

A KNOWLEDGE THEORY OF TACIT AGREEMENT

WENTONG ZHENG*

A persistent puzzle in antitrust law is whether and when an unlawful agreement could arise from conduct or verbalized communications that fall short of an explicit agreement. While courts have found such tacit agreements to exist in idiosyncratic scenarios, they have failed to articulate a clear and consistent logic for such findings. This Article attempts to fill this gap by proposing a unified theory of tacit agreement. It defines a tacit agreement as an agreement formed by non-explicit communications that enable the alleged coconspirators to have constructive knowledge of one another's conspiratory intent. This approach to tacit agreement is more faithful to the conceptual integrity and the statutory meaning of the agreement requirement under the Sherman Act. More importantly, it provides a flexible yet consistent formula for determining tacit agreements. This formula could be applied to any factual scenarios, including conscious parallelism, parallel conduct preceded by suggestive communications, hub-and-spoke conspiracy, and facilitating practices.

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INTRODUCTION

Agreement figures prominently in antitrust law.¹ Section 1 of the Sherman Act prohibits “[e]very contract, combination . . . or conspiracy” in restraint of trade.² An essential element of a Section 1 violation is an agreement among two or more firms to engage in anticompetitive conduct.³ Section 2 of the Sherman Act condemns monopolization and attempts of monopolization, as well as “combin[ation] or conspir[acy]” to monopolize.⁴ As under Section 1, an agreement among two or more firms must be proved to sustain a challenge under the conspiracy portion of Section 2.⁵

Among all agreements, horizontal agreements among competitors, or “cartels,” are the “supreme evil of antitrust.”⁶ Particularly, “‘hard-core’ cartels,” such as “price-fixing, output restrictions, market-sharing[,] and bid-rigging” are considered a significant economic problem.⁷ Antitrust enforcement authorities around the world devote considerable resources and efforts to rooting out cartels, with punishments ranging from fines to criminal imprisonment.⁸ Cartels are also the subjects of high-profile civil cases filed by private plaintiffs, with settlements or verdicts often reaching hundreds of millions of dollars.⁹

While cartels have been the primary target of antitrust law, there is a great deal of uncertainty over what exactly constitutes an agreement. If one alleged coconspirator approached another and said, “I will raise my price if you raise yours,” and the other said “deal,” such an explicit exchange of

¹ See James A. Rahl, *Conspiracy and the Anti-Trust Laws*, 44 ILL. L. REV. 743, 744 (1950).

² 15 U.S.C. § 1 (2019). “‘The three quoted terms are understood to embrace a single concept,’ which is generally referred to as an agreement.” LOUIS KAPLOW, *COMPETITION POLICY AND PRICE FIXING* 70 (2013) (quoting 6 PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW* 16 (2d ed. 2003)).

³ See HERBERT HOVENKAMP, *FEDERAL ANTITRUST POLICY: THE LAW OF COMPETITION AND ITS PRACTICE* § 4.2 (4th ed. 2011).

⁴ 15 U.S.C. § 2 (2019).

⁵ See Rahl, *supra* note 1, at 748.

⁶ *Verizon Communications v. Law Offices of Curtis V. Trinko*, 540 U.S. 398, 408 (2004).

⁷ Brendan Sweeney, *The Role of Damages in Regulating Horizontal Price-Fixing: Comparing the Situation in the United States, Europe and Australia*, 30 MELBOURNE UNIV. L. REV. 837, 838 (2006).

⁸ See Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep’t of Justice Antitrust Div., *Glob. Antitrust Enf’t*, Address at the Georgetown Law Global Antitrust Enforcement Symposium (Sept. 26, 2007), (available at <https://www.justice.gov/atr/speech/global-antitrust-enforcement>). For an overview of cartels enforcement in the United States, see Vivek Ghosal & D. Daniel Sokol, *The Evolution of U.S. Cartel Enforcement*, 57 J. L. & ECON. S51 (2014).

⁹ For example, in July 2012, Visa, Inc., Mastercard, Inc., and some large banks agreed to pay six billion dollars to settle a price-fixing lawsuit filed by retailers. See Robin Sidel & Andrew R. Johnson, *Card Giants to Pay \$6 Billion*, WALL ST. J. (July 14, 2012), <https://www.wsj.com/articles/SB10001424052702303919504577525284273006706>.

assurances of common action is certainly an agreement.¹⁰ But what if the alleged coconspirators all said, “I will raise my price no matter whether you raise yours,” and then all of them raised their prices?¹¹ And what if the alleged coconspirators said nothing but followed one another in raising prices, thinking that everybody knew it would be in their best interests to raise prices?¹² In the latter two scenarios, if there is an agreement at all, it is reached only in a tacit manner.

But does the Sherman Act reach tacit agreements? If yes, how should such tacit agreements be ascertained? So far, courts have been ambivalent on these questions. The Supreme Court includes tacit agreements within the scope of agreements punishable under the Sherman Act,¹³ but it is not clear what the Court means by that.¹⁴ Courts have held that, at least in certain factual scenarios, a Sherman Act agreement could be formed by conduct or verbalized communications that fall short of explicit agreements.¹⁵ But courts have not been able to articulate a clear and consistent rationale for such findings, other than stating a general requirement that there be “direct or circumstantial evidence” that the alleged coconspirators had a “conscious commitment to a common scheme designed to achieve an unlawful purpose.”¹⁶

The uncertainty over tacit agreement in case law is compounded by divergent views of tacit agreement by legal scholars. Some scholars advocate recognition of explicit agreements only,¹⁷ some want to expand tacit agreements to include interdependent conduct,¹⁸ and some others propose definitions of tacit agreement based on whether the communication at issue confers benefits on third parties.¹⁹ One fundamental problem with all of these approaches, however, is that they ignore the alleged coconspirators’ conspiratory intent, which is at the core of the Sherman Act’s agreement requirement.

The Article proposes a new approach to tacit agreement. It defines a tacit agreement as an agreement formed by non-explicit communications,

¹⁰ Cf. HOVENKAMP, *supra* note 3, § 5.4a2.

¹¹ This is essentially the fact pattern in *United States v. Foley*, 598 F.2d 1323 (4th Cir. 1979). For more discussions of *Foley*, see *infra* Part I.C.1.

¹² This is the problem of “conscious parallelism,” or “a common reaction of firms in a concentrated market that recognize their shared economic interests and their interdependence with respect to price and output decisions” *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 553–54 (2007).

¹³ See *Bell Atlantic Corp. v. Twombly*, 550 U.S. at 553 (“[T]he crucial question is whether the challenged anticompetitive conduct stems from independent decision or from an agreement, *tacit* or express.” (internal citations omitted) (emphasis added).

¹⁴ See *infra* notes 47–50 and accompanying text.

¹⁵ See *infra* Part I.C.

¹⁶ *Monsanto Co. v. Spray-Rite Serv. Corp.*, 465 U.S. 752, 768 (1984).

¹⁷ This Article refers to this approach as the minimalist approach. See *infra* Part II.A.

¹⁸ This is the expansive approach, advocated primarily by Judge Richard Posner and Louis Kaplow. See *infra* Part II.B.

¹⁹ This middle-ground approach recognizes the concept of tacit agreement but attempts to limit it to certain special scenarios. See *infra* Part II.C.

including both actions and non-explicit verbalized communications, that enable coconspirators to have constructive knowledge of one another's conspiratory intent. Under this "knowledge" theory, proof of coconspirators' constructive knowledge of one another's conspiratory intent comes from proof of what a reasonable person would have known from the non-explicit communication at issue. If the circumstances of the non-explicit communication, including its content, timing, place, and manner, are of such a nature that a reasonable person would conclude that the communication is made to convey the sender's conspiratory intent and has a reasonable likelihood of reaching the targeted recipient, then the recipient of the communication would be considered to have constructive knowledge of the sender's conspiratory intent, irrespective of what the recipient actually knows.²⁰ This approach to tacit agreement is more faithful to the conceptual integrity and the statutory meaning of the agreement requirement under the Sherman Act. More importantly, it provides a flexible, yet consistent, formula for determining tacit agreements that could be applied to any factual scenario.

This Article proceeds as follows. Part I surveys the current state of case law on unlawful agreements and pays particular attention to factual scenarios that courts have held may give rise to a tacit agreement. Part II discusses the existing approaches to tacit agreement and their shortcomings. Part III lays out the knowledge theory of tacit agreement and explains why it is superior to the existing approaches. Part IV applies the knowledge theory to four highly contested legal issues: conscious parallelism, parallel conduct preceded by suggestive communications, hub-and-spoke conspiracy, and facilitating practices.

I. AGREEMENT IN ANTITRUST LAW

While the existence of an agreement is a central requirement under the Sherman Act, it is by no means easy to determine when an agreement arises. Courts generally define an agreement as "a unity of purpose, a common design and understanding, a meeting of the minds, or a conscious commitment to a common scheme."²¹ But courts have been ambivalent on the forms such an agreement could take. This Part briefly describes three kinds of agreements that have been recognized by courts: explicit agreement, inferred explicit agreement, and tacit agreement.

²⁰ See *infra* Part III.

²¹ *Am. Tobacco Co. v. United States*, 328 U.S. 781, 810 (1946); see also *Copperweld Corp. v. Indep. Tube Corp.*, 467 U.S. 752, 771 (1984); *W. Penn Allegheny Health Sys., Inc. v. UPMC*, 627 F.3d 85, 99 (3d Cir. 2010).

A. Explicit Agreement

An easy case in which to find an agreement is when the alleged facts fit the traditional notion of an explicit agreement, namely, an agreement in which “the defendants got together and exchanged assurances of common action.”²² In *United States v. Socony-Vacuum Oil Co., Inc.*, for example, the defendant oil producers entered into an “informal gentlemen’s agreement or understanding whereby each undertook to perform his share of the joint undertaking” to effectuate an increase in spot and retail gasoline prices.²³ It is generally accepted that explicit agreements like this are sufficient for Sherman Act purposes.²⁴

B. Inferred Explicit Agreement

Beyond the immediate confine of explicit agreements, courts have also inferred agreements from indirect, circumstantial evidence of concerted action.²⁵ This approach is made necessary by the secret nature of illegal agreements, the evidence of which is often not obtainable.²⁶ Whether an agreement could be inferred from circumstantial evidence turns on whether there are plausible explanations for defendants’ conduct other than an agreement.²⁷ In cases involving inferred explicit agreements, the hurdle facing plaintiffs is evidentiary, not conceptual, because these cases still allege the existence of an explicit, albeit unknown, agreement.²⁸

The Supreme Court appeared to suggest in an early case that agreements reachable under the Sherman Act might go beyond explicit and inferred explicit agreements. In *American Tobacco Co. v. United States*, the Supreme Court held that a jury could have reasonably found that three major tobacco producers conspired to fix prices based on evidence of the tobacco

²² PHILIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW: AN ANALYSIS OF ANTI-TRUST PRINCIPLES AND THEIR APPLICATION* ¶ 1434b (4th ed. 2018).

²³ 310 U.S. 150, 179 (1940).

²⁴ See George A. Hay, *Horizontal Agreements: Concept and Proof*, 51 *ANTITRUST BULL.* 877, 881 (2006).

²⁵ See Randall David Marks, *Can Conspiracy Theory Solve the “Oligopoly Problem”?*, 45 *MD. L. REV.* 387, 413–18 (1986). For example, in *C-O-Two Fire Equipment Co. v. United States*, the Ninth Circuit inferred an agreement from circumstantial evidence pointing to the existence of a conspiracy among defendants to fix prices of fire extinguishers. See 197 F.2d 489, 493–97 (9th Cir. 1952). Such evidence included “meetings among the defendants . . . standardization of a product that is not naturally standardized, industry-wide resale price maintenance, identical sealed bids from all four companies on at least two occasions, an attempt by one firm to withdraw a mistaken bid that was slightly lower than those of its rivals, uniform delivered pricing, and price increase despite a surplus of extinguishers on the market.” Marks, *supra* at 414 (internal citations omitted).

²⁶ See *Alaska Elec. Pension Fund v. Bank of Am. Corp.*, 175 F.Supp.3d 44, 54 (S.D.N.Y. Mar. 28, 2016) (“[C]oncrete, ‘smoking gun’ proof of an illegal conspiracy between sophisticated actors ‘can be hard to come by, especially at the pleadings stage.’”) (internal citation omitted).

²⁷ See Hay, *supra* note 24, at 883.

²⁸ See Marks, *supra* note 25, at 418.

producers' parallel business conduct.²⁹ Noting that the alleged conspiracy was proved "from the evidence of the action taken in concert by the parties to it," the Court declared that "[t]he essential combination or conspiracy in violation of the Sherman Act may be found in a course of dealings or other circumstances . . ."³⁰

While the language used by the Court in *American Tobacco* suggests that parallel conduct itself may constitute an agreement under the Sherman Act, the facts and circumstances of the case make it more likely that the Court only meant to say that parallel conduct could be evidence from which to infer an explicit agreement.³¹ The schemes the *American Tobacco* defendants established to avoid competition were so elaborate that it is inconceivable that they came about without an explicit agreement, even though direct evidence of the explicit agreement was not available.³² Thus, the peculiar facts in *American Tobacco* would still put the case in the category of inferred explicit agreements.³³

The Supreme Court has repeatedly clarified in subsequent cases that parallel conduct alone does not conclusively establish an agreement under the Sherman Act. In *Theatre Enterprises, Inc. v. Paramount Film Distributing Corp.*, decided eight years after *American Tobacco*, the Court rebuffed a plaintiff's efforts to win a directed verdict against the defendants based on evidence of conscious uniformity of action by the defendants.³⁴ The Court

²⁹ See 328 U.S. 781, 798–811 (1946). The jury found that the defendants conspired to fix prices in the purchase of raw materials and in the sale of finished products. See *id.* at 798. In upholding the jury verdict, the Court cited evidence of highly uniform conduct among the defendants, including their refusal to purchase tobacco on new tobacco markets unless all of the defendants were represented, their bidding the price of tobacco up to a uniform level, their identical list prices and discounts over a period of years, their selling of some brands at a loss to exclude cheaper competition, followed by price rises, and the declining market shares of the leaders. See *id.* at 798–811.

³⁰ *Id.* at 809–10.

³¹ Under this interpretation, when the Court said that an agreement may be "found in a course of dealings," the Court meant that a course of dealings could be evidence of a hidden explicit agreement, not that the course of dealings itself constitutes an agreement. See generally *id.*

³² See Marks, *supra* note 25, at 403 ("[T]he economic evidence of parallel behavior offered in *American Tobacco* almost shouted the presence of hidden collusive conduct.") (internal citation omitted). Donald Turner believed that the parallel conduct in *American Tobacco* "might well arise in an oligopoly situation . . . without overt communication or agreement, but solely through a rational calculation by each seller of what the consequences of his price decision would be, taking into account the probable or virtually certain reactions of his competitors." Donald F. Turner, *The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusals to Deal*, 75 HARV. L. REV. 655, 661 (1962) (internal citation omitted).

³³ Eugene Rostow would infer an agreement not only from the parallel conduct of the defendants in *American Tobacco*, but also from the monopoly position of those defendants alone. See Eugene V. Rostow, *The New Sherman Act: A Positive Instrument of Progress*, 14 U. CHI. L. REV. 567, 585 (1947) ("When three companies produce so large a percentage of market supply, that fact alone is almost sufficient evidence that the statute is violated.")

³⁴ *Theatre Enter., Inc. v. Paramount Film Distrib. Corp.*, 346 U.S. 537, 540–42 (1954). The plaintiff alleged a conspiracy among defendant motion picture producer-distributors to "restrict first-run pictures to downtown Baltimore theatres" and thus confine the plaintiff's

stated that it had “never held that proof of parallel business behavior conclusively establishes agreement or, phrased differently, that such behavior itself constitutes a Sherman Act offense.”³⁵ Instead, the Court held that “[c]ircumstantial evidence of consciously parallel behavior may have made heavy inroads into the traditional judicial attitude toward conspiracy; but ‘conscious parallelism’ has not yet read conspiracy out of the Sherman Act entirely.”³⁶ Subsequently, in *Matsushita Electrical Industrial Co., Ltd. v. Zenith Radio Corp.*, the Court held that evidence of parallel conduct alone would not survive a defendant’s motion for summary judgment or for a directed verdict.³⁷ Most recently, in *Bell Atlantic Corp. v. Twombly*, the Court went a step further by holding that an allegation of parallel business conduct and a bare assertion of conspiracy alone would not even survive a defendant’s motion to dismiss for failure to state a claim under Section 1 of the Sherman Act.³⁸ In so holding, the Court emphasized that “‘conscious parallelism,’ a common reaction of ‘firms in a concentrated market that recognize their shared economic interests and their interdependence with respect to price and output decisions’ is ‘not in itself unlawful.’”³⁹

The Supreme Court’s reluctance to treat conscious parallelism as agreement stems in no small part from Donald Turner’s widely accepted views on oligopolistic behavior.⁴⁰ In an influential article,⁴¹ Turner argues that identical pricing behavior “might well arise in an ‘oligopoly’ situation (i.e., where sellers are few) without overt communication or agreement, but solely through a rational calculation by each seller of what the consequences of his price decision would be, taking into account the probable or virtually certain reactions of his competitors.”⁴² To Turner, this type of interdependent pricing could be deemed a type of collusion, if “considered purely as a problem in linguistic definition.”⁴³ But since “the rational oligopolist is behaving in ex-

theater to subsequent-run status. *Id.* at 538. There was no direct evidence of an illegal agreement among the defendants; instead, defendants acted independently of each other in denying the plaintiff’s request. *See id.* 539–40.

³⁵ *Id.* at 541.

³⁶ *Id.* *Theatre Enterprises* and *American Tobacco* could be reconciled by their different procedural postures. The Court in *Theatre Enterprises* held that evidence of parallel conduct alone would not prevent the case from going to the jury, but it did not hold that a jury could not infer an agreement from evidence of parallel conduct alone. *See Turner, supra* note 33, at 657.

³⁷ *See* 475 U.S. 574, 588 (1986) (“To survive a motion for summary judgment or for a directed verdict, a plaintiff seeking damages for a violation of § 1 must present evidence ‘that tends to exclude the possibility’ that the alleged conspirators acted independently.”).

³⁸ *See* 550 U.S. 544, 556 (2007).

³⁹ *Id.* at 553–54.

⁴⁰ In *Twombly*, the Court cited Turner’s work as support for its holding that conscious parallelism is not in itself unlawful. *See id.* at 554.

⁴¹ *See Turner, supra* note 32.

⁴² *Id.* at 661.

⁴³ *Id.* at 665. Economists refer to this type of interdependent pricing as “tacit collusion.” *See* EDWARD J. GREEN, ROBERT C. MARSHALL & LESLIE M. MARX, *Tacit Collusion in Oligopoly*, in 2 THE OXFORD HANDBOOK OF INTERNATIONAL ANTITRUST ECONOMICS 464, 493 (Roger D. Blair & D. Daniel Sokol eds., 2015) (internal citation omitted).

actly the same way as the rational seller in a competitively structured industry,” oligopolistic behavior “can be described as individual behavior—rational individual decision in the light of relevant economic facts—as well as it can be described as ‘agreement.’”⁴⁴

C. Tacit Agreement

If conscious parallelism does not constitute an agreement under the Sherman Act, is there any conduct that would constitute an agreement and yet fall short of an explicit or inferred explicit agreement? The Supreme Court appears to believe that such conduct exists. In *Twombly*, the Court stated that “the crucial question is whether the challenged anticompetitive conduct stems from independent decision or from an agreement, *tacit* or *express*.”⁴⁵ The Court’s inclusion of “tacit agreement” within the scope of agreement under the Sherman Act, in a sentence right before the one in which it declared that conscious parallelism is not an agreement,⁴⁶ has caused a great amount of angst among jurists.⁴⁷ Judge Cecilia Altonaga believes that the Court’s reference to tacit agreement in *Twombly* was inconsistent with the rest of the opinion and was, therefore, a mistake.⁴⁸ In her opinion, by “tacit agreement,” the Court meant conscious parallelism.⁴⁹

But case law indicates that the Court may not have been mistaken in referring to tacit agreement in *Twombly*. In at least three factual scenarios, courts have held that certain conduct could constitute an agreement even though it does not establish an explicit agreement.⁵⁰ These three factual scenarios involve parallel conduct preceded by suggestive communications, hub-and-spoke conspiracy, and parallel conduct with facilitating practices, respectively.

1. Parallel Conduct Preceded by Suggestive Communications

One factual scenario that may give rise to a tacit agreement under case law is when parallel conduct by rivals is preceded by suggestive communi-

⁴⁴ Turner, *supra* note 32, at 665–66.

⁴⁵ Bell Atl. Corp. v. Twombly, 550 U.S. 544, 553 (2007) (internal citation omitted) (emphasis added).

⁴⁶ In the next sentence, the Court stated: “While a showing of parallel business behavior is admissible circumstantial evidence from which the fact finder may infer agreement, it falls short of conclusively establishing agreement or itself constituting a Sherman Act offense.” *Id.* (internal citation omitted).

⁴⁷ See, e.g., E.I. du Pont de Nemours & Co. v. Fed. Trade Comm’n, 729 F.2d 128, 143 (2d Cir. 1984) (Lumbard, J., concurring) (“[T]hat accommodating word, ‘tacit,’ . . . has created a hole in the agreement requirement large enough at times to swallow it entirely.”).

⁴⁸ See *In re Florida Cement & Concrete Antitrust Litig.*, 746 F. Supp. 2d 1291, 1308–09 n.13 (S.D. Fla. 2010).

⁴⁹ See *id.*

⁵⁰ See *infra* Part I.C.

cations that do not themselves form an explicit agreement. In *Esco Corp. v. United States*, the Ninth Circuit described one such scenario:

Let us suppose five competitors meet on several occasions, discuss their problems, and one finally states—“I won’t fix prices with any of you, but here is what I am going to do—put the price of my gadget at X dollars; now you all do what you want.” He then leaves the meeting. Competitor number two says—“I don’t care whether number one does what he says he’s going to do or not; nor do I care what the rest of you do, but I am going to price my gadget at X dollars.” Number three makes a similar statement—“My price is X dollars.” Number four says not one word. All leave and fix their prices at “X” dollars.⁵¹

According to the Ninth Circuit, this scenario presents sufficient evidence for a jury to find a conspiracy.⁵² The court stated that written or oral assurances are unnecessary for a Sherman Act agreement “if a course of conduct, or a price schedule, once suggested or outlined by a competitor in the presence of other competitors, is followed by all—generally and customarily—and continuously for all practical purposes, even though there be slight variations.”⁵³

In *United States v. Foley*,⁵⁴ the Fourth Circuit was confronted with essentially the same scenario as the one described in *Esco*. In *Foley*, six corporate and three individual defendants were accused of conspiracy to fix real estate commissions.⁵⁵ The defendants wanted to raise their commission rate from six to seven percent, but a previous attempt by one of them failed because of competition.⁵⁶ Then, one defendant, Mr. Foley, hosted a dinner attended by those he regarded as the most active members of his profession.⁵⁷ The court described what happened at the dinner, and afterwards, as follows:

At the dinner Foley rose, made some prefatory remarks and then stated that his firm was in dire financial condition. Saying that he did not care what the others did, he then announced that his firm was changing its commission rate from six percent to seven percent. Testimony about what was said by various persons in the ensuing discussion is greatly in conflict, but there was evidence

⁵¹ 340 F.2d 1000, 1007 (9th Cir. 1965).

⁵² *Id.* (“We do not say the foregoing illustration *compels* an inference in this case that the competitors’ conduct constituted a price-fixing conspiracy, *including an agreement to so conspire*, but neither can we say, as a matter of law, that an inference of no agreement is compelled.”) (emphasis added).

⁵³ *See id.* at 1008.

⁵⁴ 598 F.2d 1323 (4th Cir. 1979).

⁵⁵ *See id.* at 1326.

⁵⁶ *See id.* at 1331–32.

⁵⁷ *See id.* at 1332.

from which the jury could find that each of the individual defendants and a representative of each corporate defendant not represented by one of the individual defendants expressed an intention or gave the impression that his firm would adopt a similar change. The discussion also included reference to the earlier unsuccessful effort by [one defendant] to adopt a seven percent policy, from which the jury could conclude that defendants knew that their cooperation was essential. Evidence . . . showed that in the months following each defendant did in fact begin to take substantial numbers of seven percent listings. Moreover, the jury heard testimony of a number of instances in which members of the conspiracy sought after the September 5 dinner to hold their fellows to the "agreement."⁵⁸

This sequence of events, according to the Fourth Circuit, was sufficient for a jury to find a conspiracy among the defendants.⁵⁹

In *Brown v. Pro Football, Inc.*, the Supreme Court characterized *Foley* as a case where antitrust liability is premised upon "little more than uniform behavior among competitors, preceded by conversations implying that later uniformity might prove desirable."⁶⁰ Although the Court did not use the term "tacit agreement" in describing *Foley*, it appears that the Court recognized that *Foley* involves an agreement formed by conduct, not an explicit or inferred explicit agreement.⁶¹

2. Hub-and-Spoke Conspiracy

A second factual scenario in which courts have found an agreement formed by conduct involves an agreement among a group of competitors that respond "in an identical fashion to a demand by a party standing in a vertical relationship to them."⁶² In *Interstate Circuit, Inc. v. United States*, the Supreme Court held that a group of motion picture distributors entered into a conspiracy among themselves when members of the group independently complied with demands by defendant first-run movie theater groups for restrictions on licenses for subsequent-run theaters.⁶³ The letter sent to each defendant distributor in which the demands were made listed all defendant distributors as addressees.⁶⁴ The Court held that the district court's inference of an explicit agreement among the defendant distributors was supported by

⁵⁸ *Id.*

⁵⁹ *Id.* at 1331 ("Our review of the evidence leads to the conclusion that under applicable standards of review the evidence was sufficient to sustain the jury findings on these issues.").

⁶⁰ 518 U.S. 231, 241 (1996).

⁶¹ The Court appeared to suggest that the later uniform conduct completed an agreement initiated by the earlier suggestive conversations. *See generally id.*

⁶² Turner, *supra* note 32, at 695.

⁶³ *See* 306 U.S. 208, 221 (1939).

⁶⁴ *See id.* at 215-17.

evidence on the record.⁶⁵ But the Court went on to state that “in the circumstances of this case [an alleged explicit] agreement for the imposition of the restrictions upon subsequent-run exhibitors was not a prerequisite to an unlawful conspiracy.”⁶⁶ To the Court, “[i]t was enough that, knowing that concerted action was contemplated and invited, the distributors gave their adherence to the scheme and participated in it.”⁶⁷ The Court emphasized that “[e]ach distributor was advised that the others were asked to participate; each knew that coöperation was essential to successful operation of the plan.”⁶⁸ The Court concluded that “[a]cceptance by competitors, without previous agreement, of an invitation to participate in a plan, the necessary consequence of which, if carried out, is restraint of interstate commerce, is sufficient to establish an unlawful conspiracy under the Sherman Act.”⁶⁹

The Court’s dictum in *Interstate Circuit* describes what is often referred to as a “hub-and-spoke” conspiracy.⁷⁰ Under such a conspiracy, a firm (the hub) organizes a horizontal agreement (the rim) among upstream or downstream firms through a series of vertical agreements (the spokes).⁷¹ The upstream or downstream firms never communicate directly with one another, but they are nonetheless considered to have established a tacit agreement among themselves when the vertical agreements “coordinate the interdependent responses of the rivals by providing strategic information that each recipient knows its rivals are also receiving.”⁷² Since *Interstate Circuit*, courts have reaffirmed the notion of hub-and-spoke conspiracy in cases.⁷³

The Court was unequivocal that the agreement found in *Interstate Circuit* went beyond the traditional explicit or inferred explicit agreement. In addition to stating that an alleged explicit agreement was “not a prerequisite

⁶⁵ See *id.* at 221 (noting that the evidence from which the district court inferred an agreement included the nature of the proposals made by the defendant first-run movie theater groups, the manner in which the proposals were made, the uniformity of the action by the defendant distributors, and the fact that the distributors did not call as witnesses any executives who negotiated with the defendant first-run movie theater groups and would have known the existence or non-existence of such an agreement among distributors).

⁶⁶ *Id.* at 226.

⁶⁷ *Id.*

⁶⁸ *Id.*

⁶⁹ *Id.* at 227.

⁷⁰ See Barak Orbach, *Hub-and-Spoke Conspiracies*, ANTITRUST SOURCE 1 (Apr. 2016), https://www.americanbar.org/content/dam/aba/publishing/antitrust_source/apr16_orbach_4_11f.pdf (describing hub-and-spoke conspiracies).

⁷¹ See William H. Page, *Tacit Agreement Under Section 1 of the Sherman Act*, 81 ANTI-TRUST L.J. 593, 624 (2017).

⁷² *Id.*

⁷³ See, e.g., *United States v. Masonite Corp.*, 316 U.S. 265, 276 (1942) (finding that a price-fixing conspiracy was established by a series of vertical agency agreements in which a patentee licensed rival manufacturers to distribute its products at prices set by the patentee); *Toys “R” US, Inc. v. Fed. Trade Comm’n*, 221 F.3d 928, 936 (7th Cir. 2000) (finding that manufacturers formed a horizontal agreement by acceding to a dominant retailer’s demand to boycott retail warehouse clubs); *United States v. Apple, Inc.*, 791 F.3d 290, 316 (2d Cir. 2015) (finding that Apple orchestrated a conspiracy among e-book publishers to raise the retail price of e-books by entering into agency contracts with the publishers with a most-favored-nation clause).

to an unlawful conspiracy,” the Court in *Interstate Circuit* said that a conspiracy existed when competitors accepted an invitation, “without previous agreement,” to participate in an anticompetitive plan.⁷⁴ The Court’s inclusion of the phrase “without previous agreement” made it clear that the Court was not looking at the conduct at issue as evidence of a hidden explicit agreement.⁷⁵ Rather, the conduct itself constituted an agreement.

3. Parallel Conduct With Facilitating Practices

A third factual scenario where courts have attributed an agreement to conduct involves facilitating practices in oligopoly industries.⁷⁶ The concept of facilitating practices refers to “specific actions taken by firms to make coordination easier or more effective without the need for an explicit agreement.”⁷⁷ The need for facilitating practices arises when there are structural hurdles to effective coordination among competitors, such as non-standardized products⁷⁸ and non-transparent prices.⁷⁹ Actions taken to overcome these structural hurdles will facilitate effective coordination among competitors, making it unnecessary for competitors to enter into explicit price-fixing agreements. The most common facilitating practices include arrangements among competitors to exchange historic or future price information and pricing systems that facilitate collusive outcomes.⁸⁰

The adoption of facilitating practices by competitors could be pursuant to an explicit agreement. When this is the case, courts have held that such an agreement violates Section 1 of the Sherman Act.⁸¹ A more subtle question, however, is whether facilitating practices could allow inference of a tacit agreement from the underlying parallel conduct that facilitating practices make possible. For instance, if all competitors adopt a practice of publicly

⁷⁴ *Interstate Circuit, Inc. v. United States*, 306 U.S. 208, 226–27 (1939).

⁷⁵ *See id.*

⁷⁶ For general discussions of facilitating practices, see ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT [OECD], POLICY ROUNDTABLES: FACILITATING PRACTICES IN OLIGOPOLIES (2008), <https://www.oecd.org/daf/competition/41472165.pdf>.

⁷⁷ George A. Hay, *Facilitating Practices* 13 (Cornell Law Sch. Legal Studies Research Paper No. 05-029), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=811404.

⁷⁸ When products are not standardized, it will be more difficult for competitors to agree on a particular price for their products even if they want to agree. *See id.* at 14.

⁷⁹ When prices are not transparent, there will be incentives for individual members of a price-fixing cartel to cheat by offering a price that is slightly lower than the cartel price. *See id.* at 15.

⁸⁰ *See* OECD, *supra* note 76, at 9.

⁸¹ *See, e.g., Fed. Trade Comm’n v. Cement Inst.*, 333 U.S. 684 (1948) (holding that the defendants’ agreement to utilize a multiple basing point delivered price system was illegal under Section 1 of the Sherman Act); *Nat’l Macaroni Mfrs. Ass’n v. Fed. Trade Comm’n*, 345 F.2d 421 (7th Cir. 1965) (holding that an agreement among the dominant firms in the macaroni industry to fix composition of their product violated Section 1 of the Sherman Act); *United States v. Container Corp.*, 393 U.S. 333 (1969) (holding that an agreement between relatively few dominant sellers of corrugated containers to give to each other on request information about most recent price charged or quoted violated the Sherman Act).

announcing their price changes, could that constitute evidence of a tacit agreement among the competitors to fix price?

The Ninth Circuit tackled this question in the *Petroleum Products* case, a private treble damage action filed by several states against a group of major oil companies.⁸² Plaintiffs in that case alleged, among other things, that the defendant oil companies conspired to raise or stabilize prices for refined oil products in violation of Section 1 of the Sherman Act.⁸³ Among the evidence presented by plaintiffs as proof of the price-fixing conspiracy was evidence that the defendants were engaged in various practices whereby they disseminated information concerning their wholesale prices.⁸⁴ Plaintiffs argued that not only were these price dissemination practices themselves conspiratorially adopted, but they were probative of a conspiracy to fix or stabilize gasoline prices.⁸⁵ The Ninth Circuit agreed.⁸⁶ The court acknowledged that “mere proof of interdependent pricing, standing alone, may not serve as proof of an antitrust violation.”⁸⁷ But, according to the court, “the evidence concerning the purpose and effect of price announcements, when considered together with the evidence concerning the parallel pattern of price restorations, is sufficient to support a reasonable and permissible inference of an agreement, whether express or *tacit*, to raise or stabilize prices.”⁸⁸ This is so because “the public dissemination of such information served little purpose other than to facilitate interdependent or collusive price coordination.”⁸⁹ The court’s reference to tacit agreement suggested that facilitating practices, together with the parallel conduct they facilitate, might themselves constitute an agreement on the parallel conduct.⁹⁰

* * *

The foregoing analysis indicates that courts have recognized, in idiosyncratic situations, that a Sherman Act agreement could be formed by conduct or by non-explicit verbalized communications. However, courts have not been consistent in the language they have used to describe such an agree-

⁸² See generally *In re Coordinated Pretrial Proceedings in Petroleum Products Antitrust Litigation*, 906 F.2d 432 (9th Cir. 1990).

⁸³ See *id.* at 436.

⁸⁴ The defendants’ price dissemination practices included the practice of publicly announcing, in press releases, their decisions to withdraw dealer discounts and to restore official dealer prices, as well as the practice of publicly posting their official dealer prices and any applicable dealer discounts. See *id.* at 445, 449.

⁸⁵ See *id.* at 445.

⁸⁶ See *id.* at 445–50.

⁸⁷ *Id.* at 446.

⁸⁸ *Id.* at 446–47 (emphasis added).

⁸⁹ *Id.* at 448. The court held that it “conclusion would necessarily be different were the appellants’ inference of a price-fixing conspiracy based on the dissemination or advertisement of retail prices” *Id.* at 448 n.14 (emphasis in original).

⁹⁰ As George Hay points out, there are two agreements that need to be distinguished from one another: “[T]he court invoked the notion of agreement twice: the parties agreed (either implicitly or explicitly) to facilitate an agreement (explicit or tacit) on price.” Hay, *supra* note 77, at 20.

ment.⁹¹ The Supreme Court in *Twombly* included tacit agreement within the scope of agreement under the Sherman Act,⁹² but it appears that by tacit agreement, the Court really meant inferred explicit agreement.⁹³ In some other cases, the Court referred to the agreement at issue in *Interstate Circuit* as a tacit agreement.⁹⁴

In *White v. R.M. Packer Co.*, the First Circuit offered a definition of tacit agreement.⁹⁵ According to the First Circuit, a tacit agreement is “one in which only the conspirators’ actions, and not any express communications, indicate the existence of an agreement.”⁹⁶ But even this relatively concise definition is ambiguous. On one hand, it could mean that a tacit agreement is an explicit agreement whose existence is inferred from the defendants’ conduct. On the other hand, it could also mean that the defendants’ conduct itself constitutes a tacit agreement. Frustrated with the ambiguity of the term, some commentators choose not to use the term at all.⁹⁷

II. EXISTING APPROACHES TO TACIT AGREEMENT

As discussed above, in addition to explicit agreements, courts recognize agreements formed by conduct or non-explicit verbalized communications. Whether courts should call this kind of agreement “tacit agreement” is a question of semantics, not a question of substance. The substantive question is where to draw the line between conduct or non-verbalized communications that form a tacit agreement and conduct or non-verbalized communications that do not. This Part reviews three existing approaches to this

⁹¹ See KAPLOW, *supra* note 2, at 45 (“Many, including the U.S. Supreme Court in both earlier decisions and its most recent . . . state that tacit agreements are sufficient, yet it is hard to know what to make of these proclamations given the great ambiguity of the terms.”).

⁹² *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 553 (2007) (“[T]he crucial question is whether the challenged anticompetitive conduct stems from independent decision or from an agreement, *tacit* or express.”) (internal citations omitted) (emphasis added).

⁹³ In *Twombly*, the Court stated that “when allegations of parallel conduct are set out in order to make a § 1 claim, they must be placed in a context that raises a suggestion of a *preceding agreement*, not merely parallel conduct that could just as well be independent action.” *Id.* at 557 (emphasis added). The reference to “preceding agreement” here indicates that the Court was looking at parallel conduct as evidence from which the existence of an explicit agreement could be inferred.

⁹⁴ See, e.g., *First Nat’l Bank of Ariz. v. Cities Serv. Co.*, 391 U.S. 253, 287 (1968) (“This Court held [in *Interstate Circuit*] that on the foregoing facts a tacit agreement to restrain competition between the distributors could properly be inferred.”); *United States v. Citizens and S. Nat’l Bank*, 422 U.S. 86, 112 (1975) (citing *Interstate Circuit* as support for an allegation of a tacit agreement).

⁹⁵ See generally 635 F.3d 571, 576 (1st Cir. 2011). In *White*, several gasoline retailers on Martha’s Vineyard were sued for illegal price-fixing. *Id.* at 574–75. The district court granted the defendants’ summary judgment because plaintiffs only presented evidence of parallel pricing, which the court considered legal absent an agreement to fix prices. See *id.* at 575. The First Circuit affirmed. See *id.* at 590.

⁹⁶ *Id.* at 576.

⁹⁷ See, e.g., Gregory J. Werden, *Economic Evidence on the Existence of Collusion: Reconciling Antitrust Law with Oligopoly Theory*, 71 ANTITRUST L.J. 719, 736 (2004) (“In the interest of clarity, the descriptors ‘tacit,’ ‘express,’ and ‘explicit’ all are avoided.”).

question. The first approach refuses to treat tacit agreement as an agreement at all. The second approach takes an expansive view of agreement and equates essentially all interdependent conduct with tacit agreement. The third approach seeks a middle ground by recognizing the concept of tacit agreement, yet limiting it to certain special scenarios. As will be discussed below, one common flaw of all three approaches is that they do not base the existence of an agreement on the conspiratory intent of the alleged conspirators.

A. *The Minimalist Approach*

One approach to tacit agreement is to not treat it as an illegal agreement at all. Robert Bork holds a representative view of this approach and advocates limiting the illegal agreement punishable under the Sherman Act to cases of “explicit and detectable agreement.”⁹⁸

Bork’s objection to the notion of tacit agreement is in large part driven by his perception that such agreement rarely occurs. As George Stigler eloquently demonstrated, a price-fixing cartel needs to overcome many hurdles to accomplish a stable conspiracy.⁹⁹ Members of the conspiracy must agree on the price terms of the conspiracy and must devise a mechanism of detecting significant deviations from the agreed-upon price.¹⁰⁰ As a result, Bork is doubtful that “concerted action without explicit collusion is likely to be at all common or successful.”¹⁰¹

This minimalist approach to tacit agreement is in part predicated upon a utilitarian judgment that a conspiracy that will eventually collapse on its own is not worth the societal resources devoted to its eradication. But from a conceptual point of view, the fact that tacit agreement might be more unstable does not make it less of an agreement. Many explicit agreements are unstable and eventually fail, but that does not make them immune to attacks under the Sherman Act.¹⁰²

Furthermore, by rejecting the notion of tacit agreement altogether, the minimalist approach sidesteps inquiries into conspirators’ intent to enter into an agreement. Such inquiries, however, are the most crucial factor in ascer-

⁹⁸ ROBERT H. BORK, *THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF* 175 (1978). Bork, however, accepts the position that indirect or circumstantial evidence may be used to infer the existence of an explicit agreement. *See id.* (“There may be evidence of market behavior that is consistent only with collusion, and that may of course be used to show agreement.”).

⁹⁹ *See* George J. Stigler, *A Theory of Oligopoly*, 72 *J. POL. ECON.* 45–46 (1964).

¹⁰⁰ *See id.*

¹⁰¹ BORK, *supra* note 98, at 175. Similarly, Corwin Edwards is of the view that in industries involving a variety of products and pricing structures, parallel noncompetitive prices could not be successfully maintained without formal collusion. *See* CORWIN D. EDWARDS, *MAINTAINING COMPETITION: REQUISITES OF A GOVERNMENTAL POLICY* 33 (1949).

¹⁰² Stigler, *supra* note 99, at 46 (“The literature of collusive agreements . . . is replete with instances of the collapse of conspiracies because of ‘secret’ price-cutting.”).

taining agreement, as this Article will argue in Part III below.¹⁰³ If conspirators possess the requisite intent to enter into an agreement, but simply choose to effectuate the agreement through implicit conduct, it is not clear why they should be treated differently than if they effectuated the agreement through verbalized communications.¹⁰⁴ An agreement formed through an explicit exchange of assurances is conceptually indistinguishable from an agreement formed by a wink or nod.¹⁰⁵ And, similarly, pure conduct could constitute an acceptance of an offer under general contract law.¹⁰⁶ Theoretically, then, conduct could form an agreement in the same way as words do, provided that the conduct is carried out with conspiratory intent.¹⁰⁷

B. *The Expansive Approach*

A second approach to tacit agreement is to take an expansive view of agreement and include within its scope merely interdependent conduct. The chief proponent of this approach is Judge Richard Posner, who is generally critical of the interdependence theory of oligopoly pricing as espoused by Donald Turner.¹⁰⁸ Unlike Turner, who views interdependent pricing as an inevitable outcome of oligopolistic market structures,¹⁰⁹ Judge Posner believes that oligopoly is a necessary but not sufficient condition for interdependent pricing.¹¹⁰ According to Judge Posner, an oligopolist must “make a deliberate choice not to expand output to the point where the cost of the last unit of output equals the market price, or, if he is at that point, to reduce output.”¹¹¹ Moreover, if oligopolists decide to charge supracompetitive prices, they have to undertake costly efforts to overcome the problems of coordination and enforcement.¹¹² In proving the existence of collusive pricing, Posner emphasizes the use of “economic evidence”—evidence of market structure and conduct—instead of evidence of overt acts of collusion.¹¹³

¹⁰³ See *infra* Part III.

¹⁰⁴ See Rahl, *supra* note 1, at 759 (“So long as assent to joint participation is manifest it does not matter how it came about.”). Indeed, it might be argued that a tacit agreement formed by conduct should receive a harsher penalty than an explicit agreement because it is less likely to be detected due to its surreptitious nature. See Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968).

¹⁰⁵ See Page, *supra* note 71, at 606 (“[A]n agreement formed by the intentional use of a well-understood conventional signal like a nod can express assent and complete an agreement in the same way as words.”).

¹⁰⁶ See generally RESTATEMENT (SECOND) OF CONTRACTS § 53 (AM. LAW. INST. 1981).

¹⁰⁷ For detailed discussions of how conspiratory intent could be ascertained, see *infra* Part III.

¹⁰⁸ See RICHARD A. POSNER, *ANTITRUST LAW* 55–60 (2d ed. 2001).

¹⁰⁹ See *supra* notes 41–44 and accompanying text.

¹¹⁰ See Richard A. Posner, *Oligopoly and the Antitrust Laws: A Suggested Approach*, 21 STAN. L. REV. 1562, 1571 (1968).

¹¹¹ *Id.*

¹¹² See *id.* at 1572.

¹¹³ See POSNER, *supra* note 108, at 79.

If economic evidence supports a finding of collusion, Judge Posner believes that there is no legal or practical need to further inquire whether the collusion is explicit or tacit.¹¹⁴ The economic evidence could allow an inference of an explicit agreement.¹¹⁵ Or alternatively, it could show tacit collusion, formed by interdependent conduct.¹¹⁶ Judge Posner analogizes tacit agreement in this context to a unilateral contract: “If someone advertises in a newspaper that he will pay \$10 to the person who finds and returns his dog, anyone who meets the condition has an enforceable claim against him to the promised reward. The finder’s action in complying with the specified condition is all the indication of assent that the law requires for a binding contract.”¹¹⁷ By the same logic, for tacit collusion, “one seller communicates his ‘offer’ by restricting output, and the offer is ‘accepted’ by the actions of his rivals in restricting their outputs as well.”¹¹⁸ *In re High Fructose Corn Syrup Antitrust Litigation*, Judge Posner reiterated this theory of tacit agreement: “If a firm raises price in the expectation that its competitors will do likewise, and they do, the firm’s behavior can be conceptualized as the offer of a unilateral contract that the offerees accept by raising their prices.”¹¹⁹ However, Judge Posner acknowledged that this expansive view of tacit agreement is not supported by case law.¹²⁰

It is important to note that Judge Posner’s legal approach to tacit agreement is tantamount to treating interdependent conduct itself as a tacit agreement. Under this approach, anyone who takes certain action while expecting rivals to do the same is considered to possess the mental state required for an agreement. But an agreement exists in this context only in the “linguistic”¹²¹ or “metaphysical”¹²² sense. As this Article will argue below, the mental state required of a tacit agreement should be the same as that required of an ex-

¹¹⁴ See *id.* at 94.

¹¹⁵ See *In re High Fructose Corn Syrup Antitrust Litigation*, 295 F.3d 651, 654–55 (7th Cir. 2002).

¹¹⁶ See *id.* at 654 (“Section 1 of the Sherman Act . . . is broad enough . . . to encompass a purely tacit agreement to fix prices, that is, an agreement made without any actual communication among the parties to the agreement.”) (*citing* *JTC Petroleum Co. v. Piasa Motor Fuels, Inc.*, 190 F.3d 775, 780 (7th Cir. 1999)).

¹¹⁷ POSNER, *supra* note 108, at 94.

¹¹⁸ *Id.*

¹¹⁹ *High Fructose Corn Syrup*, 295 F.3d at 654.

¹²⁰ See *id.* (“Nevertheless it is generally believed . . . that an express, manifested agreement, and thus an agreement involving actual, verbalized communication, must be proved in order for a price-fixing conspiracy to be actionable under the Sherman Act.”).

¹²¹ See Turner, *supra* note 32, at 665 (“Considered purely as a problem in linguistic definition, there is no reason to exclude oligopolistic behavior from the scope of the term agreement simply because the circumstances make it possible to communicate without speech.”).

¹²² See George A. Hay, *The Meaning of “Agreement” Under the Sherman Act: Thoughts from the “Facilitating Practices” Experience*, 16 REV. INDUS. ORG. 113, 116 (2000) (“If the [Federal Trade] Commission were successful [in challenging parallel adoption of facilitating practices as a violation of the Federal Trade Commission Act], it felt that an important new weapon against oligopolistic industries would be achieved, a weapon which would not depend on the occasionally metaphysical question of whether or not some kind of agreement existed.”).

licit agreement. That is, the alleged coconspirators should have to know that they are participating in a common plan. A simple awareness of what rivals would do does not rise to this level of knowledge.

A more fundamental problem with Judge Posner's legal approach to oligopoly is that it is trumped by his economic approach to oligopoly, which ignores the factor of intent altogether. This can be seen from what Judge Posner himself considers to be "dangers" in pressing his legal approach too far.¹²³ To illustrate these dangers, Judge Posner gives a hypothetical example whereby a group of competing firms simultaneously experiences common cost increases.¹²⁴ In deciding whether and how to respond to the cost increases, each individual firm will have to take into account the likely responses of other firms—a hallmark of interdependent pricing.¹²⁵ Judge Posner concedes that under his legal approach, "[t]he process by which the firms arrive at [a] new equilibrium at a higher price may thus have elements of 'tacit agreement' . . ."¹²⁶ This outcome would be problematic, according to Judge Posner's economic approach to oligopoly, because price increases in this context are not "anticompetitive."¹²⁷ It is obvious that Judge Posner's real criterion for determining the existence of a tacit agreement is economic efficiency, not intent. Firms raising prices to adjust for common cost increases and firms raising prices to simply make oligopolistic profits are treated differently for purposes of determining whether they colluded, despite possessing the same intent—and committing the same act—in raising prices.

C. The Middle-Ground Approach

Yet another approach to tacit agreement attempts to strike a middle ground between the minimalist approach and the expansive approach by recognizing the concept of tacit agreement and limiting it to certain particular conduct. An example of this middle-ground approach is the approach taken by the First Circuit in *White*.¹²⁸ After defining tacit agreement as "one in which only the conspirators' actions, and not any express communications, indicate the existence of an agreement,"¹²⁹ the First Circuit states that a tacit agreement "is distinguished from mere conscious parallelism by 'uniform behavior among competitors, preceded by conversations implying that later uniformity might prove desirable or accompanied by other conduct that in

¹²³ See POSNER, *supra* note 108, at 95.

¹²⁴ See *id.*

¹²⁵ See *id.*

¹²⁶ *Id.* In other words, these firms will be considered to have entered into a tacit agreement to raise price if they all raise their prices in response to the common cost increases.

¹²⁷ See *id.* Posner does not elaborate on what he means by "anticompetitive" in this context. See *id.* But presumably, price increases in this context are not anticompetitive because they are justified by the cost increases.

¹²⁸ See *supra* notes 95–96 and accompanying text.

¹²⁹ *White v. R.M. Packer Co.*, 635 F.3d 571, 576 (1st Cir. 2011).

context suggests that each competitor failed to make an independent decision.”¹³⁰ While this formulation suffers some logical incoherence regarding whether a tacit agreement can involve express communications,¹³¹ it is an effort to carve out a special category of conduct that will be considered capable of forming a tacit agreement.

Bill Page also adopts a middle ground approach to defining tacit agreement.¹³² Page equates tacit agreement with what he terms “communicative concerted action.”¹³³ According to Page, “consciously parallel conduct becomes concerted if rivals achieve it, at least in part, by communicating their intended actions and their reliance on others’ actions.”¹³⁴ Page initially “limit[ed the] communications” that would turn conscious parallelism into a tacit agreement to “private oral or written communications as opposed to public price announcements.”¹³⁵ In his more recent work, Page expanded his concept of communications to include non-verbalized ones, such as actions.¹³⁶ Page “arrange[s communications] in a [two-by-two] grid” based on whether the audience of the communications is private or public and whether the communications relate to future or present competitive choices.¹³⁷ For each of the resulting “four combinations of audience and temporal focus,” Page ascertains a tacit agreement based on whether the communication at issue serves efficiency purposes.¹³⁸ For example, “[p]rivate communications about future competitive choices . . . are most likely to justify an inference of agreement,” because they have “no credible efficiency justification or purpose.”¹³⁹ Page considers *Foley* the “paradigmatic” example of this kind of communications.¹⁴⁰ According to Page, the court in *Foley* “properly concluded that a jury could reasonably infer” a tacit agreement because the communications at issue in *Foley* “conveyed no information to consumers or other audiences because only competitors were present.”¹⁴¹ By contrast, “public communications about future prices . . . are

¹³⁰ *Id.* (citing *Brown v. Pro Football, Inc.*, 518 U.S. 231, 241 (1996)).

¹³¹ Under this formulation, a tacit agreement is formed by conduct only, without any express communications. But parallel conduct has to be preceded by express communications in order for there to be a tacit agreement.

¹³² See William H. Page, *A Neo-Chicago Approach to Concerted Action*, 78 ANTITRUST L.J. 173, 184 (2012).

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ *Id.* The insistence on verbalized communications here comports with the First Circuit’s approach to tacit agreement in *White*. See *supra* note 129 and accompanying text.

¹³⁶ See Page, *supra* note 71, at 611–14. In particular, Page treats “implicit signals” as communications, which he defines as “actions or words with general, often benign meanings for more than one audience, but that also include information that conveys a special meaning for rivals.” *Id.* at 614.

¹³⁷ *Id.* at 612.

¹³⁸ See *d.* at 612–14 (“[T]acit agreement means interdependent actions coordinated by prior communications of competitive intentions, in circumstances in which the communications do not provide any benefit to other audiences, especially consumers.”).

¹³⁹ *Id.* at 612, 615–16.

¹⁴⁰ See *id.* at 612–14.

¹⁴¹ *Id.* at 615–16.

usually thought to benefit consumers, and so are not a basis for inferring tacit agreement . . .”¹⁴²

Page’s use of efficiency as the ultimate criterion for determining the existence of a tacit agreement echoes the approach the Ninth Circuit took in *Petroleum Products*, where the court held that the defendants’ dissemination of wholesale prices allowed an inference of an agreement to fix price because “the public dissemination of such information served little purpose other than to facilitate interdependent or collusive price coordination.”¹⁴³ The court noted, however, that public dissemination of retail prices would not warrant an inference of conspiracy because such an inference “would make it more difficult for retail consumers to get the information they need to make efficient market decisions.”¹⁴⁴ Whether a practice serves efficiency purposes, therefore, decides whether the practice constitutes an illegal agreement.

As is the case with the minimalist approach and the expansive approach to tacit agreement, the problem with the use of efficiency as the standard for agreement is that it ignores the intent of the alleged conspirators. Under the efficiency standard, defendants would not be considered to have agreed on an illegal enterprise if their conduct happened to benefit third parties, even if they intended to enter into a conspiracy. Conversely, defendants would be considered to have entered into a conspiracy if their conduct happens to confer no benefits on third parties, even if they have no demonstrable intent to conspire. In other words, under the efficiency standard, whether the alleged conspirators have “agreed” depends on something that is completely outside of their control.¹⁴⁵

III. A KNOWLEDGE THEORY OF TACIT AGREEMENT

In light of the deficiencies of the existing approaches to tacit agreement, this Article proposes a new approach that recognizes tacit agreement as a possible means of reaching a Sherman Act agreement, and yet limits it to instances where it can be demonstrated that the alleged conspirators have constructive knowledge of one another’s conspiratory intent. For the lack of a better term, this Article refers to this approach as a “knowledge theory” of tacit agreement. As will be elaborated below, this knowledge theory restores

¹⁴² *Id.* at 613.

¹⁴³ In re Coordinated Pretrial Proceedings in Petroleum Products Antitrust Litigation, 906 F.2d 432, 448 (9th Cir. 1990).

¹⁴⁴ *Id.* at 448 n.14.

¹⁴⁵ Donald Turner foresaw the irrelevance of agreement to the determination of the existence of a Sherman Act agreement. In his seminal 1962 article, Turner argued that “consciously interdependent decisions can be plausibly described either as ‘agreement’ or as ‘individual action,’ and there seems to be no adequate way of justifying the selection of either description without going into aspects of the behavior that really have nothing to do with agreement, or lack of agreement, as such.” Turner, *supra* note 32, at 676.

the central place of intent in ascertaining a Sherman Act agreement and provides a practical way of verifying that intent.

The knowledge theory of tacit agreement rejects the basic tenet of the minimalist approach to tacit agreement. As discussed above, the minimalist approach recognizes a Sherman Act agreement only when the agreement is explicitly reached through verbalized communications.¹⁴⁶ However, it is conceivable that an agreement could be reached using verbalized communications that fall short of explicit assurances on a common course of actions, but nonetheless convey the parties' intent to conspire with one another. The scenario described by the Ninth Circuit in *Esco*, where each of the conspirators states their own plan to raise prices regardless of what others would do, is a good example of such non-explicit verbalized communications.¹⁴⁷ Furthermore, a tacit agreement could be formed by actions. As Donald Turner points out, “[i]t is not novel conspiracy doctrine to say that agreement can be signified by action as well as by words.”¹⁴⁸ There is no reason to exclude an agreement from the reach of the Sherman Act simply because “the circumstances make it possible to communicate without speech.”¹⁴⁹ For the sake of convenience, this Article uses the term “non-explicit communications” to refer to both non-explicit verbalized communications and actions. The inclusion of actions within this broader category of communications is consistent with how communications are conceptualized in the economic literature.¹⁵⁰

Simply recognizing that non-explicit communications could form a tacit agreement is a relatively easy task. The more difficult question is where to draw the line between non-explicit communications that form a tacit agreement and non-explicit communications that do not. As Phillip Areeda and Herbert Hovenkamp point out, the difficult question “is how far may we move away from direct, detailed, and reciprocal exchanges of assurances on a common course of action and yet remain within the statutory and conceptual boundaries of an agreement.”¹⁵¹

¹⁴⁶ See *supra* Part II.A.

¹⁴⁷ See *supra* Part I.C. Exactly when such non-explicit verbalized communications give rise to a tacit agreement is discussed above.

¹⁴⁸ Turner, *supra* note 32, at 665.

¹⁴⁹ *Id.* Turner's analysis focuses on the question of whether oligopolistic behavior constitutes a tacit agreement. *Id.* (“[T]here is no reason to exclude oligopolistic behavior from the scope of the term agreement . . .”). But the same logic applies to other instances where an agreement is reached through non-explicit means.

¹⁵⁰ See Dennis W. Carlton et al., *Communications Among Competitors: Game Theory and Antitrust*, 5 GEO. MASON L. REV. 423, 431–36 (1997) (including actions within the scope of communications).

¹⁵¹ PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW: AN ANALYSIS OF ANTI-TRUST PRINCIPLES AND THEIR APPLICATION* ¶ 1404 (2d ed. 2001). Similarly, Aaron Director and Edward Levi acknowledge that “the serious problem of collusion is to determine what conduct is to be characterized as the equivalent of an agreement . . .” Aaron Director & Edward H. Levi, *Law and the Future: Trade Regulation*, 51 NW. U. L. REV. 281, 295 (1956).

This Article proposes that conspiratory intent be used as the yardstick for distinguishing tacit agreements from uncoordinated actions. The Article defines a tacit agreement as an agreement formed by non-explicit communications that enable coconspirators to acquire knowledge of one another's conspiratory intent. This definition ensures the conceptual integrity of tacit agreement by extracting the essence of an explicit agreement and applying it to the tacit agreement setting. When coconspirators form an explicit agreement, that is, when they exchange explicit assurances on a common course of actions, they are conveying their conspiratory intent to one another through explicit communications.¹⁵² If coconspirators choose to effectuate their conspiracy through non-explicit means, they will need to convey their conspiratory intent to one another through non-explicit communications or actions. Tacit agreements differ from explicit ones with respect to the means by which the agreements are reached, but not with respect to the coconspirators' knowledge of one another's conspiratory intent.

Using conspiratory intent to ascertain the existence of a tacit agreement also ensures that the agreement thus found remains within the statutory boundaries of a Sherman Act agreement. This is so because the offense of conspiracy is "predominantly mental."¹⁵³ Under the common law, an essential element of conspiracy is a coconspirator's "intention on his part to associate himself in the promotion of the [common] design."¹⁵⁴ An intent to agree is among the intents that are required for the commission of a conspiracy.¹⁵⁵ What makes a conspiracy unlawful is "not its actual or probable effects, but the common purpose to attain an objective covered by the law."¹⁵⁶

A definition of tacit agreement based on conspiratory intent invites criticism from critics whose criterion for determining a Sherman Act agreement is economic welfare. Judge Posner, the chief proponent of a welfare-based definition of agreement under the Sherman Act, observes that "[t]he only proof of price fixing that is required or ordinarily offered is proof that the defendants conspired. The effects of the conspiracy are immaterial. It is thus evident that what the law is actually punishing is the attempt to fix prices and that the completed act—an actual restriction of output—is incidental."¹⁵⁷ Judge Posner concludes that the emphasis on the fact of conspiring

¹⁵² An example of such explicit communications is when Party A approaches Party B and says: "I will raise my price if you raise yours," and Party B replies: "Deal." Each party is conveying to the other that he or she intends to enter into a conspiracy.

¹⁵³ See Rahl, *supra* note 1, at 752.

¹⁵⁴ Benjamin F. Pollack, *Common Law Conspiracy*, 35 GEO. L.J. 328, 332 (1947).

¹⁵⁵ See Richard R. Wirtz, *Purpose and Effect in Sherman Act Conspiracies*, 57 WASH. L. REV. 1, 1 (1981).

¹⁵⁶ *Id.* (internal citation omitted).

¹⁵⁷ Richard A. Posner, *A Program for the Antitrust Division*, 38 U. CHI. L. REV. 500, 514 (1971).

“is inconsistent with a program designed to maximize the net social product of antitrust enforcement.”¹⁵⁸

While it might be desirable to use economic welfare as the “lodestar of antitrust laws,”¹⁵⁹ it is possible that the welfare-maximization goal of antitrust can be accomplished without straining the meaning of the term agreement. One way to accommodate both the conceptual and statutory confines of the term agreement and the economic goals of antitrust is to define agreement based on the strict legal meaning of the term, but then take into account economic welfare when deciding whether the agreement thus found is unlawful. Under this approach, an agreement will be ascertained based on intent—or what Judge Posner refers to as “attempt,”¹⁶⁰ but such agreement is punishable under the Sherman Act only if it causes materially adverse effects.¹⁶¹

In principle, coconspirators’ knowledge, at some level, of one another’s conspiratory intent is already part of what is required for a finding of a Sherman Act agreement. In *Monsanto Co. v. Spray-Rite Service Corp.*, the Supreme Court observes that “there must be direct or circumstantial evidence that reasonably tends to prove that [the parties] had a conscious commitment to a common scheme designed to achieve an unlawful objective.”¹⁶² The problem, however, is that current law offers no analytical guidance on how to demonstrate such a conscious commitment outside of the explicit agreement setting.¹⁶³

This Article strives to supply an operational formula for how to ascertain a tacit agreement. Under the knowledge theory proposed in this Article, proof of conscious commitment to a common scheme is equated with proof of coconspirators’ knowledge of one another’s conspiratory intent. Proof of coconspirators’ knowledge of one another’s conspiratory intent does not consist of proof of coconspirators’ subjective state of mind. Instead, it consists of proof of what a reasonable person would have known from the non-explicit communication in question. If the circumstances of the non-explicit communication, including its content, timing, place, and manner, are of such

¹⁵⁸ *Id.* (internal citation omitted). Posner further elaborates that “[m]any attempts to fix price may have negligible consequences, while much serious price fixing may escape detection altogether because proof of overt communication is normally required to establish an attempt but such communication may not always be necessary to effectuate price fixing.” *Id.* This view is consistent with Posner’s preference for “economic evidence” of collusion over evidence of overt acts. See *supra* note 113.

¹⁵⁹ Joshua D. Wright & Douglas H. Ginsburg, *The Goals of Antitrust: Welfare Trumps Choice*, 81 *FORDHAM L. REV.* 2405, 2406 (2013).

¹⁶⁰ See Posner, *supra* note 158 at 514.

¹⁶¹ See Turner, *supra* note 32, at 663. Donald Turner suggests that there are two separate questions when it comes to the legality of consciously parallel decisions: whether the consciously parallel decisions constitute an “agreement,” and whether the agreement should be deemed unlawful. See *id.* This indicates that Turner is open to the idea of separating inquiries into the effects of an agreement from the legal definition of agreement.

¹⁶² 465 U.S. 752, 768 (1984).

¹⁶³ See William E. Kovacic, *The Identification and Proof of Horizontal Agreements Under the Antitrust Laws*, 38 *ANTITRUST BULL.* 5, 25 (1993).

a nature that a reasonable person would conclude that first, the communication is made to convey the sender's conspiratory intent, and second, the communication has a reasonable likelihood of reaching the targeted recipient, then the recipient of the communication would be considered to have constructive knowledge of the sender's conspiratory intent, irrespective of what the recipient actually knows.¹⁶⁴ The degree of certainty with which the fact finder will have to find these two elements to hold depends on the generally applicable evidentiary standard, that is, beyond a reasonable doubt in criminal prosecutions and preponderance of the evidence in civil litigation.¹⁶⁵

Of the two elements of proof of knowledge of conspiratory intent, proof that the communication in question has a reasonable likelihood of reaching its targeted recipient is relatively easy to establish. When defendants communicate in face-to-face meetings, it goes without saying that the communication reaches its targeted recipient.¹⁶⁶ When defendants communicate by actions that are observable by rivals, such as posting prices¹⁶⁷ or publicly announcing price changes in press releases,¹⁶⁸ the communication has a reasonable likelihood of reaching its targeted recipient given how closely rivals monitor one another. However, if the communication takes place under circumstances where the alleged coconspirators are not reasonably expected to receive it, the communication will not enable the alleged coconspirators to acquire knowledge of the sender's conspiratory intent, even if that intent is clear on the face of the communication.¹⁶⁹

The other element of proof of knowledge of conspiratory intent—proof that a non-explicit communication is made to convey conspiratory intent—is more challenging to establish. Because of the non-explicit nature of the com-

¹⁶⁴ See Gregory Klass, *Intent to Contract*, 95 VA. L. REV. 1437, 1457 (2009). The author states that this so-called "objective intent" is the "intent a reasonable person in the parties' shared epistemic situation would attribute to her." *Id.*

¹⁶⁵ Therefore, if a tacit agreement is the subject of a criminal prosecution, the instructions to the jury will need to state that the jury has to conclude, beyond a reasonable doubt, that a reasonable person would find the non-explicit communication in question to enable alleged coconspirators to acquire knowledge of one another's conspiratory intent. By contrast, if a tacit agreement is the subject of civil litigation, the jury will have to make that conclusion by a preponderance of the evidence.

¹⁶⁶ See *United States v. Foley*, 598 F.2d 1323 (4th Cir. 1979), *supra* notes 55–59 and accompanying text for an example of such face-to-face communications, where defendant real estate agents remarked on their plans to raise commissions at a dinner attended by other defendants.

¹⁶⁷ See *White v. R.M. Packer Co.*, 635 F.3d 571, 574–75 (2011), in which defendant gasoline retailers on Martha's Vineyard were accused of fixing gasoline prices. The communication at issue in that case was the public posting of gasoline prices by defendants. See *id.* at 577 (referring to "[a] geographically constrained gasoline market with publicly posted prices").

¹⁶⁸ See *In re Coordinated Pretrial Proceedings in Petroleum Products Antitrust Litigation*, 906 F.2d 432, 445, 449 (9th Cir. 1990), in which the communication at issue was the public announcement of price changes in press releases.

¹⁶⁹ A hypothetical example is when a lumber distributor runs an advertisement announcing its planned price change in a steel industry trade journal. The alleged coconspirators—fellow lumber distributors—are not reasonably expected to read the steel industry trade journal. Therefore, even though the advertisement is highly suspect, it will not reasonably allow the alleged coconspirators to acquire knowledge of the advertiser's conspiratory intent.

munications involved in tacit agreements, fact finders will need to decipher actions or verbalized communications that may appear to be innocuous on first blush. Fact finders will need to examine the potential business justifications for those actions or verbalized communications. If there are none, fact finders shall be instructed by courts to conclude that the non-explicit communication is made to signal the sender's conspiratory intent.¹⁷⁰ In other words, the non-explicit communication must be so odd that a reasonable person would conclude that it is made to orchestrate a tacit agreement. The oddity of the communication may stem from its content, timing, place, or manner, with all being considered as a whole to determine the real purpose of the communication.

Under this knowledge theory, whether the communication at issue has efficiency justifications is still a relevant factor in two ways. First, the efficiency, or the lack thereof, of the communication at issue goes toward establishing the alleged coconspirators' conspiratory intent. If a communication has no efficiency justification, that is, if it confers no benefits on any third parties, that strengthens the case that the communication is being used as a sham to convey the sender's conspiratory intent.¹⁷¹ Second, when and if the communication at issue is found to orchestrate a tacit agreement, the efficiency, or the lack thereof, of the communication at issue is an important factor in deciding whether the agreement thus formed should be considered unlawful.¹⁷² An agreement in and of itself does not violate the Sherman Act; it violates the Sherman Act only when it causes competitive harms.¹⁷³

Because a tacit agreement under the Sherman Act requires a "meeting of minds" between two parties,¹⁷⁴ a tacit agreement could be found only if each party to the alleged conspiracy has acquired knowledge of the other

¹⁷⁰ As is the general rule, the plaintiff will shoulder the burden of proving that there are no alternative explanations for the non-explicit communication other than conveying the sender's conspiratory intent.

¹⁷¹ The assumption here is that when the communication benefits no one, the sender of the communication would not have made the communication but for the purpose of signaling its conspiratory intent to the recipient.

¹⁷² In this regard, courts should consider the efficiency of all actions or verbalized communications involved in the tacit agreement, not just the efficiency of any particular action or verbalized communication. Under *Foley*, for example, courts should have evaluated not just whether the remarks made by defendants at the dinner served efficiency purposes—that is, whether consumers benefited from such remarks—but also whether the defendants' subsequent conduct—the raising of real estate commissions—benefited consumers. For discussions of *Foley*, see *supra* notes 54–59 and accompanying text.

¹⁷³ This should not be taken as a proposal to subject all tacit agreements to the rule of reason, which "requires the plaintiff to plead and prove that defendants with market power have engaged in anticompetitive conduct." Herbert J. Hovenkamp, *The Rule of Reason*, 70 FLORIDA L. REV. 81, 83 (2018). Under antitrust law, agreements are considered per se illegal when their effects are determined to be so pernicious that elaborate inquiries into the precise harm they cause or their business excuses are not necessary. See *Northern Pac. Ry. Co. v. United States*, 356 U.S. 1, 5 (1958). If certain tacit agreements are determined to have similar pernicious effects, they can be made subject to the per se rule, but that is after their competitive harms have been evaluated.

¹⁷⁴ *Am. Tobacco Co. v. United States*, 328 U.S. 781, 810 (1946).

party's conspiratory intent. In the paradigmatic scenario where one party initiates a communication and the other party responds to that communication, a tacit agreement could be analogized to a contract formed by a tacit offer and followed by a tacit acceptance.¹⁷⁵ Using a case study, the discussions below illustrate how the knowledge theory would ascertain such tacit offers and tacit acceptances.

A. Tacit Offer

When an alleged coconspirator initiates a non-explicit communication to other alleged coconspirators, the communication constitutes a tacit offer of conspiracy if it allows the recipients of the communication to acquire knowledge of the sender's conspiratory intent. One example of such non-explicit communication that could potentially be a tacit offer of a conspiracy comes from Bill Page, in his work on tacit agreement, describing a German auction of ten blocks of spectrum.¹⁷⁶ Under the rules of the auction, all bids submitted after each round are made public to all bidders.¹⁷⁷ The rules also require each new bid to be at least ten percent higher than the previous bid.¹⁷⁸ Firm A initially bids DM twenty million on blocks 1–5 and DM 18.18 million on blocks 6–10.¹⁷⁹ Firm B then bids DM twenty million on blocks 6–10 and does not bid on blocks 1–5.¹⁸⁰ There are no further bids.¹⁸¹ As a result, Firm A wins blocks 1–5 and Firm B wins blocks 6–10.

Are the initial bids by Firm A a tacit offer of a conspiracy? In other words, is Firm A trying to signal to Firm B that it should bid DM twenty million on blocks 6–10 and let Firm A have blocks 1–5? The reason why Firm A's bids are suspicious is because of the "oddly specific" number of 18.18.¹⁸² The number 18.18 makes no sense until one adds ten percent to it and obtains 19.998.¹⁸³ So if Firm B bids DM twenty million on blocks 6–10, that would satisfy the requirement that a new bid be ten percent higher than the previous bid. That fact, along with the fact that Firm A bids DM twenty million on blocks 1–5, indicates that Firm A might be proposing to Firm B that each bids DM twenty million on the blocks of their choice, blocks 1–5 for Firm A and blocks 6–10 for Firm B. Seen in this light, Firm A's initial

¹⁷⁵ Judge Posner first used this contract analogy to explain his view of interdependent conduct: "If a firm raises price in the expectation that its competitors will do likewise, and they do, the firm's behavior can be conceptualized as the offer of a unilateral contract that the offerees accept by raising their prices." *In re High Fructose Corn Syrup Antitrust Litig.*, 295 F.3d 651, 654 (7th Cir. 2002).

¹⁷⁶ See Page, *Tacit Agreement*, *supra* note 71, at 628 n. 158.

¹⁷⁷ See Martin Bichler et al., *Bargaining in Spectrum Auctions: A Review of the German Auction in 2015*, 41 TELECOMMUNICATIONS POL'Y 325, 325–26 (2017).

¹⁷⁸ See Page, *supra* note 71, at 628 n.158.

¹⁷⁹ See *id.*

¹⁸⁰ See *id.*

¹⁸¹ See *id.*

¹⁸² See *id.*

¹⁸³ See *id.*

bids could be a tacit offer of a conspiracy to allocate blocks 1–5 to Firm A and blocks 6–10 to Firm B, at DM twenty million each.

Under the knowledge theory, whether Firm A's bids are a tacit offer of conspiracy will depend on whether a reasonable person would perceive them as an attempt to convey Firm A's conspiratory intent. That, in turn, will depend on whether there are alternative explanations for Firm A's bids. Because of the unique relationship between the numbers 18.18 and twenty in light of the auction rule requiring a new bid to be at least ten percent higher than the previous bid, fact finders are likely to conclude that a reasonable person would agree that Firm A's bids were chosen to signal Firm A's conspiratory intent. Firm A could offer affirmative defenses by presenting evidence that there are other legitimate reasons for its bids. If it does, it has the burden of proving such affirmative defenses in accordance with the general burden-of-proof rules.¹⁸⁴

B. Tacit Acceptance

A tacit offer of conspiracy needs to be accepted by the offeree in order for there to be a tacit agreement. Because of the non-explicit nature of a tacit agreement, the offeree's acceptance, by definition, takes the form of an action or verbalized communication that falls short of an explicit expression of assurance. The question, however, is how to determine whether a non-explicit communication is a tacit acceptance.

Under the knowledge theory, a non-explicit communication from the offeree is a tacit acceptance of the conspiracy offer if it enables the offeror to acquire knowledge of the offeree's conspiratory intent. Simply committing an action that is invited by the tacit offer does not necessarily constitute a tacit acceptance, because the offeror would not know whether the action is being committed in acceptance of its tacit offer or for other legitimate reasons.¹⁸⁵ For a non-explicit communication to be a tacit acceptance, the offeror of the conspiracy would have to know that there are no other reasons for the offeree's non-explicit communication. Only when the offeror knows that the offeree is responding to its tacit offer can it be said that the offeror and the offeree have a "meeting of the minds."

Continuing with the example of the German spectrum auction, when Firm B does what Firm A invites it to do—that is, bid DM twenty million on blocks 6–10 and not bid on blocks 1–5—that fact alone does not make Firm B's bids a tacit acceptance of Firm A's tacit offer. Firm B could be bidding

¹⁸⁴ See John Calvin Jeffries, Jr. & Paul B. Stephen III, *Defenses, Presumptions, and Burden of Proof in the Criminal Law*, 88 YALE L.J. 1325, 1334–35 (1979); Bruce L. Hay & Kathryn E. Spier, *Burdens of Proof in Civil Litigation: An Economic Perspective*, 26 J. LEGAL STUD. 413, 427–28 (1997).

¹⁸⁵ This is the case because, when committing the action, the offeree does not make an explicit statement about why the action is being committed, again because of the non-explicit nature of the alleged agreement.

that way for reasons that have nothing to do with Firm A's tacit offer. Just because Firm B does what Firm A asks it to do does not mean that Firm B is accepting Firm A's conspiracy offer.¹⁸⁶ Firm B could be bidding DM twenty million on blocks 6–10 but not on blocks 1–5 because it has only DM twenty million to spend on the spectrums.¹⁸⁷ Alternatively, Firm B may have funds to bid on all ten blocks, but its business needs only justify bidding on five blocks. Fact finders need to rule out these alternative reasons for Firm B's bids before concluding that Firm B is accepting Firm A's tacit acceptance through its bids.

Not only can there be no alternative reasons for Firm B's bids, but the fact that there are no alternative reasons for Firm B's bids must be known to a reasonable person in Firm A's situation in order for Firm B's bids to be considered a tacit acceptance of Firm A's tacit offer. The knowledge theory requires each party to the alleged conspiracy to have constructive knowledge of each other's conspiratory intent. For Firm A to have constructive knowledge of Firm B's conspiratory intent, a reasonable person in Firm A's situation would have to know that Firm B has enough funds to bid on all ten blocks, and that its business needs justify bidding on all ten blocks.¹⁸⁸ The key here is to show that a reasonable person would know that Firm B would not have bid the way it did but for Firm A's tacit offer.

IV. APPLYING THE KNOWLEDGE THEORY

The knowledge theory set forth in the previous section provides a unified logic for the law on tacit agreement. Under the knowledge theory, what distinguishes concerted from unconcerted actions in the tacit agreement setting is whether the non-explicit communication at issue would enable the parties to the alleged agreement to have knowledge of one another's conspiratory intent. The knowledge theory further operationalizes this logic by investigating whether the circumstances of the non-explicit communication at issue are such that a reasonable person would conclude that it is sent to convey conspiratory intent. This logic is clear, yet flexible. It could be applied to vastly different factual scenarios without compromising the consistency of the rule.

This Part reconsiders the current case law on tacit agreement from the perspective of the knowledge theory. It applies the knowledge theory to four

¹⁸⁶ This point can be illustrated by a somewhat extreme example. When A tells B: "If you would like to accept my offer of conspiracy, come and walk your dog at the park tomorrow 7:00 AM." If B walks his dog at the park at 7:00 AM every day, walking his dog at the park at 7:00 AM the next day does not mean that B accepted A's conspiracy offer.

¹⁸⁷ Given Firm A's bids, bidding DM twenty million on blocks 6–10 and not bidding on blocks 1–5 would be the best strategy for Firm B, even if Firm B has no intent to accept Firm A's conspiracy offer.

¹⁸⁸ This evidentiary requirement is high, but not insurmountable. Evidence could come from past interactions between Firm A and Firm B, or from publicly available financial data and business plans.

factual scenarios where courts have opined on whether tacit agreements could arise: conscious parallelism, parallel conduct preceded by suggestive communications, hub-and-spoke conspiracy, and facilitating practices. The current treatment by courts and scholars of whether and how tacit agreement could arise in those factual scenarios is incoherent at best.¹⁸⁹ As described below, applying the knowledge theory to those factual scenarios leads to outcomes that are largely, but not entirely, consistent with current case law. The rationales for the outcomes, however, are drastically different under the knowledge theory compared with current case law, to the extent that current case law articulates its rationales at all. The applications below also reveal the weaknesses of the current case law for some of those factual scenarios.

A. *Conscious Parallelism*

The judicial attitude toward “conscious parallelism,” defined as “a common reaction of ‘firms in a concentrated market that recognize their shared economic interests and their interdependence with respect to price and output decisions,’”¹⁹⁰ has been very permissive.¹⁹¹ Recall that in *Theatre Enterprises, Inc.*, the Supreme Court stated that it had “never held that proof of parallel business behavior conclusively establishes agreement or, phrased differently, that such behavior itself constitutes a Sherman Act offense.”¹⁹² In *White*, the First Circuit held that “[the d]efendants’ assertion that ‘a merely tacit agreement is not an antitrust violation’ conflates the concepts of ‘tacit collusion,’ referring to bare conscious parallelism, and ‘tacit agreement,’ which can be reached under Section 1”¹⁹³ Most recently, in *Twombly*, the Supreme Court reiterated that “conscious parallelism” is “not in itself unlawful.”¹⁹⁴

The most decisive argument for not treating conscious parallelism as a Sherman Act agreement, put forward by Donald Turner, and widely accepted today, is that it is very difficult, if not impossible, to fashion a remedy for conscious parallelism.¹⁹⁵ Turner argues that an injunction prohibiting a defendant from taking into account the probable price decisions of his competitors in determining his own price or output would “demand such irrational behavior that full compliance would be virtually impossible.”¹⁹⁶ Turner adds that the only injunction that would be effective against oligopoly pricing is one that requires an oligopolist to lower its price to the point where it equals

¹⁸⁹ See *supra* Parts I.B–I.C.

¹⁹⁰ *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 553 (2007).

¹⁹¹ See AREEDA & HOVENKAMP, *supra* note 152, at ¶ 1433a (“The courts are nearly unanimous in saying that mere interdependent parallelism does not establish the contract, combination, or conspiracy required by the Sherman Act § 1.”).

¹⁹² *Theatre Enter., Inc. v. Paramount Film Distrib. Corp.*, 346 U.S. 537, 541 (1954).

¹⁹³ *White v. R.M. Packer Co.*, 635 F.3d 571, 576 n.3 (1st Cir. 2011), 635 F.3d at 576 n.3.

¹⁹⁴ See 550 U.S. at 553–54.

¹⁹⁵ See Turner, *supra* note 32, at 669.

¹⁹⁶ *Id.*

marginal cost, but that would turn courts into a public utility type of regulator.¹⁹⁷ A last resort would be the “dissolution or divestiture of the dominant firms.”¹⁹⁸ “But to fall back on this remedy is virtually to concede that . . . it was the structural situation, not the behavior of the industry members, which was fundamentally responsible for the unsatisfactory results.”¹⁹⁹

Turner’s argument on the difficulty of providing a remedy for conscious parallelism addresses the question of whether it is possible, or desirable, to make conscious parallelism an unlawful agreement. It does not address, however, the threshold question of whether conscious parallelism should be considered an agreement to begin with. The answer to the latter question has to come from inquiries into whether there is “a unity of purpose or a common design and understanding, or a meeting of the minds in an unlawful arrangement.”²⁰⁰

Do the alleged conspirators in conscious parallelism reach a meeting of the minds? As Turner points out, in conscious parallelism, oligopolists are simply anticipating “what the consequences of [their] price decision would be, taking into account the probable or virtually certain reactions of [their] competitors.”²⁰¹ This behavior, according to Turner, “can be described as individual behavior—rational individual decision in the light of relevant economic facts—as well as it can be described as ‘agreement.’”²⁰² Other scholars have similarly expressed doubts about whether conscious parallelism amounts to a conscious commitment to a common scheme, though they have not been able to articulate the reasons why.²⁰³

The knowledge theory provides a much-needed framework for analyzing whether conscious parallelism constitutes a tacit agreement under the Sherman Act. Under the knowledge theory, what matters is whether a reasonable person would conclude that the communication alleged to form a tacit agreement—oligopolistic pricing—enables oligopolists to have knowledge of one another’s conspiratory intent. Since oligopolistic pricing occurs during the ordinary course of the oligopolists’ business, it does not send rivals a definitive signal about the sender’s conspiratory intent. The reasons for this observation are twofold. First, price increases during the ordinary course of a firm’s business are not exclusively intended for the firm’s rivals; they are

¹⁹⁷ See *id.* at 670.

¹⁹⁸ *Id.* at 671.

¹⁹⁹ *Id.*

²⁰⁰ *Am. Tobacco Co. v. United States*, 328 U.S. 781, 810 (1946).

²⁰¹ Turner, *supra* note 32, at 661.

²⁰² *Id.* at 666.

²⁰³ See, e.g., Hay, *supra* note 24, at 894 (“[I]f there is to be substance to the concept of a tacit agreement, it must be defined in such a way that it does not extend to supra-competitive pricing arising *purely* from oligopolistic interdependence.”); Director & Levi, *supra* note 152, at 296 (“It would appear to be extremely difficult and unwise for the law to assume that action taken on general knowledge implies a concert of action equivalent to collusion, conspiracy or agreement . . .”).

also intended for the firm's customers.²⁰⁴ Without being able to tell whether the pricing information is intended for them, rivals would not be able to know that the sender of the information wants to conspire. Second, in posting supracompetitive price increases, oligopolists could be responding to changes in market conditions, such as changes in market demand or costs.²⁰⁵ Because there is nothing odd about changing prices from a business point of view, a reasonable person would not conclude that the real purpose of price changes is to signal an offer or acceptance of a conspiracy.²⁰⁶

While current case law does not treat conscious parallelism alone as agreement, it makes clear that parallel conduct could potentially violate the Sherman Act when it is coupled with certain "plus factors,"²⁰⁷ or factors that "tend[] to exclude the possibility that the alleged conspirators acted independently."²⁰⁸ Courts have identified a number of such plus factors, such as evidence of inter-firm communications,²⁰⁹ proof that the parallel conduct is contrary to each defendant's apparent self-interest,²¹⁰ proof of defendants' motives for entering into the alleged conspiracy,²¹¹ artificial standardization

²⁰⁴ It may not be entirely clear whether the primary target of an oligopolist's pricing information is its rivals or customers. See Joseph Kattan, *Beyond Facilitating Practices: Price Signaling and Price Protection Clauses in the New Antitrust Environment*, 63 ANTITRUST L.J. 133, 138–39 (1994) ("The price announcements were an efficient means of notifying customers of price changes and did not contain any element that could be viewed predominantly as a signal to competitors rather than as a notice to customers.").

²⁰⁵ See *id.* at 138 (discussing difficulties in distinguishing the situation in which an oligopolist initiates a higher price because of higher costs from the situation in which an oligopolist initiates a higher price in the hope that its rivals would follow).

²⁰⁶ Evaluating whether conscious parallelism is an agreement based on how oligopolists communicate with one another may be troublesome to scholars who prefer using the economic effects of oligopolistic pricing as the evaluation standard. See, e.g., Louis Kaplow, *On the Meaning of Horizontal Agreements in Competition Law*, 99 CALIF. L. REV. 683, 697–99 (2011) (arguing that the core of the agreement requirement under the Sherman Act is interdependent behavior, not various mechanisms for achieving it, like communications). Kaplow's approach, however, promotes economic efficiency at the expense of the integrity of the term agreement. See generally *id.*

²⁰⁷ *C-O-Two Fire Equip. Co. v. United States*, 197 F.2d 489, 493 (9th Cir. 1952).

²⁰⁸ *Matsushita Electrical Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 588 (1986) (internal citation omitted).

²⁰⁹ See, e.g., *In re Plywood Antitrust Litig.*, 655 F.2d 627, 633–34 (5th Cir. 1981); *Gainesville Util. Dep't v. Fla. Power & Light Co.*, 573 F.2d 292, 301 (5th Cir. 1978).

²¹⁰ See, e.g., *Milgram v. Loew's, Inc.*, 192 F.2d 579, 583 (3d Cir. 1951) (conduct in "apparent contradiction to [each defendant's] own self-interest . . . strengthens considerably the inference of conspiracy"); *Independent Iron Works, Inc. v. United States Steel Corp.*, 322 F.2d 656, 661 (9th Cir. 1963) (holding that the inference of conspiracy from parallel business behavior "might have been permissible in the absence of evidence showing that [defendants'] respective actions were prompted by some fact other than mutual understanding or agreement."). Numerous decisions have held that the inference of conspiracy from parallel conduct is permissible "where the pattern of action undertaken is inconsistent with the self-interest of the individual actors, were they acting alone." *Admiral Theatre Corp. v. Douglas Theatre Co.*, 585 F.2d 877, 884 (8th Cir. 1978); accord *Proctor v. State Farm Mut. Auto. Ins. Co.*, 675 F.2d 308, 327 (D.C. Cir. 1982); *Pan-Islamic Trade Corp. v. Exxon Corp.*, 632 F.2d 539, 559 (5th Cir. 1980); *Modern Home Inst., Inc. v. Hartford Accident & Indem. Co.*, 513 F.2d 102, 111 (2d Cir. 1975).

²¹¹ See, e.g., *First Nat'l Bank of Ariz. v. Cities Serv. Co.*, 391 U.S. 253, 287 (1968); *Bogosian v. Gulf Oil Corp.*, 561 F.2d 434, 446 (3d Cir. 1977); *Michelman v. Clark-Schwebel*

of products,²¹² and price increases during times of low demand.²¹³ Economists and legal scholars have also proposed their own plus factors. Judge Posner, for instance, has identified a number of market conditions that are favorable to collusion²¹⁴ as well as a number of types of economic evidence that indicate the actual existence of collusion.²¹⁵ William Kovacic et al. proposed a number of “super plus factors” that they believed possess the strongest probative value in indicating the presence of explicit collusion.²¹⁶

Admittedly, some of the plus factors identified by courts and scholars go toward establishing explicit agreements, like evidence of inter-firm communications. Other plus factors do not differentiate between explicit and tacit agreements.²¹⁷ To the extent that they are used to strengthen the case for a tacit agreement, the plus factors, as they are formulated under current case law, do not address the question of whether there is a meeting of the minds in the alleged tacit agreement.²¹⁸ Even if they did, current case law does not provide a satisfactory way to differentiate among the plus factors in terms of their probative value.²¹⁹

The knowledge theory proposed in this Article provides an analytical framework for assessing the probative value of the plus factors in proving tacit agreements. Under the knowledge theory, whether a plus factor bolsters inferences of a tacit agreement would depend on whether, in light of the plus

Fiber Glass Corp., 534 F.2d 1036, 1049 (2d Cir. 1976); *Venzie Corp. v. United States Mineral Prods. Co.*, 521 F.2d 1309, 1314 (3d Cir. 1975); *Overseas Motors, Inc. v. Import Motors Ltd.*, 375 F. Supp. 499, 532 (E.D. Mich. 1974), *aff'd*, 519 F.2d 119 (6th Cir. 1975).

²¹² See *C-O-Two Fire Equip. Co. v. United States*, 197 F.2d 489, 497 (9th Cir. 1952).

²¹³ See *Am. Tobacco Co. v. United States*, 328 U.S. 781, 805 (1946); *C-O-Two Fire Equip. Co.*, 197 F.2d at 497.

²¹⁴ These conditions are: market concentration on the selling side, no fringe of small sellers, inelastic demand at competitive price, market entry taking a long time, unconcentrated buying side, standard product, nondurable product, the principal firms selling at the same level in the chain of distribution, price competition being more important than other forms of competition, high ratio of fixed to variable costs, similar cost structures and production processes, declining over time or static demand, prices' ability to change quickly, sealed bidding, locality of market, cooperative practices, and the industry's antitrust record. See POSNER, *supra* note 108, at 69–79.

²¹⁵ These types of economic evidence are: fixed relative market shares, marketwide price discrimination, exchanges of price information, regional price variations, identical bids, price, output, and capacity changes at the formation of the cartel, industrywide resale price maintenance, declining market share of leaders, amplitude and fluctuation of price changes, demand elastic at the market price, level and pattern of profits, and market price inversely correlated with number of firms or elasticity of demand, basing-point pricing, and exclusionary practices. See POSNER, *supra* note 108, at 79–93.

²¹⁶ See William E. Kovacic et al., *Plus Factors and Agreement in Antitrust Law*, 110 MICH. L. REV. 393, 413–26 (2011).

²¹⁷ The plus factors only establish that the defendants are more likely than not to have reached an agreement, either explicitly or implicitly.

²¹⁸ This is because, under current case law, whether plus factors suggest an agreement is “not so much whether a ‘meeting of the minds’ in the common-law contract sense existed as whether these are types of behavior that the law should suppress.” Herbert J. Hovenkamp, *The Pleading Problem in Antitrust Cases and Beyond*, IOWA L. REV. 55, 62 (2010).

²¹⁹ See Kovacic et al., *supra* note 216, at 396 (“[T]here is persistent dissatisfaction with the analytical methods commonly used in antitrust enforcement and litigation to distinguish plus factors in terms of their probative value.”).

factor, the parallel conduct allows the alleged coconspirators to have constructive knowledge of one another's conspiratory intent. The plus factor, considered along with the parallel conduct at issue, must be of such a nature that a reasonable person would conclude that the parallel conduct itself conveys the alleged coconspirators' intent to offer or accept a conspiracy. The application of the knowledge theory to plus factors can be illustrated using two plus factors as case studies: proof that the parallel conduct is contrary to each defendant's self-interest, and proof of defendants' motives for entering into the alleged conspiracy.

"Proof that the parallel [conduct is] contrary to each [defendant's] apparent self-interest" is "the most consistently used" plus factor for proving an agreement.²²⁰ In considering this plus factor, courts generally require evidence that "the pattern of action undertaken is inconsistent with the self-interest of the individual actors, were they acting alone."²²¹ Actions inconsistent with self-interest strike outside observers as odd, satisfying the basic requirement of the knowledge theory. However, in order for this plus factor to have probative value in proving a tacit agreement, not only should the parallel conduct be inconsistent with the defendants' self-interest, but the fact that the parallel conduct is inconsistent with the defendants' self-interest must be known to the defendants. Without knowing that the parallel conduct is inconsistent with the defendants' self-interest, a reasonable person would not suspect that the real purpose of the parallel conduct is something else, that is, to signal an offer or acceptance of a conspiracy.

By contrast, proof of defendants' motives for entering into the alleged conspiracy offers no probative value for proving a tacit agreement.²²² This plus factor could be said to be the mirror image of the conduct-against-self-interest plus factor, as the latter indicates that the defendants have no motives for entering into the alleged conspiracy. While conduct inconsistent with self-interest puts outside observers on notice that something suspicious might be the real reason for the conduct, conduct consistent with self-interest does not. It is completely normal for defendants to carry out actions for which they have motives. As a result, a reasonable person would not conclude that such actions signal conspiratory intent.

²²⁰ Michael K. Vaska, Comment, *Conscious Parallelism and Price Fixing: Defining the Boundary*, 52 U. CHI. L. REV. 508, 520 (1985).

²²¹ *Admiral Theatre Corp. v. Douglas Theatre Co.*, 585 F.2d 877, 884 (8th Cir. 1978). See also *Proctor v. State Farm Mut. Auto. Ins. Co.*, 675 F.2d 308, 327 (D.C. Cir. 1982); *Modern Home Inst., Inc. v. Hartford Accident & Indem. Co.*, 513 F.2d 102, 111 (2d Cir. 1975).

²²² For discussions of the use of this plus factor, see *Venzie Corp. v. U.S. Mineral Products Co., Inc.*, 521 F.2d 1309, 1313-14 (3d Cir. 1975); *In re Japanese Electronic Products Antitrust Litig.*, 723 F.2d 238, 313 (3d Cir. 1983), cert. granted sub nom., *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 471 U.S. 1002 (1985).

B. Parallel Conduct Preceded by Suggestive Communications

The knowledge theory can shed light on whether parallel conduct preceded by suggestive communications, exemplified by the factual scenario in *Foley*, constitutes a tacit agreement. In *Foley*, each of the defendant real estate agents made comments at a dinner that he or she would raise commissions regardless of what others would do.²²³ The defendants raised commissions from six percent to seven percent following the dinner.²²⁴ The Fourth Circuit found “ample evidence to permit the finding of a conspiracy involving each of the defendants.”²²⁵ However, the court did not elaborate on the reason for its finding beyond emphasizing that the defendants appeared to believe that they had an agreement and that they attempted to enforce the agreement.²²⁶

The knowledge theory provides an analytical framework to assess whether the suggestive communications at the dinner constitute a tacit offer of conspiracy and whether the parallel conduct following the dinner constitutes a tacit acceptance of conspiracy. Regarding the question of tacit offer, the defendants who attended the dinner did preface their remarks with statements that they did not care what others would do. But a non-explicit communication can convey a sender’s conspiratory intent even if the sender explicitly denies an intent to conspire. Whether a sender indeed communicates a tacit offer to conspire depends on the totality of circumstances surrounding the sender’s non-explicit communications. In *Foley*, the defendants were aware that discussions of a rate increase agreement at the dinner could lead to antitrust investigations.²²⁷ So given the sensitive nature of the issue, when the defendants said they would raise rates regardless of what others would do, they could have been hinting that others should understand them to mean the opposite, that is, they were really inviting others to follow suit. If the prosecution could present enough evidence to convince the jury that this was the case beyond a reasonable doubt, the remarks made by the defendants at the dinner could be considered to have been a tacit offer of conspiracy.

Regarding the question of tacit acceptance, one has to examine whether the parallel conduct following the dinner—the rate increase from six percent to seven percent—enabled the defendants to acquire knowledge of one an-

²²³ See *United States v. Foley*, 598 F.2d 1323, 1332 (4th Cir. 1979).

²²⁴ See *id.* at 1327.

²²⁵ *Id.* at 1331.

²²⁶ See generally *id.* at 1332. The court outlined evidence of each defendant’s attempts to enforce the alleged agreement. See *id.* For example, the court stated that the lead defendant, John P. Foley, Jr., called another real estate firm that had accepted some listings at the six-percent rate and told that firm that the six-percent listings were a mistake “because if they all did not hold the line none of them could get seven percent.” *Id.*

²²⁷ The vice president of one of the defendant firms stated at the dinner “that they should not be discussing a rate increase and said that his firm was always the first to be investigated when something like this happened as it was the county’s largest.” *Id.* at 1333–34.

other's conspiratory intent. In making this determination, one has to inquire whether there were alternative explanations for the rate increases. If the defendants would have increased their rates from six percent to seven percent anyway, just because they increased their rates following the dinner does not mean that they accepted the tacit offer made at the dinner. But if the defendants would not have raised their rates had there not been a tacit offer, and if that fact was known to all defendants, then the fact that they raised their rates allowed the defendants to know one another's conspiratory intent.

The factual evidence presented in *Foley* appears to support the conclusion that the rate increases following the dinner constituted a tacit acceptance of the tacit offer of conspiracy. In concluding that the evidence presented permitted a finding of conspiracy, the court in *Foley* emphasized that "the discussion [at the dinner] also included reference to the earlier unsuccessful effort by [one defendant] to adopt a seven percent policy . . ." ²²⁸ Because all defendants were aware that unilateral efforts to raise rates would be unsuccessful, they would not expect other defendants to raise rates again if they were not responding to the tacit offer of conspiracy made at the dinner. Thus, the fact that the defendants did raise rates following the dinner sent a signal to one another that they were accepting the offer of conspiracy.

C. Hub-and-Spoke Conspiracy

In a hub-and-spoke conspiracy, a "hub" organizes a horizontal agreement "among upstream or downstream firms" known as the "spokes" through a series of separate vertical agreements.²²⁹ Plaintiffs must allege enough evidence indicating that a horizontal agreement exists among the spokes in order for the hub-and-spoke conspiracy to be subject to the per se rule that usually applies to horizontal agreements.²³⁰

The crucial question, then, is how to infer a horizontal agreement among the spokes from separate sets of vertical agreements between the hub and the spokes. In many cases, courts have made inferences and held that a horizontal agreement existed among the spokes without evidence of an explicit agreement.²³¹ However, courts have failed to provide a consistent rationale for these findings.

²²⁸ *Id.* at 1332.

²²⁹ See Orbach, *supra* note 70, at 1.

²³⁰ This is the so-called "rim requirement." See *id.* at 3–4. Plaintiffs have attempted to allege "rimless wheel" conspiracies, ones "in which various defendants enter into separate agreements with a common defendant, but where the defendants have no connection with one another, other than the common defendant's involvement in each transaction." *Dickson v. Microsoft Corp.*, 309 F.3d 193, 203 (4th Cir. 2002). But courts have rejected such arguments, holding that allegations of a single "rimless wheel" conspiracy do not assert a viable conspiracy under the Sherman Act. See *id.* at 203–04.

²³¹ See, e.g., *Interstate Circuit v. United States*, 306 U.S. 208 (1939); *United States v. Masonite Corp.*, 316 U.S. 265 (1942); *Klor's, Inc. v. Broadway-Hale Stores, Inc.*, 359 U.S. 207 (1959); *United States v. Parke, Davis & Co.*, 362 U.S. 29 (1960); *United States v. General Motors Corp.*, 384 U.S. 127 (1966); *Toys "R" Us, Inc. v. Fed. Trade Comm'n*, 221 F.3d 928

The knowledge theory could be applied in cases involving allegations of hub-and-spoke conspiracies. To determine whether there is a horizontal agreement among the spokes, one must inquire whether the communications between the hub and the spokes constitute a tacit offer of conspiracy made by the spokes. One must also inquire whether the parallel adoptions by the spokes of a vertical agreement with the hub constitute a tacit acceptance of the tacit offer of conspiracy. The application of the knowledge theory to the hub-and-spoke conspiracy can be illustrated using two well-known hub-and-spoke cases: *Interstate Circuit* and *Toys "R" Us*.

In *Interstate Circuit*, the defendant first-run movie theater groups (the hub) sent letters to the defendant motion picture distributors (the spokes) demanding restrictions on licenses for subsequent-run theaters.²³² The letters named all of the defendants as addressees.²³³ Therefore, each defendant knew that the same demands were made of other defendants. The Court equated the defendants' knowledge with knowledge that "concerted action was contemplated and invited."²³⁴ This was correct, but the concerted action there was contemplated and invited by the hub, not by the spokes. To prove a tacit agreement among the spokes, the tacit offer has to come from the spokes, not from the hub. It is not entirely clear, therefore, that the knowledge theory would treat the hub's letters to the spokes as tacit offers from the spokes.

In contrast, the communications between the hub and the spokes in *Toys "R" Us* more clearly demonstrate tacit offers from the spokes. In that case, the Fourth Circuit upheld the Federal Trade Commission's (FTC) finding that Toys "R" Us "had acted as the coordinator of a horizontal agreement among a number of toy manufacturers" through "a network of vertical agreements."²³⁵ Evidence indicated that, during negotiations for the vertical agreements between Toys "R" Us and the manufacturers, Toys "R" Us communicated to the manufacturers that each one of them would be willing to restrict sales to independent warehouse clubs if other manufacturers would do the same.²³⁶ These communications conveyed the spokes' conspiratory intent to one another.

Where the communications between the hub and the spokes constitute a tacit offer, the next question is whether the spokes accepted the tacit offer by

(7th Cir. 2000); *Dickson v. Microsoft Corp.*, 309 F.3d 193 (4th Cir. 2002); *United States v. Apple, Inc.*, 791 F.3d 290 (2d Cir. 2015); *In re Musical Instruments and Equip. Antitrust Litig.*, 798 F.3d 1186 (9th Cir. 2015).

²³² See *Interstate Circuit*, 306 U.S. at 216–17.

²³³ See *id.* at 216.

²³⁴ *Id.* at 226.

²³⁵ *Toys "R" Us, Inc.*, 221 F.3d at 930. In each of the vertical agreements, "the manufacturer promised to restrict the distribution of its products to low-priced warehouse club stores, on the condition that other manufacturers would do the same." *Id.*

²³⁶ *Id.* at 932. An executive of Toys "R" Us testified that "[w]e communicated to our vendors that we were communicating with all our key suppliers, and we did that I believe at Toy Fair 1992. We made a point to tell each of the vendors that we spoke to that we would be talking to our other key suppliers." *Id.*

adopting the vertical agreements. Again, the general standard under the knowledge theory applies: one must inquire whether there are explanations for the parallel adoptions other than responses to the tacit offer. In *Interstate Circuit*, the Court noted that the acceptance by all of the spokes of the hub's demand to increase minimum later-run ticket prices to twenty-five cents was "a radical departure from the previous business practices of the industry."²³⁷ But that did not, in and of itself, mean that there were no legitimate business justifications for the business practice change.²³⁸ The Court in *Interstate Circuit* avoided inquiries into the business justifications for the spokes' parallel acceptances of the hub's demand because it inferred an explicit agreement from the circumstances of the case.²³⁹ But if the Court had been called upon to determine whether the demand letters and the parallel acceptances themselves constituted a tacit agreement, it would have had to investigate whether the spokes would not have adopted the policy demanded by the hub had they not received the letter. In accordance with the knowledge theory, the Court would also have had to investigate whether the fact that the spokes would not have adopted the policy demanded by the hub but for the demand letters was known to the spokes.

The Seventh Circuit in *Toys "R" Us* did evaluate whether there were business justifications for the spokes' acceptances of the hub's demands. The court concluded that *Toys "R" Us* presented a more compelling case for inferring a tacit agreement than *Interstate Circuit*, because "not only was the manufacturers' decision to stop dealing with the warehouse clubs an abrupt shift from the past, and not only is it suspicious for a manufacturer to deprive itself of a profitable sales outlet, but the record here included the direct evidence of communications that was missing in *Interstate Circuit*."²⁴⁰ Under the knowledge theory, the significance of the communications in *Toys "R" Us* is that they allowed the spokes to directly know one another's conspiratory intent, obviating the need for the spokes to convey their conspiratory intent through conduct.

D. Facilitating Practices

The knowledge theory also provides guidance on when facilitating practices allow inferences of a tacit agreement on underlying parallel conduct. Firms employ many "facilitating practices. . . [including] systems for reporting transaction prices, most-favored customer clauses, meeting competition clauses, delivered or basing point pricing, industry-wide resale price

²³⁷ *Interstate Circuit v. United States*, 306 U.S. 208, 222 (1939).

²³⁸ See generally *id.* at 224–25.

²³⁹ See *id.* at 225 ("In the face of this action and similar unanimity with respect to other features of the proposals, and the strong motive for such unanimity of action, we decline to speculate whether there may have been other and more legitimate reasons for such action not disclosed by the record, but which, if they existed, were known to appellants.").

²⁴⁰ *Toys "R" Us, Inc. v. Fed. Trade Comm'n*, 221 F.3d 928, 935 (7th Cir. 2000).

maintenance, and public price announcements.”²⁴¹ Under current case law, these facilitating practices are not necessarily sufficient to constitute a plus factor that would raise a jury issue of agreement.²⁴² But scholars have argued that, at least in some cases involving facilitating practices, courts should hold firms liable for tacit collusion.²⁴³

A fundamental problem with the existing approaches to facilitating practices is that they are all based on evaluations of the effects of the facilitating practices, not on evaluations of the conspiratory intent of the alleged coconspirators. For instance, Bill Page argues that “parallel adoption of a facilitating practice, by itself, cannot justify an inference of a price-fixing agreement.”²⁴⁴ The reason, according to Page, is that “[b]ecause the practice will invariably involve some consumer benefit, parallel adoption of it does not tend to exclude the possibility that each firm is acting independently.”²⁴⁵

Focusing on the effects of facilitating practices has limited enforcement agencies’ legal options for attacking facilitating practices because of their inability to meet the agreement requirement under the Sherman Act. One example was the Department of Justice’s enforcement actions in the GE-Westinghouse matter.²⁴⁶ In the early 1960s, the DOJ obtained criminal convictions and a civil consent decree against three major players in the large turbine generator industry—GE, Westinghouse, and Allis-Chalmers—based on evidence of direct communications that the DOJ believed led to price fixing in the industry.²⁴⁷ Following the issuance of the consent decree, beginning in 1963, GE announced a new set of pricing policies that the DOJ believed would make it easier for Westinghouse, GE’s only remaining competitor, to coordinate with GE on pricing.²⁴⁸ The DOJ believed that the net effect of GE’s new pricing policies was “to make it possible for Westinghouse to match exactly GE’s prices if it wanted to and to give some assurance to Westinghouse that, in matching GE’s published prices, it would not be incurring any risk of being secretly undercut by selective

²⁴¹ Page, *supra* note 132, at 180.

²⁴² See, e.g., *Holiday Wholesale Grocery Co. v. Philip Morris, Inc.*, 231 F.Supp.2d 1253, 1274–75 (N.D. Ga. 2002), *aff’d*, 346 F.3d 1287 (11th Cir. 2003).

²⁴³ See POSNER, *supra* note 108, at 88–89. Donald Turner agreed with Posner on this issue despite having a more tolerant view of tacit collusion in general. See Turner, *supra* note 32, at 675–76.

²⁴⁴ Page, *supra* note 132, at 183.

²⁴⁵ *Id.*

²⁴⁶ For detailed discussions of the matter, see Hay, *supra* note 122, at 113–15.

²⁴⁷ See *id.* at 113–14.

²⁴⁸ See *id.* at 114. By then, Allis-Chalmers had withdrawn from the large turbine generator market. See *id.* GE’s new pricing policies included a commitment by GE not to give discounts in all future transactions, “a revised price book which contained simplified formulas and procedures for determining the book price of any given turbine generator[,] a published multiplier to be applied to book prices at any given time,” and the use of price protection clauses in all contracts that would require GE to give past customers retroactive discounts equal to price cuts given to any new customers. See *id.*

discounts.”²⁴⁹ Westinghouse adopted its own price book and price protection clause shortly afterward.²⁵⁰ Although the DOJ was convinced that GE’s and Westinghouse’s new pricing policies were intended to eliminate price competition, there was no evidence of any formal communication or agreement between GE and Westinghouse.²⁵¹ The DOJ decided to bring a case against GE and Westinghouse alleging that their new pricing policies brought about a meeting of minds and constituted an unlawful agreement under Section 1 of the Sherman Act.²⁵² But, concerned about litigation risks due to the novel legal theory employed in this matter, the DOJ chose to settle the case and entered into a consent decree against GE and Westinghouse.²⁵³

In part because of the uncertainties about how courts would assess whether parallel adoption of facilitating practices constituted an unlawful agreement under Section 1, the FTC brought the next enforcement action involving facilitating practices under Section 5 of the FTC Act, which does not require a finding of agreement.²⁵⁴ In *E.I. Du Pont de Nemours & Co. v. Federal Trade Comm’n*, the FTC alleged that four producers of lead-based gasoline additives engaged in unfair methods of competition in violation of Section 5 of the FTC Act when they adopted pricing policies similar to those at issue in the GE-Westinghouse matter.²⁵⁵ The Second Circuit, however, declined to find liability, primarily because “[e]ach of the challenged practices was initiated by [one producer] . . . when [that one producer] was the sole producer in the industry.”²⁵⁶ As George Hay points out, “given that the practices were implemented when there was no competition to worry about, there was a strong presumption that, at least at that time, there were (potentially significant) efficiencies that resulted from these practices.”²⁵⁷

After the FTC’s defeat in *E.I. Du Pont de Nemours & Co.*, the DOJ was again confronted in the early 1990s with the conundrum of whether parallel

²⁴⁹ *Id.* at 114–15. According to the DOJ, “the combination of the announced no-discount policy, the . . . simplified price book[,] and the . . . published multiplier” would make it “much easier for Westinghouse to know what GE would bid on any given turbine generator project.” *Id.* at 114. The price protection clause would give Westinghouse confidence that GE would adhere to its announced no-discount policy because selective discounts could not be employed without “imposing substantial penalties” on GE itself. *See id.* at 114.

²⁵⁰ *See id.* at 115.

²⁵¹ *See id.*

²⁵² *See id.*

²⁵³ *See id.* at 115 n.5.

²⁵⁴ Section 5 of the FTC Act prohibits “unfair methods of competition.” 15 U.S.C. § 45(a)(1) (2019). The FTC has long maintained that Section 5 of the FTC Act covers “both conduct that violates the Sherman Act and other federal antitrust laws, as well as conduct that would not necessarily violate the antitrust laws” Maureen K. Ohlhausen, *Section 5 of the FTC Act: Principles of Navigation*, 2 J. ANTITRUST ENFT 1, 2 (2014).

²⁵⁵ 729 F.2d 128, 133 (2d Cir. 1984). The pricing policies included: (1) quoting prices on a uniform delivered price basis; (2) announcing price increases to customers and to the press well in advance of the effective dates of the price increases; and (3) including in contracts with individual customers a clause requiring the seller to extend to that customer any discount offered to any other customer. *See id.*

²⁵⁶ *Id.*

²⁵⁷ Hay, *supra* note 122, at 117.

adoption of facilitating practices should be challenged under Section 1 of the Sherman Act. In the *Airline Tariff Publishing* case²⁵⁸, major airlines in the United States allegedly used a computerized Airline Tariff Publishing (ATP) system to communicate about ticket prices to be charged in the future.²⁵⁹ In particular, the airlines would indicate in the ATP system that they planned to implement a fare increase at some later date, but not immediately.²⁶⁰ The DOJ alleged that, through this practice, “[t]he airlines engaged in a process that involved repeated exchanges through ATP of price increase proposals and counterproposals, with the effect of raising fares to consumers.”²⁶¹ The DOJ claimed that this facilitating practice constituted an unlawful agreement under Section 1 of the Sherman Act, but they did not elaborate on how. The DOJ later settled the case with a consent decree prohibiting the use of future price increase dates.²⁶²

So far, the only successfully litigated Section 1 case against facilitating practices is the *Petroleum Products* case, where the Ninth Circuit found that public dissemination of wholesale prices by defendant oil companies amounted to an agreement to fix gasoline prices.²⁶³ The court’s rationale was that “the public dissemination of such information served little purpose other than to facilitate interdependent or collusive price coordination.”²⁶⁴ In deciding the case, the court was concerned about not deterring legitimate business conduct.²⁶⁵ But the court was not entirely clear how the fact that the communication served no other legitimate purposes justified its finding of agreement.

The knowledge theory provides a better way to rationalize the Ninth Circuit’s holding in *Petroleum Products*. As the court noted, the oil companies’ public dissemination of wholesale prices and dealer discounts was wholly uncalled for from a business perspective. Such information was not of immediate significance to retail purchasers, as they were concerned only with prices at the pump.²⁶⁶ Dealers were already individually notified of any

²⁵⁸ See generally *United States v. Airline Tariff Publishing Co.*, 836 F.Supp. 9 (D.D.C. 1993); *United States v. Airline Tariff Publishing Co.*, No. 92-2854 (SSH), 1994 WL 502091 (D.D.C. 1994).

²⁵⁹ See Press Release, Department of Justice, Justice Department Files Price Fixing Suit Against Eight Airlines and Fare Dissemination System (Dec. 21, 1992), https://www.justice.gov/archive/atr/public/press_releases/1992/211323.htm.

²⁶⁰ See *id.*

²⁶¹ *Id.*

²⁶² See Press Release, Department of Justice, Justice Department Settles Airlines Price Fixing Suit, May Save Consumers Hundreds of Millions of Dollars (Mar. 17, 1994), https://www.justice.gov/archive/atr/public/press_releases/1994/211786.htm.

²⁶³ See *In re Coordinated Pretrial Proceedings in Petroleum Products Antitrust Litigation*, 906 F.2d 432, 448 (9th Cir. 1990).

²⁶⁴ *Id.*

²⁶⁵ At one point, the court stated that the key question was “whether permitting an inference of conspiracy from the fact of such publication would significantly deter important legitimate conduct.” *Id.*

²⁶⁶ See *id.*

changes to wholesale prices or dealer discounts.²⁶⁷ Given that the public dissemination of wholesale prices and dealer discounts served no legitimate purposes, the fact that they were still being shared was enough for a reasonable person to conclude that they were shared to signal a tacit offer of conspiracy. That tacit offer of conspiracy was accepted when other defendants adopted the same practice.

The knowledge theory also provides a basis for determining whether facilitating practices in the other cases should be treated as tacit agreements. This can be exemplified through the *Airline Tariff Publishing* case. If airlines simply share fare information with one another, that communication is perfectly normal, because the airlines have a legitimate need for information about other airlines' fares as they frequently sell seats on other airlines' flights to their customers.²⁶⁸ So, when one airline announces a fare change to other airlines, the other airlines will not be able to tell if the announcer is providing the price information for that legitimate purpose or signaling its conspiratory intent. But when an airline announces a price change that will take effect in the future, that communication may strike other airlines as odd if price changes with time lags serve no legitimate business purposes. In the *Airline Tariff Publishing* case, some travel agents expressed strong support for advanced price announcements because the announcements allowed consumers to buy tickets at lower prices between the time the price changes were announced and the time the price changes took effect.²⁶⁹ If advanced price announcements serve no such legitimate purposes, then the fact that they are still being made by the airlines would meet the "oddity" requirement under the knowledge theory and would allow airlines to have knowledge of one another's conspiratory intent.

CONCLUSION

With increasingly sophisticated methods of coordination, firms in the modern economy are able to implement horizontal agreements without resorting to explicit exchanges of assurances of common actions. Yet the law's treatment of such tacit agreements is painfully ad hoc and lacks a clear and consistent logic for determining their existence. This Article attempts to fill this gap by proposing a unified knowledge theory of tacit agreement. Under this theory, a tacit agreement arises when the circumstances of the non-explicit communication are such that a reasonable person would conclude that the communication is made to signal the sender's offer or acceptance of a conspiracy. The legal formula derived from this theory is consistent across different types of tacit agreement, yet is flexible enough to be applied to any factual scenario that may give rise to a tacit agreement.

²⁶⁷ See *id.*

²⁶⁸ See Hay, *supra* note 122, at 120.

²⁶⁹ See *id.* at 121–22.

