Conscious Parallelism Revisited

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> "No, I have never seen an example of tacit collusion. I think it is one of those things that flows out of conventional oligopoly theory, which is now in the process of disintegrating before our eyes."
>
> —Robert Bork[1]

I. INTRODUCTION

Conscious parallelism, sometimes called tacit collusion, occurs when firms adopt their business practices based on what other firms are doing, rather than competing for consumers.[2] The phenomenon typically afflicts oligopolistic industries[3] in which the presence of few sellers facilitates such coordination.[4] The most obvious manifestation occurs when prices across companies in an industry not only become suspiciously similar but also change rapidly in strikingly parallel ways. Suggested examples are legion and varied: airline tickets,[5] gasoline,[6] cellular phone

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1. *Panel Discussion: Has the Reliance in Antitrust Policymaking by Congress and Enforcement Authorities on an Alleged Relationship Between Industry Concentration and Certain Anticompetitive Effects Been Misguided?*, 46 ANTITRUST L.J. 896, 904 (1977) (statement of Robert Bork).

2. *See, e.g.*, MARC IVALDI ET AL., THE ECONOMICS OF UNILATERAL EFFECTS: INTERIM REPORT FOR DG COMPETITION, EUROPEAN COMMISSION 5 (2003), *available at* http://ec.europa.eu/competition/mergers/studies_reports/the_economics_of_unilateral_effects_en.pdf ("Consequently the anticipation of a response to one's own action is at the heart of tacit collusion, and passive adaptation to market conditions is incompatible with tacit collusion under any circumstances."); Timothy J. Langella, Bichler v. Eli Lilly: *An Improper Use of Conscious Parallelism as Evidence of Concerted Action*, 62 B.U. L. REV. 633, 645 (1982) ("'Conscious parallelism' refers to the common practice of conducting similar businesses in a uniform manner, with each business aware that the others are pursuing the same course of action."); Robert E. Nielsen, Note, *The "No-Conduct" Approach to Monopoly Power and Its Application to Oligopoly*, 15 VAL. U. L. REV. 529, 530 n.10 (1981) ("Conscious parallelism is where several rival firms act in a similar manner each with the knowledge of what the others are doing."). For a more detailed definition, see *infra* Part II.A.1.

3. *See, e.g.*, Joseph F. Zellmer, Note, *Detecting Collusion in Oligopolistic Industries: A Comparison and Proposal*, 6 HASTINGS INT'L & COMP. L. REV. 829, 829 (1983) ("The term 'oligopoly' refers to a type of industry structure where a small number of firms control a large percentage of a market. This type of industry structure is prominent in American business." (footnotes omitted)).

4. *See, e.g.*, Paul L. Joskow, *Firm Decision-Making Process and Oligopoly Theory*, 65 AM. ECON. REV. 270, 271 (1975); Thomas A. Piraino, Jr., *Regulating Oligopoly Conduct Under the Antitrust Laws*, 89 MINN. L. REV. 9, 9–10 (2004).

5. *See, e.g.*, Robert E. Cooper, *Communication and Cooperation Among Competitors: The Case of the Airline Industry*, 61 ANTITRUST L.J. 549, 550 (1993); Eli A. Friedman, Comment, *Airline Antitrust: Getting Past the Oligopoly Problem*, 9 U. MIAMI BUS. L. REV. 121, 121–22 (2001).

text messaging[7] and roaming[8] rates, interest rates on bank accounts,[9] credit card interchange fees,[10] movie tickets,[11] recorded music,[12] breakfast cereals,[13] real estate[14] and travel agent[15] commissions, electricity prices in deregulated markets,[16] and air cargo fuel surcharges,[17] just to name a few.[18]

Although this phenomenon might seem obviously and intuitively antithetical to antitrust principles, its punishment has long been problematic to cartel theory. The root of competition law's current weakness lies in the belief that absent an ability to prove explicit collusion among players, conscious parallelism cannot be punished.[19] Unfortunately, though, supracompetitive pricing engenders the same

6. *See, e.g.*, Kenneth Bredemeier, *Oil Firms Said To Prop Up Gas Prices*, WASH. POST, Apr. 30, 2002, at E1.

7. *See, e.g.*, Scott Woolley, *Nothing to LOL About*, FORBES, Oct. 27, 2008, at 32, 32.

8. *See, e.g.*, W.H. Melody, *Assessing Highly Imperfect Mobile Markets*, 25 TELECOMM. POL'Y 1, 1 (2001).

9. *See, e.g.*, Michael A. Robinson, *Investigation of California Banks Rates Requested*, AM. BANKER, Nov. 1, 1988, at 3, *available at* 1988 WLNR 726009.

10. *See, e.g.*, Adam J. Levitin, *Priceless? The Costs of Credit Cards* 79–80 (Georgetown Univ. Law Ctr.: Bus., Econ. & Regulatory Policy Working Paper Series, Research Paper No. 973974, 2007), *available at* http://ssrn.com/abstract=973974.

11. *See, e.g.*, Barak Y. Orbach, *Antitrust and Pricing in the Motion Picture Industry*, 21 YALE J. ON REG. 317, 317 (2004).

12. *See, e.g.*, Tim Burt & Gautam Malkani, *Brussels Warns of Music Industry Collusion*, FIN. TIMES (London), May 25, 2004, *available at* Factiva.com, Doc. No. FTCOM00020040526e05p0001d.

13. *See, e.g.*, Richard Schmalensee, *Entry Deterrence in the Ready-To-Eat Breakfast Cereal Industry*, 9 BELL J. ECON. 305, 306, 315 (1978).

14. *See, e.g.*, William L. Trombetta, *Using Antitrust Law To Control Anticompetitive Real Estate Industry Practices*, 14 J. CONSUMER AFF. 142, 147–48 (1980).

15. *See, e.g.*, Skye M. McQueen, Comment, *The Summary Judgment Standard in Antitrust Conspiracy Cases and* In re Travel Agency Commission Antitrust Litigation, 62 J. AIR L. & COM. 1155, 1160 (1997).

16. *See, e.g.*, Robert B. Martin, III, Note, *Sherman Shorts Out: The Dimming of Antitrust Enforcement in the California Electricity Crisis*, 55 HASTINGS L.J. 271, 278 (2003).

17. *See, e.g.*, Dustin Appel, Comment, *Air Cargo Fuel Surcharges and Tacit Collusion Under the Sherman Act: What Good Is Catching a Few Bad Guys if Consumers Still Get Robbed?*, 73 J. AIR L. & COM. 375, 376 (2008).

18. Though this Article focuses on the United States, the problem obviously exists in other countries as well. *See, e.g.*, Jon Ungoed-Thomas & Steven Swinford, *Big Six Energy Firms Keep Prices Inflated*, SUNDAY TIMES (London), Jan. 13, 2008, at 4, *available at* 2008 WLNR 718283; Niklas Strand, Tacit Collusion in the EU Sugar Markets 2, 11–12 (2002) (unpublished manuscript), *available at* www.snee.org/filer/papers/204.pdf.

19. *See, e.g.*, W. Bentley MacLeod, *A Theory of Conscious Parallelism*, 27 EUR. ECON. REV. 25, 40 (1985).

economic harm whether "achieved by direct agreement or sophisticated conscious parallelism."[20] After all,

> To a consumer . . . there is no practical difference between a non-competitive price set by an explicit pact among sellers and one arrived at by tacit collusion— the end result on the pocketbook is the same. Yet, while courts would likely condemn a blatant agreement to fix prices as a per se violation, consciously parallel action—even though it yields an identical economic effect—would escape prosecution. This gap in the protections afforded by the antitrust laws has been called by some "the oligopoly problem."[21]

Given its vast cost to the public,[22] "it is widely understood to be an objective of antitrust policy to forestall oligopolistic pricing. The question is how."[23] As one commentator laments, "[T]he single most important industrial phenomenon facing competition policy—closely coordinated oligopoly without collusion—is beyond the reach of legal tools originally fashioned, not to deal with the economic behaviour and effects of oligopoly, but to deal with agreements among individuals to commit acts clearly defined to be illegal."[24] As a consequence, "[f]or more than 100 years, the courts and antitrust enforcement agencies have struggled unsuccessfully to regulate the anticompetitive conduct of oligopolists."[25]

This Article argues that this struggle can be overcome through a more robust, less anemic conception of antitrust that is willing to confront

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20. W.T. Stanbury & G.B. Reschenthaler, *Oligopoly and Conscious Parallelism: Theory, Policy and the Canadian Cases*, 15 OSGOODE HALL L.J. 617, 688 (1977); *see also* Elmer J. Schaefer, *Basing-Point Pricing Establishes Illegal Vertical Agreements*, 18 GA. L. REV. 529, 535 (1984) ("If successful, conscious parallelism based on implicit price signaling creates the same harm as an explicit agreement to fix prices.").

21. Appel, *supra* note 17, at 384 (footnotes omitted); *see also* WALTER ADAMS & JAMES W. BROCK, THE BIGNESS COMPLEX: INDUSTRY, LABOR, AND GOVERNMENT IN THE AMERICAN ECONOMY 188 (2d ed. 2004).

22. *See, e.g.*, Lee Goldman, *Trouble for Private Enforcement of the Sherman Act:* Twombly*, Pleading Standards, and the Oligopoly Problem*, 2008 BYU L. REV. 1057, 1102 ("Oligopoly pricing costs consumers billions of dollars and results in significant misallocation of resources.").

23. Stephen A. Nye, *Can Conduct Oriented Enforcement Inhibit Conscious Parallelism?*, 44 ANTITRUST L.J. 206, 206 (1975).

24. Stanbury & Reschenthaler, *supra* note 20, at 695.

25. Piraino, *supra* note 4, at 9; *see also* Barry J. Rodger, *The Oligopoly Problem and the Concept of Collective Dominance: EC Developments in the Light of U.S. Trends in Antitrust Law and Policy*, 2 COLUM. J. EUR. L. 25, 36 (1996) ("Most U.S. commentators agree that the American law is inadequate to deal with oligopolistic market problems."); Alan Devlin, Note, *A Proposed Solution to the Problem of Parallel Pricing in Oligopolistic Markets*, 59 STAN. L. REV. 1111, 1112 (2007) ("While antitrust law has been markedly successful in eliminating express cartels, competition policy has been equally noteworthy for its failure to effectively address instances of parallel pricing that may have an economically analogous effect to explicit price-fixing." (footnote omitted)).

conscious parallelism. It is structured into three parts. After delving into some detail about what conscious parallelism is, Part II argues, contrary to the conventional wisdom, that current antitrust law is flexible enough to address such behavior—be it through the Sherman, Clayton, or Federal Trade Commission (FTC) Acts. Part III discusses what light microeconomics might shed on the problem. In particular, it focuses on the central and thorny question of how to distinguish between whether the parallelism is due to competition or tacit coordination.[26] It argues that although current incarnations of game theory leave much to be desired, a renewed focus on the Structure-Conduct-Performance (S-C-P) paradigm of industrial organization, combined with careful econometric studies, can help reveal where conscious parallelism lies and where it does not. Several examples are offered to buttress the argument. Finally, Part IV argues—again, contrary to mainstream antitrust thinking—that a range of effective remedies does indeed exist to address conscious parallelism. In sum, this Article's goal is "to start closing the gap in antitrust law where oligopolists now reside."[27]

II. LEGAL POSSIBILITIES

Part II begins with a detailed definition of conscious parallelism and the anemic response the problem has received under current doctrine. More importantly, it then argues that there are several options within existing antitrust jurisprudence with which to combat conscious parallelism.

A. Definitions and Current Doctrine

1. Defining "Conscious Parallelism"

Conscious parallelism occurs when competitors "restrain trade by intentionally imitating their competitors' actions with reasonably high expectations of a responsive imitation that will lessen the rigors of

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26. *Cf.* Julian M. Joshua & Sarah Jordan, *Combinations, Concerted Practices and Cartels: Adopting the Concept of Conspiracy in European Community Competition Law*, 24 NW. J. INT'L L. & BUS. 647, 662 (2004) ("The crucial issue is whether the players in an oligopolistic market garner their uncompetitive prices and supra-competitive profits as a result of ineluctable market forces or whether they have acted in a deliberate manner.").

27. Zellmer, *supra* note 3, at 854.

competition."[28] The phenomenon is sometimes called "tacit collusion," given that "communication is indirect, as firms infer rivals' intentions from their actions or from market outcomes."[29] Though the terms are often used interchangeably,[30] this Article will use *conscious parallelism* to avoid any confusion that might ensue from the word *collusion*, which tends to suggest some form of necessarily illegal communication.[31] Perhaps unsurprisingly, some commentators prefer it the other way.[32]

Conscious parallelism afflicts oligopolistic industries.[33] As Keith Hylton observes:

> *Conscious parallelism* is parallel behavior that typically appears in markets with small numbers of sellers. It is not the result of an explicit agreement. It occurs because in markets with few sellers, firms take the reactions of competitors into account when deciding how much to produce or what price to set. Although it is hard to find a precise definition of it, the term conscious parallelism refers to a form of tacit collusion in which each firm in an oligopoly realizes that it is

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28. *Conscious Parallelism—Fact or Fancy?*, 3 STAN. L. REV. 679, 680 (1951); *see also* Michael Ray Pfeifer, Note, *Uniform Pricing in Concentrated Markets: Is Conscious Parallelism Prohibited by Article 85(1) of the Treaty of Rome?*, 7 CORNELL INT'L L.J. 113, 114 (1974) (describing conscious parallelism as a situation in which the "market behavior" of one firm "tends to conform to that of its competitor" because the firm starts responding to the actions, or at least the anticipated actions, of its competitor).

29. Robert H. Porter, *Detecting Collusion*, 26 REV. INDUS. ORG. 147, 147–48 (2005).

30. *See, e.g.*, Appel, *supra* note 17, at 383.

31. As a group of economists pointed out:

> We should stress at once that "tacit collusion" need not involve any "collusion" in the legal sense, and in particular need involve no communication between the parties. It is referred to as tacit collusion only because the outcome (in terms of prices set or quantities produced, for example) may well resemble that of explicit collusion or even of an official cartel. A better term from a legal perspective might be "tacit coordination."

IVALDI ET AL., *supra* note 2, at 3 n.1.

32. For instance, Richard Posner notes that:

> [I]n some circumstances competing sellers might be able to coordinate their pricing without conspiring in the usual sense of the term—that is, without any overt or detectable acts of communication. This is the phenomenon that lawyers call "conscious parallelism" and some economists term "oligopolistic interdependence," but which I prefer to call "tacit collusion" in contrast to the explicit collusion of the formal cartel of its underground counterpart.

RICHARD A. POSNER, ANTITRUST LAW 52–53 (2d ed. 2001).

33. "An oligopoly is populated by a relatively few large firms which account for the majority of the industry's sales." Nielsen, *supra* note 2, at 538. Edward Chamberlin popularized the term in economics. *See* Edward H. Chamberlin, *On the Origin of "Oligopoly*,*"* 67 ECON. J. 211, 211–12 (1957); *see also* Jacob Weissman, *Is Oligopoly Illegal? A Jurisprudential Approach*, 74 Q.J. ECON. 437, 457 (1960) ("Professor Chamberlin introduced the term oligopoly to describe situations in which a few sellers share a market, a condition distinguished, on the one hand, from monopoly (a single seller whose control over supply necessarily involves control over price), and on the other hand, from pure competition (a large enough number of sellers so that the influence on supply, thus price, of any one or of several in combination is negligible).").

> within the interests of the entire group of firms to maintain a high price or to avoid vigorous price competition, and the firms act in accordance with this realization.[34]

The very fact that there are few sellers in the market makes it obviously easier to monitor what other oligopolists are doing and react accordingly—as one commentator notes, "the most essential differentiating aspect" of oligopoly is "the oligopolists' consciousness of their interdependence."[35]

It is thus no coincidence that "[o]ligopolistic markets are characterized frequently by higher prices and lower outputs than competitive markets."[36] After all, sellers are trying to "maximize joint profits (or, minimize joint losses)"[37] rather than vigorously compete for customers.[38] Franklin Fisher even defines tacit collusion as "the tendency towards the cooperative, joint-maximization solution."[39] As one commentator observes:

> One of the main market imperfections and surprisingly one of the most under-regulated is oligopoly pricing. Oligopoly means few sellers. The hallmark of oligopoly is the presence of strategic interactions among rival firms. Though each firm may independently decide its strategic decisions, its rational decisions must take into account the anticipated reaction of its rival firms to its conduct. The recognition of oligopolistic interdependence might lead to coordinated conduct, which enables firms to charge a supra-competitive price. Coordinated conduct may create significant welfare losses to society, depending on the existing market

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34. KEITH N. HYLTON, ANTITRUST LAW: ECONOMIC THEORY AND COMMON LAW EVOLUTION 73 (2003); *see also* D.J. Simonetti, Note, *Conscious Parallelism and the Sherman Act: An Analysis and Proposal*, 30 VAND. L. REV. 1227, 1228 (1977) ("The term 'conscious parallelism' refers to the common practice among firms in a concentrated industry of conducting their similar businesses in a uniform manner, aware that their counterparts are pursuing the same course of action.").

35. K.W. Rothschild, *Price Theory and Oligopoly*, 57 ECON. J. 299, 303 (1947); *see also* R.F. Kahn, *The Problem of Duopoly*, 47 ECON. J. 1, 1 (1937); Nielsen, *supra* note 2, at 538.

36. Annmarie Levins, Comment, *A Structural Approach to the Application of Section One of the Sherman Act to Oligopolistic Interdependence*, 35 ME. L. REV. 181, 181 (1983).

37. Arthur G. Fraas & Douglas F. Greer, *Market Structure and Price Collusion: An Empirical Analysis*, 26 J. INDUS. ECON. 21, 29 (1977).

38. *See, e.g.*, Richard A. Posner, *Oligopoly and the Antitrust Laws: A Suggested Approach*, 21 STAN. L. REV. 1562, 1564 (1969) ("Oligopolists are thus 'interdependent' in their pricing. They base their pricing decisions in part on anticipated reactions to them. The result is a tendency to avoid vigorous price competition.").

39. Franklin M. Fisher, *Games Economists Play: A Noncooperative View*, 20 RAND J. ECON. 113, 120 (1989).

> conditions. Oligopoly conditions exist in many industries even in a large market such as the U.S.[40]

The problem of conscious parallelism has even been dubbed the "oligopoly problem."[41] Most importantly for the purpose of this Article, though, its hallmark is the absence of agreement: "Conscious parallelism describes forms of tacitly collusive conduct in oligopoly. Firms engage in parallel behaviour in order to gain collusive profits. A cartel is not set up explicitly; instead, firms establish parallel conduct understanding the accomplishment of a common purpose."[42]

2. Conceived Awkwardness

The fact that there is no explicit agreement seemingly creates an enormous problem for antitrust law, which tends to focus on explicit collusion.[43] The root of the difficulty is that, under conventional interpretations, conscious parallelism does not meet the "contract," "combination," or "conspiracy" requirement of section 1 of the Sherman

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40. Michal S. Gal, *Reducing Rivals Prices: Government-Supported Mavericks as New Solutions for Oligopoly Pricing* 3 (N.Y. Univ. Ctr. for Law & Bus., Law & Econ. Working Paper No. 99-016, 2000) (footnotes omitted), *available at* http://ssrn.com/abstract=211728.

41. *See, e.g.*, Appel, *supra* note 17, at 376.

42. Hans-Theo Normann, *Conscious Parallelism in Asymmetric Oligopoly*, 51 METROECONOMICA 343, 343 (2000); *see also* John Purinton Dunn, *Conscious Parallelism Reexamined*, 35 B.U. L. REV. 225, 228 (1955) ("[C]onscious parallelism means action by one competing enterprise, A, similar in detail to that of another business, B, or other businesses, B and C, each one, A, B and C, relying on the fact that such action is similar and that it will be in the interest of each to continue that behavior, and yet each refraining from communicating directly with the other for the purpose of entering into a full-blown agreement."); Levins, *supra* note 36, at 196 ("According to traditional accounts of oligopolistic interdependence, price accommodation sometimes occurs *without* firms agreeing to accommodate.").

43. As one commentator observes:

> [O]ligopolistic undertakings can establish non-competitive positions in one of two ways: (1) by engaging in true collusive behavior; or (2) by practicing so-called intelligent or conscious parallelism, which translates into adapting their conduct to that of their competitors. The first case falls within the scope of the antitrust law, which expressly forbids collusive practices. The second case, however, raises the problem of applying antitrust law to conscious parallelism. It should be emphasized that the effect on the market is identical . . . .

Enrico Adriano Raffaelli, *Oligopolies and Antitrust Law*, 19 FORDHAM INT'L L.J. 915, 917–18 (1996) (footnote omitted); *see also* Thomas E. Cooper, *Most-Favored-Customer Pricing and Tacit Collusion*, 17 RAND J. ECON. 377, 377 (1986) ("Overt formal coordination, such as actual agreements to fix prices, has been the primary object of antitrust law. A more subtle form of coordination that resembles the monopoly outcome is tacit collusion, in which firms choose higher prices because of mutual recognition of their interdependence.").

Act.[44] This perspective is based on a selective reading of Donald Turner's classic article, written in 1962, in which he concluded "that oligopolists who take into account the probable reactions of competitors in setting their basic prices, without more in the way of 'agreement' than is found in 'conscious parallelism,' should not be held unlawful conspirators under the Sherman Act."[45] Turner's conclusion rests on his belief that parallel behavior is inherent and rational in oligopolistic industries:

> In a significant sense, the behavior of the rational oligopolist in setting his price is precisely the same as that of the rational seller in an industry consisting of a very large number of competitors. Both are pricing their product and determining their output so as to make the highest profit, or suffer the least loss, that can be obtained in the market conditions facing them. The rational oligopolist simply takes one more factor into account—the reactions of his competitors to any price change that he makes.[46]

Turner further opined "that conscious parallelism is never meaningful by itself, but always assumes whatever significance it might have from additional facts. Thus, conscious parallelism is not even evidence of agreement unless there are some other facts indicating that the decisions of the alleged conspirators were *interdependent*."[47] In another famous article, Richard Posner criticized Turner's position,[48] but Turner's opinion has become embedded in the doctrine.

Consistent with Turner's position, courts have spent their time searching for additional evidence suggesting there is a conspiracy[49]—the "plus factors" approach "to bridge the conceptual gap between conscious

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44. *See* John E. Lopatka & William H. Page, *Economic Authority and the Limits of Expertise in Antitrust Cases*, 90 CORNELL L. REV. 617, 674 (2005); Emil John Kotalik, Jr., Note, *Conscious Parallelism: The Business Judgment Defense in a Summary Judgment Context*, 35 HASTINGS L.J. 115, 116 (1983). Section 1 states that "[e]very contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal." Sherman Act of 1890, 15 U.S.C. § 1 (2006).

45. Donald F. Turner, *The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusals To Deal*, 75 HARV. L. REV. 655, 671 (1962).

46. *Id.* at 665.

47. *Id.* at 658.

48. *See* Posner, *supra* note 38. For the argument that the differences between Turner and Posner are not as great as one might expect, see John E. Lopatka, *Solving the Oligopoly Problem: Turner's Try*, 41 ANTITRUST BULL. 843, 845 (1996).

49. *See, e.g.*, W. KIP VISCUSI ET AL., ECONOMICS OF REGULATION AND ANTITRUST 131–32 (Mass. Inst. Tech. Press 3d ed. 2000) ("The key question is whether the conspiracy can be inferred from such conscious parallelism.").

parallelism and conspiracy."[50] William Kovacic outlines "the traditional litany of plus factors":

> [T]he existence of a rational motive to conspire, the presence of behavior that is contrary to the defendant's self-interest unless pursued as part of a common plan (put another way, a phenomena that cannot be explained rationally, except as the outcome of concerted action), communications among rivals or at least the opportunity to communicate, industry conditions that facilitate or reinforce collusion, performance data such as high profitability that suggest successful coordination over time, and the lack of a plausible business justification for the behavior.[51]

The first two factors that Kovacic outlines have by far been the most important to courts.[52] This is likely because the emphasis in plus factors analysis has been toward trying to find circumstantial evidence of agreement or conspiracy, and motive and self-interest purportedly can serve to screen for this. It would not be an exaggeration to say that the plus factors approach takes the problem of conscious parallelism and turns it into an evidentiary problem; namely, what circumstantial evidence can be used to adduce an agreement?[53] As Kovacic notes, the "crucial policy issue in such matters is how to define the quantum of proof that will support an inference that the defendants exchanged assurances."[54]

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50. Simonetti, *supra* note 34, at 1231; *see also* VISCUSI ET AL., *supra* note 49, at 134 ("The accumulated precedents have been summarized as 'parallelism plus.'"); William E. Kovacic, *The Identification and Proof of Horizontal Agreements Under the Antitrust Laws*, 38 ANTITRUST BULL. 5, 34 (1993) ("[C]ourts require plaintiffs who emphasize parallel conduct to introduce additional facts, often termed 'plus factors,' to justify an inference of collective action."); Devlin, *supra* note 25, at 1122–23 ("[P]lus factors are required to demonstrate that overt agreements were entered into." (internal quotation marks omitted)).

51. William E. Kovacic et al., *The Detection and Punishment of Tacit Collusion*, 9 LOYOLYA CONSUMER L. REP. 151, 155–56 (1997); *see also* Michael D. Blechman, *Conscious Parallelism, Signalling and Facilitating Devices: The Problem of Tacit Collusion Under the Antitrust Laws*, 24 N.Y.L. SCH. L. REV. 881, 886–87 (1979) (listing various plus factors).

52. *See, e.g.*, Blechman, *supra* note 51, at 885 ("The circumstance, or 'plus factor,' which has been most frequently considered in this connection is whether or not the defendants' conduct accords with their individual self-interest." (footnote omitted)); Randall David Marks, *Can Conspiracy Theory Solve the "Oligopoly Problem"?*, 45 MD. L. REV. 387, 405 (1986) ("[Courts] have established two general tests for deciding whether particular behavior qualifies as a 'plus factor': whether it is contrary to each firm's independent self-interest, and whether there is a motive for concerted action.").

53. *See, e.g.*, Arthur Austin, *Adam Smith on the Inevitability of Price Fixing*, 55 CASE W. RES. L. REV. 501, 505 (2005); Turner, *supra* note 45, at 672; Kotalik, *supra* note 44, at 124.

54. William E. Kovacic, *Antitrust Policy and Horizontal Collusion in the 21st Century*, 9 LOYOLA CONSUMER L. REP. 97, 99 (1997); *see also* ADAMS & BROCK, *supra* note 21, at 118 (discussing the difficulties that accompany prosecuting cases in which

This evidentiary approach has become increasingly important to United States Supreme Court jurisprudence.[55] Consider that in its *Interstate Circuit* opinion in 1939, the Court held that "[i]t is elementary that an unlawful conspiracy may be and often is formed without simultaneous action or agreement on the part of the conspirators."[56] Yet in its 1954 *Theatre Enterprises* opinion, the Court seemed to have a change of heart.[57] In what is arguably the most oft-cited passage in the jurisprudence of conscious parallelism, the Court proclaimed:

> But this Court has never held that proof of parallel business behavior conclusively establishes agreement or, phrased differently, that such behavior itself constitutes a Sherman Act offense. Circumstantial 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.[58]

Seemingly ignoring the crucial fact that *Theatre Enterprises* appears in the context of a directed verdict,[59] unfortunately "[e]ver since, there has been a pronounced tendency among lawyers, judges, legislators, legal scholars, and enforcement agencies to belittle Section 1 as a largely ineffective constraint on consciously parallel oligopoly pricing."[60]

After *Theatre Enterprises*, there were also two major procedural setbacks for plaintiffs. The *Matsushita* case in 1986 imposed the plus

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there is not an overt conspiracy); Langella, *supra* note 2, at 645–46 (discussing that fact that circumstantial evidence of an illegal agreement is the only type of evidence available in most cases); *cf*. Joshua & Jordan, *supra* note 26, at 663 ("The so-called 'attack' on the oligopoly problem has been dogged by evidential problems . . . ."); Marks, *supra* note 52, at 387 ("Oligopoly markets, in particular, present intractable problems of proof in antitrust litigation.").

55. *Cf.* Kovacic, *supra* note 50, at 15 ("Early litigation involving section 1 rarely posed the question of whether the requisite agreement existed.").

56. Interstate Circuit, Inc. v. United States, 306 U.S. 208, 227 (1939).

57. *See* Theatre Enters., Inc. v. Paramount Film Distrib. Corp., 346 U.S. 537, 541 (1954).

58. *Id.* (footnote omitted).

59. This is a reality that, to his credit, Turner himself acknowledges. *See* Turner, *supra* note 45, at 658 ("The holding of the case [*Theatre Enterprises*] was extremely narrow, namely that a refusal to grant a directed verdict was no error in the face of conflicting evidence. This is not a holding that a jury could not infer conspiracy on the basis of conscious parallelism alone.").

60. Nye, *supra* note 23, at 207. *See also* Blechman, *supra* note 51, at 884 (discussing the Supreme Court's rejection of the plaintiff's argument that he was entitled to a directed verdict in *Theatre Enterprises*).

factors requirements at the summary judgment phase.[61] Most recently in 2007, *Twombly* required the analysis at the motion to dismiss phase.[62] The Court first summarized prior law:

> [W]e have previously hedged against false inferences from identical behavior at a number of points in the trial sequence. An antitrust conspiracy plaintiff with evidence showing nothing beyond parallel conduct is not entitled to a directed verdict . . . [*Theatre Enterprises*]; proof of a § 1 conspiracy must include evidence tending to exclude the possibility of independent action . . . ; and at the summary judgment stage a § 1 plaintiff's offer of conspiracy evidence must tend to rule out the possibility that the defendants were acting independently . . . [*Matsushita*].[63]

The Court then went on to hold that henceforth a complaint in a section 1 case "requires a complaint with enough factual matter (taken as true) to suggest that an agreement was made"[64]—thereby imposing at the motion to dismiss phase "the requirement of plausibility and the need for something more than merely parallel behavior."[65] Perhaps unsurprisingly, *Twombly* is controversial. Justice Stevens's strong dissent noted that "a heightened production burden at the summary judgment stage does not translate into a heightened pleading burden at the complaint stage,"[66] lamented that the majority should "not rewrite the Nation's civil procedure textbooks"[67] and argued that the "transparent policy concern that drives the decision is the interest in protecting antitrust defendants."[68] Predictably, a cottage industry has recently emerged to critique the

61. *See, e.g.*, Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 588 (1986) ("Respondents . . . must show that the inference of conspiracy is reasonable in light of the competing inferences of independent action or collusive action that could not have harmed respondents."); *see also* HYLTON, *supra* note 34, at 141 ("The modern decisions involve summary judgments granted to defendants. The doctrine that has emerged requires parallelism 'plus' something else in order to survive a summary judgment motion."); Appel, *supra* note 17, at 380 ("The degree of evidence necessary to sustain an inference of an implied agreement is a vital issue in most cases, particularly to survive motions for acquittal or summary judgment.").

62. *See, e.g.*, William H. Page, Twombly *and Communication: The Emerging Definition of Concerted Action Under the New Pleading Standards*, 5 J. COMPETITION L. & ECON. 439, 447 (2009), *available at* http://ssrn.com/abstract=1286872.

63. Bell Atl. Corp. v. Twombly, 550 U.S. 544, 554 (2007).

64. *Id.* at 556. To try to clarify its statement, the Court added that "[a]sking for plausible grounds to infer an agreement does not impose a probability requirement at the pleading stage; it simply calls for enough fact to raise a reasonable expectation that discovery will reveal evidence of illegal agreement." *Id.*

65. *Id.* at 560.

66. *Id.* at 586 (Stevens, J., dissenting).

67. *Id.* at 579.

68. *Id.* at 596. The majority does seem concerned with unworthy claims surviving the motion phase, thus leading to unnecessary settlements. *See, e.g.*, *id.* at 557–58 (majority opinion).

opinion,[69] with one commentator even proclaiming, "*Twombly* is a confusing opinion replete with inconsistent statements."[70]

Regardless of one's perspective of the merits of its opinions, the Supreme Court's jurisprudence can be summarized simply. As a former Chairman of the FTC observes:

> The Supreme Court has held that conscious parallelism simply reflects rational behavior by independent firms that correctly perceive and act upon competitive interdependencies without reaching any sort of agreement or mutual understanding with their rivals. Thus . . . conscious parallelism is not reachable under Section 1 of the Sherman Act because such behavior does not entail any act of agreement.[71]

As this Article argues below, our jurisprudence could be more ambitious.

B. New Conceptions

Given the state of the law, commentators can be forgiven for griping that "[d]espite more than a century of litigation under the Sherman Act and the ability to draw on almost two centuries of economic theory, the federal courts have been unable to develop an effective means of regulating oligopolists' tacit collusion"[72] or that because "much of American industry conforms to the oligopoly model, present antitrust law thus may be incapable of dealing with a pervasive market

69. *See, e.g.*, Edward D. Cavanagh, Twombly*: The Demise of Notice Pleading, the Triumph of Milton Handler, and the Uncertain Future of Private Antitrust Enforcement*, 28 REV. LITIG. 1, 17 (2008) ("[T]hree areas of impact merit close attention: (1) the demise of notice pleading; (2) the shift in the litigation playing field in favor of defendants; and (3) the Supreme Court's lack of confidence in the ability of the lower courts and the Federal Rules of Civil Procedure to manage federal litigation in a cost-effective manner."); Page, *supra* note 62, at 447 ("[*Twombly*] failed to articulate a definition of agreement or to explain why these sorts of allegations would satisfy the definition."); Richard M. Steuer, *Plausible Pleading:* Bell Atlantic Corp. v. Twombly, 82 ST. JOHN'S L. REV. 861, 862 (2008) ("There can be little doubt that the Supreme Court purposefully recalibrated the pleading requirements under Rule 12(b)(6) in *Twombly*.").

70. Goldman, *supra* note 22, at 1058.

71. Deborah Platt Majoras, Principal Deputy Assistant Attorney Gen., Antitrust Div., U.S. Dep't of Justice, Ensuring Sound Antitrust Analysis: Two Examples, Address at the National Economic Research Associates 23d Annual Antitrust & Trade Regulation Seminar 2 n.1 (July 3, 2003), *available at* www.usdoj.gov/atr/public/speeches/201167.htm (citation omitted).

72. Piraino, *supra* note 4, at 24.

problem."[73] The root of the problem is that conscious parallelism is undertheorized—too wedded to a selective reading of Turner's nearly half-century old thesis. This Article argues, however, that existing tools to combat conscious parallelism already exist in our law, should we choose to deploy them.

1. Sherman Act

To begin with, there are possibilities under both section 1 and section 2 of the Sherman Act. First, and most simply, the standard for establishing a section 1 conspiracy might be lowered such that showing an explicit agreement need not be required.[74] Such an approach could be justified in contract theory by arguing that conscious parallelism in effect springs from a "'meeting of the minds,' whereby competitors recognize that it is in their collective best interests to set price or quantity equal to the collusive level."[75] Alternatively, one might argue that there is a "conscious commitment to a common scheme"[76] or "an agreement to agree."[77] Perhaps most famously, Richard Posner argued that "[i]n forbearing to seek short-term gains at each other's expense in order to reap monopoly benefits that only such mutual forbearance will allow, they are much like the parties to a 'unilateral contract,' which is treated by the law as a contract rather than as individual behavior."[78]

More important than contract theory in this context is the fact that Turner's purported justification for limiting section 1—the rationality of oligopolists' behavior—has precious little to do with what antitrust should be concerned: the effect of such behavior. As one commentator suggests, "Turner's principal reason for opposing the application of section 1 to conscious parallelism—because the participants are merely acting in an economically rational manner—is unpersuasive in light of the harmful economic consequences of such activity, regardless of the

73. Michael K. Vaska, Comment, *Conscious Parallelism and Price Fixing: Defining the Boundary*, 52 U. CHI. L. REV. 508, 512 (1985).

74. *See, e.g.*, HYLTON, *supra* note 34, at 77.

75. Devlin, *supra* note 25, at 1112–13.

76. Kovacic, *supra* note 50, at 25 (internal quotation marks omitted).

77. Joseph F. Brodley, *Oligopoly Power Under the Sherman and Clayton Acts—From Economic Theory to Legal Policy*, 19 STAN. L. REV. 285, 290 (1967) (internal quotation marks omitted).

78. Posner, *supra* note 38, at 1576; *see also* Mark T.L. Sargent, Comment, *Economics Upside-Down: Low-Price Guarantees as Mechanisms for Facilitating Tacit Collusion*, 141 U. PA. L. REV. 2055, 2101 (1993) ("Posner suggests extending the legal definition of 'agreement' to include any type of interdependent decisionmaking in oligopolistic markets.").

rationality or irrationality of the participants' conduct."[79] Put simply, we must not forget that antitrust law's purpose is to protect consumers[80] and that the "obsession with the conspiracy issue has diverted the courts' attention from the effect of oligopolies on consumers."[81] Deemphasizing the conspiracy requirement has the added the benefit of bolstering antitrust enforcement in a world in which defendants have learned not to leave evidence of agreement behind.[82]

Conscious parallelism might also be addressed via the antimonopolization provision of section 2 of the Sherman Act.[83] At its core, the argument is that oliopolists' behavior can be analogized to that of monopolists:

> Parallel behavior of several "competing" firms, especially when such behavior influences the price structure in the market, often has the same harmful effects on the market as the exercise of monopoly power by a single enterprise . . . . Thus business practices that are forbidden to monopolists because of their size can and should be forbidden to oligopolists whose collective market power, wielded through conscious parallelism, approaches that of a single firm monopolist.[84]

Though such an approach might seem unconventional at first glance, there is significant support for it in the literature. It is congruent with the

79. Simonetti, *supra* note 34, at 1234.

80. *See generally* Reza Dibadj, *Saving Antitrust*, 75 U. COLO. L. REV. 745 (2004).

81. Piraino, *supra* note 4, at 24; *see also* Bob F. Turner, Comment, *Conscious Parallelism in the Pricing of Gasoline*, 32 ROCKY MOUNTAIN L. REV. 206, 215 (1960) (discussing the underlying policy of the Sherman Act).

82. *See, e.g.*, Vernon A. Mund, *Identical Bid Prices*, 68 J. POL. ECON. 150, 169 (1960); *cf.* Kovacic, *supra* note 50, at 17 ("[S]ection 1 drove many cartels underground by forcing participants to take precautions to avoid detection and curtail the generation of evidence of direct communications that might be used to establish the common course of action.").

83. Section 2 states that "[e]very person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony." 15 U.S.C. § 2 (2006). The statute is applied to both civil and criminal cases. *See* Patricia B. Hsue, Comment, *Lessons From* United States v. Stein*: Is the Line Between Criminal and Civil Sanctions for Illegal Tax Shelters a Dot?*, 102 NW. U. L. REV. 903, 932 & n.200 (2008).

84. Simonetti, *supra* note 34, at 1240 (footnotes omitted). *See also* Michael Conant, *Consciously Parallel Action in Restraint of Trade*, 38 MINN. L. REV. 797, 797 (1954) ("The economic theory of oligopoly explains how, in a market of only a few firms, these firms may adopt price-output policies like or similar to those which would result if they combined to restrain trade (a monopoly) and how they are able to accomplish this without an actual or tacit agreement."); Dunn, *supra* note 42, at 251 ("[S]ince the manifestations of the parallel practices are the same as they would be in the single-firm monopoly situation, then these 'oligopolizers' should . . . be grouped together for purposes of a § 2 violation.").

notion of "shared monopoly" put forth years ago in antitrust jurisprudence[85] and can be straightforwardly analogized to the idea of "collective dominant position" in European competition law.[86] Even the Supreme Court has analogized conscious parallelism to shared monopoly:

> Tacit collusion, sometimes called oligopolistic price coordination or conscious parallelism, describes the process, not in itself unlawful, *by which firms in a concentrated market might in effect share monopoly power*, setting their prices at a profit-maximizing, supracompetitive level by recognizing their shared economic interests and their interdependence with respect to price and output decisions.[87]

Perhaps most surprisingly, in his seminal article, Turner himself argues that "[i]t would be possible, and possibly preferable, to attack the particular kinds of conduct . . . by charging oligopolists *individually* with an unlawful 'attempt to monopolize,' or an unlawful 'monopolization,' under section 2 of the Sherman Act."[88] Unfortunately, this portion of Turner's thesis has been ignored in the ensuing decades.[89]

Thus, although it is tempting to argue that the Sherman Act is outdated in its apparently dichotomous conceptions of competition and monopoly,[90] deeper inquiry reveals rich possibilities under both of its principal sections. More holistically, one might simply argue that in drafting the Sherman Act, Congress's "basic objective was to preserve competitive pricing."[91] After all, as the Supreme Court observed,

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85. *See, e.g.*, ADAMS & BROCK, *supra* note 21, at 122; Peter C. Carstensen, *Antitrust Law and the Paradigm of Industrial Organization*, 16 U.C. DAVIS L. REV. 487, 519 (1983); *cf.* Blechman, *supra* note 51, at 891 & n.52 (discussing the government's intention to target "shared monopolies" (internal quotation marks omitted)).

86. For a discussion of abuse of collective dominant position in European jurisprudence, see, for example, Patrick S. Ryan, *European Competition Law, Joint Dominance, and the Wireless Oligopoly Problem*, 11 COLUM. J. EUR. L. 355, 358–59, 363–64 (2005); Andrew Scott, *"An Immovable Feast"?: Tacit Collusion and Collective Dominance in Merger Control After* Airtours (Ctr. for Competition & Regulation, CCR Working Paper No. 02-6, 2002), *available at* http://www.uea.ac.uk/polopoly_fs/1.104458!ccr02-6.pdf. For the argument that this notion can be applied to section 2 jurisprudence, see Dunn, *supra* note 42, at 243. Interestingly, the concept of collective dominance has not been widely accepted in Europe. *See, e.g.*, Raffaelli, *supra* note 43, at 924.

87. Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 227 (1993) (emphasis added).

88. Turner, *supra* note 45, at 682.

89. *See, e.g.*, Matthew M. Bunda, Note, Monsanto*,* Matsushita*, and "Conscious Parallelism": Towards a Judicial Resolution of the "Oligopoly Problem,"* 84 WASH. U. L. REV. 179, 206 (2006).

90. *See, e.g.*, *Conscious Parallelism—Fact or Fancy?*, *supra* note 28, at 679; Kotalik, *supra* note 44, at 116–17.

91. Joshua & Jordan, *supra* note 26, at 651.

> The Sherman Act . . . rests on the premise that the unrestrained interaction of competitive forces will yield the best allocation of our economic resources, the lowest prices, the highest quality and the greatest material progress, while at the same time providing an environment conducive to the preservation of our democratic political and social institutions. But even were that premise open to question, *the policy unequivocally laid down by the Act is competition*.[92]

As such, restraints of trade such as conscious parallelism can and should be deemed violations of the Act.[93] Put bluntly, the "focus of the Sherman Act thus must be shifted from a preoccupation with conspiratorial behavior to a greater concern for harm to the public and injury to competition."[94]

2. Clayton and FTC Acts

The Clayton and FTC Acts present additional possibilities of addressing conscious parallelism. The most important provision in the Clayton Act of 1914, section 7, prohibits mergers that have an anticompetitive effect.[95] The provision's import in the context of conscious parallelism is quite straightforward: to the extent the merger would increase concentration it would facilitate conscious parallelism; as such, section 7 permits courts to interdict changes in market structure that would facilitate coordination.[96] A former Chairman of the FTC even suggests that "conscious parallelism remains a prime consideration under coordinated effects analysis because the enforcement agencies' reviews of mergers under Section 7 of the Clayton Act look to prospective

92. N. Pac. Ry. Co. v. United States, 356 U.S. 1, 4 (1958) (emphasis added).
93. *See, e.g.*, Conant, *supra* note 84, at 825.
94. Simonetti, *supra* note 34, at 1229.
95. Section 7 of the Clayton Act states:

> No person engaged in commerce or in any activity affecting commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital and no person subject to the jurisdiction of the Federal Trade Commission shall acquire the whole or any part of the assets of another person engaged also in commerce . . . where . . . the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.

15 U.S.C. § 18 (2006); *see also* Carstensen, *supra* note 85, at 491 (noting how section 7 clarifies that mergers are in fact "subject to the antitrust law"). For a general overview of section 7, see Stuart D. Gurrea & Bruce M. Owen, *Coordinated Interaction and Clayton § 7 Enforcement*, 12 GEO. MASON L. REV. 89 (2003).

96. Jonathan B. Baker, *Mavericks, Mergers, and Exclusion: Proving Coordinated Competitive Effects Under the Antitrust Laws*, 77 N.Y.U. L. REV. 135, 149 n.65 (2002); *see also* Brodley, *supra* note 77, at 327.

effects and do not require a prediction of illegal conduct to justify a challenge."[97] The central point here is that the Clayton Act can be used to stop or modify mergers that might engender conditions propitious to conscious parallelism—whether the agencies have in fact done this adequately is beside the point.

Finally, the FTC Act of 1914 could be profitably used as a tool against conscious parallelism. Its central prohibition, articulated in section 5, is simply that "[u]nfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce, are hereby declared unlawful."[98] Most specifically the purpose of this Article, section 5 does not require agreement or conspiracy[99] and thus "provides an opportunity to avoid the restrictions evidenced by cases such as *Theatre Enterprises*."[100] Further, as scholars have pointed out, there would be procedural advantages to having an expert administrative agency articulate standards to address a challenging phenomenon such as conscious parallelism—an evolution that would be unlikely to be as well-defined through litigation.[101] In addition, the FTC Act's exclusive reliance on civil remedies could provide a lower-risk environment within which to craft doctrines responsive to conscious parallelism.[102]

More generally, the FTC Act is perhaps ideally suited to complex phenomena such as conscious parallelism given its "wide-ranging, interstitial function."[103] As one commentator notes:

97. Majoras, *supra* note 71, at 2 n.1.

98. 15 U.S.C. § 45(a)(1) (2006).

99. *See, e.g.*, Donald S. Clark, *Price-Fixing Without Collusion: An Antitrust Analysis of Facilitating Practices After* Ethyl Corp., 1983 WIS. L. REV. 887, 915; Mund, *supra* note 82, at 166.

100. Leslie Aldor, *Oligopolistic Conscious Parallelism Under the Competition Law of the USA*, 16 FED. L. REV. 74, 90 (1986).

101. *See, e.g.*, Baker, *supra* note 96, at 193; Kovacic, *supra* note 54, at 107. *See generally* William H. Page, The FTC's Procedural Advantage in Discovering Concerted Action (Feb. 2009) (unpublished manuscript), *available at* http://ssrn.com/abstract=1342783 (arguing that the FTC, which has section 5 of the FTC Act at its disposal, has a procedural advantage over private plaintiffs).

102. *Cf.* Sargent, *supra* note 78, at 2112 ("[S]ection 5 of the FTC Act is particularly well-suited for addressing facilitating practices and other forms of tacit collusion.").

103. Paul D. Connuck, *"Shared Monopoly," "Conscious Parallelism" and an Approach to Oligopoly Under Section 5 of the FTC Act*, 9 RUTGERS COMPUTER & TECH. L.J. 165, 184 (1982).

> Congress conferred FTC power broadly because it wisely recognized in 1914 that businessmen were ingenious, so that if Congress merely established a laundry list of unfair practices, businessmen would always devise ways to avoid them. There would then be a constant need for new legislation or other corrective action. The flexibility that the FTC received under section 5 allowed it to issue a complaint and at least test whether a particular fact pattern constituted unlawful or anticompetitive behavior.[104]

It is therefore no surprise that "[s]ection 5 has been a continuing source of attraction to the FTC and commentators as a means of attacking facilitating practices and forms of interfirm coordination that may defy characterization as an agreement for Sherman Act purposes."[105] Indeed, in maintaining the breadth of the FTC Act,[106] the FTC has tried to use section 5 to combat conscious parallelism[107] but has faced significant political pressure to back down.[108]

In the end, it is very tempting to argue that antitrust laws—drafted back in the late nineteenth and early twentieth centuries—are antiquated and thus incapable of dealing adequately with conscious parallelism.[109]

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104. *Panel and Audience Discussion on Shared-Monopoly Theories*, 12 SW. U. L. REV. 249, 265 (1981) (statement of George Zervas).

105. Kovacic, *supra* note 54, at 107; *see also* Rudolph J.R. Peritz, *Doctrinal Cross-Dressing in Derivative Aftermarkets:* Kodak*,* Xerox *and the Copycat Game*, 51 ANTITRUST BULL. 215, 224 (2006) ("At the very least, it is time to revisit the boundaries of section 5 and reconsider its application to practices that may fall outside the Sherman Act, especially strategic parallel conduct."); Sargent, *supra* note 78, at 2114 ("In fact, section 5 of the FTC Act remains the best weapon for eliminating collusion resulting from facilitating practices."); Michael G. Vita, *Fifteen Years After* Ethyl*: The Past and Future of Facilitating Practices*, 68 ANTITRUST L.J. 991, 991 (2001) ("[T]he Federal Trade Commission brought suit against four manufacturers of lead-based antiknock compound . . . alleging that they had violated Section 5 . . . by engaging in certain marketing practices that had the effect of reducing or eliminating price competition in the market for this product."). For a more restrictive reading of section 5, see Harry Steinberg, Note, *Oligopolistic Interdependence: The FTC Adopts a "No Agreement" Standard To Attack Parallel Non-Collusive Practices*, 50 BROOK. L. REV. 255 (1984).

106. *See, e.g.*, George A. Hay, *The Meaning of "Agreement" Under the Sherman Act: Thoughts from the "Facilitating Practices" Experience*, 16 REV. INDUS. ORG. 113, 116 (2000).

107. For examples of FTC proceedings, see Kevin J. Arquit, *The Boundaries of Horizontal Restraints: Facilitating Practices and Invitations To Collude*, 61 ANTITRUST L.J. 531 (1993). A particularly salient example was the FTC's attempt to stem conscious parallelism in the ready-to-eat cereal market. *See* Schmalensee, *supra* note 13, at 305.

108. *See, e.g.*, Aldor, *supra* note 100, at 91; Kovacic, *supra* note 50, at 66; *Panel and Audience Discussion on Shared-Monopoly Theories*, *supra* note 104, at 266.

109. *See, e.g.*, Brodley, *supra* note 77, at 293; Sargent, *supra* note 78, at 2092.

One might even go so far as to argue the statute should be rewritten.[110] As this Article has argued, however, the existing laws provide multiple approaches to addressing the problem of conscious parallelism. What explains this discrepancy? Perhaps path dependence: Turner's point of view on section 1 was the first to gain wide acceptance[111] and is even cited by the Supreme Court to this day.[112] However, a cynic might wonder whether the curious and undue focus on conspiracy—rather than actual effect on consumers—provides convenient cover for oligopolists.[113] This concern is especially vivid given the range of statutory provisions available to address conscious parallelism—not to mention that it would be possible to create a presumption against parallelism, placing the burden of differentiating between competition and collusion on the defendants engaged in the parallel conduct.[114] Perhaps the current state of anemic enforcement might have more to do with the realpolitik of cabining antitrust than with actual limitations in the laws.[115]

110. *See, e.g.*, Dunn, *supra* note 42, at 252; *cf.* Simonetti, *supra* note 34, at 1232 ("[T]he position that such an antiquated law should be allowed to regulate parallel business activity that has a direct and harmful effect upon the national economy has become increasingly untenable.").

111. *See, e.g.*, Marks, *supra* note 52, at 400 ("Judicial unwillingness to accept supracompetitive pricing alone as dispositive evidence of collusion may result, in part, from historical accident: the Turner view won acceptance first.").

112. *See, e.g.*, Bell Atl. Corp. v. Twombly, 550 U.S. 544, 554 (2007).

113. *Cf.* Conant, *supra* note 84, at 817 ("The confusion of the courts in searching for conspiracy when the adherence by the firms in the market to an unreasonable restraint of trade was the real question before them has muddled and impeded the growth of the antitrust laws in attacking this type of multi-firm monopoly manifestation.").

114. *See, e.g.*, MacLeod, *supra* note 19, at 40 ("If firms were observed to always match competitor's price changes rather than 'independently' setting price, then this is prima facie evidence of collusion."); *cf.* Mund, *supra* note 82, at 168–69 ("On the basis of empirical evidence and economic analysis, the legal doctrine that identical bidding is consistent with effective competition should be replaced with a working rule making identical bidding a presumption of illegal conduct lessening competition and restraining trade."). International experience might also prove illuminating. *See, e.g.*, Gönenç Gürkaynak, *Comment: The Problem of Proof Under Turkish Competition Law*, INT'L FIN. L. REV., Jan. 2002, at 12, 13 (noting that under Turkish competition law "[t]he mere establishment of an appearance of parallel behaviour in a relevant market is sufficient to shift the burden of proof to the investigated enterprises.").

115. *Cf.* Rodger, *supra* note 25, at 25 ("The theoretical assumptions underlying many of the legal approaches to antitrust are interesting, both generally and within the specific 'oligopoly' problem, as approaches to the specific depend a great deal on perceptions of the wider role of antitrust law and policy.").

III. ECONOMIC OBJECTIVES

To the extent legal possibilities exist, as Part II has argued, the pressing question then becomes how to discern instances of conscious parallelism. Here, law can look to economics to try to address the essential question: is the parallelism a function of competition or collusion?[116] Part III will first discuss basic insights that emerge from the literature of industrial organization (IO) with a focus on two applications: game theory and the "structure-conduct-performance" (S-C-P) paradigm. It then discusses whether and how ideas that might emerge are applicable to the problem of conscious parallelism, including illustration through several examples from different industries.

A. Basic Insights from Industrial Organization

Most germane to understanding conscious parallelism is IO, a branch of microeconomics that seeks to get beyond conventional price theory toward understanding how firms actually interact in markets. Within IO, the two most relevant analytical concepts to conscious parallelism are game theory and the S-C-P paradigm.

1. Game Theory

At first glance, game theory looks to offer promising insights into conscious parallelism. After all:

> Oligopoly firms face a situation that resembles a contest or a game. Each firm has to choose a strategy that will maximize its profits, taking into consideration its rivals' strategies and reactions to the firm's actions. Each firm's profit depends upon its rivals' strategies and therefore the logic guiding each firm's decisions is within the domain of game theory.[117]

Earlier generations of game theorists used single-period games to determine whether collusion—as defined by a "market outcome in which prices are above the competitive level, identified by the

116. *See, e.g.*, Baker, *supra* note 96, at 169; *Conscious Parallelism—Fact or Fancy?*, *supra* note 28, at 693; Stanbury & Reschenthaler, *supra* note 20, at 627.
117. Guy Sagi, *The Oligopolistic Pricing Problem: A Suggested Price Freeze Remedy*, 2008 COLUM. BUS. L. REV. 269, 277.

equilibrium of the static (one shot) game"[118]—existed. The problem with such models, of course, is that in the real world competitors interact repeatedly.[119] As a consequence, the emphasis in game theory justifiably shifted to dynamic games.[120] Thus, beginning in the 1980s, "game theoretic principles illustrate[d] how in a context of repeated interaction firms [could] suspend competition and collude, and suggest[ed] that this collusion [could] be tacit."[121] Put more simply, a new generation of game theorists demonstrated "that short-run and long-run rationality differed radically—with cooperation supplanting the logic of competition in the long run."[122] Perhaps these models merely confirmed intuition; after all, the "key to tacit collusion is that when firms interact repeatedly, they may react not only to fundamental market conditions but also to each other's past behaviour."[123]

The problem, unfortunately, is that game-theoretic models of oligopoly are indeterminate. Results depend on a complex interplay of context-specific factors ultimately too technical to be of much help to antitrust:

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118. Paolo Buccirossi, *Does Parallel Behavior Provide Some Evidence of Collusion?*, 2 REV. L. & ECON. 85, 88 (2006).

119. *See, e.g.*, J.W. Friedman, *Reaction Functions and the Theory of Duopoly*, 35 REV. ECON. STUD. 257, 259–61 (1968); Gregory J. Werden, *Economic Evidence on the Existence of Collusion: Reconciling Antitrust Law with Oligopoly Theory*, 71 ANTITRUST L.J. 719, 759 (2003).

120. *See, e.g.*, Gurrea & Owen, *supra* note 95, at 103. *See generally* Eric Maskin & Jean Tirole, *A Theory of Dynamic Oligopoly, I: Overview and Quantity Competition with Large Fixed Costs*, 56 ECONOMETRICA 549 (1988); Eric Maskin & Jean Tirole, *A Theory of Dynamic Oligopoly, II: Price Competition, Kinked Demand Curves, and Edgeworth Cycles*, 56 ECONOMETRICA 571 (1988).

121. Félix E. Mezzanotte, *Can the Commission Use Article 82EC To Combat Tacit Collusion?* 5 (ESRC Ctr. for Competition Policy, Working Paper No. 09-05, 2009), *available at* http://www.uea.ac.uk/polopoly_fs/1.111282!ccp09-5.pdf.

122. John Shepard Wiley, Jr., *Reciprocal Altruism as a Felony: Antitrust and the Prisoner's Dilemma*, 86 MICH. L. REV. 1906, 1922 (1988); *see also* Normann, *supra* note 42, at 344 ("Even when firms are asymmetric there are potential gains from colluding through conscious parallelism, and rational firms will take advantage of this." (citation omitted)); Margaret E. Slade, *Vancouver's Gasoline-Price Wars: An Empirical Exercise in Uncovering Supergame Strategies*, 59 REV. ECON. STUD. 257, 259 (1992) ("[W]hen a game is repeated many times, solutions that have a collusive flavour can emerge."); *see generally* Dennis A. Yao & Susan S. DeSanti, *Game Theory and the Legal Analysis of Tacit Collusion*, 38 ANTITRUST BULL. 113 (1993) (discussing the various ways that game theory can help answer difficult antitrust law questions).

123. IVALDI ET AL., *supra* note 2, at 17; *see also* Lopatka & Page, *supra* note 44, at 675 ("Game theory suggests that competitors may be able to raise prices to supra-competitive levels without overt communication or explicit agreement simply by taking each other's anticipated reactions into account in setting their own prices."); Peritz, *supra* note 105, at 3 ("[S]trategic conduct can stabilize concentrated markets to produce cooperation among firms who learn to act on their common interests and seek to avoid at least some kinds of competition—typically on price.").

> [I]nfinite repetition of the game without too much discounting; potentially infinite repetition with an exogenous and known probability that the repetition will terminate after any given round; finite repetition in which the players do not know how many rounds remain; finite repetition between players who have a small but positive likelihood of being "crazy" or irrationally cooperative; and construction of a metagame in which players choose conditional strategies that can depend upon the choices made by the other player.[124]

This instability is known to game theorists as the Folk Theorem, which "does not state that a set of jointly profit-maximizing quantities is *the* equilibrium of the infinitely repeated game, but rather only that it is *an* equilibrium."[125] Put more simply and usefully, in Franklin Fisher's words:

> A great many outcomes are known to be possible. The context in which the theory is set is important, with outcomes depending on what variables the oligopolists use and how they form conjectures about each other. A leading class of cases concerns the joint-maximization solution and when it will or will not be achieved. The answer to the latter question is also known to be very dependent on the context and experience of the oligopolists.[126]

Game theory, at least how it has evolved today, does not provide much insight to policymakers on the problem of conscious parallelism. Regrettably then, "[a]lthough the infusion of industrial economics by game theory has been marked by great technical advances, this precision is of limited use for the purpose of advising policy makers about rules for business behaviour."[127]

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124. Wiley, *supra* note 122, at 1919 (footnotes omitted); *cf.* Nielsen, *supra* note 2, at 540 ("Even though the price-output equilibrium for either a competitive market or a monopoly can generally be explained by an appropriate model, the same cannot be done for an oligopoly. Mutual interdependence, uncertainty, nonprice variables such as advertising and product differentiation, and nonprofit maximization goals combine to yield of rich variety of possible models.").

125. Werden, *supra* note 119, at 730.

126. Fisher, *supra* note 39, at 117.

127. Ronald Harstad et al., *Intertemporal Pricing Schemes: Experimental Tests of Consciously Parallel Behaviour in Oligopoly*, *in* APPLIED INDUSTRIAL ECONOMICS 123, 124 (Louis Phlips ed., 1998); *cf.* Stanley E. Boyle & Thomas F. Hogarty, *Pricing Behavior in the American Automobile Industry, 1957–71*, 24 J. INDUS. ECON. 81, 81 (1975) ("Oligopoly pricing models, from the simplified form of administered pricing behavior . . . to more sophisticated forms of the game-theoretic type, have had limited success.").

2. *Structure-Conduct-Performance*

Perhaps the S-C-P paradigm of IO—in which market structure (S) influences conduct (C), which in turn affect firm performance (P)[128]—might provide a more useful analytical tool toward differentiating collusion from competition where parallelism exists.

a. *Conduct*

Within this tripartite division, conventional analysis focuses overwhelmingly on conduct. Richard Posner, for instance, "would limit inquiry by and large to conduct—how the firms behave—and more narrowly still to conduct from which an absence of effective competition can be inferred: cartel-like conduct."[129] Most importantly, intent is used as the most important proxy in determining whether or not the conduct is anticompetitive or not[130]—to wit, the most important plus factors center on the defendant's motive and self-interest.[131] This standard approach, however, is singularly unhelpful. At the most basic level, as Herbert Hovenkamp notes, "[C]ompetitive and anticompetitive intent are so difficult to tell apart."[132] Although, trying to divine intent, even assuming it could be done,[133] is not even the correct question. After all, "[d]espite its beneficial social effects, competition is costly for market participants, so many prefer to avoid it. If participants in a market can arrange to collude, they can reduce competition and increase their profits, perhaps even approaching what a monopolist would earn."[134]

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128. *See, e.g.*, JEAN TIROLE, THE THEORY OF INDUSTRIAL ORGANIZATION 1–2 (1988); VISCUSI ET AL., *supra* note 49, at 61–65.

129. Posner, *supra* note 38, at 1583.

130. *See, e.g.*, Piraino, *supra* note 4, at 32.

131. *See supra* notes 51–52 and accompanying text.

132. HERBERT HOVENKAMP, THE ANTITRUST ENTERPRISE: PRINCIPLE AND EXECUTION 51 (2005).

133. *See, e.g.*, Brodley, *supra* note 77, at 357–58 ("It is difficult enough for a court to reconstruct the intent of a specific individual. The determination of what a large corporation acting through staff agencies, committees, officers, and directors intends to do—not merely in the present, but at some future time as well—involves the proceedings in a vast labyrinth of evidence.").

134. Andrew P. Morriss & Nathaniel Stewart, *Market Fragmenting Regulation: Why Gasoline Costs So Much (and Why It's Going To Cost More)*, 72 BROOK. L. REV. 939, 949 (2007). In the candid words of one article in the business press, "[b]usinessmen, by and large, don't like free and open markets. From John D. Rockefeller on, they have found markets to be messy, chaotic and insufficiently profitable." Alan Murray, *Exile on G Street: Bush's Economists Play Peripheral Role*, WALL ST. J., May 13, 2003, at A4; *see also Panel and Audience Discussion on Shared-Monopoly Theories*, *supra* note 104, at 261 (discussing the fact that "people are adverse to competition" and how even in

The upshot is "that the difference between unlawful 'tacit collusion' and lawful oligopolistic interdependence is not to be found in any phrase that describes the state of mind of the industry participants."[135] As Senator Sherman himself observed:

> In providing a remedy the intention of the combination is immaterial. The intention of a corporation can not be proven. If the natural effects of its acts are injurious, if they tend to produce evil results, if their policy is denounced by the law as against the common good, it may be restrained, be punished with a penalty or with damages . . . . It is the tendency of a corporation, and not its intention, that the courts can deal with.[136]

Note, of course, that in contrast to Sherman's admonition and common sense, the obsession the law has had, through the plus factors approach, with divining intent.[137]

Once one gets beyond the awkward fascination with intent, the conduct prong of the S-C-P framework does provide some insight. The most obvious sign of collusion is identical bidding.[138] More broadly, the key is to inquire whether firms are adopting very specific practices that might serve as signals to other companies and thus facilitate conscious parallelism.[139]

The overarching theme among these practices is their ability to serve as a conduit for the exchange of critical business data such as price, sales

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1897 "the concerns of small and individual businesses were focused—as they are now—upon entering and surviving in the competitive jungle" (statement of Max Blecher)).

135. Hay, *supra* note 106, at 127–28; *cf.* Herbert Hovenkamp, *The Areeda-Turner Treatise in Antitrust Analysis*, 41 ANTITRUST BULL. 815, 817–18 (1996) ("'Intent' is usually a meaningless and almost always unadministrable concept in antitrust litigation . . . .").

136. 21 CONG. REC. 2456 (1890) (statement of Sen. Sherman).

137. *Cf.* Rodger, *supra* note 25, at 31 ("The quest for proof of agreement or conspiracy may be complicated by a lack of direct evidence: cases invariably depend on indirect or circumstantial evidence of parties' intent."). Harvey Saferstein, a former regional director of the FTC in Los Angeles, made the following statement:

> In both of the Commission's shared-monopoly cases, there apparently is an attempt to *keep out* the issue of conduct. The Commission's feeling is that the question of conduct is a bottomless pit. Similarly, in the area of monopoly, the FTC has been trying to avoid having to prove bad intent.

Panel and Audience Discussion on Shared-Monopoly Theories, *supra* note 104, at 274 (statement of Harvey Saferstein); *see also id.* at 247–48 (discussing the professional background of each member of the panel).

138. *See, e.g.*, William S. Comanor & Mark A. Schankerman, *Identical Bids and Cartel Behavior*, 7 BELL J. ECON. 281, 281 (1976).

139. *See, e.g.*, Lopatka & Page, *supra* note 44, at 675.

volume, or cost.[140] Most simply, price announcements could serve this function.[141] More subtly, industry practices such as price protection guarantees,[142] resale price maintenance,[143] or even most-favored customer provisions[144] effectively provide important information to competitors on price, making mimicry easier. Even less directly, industry associations[145] and product standardization[146] can serve the same communicative function. As one commentator sums it up:

> Facilitating practices can take a variety of forms: information exchange, trade associations, price leadership (one firm sets prices and other firms set the same price after a short period of time), collaborative research and cross-licensing of patents, most-favored-nation and meeting-competition clauses in buyer-seller contracts, resale price maintenance (manufacturers set a floor on the prices retailers can sell the product, preventing the possibility of collusive agreements being ineffective at the retail level), basing point pricing (information on transportation charges and prices is exchanged resulting in uniform prices for the delivered product), and common costing books (which specify a cost formula for a given set of product specifications leading to price uniformity).[147]

Systemically, antitrust doctrine has evolved to allow these practices—exactly the opposite result that one would desire.[148] More specifically, as Part IV will argue, specific remedies can be fashioned to target these behaviors.

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140. *See, e.g.*, Clark, *supra* note 99, at 900; Sargent, *supra* note 78, at 2066; *cf.* MARC IVALDI ET AL., THE ECONOMICS OF TACIT COLLUSION, FINAL REPORT FOR DG COMPETITION, EUROPEAN COMMISSION 22 (2003), *available at* http://ec.europa.eu/competition/mergers/studies_reports/the_economics_of_tacit_collusion_en.pdf ("The lack of transparency on prices and sales does not necessarily prevent collusion completely, but makes it both more difficult to sustain and more limited in scope.").

141. *See, e.g.*, Blechman, *supra* note 51, at 901; Harstad et al., *supra* note 127, at 147–48; Sargent, *supra* note 78, at 2066.

142. *See, e.g.*, Cooper, *supra* note 43, at 385; Sargent, *supra* note 78, at 2075.

143. *See, e.g.*, Bruno Jullien & Patrick Rey, *Resale Price Maintenance and Collusion*, 38 RAND J. ECON. 983, 997 (2007).

144. *See, e.g.*, Clark, *supra* note 99, at 901–02; Vita, *supra* note 105, at 997.

145. *See, e.g.*, David Genesove & Wallace P. Mullin, *Rules, Communication, and Collusion: Narrative Evidence from the Sugar Institute Case*, 91 AM. ECON. REV. 379, 383 (2001); Hillel Bavli, Comment, *A Model of Abstract Cooperation in Games of Uncertainty*, 32 FORDHAM URB. L.J. 831, 832 (2005).

146. *See, e.g.*, Clark, *supra* note 99, at 935; Sargent, *supra* note 78, at 2067; *cf.* IVALDI ET AL., *supra* note 140, at 46 ("When firms are differentiated by levels of quality, collusion is more difficult, the larger the competitive advantage of the high-quality firm.").

147. Gurrea & Owen, *supra* note 95, at 101 n.30; *see also* Zellmer, *supra* note 3, at 852–53 (discussing the various methods firms within an "oligopolistic industry might use to avoid price competition").

148. Consider, for example, that a recent Supreme Court case has overturned nearly a century of jurisprudence and ruled that resale price maintenance is no longer a per se violation but rather merely subject to a rule of reason analysis. *See* Leegin Creative Leather Prods., Inc. v. PSKS, Inc., 551 U.S. 877, 899 (2007).

Beyond facilitating practices, one other behavioral phenomenon provides a telltale sign to discern competition from collusion: price wars.[149] Price wars do not occur in competitive industries in which price is set based on supply and demand characteristics.[150] Perhaps counterintuitively then, "[p]rice wars, while tending to occur infrequently, are a dominant feature of the oligopolistic situation."[151] As one commentator notes:

> The essence of oligopoly is that the firms possess at least a modicum of discretionary economic power. Failure to coordinate their behaviour effectively can, in the extreme, result in bouts of commercial "warfare" in which the price, profit and output of the oligopoly closely resemble that of a competitive industry. On the other hand, perfectly coordinated behaviour can result in a cartel which exhibits the performance characteristics of a monopoly.[152]

In sum, if the conduct prong of S-C-P remains focused on intent—as in current doctrine—it is not much use. If instead, however, the law uses the existence of facilitating practices and price wars as indicators of conscious parallelism, then conduct analysis becomes quite useful in distinguishing competition from collusion. But the inquiry can only begin with conduct.

b. Structure

A greater focus on industry structure would also shed much light on the problem of conscious parallelism. The point here is straightforward: oligopolistic market structures breed the phenomenon.[153] In an oligopoly,

149. "A price war is a period in which the firms in an industry or market set prices that are significantly below the usually prevailing prices, generally implying a change in strategy within a set of oligopolists." Meghan Busse, *Firm Financial Condition and Airline Price Wars*, 33 RAND J. ECON. 298, 299 (2002).

150. *See, e.g.*, MacLeod, *supra* note 19, at 41 ("If firms are at a static Nash equilibrium such wars will of course not occur.").

151. Rothschild, *supra* note 35, at 317.

152. Stanbury & Reschenthaler, *supra* note 20, at 623. The classic study in this regard is Edward J. Green & Robert H. Porter, *Noncooperative Collusion Under Imperfect Price Information*, 52 ECONOMETRICA 87 (1984). *See also* Baker, *supra* note 96, at 165 (discussing the difficulties associated with price coordination and how "occasional price wars . . . are not inconsistent with coordination" because price wars can be "part of the mechanism by which cheating is deterred during high-price periods"); Busse, *supra* note 149 (discussing the different models of price wars, which fall "into three classes" that are "distinguished by when and why price wars occur").

153. *See supra* Part II.A.1.

the number of sellers is small; by contrast, "[c]ollusion is a difficult game to play when the number of conspiring rivals is large."[154] In the words of one commentator:

> Competition will be most effective in a market in which there are many sellers, none of which has any significant market share. In such a market no single seller or group of sellers acting in concert has the power to choose its level of profits by giving less or charging more. Where the number of sellers is limited, however, competition gives way to parallel policies of mutual advantage. In such a market, prices tend to be established by administration rather than competition. Small firms may be content to follow the high prices set by the industry leaders. The growth of oligopoly has an adverse effect upon small business and local control of industry. The preservation of potential competition becomes particularly vital in oligopolistic markets.[155]

As Turner himself points out, "a substantial departure from competitive structure is an essential condition for interdependent conscious parallelism to take place—*i.e.*, the number of sellers must be 'few.'"[156] Put more simply, structural analysis is important because "[c]onscious parallel action is really a problem of concentration rather than conspiracy"[157] to the point where "[m]ost economists believe . . . that structural conditions in a particular oligopoly, not the nature of decisions, determine which model of behavior a firm adopts."[158]

When structural conditions are favorable, overt collusion is not needed[159]—by tacitly colluding, oligopolists achieve the same socially undesirable outcome but escape legal sanction.[160] Ironically then, tacit collusion becomes the preferred mode of operation when structural conditions permit it:

> Explicit price-fixing agreements, however, are usually not durable . . . .
>
> By contrast, oligopolists' tacit collusion is both more durable and more difficult to discover than an explicit price-fixing cartel. Because tacit price-fixing arrangements spring from the very nature of oligopolistic markets, they are likely to persist for long periods of time.

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154. ADAMS & BROCK, *supra* note 21, at 117: *see also* F.T. Dolbear et al., *Collusion in Oligopoly: An Experiment on the Effect of Numbers and Information*, 82 Q.J. ECON. 240, 259 (1968) ("[A] decrease in the number of firms in a market produces less competition which cannot be attributed to differences in the structure of the profit functions."); *cf.* Gurrea & Owen, *supra* note 95, at 113 ("Generally, experiments find that more sellers yield more competitive outcomes.").

155. Brodley, *supra* note 77, at 298 (footnotes omitted).

156. Turner, *supra* note 45, at 678.

157. *Conscious Parallelism—Fact or Fancy?*, *supra* note 28, at 686.

158. Levins, *supra* note 36, at 192.

159. *Cf.* Fraas & Greer, *supra* note 37, at 43 ("[F]ormal cartels arise most often where the structural conditions are not particularly favorable to collusion.").

160. *See, e.g.*, Connuck, *supra* note 103, at 171.

> Not only is tacit collusion more durable than express collusion, it is also more difficult to detect and to prosecute.[161]

Given the benefits of conscious parallelism, one might even go so far as to suggest that "where explicit price fixing is practiced, the only alternative open to the conspirators is competitive behavior."[162]

Beyond simply the concentration of sellers,[163] economists have identified a number of other factors to consider when analyzing market structure.[164] Firms of similar size, producing similar products, make conscious parallelism easier.[165] High barriers to entry stifle new competitors and similarly can fuel tacit understandings among existing players.[166] Markets in which production capacity is routinely greater than output might suggest firms are tacitly colluding to restrict output.[167] Additionally, significant cross-ownership among competitors can help facilitate information exchange, making conscious parallelism easier.[168] By contrast, markets exhibiting high rates of innovation,[169] powerful buyers,[170] cost asymmetries,[171] as well as demand fluctuations[172] and elasticity[173] are less prone to tacit collusion. Although these structural characteristics are helpful, a meaningful analysis of the conscious parallelism is still incomplete without the third prong of S-C-P: performance.

161. Piraino, *supra* note 4, at 30; *cf.* VISCUSI ET AL., *supra* note 49, at 117 ("Firms would prefer to solve the coordination problem without overt communication.").

162. John R. Carter, *Collusion, Efficiency, and Antitrust*, 21 J.L. & ECON. 435, 442 (1978).

163. *See, e.g.*, IVALDI ET AL., *supra* note 140, at 13.

164. Perhaps the most comprehensive treatment appears in IVALDI ET AL., *supra* note 2, and IVALDI ET AL., *supra* note 140. *See generally* George Symeonidis, *In Which Industries Is Collusion More Likely? Evidence from the UK*, 51 J. INDUS. ECON. 45 (2003) (examining the impact of a number of "industry characteristics on pricing conduct" and ultimately concluding, in part, that collusion is more likely to occur when there is a "higher degree of capital intensity").

165. *See, e.g.*, IVALDI ET AL., *supra* note 2, at 20.

166. *See, e.g.*, IVALDI ET AL., *supra* note 140, at 19.

167. *See, e.g.*, Posner, *supra* note 38, at 1579–80.

168. *See, e.g.*, IVALDI ET AL., *supra* note 140, at 53.

169. *See, e.g.*, *id.* at 35.

170. *See, e.g.*, *id.* at 53.

171. *See, e.g.*, *id.* at 39; Normann, *supra* note 42, at 363.

172. *See, e.g.*, IVALDI ET AL., *supra* note 140, at 32.

173. *See, e.g.*, *id.* at 52.

c. Performance

The final element of the S-C-P framework, performance, is the most underutilized. This Article argues, however, that it is also the most important variable in assessing whether or not conscious parallelism exists. The core of the claim is straightforward: rather than focus on the intent of businesses, we should actually focus on the effect those practices have, as measured by the performance of the firm.[174]

Various metrics can be used to measure performance. To the extent businesses want to be "big," one could look at relative market shares over time. As one might expect, market shares characterized by asymmetries[175] and instability[176] point away from conscious parallelism. However, the most important measure of performance is profitability.[177] Put simply, abnormally high profit margins, combined with parallelism, suggest that what is going on is actually collusion, not competition.[178] In a similar vein, "[u]nsatisfactory profit performances may motivate firms to collude."[179] Economists have even characterized tacit collusion succinctly as "a market conduct that enables firms to obtain supra-normal profits."[180]

A more sophisticated, performance-based analysis would investigate the interactions between four variables: price, output, cost, and demand.

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174. *Cf.* Appel, *supra* note 17, at 406 ("The solution to this problem requires an expansion of the current application of antitrust law to focus more on the *effect* than the *intent* of questionable business practices to provide better consumer protection in keeping with the goals of the legislation.").

175. *See, e.g.*, IVALDI ET AL., *supra* note 140, at 16.

176. *See* Robert W. Staiger & Frank A. Wolak, *Collusive Pricing with Capacity Constraints in the Presence of Demand Uncertainty*, 23 RAND J. ECON. 203, 217 (1992).

177. *See, e.g.*, Clark, *supra* note 99, at 907.

178. *See, e.g.*, Baker, *supra* note 96, at 160 ("Moreover, empirical research suggests that there is a great deal of market power in some concentrated industries, and that anticompetitive conduct is a significant cause of high price-cost margins."); Nye, *supra* note 23, at 220 ("In any event, the sequence of events most likely connotes that a princely return was being made in the industry, necessarily at higher-than-competitive prices, which persisted as long as things were chummy.").

179. Peter Asch & J.J. Seneca, *Is Collusion Profitable?*, 58 REV. ECON. & STAT. 1, 7 (1976).

180. IVALDI ET AL., *supra* note 140, at 5; *see also* Vita, *supra* note 105, at 998 (discussing the FTC's allegation that these types of practices lead to "supracompetitive prices"); *cf.* MICHAEL D. WHINSTON, LECTURES ON ANTITRUST ECONOMICS 54 (2006) ("One can also think of some other possible approaches: perhaps the trigger for structural intervention or monetary penalties could be evidence of high price-cost margins, rather than either high concentration (which need not always lead to high margins) or 'tacitly collusive' behavior. This has the advantage of focusing directly on the ultimate welfare concern.").

In a competitive market, price and output should rise or fall based on cost and demand; in a collusive market, price and output vary in ways that are external to underlying cost[181] and demand.[182] As one commentator suggests, "Strong indications that firms are following accommodating interdependence are prices uniformly high relative to costs, and restricted outputs even in the face of unmet demand."[183] For example, collusion is likely when prices are increasing even though costs and demand are decreasing.[184]

At last, one can discern the essence of conscious parallelism. If the parallelism is due to actual changes in factors of production—cost—or consumer interest—demand—then it indicates competition; on the other hand, if parallelism occurs independently of these variables, then collusion is likely at work. As one economist sums it up:

> This behaviour describes precisely what we mean by *conscious* parallelism. This is, if firm i announces a price change (increase or decrease) ΔP_i, then other firms respond by matching it. This kind of response is quite different from what one might call *unconscious* parallelism. For example, all firms might decrease their prices by the same amount due to, say, a fall in industry demand. In this case the signal for a price change is generated outside the industry.[185]

Beyond its simplicity and intuitive appeal, two things are striking about this formulation. First, by acknowledging that firms may be pricing based on their interdependence and not supply and demand curves, we must move beyond the strictures of simplistic price theory.[186] Second,

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181. *See, e.g.*, Campbell Doerr, *The Problem of Collusion: How Best To Resolve It?*, 9 AUCKLAND U. L. REV. 104, 113 (2000); Posner, *supra* note 38, at 1580.

182. *See, e.g.*, Piraino, *supra* note 4, at 65; Rothschild, *supra* note 35, at 314.

183. Levins, *supra* note 36, at 193 (footnote omitted); *see also* Baker, *supra* note 96, at 169 n.148 ("Coordinating firms might raise prices simultaneously in order to exercise market power. Competing firms also might raise prices simultaneously, in response to a common cost increase or an increase in market demand.").

184. *See, e.g.*, Turner, *supra* note 45, at 661 ("One can hardly find clearer evidence of an absence of effective competition than an increase of prices in the face of declining costs and weakening demand.").

185. MacLeod, *supra* note 19, at 33.

186. In industrial, as opposed to neoclassical, economics:

> The main methodological change was that price was no longer regarded as the sole outcome of impersonal market forces dictating a unique solution to the individual firms, but that it was realised that under imperfect competition the firms themselves had a certain amount of freedom of action with regard to price, the nature of the product and selling expenditure. The consequence was that analysis shifted from the industrial supply and demand curves to the cost and demand conditions of the individual firms . . . .

by remaining obsessed with concepts such as agreement and intent, American jurisprudence has largely ignored the insights performance-based analysis might offer to the problem of conscious parallelism.[187]

B. New Applications

Contemporary antitrust jurisprudence unfortunately either ignores or misapplies the S-C-P framework. As one commentator laments, "With the present emphasis apparently on explicit conspiracy and the plus factor evidentiary approach, courts of the United States have failed to recognize the potential value of structural analysis and industry performance data in detecting collusion in oligopolies."[188] Yet structural analysis by itself is incomplete as well.[189] By refocusing—placing primary emphasis on performance, while deemphasizing an intent-focused conduct inquiry—we can disentangle collusion from competition. In doing so, we can finally tackle the problem of conscious parallelism and begin leaving decades of anemic policy.

One fruitful approach in many of the successful studies has been to investigate whether pricing levels or changes are reflective of underlying costs, or rather whether industry participants are maintaining their pricing levels for reasons that have nothing to do with the actual costs of providing the product to consumers. The latter, of course, is reflective of tacit collusion.

It is important to recognize at the outset that such an approach will require a rethinking of a jurisprudence unnecessarily focused on intent and agreement. Consider the Supreme Court's *Brown & Williamson*

Rothschild, *supra* note 35, at 300–01.

187. Consider, for instance, Supreme Court jurisprudence that all but ignores whether the oligopolists were earning supracompetitive profits. For the most recent example, see Bell Atlantic Corp. v. Twombly, 550 U.S. 544 (2007).

188. Zellmer, *supra* note 3, at 844–45; *see also* Dennis W. Carlton et al., *Communication Among Competitors: Game Theory and Antitrust*, 5 GEO. MASON L. REV. 423, 424 (1997) ("There is, in general, no *economic* theory of the meaning of 'agreement' wherein one may determine easily when communication leads to anticompetitive results irrespective of the context of the events."); Andrew Eckert & Douglas S. West, *Price Uniformity and Competition in a Retail Gasoline Market*, 56 J. ECON. BEHAV. & ORG. 219, 235 (2005) (examining the predictions of the competitive market model using a "probit model," which hypothesizes that price depends on variables including market structure, and ultimately concluding that "tacitly collusive pricing behavior," as opposed to the competitive market model, explains the retail gasoline market in Vancouver).

189. *See, e.g.*, Neil B. Cohen & Charles A. Sullivan, *The Herfindahl-Hirschman Index and the New Antitrust Merger Guidelines: Concentrating on Concentration*, 62 TEX. L. REV. 453, 506 (1983) ("[G]iven the inherent theoretical and practical difficulties of the structuralist approach, a more direct analysis of market performance or conduct could be valuable.").

case in which uncontroverted evidence suggested that "[l]ist prices for cigarettes increased in lockstep, twice a year, for a number of years, irrespective of the rate of inflation, changes in the costs of production, or shifts in consumer demand."[190] Yet even this performance evidence was not enough to convince six members of the Court that the tobacco companies were engaged in conscious parallelism—despite a vigorous dissent authored by Justice Stevens and joined by Justices White and Blackmun.[191]

By contrast, the straightforward yet effective approach this Article is suggesting has been successfully applied in the economics literature to a variety of problems. Perhaps the best-known example is a study by William Christie and Paul Schultz that begins with the simple observation that broker-dealers on the NASDAQ market were quoting stock prices in quarter points, not eighths.[192] Their research led to the conclusion that "the likely reason for the absence of odd-eighth quotes was an understanding or tacit agreement among dealers to maintain wide spreads [margins between ask and bid],"[193] facilitated by the fact that all bid-ask spreads are readily available on each broker-dealer's computer screen.[194] Further confirming their findings that broker-dealers were not pricing based on underlying cost was the fact that their margins declined after Christie and Schultz's study came to light, "consistent with the hypothesis that spreads were not set competitively and declined as a

190. Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 213 (1993).

191. As Justice Stevens observes:

> On this point, there is ample, uncontradicted evidence that the list prices on generic cigarettes, as well as the prices on branded cigarettes, rose regularly and significantly during the late 1980's, in a fashion remarkably similar to the price change patterns that characterized the industry in the 1970's when supracompetitive, oligopolistic pricing admittedly prevailed. Given its knowledge of the industry's history of parallel pricing, I think the jury plainly was entitled to draw an inference that these increased prices were supracompetitive.

Id. at 255 (Stevens, J., dissenting) (citations omitted).

192. *See* William G. Christie & Paul H. Schultz, *Policy Watch: Did Nasdaq Market Makers Implicitly Collude?*, 9 J. ECON. PERSP. 199, 202 (1995) ("A closer inspection of the individual market maker quotes quickly led to the discovery that these Nasdaq stocks were quoted exclusively in even-eighths. In other words, quotes rarely used any of the one-eighth, three-eighths, five-eighths, or seven-eighths price fractions."). The study was conducted in the days before decimalization. *See id.* at 201 & n.5.

193. Paul Schultz, *Regulatory and Legal Pressures and the Costs of Nasdaq Trading*, 13 REV. FIN. STUD. 917, 918 (2000).

194. *See* Christie & Schultz, *supra* note 192, at 203.

result of regulatory and legal pressure."[195] There are also a variety of studies finding tacit collusion in gasoline retailing.[196] A cost-based approach has also been well applied to problems as varied as airline ticket prices[197] and fuel surcharges,[198] photographic film,[199] and credit card interchange fees.[200]

Another fruitful approach is to compare the performance of a market exhibiting parallelism to one that is competitive: if the margins reveal themselves to be higher, this would indicate that the parallelism is reflective of tacit collusion; on the other hand, if they are comparable, then the parallelism is likely the result of competition. As Jerry Hausman and Gregory Sidak suggest:

195. Schultz, *supra* note 193, at 952.

196. *See, e.g.*, Severin Borenstein & Andrea Shepard, *Dynamic Pricing in Retail Gasoline Markets*, 27 RAND J. ECON. 429, 448 (1996); Eckert & West, *supra* note 188, at 234; Slade, *supra* note 122, at 273.

197. *See* James A. Brander & Anming Zhang, *Market Conduct in the Airline Industry: An Empirical Investigation*, 21 RAND J. ECON. 567, 567–68 (1990).

198. Airlines impose fuel surcharges simply based on the spot-price of fuel; as such, "[b]ecause the surcharge varies by the shipment's chargeable weight regardless of origin or destination, there is no practical relationship between the weight and size of the cargo shipped and the fuel actually consumed by an airliner carrying them." Appel, *supra* note 17, at 393. It is important to note further that:

> The key factor that implicates the oligopoly problem is that the scheme functions just as effectively in the absence of active collusion. In effect, the use of the spot-price index is a new form of price signaling that eliminates the need for repeated communications between competitors: once the spot-price index of trigger points is established and tied to corresponding surcharges, the initiating firm has signaled its intentions for all price levels to anyone with internet access.

Id. at 401.

199. Vrinda Kadiyali, *Entry, Its Deterrence, and Its Accommodation: A Study of the U.S. Photographic Film Industry*, 27 RAND J. ECON. 452, 454 (1996) ("The estimates of the 1980–1990 duopoly show that Kodak and Fuji were tacitly colluding in the choice of both price and advertising . . . .").

200. For example, in 2003, the Reserve Bank of Australia implemented reforms requiring credit card interchange rates to be set according to a cost-based schedule and banned no-surcharge rules, while capping surcharges at the amount of the merchant discount fee. *See* Levitin, *supra* note 10, at 70. "[T]he average MasterCard and Visa interchange rates in Australia have fallen by nearly half, from .95% of purchase price to .50%, while the average merchant discount fees for MasterCard and Visa have fallen from 1.40% of purchase price to .86%." *Id.* (footnotes omitted).

> In highly competitive markets with non-differentiated products, economists expect similar prices, and often similar business strategies, among competitors. Whether these prices and business strategies arise from unilateral profit maximization or coordinated interaction is often not clear. However, a price-based economic analysis, which should be the central focus of any SMP [significant market power] analysis because consumers pay these prices, often resolves much of the ambiguity.[201]

For example, when faced with whether Irish cellular telephone operators were engaged in joint dominance, Hausman and Sidak's approach "compare[d] prices for mobile service in Ireland to those in the United Kingdom, where regulators had found the market to be 'effectively competitive.'"[202] The finding that "[p]rices in Ireland were *lower* than prices in the United Kingdom" suggested that indeed the Irish market was competitive.[203] Similar benchmarking analyses have been conducted to determine whether there was tacit collusion among sugar refiners in Canada[204] and have been suggested in the context of the market for gasoline additives in the United States.[205]

Beyond the cost-based approach and comparisons to competitive markets, the insightful economic studies rely on formulating a hypothesis, then using econometric data to prove or disprove it. For example, to test whether the establishment of a trade association has led to tacit collusion, researchers have tested margins before and after the implementation of the association.[206] Another indicator of tacit collusion might be forbearance among competitors in competing for customers in business segments or geographies—economists have applied such an approach in markets as varied as airline routes[207] and school milk accounts.[208] Alternatively, if an industry acts in parallel to change the services it offers consumers,

201. Jerry A. Hausman & J. Gregory Sidak, *Evaluating Market Power Using Competitive Benchmark Prices Instead of the Herfindahl-Hirschman Index*, 74 ANTITRUST L.J. 387, 406–07 (2007).

202. *Id.* at 389.

203. *Id.* at 389–90.

204. *See* Stanbury & Reschenthaler, *supra* note 20, at 649–50.

205. *See* Vita, *supra* note 105, at 1000.

206. *See* Genesove & Mullin, *supra* note 145, at 381.

207. *See* William N. Evans & Ioannis N. Kessides, *Living by the "Golden Rule": Multimarket Contact in the U.S. Airline Industry*, 109 Q.J. ECON. 341, 365 (1994).

208. *See* In K. Lee, *Non-Cooperative Tacit Collusion, Complementary Bidding and Incumbency Premium*, 15 REV. INDUS. ORG. 115, 133 (1999).

one could look at industry performance before and after to assess whether the change facilitated tacit collusion.[209]

Regardless of specific methodology, these successful studies present a common theme. Rather than try to divine intent or agreement, they look at basic performance data—price, output, cost, demand—to determine whether there is conscious parallelism.[210] Happily, "[d]espite the complexity of oligopoly pricing behaviour, relatively simple approaches to its analysis based upon straightforward profit objectives are capable of yielding useful predictions and cogent explanations."[211]

The best economic work on conscious parallelism thus reflects careful, often unglamorous, econometric study—not grand theory. As one economist has argued, there is "no general detective prescription, apart from the idea that the individual circumstances of the industry in question often suggest what a fruitful line of inquiry might be. Case studies are inevitable."[212] The root of the problem is that there is no general theory of oligopoly that can then be applied. As the economist who pioneered the study of oligopolies aptly noted:

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209. A recent study has applied this method to health insurance companies in Chile:

> When Isapres [Instituciones de Salud Previsional (private health insurance companies in Chile)] decide to market a new plan that is allegedly more efficient and convenient for their customers, there is no reason under a competition hypothesis why they would lower their advertising and sales force expenditures, why the transfer rate of customers within the "innovative" Isapres would decrease or why the profits of both the accused and non-accused Isapres would rise.

Claudio A. Agostini et al., Collusion in the Private Health Insurance Market: Empirical Evidence for Chile 27 (May 16, 2008) (unpublished manuscript), *available at* http://ssrn.com/abstract=1149928. These four factors are perfectly consistent with a collusion hypothesis and were empirically demonstrated: the operating margin rate of all Isapres increased once the transition period to reduce plan coverage was over. *See id.*

210. *See generally* John M. Connor, *Forensic Economics: An Introduction with Special Emphasis on Price Fixing*, 4 J. COMPETITION L. & ECON. 31, 44–55 (2008) (describing and explaining various methods of forensic analysis and the role that economic analysis plays in these types of cases).

211. R.M. Grant, *Pricing Behaviour in the UK Wholesale Market for Petrol 1970–80: A "Structure-Conduct" Analysis*, 30 J. INDUS. ECON. 271, 291 (1982); *cf.* Vita, *supra* note 105, at 1004 ("However, the question is, do price-cost markups exceed the level that might be observed if industry equilibrium was characterized by noncollusive oligopoly behavior?").

212. Porter, *supra* note 29, at 149.

> These final comments on conjectural variations seem to lead us again not only to the conclusion that oligopoly has no single solution; but beyond this to an appreciation of the pitfalls which beset any attempt to bring its multifarious solutions within the embrace of any single formula. It is a disturbing and recalcitrant problem, especially to the mathematically minded theorist who insists upon having "the answer."[213]

Until there are marked advances in oligopoly theory, the most impactful economic work has been narrow analyses of specific industries. As economists have pointed out, "the ease with which tacit collusion (joint maximization) does or does not take place has much to do with the particulars of the situation in which the oligopolists find themselves."[214] Indeed, the emphasis on trying to enunciate an overarching paradigm—obviously tempting to the mathematical economist—has so far largely been irrelevant to the real world.[215] Unfortunately, the "typical industrial organization economist interested in examining the behavior of firms in market environments characterized by small numbers does not approach his task with any unified set of analytical tools which one could call the theory of oligopoly."[216]

There is, to be sure, much more work to be done. Methodologically, the theoretical lacuna invites greater focus on empirical work[217]—not to mention on experimental economics, which has so far been only rarely

213. Chamberlin, *supra* note 33, at 218; *see also* Dolbear et al., *supra* note 154, at 240 ("Despite considerable scholarly effort, no theory has provided reliable predictions of price or output in oligopoly markets."); Stanbury & Reschenthaler, *supra* note 20, at 623 ("Unlike the accepted theory of perfect competition . . . there are many theories of oligopoly behaviour. To the extent that they are deterministic, they rely upon unrealistic assumptions.").

214. Fisher, *supra* note 39, at 121; *see also* ADAMS & BROCK, *supra* note 21, at 119 ("Undoubtedly the degree to which interdependence approximates prefect collusion varies from industry to industry and situation to situation."); *Panel and Audience Discussion on Shared-Monopoly Theories*, *supra* note 104, at 271 ("Economists are beginning to be able to discuss such questions meaningfully for certain specific industries, but cannot answer in terms of any generally applicable theory.") (statement of Robert Clower); Richard Schmalensee, *Collusion Versus Differential Efficiency: Testing Alternative Hypotheses*, 35 J. INDUS. ECON. 399, 420 (1987) ("It would appear likely that the relative importance of collusion and differential efficiency vary considerably among industries and over time.").

215. *Cf.* Fisher, *supra* note 39, at 123 ("There is a strong tendency for even the best practitioners to concentrate on the analytically interesting questions rather than on the ones that really matter for the study of real-life industries. The result is often a perfectly fascinating piece of analysis. But so long as that tendency continues, those analyses will remain merely games economists play.").

216. Joskow, *supra* note 4, at 270.

217. *Cf.* Morriss & Stewart, *supra* note 134, at 1058 ("Empirical questions can often be answered, if anyone cares to spend the time and money on research to do so.").

applied to conscious parallelism.[218] Beyond methodology, much more research, along several dimensions, is required to understand how conscious parallelism comes about. First, and most pragmatically, to the extent financial reports are good indicators of performance, accounting standards might need upgrading to make it easier to identify instances of conscious parallelism.[219]

Second, the role of organizational behavior in fostering conscious parallelism needs to be understood.[220] After all, the literature on the intersection of management behavior and antitrust law is sparse[221]—except that, ironically, "[b]usiness school faculty teaching strategy routinely counsel their students that managers working for oligopolists should implement practices that would facilitate coordination."[222] Similarly, the role of interlocking directorships[223] and firm cross-ownership[224] is only beginning to be seriously studied. Thus, a principal

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218. *See, e.g.*, Kaie-Uwe Kühn, *Collusion Theory in Search of Robust Themes: A Comment on Switgard Feuerstein's Survey*, 5 J. INDUSTRY COMPETITION & TRADE 207, 214 (2005). For applications of the experimental approach to conscious parallelism, see, for example, Enrique Fatas & Juan A. Mañez, *Are Low-Price Promises Collusion Guarantees? An Experimental Test of Price Matching Policies*, 9 SPANISH ECON. REV. 59, 60–61 (2007); Harstad et al., *supra* note 127, at 125; and Christoph Engel, *Tacit Collusion: The Neglected Experimental Evidence* 2 (Max Planck Inst. for Research on Collective Goods, Preprint Paper No. 2007/14, 2007), *available at* http://ssrn.com/abstract=1020889.

219. For example, one commentator has suggested:

> [E]ach conglomerate firm larger than a certain size . . . might be required to disclose or publish annually an operating statement for each product line, showing (1) net sales, (2) cost of goods sold (itemized to show individually the cost of goods purchased from affiliates, the cost of goods purchased from outside firms, and labor costs), (3) operating overhead, (4) net profit or loss from such product line, and (5) area of geographical operations.

Brodley, *supra* note 77, at 363.

220. *See, e.g.*, MacLeod, *supra* note 19, at 26 ("Concepts such as tacit collusion can only be made precise once one begins to discuss signalling behaviour and social factors such as agreed upon rules of thumb.").

221. For two rare examples, see Jeffrey Sonnenfeld & Paul R. Lawrence, *Why Do Companies Succumb to Price Fixing?*, HARV. BUS. REV. July–Aug. 1978, at 145; and Oliver P. Heil & Arlen W. Langvardt, *The Interface Between Competitive Market Signaling and Antitrust Law*, J. MARKETING, July 1994, at 81.

222. Jonathan B. Baker, *Two Sherman Act Section 1 Dilemmas: Parallel Pricing, the Oligopoly Problem, and Contemporary Economic Theory*, 38 ANTITRUST BULL. 143, 197 (1993); *see also* Peritz, *supra* note 105, at 218 (explaining that game theory emphasizes "[t]ransactions founded in the fundamental importance of predicting and seeking to shape other parties' reactions" and how the "game theoretic approach dominates marketing and management scholarship").

223. *See* Rothschild, *supra* note 35, at 316.

224. *See generally* David Gilo et al., *Partial Cross Ownership and Tacit Collusion*, 37 RAND J. ECON. 81, 82 (2006) (examining how "partial cross ownership (PCO)

area of future research would be to move away from an arid abstraction of the firm toward an understanding of the organizational realities that either hinder or foster tacit collusion.

Third, and more abstractly, the role of information in hindering or facilitating conscious parallelism needs to be explored. The central problem is that although information flow is generally considered to be positive, it can also make tacit collusion easier.[225] The dilemma for policymakers is a difficult one:

> Given that firms have no individual incentive to share information in the absence of collusive quantity setting, antitrust authorities are left with a difficult choice. They can attempt to promote or subsidize information transfer while making redoubled efforts to suppress cooperative play. Or, if they think that shared information presents just too inviting an environment for cooperative behavior, and they doubt their ability to control cooperation in an environment of homogeneous information, they may seek a safer, second-best equilibrium by simply prohibiting information transfer.[226]

What is certain, however, is that the information problem has been dramatically understudied.[227]

Notwithstanding these difficulties and areas for future research, IO can already shed much light on the problem of conscious parallelism. The focus of the inquiry, as suggested by the S-C-P framework and the examples above, is perhaps surprisingly commonsensical:

> The performance conditions that most clearly indicate that the practices affect competition adversely include: (1) persistently supracompetitive price and profit levels; (2) substantially uniform transaction prices and price movements; (3) relatively stable firm or brand market shares, particularly in the presence of declining demand; and (4) price and profit changes that are not consistent with changes in demand or supply conditions.[228]

Put slightly differently, "the failure to take advantage of short-run profit possibilities by changing price, product, technology or marketing methods,

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arrangements" raise antitrust concerns and studying "the effect of PCO on the ability of firms to engage in tacit collusion").

225. *See, e.g.*, Richard N. Clarke, *Collusion and the Incentives for Information Sharing*, 14 BELL J. ECON. 383, 383 (1983).

226. *Id.* at 392–93.

227. *See* Russell B. Stevenson, *Information and Rivalrous Competition*, 48 GEO. WASH. L. REV. 671, 672 (1980) ("[O]ne of the principal causes of the difficulties in this area is the dearth of serious scholarly analysis aimed at understanding the impact of increased information on competition.").

228. Clark, *supra* note 99, at 904.

or failure to react to changing underlying conditions of market structure and supply as reflected in costs, are significant evidence of the absence of competition."[229]

Note how far we have come from the search for "agreement" or "conspiracy" in contemporary antitrust jurisprudence.[230] After all, "[i]nstead of considering whether oligopolists have successfully coordinated their behavior to raise prices above the normal competitive level, the courts have engaged in an extended search for various 'plus factors' necessary to prove the existence of a formal agreement among the defendants."[231] Unfortunately, though,

> this elevation of the conspiracy inquiry over economic effect has caused the courts to render a series of conflicting opinions that has, at best, confused many as to the line between permissible and impermissible oligopoly conduct, or, at worst, perhaps even encouraged participants in concentrated markets to engage in tacit collusion.[232]

But why? At least part of the answer lies in the fact that antitrust in recent decades has lost sight of its objective: improving consumer welfare. Those familiar with antitrust's recent history will likely recall that the Chicago School, in a rhetorical master stroke, touted "consumer welfare" while really pushing allocative efficiency. For example, in his landmark book, *The Antitrust Paradox*, Robert Bork argues that the "closer the members of the industry come to maximizing their profits,

229. Conant, *supra* note 84, at 812–13; *cf.* Zellmer, *supra* note 3, at 832 ("It is argued that firms in oligopolies do not make price changes when supply and demand fluctuate or when industry-wide cost reductions occur because there is no incentive for them to lower their prices.").

230. *Cf.* Joshua & Jordan, *supra* note 26, at 662 ("Economists tend not to draw a distinction between 'tacit' and 'express' collusion, while for lawyers, used to a conduct-based test, one of the most difficult problems in the whole field of antitrust law is finding some 'avoidable act' on which liability could be affixed.").

231. Piraino, *supra* note 4, at 24; *see also* Zellmer, *supra* note 3, at 842 (discussing how courts appear to "search for circumstantial evidence that the parties did communicate before engaging in parallel behavior," and ultimately concluding that the "plus factor approach" is not effective in determining whether tactic collusion is occurring in oligopolistic industries); *cf.* Lopatka & Page, *supra* note 44, at 677–78 ("Courts have required evidence of certain 'plus factors,' defined tautologically as activity that 'tend[s] to exclude the possibility that the defendants merely were engaged in lawful conscious parallelism.'" (alteration in original) (footnotes omitted)).

232. Appel, *supra* note 17, at 385–86 (footnote omitted); *see also* HYLTON, *supra* note 34, at 75 ("Increasingly, enforcement authorities face a decision whether to abandon the strictures of Section 1 conspiracy doctrine or to ignore some sophisticated research in economics."); Brodley, *supra* note 77, at 294 ("Cases under section [1] of the Sherman Act focused on whether an actual agreement could be proved, whereas economic theory teaches that one of the characteristics of oligopoly markets is the fact that uniformity of price and other terms of sale can occur without agreement.").

the closer they come to maximizing the welfare of consumers"[233] because it is an "obvious fact that more efficient methods of doing business are as valuable to the public as they are to businessmen."[234] One is left wondering to what extent the simple fact of redefining "consumer welfare" leads to a focus on concepts such as agreement, rather than on whether the practice actually has an effect on consumers. More generally, if what is good for industry is good for consumers, then how can conscious parallelism be bad?[235]

But the Chicago School rhetoric—as convenient as it might be to the business lobby—is too facile.[236] It conveniently forgets that antitrust's overarching goal is to protect competition.[237] Indeed, "[w]hat has confused popular and some instructed opinion has been the focusing of attention upon the rights of producers, a defect which the conscious acceptance of consumers' sovereignty as an ideal instead of a vague conception of the maximisation of social utility or welfare might have removed."[238] In the context of conscious parallelism, the implication is simple: "collusion among firms, if successful, benefits the participants at the expense of their customers or suppliers. From a social perspective,

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233. ROBERT H. BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF 97 (The Free Press 1993) (1978).

234. *Id.* at 4. As Robert Skitol notes, "While Chicago School adherents trumpeted their support of 'consumer welfare,' they used that term in a counterintuitive manner to mean overall economy-wide efficiency rather than the protection of consumers as a class distinct from producers or a producer's shareholding owners." Robert A. Skitol, *The Shifting Sands of Antitrust Policy: Where It Has Been, Where It Is Now, Where It Will Be in Its Third Century*, 9 CORNELL J.L. & PUB. POL'Y 239, 249 (1999).

235. *Cf.* Piraino, *supra* note 4, at 14 ("[T]he Chicago School . . . has also given oligopolists free rein to engage in tacit price-fixing arrangements harmful to consumers.").

236. For example, in an amicus brief filed in the *Twombly* litigation, the Chamber of Commerce suggests that "[p]arallel competitive behavior by businesses is endemic in an industrial economy and it is almost always *desirable* behavior that should be encouraged." Brief for the Chamber of Commerce of the United States et al. as Amici Curiae Supporting Petitioners at 24–25, Bell Atlantic Corp. v. Twombly, 550 U.S. 544 (2007) (No. 05-1126). Note the convenient interjection of the word "competitive" without definition or explanation.

237. *See, e.g.*, *Panel and Audience Discussion on Shared-Monopoly Theories*, *supra* note 104, at 262 ("There must be more concern about preserving competition for its own sake; there cannot be competition without competitors.") (statement of Max Blecher); Raffaelli, *supra* note 43, at 917 ("[A]ntitrust law . . . aims to protect the game of competition in the public interest.").

238. W.H. Hutt, *The Nature of Aggressive Selling*, 2 ECONOMICA (n.s.) 298, 319 (1935).

the losses usually outweigh the benefits."[239] As such, "not surprisingly, policies which render tacit collusion more difficult are in the public interest."[240] Current doctrine, with its emphasis on having to prove agreement among defendants, regrettably cuts against this policy goal.

IV. THE REMEDY BUGABOO

Once conscious parallelism is detected using econometric methods, the problem of fashinoning appropriate remedies inevitably enters the picture. Then Judge, now Justice, Breyer sums up the concern well:

> Courts have noted that the Sherman Act prohibits *agreements*, and they have almost uniformly held, at least in the pricing area, that such individual pricing decisions (even when each firm rests its own decision upon its belief that competitors will do the same) do *not* constitute an unlawful agreement under section 1 of the Sherman Act. *That is not because such pricing is desirable (it is not), but because it is close to impossible to devise a judicially enforceable remedy for "interdependent" pricing*. How does one order a firm to set its prices *without regard* to the likely reactions of its competitors?[241]

Contrary to the conventional wisdom, however, Part IV argues that there is indeed a menu of remedies that can be drawn from to address the problem of conscious parallelism—from damages to injunctions to structural remedies to regulation.[242]

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239. Porter, *supra* note 29, at 148; *see also* Doerr, *supra* note 181, at 104–05 ("The end result is the collective loss in welfare for the largest and most important group in the commercial equation, the consumers."); Jullien & Rey, *supra* note 143, at 995 ("There is then a real conflict between the preferences of the manufacturer and the preferences of consumers and society.").

240. James A. Brander & Barbara J. Spencer, *Tacit Collusion, Free Entry and Welfare*, 33 J. INDUS. ECON. 277, 292–93 (1985).

241. Clamp-All Corp. v. Cast Iron Soil Pipe Inst., 851 F.2d 478, 484 (1st Cir. 1988) (third emphasis added) (citations omitted), *superseded by statute*, Trademark Law Revision Act of 1988, Pub. L. No. 100-667, 102 Stat. 3935; *see also* VISCUSI ET AL., *supra* note 49, at 131 (discussing how although the outcome of tactic collusion is just as harmful "as if the firms operated a cartel," the remedies under antitrust laws "would probably need to differ" in light of the fact that "tacit understandings might require a structure dissolution of the industry to be made ineffective"); Goldman, *supra* note 22, at 1080 (discussing how it is problematic to formulate a remedy if interdependence is treated as an agreement under the Sherman Act).

242. The antitrust laws bring with them many choices. As Herbert Hovenkamp observes:

> The full range of antitrust remedies is very broad. Going roughly from most to least severe, they include: (1) criminal punishment for guilty managers; (2) divestiture or other "structural" breakup; (3) broad mandatory orders such as compulsory dealing; (4) treble damages; (5) fines; (6) narrowly tailored injunctions in the form of "cease and desist" orders.

HOVENKAMP, *supra* note 132, at 64.

First, and by analogy to price-fixing cases, damages could be assessed for the difference between the competitive and supracompetitive price.[243] But calculating damages in antitrust cases is notoriously difficult and may not provide sufficient deterrence; as a consequence, focus shifts to other forms of remedies. One article sums up the general sentiment well by belittling the injunction as "a singularly inept tool when used to prevent conscious imitation."[244] This pessimism, however, is misplaced and likely driven largely by the impracticable injunctions discussed in the literature. It does not take much time or insight, for example, to realize that injunctions that force competitors to price at marginal cost,[245] or not mimic their competitors,[246] are practically useless.

More limited, less grandiose injunctions would be workable. The key insight here is first to identify practices that facilitate conscious parallelism.[247] Examples include "delivered pricing; freight equalization; price books or other pricing formulas; standardization of products; standardization of credit or other terms; most favored nation agreements with customers or other forms of price protection; and exchanges or publication of price and transaction information."[248] Then, once the

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243. *See, e.g.*, Goldman, *supra* note 22, at 1098.

244. *Conscious Parallelism—Fact or Fancy?*, *supra* note 28, at 684.

245. For example, in his classic article Turner suggests:

> The only injunction which would have any prospect of being understandable and, at the same time, establishing something like a competitive price would be one which said to each defendant: "Always increase your output to the point where marginal cost (the additional cost of producing the last unit of output) equals the price that can be obtained; or, alternatively, always lower your price to the point where it equals marginal cost."
>
> The difficulties with this exotic formulation are obvious.

Turner, *supra* note 45, at 670.

246. Turner also argues that:

> Superficially, the injunction would be somewhat more meaningful if it prohibited each defendant from taking into account the probably price decisions of his competitor in determining his own price or output. . . . But such an injunction, read literally, appears to demand such irrational behavior that full compliance would be virtually impossible.

Id. at 669.

247. *See, e.g.*, Clark, *supra* note 99, at 951–52 ("In summary a facilitating practice is a practice that in one way or another makes it easier for firms to coordinate price and output strategies, and thereby to acquire and maintain some degree of collective market power.").

248. Lionel Kestenbaum, *What Is "Price Signalling" and Does It Violate the Law?*, 49 ANTITRUST L.J. 911, 911 (1980); *see also* Blechman, *supra* note 51, at 891 (listing the various practices that make "price uniformity" possible).

practices have been identified, narrow injunctions can be imposed against them[249]—most notably, to prohibit price signaling done either directly among competitors,[250] or indirectly via trade associations.[251] Government agencies could take the lead,[252] not to mention injunctions that might emerge as relief to private lawsuits. Regardless of who might bring suit, the point is simple: "the practical objection to an attack on conscious parallelism—that illegal practices should be clearly describable—can be overcome if unreasonable facilitating practices are forbidden."[253]

Beyond injunctions, another approach is structural relief. To the extent that conscious parallelism is a product of oligopolistic market structure,[254] the remedy might be to restructure the market into a less concentrated one. Once again, this appears to be an unpopular option,[255] largely due to the success of Chicago School's law and economics approach, which espouses a minimalist vision for antitrust.[256] Structural remedies, however, do not deserve the popular scorn they have received. At the most fundamental level, those who disparage structural remedies conveniently forget that "[a]ntitrust law recognizes the inherent advantages of markets with many buyers and sellers. This basic premise undergirds virtually all economic discussions of the efficiency of competitive markets."[257] Consider first that a merger policy more solicitous of consumer, rather than producer, interests would itself be a form of structural remedy that, ex ante, could prevent the further concentration of industries.[258]

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249. *See, e.g.*, Clark, *supra* note 99, at 952; Vita, *supra* note 105, at 993; Sargent, *supra* note 78, at 2103. Of course, some commentators have proposed more nuanced injunctions not directly related to facilitating practices. *See, e.g.*, Sagi, *supra* note 117, at 295 ("According to this suggested price freeze, whenever a firm in an oligopoly market makes a substantial price cut, the other firms in that market will be prohibited from lowering their prices for a defined period of time.").

250. *See, e.g.*, Aldor, *supra* note 100, at 96.

251. *See, e.g.*, Clark, *supra* note 99, at 931; Simonetti, *supra* note 34, at 1245.

252. *See, e.g.*, Baker, *supra* note 96, at 182–83; Bunda, *supra* note 89, at 208.

253. Schaefer, *supra* note 20, at 540.

254. *See, e.g.*, Posner, *supra* note 38, at 1565.

255. *See, e.g.*, Vita, *supra* note 105, at 992.

256. *See, e.g.*, Lopatka, *supra* note 48, at 904 ("In sum, wholesale restructuring of concentrated markets is no longer considered a serious policy option. On this score at least, Posner, other Chicagoans, and some commentators before them have prevailed.").

257. Morriss & Stewart, *supra* note 134, at 1032–33.

258. *See, e.g.*, Doerr, *supra* note 181, at 117; Lopatka, *supra* note 48, at 902. Even Richard Posner admits that because "mergers historically have been an important source of concentration, a strong antimerger policy should do much to prevent new oligopolies from emerging and loosely oligopolistic industries from becoming tightly oligopolistic." Posner, *supra* note 38, at 1566.

Yet, a more robust merger policy is at best a partial remedy—given decades of lax antitrust enforcement, many industries are already oligopolistic. Fortunately, the same structural logic could be applied ex post to help consumers by deconcentrating industries,[259] or perhaps by simply interjecting a government-supported competitor to alter the structure of an otherwise comfortably oligopolistic industry.[260] This is admittedly a muscular approach in today's less ambitious antitrust world,[261] but one cannot help but wonder whether the distaste for structural relief is driven more by the discomfort of oligopolists than by a concern for consumer welfare. Perhaps most amusingly, in the neglected portion of his seminal article, Turner himself strongly advocated structural relief, going so far as to observe that "[i]f effective and workable relief requires a radical structural reformation of the industry, this indicates that it was the structural situation, not the behavior of the industry members, which was fundamentally responsible for the unsatisfactory results."[262] As one commentator notes, with some understatement:

> One aspect of Turner's approach has not been favorably received. Courts have not used section 2 to impose structural remedies on persistent oligopolies. For that matter, courts have not embraced the wellspring of Turner's position, his conviction that enduring monopolies, simply because no good can come of long-held monopoly power, should be broken up.[263]

This observation raises a simple question: why have scholars embraced one part of Turner's argument but not the other? This inquiry is especially troubling given the attractiveness of structural remedies

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259. *See, e.g.*, Blechman, *supra* note 51, at 888 ("Some scholars and legislators have concluded that the essential problem is structural, and they have accordingly proposed new statutes which would attack the alleged anticompetitive structure of oligopolistic industries.").

260. *See, e.g.*, Helmuth Cremer et al., *The Public Firm as an Instrument for Regulating an Oligopolistic Market*, 41 OXFORD ECON. PAPERS 283, 300 (1989); Gal, *supra* note 40, at 4; *cf.* Stanbury & Reschenthaler, *supra* note 20, at 697 ("Government procurement policies can be used to 'reward' firms who deviate from parallel pricing or price leadership in oligopolies.").

261. *See, e.g.*, VISCUSI ET AL., *supra* note 49, at 134.

262. Turner, *supra* note 45, at 671.

263. Lopatka, *supra* note 48, at 903; *see also* Bunda, *supra* note 89, at 191 ("Turner proposed legislation permitting courts to deconcentrate oligopolistic markets to solve the problem, but this proposal was never seriously enacted in the legislature or the courts." (footnote omitted)).

identified clearly not only by Turner but by future generations of observers.[264]

Finally, yet another option within the panoply of remedies to conscious parallelism is the regulation of oligopolistic industries.[265] Much like structural remedies, regulation has been out of vogue in the literature.[266] This is unfortunate given that one might conceptualize oligopoly as closer to monopoly and then invoke regulatory tools that are used in monopolistic industries. More technically, the conscious parallelism present in many oligopolistic industries might be the symptom of what game theorists would call an "empty core": certain markets prone to high fixed costs, as oligopolistic markets often are, tend not to converge to a stable competitive equilibrium;[267] as a consequence, and perhaps counterintuitively, faced with an empty core, "competition may require some cooperation in order to obtain efficiency."[268] Conscious parallelism, then, is an example of such "cooperation."[269] As one distinguished core theorist himself points out:

> [The observations of core theory] suggest that explicit cartelization, *tacit collusion*, and horizontal merger can be viewed, in many instances, as the noncompetitive arrangements that the firms in an industry must necessarily adopt. Whether the resulting arrangements are in any sense optimal is another matter, and *in some*

264. *See, e.g.*, Conant, *supra* note 84, at 822 ("The only effective and lasting remedy to a monopoly or collusive oligopoly is to alter the basic market structure by dissolution of the one or few firms into many firms."); Simonetti, *supra* note 34, at 1245 ("Dispersal of economic power through divestiture and dissolution of the defendants is perhaps the most effective means to restore competition in the market, and it is ordered regularly when the creation of a combination is itself the violation." (footnote omitted)).

265. *See, e.g.*, Aldor, *supra* note 100, at 97 ("Another alternative that should not be overlooked is market regulation.").

266. *See, e.g.*, Marks, *supra* note 52, at 401.

267. A game or market is said to have a "core" if goods can be traded among participants such that the "final allocations are in the hands of those who value most what they get." Lester G. Telser, *Cooperation, Competition, and Efficiency*, 28 J.L. & ECON. 271, 274 (1985). Although this might be valid when it is possible to disaggregate supply to meet changing demand, it becomes questionable in industries characterized by high fixed costs. As one scholar points out, "when costs are characterized by indivisibilities (for example, avoidable costs) and demand is finely divisible, the core may be 'empty.' In other words, a competitive equilibrium frequently fails to exist, and, as a consequence, competitive interactions between firms cannot generate an efficient allocation of resources." Stephen Craig Pirrong, *An Application of Core Theory to the Analysis of Ocean Shipping Markets*, 35 J.L. & ECON. 89, 89 (1992).

268. Telser, *supra* note 267, at 272.

269. *Cf.* William Sjostrom, *Collusion in Ocean Shipping: A Test of Monopoly and Empty Core Models*, 97 J. POL. ECON. 1160, 1177 (1989) ("Agreements among firms to fix prices and allocate output may exist to solve the problem of an empty core.").

> *cases it may turn out to be correct to substitute government regulation or ownership for self-regulation*.[270]

Notwithstanding the powerful analogy to monopoly and congruence with core theory, regulation inevitably faces two related objections: courts are not regulators,[271] and antitrust is not regulation.[272] Yet nothing presupposes courts would do the regulating: regulation could be implemented by an administrative agency. In addition, scholars have wisely begun to observe that "[a]ntitrust is nothing if not economic regulation"[273] and that the "attempt to draw a sharp demarcation between antitrust and regulatory objectives is a mistake."[274] As such, contemplating the regulation of industries prone to conscious parallelism not only accords with core theory but has the additional advantage of offering a holistic approach to antitrust and regulation in an effort to protect consumer welfare.[275]

In the end, the remedies problem will remain an insurmountable one if public policy remains wedded to the strawmen proposed in the

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270. George Bittlingmayer, *Decreasing Average Cost and Competition: A New Look at the* Addyston Pipe *Case*, 25 J.L. & ECON. 201, 203–04 (1982) (emphasis added).

271. *See, e.g.*, WHINSTON, *supra* note 180, at 53 ("It is also sometimes argued that to apply the Sherman Act to tacit collusion would involve the courts in an ongoing process akin to price regulation of industries.").

272. *See* Carstensen, *supra* note 85, at 506 ("Indeed, the direct control over performance distinguishes traditional utility regulation from the antitrust model of indirect, performance control.").

273. George Bittlingmayer, *The Economic Problem of Fixed Costs and What Legal Research Can Contribute*, 14 LAW & SOC. INQUIRY 739, 744 (1989).

274. Glen O. Robinson, *On Refusing To Deal with Rivals*, 87 CORNELL L. REV. 1177, 1184 (2002); *see also* Thomas Gale Moore, Introduction, *Antitrust and Economic Efficiency: A Conference Sponsored by the Hoover Institution*, 28 J.L. & ECON. 245, 245 (1985) ("Only recently have economists begun to recognize that the antitrust laws are regulatory statutes.").

275. William Baumol and Gregory Sidak summarize the benefits of harmonizing antitrust and regulation:

> This harmony between regulation and antitrust has three important implications. First, the same basic tools of microeconomic analysis can be employed in one as in the other. . . . Second, changes in technology or other circumstances that permit natural monopoly to give way to competition impart continuity to the relationship between economic regulation and antitrust. Third, many of the thorniest problems in antitrust law . . . are fundamentally regulatory in nature, involving issues such as entry or the pricing of intermediate goods sold to competitors. Thus, the economic scholarship on regulation can in many instances enrich antitrust jurisprudence.

WILLIAM J. BAUMOL & J. GREGORY SIDAK, TOWARD COMPETITION IN LOCAL TELEPHONY 27 (1994).

literature—telling an oligopolist to price at marginal cost or not mimic another oligopolist are typical examples of comically vague injunctions. Careful analysis, however, reveals a wide menu of options available to policymakers—from damages, to carefully crafted injunctions, to stricter merger review and other structural relief, to regulation—if they simply move beyond the "shortsightedness of taking a mechanistic approach to questions of remedy."[276] Possibilities exist if we are willing to engage them.

V. CONCLUSION

Conscious parallelism is, to be sure, a difficult problem in antitrust theory.[277] Much of the problem lies with the fact that the phenomenon rears its head in oligopolistic industries that are far less well understood than either monopolistic or atomistically competitive markets.[278] As such, "[c]ourts and commentators have long struggled with the proper treatment of parallel conduct by competitors in oligopoly markets."[279] Yet it does no good, except to the oligopolists, to resign oneself to the notion that mainstream thinking in cartel theory is not imaginative enough to address the phenomenon, so we just let it be.

This Article has outlined one path—there is an ample statutory basis to pursue conscious parallelism claims, careful economic analysis can differentiate between competitive and collusive environments, and a menu of remedies exists in the law to address instances of conscious parallelism. Underlying this approach is the belief that we need to return to first principles: at its core, the "analysis should focus on whether the practice raised price or restricted output, not on its label."[280]

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276. Nye, *supra* note 23, at 230; *cf. id.* at 228 ("[I]f we really need structural remedies in conduct cases, let's use them. I am not hung up on the theoretical desirability of preserving some grand symmetry which assigns 'conduct' remedies to the conduct side of the cathedral and puts 'structural' relief across the aisle.").

277. *See, e.g.*, Lopatka, *supra* note 48, at 860.

278. *See, e.g.*, Bunda, *supra* note 89, at 205; Sagi, *supra* note 117, at 271.

279. Goldman, *supra* note 22, at 1057; *see also* Piraino, *supra* note 4, at 11 ("Since the enactment of the Sherman Act in 1890, a debate has raged over whether the antitrust laws can be construed to preclude tacit collusion among oligopolists."); Alan M. Anderson, Note, *Conscious Parallelism in the Use of Delivered Pricing Systems: A Modified Per Se Standard of Review Under the Federal Trade Commission Act*, 66 CORNELL L. REV. 1194, 1194 (1981) ("The legality of conscious parallelism long has been a debated issue in antitrust law." (footnote omitted)).

280. Carlton et al., *supra* note 188, at 427; *see also* Nye, *supra* note 23, at 221 ("[O]ne can asseverate that it does not matter whether there has been a conspiracy or not. So long as the undesirable end result of monopoly profits was attained, by conscious parallelism or what have you, antitrust should intervene."); *cf. Panel and Audience*

Some will no doubt disagree with this argument, but we should recognize that the discourse surrounding conscious parallelism is stale. Current doctrine remains enamored with a purposefully selective reading of Donald Turner's 1962 classic article. We remain curiously obsessed over the terms like "agreement" or "conspiracy,"[281] even though it is plain that "the harm caused by an increase in price above the competitive level is the same whether or not it results from overt agreement."[282] It is deeply troubling that after all these decades the oligopoly problem seems intractable,[283] with commentators describing it as one that "defies solving"[284] or "the most troubling in the antitrust field."[285] The regrettable upshot is that "United States antitrust law is presently ineffective in its efforts to detect oligopolistic tacit collusion."[286] Perhaps this lacuna exists because scholars have not paid sufficient attention to the issue of conscious parallelism; put bluntly, "the literature has persistently ignored that the issue of tacit collusion raises deep challenges for our understanding of coordinated conduct that are of central concern for competition policy."[287] Commentary remains wedded to antiquated ideas—perhaps more than anything, "[w]hat is striking to any contemporary student of antitrust about this history of the oligopoly problem is that so little has changed in the last 35 [now nearly 50] years."[288]

The great irony is that the problem of conscious parallelism has been recognized since Adam Smith's time[289] and was actually dealt with

Discussion on Shared-Monopoly Theories, *supra* note 104, at 249 ("The primary role of the antitrust laws is to see that the economic system works, in the sense that commerce is directed by individual decisions rather than group decisions, by individual action rather than conspiracies.") (statement of John Hanson).

281. *See, e.g.*, Werden, *supra* note 119, at 777–78.

282. Schaefer, *supra* note 20, at 537; *see also* Brodley, *supra* note 77, at 288 ("Even the vocabulary of antitrust failed. Prices were not fixed but 'administered.' Conditions of sale were not dictated by a monopoly combine, but set by a 'price leader.' Yet the results of oligopoly power could be as destructive of a competitive market as those caused by the exercise of monopoly power or by other economic behavior susceptible to antitrust discipline.").

283. *See, e.g.*, Raffaelli, *supra* note 43, at 915.

284. Lopatka, *supra* note 48, at 908.

285. William F. Baxter, *Posner's Antitrust Law: An Economic Perspective*, 8 BELL J. ECON. 609, 613 (1977) (book review); *see also* Weissman, *supra* note 33, at 437 ("Uncertainty pervades the application of the antitrust laws to oligopoly.").

286. Zellmer, *supra* note 3, at 844.

287. Kühn, *supra* note 218, at 208.

288. Lopatka, *supra* note 48, at 846.

289. As Smith himself famously noted:

using a more ambitious antitrust policy prior to *Theatre Enterprises*.[290] In the ensuing decades, however, perhaps largely due to the ascendancy of the Chicago School and a concomitant desire to push neoclassical price theory, we have lost our way. As one distinguished economist observes, "Typically, the neoclassicists have drawn a distinction between natural monopoly and competitive industry structures, which minimizes the need to explore a role for public control in treating the problems posed by oligopoly, imperfect competition, and corporate strategies to maintain market dominance."[291]

Unfortunately for the neoclassicists, "[b]etween the perfect competition and monopoly of theory lie the actual cases"[292] in which simplistic price theory simply will not do.[293] Today's reality amply reveals that "[m]any sectors of the American economy are oligopolistic"[294]—as such, "[t]he high levels of concentration in many U.S. markets today guarantee that tacit collusion will be a continuing problem."[295] As mergers proceed apace

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> People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices. It is impossible indeed to prevent such meetings, by any law which either could be executed, or would be consistent with liberty and justice. But though the law cannot hinder people of the same trade from sometimes assembling together, it ought to do nothing to facilitate such assemblies; must less to render them necessary.

ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS 128 (Edwin Cannan ed., Random House, Inc. 1937) (1776).

290. *See, e.g.*, Blechman, *supra* note 51, at 888.

291. Harry M. Trebing, *Public Control of Enterprise: Neoclassical Assault and Neoinstitutional Reform*, 18 J. ECON. ISSUES 353, 356 (1984).

292. Harold Hotelling, *Stability in Competition*, 39 ECON. J. 41, 44 (1929).

293. *See, e.g.*, Rothschild, *supra* note 35, at 300 ("But at the same time it became increasingly clear that with modern trends towards large-scale enterprise, product differentiation, advertising and trade agreements, the competitive price analysis lost much of its force.").

294. Levins, *supra* note 36, at 181. For example,

> The public accounting industry includes only four national firms; four automobile companies produce approximately 75% of the cars in the United States; seven national carriers control most domestic airline traffic; Visa and MasterCard together account for most of the transactions in the credit card market; four tobacco companies manufacture 97% of the cigarettes sold in the United States; and five pharmaceutical companies produce most of the nation's prescription drugs.

Piraino, *supra* note 4, at 11 (footnotes omitted).

295. Piraino, *supra* note 4, at 11; *see also Panel and Audience Discussion on Shared-Monopoly Theories*, *supra* note 104, at 260 ("It is time to face reality and say that today many of the basic industries in this country simply are not competitive in the price sense.") (statement of Max Blecher); Rothschild, *supra* note 35, at 319 ("[M]odern conditions have largely destroyed the applicability of Marshall's price analysis to the world of to-day.").

and more and more industries consolidate into oligopolies or duopolies, the problem is only bound to get worse.[296] As one writer observes

> [I]t is hard to contest the fact that antitrust law, which is institutionally aimed at safeguarding the game of competition, seems to refuse to act against oligopolistic markets. At the same time, those are the very markets that are becoming increasingly important and widespread. This is not an acceptable result.[297]

We can, and should, do better.[298]

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296. As the postmodern philosopher Jean Baudrillard notes:

> It might appear that the historical movement of capital carries it from one open competition towards oligopoly, then towards monopoly—that the democratic movement goes from multiple parties toward bipartism, then toward the single party. Nothing of the sort: oligopoly, or the current duopoly results from a *tactical doubling of monopoly*. In all domains duopoly is the final stage of monopoly. It is not the public will (state intervention, anti-trust laws, etc.) which breaks up the monopoly of the market—it is the fact that any unitary system, if it wishes to survive, must acquire a *binary regulation*.

JEAN BAUDRILLARD, SIMULATIONS 133–34 (Paul Foss et al. trans., 1983).

297. Raffaelli, *supra* note 43, at 933.

298. *Cf.* Bunda, *supra* note 89, at 209 ("Solving the oligopoly problem is essential to an effective, coherent, and rational antitrust policy.").