup>202</sup> In short, the presence of inter-competitor sales helps establish the plus factors of opportunity to conspire and the exchange of price information.

Taking actions that would be against a firm's individual interests in the absence of collusion is a powerful plus factor.<sup>203</sup> Some courts have noted that conduct that “was not in the alleged conspirators' independent self-interest absent an agreement is generally considered the most important ‘plus factor.’”<sup>204</sup> Under some circumstances, inter-competitor sales can be interpreted as an action against a company's independent interest. Indeed, some antitrust plaintiffs explicitly frame the defendants' inter-company sales as “evidence of conduct contrary to self-interest.”<sup>205</sup> How such sales are against at least one of the parties' individual interests is a function of context.

For inter-competitor sales, the defendants' interests can be examined from the perspective of either the buyer or the seller. Depending on the specific circumstances, the transaction is arguably against the independent interests of a rival on one side of the transaction. For example, on the one hand, it is not in the interest of a firm with unsold inventory or excess capacity to buy products from a competitor. It is against the purchaser's interest to give its money to its rivals for units of a product that it does not need. On the other hand, if the firm has neither inventory nor capacity and thus actually needs to purchase products from its rivals in order to make sales to consumers, it is against the vendor's interest to sell the product to

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200. See, e.g., *Todd v. Exxon Corp.*, 275 F.3d 191, 211 (2d Cir. 2001).

201. William Simon, *Pricing Practices Under The Antitrust Laws: A Survey Of Recent Legal Developments*, 11 RMMLF-INST 7 (1966) (“Competing firms may buy and sell the same product from each other as well as sell in competition with each other. In such circumstances, they must, of necessity, know and discuss each other's prices. The dual relationship of competitor and customer creates many problems in pricing. How, for example, do you separate such discussions and exchanges of information relating to inter-company sales from those relating to competitive sales? . . . The preceding situations have involved exchanges of price information or minimal contacts between competitors.”).

202. MARSHALL & MARX, *supra* note 58, at 129.

203. *Blomkest Fertilizer, Inc. v. Potash Corp. of Saskatchewan*, 203 F.3d 1028, 1037 (8th Cir. 2000).

204. *In re Pool Prods. Distrib. Mkt. Antitrust Litig.*, 988 F. Supp. 2d 696, 711 (E.D. La. 2013).

205. *Valspar Corp. v. E.I. Du Pont De Nemours*, 152 F. Supp. 3d 234, 243–44 (D. Del. 2016), *aff'd*, 873 F.3d 185 (3d Cir. 2017).



its rival. After all, if the supply-depleted firm cannot make sales to its customer, that creates the opportunity for the firm's competitors to make those sales.

When courts sometimes explain why a firm may need to purchase products from a rival, they analyze the issue from the buyer's perspective and decline to focus on the seller's interests. For example, Judge Posner found

nothing suspicious about a firm's occasionally buying from a competitor to supply a customer whom the firm for one reason or another can't at the moment supply. The firm would rather buy from a competitor to supply its customer than tell the customer to buy from the competitor, lest the customer never return.<sup>206</sup>

While Judge Posner was trying to explain why inter-competitor sales may be innocuous, his reasoning explicates precisely why such sales are against the *seller's* interest. The rational, non-colluding seller would prefer to steal its rivals' customers.

Courts generally fail to examine the rationality of inter-competitor sales from the seller's perspective. For example, the Third Circuit in *Valspar* explained why DuPont apparently needed to purchase titanium dioxide from a rival. The court found the sale non-suspicious because Hurricane Katrina had "knocked out" one of DuPont's titanium dioxide plants. But the court never addressed why DuPont's rival agreed to sell titanium dioxide to its dominant competitor instead of trying to take the sales for itself and trying to convert DuPont's customers into its own long-term customers.<sup>207</sup> This sort of behavior—declining sales that one could take from a competitor—is classic cartel conduct.<sup>208</sup>

When courts do consider the economic interests of the seller, they are more likely to recognize that, in many contexts, it is against the seller's long-term interests to help out a rival who is short of product. For example, in *In re Ethylene Propylene Diene Monomer (EPDM) Antitrust Litigation*,<sup>209</sup> one defendant, DSM, not only sold product to its rival, Exxon, but charged below-market prices.<sup>210</sup> This is more consistent with price-fixing behavior

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206. *In re High Fructose Corn Syrup Antitrust Litig.*, 295 F.3d 651, 659 (7th Cir. 2002).

207. The Third Circuit seemed to anticipate this argument by asserting that DuPont had purchased the titanium dioxide for its own internal consumption, implying that it was not being sold to consumers that the rival could try to lure away from DuPont. This line of thinking is a bit of a red herring. To the extent that titanium dioxide is a homogeneous product, sales to DuPont for its internal consumption frees up titanium dioxide for DuPont to sell its customers. Because selling titanium dioxide to DuPont means not selling that titanium dioxide to actual consumers who could become long-term customers, these inter-competitor sales were more suspicious than the Third Circuit gave credit.

208. See Leslie, *supra* note 35, at 568–73.

209. 681 F. Supp. 2d 141 (D. Conn. 2009).

210. *Id.* at 168.

than with competition.<sup>211</sup> The firm essentially forewent a customer sale at a more profitable price in order to aid its alleged competitor.<sup>212</sup> DSM argued that the sale to its competitor was still profitable and that the “court should not second-guess its business judgment.”<sup>213</sup> Yet, in an internal email before the sale took place, DSM “noted that the low ‘financial attractiveness of the deal is well understood’” and that the firm would rather not take “the risk of venturing into the market to compete for Exxon’s customers.”<sup>214</sup> Such reasoning seems inconsistent with the founding principle of antitrust law, which is explicitly designed to encourage precisely that competition for customers. Indeed, DSM’s decision to sell product to Exxon instead of competing is particularly suspicious given that “Exxon appeared to be selling the DSM product to a DSM customer, who had begun purchasing less product from DSM itself.”<sup>215</sup> The district court recognized that these inter-competitor sales were against the seller’s interest because “DSM agreed to forgo the potential for higher profits by selling its product on the open market, perhaps directly to Exxon customers, in order to permit Exxon to maintain its customer base.”<sup>216</sup> In short, not competing for rivals’ customers is evidence of collusion.

Thus, even if it is not suspicious that a rival would buy product from a competitor, it is suspicious that a competitor would sell to its rival—especially at a below-market price—instead of trying to win the customer for itself and trying to convert this one-time customer into a long-term customer. These inter-competitor sales seem against the economic interest of the seller, but they are rational if both firms are in price-fixing conspiracy together.<sup>217</sup> Because such sales make the most sense in the shadow of collusion, their presence is significant evidence of the plus factor of taking action against its own competitive interests.

### 3. *Evaluating Inter-Competitor Sales in the Context of Other Plus Factors*

The plus-factor framework requires the factfinder to review the plaintiffs’ proffered plus factors in the aggregate, not in isolation. Factfinders are supposed to analyze plus factors as a bundle. This is not

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211. See *infra* notes 244–252 and accompanying text.

212. *In re EPDM*, 681 F. Supp. 2d at 170 (“Thus, DSM *could* have supplied the Exxon customers directly for higher profit, rather than selling to Exxon at a price below market level. The parties dispute what inferences can be drawn from that decision.”).

213. *Id.*

214. *Id.* at 170–71.

215. *Id.*

216. *Id.*

217. Christopher R. Leslie, *Rationality Analysis in Antitrust*, 158 U. PA. L. REV. 261, 283–84 (2010).

simply a matter of counting plus factors and crossing some numerical threshold. Plus factors should be analyzed in relation to one another.

Taking the proper holistic approach is important because inter-competitor sales are often one among several plus factors. For example, in *In re High Fructose Corn Syrup Antitrust Litigation*,<sup>218</sup> the district court denied the defendants' motion to dismiss, reasoning that the plaintiffs had presented a sufficient bundle of plus factors, including inter-competitor sales, as well as the use of trade association "meetings to facilitate and conceal communications in furtherance of the conspiracy, and using the [trade association] to transmit information among the co-conspirators."<sup>219</sup> When combined with other evidence, intercompany sales agreements may indicate that rival firms have agreed to standardize contract terms on a range of issues, including price, delivery charges, and product standardization. For instance, in *In re Plywood Antitrust Litigation*,<sup>220</sup> the Fifth Circuit approved a jury instruction explaining that while sales contracts between manufacturers of plywood "in and of themselves are not illegal," the existence of "such matters may also be conduct that, when viewed on their own and in the light of the other evidence, indicate[s] that there were agreements" among the defendants to illegally restrain competition.<sup>221</sup> Thus, while inter-competitor sales alone are not dispositive proof of price fixing, when combined with other plus factors,<sup>222</sup> they can help make out a sufficient circumstantial case for inferring a price-fixing conspiracy.

### *B. Facts that Increase the Probative Value of Inter-Competitor Sales as a Plus Factor*

Courts should not determine the probative value of inter-competitor sales in isolation from other evidence. The import of inter-competitor sales can increase significantly depending on the factual context of the sales. This

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218. 261 F. Supp. 2d 1017 (C.D. Ill. 2003).

219. *Id.* at 1020.

220. 655 F.2d 627, 638 (5th Cir. 1981).

221. *In re Plywood*, 655 F.2d at 637–38 (quoting District Court jury instructions).

222. The *Valspar* majority both failed to appreciate the importance of inter-competitor sales as a plus factor and also failed to appreciate the entire constellation of plus factors in which the inter-competitor sales resided. As Judge Stengel explained in dissent:

Valspar presented a theory that makes perfect economic sense. It supported this theory with strong evidence of parallel conduct in the form of 31 (an unprecedented amount) of parallel price increase announcements. Recognizing conscious parallelism to be insufficient on its own to survive summary judgment, Valspar also presented viable evidence in support of the plus factors: (i) price signaling, (ii) exchanges of confidential information, (iii) relatively static market shares, (iv) intercompany sales of TiO<sub>2</sub> at below market price, (v) abrupt departure from pre-conspiracy conduct, and (vi) a market susceptible to conspiracy.

*Valspar Corp. v. E.I. Du Pont De Nemours & Co.*, 873 F.3d 185, 218 (3d Cir. 2017) (Stengel, J., dissenting).

section reviews some of the background variables that can make inter-competitor sales even more indicative of an underlying price-fixing conspiracy.

1. *Inter-Competitor Purchases By a Firm with Inventory or Excess Capacity*

Inter-competitor sales are more suspicious when the purchaser already has either inventory or excess capacity. A firm with stock on hand has no legitimate business need to purchase products from a rival. The most likely explanation for such a transaction is that it represents a simple transfer of money—a side payment camouflaged as a sale. Even if the purchaser does not have inventory immediately available, courts have explained that—absent a conspiracy—a firm with excess capacity is better served by utilizing its own production facilities instead of purchasing products from rivals. In *In re High Fructose Corn Syrup Antitrust Litigation*, Judge Posner explained:

if the firm could supply its customer (remember there was a lot of excess capacity in the HFCS industry during the period of the alleged conspiracy) and at a lower cost than its competitor would charge, why would it buy from the competitor rather than expanding its own production? The possibility that springs immediately to mind is that this is a way of shoring up a sellers' cartel by protecting the market share of each seller.<sup>223</sup>

For a firm with excess capacity to purchase products from a rival is inconsistent with profit-maximizing unilateral conduct.<sup>224</sup> Consequently, inter-rival sales under these circumstances “lead[] to the strong inference of collusion.”<sup>225</sup> In short, a particularly strong plus factor is presented when a competitor purchases products from a rival even though the buyer has excess capacity.<sup>226</sup>

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223. *In re High Fructose Corn Syrup Antitrust Litig.*, 295 F.3d 651, 659 (7th Cir. 2002) (emphasis omitted).

224. MARSHALL & MARX, *supra* note 58, at 229 (“If two firms in an oligopoly that make identical products have excess capacity to make such products, engage in transactions for that product at nonmarket prices, then those transactions are inconsistent with unilateral conduct.”).

225. Kovacic et al., *supra* note 28 at 421. “In some circumstances, the observation that one seller buys output from another seller at market prices leads to the strong inference of collusion, such as when each seller has excess capacity, the product made by each seller is physically identical, and the value-to-weight ratio of the product is high.” *Id.* at 423.

226. *In re High Fructose Corn Syrup Antitrust Litig.*, 261 F. Supp. 2d 1017, 1024 (C.D. Ill. 2003) (noting the suspicious fact that “the Defendants purchased corn syrup from other manufacturers even though they had excess capacity.”).

## 2. *Inter-Competitor Sales Linked with Reporting Sales Data*

The first step of cartel management is monitoring each member's sales in order to ensure that cartel commitments are being honored. Price-fixing conspiracies routinely establish systems to report sales in order to determine whether any firms have oversold and must compensate their under-selling cartel partners.<sup>227</sup> John Connor reports that “[o]ne of the most common monitoring systems involves regular reporting of members’ sales or production levels to a designated cartel secretary.”<sup>228</sup> In many cartels, the cartel manager then prepares “scorecards” for each member-firm to monitor which firms are on goal for meeting their cartel quotas.<sup>229</sup> Cartel case studies illustrate the data-reporting systems of price-fixing conspiracies.<sup>230</sup> Many cartels, such as the vitamin cartels, had their members report sales volume on a monthly basis.<sup>231</sup> Other cartels shared their internal sales records at quarterly cartel meetings.<sup>232</sup>

Although sharing data and engaging in inter-competitor sales are each suspicious behavior on their own, in combination they create an even stronger inference of collusion because the two separate acts can combine to form an overarching scheme of cartel enforcement. The sharing of data allows the cartel members and managers to determine which cartel partners have sold more or less than their cartel allotments. Cartel managers then use this data to match up oversellers and undersellers and instruct the former to purchase product from the latter. For example, the record-keepers of the citric acid cartel required Haarmann & Reimer to purchase 7,000 tons of citric acid from ADM.<sup>233</sup> Because cartel buyback schemes require continual monitoring and coordination,<sup>234</sup> when the exchange of sales data precedes the inter-competitor sales, the latter become an even stronger plus factor. It bears noting, however, that reporting sales data is a plus factor even without buybacks because one reason that cartels closely monitor sales is to adjust relative future sales in order to prevent the need for later buybacks altogether.<sup>235</sup>

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227. Leslie, *supra* note 35, at 610–15.

228. CONNOR, *supra* note 37, at 30.

229. *Id.*

230. Levenstein & Suslow, *supra* note 48, at 835 (discussing graphite electrode cartel).

231. CONNOR, *supra* note 37, at 281.

232. *Id.* at 315.

233. HARRINGTON, *supra* note 59, at 57–58.

234. Hovenkamp & Leslie, *supra* note 36, at 836; *see also* HARRINGTON, *supra* note 59, at 58 (discussing the citric acid and vitamins A and E cartels).

235. HARRINGTON, *supra* note 59, at 58 (“It is noteworthy that cartels actively sought to avoid the necessity of buy-backs. [For example], the citric acid and vitamins A and E cartels engaged in ‘continuous monitoring’ to assess how sales matched up with quotas and, where a firm was at a pace to sell too much by the year’s end, the firm was expected to slow down their sales.”).

### 3. *Inter-Competitor Sales in a Market With Stable Market Shares*

When inter-competitor sales occur in a market with stable relative shares, this increases the suspect nature of these sales. Courts often consider stable market shares to be a plus factor.<sup>236</sup> This is logical because many cartels fix the market shares of their participants in order to allocate the cartel's profits.<sup>237</sup> Many cartels use inter-competitor sales to stabilize market shares.<sup>238</sup> Price-fixing conspiracies, such as the lysine and vitamin cartels, explicitly employed buyback schemes in order to preserve each conspirator's agreed-upon market share.<sup>239</sup> Buybacks are designed to lock in market shares in the long run<sup>240</sup> because a firm, after all, has little incentive to sell more than its allotted market share if doing so will require it to purchase unneeded products from its rival *cum* cartel partner.<sup>241</sup> If relative market shares are essentially stable and the market is one characterized by inter-competitor sales, this combination of factors is suspicious.<sup>242</sup>

Market share data can also increase the probative value of inter-competitor sales when certain patterns are discernible. Consider, for example, when such transactions follow a period of atypical market shares. Professor Joseph Harrington has explained that when one firm in an industry

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236. See *In re High Fructose Corn Syrup Antitrust Litig.*, 295 F.3d 651, 659–60 (7th Cir. 2002).

237. ERVIN HEXNER, *INTERNATIONAL CARTELS* 77 (1946) (“Many cartel agreements are based on determined marketing shares of participants.”).

238. *In re Titanium Dioxide Antitrust Litig.*, 959 F. Supp. 2d 799, 827–28 (D. Md. 2013).

239. HARRINGTON, *supra* note 59, at 58 (vitamins A and E); LIEBER, *supra* note 106, at 148 (lysine).

240. A short-run—e.g., from one year to the next—fluctuation in market shares does not mean an absence of price fixing. Year-to-year market shares may change in a conspiracy because the conspirators have agreed to a compensation scheme where a cartel firm that oversells one year may receive a lower quota the following year. The sodium gluconate and zinc phosphate cartels employed such compensation mechanisms. HARRINGTON, *supra* note 59, at 61 (“A closely related alternative to buy-backs is to adjust the next year’s sales quotas based on the relationship between the current year’s sales and quotas. In the sodium gluconate cartel, if a firm’s sales exceeded its quota then its quota in the ensuing year would be reduced.”); *id.* at 62 (“An alternative form of compensation for having sold under a quota was to receive a bigger customer allocation. This was used in the zinc phosphate cartel.”).

241. MARSHALL & MARX, *supra* note 63, at 121–22 (“[E]ach cartel member will want to stay on course to sell its market share, and nothing more, because selling more than its share will result in another firm selling less than its share and force the former firm to buy product from the latter at year end to ‘true-up’ to the market share agreement.”).

242. *Id.* at 230 (“[I]f the transaction leads to the same market shares this year for some group of firms as had existed in previous years, then such transactions are a super-plus factor.”); see also *In re High Fructose Corn Syrup Antitrust Litig.*, 261 F. Supp. 2d 1017, 1020 (C.D. Ill. 2003) (discussing inter-competitor sales in market where “Defendants[’] market shares were essentially stable, and substantial barriers prohibited other competitors from entering the corn syrup market.”).

The *Valspar* dissent recognized the probative synergy of stable market shares and inter-competitor sales. *Valspar Corp. v. E.I. Du Pont De Nemours & Co.*, 873 F.3d 185, 210–11 (3d Cir. 2017) (Stengel, J., dissenting) (“Dovetailing with this evidence of static market shares is evidence that the TiO<sub>2</sub> manufacturers made intercompany sales of TiO<sub>2</sub>, meaning they sold TiO<sub>2</sub> to one another.”).

has sold more than its historical market share and another firm less, it is suspicious if the former firm subsequently purchases product from the latter in a manner that restores the historic market shares.<sup>243</sup> As an economist, he labels this fact pattern a “collusive marker.” Lawyers would call it a plus factor. In short, timing and context can make inter-competitor sales more suspicious.

#### 4. *Sales at Non-Market Prices*

When inter-competitor transactions occur at non-market prices, they are more probative of collusion. Sales between rivals at non-market prices necessarily redistribute money in a manner inconsistent with a competitive marketplace. Economists Robert Marshall and Leslie Marx explain that “[o]ne would not expect to see transactions at nonmarket prices in the absence of an overarching explicit agreement between the firms.”<sup>244</sup> Inter-competitor sales at non-market prices may be side payments designed to look like bona fide purchases.

Whether the non-market prices are supra-competitive or below market, they are more probative of price fixing. On the one hand, inter-competitor sales at supra-competitive prices suggest that the transaction is a way of funneling excess money from the buyer to the seller. Professor Louis Kaplow explained how cartels can use “cross-purchases” to balance the cartel’s books because “a firm that sold more than its allotted share might buy from firms that sold less; if such purchases are at the elevated oligopoly price, compensation will have been accomplished.”<sup>245</sup> Empirically, some cartels have used above-market prices on inter-competitor sales.<sup>246</sup> Paying higher prices is especially suspicious when the purchaser can manufacture the product at a lower price than the purchase price it is paying its competitor, as occurred during the high fructose corn syrup price-fixing conspiracy.<sup>247</sup>

Conversely, if the price of inter-competitor sales is below-market, this could suggest that the seller is surreptitiously transferring money to the buyer. Some cartels have required the over-selling cartel member to sell its product *at cost* to an under-selling partner, who could then resell it to its

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243. HARRINGTON, *supra* note 59, at 60–61 (“Collusive Marker: In the previous period, firm *i* sells above its historical market share and firm *j* sells below its historical market share and, in the current period, there are large purchases by firm *i* from firm *j*.”).

244. MARSHALL & MARX, *supra* note 58, at 128.

245. Kaplow, *supra* note 44, at 394.

246. Levenstein & Suslow, *supra* note 48, at 835 (discussing the lysine cartel).

247. *In re High Fructose Corn Syrup Antitrust Litig.*, 295 F.3d 651, 659 (7th Cir. 2002) (“There is evidence that defendants bought HFCS from one another even when the defendant doing the buying could have produced the amount bought at a lower cost than the purchase price.”).

customers at the inflated cartel price. Economist John Connor explained that cartels address the problem of cartel members missing their quotas

by developing a compensation system whereby cartel members with excess sales transfer product at cost to those who undershot; the recipients then resell at the elevated cartel price, recouping lost profits in the next period. In effect, cartel members that sell more than their allotted share are penalized, thus providing deterrence for future violations of the share agreement.<sup>248</sup>

Members of the vitamin cartel used precisely this system in which the inter-competitor “sales were made at cost so that when the under-quota members resold the product at the cartel price, the excess profits made by the over-quota firms in the previous year were in effect transferred to the under-quota buyer.”<sup>249</sup> In addition to their compensatory function, sales at below-market prices can also stabilize a cartel because they resemble a goodwill gesture of the type that price fixers often use in order to maintain good relations among the cartel partners.<sup>250</sup>

In short, the cartel member who sells more than its cartel allotment can compensate its underselling cartel partner by purchasing product from it at inflated prices or selling product to it at below-market prices. By effectively transferring money from one cartel member to another, both of these forms of non-market-priced transactions are suspicious. It is suspicious for a buyer to pay above-market prices. It is suspicious for a seller to charge below-market prices. All inter-competitor sales at non-market prices are inherently suspicious.<sup>251</sup>

None of the above discussion implies that inter-competitor sales at market prices are not indicative of price fixing. Such sales continue to have probative value because all inter-competitor sales have some probative value, since they can rebalance relative market shares among the cartel members.<sup>252</sup> This section merely explains why sales at non-market prices have even *more* probative value. Inter-competitor sales at market prices are not exculpatory; they remain a plus factor that can help establish a

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248. CONNOR, *supra* note 37, at 31.

249. *Id.* at 281.

250. Leslie, *supra* note 35, at 568–73. Also, if the defendants are selling product to each other at below-market prices, that shows that the market is not competitive because in a competitive market the prevailing price would just cover costs and sellers could not sell below the market price without sustaining a loss.

251. Kovacic et al., *supra* note 28, at 423 (“In addition, if one seller buys anything from another at nonmarket prices, then a resource transfer is made for which there is no reasonable noncollusive explanation”).

252. MARSHALL & MARX, *supra* note 58, at 230 (explaining how “transactions at market prices” can “facilitate[] explicit collusion”).



circumstantial case for inferring an agreement among competitors to fix prices.

### 5. *The Role of Independent Justifications for Inter-Competitor Sales*

The probative value of inter-competitor sales increases when defendants cannot explain why they engaged in such transactions. The Supreme Court has long held that price-fixing defendants' failure to explain suspicious activity is evidence of collusion.<sup>253</sup> Consequently, if the defendants fail to proffer any independent, non-collusive explanation for their inter-competitor sales, that significantly increases the probative value of such sales for inferring a conspiracy.<sup>254</sup>

Conversely, the probative value of inter-competitor sales decreases if the defendants can present a non-collusive explanation for their suspicious conduct that is believed by the factfinder.

Price-fixing defendants may try to advance an independent justification for their inter-competitor sales in an effort to prove that the sales transpired for reasons unrelated to any alleged collusion.<sup>255</sup> For example, defendants could use data and contemporary documentation to show that mutual inter-rival sales reduced transportation costs given the relative locations of firms to their customers.<sup>256</sup> However, while the absence of a proffered justification is strong evidence of collusion, courts should not automatically defer to explanations offered by defendants, which the Valspar court improperly did.<sup>257</sup> Any justification must be non-pretextual, and plaintiffs must have an opportunity to explain to the jury that the defendants' explanation is

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253. See, e.g., *Interstate Circuit v. United States*, 306 U.S. 208 (1939).

254. Kovacic et al., *supra* note 28, at 423 (“In summary, if firms engage in interfirm transfers of resources that are largely void of productive unilateral motivations for one or both of the parties, then these transactions are super plus factors.”).

255. See MARSHALL & MARX, *supra* note 58, at 230 (discussing hypothetical efficiency justification for inter-competitor sales).

256. See *id.* at 128 (“A firm might be able to save on transportation costs by purchasing product from a manufacturer that is closer to its end customer rather than producing the output itself and then transporting it.”). Marshall and Marx also observe, however, that “if proximity to the customer represents a substantial comparative advantage, then one would generally expect competitive bidding between the producers to result in each producer winning the business of the customer closest to it.” *Id.* at 129.

257. *Valspar Corp. v. E.I. Du Pont De Nemours & Co.*, 873 F.3d 185, 201 (3d Cir. 2017) (giving dispositive weight to “DuPont’s reasonable explanations” for its inter-competitor sales). The issue is not whether DuPont’s explanations are reasonable; the issue is whether or not explanations are true. That is for a jury to determine.

untrue.<sup>258</sup> Further, the defendants' proffering of a pretextual explanation for their inter-competitor sales is itself evidence of collusion.<sup>259</sup>

The ability of defendants to present independent justifications for their inter-competitor sales should minimize any risk that antitrust law could deter beneficial conduct. While some firms may argue that treating inter-competitor sales as a significant plus factor may deter firms from engaging in perfectly efficient inter-competitor sales, such concerns should not dissuade courts from attaching appropriate probative value to inter-competitor sales, which are commonly associated with price fixing. First, rival firms can still buy and sell products from each other so long as the transactions are unrelated to any collusive activity. Treating conduct as a plus factor does not render that conduct illegal.<sup>260</sup> Second, firms can minimize the risk that their inter-competitor sales will be incorrectly interpreted as evidence of price-fixing activity. For example, firms would be wise to document—contemporaneous with the sale—why the transaction makes sense for each party for reasons unrelated to any tendency of such sales to facilitate collusion.<sup>261</sup> Third, the likelihood of antitrust liability attaching to innocent defendants as a result of truly innocuous inter-competitor sales is very low. Defendants will only be found liable when their inter-competitor sales are preceded by consistent parallel price changes over a period of time and are accompanied by other plus factors that indicate those parallel prices are the product of collusion, not independent decision-making.

In sum, in the absence of an underlying price-fixing conspiracy, firms can still engage in inter-competitor sales when it is in their independent interests to do so. Appreciating the probative value of inter-competitor sales should do no harm to innocent firms that can explain their conduct.

### CONCLUSION

Inter-competitor sales are inherently a plus factor in proving a price-fixing agreement through circumstantial evidence. While they are not direct proof of conspiracy, they are fundamentally suspicious because such sales do not generally occur in competitive markets and yet do commonly take

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258. *See id.* at 211–12 (Stengel, J., dissenting) (“The majority, like the District Court, accepted each of DuPont’s explanations of possibly conspiratorial conduct and adopted each without much explanation. This approach should be unacceptable at the summary judgment stage.”); *see also id.* at 203 (“I think there are enough factual issues in this case that the question whether it was a lawful coincidence or an unlawful agreement should be decided by a jury.”).

259. *Fragale & Sons Beverage Co. v. Dill*, 760 F.2d 469, 474 (3d Cir. 1985) (offering pretextual explanations for suspicious conduct “would disprove the likelihood of independent action.”).

260. Christopher R. Leslie, *Foreign Price-Fixing Conspiracies*, 67 DUKE L.J. 557, 597–600 (2017) (explaining the relationship between legality and plus factors).

261. That may seem like a burden—and it is—but it is a reasonable one.

place in cartelized markets. Furthermore, the probative value of evidence of such sales increases when the sales occur in the context of other plus factors that indicate the inter-competitor sales may be part of a larger program among the defendants to fix price, monitor their cartel agreement, and punish cheaters or otherwise balance the cartel's books.

Defendants must be given an opportunity to explain why their inter-competitor sales have an innocent origin, unrelated to the illegal fixing of prices. Such explanations will generally be fact specific. However, the defendants' proffered justifications for these sales should not be simply accepted as true, especially when the defendant has moved for summary judgment because at that stage all evidence is to be interpreted in the light most favorable to the plaintiffs. Judges, like those in the Third Circuit's *Valspar* litigation, may be tempted to analyze the defendants' explanation for their inter-competitor sales in isolation from the other evidence presented by the plaintiffs. This is a mistake. It is not the function of judges to decide before a trial has taken place which party's explanation of these sales is accurate as a matter of law.

It is for the jury to determine whether—based on the evidence as a whole—the inter-competitor sales are more likely part of a price-fixing conspiracy or innocuous transactions between non-conspirators. Plaintiffs should have the opportunity to cross-examine the defendants about the details and rationale for their inter-competitor sales. Plaintiffs should have the ability to ask about the timing, the frequency, and the negotiations of all inter-competitor sales. In particular, plaintiffs' counsel may ask why a firm is purchasing products from a rival when the purchaser has excess capacity and can manufacture the product more cheaply than the sales prices in the inter-rival transactions. Where applicable, plaintiffs should ask why the inter-competitor sales are taking place at non-market prices. Defendants should have both the opportunity and the obligation to explain these details under oath to the factfinders, the jurors. But the jury's deliberations should be informed by the opinions of expert witnesses who understand how cartels have historically employed inter-competitor sales and who can explain why such sales may be indicative of an underlying price-fixing conspiracy.