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OLIGOPOLY PRICING AND RICHARD POSNER

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Oligopoly Pricing and Richard Posner

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Abstract: Over a span of nearly 50 years Richard Posner's voice has loomed large over the subject of oligopoly pricing and antitrust. The span begins in 1969 with Posner's publication of "Oligopoly and the Antitrust Laws: A Suggested Approach," which argues for more aggressive enforcement of Section 1 in cases involving circumstantial evidence of conspiracy. The span ends with Posner's opinion in *In re Text Messaging Antitrust Litigation*, in 2015. The two writings, the first an academic article published early in Posner's career and the second a judicial opinion published near the end of his time on the bench, suggest very different approaches to the enforcement of Section 1 in oligopoly pricing cases. In Part II, I describe the text messaging litigation and the reasoning behind Posner's virtual volte-face on oligopoly pricing. In Part III, I discuss the beginning of Posner's journey, and the basis for his comparatively idealistic vision of the scope of Section 1. Part III considers the path forward; what courts are likely to do on the question of the scope of Section 1, and what courts should do.

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Keywords: price fixing, oligopoly pricing, tacit collusion, Twombly, plus factors, price leadership, focal point coordination, text messaging antitrust litigation

JEL Classifications: B31, D43, K21, K42, L13, L41

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I. Introduction

Over a span of nearly 50 years Richard Posner's voice has loomed large over the subject of oligopoly pricing and antitrust. The span begins in 1969 with Posner's publication of *Oligopoly and the Antitrust Laws: A Suggested Approach*,¹ which argues for more aggressive enforcement of Section 1 in cases involving circumstantial evidence of conspiracy. The span ends with Posner's opinion in *In re Text Messaging Antitrust Litigation*² in 2015.

The two writings, the first an academic article published early in Posner's career and the second a judicial opinion published near the end of his time on the bench, suggest very different approaches to the enforcement of Section 1 in oligopoly pricing cases. The article counsels aggression while the opinion counsels timidity, with a closing paragraph that begins with the sentence, "We hope this opinion will help lawyers understand the risks of invoking "collusion" without being precise about what they mean."³

I will refer to the oligopoly pricing cases sometimes as "circumstantial-evidence conspiracy" cases because they typically involve a charge of conspiracy and an absence of direct evidence of agreement, such as a transcript or recording of messages proving the existence of an agreement to restrain trade in violation of Section 1. Sure, almost always these are cases involving oligopoly pricing – though some circumstantial evidence cases have involved groups consisting of too many members to be considered an oligopoly.⁴ What makes these cases special, however, is the type of circumstantial evidence brought to court and the difficulty of determining whether the evidence justifies a finding of conspiracy.

Given the difficult problems of inference in oligopolistic pricing cases, it is easy to exaggerate the change in Posner's outlook from 1969 to 2015. To be fair in assessing the change, one should keep in mind that the process of inference is entwined generally with the specific set of facts at the base of the process – alter the facts, alter the inference. Still, on a superficial level Posner's reversal appears to be dramatic. He is skeptical in 2015 of the types of evidence he suggested would support a finding of conspiracy in 1969, and by 2015 he tells us that he no longer believes, as he did in 1969, that Sherman Act Section 1 prohibits tacit collusion. These changes alone would be of interest given Posner's influence in antitrust law, but they are even more interesting in light of his impressive critique, in 1969, of the conservative enforcement approach advocated by former Antitrust Division chief Donald Turner and others. The journey changes the journeyer: the conservative approach that Posner criticizes in 1969, he embraces in 2015.

In Part II, I describe the text messaging litigation and the reasoning behind Posner's virtual volte-face on oligopoly pricing. In Part III, I discuss the beginning of Posner's journey, and the basis

¹ 21 STAN. L. REV. 1562 (1968).

² 782 F. 3d 867 (7th Cir. 2015).

³ *Id.* at 879.

⁴ *See, e.g.,* American Column & Lumber Co. v. United States, 257 U.S. 377 (1921) (data dissemination plan involving roughly 400 firms).

for his comparatively idealistic vision of the scope of Section 1. Part III considers the path forward; what courts are likely to do on the question of the scope of Section 1, and what courts should do.

II. The End of the Journey, 2015

Let's start with the final stage of this odyssey, Posner's 2015 *In re Text Messaging* opinion. We will have to consider two of his opinions in the same case, *In re Text Messaging Antitrust Litigation*, 782 F. 3d 867 (7th Cir. 2015), and *In re Text Messaging Antitrust Litigation*, 630 F. 3d 622 (7th Cir. 2010). The case arose from the consolidation in a multidistrict litigation of several class actions accusing major wireless network providers (T-Mobile USA Inc., Sprint Corp., AT&T Mobility LLC, and Verizon Wireless LLC) of fixing prices in the "pay per use" text messaging market (paying per message rather than a fixed fee for an unlimited number). The 2010 opinion examines the dismissal question – that is, the defendants' appeal of the trial court's refusal of their motion to dismiss – and the second opinion examines the trial court's decision to grant summary judgment in favor of the defendants. For simplicity, I will refer to the first opinion as *Text Messaging 2010* and the second as *Text Messaging 2015*.

Text Messaging 2010 is mostly an application and explication of the standard of review for dismissal motions under *Bell Atlantic Corp. v. Twombly*.⁵ Quite helpfully, Posner describes *Twombly* as changing the standard for dismissal from a *possibility standard* to a *plausibility standard*. Under a possibility standard, a court should not dismiss a complaint if there is a potential scenario under which the allegations of the complaint would be valid. In other words, a court could not properly dismiss a complaint as long as it is possible that facts exist that would enable the plaintiff to prove the allegations in court. Thus, even a small or miniscule probability of being capable of proof would enable a complaint to survive a motion for dismissal under the possibility standard. A plausibility standard, by contrast, requires the allegation of facts in a complaint that suggest a significant probability that the plaintiff will prove the allegations to the degree required by the prevailing proof standard. The plausibility standard does not require the allegation of facts that would enable a reasonable jury to conclude that the plaintiff is telling the truth with a probability greater than 50 percent. Such a standard would be equivalent to the preponderance standard for a verdict, and would clearly be too demanding at the complaint stage. But a plausibility standard, Posner explains, points to a probability that is greater than miniscule though less than 51 percent as the requirement for avoiding dismissal.

The defendants in *Text Messaging 2010* argued that the plaintiff's complaint did not satisfy the plausibility standard because it presented facts that established nothing more than parallel conduct equally consistent with unilateral action as with collusion. Posner concluded, however, that the complaint did meet the plausibility standard for a conspiracy claim. His analysis points to two important "plus factors," in addition to the observed parallel price increases, addressed by the facts asserted in the complaint. One plus factor is that of shared information. Posner noted that the defendants had met in trade associations and within other special groups with sufficient frequency to enable them to form and monitor an agreement on prices. Second, Posner argued

⁵ 550 U.S. 544 (2007).

that prices for “pay per use” text messaging service increased as costs were falling, which he treated as an anomalous feature suggesting the existence of a conspiracy. Third, he noted that the complex and nearly simultaneous changes in the pricing structure bolstered the plaintiff’s theory of conspiracy. Based on these plus factors, Posner held that the plaintiff’s complaint met the plausibility test of *Twombly*.

The defendants’ appeal having been denied by Posner, the case proceeded to discovery in the trial court, ending with a summary judgment in favor of the defendants. The plaintiffs appealed the summary judgment, leading to *Text Messaging 2015*, in which Posner upheld the judgment and took the further step of announcing that tacit collusion does not violate Section 1 of the Sherman Act.

Posner provides a careful and exhaustive assessment of the circumstantial evidence in *Text Messaging 2015*. His conclusion, however, boils down to the statement that the evidence produced by the plaintiffs was entirely consistent with individually rational conduct on the part of the defendants. The only new piece of evidence generated through discovery was an email by an employee of T-Mobile criticizing the price increase for messaging services on the ground that it was not justified by an increase in costs, and that it was just an attempt to gouge consumers. Posner dismisses the probative weight of the email because it contained no language suggesting that there was an agreement among the firms to fix prices – if anything, the email appears to adopt the premise that there was no agreement among the firms. In addition, the employee’s later attempt to delete all traces of the email was consistent with an effort to avoid letting his own criticism of senior management get out, thereby risking retaliation from those managers, rather than attempting to conceal the existence of a conspiracy.

Posner then turns to the subject of the scope of Section 1, holding that tacit collusion is not within its reach. As far as I am aware, this is the first appellate court opinion to state such a position so clearly. The Supreme Court, in *Brooke Group*,⁶ referred to tacit collusion as a practice “not in itself unlawful.”⁷ While the Court’s statement in *Brooke Group* is surely of value to antitrust defense lawyers, it was not necessary for the holding in that case, and the Court later backed away from the statement in *Twombly*.⁸ The earlier Supreme Court case law on circumstantial-evidence conspiracies, including decisions such as *Interstate Circuit*⁹ and *Theatre Enterprises*,¹⁰ is also ambiguous on the question whether Section 1 prohibits tacit collusion. Posner’s opinion appears to be the first, setting aside the *Brooke Group* dictum, to say unambiguously that Section 1 does not include tacit collusion within its prohibition.

Posner’s reasons for articulating a clear limit on the scope of Section 1 would be familiar to anyone who has followed the literature on this matter.¹¹ First, there is the problem of *notice*: If

⁶ *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209 (1993).

⁷ *Id.* at 227.

⁸ *Twombly*, 550 U.S. at 553 (referring to *conscious parallelism*, not tacit collusion, as a practice “not in itself unlawful.”).

⁹ *Interstate Circuit, Inc. v. United States*, 306 U.S. 208 (1939).

¹⁰ *Theatre Enterprises, Inc. v. Paramount Film Distributing Corp.*, 346 U.S. 537 (1954).

¹¹ For a discussion and critique of the literature, see KEITH N. HYLTON, *ANTITRUST LAW: ECONOMIC THEORY AND COMMON LAW EVOLUTION* 75-89 (2003).

a firm simply follows the price decisions of another firm, perhaps because it believes the other firm has superior information on market conditions, how is the firm to understand that such an act is a violation of Section 1? Or consider any other decision that appears to be based on considerations of interdependence, such as to increase spending on advertising in response to the same actions by a rival; again, how is the firm to know when it has crossed the line into a violation of Section 1?

Second, there is the problem of *remedy*: If the Sherman Act prohibits tacit collusion, how can an order prevent the conduct from occurring again? Are firms to be instructed that they should not take the actions of rivals into account? If so, how are they to comply with such an injunction?

Posner notes also the problem of *discouraging entry*: If the Sherman Act prohibits tacit collusion, and courts infer tacit collusion from evidence that a firm acted in response to a move by a rival, then the threat of liability for such unspecified conduct would tend to deter new entrants from entering a market. Firms would fear that by entering a market, and adopting the same price level as incumbent firms, their actions might be taken as evidence of a Section 1 violation. Of course, as firms become aware of this danger, fewer will choose to enter new markets, leaving consumers even more vulnerable to anticompetitive pricing in oligopolistic markets.

Posner does not mention this, but there is also the problem of *discouraging competition*: If the Sherman Act prohibits tacit collusion, then if firms compete too vigorously, leading to losses, and then retreat by raising prices, enforcers and plaintiffs will bring Section 1 claims. Knowing that this is the likely result of “overshooting” competition, firms will compete less aggressively. Again, the effect of such a perception among firms is to leave consumers more vulnerable to oligopolistic surcharges, a result that contradicts the goals of the Sherman Act.

Posner notes in passing a recent book by Louis Kaplow that urges more aggressive enforcement of Section 1 in circumstantial-evidence conspiracy cases,¹² suggesting that Kaplow’s proposals would be mostly unworkable and potentially harmful if implemented.¹³ The unusual feature of Posner’s harsh critique is that Kaplow’s book largely pursues a thesis that Posner himself initiated. I will turn to that next.

III. The Beginning of the Journey, 1969

Posner’s arguments justifying a narrow scope for Section 1 in *Text Messaging 2015* appear to contradict a position that he had taken in his 1969 article. In *Oligopoly and the Antitrust Laws*, Posner called for more aggressive enforcement of Section 1 in circumstantial-evidence conspiracy cases. He criticized the tacit collusion model that had been described in an article by Donald Turner, and at the same time rejected Turner’s relatively conservative approach to

¹² LOUIS KAPLOW, COMPETITION POLICY AND PRICE FIXING (2013).

¹³ *Text Messaging*, 782 F. 3d at 874-76.

Section 1 enforcement.¹⁴ The Posner-Turner “conscious parallelism” debate includes several interesting arguments that I will not attempt to survey in detail here.

The conscious parallelism debate did not begin with Turner and Posner. Of course, discussion of tacit collusion, and its implications for antitrust, had been in the economics literature for a considerable time before law professors began exploring the issue.¹⁵ In the law literature, James Rahl, a Northwestern University law professor, had initiated the debate about Section 1 enforcement and tacit collusion in his article *Conspiracy and the Anti-Trust Laws*.¹⁶ The interesting feature of Rahl’s article is that he saw the close connection between the doctrine of intra-enterprise conspiracy and the application of Section 1 to tacit collusion. In both cases, according to Rahl, enforcers were seeking to apply Section 1 to conduct that did not involve a conspiracy. In the intra-enterprise context, the necessary *duality* of conspiracy doctrine is missing, because a single enterprise always agrees with itself. In the conscious parallelism case, the *agreement* component of conspiracy doctrine is missing. Rahl’s article anticipates some of the arguments that would later appear in Donald Turner’s article on tacit collusion and antitrust. Still, for the sake of conciseness I will not review Rahl’s article in detail. Rahl’s arguments for restraint in enforcing Section 1 overlap substantially with Turner’s. Interestingly, the first footnote in Turner’s article cites the Rahl article, but only as a source of “historical background” on Section 1 of the Sherman Act. Turner’s article includes no other citations to Rahl even though it is apparent that Turner was influenced by Rahl.

Turner makes two core arguments. First, he contends that tacit collusion could in theory be viewed as a type of agreement (or an “agreement to agree”), even though it involves unilateral conduct. In other words, Turner refuses to say that Section 1 does not reach instances of tacit collusion. Second, Turner argues that the practical difficulties of using Section 1 in cases of tacit collusion make it largely an ineffective and ill-advised enforcement weapon in these scenarios. However, Turner does not claim that the practical difficulties imply that Section 1 can under no circumstances be applied to cases of tacit collusion, and indeed closes his article with examples of conscious parallelism where he thinks the application of Section 1 is appropriate.

Turner’s grounds his reasons for rejecting Section 1 as an enforcement tool against tacit collusion on the structure of the statute. First, there is a doctrinal problem. If consciously parallel conduct is unilateral – that is, not based on a concrete agreement – then Section 1 does not provide a direct route to enforcement according to Turner. However, even if we assume that the conduct is unilateral, Section 2 provides a basis for enforcement in Turner’s view if the oligopoly power wielded by firms was acquired through unlawful means. Thus, the mere fact that the firms’ conduct is unilateral does not exempt it from the Sherman Act. As long as a factual basis could be generated that would demonstrate that the oligopoly power had been acquired by unlawful means, the Sherman Act can be used as an enforcement tool against tacit collusion in oligopolistic markets. Still, Turner’s concession that the statute was inapplicable in

¹⁴ Donald F. Turner, *The Definition of Agreement under the Sherman Act: Conscious Parallelism and Refusals to Deal*, 75 HARV. L. REV. 655 (1962).

¹⁵ Edward H. Chamberlin, *Duopoly: Value Where Sellers Are Few*, 44 Q. J. ECON. 63 (1929).

¹⁶ 44 U. ILL. L. REV. 743 (1950).

settings where oligopoly power had been lawfully acquired amounts to a significant reduction in the potential for Section 1 enforcement in the tacit collusion setting.

The second problem Turner finds is in the statute's remedial structure. Turner says that he could not envision an injunction that would implement the statute's goals in the tacit collusion setting. If a firm is instructed not to follow the actions of its rivals, then what is the firm supposed to do? How can a firm in an oligopolistic market ignore the actions of its rivals? If such an order were issued by a court, the next question that would arise is precisely how to enforce the order. Turner says that in order to enforce such a capacious order, the court would have to transform itself into a regulatory agency. He regards such a transformation as inconsistent with the both structure and the history of the Sherman Act.

I noted earlier that Turner appears to have been influenced by Rahl because of the similarities in their arguments. Rahl's article argues (like Turner) that the statute itself – broadly including its associated common law and enforcement structure – is the most important obstacle to using Section 1 as an enforcement tool against tacit collusion. The statute can be applied to oligopolistic pricing, according to Rahl, only if the evidence threshold necessary to prove conspiracy is lowered to the point where antitrust courts adopt a doctrine similar to *res ipsa loquitur* in tort law, where industry structure would provide the basis for inferring conspiracy. Rahl also argues that the significant notice problems of using Section 1 would render the statutory enforcement scheme unworkable. The notice and remedial problems are so closely related that Rahl's concern over notice mostly anticipates Turner's later expressed doubt as to the existence of a viable remedy.

Posner enters the conscious parallelism debate as a critic of Turner. Posner begins by expressing skepticism of the theory that tacit collusion, in the absence of any system of monitoring and enforcement, could generate stable cartel prices. Posner specifically directs his criticism to the price leadership model described by Turner and implicitly warranted by the Court as a species of unlawful collusion in *American Tobacco*, where the major cigarette manufacturers were found guilty of violating Section 1 for participating in a scheme in which they followed the lead of R.J. Reynolds. Posner argues that price leadership, with nothing more assumed, provides an unpersuasive theory of collusion. If the follower firms simply mimic the price changes of the leading firm, then the leading firm could choose to undercut the cartel price whenever the opportunity arrives (in short time windows or in narrow markets) and quickly return to the cartel price to prevent a breakdown. Because of this vulnerability, Posner argues that successful collusion requires some system of monitoring and enforcement, even if or especially if there is no concrete agreement. A pattern of price leadership without any accompanying evidence of monitoring and enforcement should be insufficient to support a Section 1 conspiracy finding according to Posner. However, when evidence of enforcement and monitoring are added to the particular observations of parallel conduct, Section 1 enforcement is entirely appropriate.

In contrast to Turner (and Rahl), Posner does not suggest that Section 1 is a mostly ineffective or inappropriate enforcement tool with respect to tacit collusion. Posner argues that enforcement agencies should use Section 1 more aggressively in cases of circumstantial evidence, which

necessarily implies cases of tacit collusion. In the absence of evidence of an agreement, Posner would have enforcers substitute evidence of monitoring and enforcement.

This is a reasonable position when viewed on an abstract plane. The Supreme Court's case law has long supported the view that courts can infer conspiracy from circumstantial evidence. Radically, Posner suggests that the question whether an agreement actually exists is a red herring. The essential question in his view is whether a conspiracy *should be inferred* because the evidence indicates that the observed arrangement has sufficient infrastructure, backed up by practice, to operate as a reasonably stable cartel. The infrastructure consists of shared information, monitoring, and enforcement. The practice consists of efforts to monitor and enforce the terms of a cartel, whether the parties have formally agreed to it or not.

On the question whether a court can find, in a manner consistent with the common law, that the parties have agreed, Posner argues that courts can infer the existence of a "unilateral contract."¹⁷ Such a contract exists, in the ordinary common law setting, when one party announces that he will offer something in exchange to anyone who carries out some specific actions. For example, a dog owner may post a sign saying that he will pay a reward to anyone who returns a dog bearing certain features; and under such conditions the person who complies with the terms of the offer thereby accepts and is entitled under the law to the reward. The promise followed by conduct meeting its conditions constitutes a unilateral contract. In the same sense, argues Posner, a firm that takes an action that is likely to be construed by other firms as an invitation to set the price at a high level effectively communicates the terms of a unilateral contract to those other firms. If they accept the contract by setting their prices at a high level, then under the law an agreement exists.

The difficult questions generated by Posner's approach appear in the details of application. What sort of suspicious phenomena justify an inference that collusion might be the explanation? Once a court observes such phenomena, what sort of evidence justifies an inference of collusion? Posner's article discusses some of the phenomena, as do his opinions in the text messaging case. However, some of the oft-cited examples of suspicious phenomena have turned out to have low probative weight, as Posner concedes in *Text Messaging 2015*.

One classic example, noted by Posner in *Text Messaging 2011*, is the observation of price going up as costs fall. This was an important observation in the Court's finding of conspiracy in *American Tobacco*.¹⁸ Posner refers to the phenomenon in his 1969 article as a potential piece of circumstantial evidence in Section 1 cases.¹⁹ In *American Tobacco*, the Supreme Court noted that cigarette prices had increased as costs fell during the Depression. The cigarette sellers had offered no justification sufficient to allay the suspicion of collusion. However, historical evidence indicates that demand for cigarettes increased markedly during the Depression.²⁰ The

¹⁷ Posner, *supra* note 1, at 1576.

¹⁸ *American Tobacco Co. v. United States*, 328 U. S. 781 (1946).

¹⁹ However, Posner expresses some skepticism toward the price increase (with falling costs) observation, and especially criticizes Turner's readiness to embrace the observation as evidence of conspiracy. See Posner, *supra* note 1, at 1585.

²⁰ See, e.g., *The Match King*, THE ECONOMIST (Dec. 19, 2007).

observation that cigarette prices increased as costs fell during the Depression could suggest that the cigarette sellers were colluding. On the other hand, the observation could also suggest that prices increased with demand, as in any market. If demand increases and prices increase too, then clearly it would be inappropriate to infer conspiracy on the part of the sellers in the particular market under observation. Hence, the Supreme Court's use of the evidence of a price increase at the same time as costs fall as a fact supporting a charge of conspiracy in *American Tobacco* is an example of improper inference. If, on the other hand, a case arises in which demand remains stable or falls, costs also fall, and price increases, then an inference of conspiracy among the sellers would be minimally plausible.

The same pattern with respect to prices and costs appears in the text messaging litigation. In *Text Messaging 2011*, Posner notes that prices for messaging services, in the "pay per use" market in which the plaintiffs allege the conspiracy occurred, had increased at a time when costs were falling.²¹ However, in *Text Messaging 2015*, Posner finds that the price increases could be attributed to a policy on the part of the defendants to shift consumers out of the more expensive "pay per use" text messaging service to cheaper bulk plans that permit the consumer to send a large (or unlimited) number of messages per month for a fixed price. Moreover, the customers who chose to remain in the pay-per-use market were those who used the messaging service quite infrequently and were relatively price inelastic. If, as the result of some market disruption or change, a multi-service firm finds that it has a group of consumers who are price inelastic in some particular market that it serves, then it will rationally raise price under the Ramsey-pricing model.²² There would be no need for a collusive agreement among the wireless network firms to see prices going up in the price-per-use messaging market. Although the text messaging case appears at first glance to be one where price increases as costs fall, raising the suspicion Posner notes in *Text Messaging 2011*, a closer look at the market, as Posner undertakes in *Text Messaging 2015*, indicates that a change in demand conditions (and to some degree cost conditions) could fully account for the price increase.

These observations undermine the probative weight of the simple observation that "price increases while costs fall" in a circumstantial-evidence conspiracy case. As a general matter, courts should not accord such an observation any inferential weight unless the plaintiff can also produce evidence indicating that demand conditions could not justify the price increase. Although *Text Messaging 2011* cites the observation as one of several factors supporting the trial judge's refusal to dismiss the complaint, one lesson suggested by *Text Messaging 2015* is that courts should not cite the observation, standing alone with no evidence on demand conditions, without an accompanying admonition that it has zero probative value.

Recall that Posner's 1969 article argues that courts should use evidence showing the existence of monitoring and enforcement mechanisms to support the inference of conspiracy. As with the case of "suspicious price increases," the probative weight of evidence of such activities depends

²¹ *Text Messaging*, 630 F. 3d at 628.

²² Roughly, Ramsey-pricing involves setting prices in an inverse relationship to the elasticity of demand in the particular market served by the multi-product firm. On Ramsey-pricing, see William J. Baumol and David F. Bradford, *Optimal Departures from Marginal Cost Pricing*, 60 AM. ECON. REV. 265 (1970).

greatly on how one defines the activities and the specifics of every instance of application. The problem of definition is illustrated by one of the Court's famous circumstantial-evidence Section 1 cases, *American Column*. In *American Column*, the Court found the enforcement mechanism in the reluctance of any member of the information-sharing plan to depart the plan and thereby forgo the benefits of being a member of the plan. This is perhaps the most troubling example of the use of circumstantial evidence in all of the Section 1 case law. Of course, every cartel member forgoes the benefits of being in a cartel if he chooses to cheat on the cartel. But basic cartel theory holds that the incentive to cheat is strong – often a dominant strategy – precisely because the benefits from cheating exceed the benefits from remaining in the cartel in any single period of consideration.²³ As a general rule, evidence of an enforcement mechanism should refer to evidence of a punishment mechanism independent of the loss of the benefits of cartel membership. Such a definition should be part of the inference case law under Section 1.

One can raise similar questions about monitoring evidence. If the definition of monitoring includes self-reporting, as in *American Column*, then it is arguably too broad. A firm can report list prices without also reporting the actual transaction prices. An information-sharing plan that does not require the reporting of actual transaction prices leaves quite a lot of room for firms to discount list prices and thereby undercut a collusive pricing structure. This was one of the lessons of *Du Pont (Ethyl) v. FTC*,²⁴ where the court found that the evidence of discounting below delivered prices weakened the FTC's theory of tacit collusion.²⁵

These questions of application and detail bedevil any serious effort to take the more aggressive approach to Section 1 enforcement urged by Posner in his 1969 article. Posner's *Text Messaging 2015*, while not entirely rejecting the thesis of his 1969 article, is a sobering exploration of the problems of application. Probably because of these difficulties, Posner concluded that a clear statement that Section 1 does not prohibit tacit collusion would help guide courts toward a more rigorous treatment of the circumstantial evidence in conspiracy cases.

IV. The Journey that Remains: Where Do We Go from Here?

While Posner's limitation of the scope of Section 1 provides guidance to other courts, the question remains whether other circuits will adopt his statement, and whether the Supreme Court will endorse it at some point in the future. The limitation contradicts the Court's most recent statements on the scope of Section 1 in *Twombly*.

Even if the Supreme Court eventually endorses Posner's limitation on the scope of Section 1, the larger question is whether it will have much of an impact on circumstantial-evidence conspiracy litigation. The circumstantial evidence cases have consisted of two types: one where the prosecution's theory is that an actual agreement exists, but that it is difficult to find evidence of the formal agreement, and the other where the prosecution's theory is that only a tacit agreement exists. Posner's limitation eliminates the second type of case – provided that it is brought under

²³ Note that I am not considering a case where the whole cartel disintegrates in a punishment scheme (trigger strategy) against any particular deviator. I have in mind the case where one firm deviates while the remaining stay within the cartel.

²⁴ *E.I. Du Pont Nemours & Co. v. Fed. Trade Comm'n*, 729 F.2d 128 (2d Cir. 1984).

²⁵ *Du Pont (Ethyl)*, 729 F.2d at 132.

Section 1 and not by the FTC under Section 5. However, the two types of circumstantial evidence case are often factually indistinguishable, and many cases are, like Schrodinger's cat, of both types at the same time. Long-standing doctrine enables plaintiffs to bring circumstantial evidence cases to court and to survive summary judgment on the basis of plus factors established in *Interstate Circuit*.²⁶ Courts have not required evidence of the formal agreement, either in text or transcript form, among the conspirators. Posner's limitation, if eventually accepted by the courts, will change the theories asserted by plaintiffs, but may not substantially change the sorts of circumstantial-evidence conspiracy cases that enter the courts.

There are also questions having to do with the present state of *Twombly* and the definition of agreement. Consider the *Twombly* question first. Posner's *Text Messaging* opinions, viewed together, take a relatively plaintiff-friendly approach to the dismissal question and a seemingly defendant-friendly approach to the summary judgment question. The reason for describing Posner's approach as plaintiff-friendly at the dismissal stage is that he suggests that an undefinable list of facts can serve as plus factors that enable a plaintiff to get beyond the dismissal stage. Such an approach encourages plaintiffs to come into court with a long list of facts that can satisfy this burden. And, as I noted earlier, some of the facts often used for this purpose, such as the observation that "price increases while costs fall," should be accorded zero probative weight standing alone. On the other hand, in the summary judgment phase, Posner imposes a degree of rigor on the inference process that goes beyond what is suggested in the Supreme Court's foundational circumstantial-evidence conspiracy cases. In this sense, Posner appears to favor defendants at the summary judgment stage.

This is a troubling pattern under the theory of *Twombly*. One important reason for imposing a plausibility standard, the Court argued in *Twombly*, is to save trial courts and defendants the expense of going through discovery, which can be costly and time-consuming, when it is unlikely that the plaintiffs will procure sufficient evidence to pass the summary judgment threshold. A light touch at review of the dismissal stage followed by a heavy hand at summary judgment contradicts this rationale for *Twombly*, and opens the gates to the sort of cases the *Twombly* doctrine attempts to bar. In lending credibility to such cases, the light-touch review enables plaintiffs to threaten to impose significant discovery costs on defendants. As discovery costs increase, such threats become as powerful as threats to impose trial costs. Imposing such costs on defendants then leads directly to the perverse incentive effects of tacit collusion prosecution that Posner worries about in *Text Messaging 2015*.

A counterargument is that it is not entirely clear what sort of antitrust case *Twombly* attempts to bar. The general term "plausibility" does little to resolve this question. This problem of definition is properly attributed to the *Twombly* opinion rather than Posner's application of *Twombly*. However, the solution to this problem is suggested in *Text Messaging 2015* (and also by the trial court's opinion in *Twombly*). Posner's decision rests largely on his assessment that the plaintiffs had failed to produce objective evidence contradicting the conclusion that the defendants' conduct was individually rational. If Posner had subjected the evidence brought into court at the dismissal stage by the same test, he probably would have fashioned a more

²⁶ On plus factors and the *Interstate Circuit* doctrine, see HYLTON, *supra* note 11, at 134-43.

demanding standard for trial courts to apply than the multiple plus-factors approach that he adopts in *Text Messaging 2010*. It follows from this that *Twombly* itself, when applied to circumstantial-evidence conspiracy cases, should be interpreted to require evidence inconsistent with individually rational conduct at the dismissal stage. Under the individually rationality test, Posner could have conducted the same rigorous analysis of the “price increase after costs fall” observation at the dismissal stage that he applies at the summary judgment stage, and the result may have been a reversal of the trial court or a remand requiring the court to apply the individual rationality test.

The other question remaining after Posner’s *Text Messaging 2015* has been at the heart of circumstantial-evidence conspiracy cases from the start, and that is the definition of tacit collusion. There is not enough space in this contribution to discuss this question in reasonable depth, but I will sketch some of obvious concerns here.

The Supreme Court, in its effort to retract the dictum of *Brooke Group* that tacit collusion is “not in itself unlawful,” states in *Twombly* that “conscious parallelism ... is not in itself unlawful,”²⁷ after quoting from an earlier opinion indicating that tacit collusion falls within the prohibition of Section 1.²⁸ The question raised by this is what courts should regard as tacit collusion. The distinction between conscious parallelism and tacit collusion can be explained by reference to the Cournot oligopoly game.²⁹ In the Cournot-Nash equilibrium, each firm chooses an output level taking the anticipated output choice of its rival as given and maximizing profit with respect to the residual market. In the collusion outcome, each firm adopts an output level that maximizes the joint profits of the two firms. The Cournot-Nash equilibrium, because it involves each firm considering the anticipated output of the other firm, could easily generate consciously parallel behavior. However, collusion requires more than conscious parallelism; it requires accommodation and adjustment so that each firm takes a complementary position along the set of output combinations that optimize joint profits. The question is whether the taking of such positions can occur in the absence of a formal agreement among the firms. Since conflict is likely, especially if the firms are not equally efficient, the firms would have to acquire a shared understanding of signals, and a method of enforcing the joint profit-maximizing allocation.

This suggests Posner was correct in 1969 to hold that tacit collusion of this sort should fall within the reach of the Sherman Act. However, it also points to a narrower definition of tacit collusion than what currently exists in the case law. Case law recognizes two types of tacit collusion: price leadership and focal point coordination. The price leadership model is exemplified by *American Tobacco*. The focal point model of tacit collusion has been suggested in cases such as *Arizona v. Maricopa*,³⁰ where the Court expressed the concern that physicians would use the maximum price-setting mechanism under the challenged insurance arrangement to collude in the fee-for-service market. Posner’s theory would imply that the basis for inferring conspiracy is weak in both types of case, unless plaintiffs can identify an enforcement

²⁷ *Twombly*, 550 U.S. at 553

²⁸ *Id.* (“[t]he crucial question” is whether the challenged anticompetitive conduct “stem[s] from independent decision or from an agreement, tacit or express,” *Theatre Enterprises*, 346 U. S., at 540.)

²⁹ See, e.g. HYLTON, *supra* note 11, at 83-85.

³⁰ *Arizona v. Maricopa Cty Med. Soc’y*, 457 U.S. 332 (1982).

mechanism. The Supreme Court's case law has not incorporated this important proviso from Posner. Moreover, the definition of an enforcement scheme is difficult to state, and *American Column* stands as a lasting reminder that such a definition can easily be botched. If the costs of erroneous convictions are substantial, Posner's flat exclusion of tacit collusion from the reach of Section 1 could be preferable to the more theoretically appropriate rule.³¹ However, if, as is likely, the Supreme Court rejects Posner's limitation of Section 1, a preferable path forward would entail the Court adopting a narrower definition of tacit collusion consistent with Posner's argument.

V. Conclusion

Posner's views on oligopoly pricing have enriched antitrust for nearly 50 years, and they have not been static. The general arc, however, has been from optimism for aggressive enforcement to a more conservative enforcement stance that worries about the costs of over-deterrence. More important than his suggested approach to enforcement are the clarity and richness of his arguments, which have guided courts not only in applying antitrust law but also in how to think about antitrust.

³¹ I have attributed the change in Posner's stance on the scope of Section 1 to a reversal in his personal views on optimal Section 1 enforcement. See Richard A. Posner, *Review of Kaplow*, Competition Policy and Price Fixing, 79 ANTITRUST L. J. 761 (2014). Douglas Ginsburg discusses this reversal in his Symposium contribution. See Douglas H. Ginsburg, *Posner on Antitrust Remedies: The Good, The Bad, and The Very Ugly*, [Antitrust Source citation].