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The Factor/Element Distinction in Antitrust Litigation

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THE FACTOR/ELEMENT DISTINCTION IN ANTITRUST LITIGATION

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ABSTRACT

Most price-fixing litigation turns on whether the plaintiffs can present sufficient circumstantial evidence from which a reasonable jury could infer that the defendants did, in fact, conspire to raise prices. This generally entails the proffering of plus factors, a type of evidence that suggests parallel conduct by the defendants was the product of collusion, not independent decisions. As their name suggests, plus factors are just that—factors. Proving a collection of factors may be necessary for a plaintiff's case, but no individual factor is ever required. If it were, it wouldn't be a factor; it would be an element.

Several federal courts, however, have improperly converted some aspects of antitrust law's factor test into an element test, which raises

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the plaintiff's evidentiary burdens in a way that protects price-fixing conspiracies from antitrust liability. Too often, judges have suggested that the absence of a particular plus factor should constitute evidence that no conspiracy exists or ever existed. These plus factors include: concentrated market structure, cartel enforcement mechanisms, stable market shares, intercompetitor communications, and simultaneity of price increases.

This Article performs a three-part analysis for each of these plus factors. First, it describes why the plus factor is probative of collusion and, thus, a plus factor. Second, it illustrates how some courts have distorted the plus factor's probative value by treating its absence as evidence that no collusion has taken place. Third, using empirical examples and economic theory, it explains why price-fixing conspiracies can exist and thrive even without generating evidence of the particular plus factor that some courts have treated as quasi-elemental.

The plus-factor framework for proving collusion through circumstantial evidence only works if judges properly apply, understand, and interpret plus factors. When courts treat an absence of evidence as evidence of absence, they craft a roadmap for price-fixing cartels to harm consumers while evading antitrust liability. This undermines all the goals of antitrust: compensating victims of price fixing, disgorging ill-gotten gains, and deterring future violations.

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INTRODUCTION

Most areas of law make a fundamental distinction between factors and elements. In an element test, a litigant must prove a series of independent elements in order to prove their cause of action or their defense.[1] If a single element remains unproven, then the claim or the defense fails.[2] In contrast, in a factor test, no individual factor is required;[3] if it were, it would be an element. The distinction between elements and factors can be dispositive.

Like many areas of law, antitrust doctrine uses a combination of element tests and factor tests. This Article explores the as-yet unappreciated problem of federal courts confusing the relationship between elements and factors in antitrust claims. In particular, some federal judges have taken to treating factors as elements in a manner that fundamentally undermines antitrust rules against illegal price fixing.

Price-fixing conspiracies overcharge consumers by billions of dollars.[4] Meeting in luxury resorts or seedy bars, well-heeled executives socially collude with their rivals to raise prices and reduce their output.[5] Collusion among competitors is the "supreme evil of antitrust."[6] Congress intended the Sherman Act to condemn and deter price-fixing conspiracies. Courts consider price fixing to be so dangerous that it is treated as per se illegal, which means that price fixing is presumed to be unreasonably anticompetitive as a matter of law.[7]

Antitrust law both criminalizes price fixing and provides a private right of action to those harmed by illegal collusion.[8] In theory, the

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1. Kevin M. Clermont, *Rules, Standards, and Such*, 68 BUFF. L. REV. 751, 775 (2020).

2. *Id.*

3. *Id.* at 779-80.

4. Christopher R. Leslie, *How to Hide a Price-Fixing Conspiracy: Denial, Deception, and Destruction of Evidence*, 2021 U. ILL. L. REV. 1199, 1203.

5. *Id.* at 1209-10.

6. Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 408 (2004).

7. Apex Oil Co. v. DiMauro, 713 F. Supp. 587, 596 (S.D.N.Y. 1989) ("The primary distinction between the Rule of Reason and the *per se* approach is that no showing of anticompetitive effect is required under the latter—the proscribed types of conduct are irrebuttably presumed to be violations of the Sherman Act.").

8. Christopher R. Leslie, *High Prices and Low-Level Conspirators*, 100 TEX. L. REV. 839,

prospect of imprisonment and private liability should deter price-fixing activity. But antitrust law can only work if properly applied by federal courts. Unfortunately, many federal judges misapply the legal framework of antitrust law in a manner that immunizes clever conspirators from antitrust liability.

Price-fixing conspiracies are difficult to prove because cartel managers employ a range of tactics to conceal their collusion, including code names, secret meetings, and well-coordinated lies.[9] Because direct evidence of price collusion rarely exists, most antitrust plaintiffs rely on circumstantial evidence to make their cases.[10] Price-fixing litigation generally turns on whether the plaintiffs can present sufficient circumstantial evidence from which a reasonable jury could infer that the defendants did, in fact, conspire to raise the prices that they charge consumers.[11] This generally entails the proffering of plus factors, a type of evidence that suggests parallel conduct by the defendants—most notably, parallel price increases—was the product of collusion, not independent decisions.[12] Courts have recognized several plus factors from which fact-finders can infer that antitrust defendants conspired to restrain trade.

As their name suggests, plus factors are just that—factors. Proving a collection of factors may be necessary for a plaintiff's case, but no individual factor is ever required.[13] If it were, it wouldn't be a factor; it would be an element. Several federal antitrust opinions, however, have transformed certain plus factors into elements.

This Article explains how some federal courts have improperly converted some aspects of antitrust law's factor test into an element test, which raises the plaintiff's evidentiary burdens in a way that protects price-fixing conspiracies from antitrust liability. Too often,

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842 (2022).

9. Leslie, *supra* note 4, at 1199.

10. Christopher R. Leslie, *The Decline and Fall of Circumstantial Evidence in Antitrust Law*, 69 AM. U. L. REV. 1713, 1720-29 (2020); *see also, e.g.*, *In re* Tyson Foods, Inc. Sec. Litig., 275 F. Supp. 3d 970, 991 (W.D. Ark. 2017) ("Courts have invariably recognized that there will rarely be direct evidence to support the existence of an agreement.").

11. *See, e.g.*, Anderson News, LLC v. Am. Media, Inc., 899 F.3d 87, 103-04 (2d Cir. 2018).

12. *See id.* at 104.

13. *See* Valspar Corp. v. E.I. Du Pont De Nemours & Co., 873 F.3d 185, 207 (3d Cir. 2017) (Stengel, C.J., dissenting) ("There is no one plus factor that is 'strictly necessary.'" (quoting *In re* Flat Glass Antitrust Litig., 385 F. 3d 350, 361 n.12 (2004))).

judges have suggested that the absence of a particular plus factor should constitute evidence that no conspiracy exists or ever existed. In many antitrust cases, price-fixing defendants have vigorously tried to flip the plus-factor framework on its head, imploring judges to treat individual plus factors as burdens that a plaintiff must meet.

Part I of this Article provides a brief primer on factor tests generally. Part II introduces antitrust law's plus-factor framework for inferring collusion. Because price-fixing conspirators generally conceal their collusion, antitrust plaintiffs must rely on circumstantial evidence to prove that the defendants' parallel price increases are the product of collusion, not independent action. The plus-factor framework is designed to ease the plaintiff's burden in proving collusion through use of circumstantial evidence.

As of late, however, several federal opinions have turned this pro-plaintiff apparatus on its head and converted some factors into burdens that antitrust plaintiffs must bear to get their case to a jury. Courts have done so by treating some plus factors as though they were elements that the plaintiff must satisfy.[14] Part III reviews several plus factors that various judicial opinions have treated as quasi-elements, chastising plaintiffs for not being able to prove a particular plus factor or drawing a strong negative inference from a plus factor's absence. These plus factors include: concentrated market structure, cartel enforcement mechanisms, stable market shares, intercompetitor communications, and simultaneity of price increases.[15]

Part III performs a three-part analysis for each of these plus factors. First, it describes why the plus factor is probative of collusion and, thus, a plus factor. Second, it illustrates how some courts have distorted the plus factor's probative value by treating its absence as evidence that no collusion has taken place. Third, using empirical examples and economic theory, it explains why price-fixing conspiracies can exist and thrive even without generating

14. Some antitrust opinions explicitly refer to plus factors as elements, *see, e.g.*, Schafer v. State Farm Fire & Cas. Co., 507 F. Supp. 2d 587, 596 (E.D. La. 2007), but this reads more as carelessness than calculation.

15. Christopher R. Leslie, *The Probative Synergy of Plus Factors in Price-Fixing Litigation*, 115 NW. U. L. REV. 1581, 1588-1619 (2021).

evidence of the particular plus factor that some courts have treated as quasi-elemental.

The plus-factor apparatus for proving collusion through circumstantial evidence only works if judges properly understand, interpret, and apply plus factors. Part IV explores the consequences of federal courts sometimes treating certain plus factors as if they were elements. Such reasoning misconstrues the plus-factor framework for proving an agreement through circumstantial evidence. Plus factors are just that—factors. They are not elements of the offense that an antitrust plaintiff must prove in order to make out a claim. This Part explains why courts should not penalize plaintiffs for not having evidence of any particular plus factor. When courts treat an absence of evidence as evidence of absence, they craft a roadmap for price-fixing cartels to harm consumers while evading antitrust liability. This undermines all the goals of antitrust: compensating victims of price fixing, disgorging ill-gotten gains, and deterring future violations.

I. FACTOR TESTS IN THE LAW

The clear distinction between element tests and factor tests may obscure the fact that factor tests come in many varieties. Most factor tests commonly take one of two forms: balancing tests or over-the-line tests. When a factor test requires balancing, courts define a finite set of factors and each factor falls on one side of the balance.[16] Although, in theory, "a true balancing test explicitly or implicitly presents an *exhaustive* listing of factors to be weighed against one another,"[17] courts sometimes treat the list of factors in some balancing tests as nonexhaustive.[18] Having a finite list of factors

16. *See* Clermont, *supra* note 1, at 789. It is possible that a particular factor is neutral in some applications but that factor is nonetheless discussed because *all* of the factors are analyzed in order to determine which side of the balance they fall on.

17. *Id.*

18. *See, e.g.*, Andrews v. Encompass Home & Auto Ins. Co., No. 15-0268, 2015 WL 3631749, at *2 (E.D. Pa. June 11, 2015) (in determining whether to transfer a case to another district, "[t]he Third Circuit has outlined a non-exhaustive list of pertinent public and private interest factors to be weighed in this balancing test"); Commonwealth v. Moto, 23 A.3d 989, 993 (Pa. 2011) ("To aid courts in applying the balancing test for expungement, we also adopted in *Wexler* the following non-exhaustive list of factors that the court should consider." (citing Commonwealth v. Wexler, 431 A.2d 877, 879 (Pa. 1981))); Ferguson v. State, 693 S.E.2d 578,

facilitates balancing because "true balancing implies rough *quantification* of the factors" and "the quantification must come in a *commensurable* measure, so as to allow an attempt at true balancing."[19] An open-ended, ever-expanding, idiosyncratic list of factors does not lend itself to this quantification and commensurability.

In a balancing-factor test, the absence of a factor has legal significance because the presence or absence of each factor determines the overall balance of factors.[20] There are two sides of the ledger, one for factors that support the plaintiff's position and one for factors that support the defendant's position. Of course, when applying a balancing-factor test, courts and fact-finders do not merely count up the number of factors on each side of the ledger. The factors are weighed against each other, because some factors may be more important than others.[21]

In contrast to balancing tests, over-the-line tests do not entail weighing. These tests require the party with the burden of proof to present enough factors to meet their burden.[22] The two-sided ledger is replaced with a line—an evidentiary threshold that the party with the burden of proof must cross.[23] So long as that party can present enough evidence—a sufficient number of factors—the test is satisfied.[24] Under this approach, there is no finite list of factors, all of which must be discussed and assigned labels of pro-plaintiff, pro-defendant, or neutral.[25] This approach requires no balancing of factors.

In both versions of these factor tests, no single factor is ever required.[26] If a factor were required, it wouldn't be a factor; it would

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580 (Ga. Ct. App. 2010) ("The four factors that form the core of the constitutional speedy trial balancing test ... do not constitute an exhaustive list." (quoting West v. State, 670 S.E.2d 833, 835 (Ga. Ct. App. 2008))).

19. Clermont, *supra* note 1, at 789.

20. *See id.*

21. *See id.*

22. *See In re* Chocolate Confectionary Antitrust Litig., 801 F.3d 383, 398 (3d Cir. 2015) ("To move the ball across the goal line, a plaintiff must also show that certain plus factors are present." (citing *In re* Flat Glass Antitrust Litig., 385 F.3d 350, 360 (3d Cir. 2004))).

23. *See id.*

24. *See id.*

25. *See Flat Glass*, 385 F.3d at 360.

26. *See, e.g.*, Harris v. Forklift Sys., Inc., 510 U.S. 17, 22-23 (1993) (noting that for a Title VII claim, "while psychological harm, like any other relevant factor, may be taken into account, no single factor is required").

be an element. Confusing a factor for an element, or vice versa, will necessarily distort the analysis—and sometimes the results—in many legal disputes.

In the context of antitrust litigation, mistakenly treating a factor as an element can lead federal courts to grant summary judgment to price-fixing defendants even when plaintiffs have presented sufficient evidence to have their claims proceed to trial. Part II introduces the role of factors in proving price-fixing conspiracies, including what type of factor test antitrust law employs.

II. ANTITRUST LAW'S USE OF FACTORS TO PROVE ILLEGAL COLLUSION THROUGH CIRCUMSTANTIAL EVIDENCE

Antitrust jurisprudence is common law comprising both element tests and factor tests. Much of antitrust law is driven by element tests. Most notably, the Supreme Court has articulated the elements that a plaintiff must prove in order to show illegal monopolization[27] and attempted monopolization.[28] Lower courts have articulated element tests to evaluate antitrust claims based on price fixing, exclusive dealing, and tying arrangements.[29] Within some of these element tests, however, reside factor tests. This Part explains the role of factors in proving collusion through circumstantial evidence.

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27. United States v. Grinnell Corp., 384 U.S. 563, 570-71 (1966) ("The offense of monopoly under § 2 of the Sherman Act has two elements: (1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.").

28. Spectrum Sports, Inc. v. McQuillan, 506 U.S. 447, 456 (1993) ("[T]o demonstrate attempted monopolization a plaintiff must prove (1) that the defendant has engaged in predatory or anticompetitive conduct with (2) a specific intent to monopolize and (3) a dangerous probability of achieving monopoly power.").

29. *See, e.g.*, McGlinchy v. Shell Chem. Co., 845 F.2d 802, 811 (9th Cir. 1988) ("To establish a section 1 violation under the Sherman Act, a plaintiff must demonstrate three elements: (1) an agreement, conspiracy, or combination among two or more persons or distinct business entities; (2) which is intended to harm or unreasonably restrain competition; and (3) which actually causes injury to competition, beyond the impact on the claimant, within a field of commerce in which the claimant is engaged (i.e., 'antitrust injury')." (citations omitted)); Big River Indus., Inc. v. Headwaters Res., Inc., 971 F. Supp. 2d 609, 622 (M.D. La. 2013) ("The elements of an unreasonable restraint on trade are (1) the defendant engaged in conspiracy, (2) the conspiracy had effect of restraining trade (3) the trade was restrained in the relevant market and (4) there was a causal antitrust injury." (citing Stewart Glass & Mirror, Inc. v. U.S. Auto Glass Discount Ctrs., Inc., 200 F.3d 307 (5th Cir. 2000))).

A. Proving Price Fixing

Plaintiffs can prove horizontal collusion through either direct evidence or circumstantial evidence.[30] Courts recognize that direct evidence of collusion is rarely available.[31] Given the high criminal and civil penalties for price fixing—ten years of imprisonment, $500 million fines,[32] and treble damages for private plaintiffs[33]—conspirators conceal their collusion through a variety of methods, including clandestine meetings and codes, shredding incriminating documents and falsifying exculpatory ones, creating fake trade associations and elaborate cover stories, and lying when questioned, even under oath.[34] Because price fixers cloak their collusion, private plaintiffs generally lack direct proof, such as recordings or written agreements.[35]

Because most price-fixing claims are proven without direct evidence,[36] courts have developed a two-step framework for proving anticompetitive collusion through circumstantial evidence. Initially, an antitrust plaintiff shows that the defendants engaged in parallel conduct, called "conscious parallelism," which suggests the

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30. *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." (citations omitted)); Anderson News, LLC v. Am. Media, Inc., 899 F.3d 87, 103 (2d Cir. 2018) ("Absent direct evidence of conspiracy, such as an admission by one of the defendants, antitrust plaintiffs must rely on circumstantial evidence to support their conspiracy claims.").

31. *See In re* Tyson Foods, Inc. Sec. Litig., 275 F. Supp. 3d 970, 991 (W.D. Ark. 2017) ("Courts have invariably recognized that there will rarely be direct evidence to support the existence of an agreement.").

32. *See, e.g.*, Scott D. Hammond, *From Hollywood to Hong Kong—Criminal Antitrust Enforcement Is Coming to a City Near You*, 14 LOY. CONSUMER L. REV. 567, 570 (2002) (noting $500 million fine against "F. Hoffmann-LaRoche for its leadership role in the international vitamin cartel"). Although the Sherman Act seems to cap criminal fines at $100 million, the Antitrust Division can seek "criminal fines that are the greater of double-the-gain or double-the-loss associated with the violation." Leslie, *supra* note 4, at 1204-05 (discussing 18 U.S.C. § 3571(d)).

33. 15 U.S.C. § 15(a).

34. Leslie, *supra* note 4, at 1206-35.

35. *See id.* at 1220.

36. *See, e.g.*, ES Dev., Inc. v. RWM Enters., Inc., 939 F.2d 547, 553-54 (8th Cir. 1991) ("[I]t is axiomatic that the typical conspiracy is 'rarely evidenced by explicit agreements,' but must almost always be proved by 'inferences that may be drawn from the behavior of the alleged conspirators.'" (quoting H.L. Moore Drug Exch. v. Eli Lilly & Co., 662 F.2d 935, 941 (2d Cir. 1981))).

possibility of collusion but alone is insufficient to prove it.[37] In order to create a reasonable inference that this parallel conduct was the product of collusion, an antitrust plaintiff next proffers evidence of plus factors, which is evidence that supports the conclusion that the parallel conduct is "not the result of independent business decisions of the competitors."[38] These two components—conscious parallelism and plus factors—create a circumstantial case for inferring illegal collusion.[39]

Plus factors are the heart of any price-fixing case built on circumstantial evidence. Plus factors can "establish that the defendants were not engaging merely in oligopolistic price maintenance or price leadership but rather in a collusive agreement to fix prices or otherwise restrain trade."[40] Each individual plus factor proffered by a plaintiff is a separate piece of circumstantial evidence to be aggregated with other evidence of plus factors.[41] Courts have not yet created a comprehensive list of plus factors.[42] Antitrust opinions discuss those plus factors raised by the plaintiffs. No minimum number—and no particular constellation—of plus factors

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37. *See, e.g.*, *In re* Chocolate Confectionary Antitrust Litig., 801 F.3d 383, 398 (3d Cir. 2015) ("Accordingly, evidence of conscious parallelism cannot alone create a reasonable inference of a conspiracy. To move the ball across the goal line, a plaintiff must also show that certain plus factors are present." (first citing *In re* Baby Food Antitrust Litig., 166 F.3d 112, 122 (3d Cir. 1999); and then citing *In re* Flat Glass Antitrust Litig., 383 F.3d 350, 360 (3d Cir. 2004))).

38. *Baby Food*, 166 F.3d at 122; *see* Petruzzi's IGA Supermarkets, Inc. v. Darling-Delaware Co., Inc., 998 F.2d 1224, 1232-33 (3d Cir. 1993) ("[I]n a conscious parallelism case, 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." (citation omitted)); *see also* City of Moundridge v. Exxon Mobil Corp., 429 F. Supp. 2d 117, 131 (D.D.C. 2006) ("The plus factors are necessary to showing concerted action because parallel behavior, such as parallel price increases, is often consistent with independent reactions to a competitive market.").

39. Apex Oil Co. v. DiMauro, 822 F.2d 246, 253-54 (2d Cir. 1987) ("[W]hen viewed in conjunction with the parallel acts, [plus factors] can serve to allow a fact-finder to infer a conspiracy." (citing Mod. Home Inst. Inc. v. Hartford Accident & Indem. Co., 513 F.2d 102, 110 (2d Cir. 1975))).

40. Capitol Body Shop, Inc. v. State Farm Mut. Auto. Ins. Co., 163 F. Supp. 3d 1229, 1234 (M.D. Fla. 2016) (citing City of Tuscaloosa v. Harcros Chems., Inc., 158 F.3d 548, 570-71 (11th Cir. 1998)), *aff'd sub nom.* Auto Alignment & Body Serv., Inc. v. State Farm Mut. Auto. Ins. Co., 953 F.3d 707 (11th Cir. 2020).

41. Leslie, *supra* note 15, at 1581.

42. *Flat Glass*, 385 F.3d at 350.

is required for an antitrust plaintiff to present.[43] Instead, plaintiffs plead as many plus factors as they can prove. Courts, however, should not simply count the number of plus factors presented. Whenever possible, plus factors should be analyzed in relation to each other.[44]

Various plus factors are probative of collusion for different reasons.[45] For example, some plus factors demonstrate that the defendants' market structure is susceptible to cartelization; others show that the defendants' conduct is more consistent with collusion than competition.[46] Many plus factors address behavior that is indicative of cartel formation, management, and enforcement.[47] Although courts have recognized over two dozen separate plus factors,[48] no single opinion has discussed or applied them all—nor will this Article. Instead, Part III highlights those plus factors that several courts have misconstrued as elements.

B. Evaluating Plus Factors

The plus-factor framework is an over-the-line factor test, not a balancing test. The plaintiff merely needs to present sufficient plus factors from which a reasonable jury could infer an agreement among the defendants.[49] The presence or absence of particular plus factors are not balanced. The Supreme Court in *Continental Ore Co. v. Union Carbide & Carbon Corp.* instructed lower courts to

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43. Valspar Corp. v. E.I. Du Pont De Nemours & Co., 873 F.3d 185, 207 (3d Cir. 2017) (Stengel, C.J., dissenting) (citing *Flat Glass*, 385 F.3d at 361 n.12; *Petruzzi's*, 998 F.2d at 1242).

44. Leslie, *supra* note 15, at 1587.

45. *Id.* at 1588-1619 (providing a typology of plus factors).

46. *Id.* at 1590-93, 1603-09.

47. *Id.* at 1593-1603.

48. *Id.* at 1588-1619.

49. *See* City of Phila. v. Bank of Am. Corp., 498 F. Supp. 3d 516, 528 (S.D.N.Y. 2020) ("Plaintiffs here allege *enough* plus factors to support the inference that each Defendant was part of the alleged conspiracy." (emphasis added)); Haley Paint Co. v. E.I. Dupont De Nemours & Co., 804 F. Supp. 2d 419, 425-26 (D. Md. 2011) ("While the crux of Plaintiffs['] complaint centers on parallel price increases implemented by Defendants, they allege *enough* factual allegations, or 'plus factors' to plausibly suggest an agreement in violation of the Sherman Act." (emphasis added)); *see also* Brendan Ballou, *The "No Collusion" Rule*, 32 STAN. L. & POL'Y REV. 213, 230 (2021) ("With enough 'plus factors,' an antitrust plaintiff could, in theory, survive a motion to dismiss or motion for summary judgment.").

examine all the *plaintiffs'* proffered evidence holistically, not to compartmentalize it.[50] This is not balancing. The Court never required or implied that the plaintiff should be penalized—or negative inferences drawn—from an absence of certain plus factors. Indeed, the *Continental Ore* Court held that when contradictory evidence exists, an antitrust case should proceed to the jury.[51]

Courts have created no comprehensive list of plus factors for proving antitrust conspiracies.[52] The absence of any such list demonstrates that antitrust law's plus-factor framework entails no balancing. A balancing-factor test requires a finite set of factors, each of which a court or fact-finder must categorize as supporting the plaintiff's position, the defendant's position, or neutral.[53] The absence of a particular plus factor does not constitute exculpatory evidence.[54] Moreover, because these are plus *factors*, not elements, no single plus factor is dispositive or necessary to a plaintiff's case.[55] No individual plus factor—or set of plus factors—is required.[56]

The plaintiff's plus factors are most salient at the motion to dismiss and the summary judgment stages of litigation. A plaintiff needs to present enough factors that a reasonable jury could infer that the defendants' parallel conduct was the result of collusion.[57]

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50. 370 U.S. 690, 699 (1962) ("[Antitrust] plaintiffs should be given the full benefit of their proof without tightly compartmentalizing the various factual components and wiping the slate clean after scrutiny of each.").

51. *Id.* at 700-01 ("Undoubtedly, all of the evidence during this period does not point in one direction and different inferences might reasonably be drawn from it. There was, however, sufficient evidence to go to the jury and it is the jury which 'weighs the contradictory evidence and inferences' and draws 'the ultimate conclusion as to the facts.'" (quoting Tennant v. Peoria & P.U.R. Co., 321 U.S. 29, 35 (1944))).

52. *In re* Flat Glass Antitrust Litig., 385 F.3d 350, 360 (3d Cir. 2004) ("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.").

53. *See* Clermont, *supra* note 1, at 789.

54. Leslie, *supra* note 15, at 1587.

55. *In re* High Fructose Corn Syrup Antitrust Litig., 295 F.3d 651, 655 (7th Cir. 2002); Valspar Corp. v. E.I. Du Pont De Nemours & Co., 873 F.3d 185, 206-07 (3d Cir. 2017) (Stengel, C.J., dissenting).

56. Quality Auto Painting Ctr. of Roselle, Inc. v. State Farm Indem. Co., 917 F.3d 1249, 1280 (11th Cir. 2019) (en banc) (Wilson, J., dissenting in part) ("We have never prescribed a rigid set of factors or the weight of any particular factor.").

57. Leslie, *supra* note 15, at 1588-89; *see* City of Phila. v. Bank of Am. Corp., 498 F. Supp. 3d 516, 528-29 (S.D.N.Y. 2020); Jones v. Micron Tech. Inc., 400 F. Supp. 3d 897, 915 (N.D. Cal. 2019). Conversely, if the court determines that the plaintiffs have not alleged enough plus factors, it may grant (or affirm) summary judgment for antitrust defendants. *See, e.g.*, Moore

Courts are not supposed to weigh evidence at this juncture.[58] The sole issue at summary judgment is if the plaintiff has proffered sufficient evidence to create a genuine issue of material fact as to whether the defendants conspired to fix price or otherwise restrain competition.[59] The defendants can try to disprove the plaintiff's proffered plus factors, but they do not proffer their own countervailing plus factors. In short, this is an over-the-line factor test as the plaintiff merely needs to show enough plus factors to get over the line from conceivable to plausible in order to survive a motion for dismissal,[60] and over the line to create a genuine issue of material fact in order to survive a motion for summary judgment.[61]

III. How Federal Courts Treat Certain Plus Factors as Elements

Even though plus factors are just that—factors—several antitrust opinions treat some individual plus factors as though they were elements. To date, federal courts have recognized over twenty individual plus factors, some dozens of times and others in but a few opinions.[62] Several of the most-discussed plus factors have reached an exalted status where courts routinely look for their existence. For example, courts routinely ask about the motive and opportunity to conspire as well as whether the defendants have taken action against their independent interests.[63] Unfortunately, for some of the more common plus factors, many judges have confused the ubiquity

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v. Mars Petcare US, Inc., 820 F. App'x 573, 575 (9th Cir. 2020) ("Plaintiffs also fail to allege enough so-called 'plus factors' beyond parallel business behavior to show a 'meeting of the minds.'" (quoting *In re* Musical Instruments & Equip. Antitrust Litig., 798 F.3d 1186, 1193 (9th Cir. 2015))).

58. *High Fructose Corn Syrup*, 295 F.3d at 655.

59. *In re* Chocolate Confectionary Antitrust Litig., 801 F.3d 383, 398 (3d Cir. 2015).

60. *Bank of Am.*, 498 F. Supp. 3d at 528-29 ("Plaintiffs here set forth several other plus factors that nudge their allegations across the line to 'plausible.'"); *Jones*, 400 F. Supp. 3d at 915 ("Plus factors must 'nudge' allegations of unlawful agreements to restrain trade 'across the line from conceivable to plausible' and place parallel conduct 'in a context that raises a suggestion of a preceding agreement.'" (quoting Bell Atl. Corp. v. Twombly, 550 U.S. 544, 557, 570 (2007))).

61. *Chocolate Confectionary*, 801 F.3d at 398 ("To move the ball across the goal line, a plaintiff must also show that certain plus factors are present.").

62. *See* Leslie, *supra* note 15, at 1588-1619.

63. *See id.* at 1595-96, 1617-18.

with necessity, implying that antitrust plaintiffs should be penalized for failure to present evidence of certain plus factors.

This Part examines five plus factors: market concentration, cartel enforcement mechanisms, stable market shares, intercompetitor communications, and simultaneity of actions. For each of these plus factors, this Part explains why the plus factor is probative of collusion, how some courts have incorrectly treated that plus factor as a quasi-element, and why an antitrust plaintiff's inability to prove that particular plus factor should not create any negative inferences as to the strength of the plaintiff's case.

A. Market Structure

Several plus factors address a market's susceptibility to cartelization. Empirical research demonstrates that a price-fixing conspiracy "is most likely to occur and endure when numbers are small, concentration is high and the product is homogeneous."[64] Courts recognize that "an industry structure that facilitates collusion constitutes supporting evidence of collusion."[65] Perhaps the most important of these market characteristics is market concentration.[66]

Concentrated markets are more susceptible to cartelization because this market structure facilitates intercompetitor coordination.[67] Although profitable, price-fixing conspiracies face numerous obstacles to formation and continuation. The necessary decision makers at each firm must agree to commit a felony; they must agree on a fixed price or a method of calculating prices for each product they sell; and they must agree how to divide their ill-gotten gains, with each firm bargaining for the lion's share of the cartel's profits.[68] Conspiracies with fewer players are better positioned to solve these negotiation and coordination problems.[69] Fewer negotiators means

64. George A. Hay & Daniel Kelley, *An Empirical Survey of Price Fixing Conspiracies*, 17 J.L. & ECON. 13, 26-27 (1974).

65. *In re* Text Messaging Antitrust Litig., 630 F.3d 622, 627-28 (7th Cir. 2010).

66. Leslie, *supra* note 15, at 1590-91.

67. *Id.*

68. Christopher R. Leslie, *Hindsight Bias in Antitrust Law*, 71 VAND. L. REV. 1527, 1560-69 (2018).

69. Gainesville Utils. Dep't v. Fla. Power & Light Co., 573 F.2d 292, 303 (5th Cir. 1978) ("Economists recognize that when a market is concentrated it is easier to coordinate collusive behavior.... To establish a market division among fifty firms, for example, a written document

fewer conflicts and a lower likelihood that a firm will unreasonably hold out for more than its fair share of cartel revenues. A smaller number of negotiators makes it easier for the conspirators to agree on a cartel price, to allocate market shares, to conceal their collusion, to develop enforcement mechanisms, and to detect and punish cheaters.[70] Markets with fewer major firms facilitate the establishment of trust and working relationships that can help a price-fixing cartel launch, take flight, and maintain a steady cruising altitude at inflated prices.[71] Empirically, concentrated markets are more prone to price fixing,[72] and, thus, market concentration is a plus factor.[73]

1. Elemental?

Although market concentration is but one important plus factor for inferring a collusive agreement through circumstantial evidence, some courts have seemingly elevated market concentration to element status. Courts routinely reject antitrust conspiracy claims

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may be necessary. But when only two companies dominate a market, it is unlikely any formal agreement is needed or would be risked."); *see also* Christopher R. Leslie, *Trust, Distrust, and Antitrust*, 82 TEX. L. REV. 515, 564-65 (2004).

70. *See* Kai Hüschelrath & Jürgen Weigand, *Fighting Hard Core Cartels*, *in* THE INTERNATIONAL HANDBOOK OF COMPETITION 307, 325-26 (Manfred Neumann & Jürgen Weigand eds., 2d ed. 2013) ("[B]ecause negotiations (and the subsequent monitoring) among ten parties is typically more complex and expensive than negotiations among only three parties.... [C]eteris paribus, a cartel in the three-firm market is more likely than in a ten-firm market."); Hay & Kelley, *supra* note 64, at 24 ("The results of the present study ... suggest that the low cost of planning and enforcing a conspiracy and the smaller likelihood of being caught in concentrated markets[ ] are equally if not more significant factors in stimulating conspiracy."); *Text Messaging*, 630 F.3d at 628 ("[Because] the four defendants sell 90 percent ... [of the market,] it would not be difficult for such a small group to agree on prices and to be able to detect 'cheating.'"); *In re* High Fructose Corn Syrup Antitrust Litig., 295 F.3d 651, 656 (7th Cir. 2002) (concentrated markets are amenable to concealing collusion).

71. Leslie, *supra* note 69, at 564-65.

72. Margaret C. Levenstein & Valerie Y. Suslow, *What Determines Cartel Success?*, 44 J. ECON. LITERATURE 43, 44-46 (2006); Arthur G. Fraas & Douglas F. Greer, *Market Structure and Price Collusion: An Empirical Analysis*, 26 J. INDUS. ECON. 21, 22-23 (1977); Hay & Kelley, *supra* note 64, at 20-21; Richard A. Posner, *A Statistical Study of Antitrust Enforcement*, 13 J.L. & ECON. 365, 399 (1970).

73. *See* Todd v. Exxon Corp., 275 F.3d 191, 208 (2d Cir. 2001) ("Generally speaking, the possibility of anticompetitive collusive practices is the most realistic in concentrated industries."); *In re* Blood Reagents Antitrust Litig., 266 F. Supp. 3d 750, 772 (E.D. Pa. 2017) (determining that a market with only two firms was highly concentrated and thus conducive to collaboration).

against defendants in markets with several firms.[74] Some federal judges assert that markets with many diverse sellers will be unable to coordinate their collusion while keeping it secret, assuming that "punishment tends to rule out price fixing in markets that have many sellers selling a [heterogeneous] product."[75] Courts, such as the Seventh Circuit in *In re Text Messaging Antitrust Litigation*, have infused their analysis with fanciful examples:

> An accusation that the thousands of children who set up makeshift lemonade stands all over the country on hot summer days were fixing prices would be laughed out of court because the retail sale of lemonade from lemonade stands constitutes so dispersed and heterogeneous and uncommercial a market as to make a nationwide conspiracy of the sellers utterly implausible.[76]

Some courts have implied that defendants have no motive to conspire unless the plaintiff proves that they are oligopolists. For example, in *Resco Products, Inc. v. Bosai Minerals Group Co.*, the court granted summary judgment to Chinese bauxite exporters after noting that dozens of exporters attended meetings of the bauxite branch of the Chinese Chamber of Commerce, that "[a] market with that many participants does not qualify as an oligopoly," and finally that the "[p]laintiff offered no 'evidence that the structure of the market was such as to make secret price fixing feasible.'"[77] By equating market concentration with cartel feasibility, the court essentially required price-fixing plaintiffs to prove concentrated market structure as though it were an element.

Similarly, in *Craftsmen Limousine, Inc. v. Ford Motor Co.*, the Eighth Circuit affirmed summary judgment for the price-fixing

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74. *See, e.g.*, Rsrv. Supply Corp. v. Owens-Corning Fiberglas Corp., 971 F.2d 37, 55 (7th Cir. 1992) ("[T]he existence of a number of small competitors in the market may undercut an inference of a price fixing conspiracy.").

75. *High Fructose Corn Syrup*, 295 F.3d at 656 ("The fact that price fixing has to be kept secret in order to avoid immediate detection followed promptly by punishment tends to rule out price fixing in markets that have many sellers selling a product heterogeneous with regard to quality and specifications and having good substitutes in production or consumption.").

76. 630 F.3d 622, 628 (7th Cir. 2010).

77. 158 F. Supp. 3d 406, 424-25 (W.D. Pa. 2016) (quoting *In re* Flat Glass Antitrust Litig., 385 F.3d 350, 360 (3d Cir. 2004)).

defendants because the plaintiffs presented "no evidence that the structure of the coachbuilding market would allow for a well-disciplined cartel" and "the record suggest[ed] that the market consist[ed] of a large number of small coachbuilding firms."[78] The Eighth Circuit concluded that "the structure of the limousine market during the years at issue in this case made the attainment and exercise of market power *nearly impossible*."[79] Other antitrust opinions, such as that of the Fifth Circuit in *In re Corrugated Container Antitrust Litigation*, have implied that it may be literally *impossible* to cartelize a fragmented market.[80] Thus, defendants who operate in an unconcentrated market would be entitled to summary judgment on § 1 claims.[81] Such reasoning converts market concentration from a factor into an element.

2. Not an Element

Antitrust opinions that seem to require plaintiffs to prove that the price-fixing defendants operated in a heavily concentrated market are flawed. Market concentration is a factor, not an element. The fact that the defendants operate in a heavily concentrated market increases the likelihood that their parallel price hikes were the product of collusion.[82] Nevertheless, if the defendants operated in a nonconcentrated market, that does not *negate* the possibility of collusion, as implied in *Text Messaging*,[83] *Resco*,[84] *Craftsmen Limousine*,[85] and *Corrugated Container*.[86] While collusion may be less likely in markets with several firms, price fixing in nonconcentrated

78. 491 F. 3d 380, 392-93 (8th Cir. 2007).

79. *Id.* at 393 (emphasis added).

80. 659 F.2d 1322, 1327 (5th Cir. 1981) ("[T]here are several characteristics of the industry that would render a nation-wide price-fixing conspiracy unlikely or even impossible: the industry is highly fragmented, the highest market share of any one company being 6.3%; a great deal of competition exists among sellers; and new companies enter the business with frequency and ease.").

81. Total Benefit Servs., Inc. v. Grp. Ins. Admin., Inc., 875 F. Supp. 1228, 1234 (E.D. La. 1995) ("[I]f the structure of the relevant market is so fragmented as to render the claimed conspiracy economically infeasible or impossible, summary judgment is appropriate.").

82. *See supra* notes 67-73 and accompanying text.

83. *In re* Text Messaging Antitrust Litig., 630 F.3d 622 (7th Cir. 2010).

84. Resco Prods., Inc. v. Bosai Mins. Grp. Co., 158 F. Supp. 3d 406 (W.D. Pa. 2016).

85. Craftsmen Limousine, Inc. v. Ford Motor Co., 491 F.3d 380 (8th Cir. 2007).

86. *In re* Corrugated Container Antitrust Litig., 659 F.2d 1322 (5th Cir. 1981).

markets nonetheless occurs with sufficient regularity that the lack of market concentration is not exculpatory.

Price collusion can occur in unconcentrated markets for several reasons.[87] For example, once firms develop sufficient mutual trust, collusion among a larger number of firms becomes increasingly feasible.[88] Or, if a high number of competitors have coordination mechanisms, they can overcome the hurdles for operating a cartel in an unconcentrated market. Industries characterized by strong trade associations are particularly susceptible to illegal price fixing.[89] Trade associations sometimes facilitate illegal collusion by providing a cover for bringing competitors together in one place and, thus, affording the opportunity to fix prices, to monitor each other's pricing, and to manage the cartel operations.[90] Not surprisingly, then, over one-third of discovered price-fixing cartels involved trade associations.[91] Trade associations are even more prevalent when price collusion occurs in unconcentrated markets.[92]

Finally, as a matter of basic doctrine, antitrust law does not require price-fixing plaintiffs to prove market concentration. If antitrust plaintiffs had to prove market concentration, then this would require them to define the relevant market and then to prove that the defendants collectively possessed dominant market power in that properly defined market. Price fixing, however, is per se illegal, which means that agreements to fix prices automatically violate the Sherman Act.[93] When a particular type of agreement is

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87. 4 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION ¶ 1412a (4th ed. 2018) ("Of course, even when a market is occupied by several dozen firms, they might be interdependent to the extent that an explicit cartel among them could succeed.").

88. *Cf.* Leslie, *supra* note 69, at 564-65 (discussing how trust is easier to establish in concentrated markets).

89. *See* Levenstein & Suslow, *supra* note 72, at 44 ("There are in fact many successful cartels in quite unconcentrated industries, but they almost always rely on industry associations.").

90. Christopher R. Leslie, *Cartels, Agency Costs, and Finding Virtue in Faithless Agents*, 49 WM. & MARY L. REV. 1621, 1687-89 (2008); Hay & Kelley, *supra* note 64, at 28 ("The current study demonstrated that trade associations are often used as a coordinating device, especially when more than a given number of firms are involved.").

91. Leslie, *supra* note 90, at 1687.

92. Hay & Kelley, *supra* note 64, at 21 ("In seven out of eight cases with more than fifteen firms in the conspiracy, a formal industry trade association was involved.").

93. Apex Oil Co. v. DiMauro, 713 F. Supp. 587, 596 (S.D.N.Y. 1989).

per se illegal, the antitrust plaintiff does not have to define the relevant market in which the defendants operate.[94] Nor does the plaintiff have to prove anticompetitive effects; such effects are presumed as a matter of law.[95] Moreover, if rival firms attempt to increase their profits through collusion but fail to meaningfully raise prices because the market is too diffuse, the conspiring firms have still violated the Sherman Act.[96]

In short, market concentration is not an element of a price-fixing claim. Courts should not treat it as such. Although some market structures are more conducive to cartelization, price-fixing conspiracies occur in nonconcentrated markets.

B. Cartel Enforcement Mechanism

Although cartel members maximize their collective long-term profits by abiding by their price-fixing agreement, an individual firm can maximize its short-term profits by cheating on the agreement, charging slightly less than the cartel-fixed price, and taking away sales away from its co-conspirators. To prevent actual or perceived cheating from destabilizing a cartel arrangement, many cartel managers develop and implement enforcement mechanisms. In general, a cartel enforcement system performs two tasks: detecting cheating and penalizing cheating.

Many price-fixing conspiracies attempt to detect cheating with monitoring mechanisms that observe the prices charged and output

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94. Cont'l Orthopedic Appliances, Inc. v. Health Ins. Plan of Greater N.Y., Inc., 40 F. Supp. 2d 109, 116 (E.D.N.Y. 1999) ("[U]nder the *per se* rule the plaintiff is excused from defining the relevant product market.").

95. *See* Big Bear Lodging Ass'n v. Snow Summit, Inc., 182 F.3d 1096, 1101-02 (9th Cir. 1999) ("Elaborate market analysis and case-by-case evaluation are unnecessary in cases involving *per se* antitrust violations because the anticompetitive effects of the practice are presumed."); *In re* Terazosin Hydrochloride Antitrust Litig., 352 F. Supp. 2d 1279, 1311 (S.D. Fla. 2005) ("[T]he *per se* approach applies a 'conclusive presumption' of anticompetitive effects and illegality to certain types of agreements, with no consideration given to the intent behind the restraint, to any claimed procompetitive justifications, or to the restraint's actual effect on competition." (quoting Nat'l Coll. Athletic Ass'n v. Bd. of Regents of Univ. of Okla., 468 U.S. 85, 100 (1984))).

96. Simply because a price-fixing conspiracy is doomed to failure—or actually fails to raise prices—does not mean that the conspiracy did not happen. Leslie, *supra* note 68, at 1567-69. A failed price-fixing conspiracy is as illegal as a successful one, *id.*, though the latter is more harmful and will generate greater antitrust damages than the former.

sold by each cartel member. Cartel case studies demonstrate that price-fixing conspirators often rely on sales data exchanges to detect cheating within their ranks.[97] The intercompetitor exchange of price and sales data stabilizes cartels by allowing cartel members to verify that their partners in crime are honoring the cartel agreement.[98] Some conspiracies follow norms of price verification whereby a seller can request the details of a completed transaction from a co-conspirator, who will answer the inquiry honestly.[99] Other monitoring mechanisms employed by price-fixing cartels have included hiring third-party monitors, such as auditors, independent cartel administrators, or even spies in some cases.[100]

Second, many price-fixing cartels also develop penalties for those members who sell more than their cartel allotment. Past cartels—including those in aluminum, steel, cement, and graphic electrodes—have used money transfers to address such problems.[101] More recent cartels have used intercompetitor sales, requiring cartel firms that have sold more than their cartel allotment to purchase products from their cartel partners that have sold less than their cartel allotment.[102] This process balances the books and brings all cartel members into compliance with their cartel obligations.[103]

If the cartel members have confidence in the cartel enforcement regime, this will reduce the pressure on member firms to charge less than the cartel price as a defensive measure because they fear their co-conspirators are cheating.[104] The ability to detect and penalize

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97. JOHN M. CONNOR, GLOBAL PRICE FIXING 294-95 (2d updated & rev. ed. 2008) (discussing vitamin B2 cartel); *id.* at 315 (noting that in choline chloride cartel, "[c]hecking prices on transactions was not feasible, so the major technique for detecting cheating was for the members to share their internal sales records with each other at the quarterly meetings"); *id.* at 152 (observing that citric acid cartel exchanged sales data to "confirm adherence to the [market] share agreements"); William E. Kovacic, Robert C. Marshall, Leslie M. Marx & Halbert L. White, *Plus Factors and Agreement in Antitrust Law*, 110 MICH. L. REV. 393, 424 (2011) ("The conveyance of firm-specific production and sales information is important for monitoring compliance with many cartel agreements.").

98. Leslie, *supra* note 15, at 1602 ("[S]ales data among competitors can also help stabilize a cartel agreement.").

99. *See* United States v. Container Corp. of Am., 393 U.S. 333, 335 (1969).

100. Leslie, *supra* note 69, at 612-15.

101. Christopher R. Leslie, *Balancing the Conspiracy's Books: Inter-Competitor Sales and Price-Fixing Cartels*, 96 WASH. U. L. REV. 1, 12-13 (2018).

102. *Id.* at 19-23.

103. *See id.* at 12.

104. *See* Leslie, *supra* note 69, at 526.

cheating should serve as a deterrent to cartel members undercutting each other on price. An effective enforcement regime can stabilize a price-fixing cartel, ensuring that the conspirators can charge higher prices for a longer time.[105]

Courts recognize that these various components of a cartel enforcement regime constitute plus factors.[106] With respect to monitoring, for example, courts properly treat postsale price verification practices as circumstantial evidence of collusion.[107] Similarly, courts view the intercompetitor exchange of sales data as circumstantial evidence of anticompetitive collusion.[108] Like monitoring devices, evidence of penalty devices is probative of collusion.[109] Most, though not all, courts treat intercompetitor sales as an important plus factor for inferring collusion because this is a device quite common to cartels and less likely in an aggressively competitive marketplace.[110] Intercompetitor sales are even more probative of collusion when the evidence indicates that the purchasing firm had no immediate need for the purchased products or that the purchasing firm could have manufactured the product for less than the price it

105. *See* Leslie, *supra* note 101, at 16.

106. *In re* Urethane Antitrust Litig., 768 F.3d 1245, 1265 (10th Cir. 2014) (treating monitoring and discipline as plus factors).

107. *See, e.g.*, United States v. U.S. Gypsum Co., 438 U.S. 422, 456 (1978) ("Thus, if one seller offers a price concession for the purpose of winning over one of his competitor's customers, it is unlikely that the same seller will freely inform its competitor of the details of the concession so that it can be promptly matched and diffused."); Penne v. Greater Minneapolis Area Bd. of Realtors, 604 F.2d 1143, 1148-49 (8th Cir. 1979).

108. Todd v. Exxon Corp., 275 F.3d 191, 198 (2d Cir. 2001) ("[A] horizontal price-fixing agreement may be inferred on the basis of conscious parallelism, when such interdependent conduct is accompanied by circumstantial evidence and plus factors such as defendants' use of facilitating practices. Information exchange is an example of a facilitating practice that can help support an inference of a price-fixing agreement." (citations omitted)); *In re* Currency Conversion Fee Antitrust Litig., 773 F. Supp. 2d 351, 369 (S.D.N.Y. 2011); *see also In re* TFT-LCD (Flat Panel) Antitrust Litig., No. 09-5840, 2012 WL 4808425, at *1 (N.D. Cal. Oct. 9, 2012) (treating the exchange of supply information as a plus factor).

109. *See* Leslie, *supra* note 101, at 13.

110. *See, e.g.*, *In re* High Fructose Corn Syrup Antitrust Litig., 295 F.3d 651, 659 (7th Cir. 2002); *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); *In re* High Fructose Corn Syrup Antitrust Litig., 261 F. Supp. 2d 1017, 1020 (C.D. Ill. 2003). *But see* Valspar Corp. v. E.I. Du Pont De Nemours & Co., 873 F.3d 185, 201 (3d Cir. 2017). *Cf.* Leslie, *supra* note 101, at 27-36 (explaining why the *Valspar* analysis is deeply flawed).

paid its putative rival.[111] Evidence that defendants have employed cartel enforcement devices can be strong circumstantial evidence of collusion.[112]

1. Elemental?

Because cartel schemes can stabilize a cartel, price-fixing defendants sometimes argue that plaintiffs must present evidence that the defendants had both "a means to detect deviations or cheating ... [and] credible threats of punishment for deviations or cheating," and that "'the absence of credible mechanisms to monitor and punish defections from the alleged agreement' causes 'Plaintiffs' theory of collusion [to] fail[ ] as a matter of economics.'"[113] Some, but not all, judges have found such arguments persuasive.[114] Although evidence that defendants have employed cartel enforcement mechanisms are important plus factors, some courts have treated these plus factors in a manner that converts them into quasi-elements by overemphasizing the inevitability of cartel cheating.[115]

Federal courts have long recognized that price fixers have an incentive to cheat on the collusive agreement by charging less than the cartel-fixed price[116] and that this cheating "ultimately destroys

111. *High Fructose Corn Syrup*, 295 F.3d at 659 ("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.").

112. Leslie, *supra* note 15, at 1601-03.

113. *In re* Delta/Airtran Baggage Fee Antitrust Litig., 245 F. Supp. 3d 1343, 1364 (N.D. Ga. 2017) (quoting defendants' expert report), *aff'd sub nom.* Siegel v. Delta Air Lines, Inc., 714 F. App'x 986 (11th Cir. 2018).

114. *Compare In re* Baby Food Antitrust Litig., 166 F.3d 112, 137 (3d Cir. 1999) ("There is no evidence that in such a diffuse and frenetic discount market there was any such mechanism in place to detect conspirator cheating. Without such a mechanism, no conspiracy, if it existed, could long endure."), *with In re* Urethane Antitrust Litig., 768 F.3d 1245, 1265 (10th Cir. 2014) (placing special consideration on evidence that defendant companies monitored one another to prevent cheating as an indication that a conspiracy existed).

115. *See, e.g.*, *Baby Food*, 166 F.3d at 137.

116. *See* United States v. Heffernan, 43 F.3d 1144, 1149 (7th Cir. 1994) ("The temptation of a member of a price-fixing conspiracy to cheat his fellows by shading the agreed price is very great, and is the bane of price fixers."); Vogel v. Am. Soc'y of Appraisers, 744 F.2d 598, 601 (7th Cir. 1984) ("A secret discount enables a seller to expand his output, and his profits, by selling at a shade below the cartel price without provoking an immediate reaction from his competitors. The effort of cartel members to 'cheat' their fellows in this fashion will, by increasing the output of the product, eventually make the cartel (or conspiracy, or oligopoly) price untenable.").

the cartel."[117] But some courts then extrapolate that the prospect of cheating necessarily deters price-fixing conspiracies.[118] Other federal courts invoke game theory for the proposition that a price-fixing "cartel cannot survive absent some enforcement mechanism because otherwise the incentives to cheat are too great."[119]

Reasoning that cheating will necessarily destroy a price-fixing conspiracy absent a cartel enforcement regime, several courts have essentially required plaintiffs to proffer evidence of monitoring and punishment mechanisms in order to survive summary judgment. For example, in *In re Baby Food Antitrust Litigation*, the Third Circuit affirmed summary judgment for the price-fixing defendants despite the fact that the plaintiffs had proffered evidence relating to several plus factors because the panel saw no evidence of "any mechanism in place to detect conspirator cheating. Without such a mechanism, no conspiracy, if it existed, could long endure."[120] Similarly, in an opinion affirmed by the Seventh Circuit, the district court in *Kleen Products LLC v. International Paper* granted summary judgment to price-fixing defendants because "there [was] no evidence of a punishment mechanism at all."[121] On appeal, the Seventh Circuit asserted: "If this was a cartel, it would have tried

117. Premier Elec. Constr. Co. v. Nat'l Elec. Contractors Ass'n, 814 F.2d 358, 370 (7th Cir. 1987).

118. Blomkest Fertilizer, Inc. v. Potash Corp. of Saskatchewan, 203 F.3d 1028, 1038 n.9 (8th Cir. 2000) (affirming summary judgment in favor of the defendant, noting that "several commentators have suggested that the incentive to lower prices while other oligopolists maintain prices deters collusion in the first place"); *see also* FTC v. Elders Grain, Inc., 868 F.2d 901, 905 (7th Cir. 1989) ("Colluders are tempted to cheat on their fellows when they can augment their profits by a single large sale (at a shade below the cartel price) that is unlikely to be detected. Knowing this, sophisticated buyers may be able to chivvy particular sellers for secret discounts, and the cumulative effect may be the collapse of the cartel.").

119. Petruzzi's IGA Supermarkets, Inc. v. Darling-Del. Co., 998 F.2d 1224, 1233 (3d Cir. 1993) (citing RICHARD POSNER, ECONOMIC ANALYSIS OF LAW 265-66 (3d ed. 1986); George J. Stigler, *A Theory of Oligopoly*, *in* THE ORGANIZATION OF INDUSTRY 39, 42-44 (1968)); *see also In re* Broiler Chicken Antitrust Litig., 290 F. Supp. 3d 772, 796 (N.D. Ill. 2017) (quoting *Petruzzi's*, 998 F.2d at 1233); Eddins v. Redstone, 35 Cal. Rptr. 3d 863, 883 (Ct. App. 2005) (quoting *Petruzzi's*, 998 F.2d at 1233).

120. 166 F.3d at 137; *see also Blomkest Fertilizer*, 203 F.3d at 1047 (Gibson, J., dissenting) ("[I]f the producers were co-operating in a cartel, a necessary feature of their arrangement would be some way to determine who was discounting."); *In re* Tyson Foods, Inc. Sec. Litig., 275 F. Supp. 3d 970, 977 (W.D. Ark. 2017) (suggesting that "producers' abilities to monitor each other's activities" are "crucial ... to any antitrust conspiracy").

121. 276 F. Supp. 3d 811, 842 (N.D. Ill. 2017), *aff'd sub nom*. Kleen Prods. LLC v. Ga.-Pac. LLC, 910 F.3d 927 (7th Cir. 2018).

to impose disciplinary measures on the 'cheaters' who did not go along with the price increases. But that type of evidence is conspicuously absent, even though nearly half the price hikes failed."[122] Likewise, in affirming summary judgment for price-fixing defendants in *Craftsmen Limousine, Inc. v. Ford Motor Co.*, the Eighth Circuit emphasized that because the market involved "a large number of small coachbuilding firms who engage[d] in individually negotiated sales for customized products," the market structure made "the detection and punishment of firms that 'cheat[ed]' on any price-fixing agreement difficult if not impossible."[123] All of these federal opinions effectively transformed cartel enforcement from a plus factor into an element.

Some courts have even suggested that if plaintiffs do not sufficiently plead evidence of cartel enforcement methods, "the difficulty of detecting cheating" may render conspiracy claims implausible and thus ripe for dismissal.[124] Price-fixing defendants have encouraged this movement, often trying to elevate cartel enforcement from a factor into an element by arguing that "it would be impossible for the members of the alleged price-fixing conspiracy to monitor transaction prices, rendering the alleged conspiracy *implausible* in the absence of any ability to detect cheating or enforce the terms of the agreement."[125] This places a new and unnecessary burden on antitrust plaintiffs.

2. Not an Element

Any insinuation—let alone holding—that plaintiffs must plead and proffer evidence of cartel enforcement mechanisms is deeply flawed. First, not all price-fixing conspiracies have enforcement mechanisms. Historically, many cartels have been "voluntary" with no explicit enforcement mechanisms at all.[126] Some recent cartels

122. *Kleen Prods.*, 910 F.3d at 937.

123. 491 F.3d 380, 392-93 (8th Cir. 2007).

124. *In re* Ins. Brokerage Antitrust Litig., No. 05-1079, 2007 WL 2533989, at *18 (D.N.J. Aug. 31, 2007), *aff'd in part*, *vacated in part*, 618 F.3d 300 (3d Cir. 2010).

125. *In re* Polyurethane Foam Antitrust Litig., 152 F. Supp. 3d 968, 981 (N.D. Ohio 2015) (emphasis added).

126. *See, e.g.*, Commission Decision of 11 December 2001 on Case COMP/E-1/37.027—Zinc Phosphate, 2003 O.J. (L 153) 1, 7 [hereinafter "Zinc Phosphate Decision"] ("The agreement

have not had effective monitoring[127] while others had monitoring but lacked punishment mechanisms.[128] Neither of these scenarios is surprising. A formal enforcement regime may not be necessary when co-conspirators develop sufficient mutual trust that they do not feel the need to develop detection and/or punishment mechanisms.[129] Some cartels may eschew traditional enforcement mechanisms for fear that the presence of the enforcement mechanism will expose the cartel because such mechanisms are suspicious and constitute a plus factor.[130]

Second, many cartels may successfully conceal their enforcement mechanisms.[131] Some cartels use trade associations—sometimes legitimate ones—to disguise their cartel monitoring activities.[132] In addition to concealing their monitoring activities, cartel managers also disguise their methods of penalizing cheaters and redistributing cartel profits.[133] Depending on how well the conspirators can conceal the money trail, direct payments between competitors could

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on sales and quotas was in the nature of a 'gentlemen's agreement', in that the members did not put into practice any specific kind of enforcement mechanism."); Bishnupriya Gupta, *The International Tea Cartel During the Great Depression, 1929-1933*, 61 J. ECON. HIST. 144, 144 (2001).

127. Nicolas de Roos, *Examining Models of Collusion: The Market for Lysine*, 24 INT'L J. INDUS. ORG. 1083, 1086 (2006) (noting "little cooperation in the monitoring of member sales and prices" in the lysine cartel).

128. B. Douglas Bernheim & Erik Madsen, *Price Cutting and Business Stealing in Imperfect Cartels*, 107 AM. ECON. REV. 387, 390-91 (2017).

129. Leslie, *supra* note 69, at 550.

130. *See infra* notes 254-57 and accompanying text (explaining why rational conspirators may forego enforcement devices if a lack of cartel enforcement mechanisms is considered exculpatory).

131. *See* Leslie, *supra* note 4, at 1218-19.

132. *Id.* at 1213-15; Herbert Hovenkamp & Christopher R. Leslie, *The Firm as Cartel Manager*, 64 VAND. L. REV. 813, 840 (2011) ("When done on the heels of a legitimate meeting, the administrative structure of the illegal cartel could take advantage of the previous decisionmaking rules of trade association meeting.").

133. *See* Leslie, *supra* note 4, at 1218-19.

expose the cartel to antitrust officials and the cartel's victims, who could sue for treble damages.[134] Consequently, price-fixing conspirators generally disguise their cartel penalty payments to resemble legitimate business transactions, such as intellectual property (IP) licenses.[135] As previously noted, some price fixers disguise their cartel adjustment payments as product purchases, which are intercompetitor sales, known as buybacks.[136] Courts, however, often do not recognize punishment mechanisms, such as intercompetitor sales.[137]

In addition to designing covert mechanisms to detect cheating and punish cheaters, price-fixing cartels also select personnel who are unlikely to draw attention to the conspiracy. For example, employees without pricing authority can play a role in some of the methods designed to balance a cartel's books after one or more cartel members have sold more than their prescribed amount.[138] Ultimately, as a pragmatic matter, antitrust law does not require proof of an enforcement mechanism because some federal judges appear unable to recognize enforcement mechanisms even when they are clearly present.[139]

C. Stable Market Shares

When the leading firms in a particular market maintain the same relative market shares, these stable market shares are indicia of collusion; because firms in truly competitive markets try to increase

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134. Margaret C. Levenstein & Valerie Y. Suslow, *Breaking Up Is Hard to Do: Determinants of Cartel Duration*, 54 J.L. & ECON. 455, 475-76 (2011) ("However, side payments leave a paper trail that increases the likelihood of antitrust prosecution."); Louis Kaplow, *An Economic Approach to Price Fixing*, 77 ANTITRUST L.J. 343, 394 (2011) ("Side 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."); Jonathan B. Baker, *Mavericks, Mergers, and Exclusion: Proving Coordinated Competitive Effects Under the Antitrust Laws*, 77 N.Y.U. L. REV. 135, 164 (2002) (noting that 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").

135. *See* Leslie, *supra* note 4, at 1219; Kovacic et al., *supra* note 97, at 408.

136. Leslie, *supra* note 4, at 1219.

137. Leslie, *supra* note 101, at 23-37.

138. Leslie, *supra* note 8, at 863-64.

139. *See infra* notes 257-59 and accompanying text.

their market share, market shares generally fluctuate.[140] In order to ensure that each member of the cartel will receive its ill-gotten gains from the illegal conspiracy, cartel members frequently fix production quotas[141] and negotiate their relative market shares as part of their price-fixing conspiracy.[142] Assigning market shares in conjunction with fixing prices gives conspirators more certainty about their expected cartel profits and reduces the incentive of cartel members to cheat on the cartel by reducing price.[143] Even if the cheater gets more sales by charging less than the cartel price, it will still have to compensate its cartel partners for selling more than its cartel allotment.[144] Even absent an agreement fixing market shares, price-fixing conspirators who appreciate that a stable cartel maximizes their long-term profitability will not seek to increase their market share at the expense of destabilizing the cartel.[145] By replacing competition with collusion, some cartels seek to bring stability to the market in the form of steady market shares.

Empirically, many historical cartels have allocated market shares as part of their price-fixing operations.[146] For example, the leaders of the zinc phosphate cartel set market share quotas in addition to

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140. Valspar Corp. v. E.I. Du Pont De Nemours & Co., 873 F.3d 185, 210 (3d Cir. 2017) (Stengel, C.J., dissenting); *see also* LOUIS KAPLOW, COMPETITION POLICY AND PRICE FIXING 264-65 (2013) ("The reasonably familiar point is that coordinated oligopoly prices, and perhaps also market shares, tend to be stickier over time than those of competitors.").

141. ERVIN HEXNER, INTERNATIONAL CARTELS 76 (1946) ("Cartel agreements frequently contain certain provisions regulating the quantity and quality of production (supply), the direction of trade (markets), and the determination of trade terms (prices in the broadest sense).").

142. Leslie, *supra* note 69, at 556 ("Once committed to the concept of cartelization, the members must agree on price levels and divide the spoils by assigning market share.... Competition shifts from the marketplace to the conference room as firms fight for market share.").

143. ROBERT C. MARSHALL & LESLIE M. MARX, THE ECONOMICS OF COLLUSION: CARTELS AND BIDDING RINGS 121-22 (2012) (discussing "the role of a market share allocation in deterring secret deviations").

144. *Id.*; Leslie, *supra* note 101, at 12.

145. *See* Leslie, *supra* note 69, at 586 ("Cooperative social norms generally prevent competitors from engaging in destructive acts in order to gain market share.").

146. *See* HEXNER, *supra* note 141, at 77 ("Many cartel agreements are based on determined marketing shares of participants."); *see also* Joel M. Podolny & Fiona M. Scott Morton, *Social Status, Entry and Predation: The Case of British Shipping Cartels 1879-1929*, 47 J. INDUS. ECON. 41, 51 (1999); JOHN E. STEALEY III, THE ANTEBELLUM KANAWHA SALT BUSINESS AND WESTERN MARKETS 84 (1993) (discussing the Kanawha salt cartel).

fixing prices and allocating customers.[147] At points, members of the international zinc phosphate cartel held the view that "pricing levels were of less importance as long as market shares did not vary."[148] By fixing stable market shares, the conspirators eliminated the urge to cut prices.[149] Cartel case studies reveal how many price-fixing cartels have also been market-share-fixing cartels.[150]

Because cartels use market allocation as a mechanism to distribute profits and reduce the risk of cheating, stable market shares are an indicator of cartelization.[151] Given that stable market shares are often negotiated by—or are a natural by-product of—illegal cartels, antitrust opinions treat relatively unwavering market shares as a plus factor for proving collusion through circumstantial evidence.[152] The Seventh Circuit has explained that

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147. Zinc Phosphate Decision, *supra* note 126, at 1-2.

148. *Id.* at 10. Among other uses, zinc phosphate is an important component of anti-corrosive industrial paints used in automotive, aeronautic, or marine industries. *Id.* at 2.

149. *Id.* at 12 ("Britannia's representative expressed the view at the meeting of 9 August 1994 that if all the companies were satisfied with their existing market shares and if these market shares had been consistent over a number of years, then, as long as these shares were not substantially altered, there would not be need for the aggressive price cutting of earlier years.").

150. *See, e.g.*, Podolny & Morton, *supra* note 146, at 51; STEALEY, *supra* note 146, at 84 (discussing the Kanawha salt cartel); *see also* Rosa Abrantes-Metz & Patrick Bajari, *Screens for Conspiracies and Their Multiple Applications*, ANTITRUST, Fall 2009, at 66, 68 ("The literature and evidence from prior cartels demonstrate that cartels may attempt to collude by fixing market shares.... Examples of cartels with stable market share agreements include cartels in copper plumbing tubes, organic peroxides, and several vitamins (A, E, and folic acid, in particular)." (citing Joseph Harrington, *Behavioral Screening and the Detection of Cartels*, *in* EUROPEAN COMPETITION LAW ANNUAL 2006: ENFORCEMENT OF PROHIBITION OF CARTELS (Claus-Dieter Ehlermann & Isabela Atanasiu eds., 2007))); HEXNER, *supra* note 141, at 77 ("Many cartel agreements are based on determined marketing shares of participants.").

151. Kovacic et al., *supra* note 97, at 413 ("If an effective cartel uses a market share allocation scheme, then we will observe fixed relative market shares among those firms."). Even absent an explicit side agreement assigning relative market shares, "[c]ooperative social norms generally prevent competitors from engaging in destructive acts in order to gain market share." Leslie, *supra* note 69, at 586.

152. *See, e.g.*, Valspar Corp. v. E.I. Du Pont De Nemours & Co., 873 F.3d 185, 210 (3d Cir. 2017) (Stengel, C.J., dissenting) ("Market share stability is a well-recognized symptom of collusive and concerted action in antitrust cases."); White v. R.M. Packer Co., 635 F.3d 571, 582 (1st Cir. 2011) (acknowledging "stable market shares" may be a plus factor); *In re* High Fructose Corn Syrup Antitrust Litig., 295 F.3d 651, 659 (7th Cir. 2002) ("[T]he market shares of the defendants changed very little during the period of the alleged conspiracy, which is just what one would expect of a group of sellers who are all charging the same prices for a uniform product and trying to keep everyone happy by maintaining the relative sales positions of the group's members."); *id.* at 660 ("[T]he fact that market shares did not fluctuate significantly

stable market shares are circumstantial evidence of an underlying price-fixing agreement because "inflexibility of the market leaders' market shares over time[ ] suggest[s] a possible agreement among them not to alter prices, since such an alteration would tend to cause market shares to change."[153] Evidence of stable market shares is even more probative of conspiracy when coupled with other factors, such as competitors purchasing product from each other, especially at below-market prices.[154] When market shares that used to vary become stabilized, that may indicate that a price-fixing conspiracy has taken root.[155]

1. Elemental?

Misinterpreting the insight that stable market shares are an indicium of collusion, some courts and commentators have suggested that evidence of fluctuating market shares is evidence of a lack of conspiracy.[156] For example, in affirming summary judgment for price-fixing defendants in the tobacco industry, in *Williamson Oil Co. v. Philip Morris USA*, the Eleventh Circuit emphasized that "the very fact that there were significant market share shifts during this period of alleged industry-wide collusion strongly undermines

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during the period of the alleged HFCS conspiracy may indicate that the sellers had agreed tacitly or otherwise to share the sales opportunities created by the growth in demand."); *see also* City of Tuscaloosa v. Harcros Chems., Inc., 158 F.3d 548, 570-73 (11th Cir. 1998) (treating high incumbency rate on contracts as a plus factor).

153. *In re* Text Messaging Antitrust Litig., 782 F.3d 867, 876 (7th Cir. 2015).

154. *See Valspar*, 873 F.3d at 210 (Stengel, C.J., dissenting) ("Dovetailing with this evidence of static market shares is evidence that the TiO2 [titanium dioxide] manufacturers made intercompany sales of TiO2, meaning they sold TiO2 to one another."); *id.* at 216-17 ("It would also not be too difficult to view the relative market share stability of the TiO2 suppliers, standing alone, as consistent with interdependence. This, of course, would ignore the simultaneous intercompany sales at below-market value.").

155. *High Fructose Corn Syrup*, 295 F.3d at 659-60 ("If, consistent with that evidence, the gyrations [of market shares] moderated during the period of the alleged conspiracy, this would be evidence for the plaintiffs.").

156. *See, e.g.*, Rosefielde v. Falcon Jet Corp., 701 F. Supp. 1053, 1064 (D.N.J. 1988) ("It therefore appears implausible that a conspiracy among business jet manufacturers could exist in an industry where there is direct evidence of a high level of competition among the manufacturers over price as well as the fluctuating market shares."); *see also* United States v. Archer-Daniels-Midland Co., 781 F. Supp. 1400, 1421-22 (S.D. Iowa 1991) (allowing merger in high fructose corn syrup market, asserting that competition had been "intense" and "[m]arket shares have fluctuated").

appellants' conspiracy allegations."[157] Focusing on these shifts in market shares, the *Williamson* court posited that it would "make[] little sense to posit that RJR [R.J. Reynolds] and B&W [Brown & Williamson] would continue to participate in a conspiracy that cut their market shares so dramatically."[158] The Eleventh Circuit interpreted shifting market share as highly persuasive evidence against the existence of a price-fixing conspiracy.

Similarly, the Ninth Circuit in *In re Citric Acid Litigation* reasoned that Cargill had not participated in the (already proven) citric acid price-fixing cartel because "Cargill's market share continued to increase even after" the beginning of the cartel.[159] The Ninth Circuit interpreted Cargill's raising market share as strong evidence that the firm was entitled to summary judgment[160] even though its putative competitors had already pled guilty to illegal price fixing,[161] Cargill had exchanged price information with them,[162] and Cargill was raising its prices in a similar fashion.[163] Nonetheless, the Ninth Circuit affirmed summary judgment for Cargill.[164] This was a mistake—one conspirator from the citric acid cartel informed the FBI that Cargill actively participated in the criminal cartel.[165] Despite the significant risk of judicial error and overreach, some

157. 346 F.3d 1287, 1318 (11th Cir. 2003).

158. *Id.* at 1321.

159. 191 F.3d 1090, 1102 n.7 (9th Cir. 1999). It bears noting that the Ninth Circuit disregarded evidence showing that "Cargill's market share flattened" during the operation of the cartel. *Id.* at 1101-02 ("The document on which Varni relies for its market share figures was not submitted as part of the summary judgment record, and thus we do not consider it."); *see also id.* at 1102 ("Because there is no evidence in the record establishing that Cargill's market share was constant between 1993 and 1995, any inference founded upon that factual assertion—even one drawn by an economic expert—is necessarily unreasonable.").

160. *Id.* at 1102-03 ("Considering the foregoing evidence together, we conclude that the evidence does not tend to exclude the possibility that Cargill acted legally in its pricing decisions.").

161. *Id.* at 1093.

162. *Id.* at 1103.

163. *Id.* at 1102.

164. *Id.* at 1108.

165. Leslie, *supra* note 10, at 1745 (noting that the Ninth Circuit reached the wrong result in *Cargill* given that "it was later revealed that one conspirator informed the FBI that Cargill had in fact participated in the illegal cartel" (citing David Barboza, *Archer Daniels Executive Said to Tell of Price-Fixing Talks with Cargill Counterpart*, N.Y. TIMES, June 17, 1999, at C6)).

courts interpret fluctuating market shares as "suggest[ing] a significant level of competition among the manufacturers."[166]

2. Not an Element

Although stable market shares are an important plus factor when present, they are not an element that antitrust plaintiffs must prove in order to demonstrate collusion through circumstantial evidence. The fact that the defendants' market shares have fluctuated is not automatically exculpatory. Relative market shares may oscillate despite the presence of an underlying price-fixing conspiracy.

Relative market share can shift during the life of a price-fixing conspiracy for many reasons. First, cartel managers may readjust the member firms' assigned quotas. For example, the entry of new participants into the conspiracy will often force the cartel members to recalculate their assigned market shares.[167] Even without new market entry, cartel member firms often jockey for position and try to renegotiate higher market share allotments for themselves.[168] Savvy firms engage in a game of chicken with their co-conspirators, threatening to leave the cartel unless they are granted a higher take of the cartel's ill-gotten gains.[169] In the lysine conspiracy, the two dominant firms, ADM and Ajinomoto, jockeyed for market share over the duration of the cartel.[170] At times, they settled their differences by agreeing to reduce the market share of the smaller

166. Rosefielde v. Falcon Jet Corp., 701 F. Supp. 1053, 1063-64 (D.N.J. 1988).

167. Gary D. Libecap & James L. Smith, *Political Constraints on Government Cartelization: The Case of Oil Production Regulation in Texas and Saudi Arabia*, *in* HOW CARTELS ENDURE AND HOW THEY FAIL: STUDIES OF INDUSTRIAL COLLUSION 196, 196 (Peter Z. Grossman ed., 2004) ("Successful cartels attract new entrants, eager to earn cartel profits. New entry, however, requires recalculation of individual quotas if total production levels are to be maintained. Technological change that differentially shifts production costs or changes product characteristics so that the industry is less homogeneous than before are additional obstacles.").

168. OPEC member nations famously negotiate their quotas. *See* John Gault, Bahman Karbassioun, Charles Spierer & Jean-Luc Bertholet, *OPEC Production Quotas and Their Application to Non-OPEC Countries*, 18 ENERGY POL'Y 73, 73 (1990).

169. *See, e.g.*, CONNOR, *supra* note 97, at 215-16 (explaining how a member of the lysine cartel boycotted meetings in its effort to increase its market share).

170. CHRISTOPHER HARDING & JENNIFER EDWARDS, CARTEL CRIMINALITY: THE MYTHOLOGY AND PATHOLOGY OF BUSINESS COLLUSION 159 (2015).

players in the lysine cartel.[171] In short, cartels routinely "fluctuate" their market shares by agreement.[172]

Second, market shares may shift in a cartelized market as a consequence of cartel enforcement.[173] Even stable price-fixing cartels often experience unstable market shares. A cartel member may intentionally sell more than its cartel quota for one of three reasons. First, a firm may oversell because it is cheating on the cartel agreement. Cartel firms can maximize their expected short-run profits by selling more than their cartel allotment. As a result, cheating is common in cartels.[174] Just because cheating occurs—which may cause prices to dip and market shares to fluctuate—does not mean that no cartel existed.[175] Even a cartel plagued by cheating can negatively affect consumers.[176] Indeed, if plaintiffs had to prove an absence of cheating, price fixers would escape antitrust liability.[177]

Alternatively, a firm may continue selling products despite reaching its quota, not to cheat, but to protect the cartel from exposure. When a cartel member that has already sold its cartel quota is approached by an eager customer, a rational cartel member may make the sale even though it is technically in violation of the cartel agreement. After all, declining a profitable sale is suspicious and may tip off customers that rivals are colluding, not competing. Buyers became suspicious of vitamin sellers and exposed the international vitamin cartel when they reported suppliers for refusing

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171. CONNOR, *supra* note 97, at 196.

172. Isaiah A. Litvak & Christopher J. Maule, *Cartel Strategies in the International Aluminum Industry*, 20 ANTITRUST BULL. 641, 657 (1975) ("The gentleman's agreement consists of an arrangement whereby the Western producers agree to absorb a quantity of metal each year originating in the East, with the quantity renegotiated from time to time.").

173. Of course, not all cartels have formal enforcement mechanisms. *See supra* notes 126-30 and accompanying text.

174. Leslie, *supra* note 69, at 558-59.

175. *See* Leslie, *supra* note 68, at 1567-68; *In re* High Fructose Corn Syrup Antitrust Litig., 295 F.3d 651, 656 (7th Cir. 2002).

176. *See* United States v. SKW Metals & Alloys, Inc., 195 F.3d 83, 89-90 (2d Cir. 1999) (noting that despite widespread cheating, a criminal price-fixing conspiracy can "affect prices even when it falls short of achieving the conspirators' target price").

177. Blomkest Fertilizer, Inc. v. Potash Corp. of Saskatchewan, 203 F.3d 1028, 1048 (8th Cir. 2000) (Gibson, J., dissenting) ("If, to prove collusion, a plaintiff has to prove that there was no cheating, thus no downward pressure on prices, cartels will be quite safe from the Sherman Act."); Leslie, *supra* note 68, at 1575.

to give price quotes.[178] Indeed, some courts may treat a firm's decision to decline a profitable sale as an important plus factor.[179] Such actions are particularly probative of collusion if foregoing lucrative transactions results in stable market shares.[180]

Finally, given the vagaries of the market, in any fiscal quarter or year, some cartel members may oversell while others undersell.[181] This creates the appearance of market share fluctuations as one would expect in a competitive market. For all these reasons, firms may sell more than their cartel allotment, causing their market shares to increase.

Cartels can address the problem of overselling—whether intentional or unintentional—in myriad ways. For example, the conspirators may balance the cartel books to ensure that oversellers compensate undersellers, such as direct monetary payments from the overseller to the underseller.[182] Some cartels use intercompetitor sales to ensure that each member of the cartel sells its quota.[183] Buybacks equalize cartel profits across firms, but the appearance of market share fluctuations can remain.

Alternatively, in order to avoid the evidentiary trail of suspicious side payments and intercompetitor sales, some cartel managers may balance the cartel's books by adjusting future allotments for cartel members. An entrenched cartel can exhibit changing market shares as the cartel managers adjust members' sales quotas in response to firms exceeding their quota in a prior year.[184] Using this approach, each cartel member receives its prenegotiated cartel profits over the long run. In the short term, however, it appears that market share is fluctuating, which can create the false

178. CONNOR, *supra* note 97, at 321.

179. *See, e.g.*, Dimidowich v. Bell & Howell, 803 F.2d 1473, 1478 (9th Cir. 1986).

180. *See* Leslie, *supra* note 15, at 1622.

181. Leslie, *supra* note 101, at 12.

182. Leslie, *supra* note 15, at 1602-03.

183. Leslie, *supra* note 101, at 19-23. Such intercompetitor sales can prove problematic, however, because knowledgeable judges properly treat these sales as a plus factor. *Id.* at 8-11.

184. Joseph E. Harrington, Jr., *How Do Cartels Operate?*, 2 FOUNDS. & TRENDS MICROECON. 1, 61 (2006) ("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."); *see also 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.").

impression that the free market mechanism is working even though the shifts in market share are being orchestrated and controlled by the cartel managers. If one or more cartel members sell more than their cartel quota, the cartel enforcement agents may readjust the cartel members' assigned market shares for the cartel's next reporting period. For example, in the sodium gluconate cartel, the cartel managers reduced the sales allocation of any firm that exceeded its quota in the prior year.[185] Market shares may fluctuate in a cartel as some conspirators oversell in one period and are commanded to sell less in a subsequent period.[186]

For these reasons, shifts in relative market share should not be interpreted as proof of competition. Even successful cartels may exhibit vacillating market shares.[187] Consequently, courts should not treat stable market shares as a quasi-element for proving price fixing through circumstantial evidence.

D. Intercompetitor Communications

Both major and day-to-day decisions of cartel management often require communications among firms. In addition to early discussions in which rival firms agree to fix prices, cartel partners sometimes renegotiate prices when foreign exchange rates fluctuate or consumer demand shifts.[188] They habitually exchange price information to coordinate their future prices and to scrutinize one another's past prices for any signs that a cartel member has cheated by charging less than the cartel's agreed-upon price.[189] Regular communication can build the trust among competitors that

185. *Id.* at 61.

186. Abrantes-Metz & Bajari, *supra* note 150, at 68 ("In these models, if a cartel member deviates from the collusive agreement, it will need to compensate other cartel members in subsequent time periods. As a result, abnormally high shares for a particular firm in one period should be followed by a reduction in shares in the following period.").

187. *See* HARDING & EDWARDS, *supra* note 170, at 142 (discussing pre-insulated pipes cartel).

188. Hovenkamp & Leslie, *supra* note 132, at 833.

189. Blomkest Fertilizer, Inc. v. Potash Corp. of Saskatchewan, 203 F.3d 1028, 1047 (8th Cir. 2000) (Gibson, J., dissenting) ("The price communications in this case are more like those in *In re Coordinated Pretrial Proceedings*, 906 F.2d at 448, which served 'little purpose' other than facilitating price coordination."); ABA SECTION OF ANTITRUST LAW, ANTITRUST HEALTH CARE HANDBOOK 174 (4th ed. 2010) ("Exchanges of price information ... facilitate[] the competitors' detecting others 'cheating' on their tacit agreement.").

facilitates their collusion.[190] More communication can generate greater trust.[191] In short, cartelists routinely communicate to fix prices, adjust prices, enforce their agreement, and stabilize their conspiracy.

Given the role of intercompetitor communications in cartel formation and management, evidence of such communications is an important plus factor. Most notably, because intercompetitor price sharing is common in price-fixing cartels[192] and generally inconsistent with competitive markets, courts treat the exchange of price information among rivals as a plus factor.[193] Similarly, exchanging sales data is an important plus factor.[194]

1. Elemental?

Several antitrust opinions seem to require that plaintiffs proffer evidence of direct communications among competitors.[195] In

190. Leslie, *supra* note 69, at 538-39.

191. *Id.* ("Communication seems to have a linear relationship with trust. The more time that subjects have to communicate, the greater their cooperation; the more communications that are exchanged, the greater the cooperation.").

192. *See, e.g.*, *In re* Plywood Antitrust Litig., 655 F.2d 627, 633 (5th Cir. 1981) (conspirators sharing information on delivery charges).

193. *See, e.g.*, *In re* Coordinated Pretrial Proc. in Petroleum Prods. Antitrust Litig., 906 F.2d 432, 452 (9th Cir. 1990); *In re* Tyson Foods, Inc. Sec. Litig., 275 F. Supp. 3d 970, 995 (W.D. Ark. 2017) ("To be sure, '[t]he broadcasting of sensitive business information ... is ... circumstantial evidence of a conspiracy among competitors.'" (quoting Grasso Enters. v. Express Scripts, Inc., No. 14CV1932, 2017 WL 365434, at *5 (E.D. Mo. Jan. 25, 2017))); *In re* Disposable Contact Lens Antitrust, 215 F. Supp. 3d 1272, 1297 (M.D. Fla. 2016) (noting that intercompetitor "information exchange ... indisputably facilitates and supports an inference of an agreement"); United States v. Apple Inc., 952 F. Supp. 2d 638, 690 (S.D.N.Y. 2013) ("Plus factors commonly considered by courts include ... information sharing." (citing Todd v. Exxon Corp., 275 F.3d 191, 198 (2d Cir. 2001))); *see also* KAPLOW, *supra* note 140, at 81; *Blomkest Fertilizer*, 203 F.3d at 1033 ("Courts have held that a high level of communications among competitors can constitute a plus factor which, when combined with parallel behavior, supports an inference of conspiracy."); *In re* Polyurethane Foam Antitrust Litig., 152 F. Supp. 3d 968, 983 (N.D. Ohio 2015) ("Evidence of communications between competitors can serve as circumstantial evidence of price-fixing.").

194. *Todd*, 275 F.3d at 198 ("[A] horizontal price-fixing agreement may be inferred on the basis of conscious parallelism, when such interdependent conduct is accompanied by circumstantial evidence and plus factors such as defendants' use of facilitating practices. Information exchange is an example of a facilitating practice that can help support an inference of a price-fixing agreement." (citations omitted)); *see also In re* Currency Conversion Fee Antitrust Litig., 773 F. Supp. 2d 351, 369 (S.D.N.Y. 2011).

195. Herbert Hovenkamp & Fiona Scott Morton, *Framing the Chicago School of Antitrust*

affirming summary judgment for price-fixing defendants in *In re Baby Food Antitrust Litigation*, the Third Circuit emphasized that the plaintiffs failed to prove direct communications between higher-level executives.[196] The court asserted that the plaintiffs' case "lack[ed] the essential substance to find a conspiracy" and emphasized that "no evidence has been produced showing that, during the alleged 17-year conspiratorial period, any executive of any of the defendants with price-fixing authority communicated with executives of the other defendants, either by writing, telephone or meeting."[197] Likewise, in *In re Text Messaging Antitrust Litigation*, the Seventh Circuit affirmed summary judgment for price-fixing defendants because—even though the plaintiffs presented evidence of intercompetitor communications[198]—"there is no evidence of what information was exchanged at these meetings, [and] there is no basis for an inference that they were using the meetings to plot price[ ] increases."[199] Similarly, in *Craftsmen Limousine, Inc. v. Ford Motor Co*., the Eighth Circuit affirmed summary judgment for defendants accused of fixing the price for vehicles that could be

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Analysis, 168 U. PA. L. REV. 1843, 1859 (2020) ("Courts almost never find a violation in the absence of more explicit and conventional communications among the defendants."); *see, e.g.*, Cleveland v. Viacom, Inc., 73 F. App'x 736, 740 (5th Cir. 2003) ("There is almost no evidence whatsoever, circumstantial or otherwise, that the studios engaged in any direct communication during their respective negotiations with Blockbuster or that any studio agreed, at Blockbuster's request, not to make output revenue-sharing terms available to independents.").

In *In re High Fructose Corn Syrup Antitrust Litigation*, the plaintiffs alleged a price-fixing conspiracy among high fructose corn syrup (HFCS) manufacturers that included that they had pegged the price of HFCS 42 at 90 percent of the price of HFCS 55. 156 F. Supp. 2d 1017, 1034 (C.D. Ill. 2001), *rev'd*, 295 F.3d 651 (7th Cir. 2002). (HFCS 42 contains 42 percent fructose and HFCS 55 contains 55 percent fructose. *Id.* at 1021.) Although later reversed, the district court granted summary judgment to the defendants because "there [was] no evidence of communications regarding the move to a 90% ratio among the producers." *Id.* at 1034. In an unpublished opinion, a California Court of Appeals seemed to require proof of direct communications among defendants, claiming that it was "aware of no antitrust decision that has permitted an inference of collusion against the named defendants based solely on evidence of third party conduct, without any evidence of direct communications between the defendants and any competitor." Zumbowicz v. Hosp. Ass'n of S. Cal., No. B215633, 2010 WL 4614697, at *20 (Cal. Ct. App. Nov. 16, 2010). The judges and their clerks must not have looked very hard because several such cases exist. *See, e.g.*, Leslie, *supra* note 4, at 1249.

196. 166 F.3d 112, 137 (3d Cir. 1999).

197. *Id.* The court's obsession with individuals "with price-fixing authority" was misplaced. Leslie, *supra* note 8, at 851-52.

198. 782 F.3d 867, 870-72 (7th Cir. 2015).

199. *Id.* at 878.

converted into limousines.[200] The appellate court emphasized that there was "no evidence that these coachbuilders exchanged price or output information."[201]

In all of these opinions, the federal judges downplayed the plus factors that were present to emphasize that absence of evidence of direct communications about price in order to affirm summary judgment for price-fixing defendants. In doing so, they elevated intercompetitor communications to quasi-elemental status, incorrectly implying that antitrust plaintiffs must present such evidence.

2. Not an Element

Judicial opinions that penalize antitrust plaintiffs for lacking evidence of direct communication between price-fixing defendants are flawed because judges do not appreciate how price fixers connect and commune. Because openly exchanging pricing plans or other sensitive information is suspicious, conspirators find ways to correspond that are less incriminating.[202] When conspirators do have direct communications, they ensure that no evidence of their meetings exists.[203] Many anticompetitive conspiracies use trade association meetings to provide cover for their illegal collusion.[204] When lacking such formal disguises, price-fixing conspiracies use secret meetings, code names, and encrypted emails to collude without detection.[205] Because price-fixing conspirators generally conceal their communications, plaintiffs with valid claims may lack evidence of such communications.[206] That alone counsels against treating intercompetitor communications as elemental.

In addition to concealed direct communications, price-fixing conspirators use a variety of means to indirectly communicate their price plans and exchange sensitive information with each other. Many cartels rely on price announcements to coordinate their

200. 491 F.3d 380, 382 (8th Cir. 2007).
201. *Id.* at 392.
202. *See, e.g.*, Leslie, *supra* note 4, at 1220-28.
203. *See id.* at 1219-28 (discussing cartel document destruction policies).
204. *See* Hovenkamp & Leslie, *supra* note 132, at 840.
205. *See* Leslie, *supra* note 4, at 1206-13.
206. *See, e.g.*, *id.* at 1235.

parallel price increases.[207] Such public price announcements eliminate the need for private direct communications among conspirators but can serve the same ends.[208] As the district court in *In re Titanium Dioxide Antitrust Litigation* observed, "[f]requent price increase announcements could have served as 'signals,' making further exchange of actual price information superfluous."[209] Courts deciding price-fixing cases, however, often discount the probative value of evidence of price announcements followed by price hikes.[210] Price announcements are but one way that price-fixing conspirators exchange important information in a manner designed to seem innocent to outside observers.

Cartels also use secretive indirect communications. For example, many cartels use lower-level employees to exchange critical information and to coordinate cartel operations.[211] Executives sometimes use their underlings to form the initial cartel.[212] Executives commonly task their lower-level employees with meeting their counterparts at rival firms to manage the day-to-day operations of the cartel, including readjusting prices, sharing pricing and production plans, and exchanging assurances of cartel compliance.[213] These employees also often communicate regarding cartel enforcement,

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207. *See, e.g.*, Robert C. Marshall, Leslie M. Marx & Matthew E. Raiff, *Cartel Price Announcements: The Vitamins Industry*, 26 INT'L. J. INDUS. ORG. 762, 762-63 (2008) (discussing price announcements by vitamins cartel); William H. Page, *Tacit Agreement Under Section 1 of the Sherman Act*, 81 ANTITRUST L.J. 593, 637-38 (2017) (discussing cases); *see also* ALFRED S. EICHNER, THE EMERGENCE OF OLIGOPOLY: SUGAR REFINING AS A CASE STUDY 261 (1969) (discussing price announcements in sugar industry).

208. *See* KAPLOW, *supra* note 140, at 277 ("[A]dvance price announcements, which may be followed by rivals' responsive announcements and further modifications by the initiator, in as many rounds as necessary, may reduce risks attendant with changing prices, consequently facilitating coordinated oligopoly pricing."); Maurice E. Stucke, *Evaluating the Risks of Increased Price Transparency*, 19 ANTITRUST 81, 81 (2005) (explaining how public price announcements can have two anticompetitive effects: "first, reduce the uncertainty in negotiating a supracompetitive price and second, secure effective means to police and punish any cheating").

209. 959 F. Supp. 2d 799, 828 (D. Md. 2013).

210. *See, e.g.*, Rsrv. Supply Corp. v. Owens-Corning Fiberglas Corp., 971 F.2d 37, 53 (7th Cir. 1992); Valspar Corp. v. E.I. Du Pont De Nemours & Co., 873 F.3d 185, 214-15 (3d Cir. 2017) (Stengel, C.J., dissenting) (critiquing the majority's failure to appreciate the significance of defendants' price announcements).

211. Leslie, *supra* note 8, at 855.

212. *See, e.g.*, *In re* Blood Reagents Antitrust Litig., 266 F. Supp. 3d 750, 776-78 (E.D. Pa. 2017).

213. Leslie, *supra* note 8, at 857-63.

such as verifying prices on completed transactions.[214] Yet many courts diminish the probative value of information exchanges if the discussants personally lack the authority to set prices for their respective employers.[215]

In addition to lower-level employees, many illegal cartels utilize third-party "industry consultants" to manage their cartel operations. Direct communications are not needed when firms employ industry consultants who relay sensitive information. For example, in the titanium dioxide price-fixing conspiracy, "'industry consultant' Jim Fisher ... was used as a vehicle to carry out the suppliers' collusive agreement" by conveying confidential pricing plans between the major rivals, DuPont and Huntsman.[216] The plaintiff's evidence "suggest[ed] Huntsman and DuPont may have used Fisher to implement a 'common plan' to fix prices 'even though no meetings, conversations, or exchanged documents are shown' between Huntsman and DuPont."[217] The plaintiff's theory was consistent with other known instances of conspirators using third parties to deliver messages and manage collusive conspiracies. One participant in the marine hose bid-rigging conspiracy explained the third-party consultant "who was the coordinator of the cartel ... would receive the tenders from companies and would then administer the cartel by ensuring that particular companies won the tender through a rigged bidding process. In addition, he coordinated the creation of global price lists."[218] These incidents demonstrate how conspirators can fix prices and rig bids without creating evidence of direct communications. Many courts, however, fail to appreciate the role of so-called industry consultants in price-fixing conspiracies.[219]

For all of these reasons, intercompetitor communications may be occurring with abandon, yet evidence to prove this plus factor may

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214. *Id.* at 863-65.

215. *Id.* at 868-69.

216. Valspar Corp. v. E.I. Du Pont De Nemours & Co., 873 F.3d 185, 214 (3d Cir. 2017) (Stengel, C.J., dissenting).

217. *Id.* (quoting *In re* Chocolate Confectionary Antitrust Litig., 801 F.3d 383, 398 (3d Cir. 2015)).

218. HARDING & EDWARDS, *supra* note 170, at 131.

219. *See* Leslie, *supra* note 4, at 1249-51; *Valspar Corp.*, 873 F.3d at 214 n.19 (Stengel, C.J., dissenting) ("Obviously, based on this evidence, and other evidence of Fisher's cross-company communications, a reasonable jury could infer that no direct conversations between the TiO2 manufacturers were needed if Fisher acted as their mouthpiece.").

nonetheless not exist. Professor Louis Kaplow has explained that because interfirm communications are secret, "a failure to find such communications is hardly conclusive that they did not occur."[220] Indeed, the leading antitrust treatise concludes that "in this day of telephone, email, and other forms of rapid communication, an opportunity to conspire may be presumed in the absence of evidence to the contrary."[221] Most importantly, the Supreme Court has held that antitrust plaintiffs do not need evidence of direct communications.[222] Thus, it is wrong for lower courts to treat intercompetitor communications as an element instead of as a factor.

E. Simultaneity

Simultaneity is related to conscious parallelism but is distinct.[223] Antitrust plaintiffs can prove parallelism by showing that the defendants engaged in similar actions at similar times, but the parallel actions need only take place "within a time period suggestive of prearrangement."[224] Simultaneity is parallelism on steroids. Simultaneity entails intercompetitor actions happening at nearly identical times or in close sequences. The degree of real-time concurrence is significantly greater with simultaneity than parallelism.

Federal courts treat simultaneous actions, such as price increases, as an important plus factor for inferring a horizontal conspiracy.[225] This makes sense. Because cheating is relatively

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220. KAPLOW, *supra* note 140, at 305.

221. AREEDA & HOVENKAMP, *supra* note 87, ¶ 1417a.

222. *See, e.g.*, Interstate Cir. v. United States, 306 U.S. 208, 221, 227 (1939).

223. *See supra* notes 36-38 and accompanying text (discussing conscious parallelism). It bears reiterating that parallelism is not strictly required to prove collusion through circumstantial evidence. It is simply the most common way of doing so.

224. Anderson News, LLC v. Am. Media, Inc., 899 F.3d 87, 104 (2d Cir. 2018).

225. *See, e.g.*, Mayor & City Council of Balt. v. Citigroup, Inc., 709 F.3d 129, 136-38 (2d Cir. 2013) (noting that in *Starr v. Sony BMG Music*, "defendants raised prices, simultaneously, at a time when their costs were declining" (citing Starr v. Sony BMG Music Ent., 592 F.3d 314, 324 (2d Cir. 2010))); Superior Offshore Int'l, Inc. v. Bristow Grp., Inc., 490 F. App'x 492, 497 (3d Cir. 2012) ("[T]he plaintiff could show that the defendants engaged in parallel conduct (such as raising prices simultaneously) and that certain other 'plus factors' exist which render this conduct a violation of the Sherman Act."); *In re* Ethylene Propylene Diene Monomer (EPDM) Antitrust Litig., 681 F. Supp. 2d 141, 166 (D. Conn. 2009) ("It is undisputed that the six lockstep price increases are strong circumstantial evidence of an illegal agreement to raise

common in price-fixing conspiracies,[226] some cartels may prefer to execute their price increases simultaneously in order to reduce the risk of one conspirator increasing its prices while its co-conspirators decline to follow suit, stealing sales away from the first firms that charge the heightened cartel prices.[227] Antitrust opinions recognize that "'[s]imultaneous parallel action that is not a plausible coincidence or an expectable response to a common business problem' is suggestive of conspiracy."[228] And while the simultaneity of actions is often parallel price increases, courts have found the simultaneity plus factor satisfied when antitrust defendants have concurrently changed their pricing policies,[229] cancelled contracts,[230] refused to conduct business with a particular firm,[231] or even when they simultaneously cease their parallel conduct upon being served with government subpoenas during antitrust investigations.[232] Simultaneity bespeaks the choreography of collusion more than the chaos of competition.

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and/or maintain ... prices."); *In re* Urethane Antitrust Litig., 768 F.3d 1245, 1265 (10th Cir. 2014) ("[C]ontacts frequently occurred within days of a lockstep price-increase announcement. This proximity suggested that the price-increase announcements had been coordinated." (citation omitted)).

226. Leslie, *supra* note 69, at 558-59.

227. *See id.* at 526 (describing how no cartel member wants to be the "sucker," the only conspirator abiding by the cartel agreement).

228. Int'l Constr. Prods. LLC v. Caterpillar Inc., No. 15-108, 2016 WL 4445232, at *4 (D. Del. Aug. 22, 2016) (alteration in original) (quoting 6 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶ 1425c (3d ed. 2010)).

229. *E.g.*, Baker v. Jewel Food Stores, Inc., 823 N.E.2d 93, 107 (Ill. Ct. App. 2005) (noting "defendants' simultaneous switch to unitary pricing").

230. *E.g.*, *In re* Blood Reagents Antitrust Litig., 756 F. Supp. 2d 637, 642 (E.D. Pa. 2010) ("The Complaint alleges that Immucor and Ortho Clinical cancelled contracts almost simultaneously with one of the largest group purchaser organizations in the blood reagents industry and demanded an almost identical price increase.").

231. *E.g.*, Tera Grp., Inc. v. Citigroup, Inc., No. 17 CIV. 4302, 2019 WL 3457242, at *18 (S.D.N.Y. July 30, 2019) ("Chief among the allegations suggesting coordination is Defendants' synchronized response to Tera's first swap trade, which entailed four different Defendants calling Tera 'almost simultaneously' on the first business day following the trade and making near-identical statements that each Defendant would not clear trades on TeraExchange until they completed an 'audit' of the rulebook.").

232. *E.g.*, Alaska Elec. Pension Fund v. Bank of Am. Corp., 175 F. Supp. 3d 44, 55 (S.D.N.Y. 2016) ("Significantly, Plaintiffs also allege that Defendants abruptly and simultaneously ceased engaging in parallel conduct when they were served with subpoenas in connection with government investigations, strengthening substantially the inference that a conspiracy existed." (citation omitted)).

1. Elemental?

Although simultaneity is merely a factor that increases the suspiciousness of parallel conduct, some courts seem to treat simultaneity as a requirement. Without explicitly mentioning simultaneity, some antitrust opinions require a plaintiff to present "evidence of the amount or *timing* of any of the pricing increases it claims were the product of collusion" in order to survive summary judgment.[233] More troublingly, some courts deprive a plaintiff's case of its persuasive significance if the defendants' parallel price increases are not concurrent. For example, in *Kleen Products LLC v. Georgia-Pacific LLC*, the Seventh Circuit mocked the plaintiffs for emphasizing the "tight congruence of price movements" among the defendants and the plaintiffs' description of those price movements as "lockstep" even though "[s]ometimes companies followed suit over a *month* later."[234] The court deprived all of the plaintiffs' evidence of parallel price increases of its probative value because some increases were not simultaneous.[235] Similarly, in *In re Text Messaging Antitrust Litigation*, another case out of the Seventh Circuit involving alleged fixing of text messaging rates, the judges reasoned that collusion would be unlikely given the risk of churn, the industry's term for losing a customer to a rival.[236] The judges imposed a simultaneity requirement by holding that "[t]o eliminate all risk of churn the defendants would have had to agree to raise their prices simultaneously, and they did not."[237] Because the judges extrapolated that an absence of simultaneity rendered the collusion implausible, the appellate panel affirmed summary judgment against the plaintiffs.[238]

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233. Resco Prods., Inc. v. Bosai Mins. Grp. Co., 158 F. Supp. 3d 406, 424 (W.D. Pa. 2016) (emphasis added); *see also In re* Late Fee & Over-Limit Fee Litig., 528 F. Supp. 2d 953, 962 (N.D. Cal. 2007) (citing *In re Baby Food Antitrust Litigation*, for proposition that "time lags of three to six months between pricing moves 'refute rather than support' allegations of conspiracy," 166 F.3d 112, 131-32 (3d Cir. 1999)).

234. 910 F.3d 927, 936 (7th Cir. 2018).

235. The court then derided the plaintiffs' evidence of parallel price increases involving "quick turnaround times," stating "[if] it is in a company's self-interest to imitate a price leader's increase, why wait to enjoy the benefit?" *Id.*

236. 782 F.3d 867, 877 (7th Cir. 2015).

237. *Id.*

238. *Id.* at 878-79.

Beyond summary judgment, courts have dismissed antitrust claims for failing to allege simultaneous conduct.[239] The Ninth Circuit, for example, affirmed dismissal of a price-fixing claim against guitar sellers based on their adoption and enforcement of minimum-advertised pricing ("MAP") policies.[240] Although the defendants had adopted similar MAP policies, the Ninth Circuit asserted that these policies were "not simultaneously" adopted and that "[a]llegations of such slow adoption of similar policies does not raise the specter of collusion."[241] Despite the fact that simultaneity is not required to prove collusion with circumstantial evidence, by treating an absence of simultaneity as powerful evidence of innocence, these opinions effectively promote simultaneity to element status.

2. Not an Element

Simultaneity, however, is not required for rivals' conduct to be considered parallel for antitrust purposes.[242] Most importantly, in *Interstate Circuit Inc. v. United States*, the Supreme Court held that "[i]t is elementary that an unlawful conspiracy may be and often is formed without simultaneous action or agreement on the part of the conspirators."[243] Enlightened courts recognize that "parallel conduct" can be "sequential rather than simultaneous."[244]

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239. *See, e.g.*, Quality Auto Painting Ctr. of Roselle, Inc. v. State Farm Indem. Co., 917 F.3d 1249, 1264 (11th Cir. 2019) (en banc) (affirming dismissal of price-fixing claim, noting that the plaintiffs did not "allege that all of the Insurance Companies *simultaneously* approached the Body Shops with an identical market rate" (emphasis added)); Wash. Cnty. Health Care Auth., Inc. v. Baxter Int'l Inc., 328 F. Supp. 3d 824, 842 (N.D. Ill. 2018) (dismissing price-fixing claim because "the complaint does not identify a simultaneous structural shift suggesting an agreement").

240. *In re* Musical Instruments & Equip. Antitrust Litig., 798 F.3d 1186, 1195-96 (9th Cir. 2015).

241. *Id.*

242. *See, e.g.*, *In re* Generic Pharm. Pricing Antitrust Litig., 394 F. Supp. 3d 509, 525 (E.D. Pa. 2019) ("Plaintiffs are not required to plead simultaneous price increases—or that the price increases were identical—in order to demonstrate parallel conduct." (quoting *In re* Blood Reagents Antitrust Litig., 756 F. Supp. 2d 623, 630 (E.D. Pa. 2010))).

243. 306 U.S. 208, 227 (1939); *see also In re* Broiler Chicken Antitrust Litig., 290 F. Supp. 3d 772, 791 (N.D. Ill. 2017) ("[T]he Supreme Court has long held that simultaneous action is [] not a requirement to demonstrate parallel conduct.").

244. *See In re* Plasma-Derivative Protein Therapies Antitrust Litig., 764 F. Supp. 2d 991, 1000 (N.D. Ill. 2011); *see also* Kleen Prods., LLC v. Packaging Corp. of Am., 775 F. Supp. 2d

Ultimately, antitrust doctrine is clear that simultaneity of actions is not required to make out a circumstantial case of illegal collusion.[245] Those courts that reason and rule otherwise are mistaken.

Simultaneity is not an element of proving collusion through circumstantial evidence for good reason. Actual international price-fixing cartels sometimes stagger their price increases to be nonsimultaneous. Some cartels employed "a clear orchestration of who would move first and when other firms would follow which could be in days, weeks, or even months. This has been documented for cartels in carbonless paper, electrical and mechanical carbon and graphite products, copper plumbing tubes, fine arts auction houses, and sorbates."[246] Sophisticated price-fixing conspirators agree ahead of time to stagger their price increases precisely to remove the appearance of simultaneity.[247] For this reason, even when antitrust plaintiffs base their circumstantial case of collusion on the defendants' parallelism, simultaneity is not required.

1071, 1077 nn.5, 9 (N.D. Ill. 2011) (noting that plaintiffs showing sequential conduct "after a short time interval ... is common in conscious parallelism scenarios" and that "[c]apacity reductions need not be simultaneous to demonstrate conscious parallelism").

245. *See, e.g.*, *In re Broiler Chicken*, 290 F. Supp. 3d at 791 ("[C]ourts have found allegations of defendants joining or effectuating a conspiracy over periods of time comparable to or longer than the periods Plaintiffs allege here to sufficiently allege parallel conduct."); LaFlamme v. Societe Air Fr., 702 F. Supp. 2d 136, 151 (E.D.N.Y. 2010) ("[I]llegal price fixing need not be exactly simultaneous and identical in order to give rise to an inference of agreement."); *cf. In re* Domestic Airline Travel Antitrust Litig., 221 F. Supp. 3d 46, 69 (D.D.C. 2016) ("Plaintiffs do not need to demonstrate that Defendants cut or limited capacity in exactly the same way in order to adequately allege parallel conduct.").

246. Harrington, *supra* note 184, at 22.

247. Anticompetitive conspiracies that do not directly involve fixing price—such as an agreement among rival firms to impose arbitration clauses in all their customer contracts—do not require simultaneity to achieve their goals. Ross v. Am. Express Co., 35 F. Supp. 3d 407, 439 (S.D.N.Y. 2014) ("The Defendants contend that a four-and-a-half-year-long 'slow motion conspiracy' would defy both economic and common sense, as any benefit from collusive adoption of the clauses is lost unless they are adopted close in time. But not all conspiracies require swift, simultaneous parallelism."), *aff'd sub nom*. Ross v. Citigroup, Inc., 630 F. App'x 79 (2d Cir. 2015). *See generally* Christopher R. Leslie, *Conspiracy to Arbitrate*, 96 N.C. L. REV. 381 (2018) (discussing conspiracies to impose arbitration clauses).

IV. THE CONSEQUENCES OF MISTREATING PLUS FACTORS AS ELEMENTS

The legal fight against price-fixing conspiracies depends on federal judges correctly applying antitrust law, including the plus-factor framework for inferring collusion from circumstantial evidence. Many of the antitrust opinions discussed in Part III suggest that some federal judges do not fully appreciate how factor tests work.[248] In an element test, all elements must be proven.[249] But in a factor test, no particular factor must be proven.[250] Plus factors are factors, not elements. The phrase "plus factor" is accurately descriptive of the fact that these pieces of evidence are additive and not mandatory. Moreover, antitrust law's plus factor framework is *not* a balancing test; it is an over-the-line factor test.[251] As such, the lack of evidence for any one particular plus factor is not exculpatory. Absence of evidence is not evidence of absence.

Part III illustrated how federal courts often take individual plus factors and treat them as if they were elements.[252] The conversion of plus factors into elements has important consequences for antitrust jurisprudence and for the likelihood of price-fixing activity. When courts treat plus factors as elements or quasi-elements, they are increasing the plaintiffs' burdens while inadvertently protecting actual cartels. This reduces antitrust deterrence and increases the expected value of illegal collusion.

A. Roadmap for Collusion

When antitrust opinions treat certain plus factors as elements, judges provide a roadmap for price-fixing conspirators for how to structure their cartel operations and how to implement their price increases. Although market structure is generally observable, other

248. *See supra* Part III.
249. *See supra* notes 1-2 and accompanying text.
250. *See supra* note 3 and accompanying text.
251. *See supra* Part II.B.
252. *See supra* Part III.

plus factors are particularly susceptible to manipulation and concealment. This Section explains how price fixers could—and have—manipulated their operations to eliminate the appearance of certain plus factors.

If courts were to require plaintiffs to present evidence of cartel enforcement mechanisms, many price-fixing conspirators could escape liability. Most easily, the conspirators could simply forego a formal enforcement regime and rely on mutual trust to maintain their collusion.[253] More likely, however, cartel managers generally attempt to conceal their enforcement systems.[254] Unfortunately, many federal judges do not understand how cartel managers monitor for cheating and penalize those who charge less than the cartel-fixed price or sell more than their cartel-fixed quota of output. For example, although cartels often use buybacks to allocate cartel profits, federal judges sometimes do not appreciate how buybacks are a cartel enforcement mechanism.[255] In *Kleen Products LLC v. Georgia-Pacific LLC*, the Seventh Circuit affirmed summary judgment in part because, the panel asserted, the plaintiffs had failed to present evidence of a cartel enforcement mechanism.[256] But the plaintiffs had shown the defendants engaging in intercompetitor sales, a classic cartel enforcement mechanism.[257] If courts require evidence of enforcement mechanisms but fail to understand how such cartel enforcement systems work, then judges may inappropriately award summary judgment to price-fixing defendants that have actually colluded in violation of antitrust law.

If courts treat stable market shares as an element, it could provide a safe harbor for price-fixing conspiracies. Price-fixing conspirators could exploit this by building market share fluctuations into their cartel management. This can create the illusion of competition-based fluctuating market shares while in reality, these course corrections are being manipulated by the cartel's managers.

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253. Leslie, *supra* note 69, at 550.

254. This is in part because cartel managers likely appreciate that evidence of cartel enforcement mechanisms is strong circumstantial evidence of illegal collusion.

255. *See, e.g.*, Valspar Corp. v. E.I. Du Pont De Nemours & Co., 873 F.3d 185, 201-02 (3d Cir. 2017); *see also* Leslie, *supra* note 101, at 27-36 (explaining why the *Valspar* analysis is deeply flawed).

256. 910 F.3d 927, 937 (7th Cir. 2018).

257. *See id.* at 932.

Shrewd price-fixing conspirators may manipulate markets to fluctuate their relative shares in order to disguise their collusion.[258] The zinc phosphate cartel, for example, rotated which firm did business with a particular customer, which created the illusion of competition and market share shifts.[259] Economists Leslie M. Marx and Claudio Mezzetti have explained that "evidence of, say, customer switching, might ordinarily be viewed as evidence of competition. But customer switching can presumably be arranged by a cartel if it serves the purpose of disguise."[260] In order to avoid this suspicious conduct, even firms in price-fixing conspiracies that have fixed relative market shares among the cartel members may make sales that cause market shares to fluctuate. These market fluctuations do not prove an absence of collusion. Consequently, plaintiffs need neither plead nor prove stable market shares, even though such market stability still constitutes an important plus factor when it is present.

Requiring proof of intercompetitor communications—as some courts have implicitly done—would immunize those price-fixing conspiracies that successfully conceal their collusive meetings. That's most cartels![261] Illegal cartels already employ code names, hold secret meetings, create fake trade associations, falsify travel documents and expense reports, and destroy incriminating evidence.[262] If courts require evidence of direct communications among competitors, they will create a body of antitrust law that essentially rewards the concealment activities of price fixers. Courts often do not appreciate how price-fixing executives avoid direct communications by using underlings as messengers.[263] If courts cannot

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258. *See* Leslie M. Marx & Claudio Mezzetti, *Effects of Antitrust Leniency on Concealment Effort by Colluding Firms*, 2 J. ANTITRUST ENF'T 305, 319 (2014) ("As another example of concealment effort aimed at reducing the probability of an investigation, a cartel could consider implementing some degree of customer switching, generating variability in market shares.").

259. Zinc Phosphate Decision, *supra* note 126, at 7 ("During the meetings, information about specific customers was exchanged. On some occasions, this resulted in customer allocation. There were in particular regular discussions about the Finnish customer Teknos Winter (Teknos) which was successively 'allocated' to the respective members of the cartel.").

260. Marx & Mezzetti, *supra* note 258, at 323.

261. KAPLOW, *supra* note 140, at 251 n.37 (noting studies reporting only between 10 and 17 percent of price-fixing conspiracies are detected).

262. *See* Leslie, *supra* note 4, at 1199.

263. *See supra* notes 214-16 and accompanying text.

recognize intercompetitor communications, then it is particularly important that such communications are not treated as a prerequisite to proving price collusion through circumstantial evidence. Judicial opinions that reject price-fixing claims for lacking evidence of direct communications simply encourage cartel managers to employ more indirect methods of communication, thus allowing firms to illegally overcharge their customers while evading antitrust liability.

If simultaneity were an element, conspirators would game this plus factor by staggering their price increases. Professor Louis Kaplow has observed that "sophisticated firms, aware of what inferences may be drawn from their price moves, may instead adjust prices strategically in order to disguise their coordinated behavior."[264] For example, as part of their conspiracy, members of the 1990s international vitamins cartel agreed that a designated member would publicly announce a price increase—such as through a trade journal—and the other co-conspirators would later announce their prechoreographed "independent" decision to increase their prices as well.[265] The conspirators prearranged the dates of their price announcements.[266] To create the misimpression of competition, the conspirators randomly rotated which firm would take the lead in announcing the next price increase.[267] Other international price-fixing conspiracies followed this strategy of manipulating and staggering market-price increases to make them seem like mere uncoordinated price leadership.[268] Some conspirators go to extraordinary lengths regarding the timing of their price hikes. For example, firms belonging to the vitamin A and vitamin E cartels negotiated their price increases *eight months* before executing them so that they could legitimately testify that they had not seen each other for several months before their price hikes and,

264. KAPLOW, *supra* note 140, at 263.

265. MARSHALL & MARX, *supra* note 143, at 38 n.35.

266. Harry First, *The Vitamins Case: Cartel Prosecutions and the Coming of International Competition Law*, 68 ANTITRUST L.J. 711, 715 (2001).

267. CONNOR, *supra* note 97, at 317 ("The announcements about price increases were by prearrangement rotated among sellers to give the false impression of mere price leadership.").

268. *Id.* at 310 (discussing liquid choline chloride cartel); MARSHALL & MARX, *supra* note 143, at 51-52 n.66 (discussing cartonboard cartel); *see* Leslie, *supra* note 4, at 1244-45 (discussing how price-fixing conspirators manipulate price increases to conceal their collusion).

thus, these must have been independent decisions.[269] If courts elevate simultaneity to the status of element, then they empower price-fixing cartels to escape liability through circumstantial evidence by simply agreeing to stagger their price increases or other collusive conduct.

Price-fixing conspirators are sophisticated business executives and managers who can craft their cartel operations to take advantage of antitrust opinions that penalize plaintiffs who lack evidence of market concentration, enforcement mechanisms, stable markets, intercompetitor communications, and simultaneous price increases. Indeed, several cartels are doing so already as cartel managers oscillate market shares[270] and stagger their price increases.[271] Price fixers conceal the indicia of collusion such as enforcement mechanisms[272] and intercompetitor communications.[273] When courts reward these efforts by preventing price-fixing claims from reaching juries, they encourage these acts of deception as well as the underlying price-fixing conspiracy.

B. Undermining the Goals of Antitrust Law

Treating certain plus factors as elements makes it harder for valid price-fixing claims to reach juries. Judges are more likely to grant summary judgment to defendants who have actually colluded in violation of antitrust laws. This prevents the antitrust regime from achieving its fundamental goals: compensation, deterrence, and disgorgement.

Successful antitrust plaintiffs are entitled to mandatory treble damages.[274] Congress required that damages be tripled in order to "compensate victims of antitrust violations for their injuries."[275]

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269. CONNOR, *supra* note 97, at 281 ("Then after the anointed 'price leader' announced the new list prices, the others would pretend to follow an increase that had been preordained eight months earlier.").

270. *See supra* Part III.C.

271. *See supra* Part III.E.

272. *See supra* Part III.B.

273. *See supra* Part III.D.

274. 15 U.S.C. § 15(a).

275. Ill. Brick Co. v. Illinois, 431 U.S. 720, 746 (1977) (citing Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc., 429 U.S. 477, 485-86 (1977)).

Treble damages were unique when adopted,[276] but Congress fashioned "the treble-damages cause of action ... primarily to enable an injured competitor to gain compensation for that injury."[277] If courts create an impossible-to-satisfy element for price-fixing claims, then most antitrust plaintiffs will not be able to hold price fixers accountable and will be denied compensation for the cartel overcharges that they paid.

Congress also intended private antitrust lawsuits to deter illegal price-fixing activity. The Supreme Court has explained that "[t]he treble-damages provision wielded by the private litigant is a chief tool in the antitrust enforcement scheme, posing a crucial deterrent to potential violators."[278] Price fixing is a business decision. If the expected costs outweigh the expected benefits, rational executives will not collude in violation of antitrust laws. When executives anticipate price fixing to be extremely profitable while antitrust liability is improbable, profit-maximizing firms are more likely to conclude that price fixing is cost-beneficial. When courts treat plus factors as elements, they increase the expected profitability of price fixing. This undermines cartel deterrence.

Private antitrust lawsuits are also intended to disgorge the conspirators' ill-gotten gains. By decreasing the expected benefits of price fixing, disgorgement makes participation in a price-fixing conspiracy appear less attractive.[279] In contrast, if price-fixing conspirators are able to retain their ill-gotten gains, which for a single cartel can measure in the hundreds of millions of dollars, price fixing may be profitable even if the conspirators are caught. Absent complete

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276. Mitsubishi Motors Corp. v. Soler Chrysler-Plymouth, Inc., 473 U.S. 614, 653 (1985) (Stevens, J., dissenting).

277. *Id.* at 635-36 (majority opinion).

278. *Id.* at 635 (citing Perma Life Mufflers, Inc. v. Int'l Parts Corp., 392 U.S. 134, 138-39 (1968)); *see also* Donald I. Baker, *Revisiting History-What Have We Learned About Private Antitrust Enforcement that We Would Recommend to Others?*, 16 LOY. CONSUMER L. REV. 379, 382 (2004) ("The core, modern rationale for *treble* damages must be deterrence."). To be sure, optimal deterrence is not perfect deterrence. The antitrust laws settled on treble damages as a compromise between underdeterrence and overdeterrence of antitrust violations. Michael K. Block & Joseph Gregory Sidak, *The Cost of Antitrust Deterrence: Why Not Hang a Price Fixer Now and Then?*, 68 GEO. L.J. 1131, 1132-37 (1980).

279. Christopher R. Leslie, *A Market-Based Approach to Coupon Settlements in Antitrust and Consumer Class Action Litigation*, 49 UCLA L. REV. 991, 1037 (2002) ("[D]isgorgement of ill-gotten gains should decrease the perceived benefits of violating the law by denying wrongdoers the fruits of their illegal conduct.").

disgorgement, price fixing may remain cost-beneficial and, thus, undeterred.[280] When courts improperly treat certain plus factors as elements, this increases the risk of false negatives and prevents disgorgement from actual price-fixing firms that are able to evade antitrust liability.

When plus factors are treated as elements, consumers are harmed as courts block price-fixing claims from reaching juries. In every one of the dozens of cases discussed in Part III—in which judges improperly treated a plus factor as though it were an element—the court dismissed, granted summary judgment, or affirmed a pro-defendant dispositive motions, which denied the antitrust plaintiffs their day in court.[281] Because direct evidence of illegal price fixing is rare,[282] converting plus factors into elements will make it practically impossible for most victims of illegal cartel overcharges to recover for their injuries. This prevents disgorgement and deterrence, making price fixing more attractive and, hence, more likely. Antitrust case law should make it harder for price fixers to escape liability, not harder for their victims to be compensated.

C. The Solution: Treat Plus Factors as Factors

Courts should not treat the absence of any specific plus factor as a failure of proof by the plaintiff. Plus factors are not elements. A plaintiff does not have to plead any particular plus factor or set of plus factors in order to survive a motion to dismiss or a motion for summary judgment. Plus factors are synergistic, not codependent.[283] For instance, the probative value of evidence showing a cartel monitoring mechanism increases when the plaintiff also demonstrates the presence of a penalty mechanism.[284] But the absence of evidence of a penalty mechanism does not deprive the evidence of a monitoring mechanism of any probative value.

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280. Christopher R. Leslie, *De Facto Detrebling: The Rush to Settlement in Antitrust Class Action Litigation*, 50 ARIZ. L. REV. 1009, 1016 (2008); *see id.* at 1040 ("Absent disgorgement, deterrence suffers.").

281. *See supra* Part III.

282. *See* Leslie, *supra* note 4, at 1199.

283. Leslie, *supra* note 15, at 1619-23.

284. *Id.* at 1622.

When plaintiffs can proffer evidence of plus factors from across the various categories of plus factors, they should have a summary-judgment-resistant claim that could persuade a reasonable jury that the defendants have illegally conspired to restrain trade. But plaintiffs do not need to present plus factors from any particular—let alone every—category of plus factors. Because these are plus *factors*, not elements of the offense, no single plus factor is dispositive or necessary to a plaintiff's case.[285]

Appreciating the full panoply of plus factors demonstrates why some common plus factors need not always be present in order for a plaintiff's evidence to be sufficient to create a reasonable inference that the defendants colluded. Plus factors may be categorized as serving particular functions. Some plus factors are relevant to cartel susceptibility, others to cartel formation, management, and enforcement.[286] Some plus factors are cartel markers, market behavior that is more consistent with collusion than competition.[287] Suspicious statements, short of confession or admission, are also plus factors.[288] Finally, some plus factors, such as the defendants' price-fixing activities in foreign jurisdictions, fall into multiple categories because they show that the product is susceptible to cartelization and that the defendants have solved the problems of how to start, run, and enforce a price-fixing cartel.[289]

Although there are multiple categories of plus factors, antitrust plaintiffs need not present plus factors from each category, let alone a particular plus factor from a particular category. For example, even in the absence of plus factors showing that a market is susceptible to price collusion (for example, a concentrated market), if the market nonetheless shows signs of collusion (for example, suspicious intercompetitor communications followed by parallel price increases unrelated to costs) and the defendants are engaging in

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285. *See In re* High Fructose Corn Syrup Antitrust Litig., 295 F.3d 651, 655 (7th Cir. 2002); Valspar Corp. v. E.I. Du Pont De Nemours & Co., 873 F.3d 185, 206-07 (3d Cir. 2017) (Stengel, C.J., dissenting).

286. Leslie, *supra* note 15, at 1588-1603.

287. *See id.* at 1603-09.

288. *See id.* at 1609-13.

289. *See id.* at 1613-18. *See generally* Christopher R. Leslie, *Foreign Price-Fixing Conspiracies*, 67 DUKE L.J. 557 (2017) (explaining why defendants' price-fixing activities in other jurisdictions are probative of price fixing in the United States).

conduct that is commonly associated with price-fixing conspiracies (for example, intercompetitor sales that seemed designed to balance the books of an illegal conspiracy), then that is a complete circumstantial case for illegal collusion, especially when coupled with evidence of parallel price movements.

Factor tests are practical precisely because they can accommodate disparate fact patterns. Such flexibility is necessary for antitrust plaintiffs presenting a circumstantial case for collusion. Cartel managers conceal their collusion through myriad deceptions. Because the conspirators generally prevent the creation of direct evidence and control the scope and shape of circumstantial evidence, courts must afford some latitude to price-fixing plaintiffs who may have been illegally overcharged for goods and services.

The plus-factor framework is designed to be flexible in order to afford antitrust plaintiffs the necessary latitude to present their circumstantial evidence of collusion and have it read holistically.[290] Each factor is described separately, but it is analyzed holistically. And no single factor is required.[291] Treating plus factors as elements undermines the holistic nature of the plus-factor framework. Elements are examined in isolation in seriatim; factors are not.[292] Rigid requirements present loopholes that price-fixing conspirators will exploit to structure their collusion in a manner that effectively raises prices while evading antitrust liability by not triggering one or more plus factor "elements."

CONCLUSION

Plus factors are not elements; they are not burdens that antitrust plaintiffs must satisfy. Both components of the name "plus factors" indicate their nonelement status: the word "factors" indicates that they are not elements, and the word "plus" indicates that each factor is an additional piece of evidence that can help make the plaintiff's circumstantial case for collusion. The plus-factor framework is designed to facilitate the use of circumstantial evidence to

290. Cont'l Ore Co. v. Union Carbide & Carbon Corp., 370 U.S. 690, 699 (1962); Leslie, *supra* note 15, at 1581.

291. Clermont, *supra* note 1, at 775.

292. *Id.*

prove that the defendants colluded to raise price, reduce output, or otherwise reduce competition. When plaintiffs try to prove a collusive agreement through circumstantial evidence, courts should focus on the plus factors that are present, not elevate the absent plus factors to element status in an effort to dismiss an antitrust claim or to grant summary judgment to price-fixing defendants.

If antitrust law is to achieve its goals of deterring collusion, disgorging ill-gotten gains, and compensating the victims of illegal anticompetitive conspiracies, then judges must properly apply the plus-factor framework. Yet this Article shows how courts have come dangerously close to requiring that antitrust plaintiffs plead and prove specific plus factors. This approach surreptitiously transforms factors into elements in a manner that distorts the entire process of proving price fixing through circumstantial evidence. Despite the fact that plus factors are not elements, some judges support their decisions to grant summary judgment against price-fixing claims because the plaintiffs have not presented a specific plus factor. This is a mistake. When antitrust plaintiffs are prevented from presenting their price-fixing claims to a jury, America's antitrust enforcement regime suffers.

When courts improperly and unnecessarily increase an antitrust plaintiff's burden to survive summary judgment, they provide succor for price-fixing conspiracies. Judges should be ensuring that their decisions do not immunize price fixers from liability. At a minimum, courts should not interpret and apply antitrust law in a manner that renders illegal collusion cost-beneficial. This requires appreciating the distinction between factors and elements.