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Defining Reliable Forensic Economics in the Post-Daubert/Kumho Tire Era: Case Studies from Antitrust

Andrew I. Gavil

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Defining Reliable Forensic Economics in the Post-*Daubert/Kumho Tire* Era: Case Studies from Antitrust

Andrew I. Gavil*

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I. Introduction

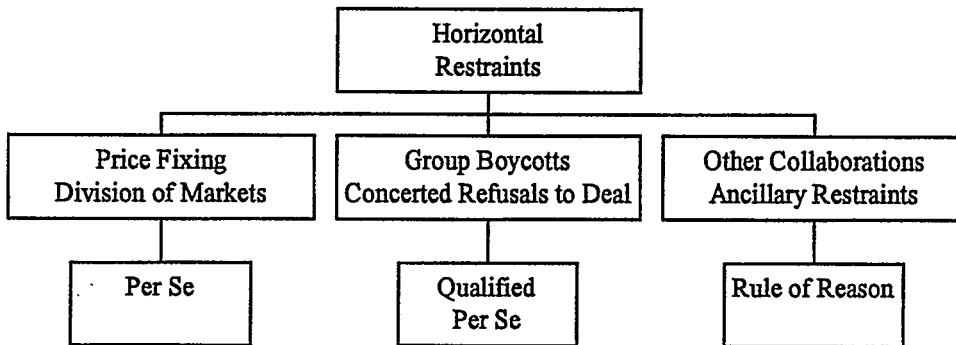
American antitrust law has reached a critical phase in its evolution. After initially resolving a principal tension in the Sherman Act through endorsement of a "rule of reason" in 1911,¹ the Supreme Court almost immediately turned

* Professor of Law, Howard University School of Law. The author would like to thank Ms. Rhonda Dickens, Howard University School of Law, Class of 2001, for her valuable research assistance, and Professor Scott Sundby for the opportunity to participate in this Symposium. Appreciation also goes to Andrew E. Taslitz, William E. Kovacic, Jonathan B. Baker, Richard T. Rapp and Daniel L. Rubinfeld for their helpful comments on earlier versions of the Article.

1. See *Standard Oil Co. v. United States*, 221 U.S. 1, 63 (1911) (finding that courts should use rule of reason to identify violations of Sherman Act).

down the path of rigid, bright line per se prohibitions.² From 1927³ through 1972,⁴ those per se rules expanded, engulfing much of the law of antitrust and leaving little room for thoughtful economic analysis of conduct suspected of injuring competition.⁵ These decisions reduced antitrust law to a categorization scheme, in which courts swiftly pigeon-holed conduct for condemnation or, on occasion, for more lengthy consideration. Rigid categories and sub-categories of "horizontal" and "vertical" conduct confined antitrust analysis to a neat, but ultimately uninformative framework.

Figure 1A:
Traditional Categories of
Horizontal Restraints



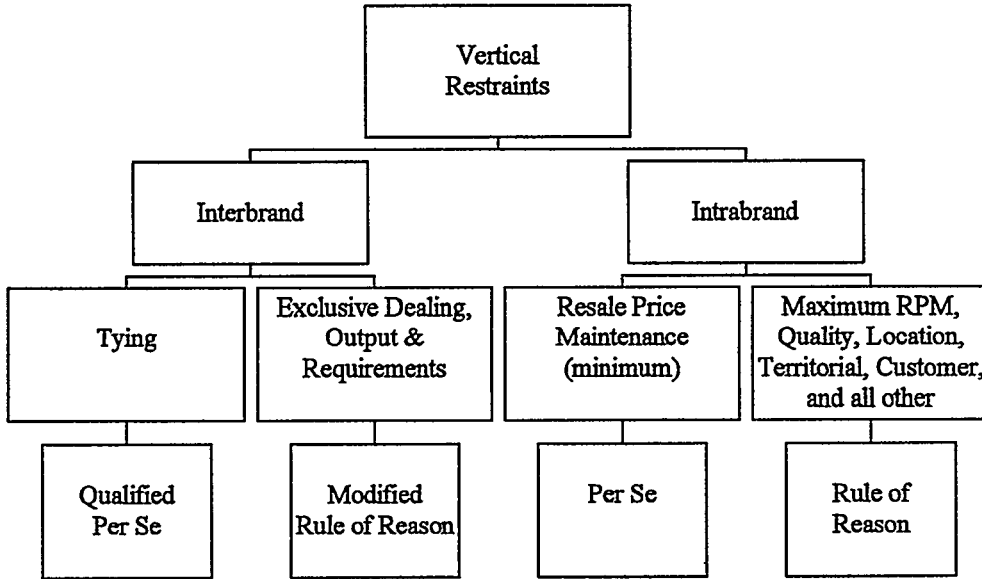
2. See *Doctor Miles Med. Co. v. John D. Park & Sons Co.*, 220 U.S. 373, 385 (1911) (finding that minimum resale price maintenance is per se unlawful).

3. See *United States v. Trenton Potteries Co.*, 273 U.S. 392, 398 (1927) (stating that price fixing by competitors is per se unlawful).

4. See *United States v. Topco Assocs., Inc.*, 405 U.S. 596, 611 (1972) (finding that division of markets by competitors is per se unlawful).

5. See generally ABA ANTITRUST SECTION, MONOGRAPH NO. 23, THE RULE OF REASON 50-62 (1999). Critical cases between *Trenton Potteries* and *Topco* include *Albrecht v. Herald Co.*, 390 U.S. 145, 153 (1968) (stating that maximum resale price maintenance is per se unlawful); *United States v. Arnold, Schwinn & Co.*, 388 U.S. 365, 374 (1967) (stating that confining sales to franchised retailers is per se unlawful); *Klor's, Inc. v. Broadway-Hale Stores, Inc.*, 359 U.S. 207, 212 (1959) (finding group boycott per se unlawful); *Northern Pac. Ry. Co. v. United States*, 356 U.S. 1, 7 (1958) (finding product tying arrangement per se unlawful); and *United States v. Socory-Vacuum Oil Co.*, 310 U.S. 150, 219 (1940) (determining that price fixing by competitors is per se unlawful).

Figure 1B:
Traditional Categories of
Vertical Restraints



In a trilogy of cases in the late 1970s,⁶ the Court turned a corner. With increased fervor, the Court progressively opened doors to evolving theories of economic efficiency, swiftly abandoning the attitude expressed so vividly in *United States v. Topco Associates, Inc.*⁷

6. See *Broadcast Music, Inc. v. CBS, Inc.*, 441 U.S. 1, 24-25 (1979) (holding that issuance of blanket licenses is not form of price fixing and is not *per se* unlawful); *National Soc’y of Prof’l Eng’rs v. United States*, 435 U.S. 679, 690 (1978) (holding that whether proceeding under *per se* or rule of reason, antitrust inquiry is confined to consideration of impact on competitive conditions); *Continental T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 58 (1977) (overruling *per se* rule in *Arnold, Schwinn & Co.* and calling for judgment under rule of reason standard). The trend back towards reliance on the rule of reason under Section 1 of the Sherman Act, 15 U.S.C. § 1, arguably followed from the Supreme Court’s 1974 decision in *United States v. General Dynamics Corp.*, 415 U.S. 486 (1974), an acquisition challenge under Section 7 of the Clayton Act, 15 U.S.C. § 18, in which the Court demonstrated an increased interest in overcoming formalistic legal rules in favor of economic analysis of conduct challenged under the antitrust laws.

7. 405 U.S. 596 (1972).

Without the *per se* rules, businessmen would be left with little to aid them in predicting in any particular case what courts will find to be legal and illegal under the Sherman Act. Should Congress ultimately determine that predictability is unimportant in this area of the law, it can, of course, make *per se* rules inapplicable in some or all cases, and leave courts free to ramble through the wilds of economic theory in order to maintain a flexible approach.⁸

The Court's new decisions relied on the "flexible approach" of the rule of reason as antitrust's first principle, and considered *per se* rules the exception rather than the rule.⁹ "[D]eparture from the rule of reason," the Court declared in *Continental T.V., Inc. v. GTE Sylvania, Inc.*,¹⁰ "must be based upon demonstrable economic effect rather than . . . formalistic line drawing."¹¹

This return to the rule of reason, however, brought antitrust law full circle to confront the unanswered questions in classic rule of reason cases like *Standard Oil Co. v. United States*¹² and *Chicago Board of Trade v. United States*.¹³ What factors are relevant to the rule of reason inquiry? How are the factors to be weighted relative to one another? And how are burdens of proof to be allocated among the plaintiff and the defendant? Recent cases and enforcement guidelines have begun focusing more intently on these pressing issues and needs of antitrust law.¹⁴

8. *United States v. Topco Assocs., Inc.*, 405 U.S. 596, 609-10 n.10 (1972). The contrast only five years later in *Continental T.V., Inc. v. GTE Sylvania, Inc.*, 433 U.S. 36 (1977), is extraordinary:

Per se rules thus require the Court to make broad generalizations about the social utility of particular commercial practices. The probability that anticompetitive consequences will result from a practice and the severity of those consequences must be balanced against its pro-competitive consequences. Cases that do not fit the generalization may arise, but a *per se* rule reflects the judgment that such cases are not sufficiently common or important to justify the time and expense necessary to identify them. Once established, *per se* rules tend to provide guidance to the business community and to minimize the burdens on litigants and the judicial system of the more complex rule-of-reason trials . . . but those advantages are not sufficient in themselves to justify the creation of *per se* rules. If it were otherwise, all of antitrust law would be reduced to *per se* rules, thus introducing an unintended and undesirable rigidity in the law.

Id. at 50 n.16 (citations omitted).

9. See *supra* note 6 and accompanying text (citing 1970s trilogy of cases).

10. 433 U.S. 36 (1977).

11. *Continental T.V., Inc. v. GTE Sylvania, Inc.*, 433 U.S. 36, 58-59 (1977).

12. 221 U.S. 1 (1911).

13. 246 U.S. 231 (1918).

14. For a recent and comprehensive evaluation of the current state of the rule of reason, see Symposium, *The Future Course of the Rule of Reason*, 68 ANITRUST L.J. 331 (2000).

The rise of this new rule of reason also signaled increased reliance on economic concepts, such as market power, efficiency, and conditions of entry – all of which are best introduced into evidence through an economist.¹⁵ Once shunned as an exercise in "rambling through the wilds of economic theory," antitrust analysis integrated with economic concepts has increasingly become the norm, the expectation, rather than the exception. Today, antitrust offenses previously separated by traditional categorization are more likely to be grouped based on their tendency to lead to one of two sorts of anti-competitive consequences. "Collusive" effects cases focus on the challenged conduct's potential to raise prices directly, restrict output, or otherwise alter competitive conditions. "Exclusionary" effects cases focus instead on the conduct's potential to indirectly confer power over price or competition through the exclusion or impairment of a rival. The evolution of this new organizational scheme is well underway.¹⁶

Other factors also have enhanced the forensic role of economists. With increased demand has come increased supply. Indeed, the number of economic consulting firms specializing in litigation support and expert testimony has exploded.¹⁷ As Professors Jonathan Baker and Daniel Rubinfeld have pointed out, improved technology also has been a factor, significantly lowering the cost of complex econometric analysis and thereby expanding its availability for use in litigation.¹⁸

However, the centrality of economic concepts and the increased availability of expert economic testimony have caused antitrust law to collide with a contemporary development in the law of evidence – the emergence of the "Daubert Gate." As interpreted in *Daubert v. Merrell Dow Pharmaceuticals*,

15. See Andrew I. Gavil, *After Daubert: Discerning the Increasingly Fine Line Between the Admissibility and Sufficiency of Expert Testimony in Antitrust Litigation*, 65 ANTI-TRUST L.J. 663, 699-702 (1997) (discussing increased reliance on testimony by economists in antitrust litigation); see also Yee Wah Chin, *Use of Economic Expert Witnesses in Antitrust Litigation*, 1088 PLJ/CORP. 129, 131 (1998) (listing thirteen areas where economic testimony may be useful in antitrust litigation); GEORGE A. HAY, THE ECONOMIST AS EXPERT WITNESS, in EXPERT WITNESSES 335, 341-45 (F. Rossi, ed. 1991) (discussing demand for expert testimony by economists in antitrust litigation).

16. For a further discussion of this evolution, see Andrew I. Gavil, *Copperweld 2000: The Vanishing Gap Between Sections 1 and 2 of the Sherman Act*, 68 ANTI-TRUST L.J. 87 (2000).

17. See, e.g., Michael J. Mandel, *Going for the Gold: Economists as Expert Witnesses*, J. ECON. PERSPS., Spring 1999, at 114-16 (discussing increased demand for and supply of economists as expert witnesses).

18. See Jonathan B. Baker & Daniel L. Rubinfeld, *Empirical Methods in Antitrust Litigation: Review and Critique*, 6 AM. L. & ECON. REV. 386, 386-91 (1999) (identifying improved technology, reduced cost, and increased interest from courts as factors explaining growth in use of economics in litigation); see also Jonathan B. Baker, *Econometric Analysis in FTC v. Staples*, 18 J. PUB. POL'Y & MARKETING 11, 18-20 (1999) (discussing role of econometric studies in merger analysis).

Inc.,¹⁹ Federal Rule of Evidence 702 now demands a more searching, complex, and extended inquiry to determine the relevance and reliability of all sorts of proffered expert testimony, including economics.²⁰ Because greater reliance on economic concepts in lieu of formalized legal categories means greater reliance on economists, antitrust cases frequently rise or fall based on the admissibility of economic testimony. Given the dependency of the new antitrust on economic concepts and economic witnesses, its future course will most surely be influenced by the new law of admissibility.

This Article explores the early results of the interaction of the new antitrust paradigm with the even newer law of admissibility of experts. That interaction is increasingly evident in reports of frequent and vigorous *Daubert* challenges to economic expert testimony, extensive briefings, lengthy "Daubert hearings," and painstaking judicial evaluation of economic testimony. But it is as yet uncertain whether the considerable effort being devoted to the *Daubert* process is in fact yielding "better" antitrust decision making.

Part II of this Article further explores the current state of antitrust law. Its principal hypothesis is that whereas economics is shaping antitrust doctrines today, antitrust law continues to exert a constraint on any total transformation of antitrust from a legal to an economic discipline. This give and take between antitrust law and economics has created something of an inherent and persistent tension in antitrust analysis that is often revealed in the interactions of economists and lawyers. Part III examines the intersection of antitrust law and the *Daubert/Joiner/Kumho Tire* line of admissibility decisions. It argues that, at least theoretically, the injection of *Daubert* into antitrust legal analysis was timely and fortuitous and provided antitrust law with a critical vehicle for exposing and resolving doctrinal conflicts brought about by tensions emanating from the intersection of antitrust law and economics. However, *Daubert* in practice tends to mask aspects of that tension. Moreover, it has generated a new tension of its own as courts seek to differentiate admissibility from sufficiency issues. And *Kumho Tire Co. v. Carmichael*,²¹ with its instruction that lower courts develop appropriate criteria of reliability for all forms of expert methodology, may expect too much of the judicial process.

To further illustrate and support the arguments developed in Parts II and III, Part IV explores three antitrust case studies relating to market power,

19. 509 U.S. 579 (1993).

20. *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 597 (1993). To the extent *Daubert* itself failed to address the applicability of Rule 702 to "soft" science, such as economics, see Gavil, *supra* note 15, at 679-80 (discussing applicability of *Daubert* to economic testimony), the Supreme Court's more recent decision in *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999), makes clear that the gatekeeper role set forth in *Daubert* "applies to all expert testimony." *Id.* at 147.

21. 526 U.S. 137 (1999).

conspiracy, and damages. Each of these areas has attracted a great deal of *Daubert* attention, and each plays a critical role in many litigated antitrust cases. But has the introduction of *Daubert* improved outcomes?

The article concludes with a question and a challenge: Is *Daubert* testable? First, is it fair to ask what costs and benefits are associated with implementing *Daubert*? The policy behind Rule 702 – as reinterpreted in *Daubert* – was to improve judicial decision-making by identifying and excluding unreliable expertise from consideration. Is it in fact weeding out unreliable economics in antitrust law?

Even if it is, there may be alternative, more cost-effective means of achieving the same goals. The "cost-benefit" question simply cannot be answered in a vacuum. The principal alternative for weeding out unreliable economics before *Daubert* was summary judgment. Therefore, a second question is posed: Taking into account costs and benefits, have we improved antitrust judicial decision-making through the introduction of *Daubert*-style screening?

My preliminary conclusion is that we have not, but that more systematic study is needed. *Daubert*'s costs to date appear to be enormous, and rarely do they supplant the cost of summary judgment. We are, in effect, paying twice for what we used to pay once in the context of summary judgment alone. So *Daubert*'s costs to date appear to far outweigh its benefits, particularly when compared to the use of summary judgment for similar purposes.

II. The Current State of Antitrust Law and Economics

Antitrust law has traveled quite a distance in the last quarter century. With the flexibility of the "constitutional" Sherman Act in tow,²² the law has collectively moved away from reliance on rigid presumptions – some rebuttable,²³ some not²⁴ – in favor of more fact-intensive, concept-driven inquiries across a broad range of antitrust sensitive conduct. There can be no doubting the increased role of economics in that process. Where the Court once feared to tread, it now eagerly and persistently ventures, entertaining arguments about concepts inspired by the economic, as well as the "econo-legal" litera-

22. See *Appalachian Coals, Inc. v. United States*, 288 U.S. 344, 359-60 (1933) ("As a charter of freedom the [Sherman] Act has a generality and adaptability comparable to that found to be desirable in constitutional provisions."); see also *State Oil Co. v. Khan*, 522 U.S. 3, 20-21 (1997) (discussing common law nature of Sherman Act).

23. See, e.g., *United States v. Philadelphia Nat'l Bank*, 374 U.S. 321, 363 (1963) (noting that increased concentration and significant post-merger market shares together create rebuttable presumption that merger will substantially lessen competition in violation of Section 7 of the Clayton Act).

24. Per se rules, as a general matter, are examples of irrebuttable presumptions. Once invoked, defenses are barred. E. THOMAS SULLIVAN & HERBERT HOVENKAMP, *ANTITRUST LAW, POLICY AND PROCEDURE* 189 (4th ed. 1999).

ture, such as market power,²⁵ efficiency,²⁶ and economic "plausibility."²⁷ In doing so, the Court has allowed economic learning to constrain the law in a variety of ways, to temper its attraction for certainty in favor of greater perceived rationality.

This is not to say that per se rules have vanished from the antitrust landscape or lost their utility. Neither is it to suggest that "economics rules." In important ways, per se rules, and other forms of "abbreviated" analysis, persist, and in important ways "law" still constrains economics, just as economics has come to constrain the law. It appears clear, however, that the categorization scheme that evolved over antitrust's first century, which sought to pigeon hole various restraints of trade into readily identifiable categories, no longer drives antitrust law. Courts turn with less frequency to "horizontal" and vertical" and their various sub-strata to divine the applicable antitrust rule of decision. Instead, these categories have slowly been replaced by an as yet not fully articulated alternate model, which derived from particular theories of anti-competitive effect.

A. Economics Constrains the Law

*Sylvania and Broadcast Music, Inc. v. CBS, Inc.*²⁸ opened the doors to a radical reconsideration of how we analyze both vertical and horizontal arrangements under the Sherman Act.²⁹ By the time the Court decided *Sylvania* in 1977, it had banned virtually all vertical agreements, whether affecting intrabrand or interbrand competition, as per se violations. Vertical intrabrand price agreements, both minimum³⁰ and maximum,³¹ were per se unlawful.

25. See *California Dental Ass'n v. FTC*, 526 U.S. 756, 787-89 (1999) (Breyer, J., dissenting) (discussing role of market power in Sherman Act Section 1 analysis). See, e.g., *FTC v. Indiana Fed'n of Dentists*, 476 U.S. 447, 461 (1986) (discussing role of market power); *NCAA v. Board of Regents*, 468 U.S. 85, 109 n.38 (1984) (defining market power).

26. See, e.g., *California Dental Ass'n*, 527 U.S. at 771-73 (discussing possible procompetitive reasons for advertising restrictions); *Khan*, 522 U.S. at 15-17 (discussing procompetitive uses of maximum resale price maintenance); *Broadcast Music, Inc. v. CBS, Inc.*, 441 U.S. 1, 20-22 (1979) (discussing efficiencies of blanket licensing); *Continental T.V., Inc. v. GTE Sylvania, Inc.*, 433 U.S. 36, 54-55 (1977) (discussing efficiency advantages of non-price vertical restraints).

27. See, e.g., *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986) (rejecting plaintiffs' claims on grounds of economic implausibility).

28. 441 U.S. 1 (1979).

29. *Broadcast Music, Inc. v. CBS, Inc.*, 441 U.S. 1 (1979).

30. See *Doctor Miles Med. Co. v. John D. Park & Sons Co.*, 220 U.S. 373, 408 (1911) (stating that vertical intrabrand price agreements to establish minimum resale prices are per se unlawful under common law and Sherman Act).

31. See *Albrecht v. Herald Co.*, 390 U.S. 145, 153 (1968) (finding that maximum resale price fixing is per se violation of Sherman Act).

Vertical intrabrand non-price agreements were per se unlawful as well.³² On the interbrand side of things, tying was per se unlawful,³³ and, although the per se moniker was never affixed to exclusive dealing, it too could be readily condemned under fairly minimal criteria.³⁴ The horizontal side of antitrust was just as dependent on per se rules. Price fixing by competitors, obviously the most defensible of the per se rules, was per se unlawful³⁵ as were the division of markets³⁶ and all manner of "group boycotts."³⁷

At a startling pace, however, many of these per se rules have gone by the wayside, or at least have been severely curtailed. *Sylvania*, of course, abandoned the use of per se rules for vertical, intrabrand, non-price restraints. Twenty years later, the Court abandoned the per se rule for vertical, intrabrand maximum price restraints.³⁸ These decisions leave only minimum resale price maintenance subject to the per se rule.³⁹ On the interbrand side of things, the Court has significantly eroded the per se status of tying, and the Court may soon take the opportunity to abandon it altogether.⁴⁰ Exclusive dealing also

32. See *United States v. Arnold, Schwinn & Co.*, 388 U.S. 365, 379 (1967) (finding that per se violation of Sherman Act occurs when manufacturer sells products to its distributor subject to territorial restrictions upon resale).

33. See *Fortner Enters. v. United States Steel Corp.*, 394 U.S. 495, 498 (1969) (finding that tying agreements are per se unlawful under Sherman Act); *Northern Pac. Ry. Co. v. United States*, 356 U.S. 1, 5 (1958) (same).

34. See *Tampa Elec. Co. v. Nashville Coal Co.*, 365 U.S. 320, 334 (1961) (adopting substantiality standard but finding that arrangement did not foreclose sufficient enough volume of competition to be illegal under Sherman Act); *Standard Oil Co. v. United States*, 337 U.S. 293, 314 (1949) (finding that arrangement is illegal when competition has been foreclosed in relatively modest share of line of commerce affected).

35. See *United States v. Socony Vacuum Oil Co.*, 310 U.S. 150, 218 (1940) (stating that "for over forty years, this Court has consistently and without deviation adhered to the principle that price-fixing arrangements are unlawful *per se* under the Sherman Act").

36. See *United States v. Topco Assocs., Inc.*, 405 U.S. 596, 608 (1972) (finding that horizontal division of markets is per se violation of Sherman Act).

37. See *Klor's, Inc. v. Broadway-Hale Stores, Inc.*, 359 U.S. 207, 212 (1959) (stating that Sherman Act has long forbidden group boycotts).

38. See *State Oil Co. v. Khan*, 522 U.S. 3, 15 (1997) (overruling *Albrecht v. Herald Co.*, 390 U.S. 145 (1968), and holding that vertically imposed maximum prices are not per se violation of Sherman Act).

39. See, e.g., *Business Elecs. Corp. v. Sharp Elecs. Corp.*, 485 U.S. 717, 724 (1988) (noting that "vertical agreements on resale prices" are per se illegal); *Monsanto Co. v. Spray-Rite Serv. Corp.*, 465 U.S. 752, 761 n.7 (1984) (refusing to inquire whether per se rule against minimum resale price maintenance should be reconsidered). Although both decisions reassert the continued vitality of the per se rule against minimum resale price maintenance, they also seriously elevate the burden of proving the existence of such an agreement, which in turn has diminished the scope of the per se rule.

40. See *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 464 (1992) (adopting qualified per se rule for tying); *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 13-14 (1984) (same). Whereas the majorities in both cases paid homage to the traditional per

has moved further away from harsh treatment, with courts demanding increasingly higher levels of proof from plaintiffs challenging their use.⁴¹

Horizontal agreements have also undergone a sea change. Although horizontal price fixing remains firmly per se unlawful, it remains so only when it is presented in the most stark context of true cartel behavior.⁴² The Court has distinguished "literal" price fixing from per se unlawful price fixing in cases like *Broadcast Music*, and has divided sharply over invocation of the per se rule in more complex settings.⁴³ Although horizontal division of markets also remains firmly in the per se camp, it too has been implicitly limited to the most stark cases.⁴⁴ Many commentators, and some courts, have argued persuasively that whereas *Topco* stands for a vital legal principle – division of markets by competitors is per se unlawful – the facts of *Topco* would no longer be subjected to that principle in light of subsequent cases, especially *Broadcast Music*.⁴⁵

These developments over the last quarter century have been driven by two critical insights gleaned from economics and economic commentary: (1) firms lacking market power cannot successfully effectuate anti-competitive restraints of trade; and (2) many market arrangements that facially appear to restrain trade in some way may in fact achieve valuable efficiencies. By failing to take these two factors into account, the categorical approach to antitrust prevalent in 1977 when *Sylvania* was decided seriously overdeterred competitively neutral and even beneficial conduct. Indeed, there is little debate today that the legal superstructure that existed just prior to *Sylvania* was unsupportable. However, this is all familiar antitrust history today. The more pressing question is what has replaced the old structure.

se rule, they also superimposed a more modern "market power" screen on its use. *See id.* at 35 (O'Connor, J., concurring) (advocating abandonment of per se rule against tying).

41. *See Jefferson Parish*, 466 U.S. at 44-46 (O'Connor, J., concurring) (arguing that Court should sustain exclusive dealing arrangement under rule of reason). *See, e.g., Omega Envtl., Inc. v. Gilbarco, Inc.*, 127 F.3d 1157, 1164 (9th Cir. 1997) (refusing to find illegal arrangement where evidence shows increasing output, decreasing prices, and significantly fluctuating market shares among major manufacturers), *cert. denied*, 525 U.S. 812 (1998); *U.S. Healthcare, Inc. v. Healthsource, Inc.*, 986 F.2d 589, 597 (1st Cir. 1993) (stating that to successfully show illegal exclusive dealing, plaintiff must show proof of substantial foreclosure and "probable immediate and future effects" (quoting *Tampa Elec. Co. v. Nashville Coal Co.*, 365 U.S. 320, 329 (1961))).

42. *See generally JTC Petroleum Co. v. Piasa Motor Fuels, Inc.*, 190 F.3d 775 (7th Cir. 1999).

43. *See generally Arizona v. Maricopa County Med. Soc'y*, 457 U.S. 332 (1982) (applying per se rule to maximum fee schedule agreed to by medical service providers by single vote margin).

44. *See generally, e.g., Palmer v. BRG of Georgia, Inc.*, 498 U.S. 46 (1990).

45. *See Rothery Storage & Van Co. v. Atlas Van Lines, Inc.*, 792 F.2d 210, 229 (D.C. Cir. 1986) (stating that *Topco* was "effectively overruled . . . as to the per se illegality of all horizontal restraints" by subsequent decisions).

B. The Evolving Paradigm – Anti-Competitive Effects and Antitrust Rules

Today, antitrust cases can be divided into two categories that are defined by the direct or indirect nature of the anti-competitive effects associated with the challenged conduct. In contrast to the legalistic categories of the last century – horizontal, vertical, etc. – these categories flow from the economic basis for challenging the specified conduct. In "collusive" effects cases, the defendants are accused of engaging in conduct that directly evidences the exercise of market power. Horizontal mergers, whether based on unilateral or coordinated effects theories, horizontal price fixing, divisions of markets, and some group boycotts are examples of collusive effects cases.⁴⁶ However, virtually all vertical intrabrand restraints also would be placed under the collusive effects banner because today they are likely to be viewed as anti-competitive only in the rare circumstances in which either the supplier has market power and the use of *Sylvania*-type restrictions is likely to lead to higher consumer prices or facilitate dealer or supplier cartels.⁴⁷

In contrast to these collusive effects cases are "exclusionary" effect cases.⁴⁸ Exclusionary effects cases concern efforts to obtain power over markets by excluding or otherwise disabling rivals and so are indirectly anti-competitive. These kinds of cases are distinguished by their immediate consequences for competitors and their inferential consequences for competition. As rivals are injured, the ability of the predator to exercise market power is enhanced. Examples include not only all vertical interbrand restraints, but also exclusionary group boycotts and virtually all conduct challenged under Section 2 of the Sherman Act as monopolization or attempts to monopolize.⁴⁹

46. See generally *FTC v. Superior Ct. Trial Lawyers Ass'n*, 493 U.S. 411 (1990) (illustrating typical collusive effects of group boycott).

47. See *Business Elecs. Corp. v. Sharp Elecs. Corp.*, 485 U.S. 717, 725-27 (1988) (discussing use of vertical restraints to facilitate cartelizing); *Graphic Prods. Distribs., Inc. v. Iték Corp.*, 717 F.2d 1560, 1570-71 (11th Cir. 1983) (discussing potential for higher prices where manufacturer imposing vertical non-price restraints has very large market share).

48. Not all collusive effects are unlawful under the antitrust laws. Under Section 2 of the Sherman Act, for example, a firm that simply raises prices may not be guilty of monopolization. We accept the collusive effects of "monopoly" absent some evidence that it was achieved or maintained through exclusionary means. See *United States v. Aluminum Co. of Am.*, 148 F.2d 416, 429 (2d Cir. 1945) (distinguishing "monopoly" from "monopolization").

49. There are exceptions. "Invitations to collude" exemplify practices that have collusive effects, yet may be challenged as attempted monopolization. See, e.g., *United States v. Microsoft Corp.*, 87 F. Supp. 2d 30, 45-46 (D.D.C. 2000) (finding that Microsoft's proposal to Netscape to divide internet browser market was sufficient to find Microsoft liable for attempted monopolization); *United States v. American Airlines, Inc.*, 743 F.2d 1114, 1118-19 (5th Cir. 1984) (finding that invitation to competitor to collude may support charge of attempted monopolization).

Figure 2:
The Evolving Paradigm: Categorizing Antitrust
Violations By Their Anticompetitive Effects

<u>Collusive Effects</u>	<u>Exclusionary Effects</u>
<ul style="list-style-type: none"> • Price Fixing by Competitors • Division of Markets by Competitors • Collusive Group Boycotts • Some Competitor Collaborations • Most Horizontal Mergers (unilateral and coordinated effects) • All Vertical Interbrand, Price & Non-Price Restraints 	<ul style="list-style-type: none"> • Exclusionary Group Boycotts • Some Competitor Collaborations • All Interbrand Vertical Restraints • Most Section 2 Offenses • Price & Non-Price Predation • All Price Discrimination • Vertical Mergers

Although there is some significant overlap between the evidence used to assess collusive and exclusionary effects cases, there are also some important differences. Collusive effects cases turn rather quickly to evidence that the colluding firms will be in a position to exercise market power. Such evidence can be direct, in the form of evidence of an actual restriction in output, or it can be indirect, in the form of market definition and market share calculation.⁵⁰ In either instance, however, the evidence will remain focused on the structure of the relevant market and the direct effects of the challenged conduct on price, output, and other conditions like quality and variety typically determined by competition. Exclusionary effects cases also can be based on direct or circumstantial evidence and require an inquiry into the structure of the market.⁵¹ But they will first and foremost focus on the tendency of the conduct to exclude rivals.⁵² Increasingly, they are also concerned with the likelihood that the

50. See Gavil, *supra* note 16, at 99-102 (discussing roles of direct and indirect evidence in proving monopoly power). See, e.g., *Toys "R" Us, Inc. v. FTC*, 221 F.3d 928, 936-37 (7th Cir. 2000) (finding that toy retailer was in position to exercise market power based on boycott's actual effect in reducing output of toy manufacturers as well as market share); *Re/Max Int'l, Inc. v. Realty One, Inc.*, 173 F.3d 995, 1016 (6th Cir. 1999) (stating that monopoly power may be proved either by direct or indirect evidence and discussing facts and circumstances supplying both).

51. See *Omega Envtl. v. Gilbarco, Inc.*, 127 F.3d 1157, 1162-63 (9th Cir. 1997) (evaluating evidence of exclusive dealing).

52. See *Microsoft*, 87 F. Supp. 2d at 37 (stating that in determining whether conduct is anticompetitive, threshold question is whether conduct restricts or threatens to restrict ability of other firms to compete in marketplace on their own merits).

alleged predator will be able to raise prices in the post-exclusionary conduct period. Thus, "direct" evidence might consist of evidence of actual exclusion or increased costs to the rival. "Indirect" or "circumstantial" evidence might focus on the structure of the market and the degree to which the challenged conduct "foreclosed" access to inputs or markets.⁵³

The critical point today is that cases which share a common theory of anti-competitive effects are more likely to be tried alike and treated alike. A "vertical" case involving allegedly exclusionary interbrand restraints will have much more in common economically with a monopolization case under Section 2 of the Sherman Act than it will with a vertical intrabrand restraint, even though both traditionally were termed "vertical." Similarly, a "horizontal" group boycott that directly seeks to coerce higher prices, as was the case in *FTC v. Superior Court Trial Lawyers Ass'n*,⁵⁴ has much more in common with other collusive effects cases, such as horizontal divisions of markets and price fixing, than it does with exclusionary group boycotts, like those involved in *Northwest Wholesale Stationers, Inc. v. Pacific Stationery and Printing Co.*,⁵⁵ even though both traditionally would have been pigeon-holed as horizontal "concerted refusals to deal."

Although the evolution towards this bipolar model is still incomplete, it is well underway. And it complicates the "per se vs. rule of reason" debate in ways that have yet to fully crystalize. While there clearly may be roles to play for per se and abbreviated rules on either side of the equation, their roles are unlikely any longer to turn on characterizations such as "horizontal" and "vertical."

One characteristic of this "new antitrust paradigm," however, appears to be well entrenched: it is dependent upon economics and economists. It is difficult to imagine undertaking a responsible effort to prosecute or defend an antitrust case today without at least retaining a consulting economist. First and foremost, the plaintiff must establish a coherent theory of anti-competitive effects, collusive, exclusionary or both. But the theory alone will not be enough. Assembling sufficient proof to support or defeat the theory will invariably take the parties down the road of economic analysis and expert testimony.

These fundamental changes in antitrust reached something of an apex just as increased concern about "junk science" in the courts led the Supreme Court in *Daubert* to a reformulation of the methodology used to apply Federal Rule of Evidence 702. The *Daubert/Joiner/Kumho Tire* trilogy thus arrived on the scene and crossed paths with antitrust at a critical juncture in its history. Increased reliance on economics meant increased reliance on economists, but

53. See *id.* at 37-44 (discussing conduct of software manufacturer and finding it to be anticompetitive based on both direct and circumstantial evidence).

54. 493 U.S. 411 (1990).

55. 472 U.S. 284 (1985).

economists typically testify as "experts" subject to the admissibility constraints of the Federal Rules of Evidence. This crossing of paths already has had a profound impact on the litigation of antitrust claims, and it may well dictate the terms on which the economics of antitrust's new paradigm are debated and litigated.

II. *The Intersection of Antitrust Law and the Federal Rules of Evidence*

A. *Stage 1: Antitrust and Daubert Before Kumho Tire*

Daubert took antitrust law somewhat by surprise. Prior to *Daubert*, issues relating to the quality of expert economic evidence in antitrust cases tended to be resolved through summary judgment or judgment as a matter of law.⁵⁶ After *Daubert*, but before *Kumho Tire*, the increasing incidence of reliance on experts in antitrust cases led antitrust litigators to explore *Daubert*'s applicability to antitrust.⁵⁷ Those attempts to integrate *Daubert* into antitrust produced three distinct approaches in the courts.⁵⁸

First, some courts applied the five *Daubert* factors strictly and literally. For these courts, failure to demonstrate methodological reliability on any of the five *Daubert* grounds could justify exclusion of the expert's testimony. Because those factors were not designed for social science generally and seemed largely unworkable for economics, the "strict and literal" approach invariably led to exclusion of the expert, which in turn often led to summary judgment.⁵⁹ This approach also ignored *Daubert*'s admonition that the five

56. See II PHILLIP E. AREEDA ET AL., ANTI-TRUST LAW 125-36 (2d ed. 2000) (discussing use of summary judgment to control testimony of expert economists); Gavil, *supra* note 15, at 688-98 (discussing use of summary judgment to resolve expert admissibility issues prior to *Daubert*). See, e.g., Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 232 (1993) (finding evidence insufficient to warrant submission to jury); Eastman Kodak Co. v. Image Technical Servs., Inc., 504 U.S. 451, 461-79 (1992) (concluding that summary judgment was inappropriate); Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 594 n.19 (1986) (noting district court's determination that mathematical expert's opinion testimony was inadmissible).

57. *Daubert* listed five criteria to guide the courts in assessing the relevance and reliability of expert methodology: (1) whether the theory or technique can be (and has been) tested; (2) "whether the theory or technique has been subjected to peer review and publication;" (3) "the known or potential rate of error" of a particular scientific technique; (4) the "existence and maintenance of standards controlling the technique's operation;" and (5) the "general acceptance" of the theory or technique in the relevant scientific community. *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 593-94 (1993).

58. These arguments are explored more fully in Gavil, *supra* note 15, at 673-86.

59. See generally, e.g., *City of Tuscaloosa v. Harcross Chems., Inc.*, 877 F. Supp. 1504 (N.D. Ala. 1995) (relying on strict interpretation of *Daubert* test to exclude testimony of economist and statistician and subsequently granting summary judgment for defendants), *rev'd*, 158 F.3d 548 (11th Cir. 1998), *cert. denied*, 120 S. Ct. 309 (1999).

cited factors were not intended to be exhaustive and limiting.⁶⁰

A second approach seemed equally rigid, and constituted something of a "converse-literal approach": Because *Daubert* dealt solely with hard science, and the Court appeared to limit its ruling to the facts before it,⁶¹ *Daubert* does not apply *at all* to "technical or other specialized knowledge." This approach was only embraced by one district court⁶² and was specifically rejected as untenable by others.⁶³ Like the literal approach, the converse literal approach had predictable, albeit opposite consequences: admission of the expert's testimony.

Finally, a third and more flexible approach emerged and became the consensus view prior to *Kumho Tire*. Finding express support in *Daubert*, this approach recognized that the specifics of economic testimony will vary with each case, and that the question of methodological reliability may demand the use of different criteria of reliability as the need arises.⁶⁴ This "designer admissibility" concept ultimately proved an accurate reading of the Court's intentions in *Daubert*, as later embellished in *Kumho Tire*.

For a time, there was serious conflict in the circuits on how, if at all, *Daubert* should be integrated into antitrust. But with increasing frequency during that time, courts, litigators, and commentators became aware that "*Daubert* hearings" were here to stay in antitrust.⁶⁵

60. See *Daubert*, 509 U.S. at 593 ("Many factors will bear on the inquiry, and we do not presume to set out a definitive checklist or test.").

61. See *id.* at 590 n.8 ("Rule 702 also applies to 'technical, or other specialized knowledge.' Our discussion is limited to the scientific context because that is the nature of the expertise offered here.").

62. *Bell Atl. Bus. Sys. Servs. v. Hitachi Data Sys. Corp.*, 1995-2 Trade Cas. (CCH) ¶71,259 (N.D. Cal. 1995).

63. See *Ohio v. Louis Trauth Dairy, Inc.*, 925 F. Supp. 1247, 1252 (S.D. Ohio 1996) ("Neither economics or [sic] statistics seems to completely qualify as 'scientific knowledge. . . .' [Nevertheless] the reasoning of *Daubert* still applies" and its "general framework . . . applies to all expert testimony."); *In re Aluminum Phosphide Antitrust Litig.*, 893 F. Supp. 1497, 1505-06 (D. Kan. 1995) ("The Court has no doubt that *Daubert* requires it to act as a gatekeeper, to determine whether [the] testimony and report are reliable and relevant under Rule 702.").

64. Cf. *Tyus v. Urban Search Management*, 102 F.3d 256, 263 (7th Cir. 1996) (noting that *Daubert* applies to social science experts, as well as those in the "hard" sciences). See, e.g., *Louis Trauth Dairy*, 925 F. Supp. at 1252 ("The Court must decide if the proffered testimony is based upon valid economic, statistical or econometric methodologies and reasoning that can properly be applied to the facts of this case."); *Aluminum Phosphide*, 893 F. Supp. at 1506 (deciding that testimony of economist is not admissible because expert intended "not to supply specialized knowledge, but to plug evidentiary holes in plaintiff's case, to speculate, and to surmise").

65. For a discussion of the "*Daubert* hearing" during this period, through the eyes of two testifying economists, see Roger D. Blair, *Lessons from City of Tuscaloosa*, 10 ANTITRUST 43

B. Stage Two: Moving Beyond Daubert's Five Factors

Kumho Tire put to rest two debates over *Daubert's* applicability to anti-trust experts. First, it clearly rejected the "*Daubert* only applies to hard science" view, unqualifiedly concluding that "*Daubert's* general holding – setting forth the trial judge's general 'gatekeeping' obligation – applies not only to testimony based on 'scientific' knowledge, but also to testimony based on 'technical' and 'other specialized' knowledge."⁶⁶ Second, it rejected the literal application approach as to the five *Daubert* factors:

We also conclude that a trial court may consider one or more of the specific factors that *Daubert* mentioned when doing so will help determine that testimony's reliability. However, as the Court stated in *Daubert*, the test of reliability is "flexible," and *Daubert's* list of specific factors neither necessarily nor exclusively applies to all experts in every case.⁶⁷

Although the specific *Daubert* factors might be relevant criteria for determining the reliability of proffered expert testimony, they also might not. The

(1996) and Peter Bronsteen, *My Day with Daubert*, 10 ANTI-TRUST 41 (1996). Other treatments of *Daubert* specific to antitrust include: Shubha Ghosh, *Federal and State Resolutions of the Problem of Daubert and 'Technical or Other Scientific Knowledge'*, 22 AM. J. TRIAL ADVOC. 237 (1998); Christopher B. Hockett & Frank M. Hinman, *Does Daubert Raise a New Barrier to Entry for Economists?*, 10 ANTI-TRUST 40 (1996); Robert F. Lanzillotti, *Coming to Terms With Daubert in Sherman Act Complaints: A Suggested Economic Approach*, 77 NEB. L. REV. 83 (1998); Charles D. Weller, *Antitrust Economics as Science After Daubert*, 42 ANTI-TRUST BULL. 871 (1997).

66. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 141 (1999); see also *id.* at 147 ("The initial question before us is whether this basic gatekeeping obligation applies only to 'scientific' testimony or to all expert testimony. We, like the parties, believe that it applies to all expert testimony."). To the extent pre-*Kumho Tire* decisions read *Daubert* narrowly as not applying to economics, it is fair to infer the Court's view that economics was not "scientific" in the same sense as epidemiology, the area of expert testimony at issue in *Daubert*. But such a distinction may have placed too much weight on the area of expertise, as opposed to the particular methodology being utilized by the expert. Arguably, there are more and less "scientific" aspects to methodologies typically relied upon in a variety of disciplines. The "nature of the explanation" would appear to matter more than the "area of expertise," for purposes of defining an expert's testimony as "scientific" or not. In any event, it would appear that *Kumho Tire* puts to rest any implicit need to assess whether economics, or any other discipline, should be broadly characterized as "scientific," as opposed to "technical or other specialized knowledge," for purposes of Rule 702. The mandate is clear: All expert testimony should be evaluated for its relevance and reliability under criteria appropriate to the given discipline.

67. *Id.* at 141.

[W]e can neither rule out, nor rule in, for all cases and for all time the applicability of the factors mentioned in *Daubert*, nor can we now do so for subsets of cases categorized by category of expert or by kind of evidence. Too much depends upon the particular circumstances of the particular case at issue.

Id. at 150.

district court judge, therefore, is assigned the task of selecting the *criteria of reliability*,⁶⁸ subject to reversal only for abuse of discretion.⁶⁹

Kumho Tire, considered together with *Daubert* and *General Electric Co. v. Joiner*,⁷⁰ arguably creates a three stage procedure for the trial court judge and the parties.⁷¹ First, each area of an expert's proposed testimony must be isolated and identified.⁷² Second, expert testimony that involves distinct methodological judgments or steps must be isolated and identified.⁷³ Finally, together with the parties, the district court judge must identify appropriate criteria of reliability for each methodological step and reach a conclusion about the reliability of the testimony. The decision process can be depicted as follows:

68. *Id.* at 152.

The trial court must have the same kind of latitude in deciding *how* to test an expert's reliability, and to decide whether and when special briefing or other proceedings are needed to investigate reliability, as it enjoys when it decides whether or not the expert's relevant testimony is reliable. Our opinion in *Joiner* makes clear that a court of appeals is to apply an abuse-of-discretion standard when it "review[s] a trial court's decision to admit or exclude expert testimony." . . . That standard applies as much to the trial court's decisions about how to determine reliability as to its ultimate conclusion. . . . Thus, whether *Daubert's* specific factors are, or are not, reasonable measures of reliability in a particular case is a matter that the law grants the trial judge broad latitude to determine.

Id. (citing *General Elec. Co. v. Joiner*, 522 U.S. 136, 138-39 (1997)).

69. *Id.*; see also *id.* at 1171 ("[T]he law grants a district court the same broad latitude when it decides how to determine reliability as it enjoys in respect to its ultimate reliability determination." (citing *General Elec. Co. v. Joiner*, 522 U.S. 136, 143 (1997))). *But see* *New York v. Julius Nasso Concrete Corp.*, 202 F.3d 82, 87 (2d Cir. 2000) (viewing exclusion of expert's testimony on antitrust damages as "mixed question of law and fact subject to *de novo* review").

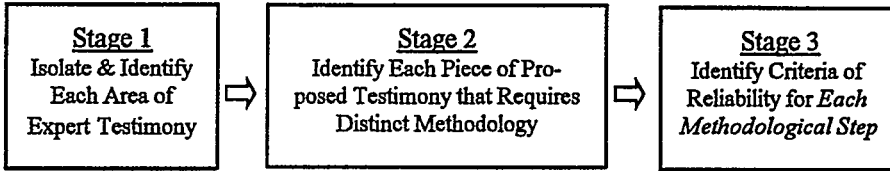
70. 522 U.S. 136, 138-39 (1997).

71. For a thoughtful, pre-*Kumho Tire* discussion of the procedural challenges that *Daubert* unleashed, see Margaret A. Berger, *Procedural Paradigms for Applying the Daubert Test*, 78 MINN. L. REV. 1345 (1994).

72. In antitrust, for example, the plaintiff might retain a single expert to define relevant markets, evaluate market power, and address the anti-competitive effects of the defendant's alleged conduct. Each area would have to be compartmentalized in the first stage of the *Daubert/Joiner/Kumho Tire* reliability evaluation.

73. Again using the example of antitrust, an expert testifying to the relevant market will have proceeded through a number of steps in formulating her opinion, each step involving potential methodological choices. For example, the expert might have adopted a methodology for determining which products are in and out of the market. This in turn might have required her to make some methodological elections regarding the propriety of her relying on available evidence of cross-elasticities. Also, in calculating market share, she would have to make methodological choices based on her assessment of the available data.

Figure 3:
Daubert and Antitrust After *Kumho Tire*:
 The Three Stages of Designer Admissibility



Although these three stages are relatively easy to synthesize and may be easy to execute in some instances, they will surely provoke a daunting set of tasks for most antitrust cases. For example, the sheer number of methodological judgments involved in the process of defining a relevant market or in using regression analysis to establish a damage model can be considerable. Identifying each and every such step will be difficult. Moreover, the task of identifying criteria of reliability for each methodological step can be costly, time consuming, and of doubtful consequences. Often it will simply reveal that the expert made "judgment calls" at various points in her analysis. Indeed, in most seriously litigated antitrust cases, responsible economists can be found to differ on the most fundamental issues, largely owing to differences in their judgment. *Kumho Tire* appears to invite the parties and the district court to parse those judgment calls as a matter of admissibility.⁷⁴

74. Although language in *Daubert* suggested the contrary, 509 U.S. at 590 & n.9, the *Kumho Tire* Court also seemed to view the expert's *application* of methodology to the facts of the case as a distinct methodological step to be evaluated as part of the *Daubert* process: "[W]here [expert] testimony's factual basis, data, principles, methods, or their application are called sufficiently into question, . . . the trial judge must determine whether the testimony has 'a reliable basis in the knowledge and experience of the relevant discipline.'" *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 149 (1999) (quoting *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 592 (1993) (emphasis added); see also *id.* at 157 ("[N]othing in either *Daubert* or the Federal Rules requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert.") (quoting *Joiner*, 522 U.S. at 146). Although this extension of *Daubert* to application would appear to be in derogation of Federal Rule of Evidence 703, see Gavil, *supra* note 15, at 682-85, it is reflected in the pending revisions to Rule 702:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of opinion or otherwise, if: (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Another critical aspect of the three stage process concerns the relative burdens of proof on the parties. As a general matter, it is well settled that the party proffering a particular piece of evidence has the burden of establishing its admissibility.⁷⁵ But, as a practical matter, how can that burden be assessed in the context of *Daubert*? Presumably, the movant *in limine* who has challenged admissibility must make some initial showing of irrelevance or unreliability.⁷⁶ But under a "flexible" approach, it is not clear that such an initial showing can be made without first identifying the relevant criteria of reliability. Who then bears the burden of identifying the relevant criteria of reliability?

Kumho Tire can be read to suggest that the *Daubert* factors remain a useful starting point for the movant. Demonstrating lack of reliability under the *Daubert* factors would seem to satisfy the movant's initial burden of pointing out the deficiencies in the non-movant's evidence. That would shift a "burden of production" to the non-movant to provide a "defense" of the testimony, and that defense might consist of an obligation to present "countervailing factors operating in favor of admissibility." Because the burden of establishing admissibility will at all times rest with the non-movant, typically the proponent of the evidence, the non-movant may or will bear the burden of persuasion, as well.⁷⁷ That is, in identifying the relevant criteria of reliability, the non-movant must persuade the trial judge not only that his or her alternative criteria are the right criteria, but also that his or her expert's testimony is reliable when judged by that criteria. This allocation of burdens can be gleaned from the Court's description and apparent approval of the district court's approach:

Finally, the court, after looking for a defense of [the expert's] methodology as applied in these circumstances, found no convincing defense.

Proposed Fed. R. Evid. 702 (emphasis added). These revisions were approved by the Supreme Court on April 17, 2000 and will become effective December 1, 2000. H.R. DOC. No. 106-225 (2000).

75. 1 PAUL C. GIANNELLI & EDWARD J. IMWINKELRIED, SCIENTIFIC EVIDENCE § 1-7(A), at 35 (3d ed. 1999) ("As with most evidence issues, the burden of persuasion on the admissibility issue rests with the proponent of the evidence."); see also *Daubert*, 509 U.S. at 592 n.10 (noting that proponent of evidence must establish admissibility by "preponderance of proof").

76. This can be likened to the initial showing required of a movant for summary judgment who will not bear the burden of proof at trial. According to the Supreme Court, even though such a movant need not satisfy a burden of proof, he or she must make some initial showing that they are entitled to summary judgment by identifying with some particularity the deficiencies in the non-movant's evidence. The non-movant must then demonstrate that he or she will be able to meet a burden of production. See 11 MOORE'S FEDERAL PRACTICE § 56.13 (3d ed. 1997) (outlining parties' burdens of production and persuasion upon motion for summary judgment).

77. See *supra* note 74.

Rather, it found (1) that "none" of the *Daubert* factors, including that of 'general acceptance' in the relevant expert community, indicated that [the expert's] testimony was reliable . . . ; (2) that its own analysis "revealed no countervailing factors operating in favor of admissibility which could outweigh those identified in *Daubert*," . . . ; and (3) that the "parties identified no such factors in their briefs,"⁷⁸

The Court concluded: "And the [district] court ultimately based its decision upon [the expert's] failure to satisfy either *Daubert's* factors or any other set of reasonable reliability criteria. In light of the record as developed by the parties, that conclusion was within the District Court's lawful discretion."⁷⁹

The challenge then is to chart each expert's proposed testimony, methodological step by methodological step, providing indicia of reliability at every juncture. Ironically, the expert probably will be the one best able both to advise counsel and testify as to the criteria of reliability appropriate to judge her own, as well as her counterpart's testimony. It is easy to envision a distinct portion of the parties' briefs and a discrete time allotted at any *Daubert* hearing focused solely on identifying "criteria of reliability" for all methodological steps. But such an approach clearly will further add to the expense and intricacy of the screening process.

A final issue presented by *Kumho Tire's* proposed process concerns its extension of *Joiner's* abuse of discretion standard to the district court's selection of criteria of reliability. In doing so, the Court reasoned that such selection warrants the same kind of deference and latitude as the broader decision to admit or exclude.⁸⁰ But where the decision to admit or exclude necessarily will be a very individualized determination, the selection of criteria of reliability arguably will not be.

Admissibility decisions are analogous to "findings of fact." They are likely to take into account the credibility of the experts, at least as it relates to the reliability of their methods, as well as their specific work in the case presented. They will, therefore, have little direct precedential value in subsequent litigation. In contrast, the criteria of reliability developed by courts and relating to specific kinds of expert testimony are more analogous to conclusions of law.⁸¹ As courts become more adept at applying *Kumho Tire*, they

78. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 156 (1999) (emphasis added).

79. *Id.* at 158.

80. See *supra* note 66 (discussing *Kumho Tire*).

81. Indeed, the Supreme Court addressed the Eleventh Circuit Court of Appeals's refusal to apply the *Daubert* factors as a legal error in *Kumho Tire* that warranted reversal. It made no mention of any reversal for "abuse of discretion." *Kumho Tire*, 526 U.S. at 151. Likewise, a

will presumably look to each other to develop a consistent body of criteria of reliability that should be used for particular types of recurring expert testimony. But if those criteria are evaluated under an abuse of discretion standard, it is likely that different courts and circuits will develop distinct sets of criteria of reliability.⁸² Arguably, greater consistency in the use of experts will be achieved if courts can develop common criteria of reliability for various fields of expertise. That is far less likely to occur, however, if the criteria themselves are viewed like "fact findings" subject to review only for abuse of discretion.

IV. Three Case Studies from Antitrust

It is still too early to fully assess the ramifications of *Daubert* and *Kumho Tire* for antitrust. Remarkably, despite the considerable attention that has been given to *Daubert* in antitrust circles,⁸³ it is often ignored by the parties and courts or applied in a perfunctory manner. In lieu of a broad attempt at synthesis, therefore, this section uses three recent decisions as case studies in how the *Daubert/Joiner/Kumho Tire* line of cases is being used, perhaps abused, and even ignored in antitrust.⁸⁴

district court's refusal after *Kumho Tire* to consider the *Daubert* factors at all, or to refuse to articulate any alternative criteria of reliability, presumably would constitute legal error, which would not be entitled to any deference on appeal. *Id.* at 158.

82. 1 DAVID L. FAIGMAN ET AL., MODERN SCIENTIFIC EVIDENCE: THE LAW AND SCIENCE OF EXPERT TESTIMONY § 1-3.5, at 17-22 (Supp. 2000).

83. "*Daubert* and antitrust" presentations have become a frequent feature of bar and other continuing legal education programs. See generally, e.g., Yee Wah Chin, *Use of Economic Expert Witnesses in Antitrust Litigation*, 1088 PLI/CORP. 129 (1998); Frederick C. Dunbar & J. Douglas Zona, *Issues in Antitrust Economics Testimony After Daubert*, 1088 PLI/CORP. 181 (1998); Virginia R. Metallo, *The Impact of Daubert on Expert Testimony in Antitrust Cases*, 1088 PLI/CORP. 375 (1998).

84. The three case studies were selected based on several criteria: (1) their substantial consideration and application of *Daubert* to antitrust (although in one case the absence of any mention of *Daubert* despite a clear methodological conflict between the principal testifying economists was deemed worthy of further evaluation); (2) the central role of the expert testimony in establishing the core elements of the plaintiff's case; and (3) the representativeness of the subject of expert testimony – i.e., the likelihood that it would commonly arise in other antitrust cases. One distinctive group of *Daubert* cases not discussed here concerns the role of expert witnesses in supporting or opposing class certification in antitrust actions. See, e.g., *In re Visa Check/Mastermoney Antitrust Litig.*, 192 F.R.D. 68, 74-78 (E.D.N.Y. 2000) (examining economic testimony in determining appropriateness of class certification in credit card case); *In re Flat Glass Antitrust Litig.*, 191 F.R.D. 472, 486-487 (W.D. Pa. 1999) (allowing expert opinion in form of multiple regression analysis to support request for class certification in price-fixing case); *In re Polypropylene Carpet Antitrust Litig.*, 996 F. Supp. 18, 25-27 (N.D. Ga. 1997) (questioning whether methodology of expert in multiple regression analysis "will comport

A. SMS Systems, Microsoft and Monopoly Power

The resurgence of the rule of reason in the late 1970s set the courts about the task of defining "anti-competitive" effects with greater clarity. That effort soon turned to economic concepts, notably "market power." The courts were accustomed to considering market power in other antitrust contexts, particularly monopolization and mergers.⁸⁵ In fact, the working judicial definition of monopoly power has for over forty years come from the Supreme Court's *Cellophane* monopolization decision: "Monopoly power is the power to control prices or exclude competition."⁸⁶ More recently, the Court refined the definition to focus on a firm's or group of firms' ability to raise prices above those that would prevail in a competitive market.⁸⁷ Market power, so defined, has become an increasingly necessary ingredient of Section 1, non per se Sherman Act offenses.⁸⁸

The most recent stage in the transformation of market power from an economic to a legal concept, however, has concerned the evidentiary manner in which it can be proved. Today, courts recognize that market power can be proved through direct or circumstantial evidence. "Direct" evidence of market power typically will consist of evidence of its actual exercise, as in an observed restriction of output or increase in price. In the absence of such direct evidence of market power, however, litigants can rely on "indirect" or "circumstantial" evidence, typically offered in the form of market share statistics, from which

with the basic principles of econometric theory, will have any probative value, and will primarily use evidence that is common to all members of the proposed class"); *In re Catfish Antitrust Litig.*, 939 F. Supp. 493, 498 (N.D. Miss. 1996) (expressing concern over novelty of expert's economic theories in approving class action settlement).

85. See generally, e.g., *United States v. General Dynamics Corp.*, 415 U.S. 486 (1974) (considering market power in mergers); *United States v. Grinnell Corp.*, 384 U.S. 563 (1966) (considering market power in monopolization).

86. *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 391 (1956).

87. See Gavil, *supra* note 16, at 102-04 (discussing relationship of monopoly and market power). See, e.g., *NCAA v. Board of Regents*, 468 U.S. 85, 109 n.38 (1984) ("Market power is the ability to raise prices above those that would be charged in a competitive market."). Although there is language in recent Supreme Court decisions suggesting that "monopoly" power connotes something more than "market" power, see, e.g., *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 481 (1992), commentators and more recent court of appeals decisions have begun to recognize that although market power is always a matter of degree, there is no clear economic dividing line between monopoly and market power. See, e.g., *Re/Max Intern., Inc. v. Realty One, Inc.*, 173 F.3d 995, 1019 (6th Cir. 1999) ("[W]e see no reason to believe that monopoly power in the § 1 context is any different from the § 2 monopoly power the plaintiffs allege here.").

88. See generally Mark R. Patterson, *The Role of Power in the Rule of Reason*, 68 ANTI-TRUST L.J. 429 (2000).

market power can be inferred.⁸⁹ Proving market power through circumstantial evidence, in turn, requires several distinct steps. First, a "relevant market" must be defined. Second, market shares must be calculated for the firms accused of anti-competitive conduct. And finally, numerical thresholds must be established to justify the inference of market power from specific market share percentages.⁹⁰ But whether through direct evidence of anti-competitive effects or through indirect evidence in the form of market shares, the task of proving market power almost invariably falls upon an expert witness.

Surprisingly, despite a great deal of consensus on the basic methodology for defining relevant markets and calculating market shares, many cases, depending upon market share calculations, come down to a battle between disagreeing experts. What explains the differing opinions if the methodologies are alike? Typically, experts disagree in the application of those methodologies to the facts at hand.⁹¹ Thus, the extension of *Daubert* to application, as is suggested in *Kumho Tire* and incorporated in the new Rule 702, may trigger substantially more frequent *Daubert*-based challenges in antitrust cases relying on experts to define relevant markets.⁹²

However, in some instances, genuine methodological conflict may be at the root of the differing testimonies, even though *Daubert* challenges may not always follow. A case in point is the recent *United States v. Microsoft Corp.*⁹³

89. See Gavil, *supra* note 16, at 95-102 (discussing relative weight of direct and circumstantial evidence of market power).

90. Perhaps one of the most rigorous explications of these various steps can be found in the U.S. Department of Justice and Federal Trade Commission Horizontal Merger Guidelines. See United States Department of Justice and Federal Trade Commission, HORIZONTAL MERGER GUIDELINES, at http://www.usdoj.gov/atr/public/guidelines/horiz_book/hmg1.html (last modified Apr. 8, 1997). Here again the interplay of law and economics is notable. Arguably, "market definition" is a legal construct designed to capture the economics of supply and demand substitution – of elasticities – for judge and jury. It is, therefore, a method of translating an economic concept into a workable legal one. Economists may in fact have little need for it except in their roles as antitrust experts or policy proponents.

91. Ideological divisions, too, might explain clashes among expert economists. Richard A. Posner, *The Law and Economics of the Economic Expert Witness*, 13 J. ECON. PERSPS. 91, 96-97 (1999). Posner stated:

A perfectly respectable economist might be an antitrust "hawk," another equally respectable economist might be a "dove." Each might have a long list of reputable academic publications fully consistent with systematically pro-plaintiff or pro-defendant testimony, and so a judge or jury would have little basis for choosing between them.

Id.; see also Richard A. Posner, *An Economic Approach to the Law of Evidence*, 51 STAN. L. REV. 1477, 1540 (1999) (discussing ideological divisions of expert consultant witnesses).

92. See, e.g., *Virginia Vermiculite, Ltd. v. W.R. Grace & Co.*, 98 F. Supp. 2d 729, 730 (W.D. Va. 2000) (challenging expert testimony defining relevant markets).

93. 97 F. Supp. 2d 59 (D.D.C. 2000).

litigation. One of the critical issues in the government's case was monopoly power.⁹⁴ The government maintained that desktop PC operating systems was a relevant market, and that Microsoft held a monopolistic share of that market. Microsoft disagreed, arguing for a far broader definition of the market. Both sides relied upon differing combinations of direct and circumstantial evidence to support their contentions of monopoly power. The district court largely rejected Microsoft's position, however, finding for the government on the question of Microsoft's dominant market position.⁹⁵

Although the defendant did not lodge a *Daubert* challenge, it is clear from a comparison of the direct testimony of the experts that very fundamental – and methodological – differences underlay their disagreement over monopoly power. The government's economist testified: "There are four reasons why I believe that Microsoft possesses monopoly power in the PC operating systems market."⁹⁶ Those reasons included: (1) its persistently high market shares (which, of course, was derived from a market definition limited to desktop PC operating systems); (2) barriers to entry, some caused by network effects and others by lack of program stock for competing operating systems; (3) conduct that would not be profitable unless done by a monopolist; and (4) a pattern of uncompetitive prices, persistently high profits, and the high value of Microsoft's equity.⁹⁷ Microsoft's expert responded, however, with a decidedly methodological criticism, asserting that the government's economists "have concluded wrongly that Microsoft has monopoly power over the operating systems *because they have relied on textbook theories of competition that do not apply to, or explain the dynamics of, the microcomputer software industry.*"⁹⁸ This, he argued, was evident in their failure to consider several factors: (1) low entry barriers; (2) evidence of intense competition and product innovation; (3) a pattern of competitive conduct; and (4) "competitive" pricing.⁹⁹ The attack based on the accusation that the opposing economist incorrectly relied on "textbook theories of com-

94. See generally *United States v. Microsoft Corp.*, 97 F. Supp. 2d 59 (D.D.C. 2000). The reliance on experts in the litigation was quite remarkable, with five of the government's twelve allowed witnesses testifying as experts. For a further discussion of the role of experts in the litigation, see Andrew I. Gavil, *An Analysis of Some Procedural Aspects of the Microsoft Trial*, 13 ANTI-TRUST 7, 8-9 (1999).

95. *Microsoft*, 87 F. Supp. 2d at 36-37.

96. Testimony of Frederick R. Warren-Boulton at ¶ 43, *United States v. Microsoft Corp.*, 97 F. Supp. 2d 59 (D.D.C. 2000) (Nos. 98-1232 & 98-1233).

97. *Id.*

98. Testimony of Richard L. Schmalensee at ¶ 203, *United States v. Microsoft Corp.*, 97 F. Supp. 2d 59 (D.D.C. 2000) (Nos. 98-1232 & 1233) (emphasis added).

99. *Id.*

petition" certainly sounded like fodder for a *Daubert* challenge – but there was none.¹⁰⁰

Proving market power through direct evidence, however, remains particularly controversial.¹⁰¹ Likewise, methods for defining "anti-competitive" market effects are not fully developed. Not surprisingly, therefore, expert testimony that purports to establish market power through direct evidence may trigger *Daubert* challenges. The principal case study in this section, the First Circuit Court of Appeals's decision in *SMS Systems Maintenance Services, Inc. v. Digital Equipment Corp.*,¹⁰² illustrates that still relatively new scenario.¹⁰³

SMS Systems raised *Daubert* issues in the context of an appeal by the plaintiffs of the district court's grant of summary judgment. In an attempt to replicate the success of the plaintiff independent service organizations ("ISOs") in *Eastman Kodak Co. v. Image Technical Services*,¹⁰⁴ the plaintiffs in *SMS Systems* challenged Digital Equipment Corporation's (DEC) alleged implementation of a mandatory extended warranty program.¹⁰⁵ The plaintiffs, ISOs who had previously been engaged in the servicing of DEC computers and equipment, alleged that this change in policy constituted monopolization of a relevant market defined as the aftermarket for repair and maintenance of DEC computers.¹⁰⁶

100. Several factors might explain why a *Daubert* challenge was not forthcoming in *Microsoft*. First, the case was being tried without a jury. Therefore, the usual concerns that the expert evidence might unduly influence the fact-finder may have been diminished. The district court judge easily could have addressed any differences of opinion on the reliability of the expert testimony in the context of his findings of fact. Second, time was short. The case, which was filed in May 1998, went to trial in October 1998, and although Microsoft filed a partially successful summary judgment motion in that time, the benefits of filing *Daubert* motions may have been perceived as minimal. Finally, it may simply be that the methodologies being used by each side were more similar than dissimilar, and any challenge by one would have indirectly constituted a criticism of its own approach. This may well explain why some parties still prefer the route of summary judgment in antitrust cases to the *Daubert* challenge.

101. See *Toys "R" Us, Inc. v. FTC*, 221 F.3d 928, 937 (7th Cir. 2000) (rejecting notion that circumstantial evidence in form of seemingly diminutive market share can be used to rebut direct evidence of exercise of market share); see also Gavil, *supra* note 16, at 107-09 (discussing then-pending appeal in *Toys "R" Us*).

102. 188 F.3d 11 (1st Cir. 1999).

103. *SMS Systems Maintenance Servs., Inc. v. Digital Equip. Corp.*, 188 F.3d 11 (1st Cir. 1999). See also *Concord Boat Corp. v. Brunswick Corp.*, 207 F.3d 1039, 1046, 1056 (8th Cir. 2000) (excluding economist's testimony as to monopoly power).

104. *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451 (1992) (affirming court of appeals's reversal of summary judgment for defendants).

105. *SMS Systems*, 188 F.3d at 13.

106. See *id.* at 13 (discussing allegations of monopolization of aftermarket).

An accepted element of a claim of monopolization under Section 2 of the Sherman Act is "monopoly power,"¹⁰⁷ and SMS sought to establish DEC's monopoly power through both direct and circumstantial evidence. Although discussed in the context of the court's consideration of SMS's appeal of the district court's grant of summary judgment to DEC, the testimony of the plaintiffs's expert was analyzed as a *Daubert* problem, with added guidance from *Kumho Tire*.

Framing the expert's burden, the court first distinguished SMS's showing from that made by the plaintiffs in *Image Technical*:

Because this case arises on an appeal from the entry of summary judgment, it behooves us to stress further SMS's failures at the empirical level.

Here, unlike in *Kodak*, the record is devoid of any evidence of supra-competitive prices or other oppressive terms of business in the aftermarket. Here, unlike in *Kodak*, the record furnishes no reason to believe that new customers are irrelevant to DEC; to the contrary the record shows unequivocally that DEC intended to sell [its] computers vigorously to new as well as old customers in an effort to grow its market share. Here, unlike in *Kodak*, there is also no proof indicating that DEC has attempted to discriminate between customers who are knowledgeable and those who are not, or that it discriminates in price (or in offering different warranty terms) between new and repeat purchasers. . . . Moreover, data such as these — that new customers remain important to DEC and that the warranties offered to new and installed base customers have exactly the same terms — are further signs of the absence of aftermarket exploitation.¹⁰⁸

SMS turned in part to its expert to overcome the evidentiary shortcomings of its case. Their expert testified that DEC had "a much greater share of the services aftermarket than it should enjoy, given low customer satisfaction." Characterizing the import of his testimony, the court observed: "If DEC did not have monopoly power, this argument runs, it would not have been able to keep its large share of the aftermarket in spite of rampant dissatisfaction."¹⁰⁹ The court took issue, however, with the expert's data collection, especially as it related to his critical conclusion that DEC customer satisfaction was low. Observing that he "did not conduct a customer satisfaction survey," but rather relied on "his interpretation of certain internal DEC documents," the court took aim at the reliability of the expert's testimony.¹¹⁰

107. See *United States v. Grinnell Corp.*, 384 U.S. 563, 570-71 (1966) (holding that "possession of monopoly power" is an essential element of monopolization).

108. *SMS Systems*, 188 F.3d at 24 (citations omitted).

109. *Id.* at 25.

110. *Id.*

After asserting that "[e]xpert opinions . . . are no better than the data and methodology that undergird them," the court labeled the expert's conclusions as "highly suspect" because they depended upon sources cited in his report which he "neither attached nor discussed."¹¹¹ Relying in part on *Kumho Tire's* assertion that the courts must "make certain that an expert . . . employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field,"¹¹² the court maintained that "an expert must vouchsafe the reliability of the data on which he relies and explain how the cumulation of that data was consistent with standards of the expert's profession."¹¹³ It then concluded:

Not only did [the expert] fail to discuss in his report the nature of the data and its meaning, but he failed to explain . . . whether the data was sufficiently representative to permit him to draw any relevant conclusions, and whether the sampling methodology used to compile these documents corresponded to methods that might be considered legitimate in his discipline. Expert testimony that offers only a bare conclusion is insufficient to prove the expert's point.¹¹⁴

Viewed as a true *Daubert* opinion, *SMS Systems* offers some insights into the emerging "criteria of reliability" for expert economic testimony. First, the First Circuit emphasized *Kumho Tire's* assertion that the expert must employ in the courtroom "the same level of intellectual rigor that characterizes the practice of an expert in the relevant field."¹¹⁵ This can be construed as a thinly veiled, but persistent, criticism of the "hired gun" expert – the repeat witness that can be fairly accused of molding his testimony to meet the needs of each case. A critical yardstick of reliability, therefore, will be comparison of the expert's in-court methodology with that typically practiced out of court.

More particularly, however, the court appeared to suggest that the expert must have some methodology for insuring that data collected from internal corporate documents is "sufficiently representative" to justify drawing any conclusions therefrom. Moreover, the court suggested that the "sampling methodology" must correspond to "methods that might be considered legitimate" in the relevant discipline. Although the latter point sounds in "general

111. *Id.*

112. *Id.* (quoting *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999)).

113. *Id.*

114. *Id.* (citation omitted).

115. *Kumho Tire*, 526 U.S. at 152; *see also* *Bourelle v. Crown Equip. Corp.*, 220 F.3d 532, 536 (7th Cir. 2000) (stating that expert's testimony must reflect "same level of intellectual rigor" as practice in relevant field); *Seatrax, Inc. v. Sonbeck Int'l, Inc.*, 200 F.3d 358, 372 (5th Cir. 2000) (same); *In re Polypropylene Carpet Antitrust Litig.*, 93 F. Supp. 2d 1348, 1353 (N.D. Ga. 2000) (same).

acceptance," an existing *Daubert* factor,¹¹⁶ the former suggests a possibly distinct and useful "criteria of reliability" that is perhaps uniquely appropriate to economic testimony based on corporate documents. It remains to be seen, however, whether there exists any true methodology to insure that the documents turned over to an expert in the course of preparing her testimony are "sufficiently representative." Typically, decisions regarding which documents are turned over to an expert are not made by the expert, but by counsel, with due consideration being given to factors like protective orders and attorney client privilege, as well as litigation strategy. Although the expert can request categories of material that she needs, she generally will not be given the kind of unhindered access to the client's files that might be required to guarantee that the documents relied upon constitute an adequate sampling. Consequently, after *SMS Systems*, testifying experts would be ill-advised to rely solely on documents pre-selected for them by counsel.

On a broader plane, *SMS Systems*'s reasoning on admissibility and its reliance on the *Daubert* line of cases are not neatly integrated into its consideration of summary judgment and "sufficiency." Therefore, no clear dividing line is apparent between admissibility and sufficiency. The court simply does not say that it concluded the expert's testimony was so unreliable as to be deemed "inadmissible," and therefore disqualified from consideration in opposition to defendant's motion for summary judgment.¹¹⁷ The court might simply have been relying in part on *Daubert* to reach the conclusion that the expert's report, although admissible, was insufficient to support a reasonable jury's verdict. This lack of clarity is typical of many recent *Daubert* opinions in the antitrust area and diminishes the utility of discussions such as that set out in *SMS Systems*.¹¹⁸

B. Blomkest and Conspiracy

A great deal of academic and judicial energy has been channeled over the years into defining the scope of the "concerted action" requirement of Section 1 of the Sherman Act. By its terms, Section 1 only prohibits unreasonable restraints of trade perpetrated via a "contract, combination in the form of trust or otherwise, or conspiracy."¹¹⁹ The Court has consistently emphasized that

116. *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 594 (1993). "General acceptance" in the relevant field is a carry over from the pre-*Daubert*/*Frye* rule. *Id.* at 585-86.

117. It is well-settled that evidence offered by a non-movant who will bear the burden of proof at trial must be admissible evidence, although it need not be offered at the time of summary judgment in a form admissible at trial. *E.g.*, *Celotex Corp. v. Catrett*, 477 U.S. 317, 324 (1986).

118. See *infra* notes 172-202 and accompanying text (discussing *Concord Boat*).

119. 15 U.S.C. § 1 (1994).

this concerted action requirement distinguishes Section 1 from Section 2 and mandates proof of some concert of action.¹²⁰

Frequently, as in some of the early cases, the defendants' agreement was express or otherwise conceded, leaving little for the courts to do in defining the standards for proving conspiracy.¹²¹ But as conspiracies became more illicit, standards were needed to guide courts and juries in inferring conspiracy from circumstantial evidence. The basic standard of proof, therefore, took shape. To establish a conspiracy, the plaintiff would have to demonstrate that "the conspirators had a unity of purpose or a common design and understanding, or a meeting of minds in an unlawful arrangement."¹²² The Court later reformulated its test to require "direct or circumstantial evidence that reasonably tends to prove" that the conspirators "had a conscious commitment to a common scheme designed to achieve an unlawful objective."¹²³

In defining the requirements of proof of conspiracy, however, the Court uncovered an unstable fault line that divided unilateral and concerted conduct in oligopolistic markets. Although economists as a general matter suggest that there is a direct relationship between market concentration and collusion as a matter of probability,¹²⁴ the behavior of oligopolists will predictably mimic the behavior of firms acting in concert – even in the absence of true agreement. Knowing how each firm in the market will react to changes in price by the other, the oligopolists will independently elect *not* to engage in aggressive competitive behavior. Instead, they will choose to maximize their profitability by "consciously" choosing to engage in "parallel" pricing and other behavior.¹²⁵ As a consequence, oligopolistic industries may tend to behave

120. See *Copperweld Corp. v. Independence Tube Corp.*, 467 U.S. 752, 767 n.13 (1984) ("[P]urely unilateral conduct is illegal only under § 2 and not under § 1. Monopolization without conspiracy is unlawful under § 2, but restraint of trade without a conspiracy or combination is not unlawful under § 1."); *Monsanto Co. v. Spray-Rite Serv. Corp.*, 465 U.S. 752, 761 (1984) (stating that Sherman Act draws "basic distinction between concerted and independent action" and that "[i]ndependent action is not proscribed" under Section 1).

121. See, e.g., *United States v. Trenton Potteries*, 273 U.S. 392, 394 (1927) (stating that fact of combination was not contested); *Addyston Pipe & Steel Co. v. United States*, 175 U.S. 211, 213-18 (1899) (noting that defendants admitted association in answer).

122. *American Tobacco Co. v. United States*, 328 U.S. 781, 810 (1946), cited with approval in *Copperweld*, 467 U.S. at 771.

123. *Monsanto*, 465 U.S. at 768.

124. See, e.g., DENNIS W. CARLTON & JEFFREY M. PERLOFF, *MODERN INDUSTRIAL ORGANIZATION* 134 (3d ed. 2000) ("Empirical evidence supports the view that cartels are more likely in concentrated industries.").

125. See, e.g., *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 227 (1993) (explaining that conscious parallelism is conduct "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").

anti-competitively, but not pursuant to any agreement, explicit or illicit. The question then is whether Section 1's requirement of agreement should be read strictly, in which case oligopolistic pricing would fall outside of the reach of the Sherman Act, or broadly, so that it could be condemned as price-fixing.

The Court came down on the side of maintaining the integrity of the legal requirement of conspiracy in *Theatre Enterprises v. Paramount Film Distributing Corp.*,¹²⁶ where it held that proof of parallel pricing by oligopolists alone would not establish conspiracy for purposes of Section 1 of the Sherman Act: "Circumstantial evidence of consciously parallel behavior may have made heavy inroads into the traditional judicial attitude toward conspiracy; but 'conscious parallelism' has not read conspiracy out of the Sherman Act entirely."¹²⁷ As a consequence, proving conspiracy in an oligopolistic industry requires something more than mere parallel pricing. That "something more" has been referred to as "plus factors," defined by one commentator as "the additional facts or factors required to be proved as a prerequisite to finding that parallel action amounts to a conspiracy."¹²⁸ In a sense, therefore, the law of antitrust conspiracy is an example of law constraining economics. Whereas there are economic reasons for treating conscious parallelism and conspiracy alike, there are legal reasons for not doing so.¹²⁹

Three developments have impelled these well-settled principles of antitrust conspiracy to collide with *Daubert*. First, in its pre-*Daubert* 1986 deci-

126. 346 U.S. 537 (1954); see also ABA SECTION OF ANITRUST LAW, ANITRUST LAW DEVELOPMENTS 9-10 & n.47 (4th ed. 1997) (discussing effect of conscious parallelism in various cases).

127. *Theatre Enters. v. Paramount Film Distrib. Corp.*, 346 U.S. 537, 541 (1954). In a well known and still influential confrontation in the early 1960s, two noted antitrust academics squared off on whether antitrust law should strictly adhere to the concerted action requirement in such instances or, in recognition of their like economic consequences, deem parallel pricing by oligopolists to be the legal equivalent of "agreement." Compare Donald F. Turner, *The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusals to Deal*, 75 HARV. L. REV. 655 (1962) (arguing that conscious parallelism should not be deemed equivalent of agreement) with Richard A. Posner, *Oligopoly and the Antitrust Laws: A Suggested Approach*, 21 STAN. L. REV. 1562 (1969) (noting that parallel pricing by oligopolists is so likely to be consequence of agreement, not interdependence, that it should be condemned).

128. VI PHILLIP AREEDA, ANITRUST LAW ¶ 1433e (1986); see also William E. Kovacic, *The Identification and Proof of Horizontal Agreements Under the Antitrust Laws*, 38 ANITRUST BULL. 5, 31-55 (1993) (synthesizing operative list of plus factors from relevant case law). For a recent application of the parallel pricing – plus factor framework, see *In re Baby Food Antitrust Litig.*, 166 F.3d 112, 121-23 (3d Cir. 1999).

129. One obstacle noted by commentators is remedy – because firms engaged in consciously parallel behavior are motivated by self interest, how would an injunction be drafted to order them to alter their behavior as to *not* maximize their profits? See Turner, *supra* note 127, at 669 (discussing possible form injunction might take).

sion in *Matsushita Electric Industrial Co. v. Zenith Radio Corp.*,¹³⁰ a case that largely turned on the courts's treatment of expert economic testimony,¹³¹ the Supreme Court significantly raised the bar for plaintiffs seeking to prove conspiracy, albeit in the guise of summary judgment.¹³² Second, owing in part to *Matsushita* and in part to increased scholarship in the area,¹³³ litigants are developing a heightened awareness of the role economists can play in establishing, or defeating, a showing of conspiracy.¹³⁴ Finally, and most recently,

130. 475 U.S. 574 (1986).

131. See *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986) (raising bar for conspiracy claim). Although the Supreme Court addressed the expert's testimony with respect to conspiracy in *Matsushita* as a sufficiency question under Rule 56 of the Federal Rules of Civil Procedure (Summary Judgment), the lower courts had addressed it as an admissibility question under Rules 702 and 703 of the Federal Rules of Evidence. See Gavil, *supra* note 15, at 688-92 (discussing *Matsushita* and its prior history).

132. *Matsushita*, 475 U.S. at 587. The Court rejected as "implausible" evidence that the defendants, 21 Japanese television manufacturers, had engaged in a 20-year conspiracy to price television sets at predatory levels in order to eliminate U.S. rivals. The Court reasoned that "if the factual context renders [plaintiffs's] claim implausible – if the claim is one that simply makes no economic sense – [plaintiffs] must come forward with more persuasive evidence to support their claim than would otherwise be necessary." *Id.* at 587. The Court continued:

[A]ntitrust law limits the range of permissible inferences from ambiguous evidence in a § 1 case. Thus, . . . [t]o survive a motion for summary judgment or for a directed verdict, a plaintiff seeking damages for a violation of § 1 must present evidence "that tends to exclude the possibility" that the alleged conspirators acted independently. . . . [They] must show that the inference of conspiracy is reasonable in light of the competing inferences of independent action

Id. at 588 (quoting *Monsanto Co. v. Spray-Rite Serv. Corp.*, 456 U.S. 752, 764 (1984)). Some lower courts have read *Matsushita* as raising the bar of proof on *all* horizontal conspiracy claims, whereas others have confined it to situations where the conspiracy alleged is particularly implausible. Compare *Blomkest Fertilizer, Inc. v. Potash Corp.*, 203 F.3d 1028, 1032 (8th Cir. 2000) ("We are among the majority of circuits to apply *Monsanto* and *Matsushita* broadly, and in both horizontal and vertical cases.") with *In re Brand Name Prescription Drugs Antitrust Litig.*, 186 F.3d 781, 787 (7th Cir. 1999) (stating that plaintiffs alleging conspiracy "did not . . . as the defendant manufacturers rather absurdly argue, have to exclude all possibility that the manufacturers" acted collusively), *cert. denied*, 120 S. Ct. 1220 (2000).

133. See generally, e.g., Jonathan B. Baker, *Identifying Horizontal Price Fixing in the Electronic Marketplace*, 65 ANTITRUST L.J. 41 (1996); Jonathan B. Baker, *Two Sherman Act Section 1 Dilemmas: Parallel Pricing, the Oligopoly Problem, and Contemporary Economic Theory*, 38 ANTITRUST BULL. 143 (1993); George A. Hay, *The Meaning of "Agreement" Under the Sherman Act: Thoughts from the "Facilitating Practices" Experience*, 16 REV. IND. ORG. 113 (2000); Dennis Yao & Susan DeSanti, *Game Theory and the Legal Analysis of Tacit Collusion*, 38 ANTITRUST BULL. 113 (1993).

134. Noting that "the definition of what qualifies as an 'agreement' is ultimately a question of law and driven by policy considerations," Herbert Hovenkamp has suggested that, "nevertheless, an economist can contribute many observations relevant to the fact finder's determination." Herbert Hovenkamp, *Economic Experts in Antitrust Cases*, in 3 FAIGMAN ET AL., *supra* note 82,

there has been a decided increase in the number of major, industry-wide cartel cases being prosecuted by the government¹³⁵ and by private parties.¹³⁶ These three developments together provoked several in depth appellate court considerations of the role of economists in proving conspiracy. But the courts have not uniformly done so through use of the "*Daubert* hearing."¹³⁷

Most recently, *Blomkest Fertilizer, Inc. v. Potash Corp.*¹³⁸ presented something of a classic confrontation over the meaning of "agreement" for purposes of Section 1 of the Sherman Act. A class action brought by direct purchasers and resolved on summary judgment, the action faltered on a divided en banc

§ 38-3.3, at 193. According to Hovenkamp:

These observations include (1) whether the market structure would make an agreement rational or worthwhile; (2) whether the market structure makes an agreement unnecessary; (3) whether firms's actions are contrary to self-interest except on the supposition of an agreement; (4) whether the degree of parallelism is sufficient that, when coupled with other factors, a fact inference of agreement is warranted.

Id. Hovenkamp observed, however, "that much of what the economists have to say on the matter is theoretical and not subject to empirical falsification at all." *Id.* See also *City of Tuscaloosa v. Harcros Chems., Inc.*, 158 F.3d 548, 565 (11th Cir. 1998) (excluding statistician's testimony as to ultimate fact of conspiracy as beyond his expertise and as impermissible invasion of province of jury); *II AREEDA ET AL.*, *supra* note 56, at 117-18 (discussing *City of Tuscaloosa's* use of *Daubert* to challenge evidence of conspiracy).

135. See, e.g., *United States v. Andreas*, 216 F.3d 645, 650-56 (7th Cir. 2000) (discussing criminal price fixing prosecutions in the lysine industry); *United States v. Ikeda*, No. 00-0393, 6 TRADE REG. REP. (CCH) ¶ 45,000 (Case No. 4549) (N.D. Cal. 2000) (discussing criminal price fixing in sorbate food preservative industry); *United States v. Takeda Chem. Indus., Ltd.*, No. 399-CR-333, 6 TRADE REG. REP. (CCH) ¶ 45,099, Nos. 4467-69 (N.D. Tex. 1999) (discussing 13 criminal price fixing indictments in vitamins industry and collective \$850 million in fines collected through plea agreements).

136. See generally, e.g., *Blomkest Fertilizer, Inc. v. Potash Corp.*, 203 F.3d 1028 (8th Cir. 2000); *In re Citric Acid Litig.*, 191 F.3d 1090 (9th Cir. 1999), *cert. denied*, 120 S. Ct. 1531 (2000); *In re Brand Name Prescription Drugs Antitrust Litig.*, 186 F.3d 781 (7th Cir. 1999), *cert. denied*, 120 S. Ct. 1220 (2000); *In re Baby Food Antitrust Litig.*, 166 F.3d 112 (3d Cir. 1999); *City of Tuscaloosa v. Harcros Chems., Inc.*, 158 F.3d 548 (11th Cir. 1998), *cert. denied*, 120 S. Ct. 309 (1999).

137. For the most extensive treatment of *Daubert* and conspiracy, see *City of Tuscaloosa*, 158 F.3d at 562-67. See also *Blomkest*, 203 F.3d at 1037-38 (determining that expert testimony was unreliable without reference to *Daubert*); *In re Brand Name Prescription Drugs Antitrust Litig.*, 186 F.3d at 786-88 (excluding expert testimony on conspiracy on basis that it was irrelevant, without reliance on *Daubert* test); *In re Polypropylene Carpet Antitrust Litig.*, 93 F. Supp. 2d 1348, 1355-56 (N.D. Ga. 2000) (evaluating expert testimony on conspiracy under *Daubert*). For additional antitrust conspiracy cases prior to *Kumho Tire*, see *Petruzzi's IGA Supermarkets, Inc. v. Darling Delaware Co.*, 998 F.2d 1224, 1237-41 (3d Cir. 1993), and *Ohio v. Louis Trauth Dairy, Inc.*, 925 F. Supp. 1247 (S.D. Ohio 1996) (determining admissibility of expert testimony on conspiracy using *Daubert* test).

138. 208 F.3d 1028 (8th Cir. 2000).

court's view of the insufficiency of the plaintiff's proof of conspiracy in an oligopolistic industry.¹³⁹ The division in the court turned in part on conflicting views of the reliability of an expert economist's testimony on conspiracy – but with no apparent reference to *Daubert*.¹⁴⁰

Blomkest involved a class action alleging price fixing in the potash industry. The plaintiffs's core story was that potash prices during the relevant period rose higher and fell less than they should have due to collusion among the producers, who were dominated by several Canadian firms. The defendants responded that any increase in prices, or their failure to drop more precipitously, was largely the consequence of two intervening events. First, in response to anti-dumping proceedings in the United States, the Canadian firms entered into a Suspension Agreement, which raised potash prices. Second, in response to "over-production" and consequent unprofitability (which may have led to the alleged dumping), a Canadian government owned producer was privatized, which in turn led to decreased output and higher prices.¹⁴¹

The class plaintiffs alleged that "the producers's [sic] prices were roughly equivalent during the alleged conspiracy, despite differing production costs. . . . [and] that price changes by one producer were quickly met by the others."¹⁴² Reading these allegations together with the undisputed fact that the industry was an "oligopoly,"¹⁴³ the court initially concluded that "[t]he class's price-fixing claim is based on a theory of conscious parallelism."¹⁴⁴ To overcome the insurmountable legal hurdle of relying solely on the parallel pricing of the defendants, however, the class offered three "plus factors" to support its claim of conspiracy: "(1) interfirm communications between the producers; (2) the producers's [sic] acts against self-interest; and (3) econometric models which purport to prove that the price of potash would have been substantially lower in the absence of collusion."¹⁴⁵ Of course, expert economic testimony was the proof offered for the third plus factor.

A one vote majority of the en banc court concluded that the expert's report was "not probative of collusion."¹⁴⁶ The court's analysis revealed that at least one of its principal concerns was the reliability of the economist's

139. *Blomkest Fertilizer, Inc. v. Potash Corp.*, 208 F.3d 1028, 1032-37 (8th Cir. 2000).

140. *Id.* at 1037-38.

141. *Id.* at 1031-32.

142. *Id.* at 1032.

143. *See id.* at 1031 ("Both parties agree that the North American potash industry is an oligopoly.").

144. *Id.* at 1032.

145. *Id.* at 1033.

146. *Id.* at 1038.

methodology – which would appear to be an undiagnosed *Daubert* issue. In the court's view, the "class's expert evidence is lacking in two crucial respects."¹⁴⁷ First, the court agreed with the defendants that the economist's model failed to consider two critical and undisputed events that could have explained the pricing behavior: the suspension agreement and the privatization of the principal Canadian firm.¹⁴⁸ In other words, the expert failed to take into account two essential independent variables in assessing the likelihood that collusion, and not some lawful conduct, explained the firms' pricing patterns.¹⁴⁹ The court concluded: "A model that does no more than report that prices did, indeed, rise after these events tells us nothing about the existence of industry collusion."¹⁵⁰

The second flaw identified by the court related to the expert's "almost exclusiv[e]" reliance on evidence that "is not probative of collusion as a matter of law."¹⁵¹ As examples, the court mentioned the expert's apparent reliance on "the producer's common membership in trade associations and their publications of price lists to customers."¹⁵² Trade association membership suggests opportunity to collude, whereas the publication of price lists could be a facilitating device.

According to the court, under Federal Rule of Evidence 703, these facts, which underlay the expert's ultimate conclusion that the defendants conspired, themselves need not be admissible if they are "of a type reasonably relied upon by experts in a particular field."¹⁵³ But in the court's view, experts in the field did not typically rely on similar facts to evaluate conspiracy. Rule 703, according to the court, contemplates that there will be "sufficient facts already in evidence or disclosed by the witness as a result of his or her investigation to take such expert opinion testimony out of the realm of guesswork and speculation."¹⁵⁴ The presence of the defendants at common meetings and their circulation of price lists were not factors typically relied upon by economists to support an expert opinion as to the existence of a conspiracy. To conclude otherwise was mere speculation.

147. *Id.*

148. *Id.*

149. The dissent sharply disagreed, particularly with respect to the anti-dumping proceedings. *Id.* at 1041 n.12 (Gibson, J., dissenting).

150. *Id.* at 1038.

151. *Id.*

152. *Id.*

153. *Id.* (quoting FED. R. EVID. 703).

154. *Id.* (quoting *Hurst v. United States*, 882 F.2d 306, 311 (8th Cir. 1989)).

Thus, the court rejected the expert's report as "unreliable" on two grounds: "In this case, the expert's model is fundamentally unreliable because of his heavy (if not exclusive) reliance on evidence that is not probative of conspiracy, coupled with his failure to consider significant external forces that served to raise the price of potash."¹⁵⁵ Absent the expert evidence and given the court's rejection of the plaintiffs' other two plus factors as probative of conspiracy, the court affirmed summary judgment for the defendants.¹⁵⁶

Blomkest reflects something of a lost opportunity to clarify the operation of *Daubert* and *Kumho Tire* to a recurring antitrust issue – proof of conspiracy. First, the court failed to acknowledge that the first flaw in the expert's report was a methodological one, properly analyzed as an admissibility issue under *Daubert*. Any reference to its lack of "probative" value, therefore, should have been tied directly to *Daubert*'s "relevant and reliable" framework. The *Blomkest* court should have stated that it was excluding the report because the report depended upon unreliable methodology, which in turn rendered it irrelevant. The result would have been a more precise articulation of the court's path to its ultimate finding of evidentiary insufficiency.

Moreover, by utilizing a non-*Daubert* approach to analyzing the first flaw in the economist's report, the court lost an opportunity to explore the operation of *Kumho Tire*. "Failure to include a significant independent variable" very arguably constitutes a *criteria of reliability* for any sort of regression or other method of multi-factor analysis. Had the court articulated it as such, it could have provided some needed guidance regarding the operation of *Kumho Tire* in the antitrust context.

Similarly, the second flaw identified by the court could have been used as a vehicle for clarifying the operation of the Federal Rules of Evidence in evaluating expert economic testimony. The implicit framework for the court's discussion of the two defects in the expert's report is its distinction of Rule 702 methodological issues, which are to be addressed under *Daubert*, from Rule 703 application issues, which arguably fall outside of *Daubert*.¹⁵⁷ By disconnecting the first issue from Rule 702 and *Daubert* and by simply describing the two grounds independently without offering any guidance as to how they interrelate, the court passed up an opportunity to establish clear standards for the lower courts and other circuits.

155. *Id.* (citing *Loudermill v. Dow Chem. Co.*, 863 F.2d 566, 570 (8th Cir. 1988)).

156. *Id.*

157. For a discussion of this possible Rule 702/703 framework, see Gavil, *supra* note 15, at 682-85. By expressly including application of methodology within its terms, however, the revised Rule 702 at least diminishes the possible independent role of Rule 703.

Finally, the court never even used the word "admissibility" in connection with its consideration of the first defect. In contrast, through reliance on Rule 703, the court explicitly tied concerns about the expert's reliance on trade association membership and the use of price lists – the second flaw – to "admissibility." Furthermore, the court concluded its discussion of both defects in the economist's report by invoking "reliability." However, by neither establishing that the two grounds for exclusion of the expert's report shared a common basis in admissibility, nor contrasting the arguably distinct reliability concerns of Rules 702 and 703, the court muddied the *Daubert* waters and exacerbated ongoing confusion about the relationship of admissibility and sufficiency decisions.

The Eighth Circuit's treatment of the expert testimony of conspiracy in *Blomkest*, however, is in many ways typical of how other courts recently have treated similar testimony. In *In re Baby Food Antitrust Litigation*, for example, the Third Circuit Court of Appeals reviewed in detail the statistical and other testimony offered by the plaintiff to support its allegation of parallel pricing before affirming the district court's conclusion that the testimony was insufficient to survive summary judgment on the fact of conspiracy.¹⁵⁸ However, the objections to the expert's testimony found by both the district court and the court of appeals were focused almost exclusively on his *methodology*.¹⁵⁹ Nevertheless, there is no discussion of *Daubert* and no effort to develop a replicable set of "criteria of reliability" from the various defects found in the expert's methods. Instead, there is extensive, fact-specific criticism of the expert's methodology, invoked as a basis for the court's conclusion of evidentiary insufficiency.¹⁶⁰

158. See *In re Baby Food Antitrust Litig.*, 166 F.3d 112, 138 (3d Cir. 1999) (finding that plaintiffs failed to produce sufficient circumstantial evidence of collusion to exclude possibility of independent action); see also *In re Citric Acid Litig.*, 191 F.3d 1090, 1108 (9th Cir. 1999) (affirming summary judgment for defendant). The *Citric Acid* court rejected the plaintiff's reliance on an economic expert report, which it offered in part to establish that the alleged conspirator's market share remained constant over a two year period. In the plaintiff's view, the constant market share constituted circumstantial evidence of a conspiracy that fixed market share targets for each of the co-conspirators. The court rejected the effort, however, on the ground that the report's conclusion that there were, in fact, constant market shares depended upon a document otherwise not in evidence. *Id.* at 1102 ("[A]ny inference founded upon [a factual assertion unsupported by record evidence] – even one drawn by an economic expert – is necessarily unreasonable."). Expressed in the context of a motion for summary judgment, the court's conclusion appeared to be intertwined with an apparent sufficiency judgment. *Id.* ("When an expert opinion is not supported by sufficient facts to validate it in the eyes of the law, or when indisputable record facts contradict or otherwise render the opinion unreasonable, it cannot support a jury's verdict." (quoting *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 227, 242 (1993))).

159. *In re Baby Food Antitrust Litig.*, 166 F.3d at 128-30.

160. *Id.* at 128-32; see also *In re Brand Name Prescription Drugs Antitrust Litig.*, 186 F.3d

To date, *City of Tuscaloosa v. Harcros Chemicals, Inc.*¹⁶¹ remains the principal federal appellate decision that extensively addressed *Daubert*'s application to antitrust, and it too involved the use of expert evidence to support allegations of conspiracy.¹⁶² Moreover, it emphasized the distinction that should be drawn between admissibility decisions made under *Daubert* and sufficiency decisions made in connection with summary judgment motions under Rule 56.¹⁶³ Despite its status as the first federal appellate court to apply *Daubert* to antitrust, however, its example has not been widely followed.¹⁶⁴

C. Constructing Damage Models

Economists also have made increasingly frequent appearances in antitrust cases as principal witnesses on damages. Although traditional case law established the general principle that, once liability is found, the standards of proof on damages should not be rigorous,¹⁶⁵ plaintiffs have faced increasingly

781, 786 (7th Cir. 1999) (rejecting district courts' exclusion of expert economist's testimony under *Daubert*, but concluding that it was nevertheless "objectionable" as irrelevant). Further blurring the line between admissibility and sufficiency, the court later went on to suggest that a part of the economist's testimony was "properly excluded or alternatively entitled to no weight." *Id.* at 788.

161. 158 F.3d 548 (11th Cir. 1998), *cert. denied*, 120 S. Ct. 309 (1999).

162. See *City of Tuscaloosa v. Harcros Chems., Inc.*, 158 F.3d 548, 562-67 (11th Cir. 1998) (examining admissibility of plaintiff's proffered expert testimony as it supported allegations of conspiracy), *cert. denied*, 120 S. Ct. 309 (1999). Although the decision pre-dated *Kumho Tire*, it correctly anticipated *Kumho Tire*'s endorsement of the "flexible" approach to identifying and applying criteria of reliability fit for the particular subject of expertise. *Id.* at 566 n.25.

163. *Id.* at 564-65. Maintaining that distinction was critical in both the district court and the court of appeals because *Joiner* and *Kumho Tire* clearly held that the standard on review of both admissibility decisions generally, and of "criteria of reliability" decisions particularly, should be reversed only for abuse of discretion. *General Elec. Co. v. Joiner*, 522 U.S. 136, 138-39 (1997); *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152-53 (1999). In contrast, evidentiary sufficiency questions are reviewed de novo. 11 MOORE'S FEDERAL PRACTICE § 56.41[3][a] (3d ed. 1990). For a more in depth discussion of the ramifications of maintaining these distinct standards of appellate review in *Daubert* decisions, see Gavil, *supra* note 15, at 703-07.

164. *But see In re Polypropylene Carpet Antitrust Litig.*, 93 F. Supp. 2d 1348, 1361 (N.D. Ga. 2000) (denying in large part defendants' *Daubert* motions to exclude testimony of statistician and economist regarding alleged antitrust conspiracy and damages).

165. See, e.g., *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 123 (1969) (noting that damage issues relating to partial or total market exclusion are rarely susceptible to concrete, detailed proof of injury); *Bigelow v. RKO Radio Pictures*, 327 U.S. 251, 265 (1946) (stating that wrongdoer shall bear risk of uncertainty caused by his own wrongdoing in proof of damage in antitrust suits); see also *New York v. Julius Nasso Concrete Corp.*, 202 F.3d 82, 88 (2d Cir. 2000) (citing *Zenith* in support of its decision reversing district court's exclusion of plaintiff's proposed expert testimony on antitrust damages on ground that diminished substantive legal standard of *Zenith* should be taken into account in assessing motions to exclude damages testimony under *Daubert*).

skeptical courts in presenting their cases for damages and have called upon economists to improve the odds of recovery.

Again, the traditional legal framework is important to consider. In the past, courts generally accepted two principal kinds of models of antitrust damages: "before and after" and "yardstick."¹⁶⁶ "Before and after" models could be used in price fixing and other kinds of consumer damage cases and by injured, although not destroyed, prey in cases of exclusionary conduct. In price fixing cases, "before and after models" tried to compare prices in the non-conspiracy period to prices in the conspiracy period and use the difference as a baseline approximation of damages.¹⁶⁷ In cases of exclusionary conduct, in which the prey continued in business, the method could be used to focus on the prey's before and after profitability. Assuming that the diminution in profits in the period of unlawful conduct could be causally linked to the anti-competitive conduct, it too could produce an approximation of damages.¹⁶⁸

"Yardstick" models are more typical in cases of totally successful exclusionary conduct. These models seek to place a value on a firm that has exited the market. The "yardstick" method does so by comparing the excluded firm to a similar one – a yardstick – that has remained in the market and has not been the victim of predation.¹⁶⁹ The method can be used to establish a "going concern" value for the business or a profit projection for future, unrealized years.¹⁷⁰

While these basic models in large part continue to influence damages evidence in antitrust cases,¹⁷¹ newer, more sophisticated, and more case specific econometric models are also being employed. A case in point is the recent decision in *Concord Boat Corp. v. Brunswick Corp.*¹⁷²

166. Roger D. Blair & William H. Page, "Speculative" Antitrust Damages, 70 WASH. L. REV. 423, 443 (1995); see also II AREEDA ET AL., *supra* note 56, ¶ 391d (comparing two traditional models of antitrust damages).

167. II AREEDA ET AL., *supra* note 56, at 484-85.

168. Blair & Page, *supra* note 166, at 443-50.

169. *Id.* at 451-54.

170. *Id.*

171. See, e.g., *Blue Dane Simmental Corp. v. American Simmental Ass'n*, 178 F.3d 1035, 1039-41 (8th Cir. 1999) (rejecting as unreliable under *Daubert* and *Kumho Tire* expert's use of before and after model to establish damages due to model's failure to include all significant independent variables); *Coastal Fuels of P.R., Inc. v. Caribbean Petroleum Corp.*, 175 F.3d 18, 26-31 (1st Cir.) (discussing before and after lost profits and going concern value as measures of damages for antitrust violations), *cert. denied*, 120 S. Ct. 331 (1999); *In re VISA Check/Mastermoney Antitrust Litig.*, 192 F.R.D. 68, 74-78 (E.D.N.Y. 2000) (holding "but for" damages projections admissible for purposes of class certification inquiry in tying case).

172. 207 F.3d 1039 (8th Cir. 2000); see also *Coastal Fuels*, 175 F.3d at 28 (concluding that going concern value should be evaluated as of time plaintiff goes out of business and lost profits awarded only up to that date).

Concord Boat involves the appeal of a jury verdict and denial of post-trial motions in an action brought against the allegedly dominant manufacturer of stern drive marine engines by a group of boat builders.¹⁷³ The builders alleged that Brunswick had violated Section 7 of the Clayton Act¹⁷⁴ by acquiring two of its principal competitors; they also alleged that it violated Sections 1 and 2 of the Sherman Act¹⁷⁵ through a variety of discount and other incentive programs it offered to its customers.¹⁷⁶ An expert economist was retained to address two sets of issues: liability and damages.¹⁷⁷

Brunswick responded with a pre-trial *Daubert* motion to exclude portions of the economist's testimony.¹⁷⁸ Brunswick charged that the expert's damages model did not sufficiently disaggregate lost sales attributable to lawful, as opposed to allegedly unlawful, conduct.¹⁷⁹ In response to certain representations by the plaintiffs that the problem of dis-aggregation would be addressed at trial, the district court permitted the testimony.¹⁸⁰ But it did so without making any "specific findings regarding [the economist's] methodology or the bases of his opinions."¹⁸¹ On appeal, Brunswick renewed its charge that the economist's opinions should have been excluded under *Daubert* as unreliable.¹⁸²

In an extensive treatment of *Daubert*, as well as *Joiner* and *Kumho Tire*, the Eighth Circuit Court of Appeals agreed, noting that "[c]ounsel's assur-

173. *Concord Boat Corp. v. Brunswick Corp.*, 207 F.3d 1039, 1043-44 (8th Cir. 2000) (rejecting expert's opinion as "mere speculation" because of failure to incorporate all aspects of economic reality of stern drive engine market and because testimony did not separate effects of lawful conduct from unlawful conduct).

174. 15 U.S.C. § 18 (1994).

175. 15 U.S.C. §§ 1-2 (1994).

176. *Concord Boat*, 207 F.3d at 1045-46.

177. The plaintiffs in *Concord Boat* sought damages for the alleged "overcharges" they paid for stern drive marine engines. This discussion concerns only the expert's proposed testimony on damages. For other recent *Daubert*-based challenges to expert damages testimony in antitrust cases, see *Rebel Oil Co. v. Atlantic Richfield Co.*, 146 F.3d 1088, 1097 (9th Cir. 1998) (stating that while district court concluded at summary judgment that expert's testimony regarding alleged below cost pricing was insufficient, this was not inherently incompatible with its earlier conclusion that expert's testimony was relevant and reliable for purposes of *Daubert*); *Philip Morris, Inc. v. Grinnell Lithographic Co.*, 67 F. Supp. 2d 126, 141-42 (E.D.N.Y. 1999) (noting that district court preliminarily concluded that expert's damage model was relevant and reliable for *Daubert* purposes in commercial bribery action brought under Section 2(c) of Clayton Act).

178. *Concord Boat*, 207 F.3d at 1046.

179. *Id.*

180. *Id.*

181. *Id.*

182. *Id.* at 1055.

ances did not eliminate the need for a thorough analysis of the expert's economic model and his proffered opinion.¹¹⁸³ Quoting from *Daubert*, the court implied that the "thorough analysis" had a dual purpose: (1) to make a "preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid" and (2) to determine whether the expert's testimony "is sufficiently tied to the facts of the case that it will aid the jury."¹¹⁸⁴ The court then turned to *Joiner* and *Kumho Tire*, both of which in its view particularly emphasized the application or "fit" step in assessing the expert's testimony, concluding that "[e]ven a theory that might meet certain *Daubert* factors, such as peer review and publication, testing, known or potential error rate, and general acceptance, should not be admitted if it does not apply to the specific facts of the case."¹¹⁸⁵ At this point, however, the court's opinion begins to lose a sharp focus in two ways. First, it fails to draw any clear line between criteria of reliability and the question of application or fit. Second, it appears to lose its initially clear focus on admissibility and drifts into sufficiency.

In support of the plaintiffs' damages claim, their economist purported to rely on a "Cournot model" that, according to the court, "posits that a firm 'maximizes its profits by assuming the observed output of other firms as a given, and then equating its own marginal cost and marginal revenue on that assumption.'¹¹⁸⁶ The court then explained the expert's proposed testimony as follows:

[The economist] postulated that in a stern drive engine market that was competitive, Brunswick and some other firm would each maintain a 50% market share. Under this theory, any market share over 50% would be evidence of anticompetitive conduct on Brunswick's part. Since Brunswick at various points in time had garnered a market share as large as 78% percent [sic], [the economist] concluded that it had engaged in anticompetitive conduct and that the boat builders had been overcharged at the moment Brunswick's market share surpassed the 50% threshold.¹⁸⁷

One of the defendant's expert economists challenged this methodology, asserting "that there was no rational basis by which [the plaintiffs' expert's model] could identify alleged overcharges."¹¹⁸⁸ More specifically, he testified that the expert did not really use a "Cournot model;" rather, he used a simple

183. *Id.*

184. *Id.* at 1056 (quoting *Daubert v. Merrell Dow Pharms, Inc.*, 509 U.S. 579, 591-93 (1993)).

185. *Id.*

186. *Id.* at 1046-47 (quoting *IV AREEDA ET AL.*, *supra* note 56, ¶ 925a).

187. *Id.* at 1047.

188. *Id.*

and "mechanical" formula that simply assumed overcharges for all market shares over 50%.¹⁸⁹ The only independent variable considered, therefore, was market share.¹⁹⁰ This was a methodologically unsound approach, he argued, on two grounds. First, it failed to consider factors other than Brunswick's allegedly anti-competitive conduct that might have explained increases in its market share.¹⁹¹ It also failed to consider the price at which Brunswick actually sold its engines, which would be a critical factor in assessing any alleged overcharge.¹⁹²

The Court of Appeals agreed, declaring that the plaintiffs' economist "used the Cournot model to construct a hypothetical market which was not grounded in the economic reality of the stern drive engine market, for it ignored inconvenient evidence."¹⁹³ As the defendant's expert argued, the plaintiffs' expert's model failed to take actual costs and non-anticompetitive conduct into account, rendering his opinion unreliable and properly excluded: "[The economist's] expert opinion should not have been admitted because it did not incorporate all aspects of the economic reality of the stern drive engine market and because it did not separate lawful from unlawful conduct."¹⁹⁴

Here again, the court took a curious turn. Without any clear transition, the court's discussion moved directly from admissibility to sufficiency and from reliability to probative value. After reaching its apparent conclusion that the expert's testimony on damages should have been excluded, the court immediately launched into a series of statements about expert testimony and evidentiary sufficiency, each supported by non-*Daubert* case law. When juxtaposed and collected together, they significantly blur the line between *Daubert's* concerns about admissibility and summary judgment's focus on sufficiency:

Because of the deficiencies in the foundation of the opinion, the expert's resulting conclusions were "mere speculation."¹⁹⁵

189. *Id.*

190. *Id.*

191. *See id.* at 1045 (noting apparently undisputed evidence in record that Brunswick's market share grew significantly on several occasions as direct consequence of marketing blunders of its rivals).

192. *See id.* at 1047 (stating that plaintiffs' expert's model treated price at which Brunswick sold its engines as irrelevant for purposes of formula because overcharge amount was related solely to Brunswick's market share).

193. *Id.* at 1056.

194. *Id.* at 1056-57.

195. *Id.* at 1057 (quoting *Virgin Atl. Airways Ltd. v. British Airways PLC*, 69 F. Supp. 2d 571, 580 (S.D.N.Y. 1999)). In a parenthetical, the court quoted *Virgin Airways* for the proposition that "summary judgment [is] appropriate on Section 1 and 2 [Sherman Act] claims because 'an expert's opinion is not a substitute for a plaintiff's obligation to provide evidence of facts that support the applicability of the expert's opinion to the case.'" *Id.*

Expert testimony that is speculative is not competent proof and contributes "nothing to a 'legally sufficient evidentiary basis.'"¹⁹⁶

Expert testimony is useful as a guide to interpreting market facts, but it is not a substitute for them.¹⁹⁷

[E]xpert opinion evidence . . . has little probative value in comparison with the economic factors.¹⁹⁸

An expert opinion cannot sustain a jury's verdict when it "is not supported by sufficient facts to validate it in the eyes of the law, or when indisputable record facts contradict or otherwise render the opinion unreasonable."¹⁹⁹

The *Concord Boat* court's journey from *Daubert*, *Joiner*, and *Kumho Tire* to *Matsushita* and *Brooke Group* was completed in its conclusion to the discussion:

Here [the economist's] expert opinion was the basis of the boat builders' damage case, and the jury clearly relied on his opinion in reaching its verdict It cannot be said that the verdict would have been the same without the expert testimony, and its admission affected Brunswick's substantial rights. Brunswick's motion for judgment should have therefore been granted.²⁰⁰

All of the cited authorities, some of which pre-date *Daubert*, involve either summary judgment or judgment as a matter of law, and thus do not directly concern admissibility decisions under *Daubert*. Indeed, following the progression through these statements of legal principle, it is evident that the court conflated a package of related, albeit distinct rules with distinct purposes. The result was a blurring of the lines between two principles directly related to *Daubert* and admissibility and three principles that concern sufficiency and evolved both before and after *Daubert*. The *Daubert* admissibility principles are:

(1) the district court as gatekeeper must conduct an independent analysis of the relevance and reliability of the expert's methodology, that should include a flexible assessment of appropriate criteria of reliability of methodology, and

196. *Id.* (quoting *Weisgram v. Marley Co.*, 120 S. Ct. 1011, 1015-20 (2000)) (citing *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 242 (1993)).

197. *Id.* at 1057 (quoting *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 242 (1993)).

198. *Id.* (quoting *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 594 n.19 (1986)).

199. *Id.* (quoting *Brooke Group*, 509 U.S. at 242).

200. *Id.* (citing *Weisgram*, 120 S. Ct. at 1015).

(2) the district court should evaluate the soundness of the application of a reliable methodology to particular facts ("fit").

The pre- and post-*Daubert* sufficiency principles are:

- (1) reliable methodologies used to produce speculative conclusions may not be legally sufficient to sustain a jury verdict and thereby defeat a motion for summary judgment or judgment as a matter of law;
- (2) a reliably derived expert opinion may nevertheless be deemed insufficient to defeat summary judgment when other, non-expert evidence of record renders it an unreasonable basis for a jury verdict; and
- (3) when a reviewing appellate court concludes that evidence was improperly admitted at trial in the district court, it can proceed to enter judgment as a matter of law if the remaining evidence is insufficient to support a reasonable jury's verdict.²⁰¹

By failing to distinguish among these two groups of principles – one relating to admissibility, the other to sufficiency – the bases for the court's decision in *Concord Boat* to exclude the plaintiffs' expert's testimony on damages and enter judgment as a matter of law to the defendant are uncertain, at best. As to admissibility, the court failed to fix the reason for exclusion. Was it the unreliability of the expert's Cournot model? The court appeared to suggest that the model itself was not under review; only its application to the facts was challenged.²⁰² The basis for the exclusion, therefore, appears to lie in some infirmity associated with the expert's application of the model to the facts. Yet the court's specific criticisms of the expert's testimony – that it failed to consider real world pricing and that it did not distinguish between the market share effects of lawful and unlawful conduct – related to the expert's failure to incorporate certain independent variables into the model.

201. The Supreme Court recently settled this issue in *Weisgram v. Marley Co.*, 120 S. Ct. 1011 (2000).

202. See *Concord Boat Corp. v. Brunswick Corp.*, 207 F.3d 1039, 1055-56 (8th Cir. 2000) ("The district court commented that because Brunswick had not challenged the Cournot model as a scientific theory, its 'criticisms are reduced to complaints about how [the expert] applied the Cournot model to the facts of this case.'" (quoting *Concord Boat Corp. v. Brunswick Corp.*, 21 F. Supp. 2d 923, 934 (E.D. Ark. 1998))). It remains unclear whether the defendant ever questioned the propriety of using the Cournot model to establish damages. This is surprising, given that the model was not developed as a method for demonstrating damages from anti-competitive conduct. Instead, it merely describes likely behavior by non-cooperating duopolists and oligopolists. See CARLTON & PERLOFF, *supra* note 122, at 157-65 (discussing uses of Cournot Model). Therefore, although the absence of Cournot-predicted behavior may suggest coordination among oligopolists, its use as a methodology for establishing damages may be doubtful. See also IV AREEDA ET AL., *supra* note 56, ¶ 925 (discussing Cournot model as source of insight into importance of market structure).

That sounds more like a challenge to the model as constructed than to its application. It could also reveal that the expert's attempt to legitimize a questionable methodology simply by labeling it a "Cournot model" was exposed and deemed unreliable.

In either event, the court's segue from a focus on admissibility to commentary on sufficiency raises a broader question: Did the court simply conclude that the model with its various flaws was "insufficient," such that a reasonable jury could not have returned a verdict based on the expert's damage numbers? Certainly its abrupt shift from cases in the *Daubert* line to those addressing summary judgment and judgment as a matter of law supports such a reading of the discussion as a whole. And the court failed to ask whether any non-expert evidence was admitted that could arguably have sustained a verdict. In the end, although it seems certain that the court intended to hold that the plaintiffs' expert's testimony on damages should have been excluded, its discussion failed to bring that point to closure and left open the possibility that its decision was based on a sufficiency judgment.

The better and more defensible approach would have been to conclude that the expert's report was inadmissible and then ask if there was any non-expert testimony on the question of damages. In the absence of other evidence, the exclusion of the expert report should lead to summary judgment or judgment as a matter of law – not owing to its "insufficiency," but to the absence of any admissible evidence of damages. Judgment was warranted because there was no admissible evidence to support a reasonable jury verdict on damages. Any discussion of expert sufficiency thereafter is no better than dicta. By failing to articulate each of these steps carefully, *Concord Boat*, like *Blomkest*, missed the opportunity to provide some much needed guidance to the lower courts and other circuits on how *Daubert* and cases like *Matsushita* and *Brooke Group* should be properly integrated in the antitrust context.

D. Emerging Criteria of Reliability

What can preliminarily be gleaned from these cases? Most apparent is the lack of consistency in how *Daubert* challenges are being treated, especially when they arise contemporaneously with motions for summary judgment or judgment as a matter of law. Although some relatively focused treatments of *Daubert* motions have been reported,²⁰³ the courts of appeals are the prime offenders in merging the admissibility and sufficiency issues that frequently arise when the sufficiency of the plaintiff's case is dependent upon

203. See generally, e.g., *In re Polypropylene Carpet Antitrust Litig.*, 93 F. Supp. 2d 1348 (N.D. Ga. 2000); *Virginia Vermiculite, Ltd. v. W.R. Grace & Co.*, 98 F. Supp. 2d 729 (W.D. Va. 2000).

the admissibility of the expert's testimony.²⁰⁴ If the courts' lack of clear focus on admissibility is overlooked, however, certain trends in terms of "criteria of reliability" may be developing.

First, as noted in *SMS Systems*, courts are increasingly demonstrating hostility towards the professional expert witness and are demanding a showing that the methodologies utilized in the courtroom do not vary from those used in the expert's field.²⁰⁵ But this seemingly laudable goal may simply be impractical. It makes no accommodation, for example, for the forensic context. Data collection in the context of civil discovery may be limited and invariably will be affected by protective orders and the need to maintain attorney-client privilege and work product immunity. It may be, therefore, that the aspiration of duplicating the standards of purely academic economics in the courtroom is unrealistic. The question remains whether we should "make do" with what is attainable, in essence judging the reliability of forensic economics on its own terms.

But two other, more concrete "criteria of reliability" also seem to be emerging. With respect to regression analysis, the inclusion of all significant independent variables appear to be significant "criteria of reliability," as was apparent in *Blomkest* and *Concord Boat*.²⁰⁶ Similarly, as in *SMS Systems*, courts are evaluating whether the data relied upon to formulate expert opinions

204. The clear exception here is the Eleventh Circuit Court of Appeals's decision in *City of Tuscaloosa v. Harcross Chems., Inc.*, 158 F.3d 548, 565 (11th Cir. 1998) (finding lower court erred in confusing and conflating admissibility issues with issues regarding sufficiency of evidence to survive summary judgment), *cert. denied*, 120 S. Ct. 309 (1999), and *cert. denied*, 120 S. Ct. 47 (1999).

205. See *SMS Sys. Maintenance Servs., Inc. v. Digital Equip. Corp.*, 188 F.3d 11, 25 (1st Cir. 1999) (asserting that expert witnesses must vouch for reliability of data on which they rely and explain how accumulation of data is consistent with standards of expert's profession), *cert. denied*, 120 S. Ct. 1241 (2000); see also Richard A. Posner, *The Law and Economics of the Economic Witness*, 13 J. ECON. PERSPS., Spring 1999, at 93 (noting criticism that paid witnesses are bound to be partisans rather than disinterested, truthful witnesses). Although Judge Posner generally rejected fears that economists will forfeit their objectivity in their role as expert witnesses, *id.* at 93-95, he also cautioned that "[w]here the use of economic experts is most problematic is in the areas of economics in which there is no professional consensus," citing antitrust economics as an example. *Id.* at 96.

206. See *supra* Part IV.B (discussing deficiency in expert testimony that failed to take into account essential independent variables in *Blomkest Fertilizer, Inc. v. Potash Corp.*, 208 F.3d 1028, 1032-37 (8th Cir. 2000)); see also *Concord Boat*, 207 F.3d at 1056-57 (stating that expert opinion failed to include inconvenient factors and therefore cannot sustain jury's verdict); *Blue Dane Simmental Corp. v. American Simmental Ass'n*, 178 F.3d 1035, 1039-41 (8th Cir. 1999) (rejecting expert's model as unreliable because it failed to consider critical independent variables); *In re Polypropylene Carpet Antitrust Litig.*, 93 F. Supp. 2d at 1364-66 (rejecting defendant's assertion that plaintiff's expert's regression analysis of alleged damages from price fixing conspiracy failed to include all significant independent variables).

is sufficiently complete and representative. While these factors may seem intuitively obvious, it is as yet unclear whether they will be applied consistently and rigorously in testing the reliability of expert economic testimony.

Finally, there is the role of "fit" that was emphasized in *Concord Boat*.²⁰⁷ There, however, the court viewed *Daubert's* notion of "fit" as relating to the application of a methodology to the facts of a case.²⁰⁸ "Fit" also can be viewed as a criteria of reliability for the methodology itself. Take the Cournot model used in *Concord Boat*, for example.²⁰⁹ Is the best objection to its use that it failed to take into account necessary facts and therefore was not a good "fit" for the case, or that Cournot models simply do not relate to damages? In the later instance, "fit" may be a criteria of reliability of the methodology that asks: "Is it being used for the purposes for which it was designed?"

V. Conclusion: Is *Daubert* Testable?

Daubert and its progeny are working their way more and more pervasively into the process of antitrust litigation, but with uncertain outcomes. Lack of adherence to the admissibility versus sufficiency distinction continues to undermine the precision and ultimately the utility of *Daubert* considerations by the courts in antitrust cases. It also completes the task of appellate review. Moreover, it is still too early to tell whether courts have fully digested *Kumho Tire's* direction that criteria of reliability need to be established for each methodological step undertaken by the expert.

One trend, however, does appear to be well defined: *Daubert* has contributed yet another layer of expensive and time consuming satellite litigation to the already encumbered process of litigating antitrust cases. In this regard, as noted at the outset, it is not too early to ask: "Is it worth it?" As was true of the federal courts' experience with the 1983 amendments to Rule 11,²¹⁰ the quest for greater integrity in the process of litigating may in fact have had the unintended, but opposite, consequence of further miring the litigation process in additional layers of costly, but inconsequential process. Experts and litigators alike report two, four, and even six day long "*Daubert* hearings." Whereas challenges to the experts previously were handled through papers filed in support of summary judgment or judgment as a matter of law, the *Daubert*

207. See *Concord Boat*, 207 F.3d at 1055-56 (discussing requirement that expert testimony must "fit" facts of particular case).

208. *Id.*

209. *Id.* at 1056-57.

210. See Andrew I. Gavil, *Attitudinal Discretion and the Prospects for Reinvigorating Antitrust: A Look at the New Federal Rules*, 39 ANTITRUST BULL. 27, 37-41 (1994) (discussing impact of 1983 revisions to Rule 11 of Federal Rules of Civil Procedure on antitrust litigation).

hearing process frequently leads to mini-trials, complete with opening and closing statements, witness preparation and testimony, cross-examination, and demonstrative exhibits. On occasion, even supporting multi-media presentations are utilized. Of course, all of these factors contribute to significantly increased attorneys' and experts' fees.

The high cost of these hearings appears to be justified in the eyes of the parties by the high stakes. Typically, antitrust cases that get as far as litigation involve significant damage claims that may reach into the hundreds of millions of dollars after trebling. Also typically, the expert's testimony, whether in support of liability or damages, is a critical element in the plaintiff's case. If the expert can be excluded, therefore, summary judgment frequently will follow; if the plaintiff's expert survives the gauntlet, the prospects for summary judgment may be dim. But expensive process can yield a significant advantage to the more well-heeled party, typically the defendant in these cases. *Daubert* hearings thus become but one additional device for seeking strategic advantage and wearing down the opposition.

Can the added expense really be worth it? The promised benefit of the process is the identification and elimination of unreliable expert testimony at the earliest moment in the litigation. But is there any hard evidence to suggest that prior to *Daubert* actual verdicts withstood appellate review based on demonstrably unreliable economic techniques? If not, if "shaky but admissible"²¹¹ expert evidence rarely made it through the rigorous summary judgment process, what is gained by separating the admissibility question, briefing it, and conducting an extended, live hearing? These are hard but critical questions that warrant further study.

In short, it is time to ask: "Is *Daubert*, itself, testable?" Whereas the goals of weeding out "junk economics" and discouraging unsupportable antitrust litigation may be laudable, it is uncertain that the *Daubert* process represents a cost-effective means of achieving those goals. Ironically, *Daubert* was implemented unscientifically. There was no prior study of the uses of expert testimony in the federal courts to support its implicit assumption that "junk science" was a uniformly troubling phenomenon. To evaluate its utility, it is critical to know how often *Daubert* motions are being filed and granted and in what sorts of cases. Without data, the very much needed cost/benefit analysis cannot be reliably conducted. A survey of district court judges, as was done in the Rule 11 context,²¹² might prove instructive. What is the

211. As the Court concluded in *Daubert*: "Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence." *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 596 (1993).

212. FEDERAL JUDICIAL CENTER, RULE 11: FINAL REPORT TO THE ADVISORY COMMITTEE ON CIVIL RULES OF THE JUDICIAL CONFERENCE OF THE UNITED STATES (1991).

typical length of a *Daubert* hearing? Does it vary by type of case? Amount in controversy? And perhaps most critically, do the judges considering the motions find the process to be useful and cost-effective? If judges report that (1) truly junk economics is rare; (2) in any event, it would have been excluded under pre-*Daubert* standards; and (3) more often than not shaky expert testimony is better addressed in the context of sufficiency determinations like summary judgment, we may well find that *Daubert* fails its own tests – it may not be reliable, and it may not really aid the trier of fact to "secure the just, speedy, and inexpensive determination of every action."²¹³

213. FED. R. CIV. P. 1. At least one district court has observed that the principles of Rule 1 must guide that court's decision whether to conduct a *Daubert* hearing. *See Lanni v. New Jersey*, 177 F.R.D. 295, 303 (D.N.J. 1998) ("[A] full evidentiary hearing on the reliability of the expert testimony is not required by *Daubert* and would cause unnecessary expense and delay.").