REMEDIES FOR MONOPOLIZATION FROM *STANDARD OIL* TO *MICROSOFT* AND *INTEL*: THE CHANGING NATURE OF MONOPOLY LAW FROM ELIMINATION OF MARKET POWER TO REGULATION OF ITS USE

PETER C. CARSTENSEN*

> "[W]here the condition . . . brought about in violation of the statute . . . is . . . a monopolization, . . . the statute requires the application of broader and more controlling remedies."[1]

I. INTRODUCTION

Academic commentators have, over the years, lamented the failure of monopoly remedies to achieve effective relief. For some, the failure highlighted the foolishness of the law interfering with market structures and conduct,[2] while for others it was evidence of the failure of the courts and law enforcers to act with sufficient boldness and courage.[3] Both lines of critics focus on the options chosen and by implication assume that a better option would have existed if only those enforcing the law had adopted it. A third perspective has emerged in a few works, notably that of

*. George H. Young-Bascom Professor of Law, University of Wisconsin Law School. I am indebted to Peter Shakotko for research and editorial assistance on this Article. I have also profited greatly from the discussions at the Symposium *100 Years of* Standard Oil held on June 3 at George Washington University Law School at which I presented an initial draft of this Article.

1. Standard Oil Co. v. United States, 221 U.S. 1, 77 (1911).

2. *See, e.g.*, Robert W. Crandall, *The Failure of Structural Remedies in Sherman Act Monopolization Cases*, 80 OR. L. REV. 109, 197–98 (2001) (arguing that structural remedies are ineffective because the government lags behind the market).

3. *See, e.g.*, Kevin J. O'Connor, *The Divestiture Remedy in Sherman Act* § *2 Cases*, 13 HARV. J. LEG. 687, 714–16 (1976) (describing the timidity of judges in selecting remedies in monopoly cases).

Professor and former Federal Trade Commissioner William Kovacic, who has pointed out the great difficulty of finding appropriate and workable remedies.[4] One of his central observations is that in monopoly litigation, the remedy should be a central concern at the outset of the case and not an afterthought.[5]

The problem with finding appropriate remedy reflects in at least some of the cases an apparent failure to approach monopoly litigation with an "end game" in mind. But other institutional factors play a significant role in the apparently modest results of some remedies. Among those influences are the inherent economics of the market being monopolized, changes in the policy goals of those charged with enforcing antitrust law, the technological dynamics of the markets at issue, and the personification of the corporation such that some remedies are analogized to a "death sentence," which in turn is conceived to be an extreme punishment for mere corporate misconduct.

Remedies in monopolization cases provide both a reflection of what the courts believe the purpose of the statute is and the perceived experience with remedies that has in turn helped to shape subsequent development of the law. In broad overview, monopoly law has moved from seeking to remedy those monopolies that were substantial, durable, and remediable to a focus on developing standards of conduct for monopolists whose underlying monopoly will not be remedied, but whose future conduct will be subject to some, modest constraints.

It is the thesis of this Article that this change in the meaning of Section 2 of the Sherman Antitrust Act ("Sherman Act") came about in response to the changing character of the cases that came before the courts. That change caused the courts to abandon the older view of monopoly law and substitute doctrines that are the equivalent of the European concept of abuse of a dominant position. To be sure, the American version neither admits its continental heritage nor employs the stricter standards of the European Union.

4. William E. Kovacic, *Designing Antitrust Remedies for Dominant Firm Misconduct*, 31 CONN. L. REV. 1285, 1317 (1999) [hereinafter Kovacic, *Designing Antitrust*]; William E. Kovacic, *Failed Expectations: The Troubled Past and Uncertain Future of the Sherman Act as a Tool for Deconcentration*, 74 IOWA L. REV. 1105, 1108–09 (1989) [hereinafter Kovacic, *The Troubled Past*]. *See also*, Edward Cavanagh, *Antitrust Remedies Revisited*, 84 OR. L. REV. 147, 162–63 (2005) (describing the severity of attaching criminal and civil penalties to monopolistic activities).

5. Kovacic, *Designing Antitrust*, *supra* note 4, at 1310; Kovacic, *The Troubled Past*, *supra* note 4, at 1147.

The growth of private monopoly litigation has been the most important force in shifting monopoly law to its present, almost exclusive, focus on the merits of specific conduct and away from a concern for remedying the monopoly itself. Essentially, private litigants sought to use the very open-ended standards for determining illegality of monopoly framed by *Alcoa*[6] and *Grinnell*[7] to seek condemnation of dominant firms, damages, and injunctions intended to regulate the markets in which the contestants competed. Recognizing that this use of the doctrines defining unlawful monopoly was not appropriate, the courts responded by developing stricter standards for the proof of a violation. These standards in turn, however, shifted the focus of monopoly law to the merits of specific conduct rather than the long-run implications of continued dominance of a market by a firm that could be reconfigured to restore workable competition. Thus, the law has largely abandoned the challenge of framing remedies that seek to remove the monopoly itself and restore competition.

These various trends have shifted the focus of monopoly remedies away from the conception set forth in *Standard Oil* case.[8] There the Court confronted a choice between regulating the use of monopoly power and seeking a remedy that would eliminate the monopoly. Such a remedy is structural, regardless of its specific terms, in that it seeks to change the structure of the market.[9] From 1911 until the early-1980s such relief was a frequent, but by no means consistent, response to monopoly.[10] But for the last thirty years, such remedies have not been achieved or, except in one instance, even sought.[11]

The broad conclusion of this Article is that structural relief should again be the primary remedy in monopoly cases even if the results are not

6. United States v. Aluminum Co. of Am., 148 F.2d 416 (2d Cir. 1945) (sitting in lieu of the Supreme Court).

7. United States v. Grinnell Corp., 384 U.S. 563 (1966).

8. Standard Oil Co. of N.J. v. United States, 221 U.S. 1 (1911). For more on the *Standard Oil* case, see Barak Y. Orbach & D. Daniel Sokol, *Antitrust Energy*, 85 S. CAL. L. REV. 429 (2012); Benjamin Klein, *The "Hub-and-Spoke" Conspiracy that Created the Standard Oil Monopoly*, 85 S. CAL. L. REV. 459 (2012); George L. Priest, *Rethinking the Economic Basis of the Standard Oil Refining Monopoly: Dominance Against Competing Cartels*, 85 S. CAL. L. REV. 499 (2012); Daniel A. Crane, *Were Standard Oil's Rebates and Drawbacks Cost Justified?*, 85 S. CAL. L. REV. 559 (2012); Christopher R. Leslie, *Revisiting the Revisionist History of* Standard Oil, 85 S. CAL. L. REV. 573 (2012); Barak Orbach & Grace Campbell Rebling, *The Antitrust Curse of Bigness*, 85 S. CAL. L. REV. 605 (2012); Alan J. Meese, Standard Oil *as* Lochner*'s Trojan Horse*, 85 S. CAL. L. REV. 783 (2012).

9. *See id.* 81–82.

10. *See* Crandall, *supra* note 2, at 116–20 tbl.1.

11. There have been few new monopoly cases since the start of the Reagan Administration in 1981. So far as I can tell only in the *Microsoft* case did the government seek a structural remedy, and that was rejected by the Court of Appeals. *See infra* text accompanying notes 93–98.

as resoundingly "successful" as outside observers might like. At the same time, the standards for such relief must of necessity be distinguished from claims that specific conduct by a monopolist is unlawful when its continued retention of a monopoly position is not in issue.

The fundamental insight from directly remedying monopoly power is that if markets are workably competitive, then the need for detailed oversight of conduct is greatly reduced and judicial tolerance of potentially anticompetitive conduct having some plausible efficiency justification can be rationalized. In contrast, if the markets have a strong tendency toward monopoly, then greater intervention to regulate the conduct of firms is essential. An additional, but controversial, proposition is that workably competitive markets are much more likely to generate innovation that both enhances efficiency and generates technological advance. Workably competitive markets create the necessity for innovation that monopoly lacks.

The argument proceeds in Part II to review the choice that the Court made in *Standard Oil* as to remedy and its rationale, which defined the goal of Section 2's prohibition of monopolization. Part III offers a selective history of structural remedies achieved over the next seventy years both in cases where courts imposed such remedies and cases that technically the government lost or abandoned but where the dominant firm undertook steps that reduced its market power. Both the gains and losses from these remedies must be taken into account. The balance, however, is largely favorable to interventions that respond to "market failures" resulting in substantial, durable, but remediable monopolies. Moreover, the record shows that little, if any, long-run harm resulted from structural interventions. On the other hand, it must be conceded that significant change in many markets required extrinsic changes in technology, infrastructure, or other market factors before significant reduction in the power of the dominant firm occurred. Part III will also review a few of the cases where structural change did not occur. In these cases, the evidence is that the monopoly was more durable and technological change was, arguably, deferred and delayed even though ultimately change did occur.

Part IV examines the change in monopoly law and remedy expectations that occurred in the 1970s and 1980s in response to the emergence of private plaintiffs in monopoly cases. The failure of the courts to create a workable distinction between structural monopoly cases and cases challenging specific conduct by monopolists explains the shift in focus to evaluating and, therefore, remedying conduct while ignoring the underlying structural issues.

Part V provides an evaluation of the remedies in the two most recent structural monopoly cases brought by public authorities where the structural issues should have been paramount. The remedies in both Microsoft and Intel regulate aspects of conduct but did not directly change the underlying power of the firms. There are, it will be acknowledged, great challenges in both cases in terms of identifying and implementing structural relief. The still brief history of the operating system industry following the Microsoft settlement suggests that the dynamics of other industries, particularly telecommunications and internet services, the direct beneficiaries of structural relief, may well undermine Microsoft's monopoly power over time. The Intel remedy is unlikely, at this writing, to be aided by a similar technological transformation and so the predictable result is the indefinite survival of the Intel monopoly (perhaps duopoly) until such time as technological imperatives bring forth alternatives.

Finally, Part VI argues that antitrust law should restore the *Standard Oil* standard for remedying monopoly power. What is required is a recognition of the distinctive nature of the claim when the challenge is to the lawfulness of the monopoly itself. Such cases should focus on different concerns from ones that only challenge particular conduct. The challenge for the courts is to develop criteria that will compel such litigation to focus on whether the monopoly is substantial, durable, and, most importantly, remediable.

II. THE *STANDARD OIL* STANDARD FOR RELIEF

The Court that decided both *Standard Oil* and *American Tobacco*[12] was in no sense a radical or populist enterprise. Its members were conservative and very much concerned with the rights of property.[13] At the same time, they were convinced that the records in the two cases demonstrated unambiguous violations of both Section 1 and Section 2 of the Sherman Act. The bulk of both decisions goes to demonstrating and justifying that conclusion even as the majority opinion advances some kind of a "rule of reason" for determining when a combination is unlawful under Section 1 and a monopoly or attempted monopoly is unlawful under Section 2.[14] But each decision also directly addressed the question of

12. United States v. Am. Tobacco Co., 221 U.S. 106 (1911).

13. *See* RUDOLPH J. R. PERITZ, COMPETITION POLICY IN AMERICA 1888-1992, 50–51 (1996) (describing the Court's dedication to protecting property rights); Meese, *supra* note 8.

14. *See Am. Tobacco*, 221 U.S. at 180–84; *Standard Oil*, 221 U.S. at 60–62. I have elsewhere traced some of the historical evolution of the Court's analysis of the rule of reason and the overall

remedy.

The basic issue for the Court on remedy was how to respond to findings of unlawful monopolization. The cases presented the Court with two options. It could impose an injunction that would regulate how the monopolist was to behave going forward but leave its monopoly position undisturbed, or it could impose a remedy intended to dissipate the monopoly power itself. In the case of *American Tobacco*, the trial court, despite finding substantial unlawful conduct, entered essentially a regulatory decree.[15] In *Standard Oil*, in contrast, the trial court had ordered a substantial undoing of the trust.[16] In resolving the question of remedy, the Court had to decide what were the goals of Section 2 as well as what the proper role for courts should be in overseeing the economy.

The issue thus framed for the Court was one of significant contemporary debate. Many of the leaders of the dominant business firms were prepared to allow substantial governmental oversight of their conduct including wages, hours, and prices in return for continued acceptance of their right to have dominant market positions.[17] This proto-fascism reflected a consensus among industrial and financial leaders that the old idea of competition was not relevant to the new world of integrated enterprises that would yield greater economic efficiency but only at the cost of market dominance. As Martin Sklar's study of the era demonstrates, these magnates were willing to accept large scale government oversight in return for the freedom to control markets.[18]

As a historical policy matter, this kind of market regulation would in all probability have led to the same problems that subsequently have emerged in all regulated industries. Innovation and efficiency suffered in direct response to the lack of competitive pressure. Manipulation of, and

impact of antitrust law on the economy. *See generally* Peter C. Carstensen, *The Content of the Hollow Core of Antitrust: The* Chicago Board of Trade *Case and the Meaning of the "Rule of Reason" in Restraint of Trade Analysis*, 15 RES. L. & ECON. 1 (1992) (discussing the impact of previous case law on current courts); Peter C. Carstensen, *How to Assess the Impact of Antitrust on the American Economy: Examining History or Theorizing?*, 74 IOWA L. REV. 1175 (1989) (explaining the historical impact of antitrust law on the U.S. economy) [hereafter Carstensen, *Examining History*]; Peter C. Carstensen, *Lost in (Doctrinal) Translation: The Misleading Retelling of the Supreme Court's Antitrust Decisions on Restraints of Trade*, 62 SMU L. REV. 525 (2009) (describing the early years of the "rule of reason").

15. *See Am. Tobacco*, 221 U.S. at 151–53.

16. *Standard Oil*, 221 U.S. at 78.

17. *See* MARTIN SKLAR, THE CORPORATE RECONSTRUCTION OF AMERICAN CAPITALISM, 1890–1916, 30–31 (1988).

18. *See id.*

even corruption of, the regulatory process were endemic. The experience of Australia, New Zealand, the United Kingdom, and much of the rest of Europe was that direct economic regulation did in fact inhibit economic growth and innovation.[19] This recognition, following World War II, has resulted in the global acceptance of the market process overseen by competition law.[20] It is one of the greatest unrecognized victories for the American economy that the business community did not succeed in giving the government pervasive regulatory control over the economy in the era leading up to and after World War I.[21]

The Court unanimously rejected the statist, regulatory solution of dealing with monopoly and instead insisted that the remedy should be one that eliminated the illegal monopoly power that the firms possessed. In its remedy discussion in *Standard Oil*, the Court explicitly adopted the position that: "[W]here the condition . . . brought about in violation of the statute . . . is . . . a monopolization, . . . the statute requires the application of broader and more controlling remedies."[22] In that case, the Court had a decree that seemed to satisfy that requirement. The lower court had ordered that the trust be dismembered and the shares in it be returned to the investors who had previously owned the stock,[23] which the Court

19. *See* CHARLES E. LINDBLOM, POLITICS AND MARKETS: THE WORLD'S POLITICAL-ECONOMIC SYSTEMS 112–16 (1977)

20. *See* TONY A. FREYER, ANTITRUST AND GLOBAL CAPITALISM 1930-2004, 243–45 (2006); LINDBLOM, *supra* note 19, at 110 (recognizing the global conviction that competition law is pivotal to the economy).

21. This is not to suggest that there were not strong forces arguing for syndicalist-type solutions. *See generally* LOUIS GALAMBOS, COMPETITION AND COOPERATION: THE EMERGENCE OF A NATIONAL TRADE ASSOCIATION (1966) (outlining the birth of trade organizations and the National Recovery Administration). Moreover, the National Industrial Recovery Act, adopted in response to the Great Depression, attempted to implement this kind of economic order. It floundered both in practice and in law on the unworkability of private cartelization. *See* A.L.A. Schechter Poultry Corp. v. United States, 295 U.S. 495, 550 (1935) (discussing the Act's goal of rehabilitation from falling prices following the Great Depression); ROBERT F. HIMMELBERG, THE ORIGINS OF THE NATIONAL RECOVERY ADMINISTRATION 221–22 (1976) (explaining how the National Industrial Recovery Act was successful only in a "limited . . . sense"). The rise of the Nazi, Fascist, and Communist versions of state-centered economic control played an important part in the political process by which the United States retained its commitment to the competitive market approach to economic organization. *See* ELLIS W. HAWLEY, THE NEW DEAL AND THE PROBLEM OF MONOPOLY 79 (1966) (discussing Facism); SPENCER WEBER WALLER, THURMAN ARNOLD: A BIOGRAPHY 106–07 (2005) (discussing the Axis Powers); WYATT WELLS, ANTITRUST AND THE FORMATION OF THE POSTWAR WORLD 139 (2002) (discussing Nazism).

22. *Standard Oil*, 221 U.S. at 77. Alan Meese has argued that the Court's remedy approach reflected its Lochnerian perspective that the rights of property should not be interfered with except in extreme situations. *See* Meese, *supra* note 13, at 784. Hence, the Court focused on a structure remedy that would leave the surviving corporations free from continuing regulatory constraints.

23. *Standard Oil*, 221 U.S. at 78.

affirmed.[24] In addition, the Court affirmed a further element of the decree that enjoined the shareholders and the now independent corporations from engaging in any conduct that would violate Section 1.[25] The Court interpreted that command to require that the parties obey the law but rejected the expansive interpretation that it would forbid any contact with or among the former subsidiaries of the trust where there was a legitimate business reason for any agreement.

Many commentators criticize the *Standard Oil* decree because it left the Rockefellers with dominant stock interests in many of the surviving companies. While in retrospect this is an important criticism and one from which subsequent courts have learned,[26] in context of the newly emerging world of publicly held corporations, it should not be a basis for serious concern. It is very likely that the Court did not understand the concept of shareholder dominance as it came to be understood. On the surface, a group of competitors had been lumped together into a trust, hence the presumption would be that once central control was removed, competition would return. Indeed, even Robert Crandall acknowledges that some of the Standard Oil affiliates were fully ready to be vigorous competitors shortly after the dissolution of the trust.[27] Others, however, remained more under the control of the Rockefeller interests for a decade or more. Thus, this was a less than perfect reconstruction of the enterprise, but the important question is did it frustrate the restoration of competition or did it provide some support.

An assessment of the consequences of the *Standard Oil* decree is necessarily controversial and dependent on one's assumptions about how the world would have looked absent the decree. But it is indisputable that the decree did in fact create a number of firms that were now legally separate and obliged as a matter of law to compete. Certainly they tried

24. *Id.* at 81–82.

25. *Id.* at 79, 81–82.

26. *See infra* text accompanying notes 48–50. For example, in the *Alcoa* case, the Court ordered the Mellons to divest their interests in either Aloca or Alcan. United States v. Aluminum Co. of Am., 148 F.2d 416, 447 (2d. Cir. 1945). The effect of this divestiture was to move the two enterprises into actual competition. Then again, in the DuPont-GM litigation, the Court explicitly ordered that stock be sold or distributed to DuPont shareholders except the DuPont family itself to avoid any indirect exercise of power over GM. United States v. E. I. Du Pont De Nemours & Co., 366 U.S. 316, 319–20 (1961).

27. Crandall, *supra* note 2, at 112. *See also generally* Timothy Muris & Bilal Sayyed, *The Long Shadow of* Standard Oil*: Policy, Petroleum, and Politics at the Federal Trade Commission*, 85 S. CAL. L. REV. 843 (2012) (discussing the role of the FTC in overseeing the petroleum industry following the *Standard Oil* decision down to present times and providing an evaluation of the competitiveness of the industry over time).

repeatedly to collude in a variety of ways,[28] but in general the market for petroleum products moved toward a more competitive structure with at least intermittent competitive conduct. Thus, while the decree was less than perfect, it moved the industry in the correct direction from a competition policy perspective. The relevant comparison is with the condition contrary to fact: if the Court had merely regulated Standard Oil's ongoing conduct, how would that have affected the development of the petroleum industry? Given the proclivity of the firms in that industry to collude, it would seem very likely that a more monopolistic industry structure would have resulted in an even greater exploitation of consumers and monopolistic behavior.

The *American Tobacco* case confronted the Court with a more difficult problem. The trial court had, not surprisingly, found a number of violations of the Sherman Act, but it had only ordered that a few marginal components of the Tobacco Trust be divested.[29] Instead, it had opted for a "regulatory" decree that sought to control the conduct of the trust with respect to customers, competitors, and suppliers. The Court rejected this approach.[30] Instead, it ordered the trial court to fashion a new decree that would reconstruct the tobacco trust into a group of competitive enterprises.[31] The Court was explicit in its analysis that the trust had so combined entities that it was not feasible for the purposes of restoring competition to order the distribution of stock in the various entities that made up the trust.[32] Hence, the Court ordered and the trial court implemented a massive corporate reorganization.[33]

Once again the results were less impressive than one might have hoped for. It is worth noting that before World War I, cigarettes enjoyed only modest popularity and their addictive quality was not appreciated. Hence, the courts would have had little or no notice that demand would be very price inelastic. Moreover, concepts of oligopoly and tacit collusion to the extent that they existed were in their infancy. As a result, from the hindsight of improved economic analysis and a much enhanced

28. *See, e.g.*, Simpson v. Union Oil Co., 377 U.S. 13, 14–15 (1964) (consignment agreement); Standard Oil Co. of California & Standard Stations, Inc. v. United States, 337 U.S. 293, 294–95 (1949) (collusive exclusivity contracts); Ethyl Gasoline Corp. v. United States, 309 U.S. 436, 445–46 (1940) (sales to only specific retailers); United States v. Socony-Vacuum Oil Co., 310 U.S. 150, 166–67 (1940) (price-fixing); Standard Oil Co. (Indiana) v. United States, 283 U.S. 163, 167–68 (1931) (limiting gas supply).

29. *See* United States v. Am. Tobacco Co., 221 U.S. 106, 151–53, 184 (1911).

30. *Id* at 184–88.

31. *Id.* at 187–88.

32. *Id.* 187.

33. *See* United States v. Am. Tobacco Co., 191 F. 371 (S.D.N.Y. 1911) (detailing the process necessary to dissolve the tobacco monopoly).

understanding of the nature of tobacco's pharmacological characteristics, the decree may seem naive. On the other hand, it did move the industry toward more competitive conduct including product innovation (in context perhaps not a socially desirable result) along with recurring collusive interludes.[34] Again, the relevant observation is that this industry had a proclivity toward collusion, and exploitive conduct on both the buyer and selling sides. Dissolution made those characteristics overt and set the stage for further sanctions. Moreover, there is no evidence of adverse effect on the efficiency, innovativeness, or growth of the industry. Thus, the end result of this reconstruction of the cigarette industry was to move it toward a more competitive structure and, again at least intermittently, greater competitive conduct.

The fundamental policy decision made in *Standard Oil* and *American Tobacco* was that when a unlawful monopoly exists, Section 2 requires that the remedy be one that dissipates the monopoly power by dissolution or some other comparable reorganization of the market whenever that is feasible. Merely regulating the conduct of the monopolist is not an acceptable option.

III. THE IMPACT OF STRUCTURAL REMEDIES—NOT ALL GOOD OR ALL BAD, BUT MORE GOOD THAN BAD

Some years ago, Tom Arthur made the observation that Section 2 must be pretty good despite its ambiguities when one considers how few real monopolies seem to exist in this country.[35] From a historical perspective, merger to monopoly largely ended with decisions in *Standard Oil* and *American Tobacco*. The 1920s and later saw the growth of oligopoly through merger aided by the lack of a workable anti-merger statute until the 1950s. Another handful of enterprises obtained and retained monopolistic dominance of particular product lines. Among those that stood out in the early era were Kodak in cameras and film[36] and U.S.

34. *See* Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 212 (1993); Am. Tobacco Co. v. United States, 328 U.S. 781, 788 (1946); DeLoach v. Philip Morris Cos., 321 F. Supp. 2d 707 (M.D.N.C. 2004) (discussing relative payments from settling conspirators in tobacco buying conspiracy).

35. Tom Arthur has recently confirmed that he has made that statement several times but, so far, has not committed it to writing. Hence, it falls into the rich oral tradition of antitrust.

36. *See* United States v. Eastman Kodak Co., 230 F. 522, 523 (W.D.N.Y. 1916); United States v. Eastman Kodak Co., 226 F. 62, 63–64 (W.D.N.Y. 1915) (describing Kodak's monopolistic practices). The result of this litigation was a consent decree that produced only minor divestiture such that the United States continued to argue in 1994 that Kodak still had market power. *See*, Brief for the United States at 16–17, United States v. Eastman Kodak Co., 63 F.3d 95 (2d Cir. 1995) (No. 94-6190).

Steel in iron and steel production.[37]

What is less fully appreciated is that there were some very important, if lower visibility, structural remedies imposed on both oligopolies and monopolies that on balance and with some lags, resulted in improved competitive conditions. Others have attempted to compile more comprehensive lists of cases involving structural remedies.[38] The challenge for any retrospective review is the problem of inclusion and exclusion. The following paragraphs seek to highlight the consequences of some of the cases, whether litigated or settled, including a few that the government formally lost, but that resulted in structural changes in the affected markets. These examples support the proposition that such interventions in markets that had longstanding monopolistic or oligopolistic structures and conduct can on balance have positive effects on those markets, including stimulating technological innovation, and that there is little hard evidence of any significant adverse effects on efficiency resulting from these corporate reorganizations. To further support the structuralist perspective, a few examples of the failure of regulatory-type decrees are also reviewed.

Among the less well known examples of market restructuring is the 1920 consent decree covering the stockyards and meat packing industry.[39] This complex decree included divestiture of the industry's stake in stockyards, grocery retailing, as well as ownership of other lines of grocery production.[40] It took more than a decade of litigation until the Supreme Court enforced the agreement.[41] The growth of supermarkets for the retailing of groceries, which also created powerful buyers able to develop new products and bargain effectively for prices and qualities they desired, occurred after the decrees. Manifestly, other technological and market factors were essential to these developments, but the fact that the meat

37. U.S. Steel successfully defended itself against monopoly charges. United States v. U.S. Steel Corp., 251 U.S. 417, 457 (1920). *See also* William Page, Standard Oil *and* U.S. Steel*: Predation and Collusion in Monopolization Analysis*, 85 S. CAL. L. REV. 657 (2012). However, for most observers, U.S. Steel held a monopoly position in the steel industry. *See* Thomas K. McCraw & Forest Reinhardt, *Losing to Win: U.S. Steel's Pricing, Investment Decisions, and Market Share, 1901–1938*, 49 J. ECON. HIST. 593, 594–95 (1989); George W. Stocking, *The Rule of Reason, Workable Competition, and Monopoly*, 64 YALE L.J. 1107, 1129–36 (1955); Myron M. Wattins, *The Change in Trust Policy—II*, 35 HARV. L. REV. 926, 927–29 (1922).

38. Crandall, *supra* note 2, at 116–20 tbl.1 (charting cases resulting in structured remedies); O'Connor, *supra* note 3, at 710 & tbl.A, 711 & n.81, 712 & n.82 (discussing the divestiture of power by courts in the past).

39. United States v. Swift & Co., Equity No. 37623 (Sup. Ct. D.C. 1920).

40. For an analysis of the meat packing industry and the role of antitrust, see Carstensen, *Examining History*, *supra* note 14, at 1198–1210.

41. *See* United States v. Swift & Co, 286 U.S. 106, 111 (1932).

packers, at the time the largest food processors, were no longer vertically integrated into retailing made new developments in food retailing much more feasible.

In combination with changes in transportation, by the 1950s, meat packing had substantially deconcentrated as well. Government grading of meat meant that new entrants, using new technology and located closer to supplies, were able to sell to the emerging grocery store chains.[42] Regrettably, failure to enforce merger law in the 1980s contributed a period of reconcentration resulted in an industry structure that by 1997 is even more concentrated than in 1920 and that lacks any compelling efficiency justification.[43]

The canning industry provides a different example of remedy for oligopoly. In that industry, the two dominant firms each had patented machines that closed and sealed the lids of cans. They used access to those machines to compel their lessees to buy most or all of their cans from themselves.[44] The trial court found this conduct to be illegal tying under a Section 2 theory of shared monopoly.[45] The remedy was to require the parties to sell their machines to canners, which freed the canners to decide from whom to buy cans.[46] Thereafter the prices for cans dropped substantially, even though the two firms retained dominant market shares.[47]

The *Aloca* case is another in which the standard view is that there was little or no useful remedy.[48] To be sure, the transformation of the industry during and after World War II created a dynamic context within which to determine the appropriate remedy. Basically, the government had, in order to assure an adequate and competitive market for aluminum during the war, paid for the creation of two additional production systems. After the war it sold the two vertically integrated systems to Reynolds and Kaiser. This undermined the potential for a vertical dissolution of Alcoa. However, the

42. *See* Carstensen, *Examining History*, *supra* note 14, at 1205–06 (discussing the growth of meat packing industry due to lowered entry costs).

43. Peter C. Carstensen, *Concentration and the Destruction of Competition in Agricultural Markets: The Case for Change in Public Policy*, 2000 WIS. L. REV. 531, 534.

44. United States v. Am. Can Co., 87 F. Supp. 18, 26–27 (N.D. Cal. 1949).

45. *Id.* at 28–29. On the dangers of overly permissive mergers more generally, see Margaret C. Levenstein, *Antitrust and Business History*, 85 S. CAL. L. REV. 451 (2012).

46. James W. McKie, *The Decline of Monopoly in the Metal Container Industry*, 45 AM. ECON. REV. 499, 505 (1955).

47. *Id*. at 506–07.

48. Robert Crandall, for example, characterized the results as having "served very little purpose." Crandall, *supra* note 2, at 154.

trial court found one easily enforced remedy: it required the Mellon family to divest its control over Aluminium Company of Canada (Alcan).[49] Alcan was the second or third largest North American producer of aluminum at the time. Thus, this divestiture, on top of the government-sponsored entry of two major producers, resulted in a four firm industry into which further entry occurred in the 1950s.[50] Hence, once again, the structural remedy contributed to the development of a workably competitive market. Moreover, there is no evidence that the divestiture caused any efficiency loss to the industry.

The *Cellophane* case provides another example of effective restructuring despite, in that case, a judicial rejection of the claim of monopoly.[51] DuPont controlled about 75 percent of the production and sales of cellophane in the United States.[52] Others have argued that the case had more merit than the Court perceived.[53] What deserves recognition in the context of this discussion is that the government's goal in its suit was to have DuPont sell off two or more of the five production facilities that it owned in order to create a competitive market in the supply of cellophane. Yet, by the time of trial, DuPont had done two things that had effectively provided that relief. First, it had freed Sylvania, the only other existing producer, from restrictive patent licensing terms that it had negotiated in settling a patent dispute. Hence, Sylvania was now able to compete on price and volume with DuPont.[54] Secondly, DuPont licensed its know-how for the production of cellophane to Olin Matheson, a large chemical company like itself.[55] Thus, by the time the Supreme Court rejected the government's case, the substantive goal of introducing a more competitive market structure into the production of cellophane had been achieved. How much that affected prices for the product is not determinable. What might be noted is that technological innovation continued apace. DuPont itself had an increased incentive once it lost its dominance of cellophane to develop other wrapping materials, and it did so.[56]

49. United States v. Aluminum Co. of Am., 91 F. Supp. 333, 418–19 (S.D.N.Y. 1950).

50. Robert Crandall reports that by 1958 there were six major, American-based aluminum producers each with capacity ranging from 54,000 tons to nearly 800,000 tons. His table omits Alcan. Crandall, *supra* note 2, at 150 tbl.C-1.

51. United States v. E. I. Du Pont De Nemours & Co., 351 U.S. 377, 400 (1956).

52. George W. Stocking & Willard F. Mueller, *The Cellophane Case and the New Competition*, 45 AM. ECON REV. 29, 43–44 (1955).

53. *E.g.*, *id.* at 63 (arguing that cellophane is so different from other products that its cross-elasticity gave Du Pont a monopoly).

54. *Du Pont*, 351 U.S. at 384–85.

55. *Id.* at 421.

56. *Id.* at 405–06.

The 1970s saw three major monopoly cases, all of which were either settled or dismissed. All three cases contributed to substantial changes in market structure that resulted in enhanced technological innovation. Moreover, there is no evidence of serious adverse economic consequences. They were the *Xerox* litigation of the FTC, and the Justice Department cases against AT&T and IBM.

Xerox had created a patent thicket controlling both its own technology for photocopying and the only feasible alternative.[57] The result was that it excluded all competition. It settled the monopoly case by agreeing to license one form of its technology to would-be competitors.[58] As a direct result, a number of firms entered into the copying business. Thereafter, there has been massive technological innovation with the emergence of new technologies and combinations of functions.[59] Furthermore, whereas copiers used to be the province of high end users, most home owners can now easily afford a copier-scanner-fax machine. Some dispute the centrality of the Xerox settlement to these changes,[60] but at the very least it would be implausible to claim that it retarded either innovation or price competition.[61]

The IBM story is different. The government dismissed its case after many years. It did so in part because it was litigating 1960's data in the 1980s when computer technology had dramatically changed.[62] IBM itself had released the desktop computer system in way that allowed other firms to produce the same product. This led to the dramatic growth in the technology and reduction in price. By the time the case was dismissed, desktop computers had approximately the same capacity as the mainframe computers IBM had produced in the early 1960s. It would be impossible to overstate the impact of competition in developing desktop computing and its subsequent transformation into laptops, tablets, etc. The important point is that the government got the fundamental remedy it sought by IBM's decision faced with a major monopoly case to free up access to technology.

57. *See In re* Xerox Corp., 86 F.T.C. 364, 367–68 (1975).

58. *See id*. at 373–74 (describing licensing requirements imposed on Xerox).

59. *See* Willard K. Tom, *The 1975 Xerox Consent Decree: Ancient Artifacts and Current Tensions*, 68 Antitrust L.J. 967, 967–68 (2001).

60. *E.g.*, *id.* at 978 (attributing Xerox's decline to inferior products, high prices, and losing touch with the consumer).

61. *See id.* (conceding that the decree had clearly positive effect on the market); Timothy Bresnahan, *Post-Entry Competition in the Plain Paper Copier Market*, 75 AM. ECON. REV. 15, 16–18 (1985) (chronicling the changes in innovation and price after the decline of Xerox's monopoly).

62. *In re* IBM Corp., 687 F.2d 591, 593–94 (2d Cir. 1982).

Finally, and very importantly for the overall interaction and technological development of computer and communications technology, AT&T agreed to be broken up.[63] The break up, as in past cases, rested on what turned out to be false assumptions about the development of communications technology. The assumption underlying the decree was that land lines would remain the dominant means of delivering telecommunications and that this was an inherently monopolistic element. Hence, the decree created regional monopolies for local land lines. In the light of hindsight, the better option would have been, as in the case of *American Tobacco*, to reassign ownership of the local exchanges so that there would have been much more opportunity for each of the companies to compete with other land line providers. This would also have created a greater incentive to resolve issues of access, again moving the industry toward a more competitive model. But exactly because of AT&T's monopoly, much of the technological opportunity was unknown in 1981. Nevertheless, despite being a sub-optimal solution, the *AT&T* decree, as modified by the judge, served to free the market for competition in technology and in prices. This restructuring, combined with the development of both wireless communication and the internet, provided an extraordinary stimulus to innovation and development of new technology.[64] Once again, it is hard to be certain what the condition contrary to fact would have been if AT&T had remained the overwhelming dominant telecommunications carrier. Some hint, however, comes from the continued efforts to reconsolidate the industry, impose greater charges on consumers, and limit access by independent entities. Certainly, a more centralized industry would have sought to exercise even greater control over entry and technological change.

Not all the stories about structural change are positive. United Shoe Machinery and the Pullman Company were both monopolies dealing with dying industries.[65] By the time they were broken up, there was little that could be done to revive the industries that they exploited: shoe making and passenger rail service. In the case of *United Shoe*, the antitrust interventions

63. *See* United States v. AT&T Co., 552 F. Supp. 131, 145–46, 225 (D.D.C. 1982) (approving the antitrust decree proposed by AT&T and the government).

64. *See* RICHARD A. POSNER, ANTITRUST LAW 111 (2d ed. 2001) ("[I]t is strongly arguable that the divestiture of AT&T was the most successful antitrust structural remedy in history."); Christopher S. Yoo, *The Enduring Lessons of the Breakup of AT&T: A Twenty-Five Year Retrospective*, 61 FED. COMM. L.J. 1, 3 (2008).

65. United States v. United Shoe Mach. Corp., 391 U.S. 244, 245 (1968); United States v. Pullman Co., 50 F. Supp. 123, 125 (E.D. Pa. 1943). For an analysis of the affected industries, see Crandall, *supra* note 2, at 167–73.

moved the machinery market toward a more competitive structure and conduct,[66] but in the end, lower machine prices were not sufficient for the industry to survive foreign competition.

Two other examples may suggest the weakness of conduct remedies in terms of preserving the structural elements of competition. In the case of steel, the Court by a four to three vote rejected the Section 2 challenge to U.S. Steel's existence.[67] As a result the industry retained its highly concentrated structure and technological inefficiency until technological change destroyed the old systems for producing steel.[68] Whether the American steel industry would have been more technologically dynamic if it had been less concentrated is speculative. But certainly, it could not have been less innovative. Moreover, there is no reason to think that significant inefficiencies would have resulted by separating out the various plants and creating more companies. Given a greater size range, the incentive and interest in developing new, lower volume but more efficient technologies would have been likely to attract at least some firms.

In the case of automobiles, the government elected not to pursue General Motors for monopolization in the 1960s. Instead, it merely forced the car companies in the 1950s to abandon their requirements restricting dealers from serving competing manufacturers.[69] This opened the door for viable entry by foreign producers who previously had trouble inducing effective retailers to take on their brands. Over the next thirty years, the foreign entry into auto manufacturing has become a landslide. In 2008, GM nearly failed and salvaged itself only when it received a massive government handout. The company was then forced to reorganize and apparently improve its efficiency and technological capacity. The opportunity to have several strong American car makers was lost in the 1960s when the government failed to pursue its plan to challenge GM at the height of its monopoly.[70]

66. Crandall, *supra* note 2, at 167–68.

67. United States v. U.S. Steel Corp., 251 U.S. 417, 457, 466 (1920) Three justices agreed with Justice McKenna's opinion of the Court, two justices agreed with Justice Day's dissent, and two justices did not take part.

68. *See* McCraw & Reinhardt, *supra* note 37, at 613–16 (describing the inefficiencies of U.S. Steel's organizational structure).

69. *See Automobile Marketing Legislation: Hearing on H.R. 528, H.R. 2688, and H.R. 6544 Before the Subcomm. on Commerce and Fin. of the H. Comm. on Interstate and Foreign Commerce*, 84th Cong. 362 (1956) (statement of Stanely N. Barnes, Assistant Att'y Gen. of the Antitrust Div. of the Dep't of Justice).

70. *See* Harry First & Peter Carstensen, *Too Big and Failing: The Missed Chance to Break Up GM*, BLOOMBERG BUSINESSWEEK (June 19, 2009), http://www.businessweek.com/bwdaily/dnflash/

In this review, the central point is that structural relief has generally been associated with positive long run consequences in terms of efficiency and technological innovation. The term "associated" is used advisedly because causation is clearly complex, and the role of various economic and social forces are not well defined in terms of their contribution of the end results.

IV. THE CHANGING RESPONSE TO MONOPOLY AFTER *AT&T* AND *XEROX*

Up to 1980, a primary thrust of Section 2 jurisprudence focused on remedying monopoly. The standard for an unlawful monopoly was one that had "willfully" retained its monopoly position.[71] This phrasing looked back to the analysis in *Alcoa* where Judge Hand defined unlawful monopolization as any action that expanded output to meet increased demand.[72] This implies an analysis focused on whether the monopoly remains as a result of market failure. If so, the monopolist, without engaging in conduct that might itself be unlawful, has foreclosed the ordinary evolution of the market into a workably competitive one. In such a case, the crucial question is not the specific merits of the conduct facilitating and reenforcing the market failure, but rather whether some remedy is feasible that will move the market back toward workable competition.

In *Aloca*, it was of significance that the company operated several plants at each stage of the process of producing aluminum. In addition, other aluminum producers existed around the world including Alcan, which Alcoa's owners controlled as well. This information taken as a whole demonstrated that monopoly was not necessary to efficient operation of the industry. Yet Alcoa had retained a monopoly position in the United States for years after its patents had expired. This is a classic example of market failure that resulted in an avoidable monopoly, a monopoly that could be remedied. Thus, Alcoa controlled a substantial, durable, and remediable monopoly. The key issue was whether the continued monopoly was "thrust upon" Alcoa.[73] In context, this amounts to an inquiry into whether there were any technological reasons why the continuation of its monopoly was inevitable.

Grinnell, although involving a less central industry, involved many of

content/jun2009/db20090619_215800.htm.

71. United States v. Grinnell Corp., 384 U.S. 563, 570–71 (1966).

72. United States v. Aluminum Co. of Am., 148 F. 2d 416, 424–25 (2d Cir. 1945).

73. *Id.* at 429.

the same features that made Alcoa an unlawful monopolist. Grinnell had obtained control over an entire industry and expanded its operations into new locations in anticipation of demand.[74] Because each central station service facility was a free standing operation, there was no economic necessity for this dominance. Moreover, viewed as an industry, the remedy was readily identifiable. The various specific facilities could be assigned to enterprises that, even if they dominated local markets, would be able to compete with each other at the entry stage and in larger markets could create competing networks.[75] While the trial court emphasized various exclusionary practices,[76] the center piece of concern was the continued existence of an avoidable—that is, remediable—monopoly.

The intellectual history of the *Standard Oil* decision provides a good illustration of the distinction suggested above. A number of scholars have debated at great length the merits of Standard Oil's practice in the 1880s of demanding rebates from railroads for the oil it shipped as well as "draw-backs" based on the shipment of oil belonging to its competitors.[77] Whether or not the conduct had any legitimate justification when engaged in, it was part of the overall pattern of conduct that produced the Standard Oil monopoly. Hence, appropriately, the Supreme Court focused not on the merits of specific conduct that contributed to a substantial, durable and remediable monopoly, but on the question of whether the firm's position was so inherent and inevitable that no remedy was appropriate. Further, the Court, consistent with its concern for the freedom of action of the owners of business, sought a remedy that would deal with the monopoly itself rather than engage in detailed regulation of its business conduct.[78]

The low standard for the conduct element of these structural monopoly cases, however, provided an easily satisfied standard for private litigants who sought not the termination of the monopoly, but regulation of its future conduct and damages (a share of its monopoly profits). This led,

74. *See Grinnell*, 384 U.S. at 576.

75. The competition to be a monopolist in a market where only one firm can survive economically is still a source of concern to antitrust law. *See* Union Leader Corp. v. Newspapers of New Eng., Inc., 284 F.2d 582, 589–90 (1st Cir. 1960).

76. United States v. Grinnell Corp. 236 F. Supp. 244, 249–51 (D.R.I. 1964).

77. *See* Crane, *supra* note 8; Elizabeth Granitz & Benjamin Klein, *Monopolization by "Raising Rivals' Costs": The* Standard Oil *Case*, 39 J.L. & ECON 1, 43–45 (1996); Klein, *supra* note 8; Priest, *supra* note 8; Michael Reksulak & William F. Shughart II, *Of Rebates and Drawbacks: The Standard Oil (N.J.) Company and the Railroads*, 38 REV. INDUS. ORG. 267, 281 (2011). Crane, Granitz, and Klein conclude that the conduct was primarily anticompetitive, while Priest, Reksulak, and Shughart argue that it reflected economic efficiencies if it happened at all.

78. *See* Meese, *supra* note 13, at 787–88 (describing the Court's "Lochner-like reasoning").

starting in the 1970s, to a judicial redefinition of the standards for finding unlawful monopolization. The leading examples of this transition were, with the exception of a couple of FTC cases, private damage cases that relied on the standards from structural monopoly decisions to seek both regulatory injunctions and damages from monopolists.

The exemplar cases include a group of private damage suits against IBM, Kodak, and other enterprises that might be thought to be leaders in technological innovation.[79] Many of these cases involved efforts by firms marginalized in the competitive process of innovation to force the dominant firm, characterized as a monopoly, to raise its prices and/or share its technological innovations. Berkey wanted disclosure of Kodak's innovations before Kodak marketed them.[80] Telex wanted to force IBM to raise its prices, already above IBM's cost of production, even higher to create an umbrella over Telex so that it could continue to sell its products.[81]

In *In re Borden Inc.*, the FTC attempted to regulate the wholesale prices of reconstituted lemon juice when it determined that the monopoly producer was engaged in predatory practices that excluded competition.[82] In the titanium dioxide case, the FTC staff challenged a dominant firm's strategic conduct where the firm arguably sought to obtain more complete control over the market. The Commission ultimately dismissed this case in part perhaps because the competitors had proven more robust and the sought-for monopoly never arrived.[83] These cases forced the courts and the FTC to rethink when specific conduct by a monopolist ought to be illegal. Here the deep concern that emerged was the potential to characterize specific actions erroneously ("false positives"), condemning conduct as illegal when it had a legitimate, efficiency-enhancing justification as a business practice.[84]

79. Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d. 263 (2d Cir. 1979); Telex Corp. v. IBM Corp., 510 F.2d 894 (10th Cir. 1975) (per curiam).

80. *Berkey* focused in substantial part on Berkey's demand that it obtain access to Kodak's camera innovations prior to their release to the market. *Berkey*, 603 F.2d at 279–85.

81. In *Telex*, the theory was predatory pricing even though the prices were above IBM's cost of production. *Telex*, 510 F.2d at 924–26. The predatory pricing issue has excited a great deal of scholarly commentary. *See* Joseph F. Brodley & George A. Hay, *Predatory Pricing: Competing Economic Theories and the Evolution of Legal Standards*, 66 CORNELL L. REV. 738 (1981); James D. Hurwitz & William E. Kovacic, *Judicial Analysis of Predation: The Emerging Trends*, 35 VAND. L. REV. 63 (1982); Paul L. Jaskow & Alvin K. Klevorick, *A Framework for Analyzing Predatory Pricing Policy*, 89 YALE L.J. 213 (1979).

82. *In re* Borden Inc., 92 F.T.C. 669, 795–809 (1978).

83. *In re* E. I. Du Pont De Nemours & Co., 96 F.T.C. 653 (1980) (rejecting a challenge to pricing strategy by dominant firm that might have, but did not, drive competitors from the titanium dioxide market).

84. I have elsewhere expressed my skepticism about the merits of the "false positive" concern.

A good example of the tension that emerged in this era is the contrast between the FTC's successful effort to break up the Xerox monopoly and the unsuccessful effort by SCM to sue Xerox for unlawful monopolization of the photocopying market. In a less than clear opinion, the Second Circuit concluded that Xerox's conduct did not constitute unlawful monopolization even though the same underlying facts had resulted in an FTC dissolution order.[85] It is possible to reconcile the results if one takes the view that the remedy for monopolization is dissipation of the monopoly power even if that power was acquired and used in ways that were not in themselves unlawful. Unfortunately, because the FTC case involved only a consent decree, the tension between the two outcomes was muted and obscured. Nevertheless, it might have pointed toward an important distinction in monopoly law.

The lesson taken, especially with the growth of private damage actions, was to refocus Section 2 jurisprudence on the identification of standards that would permit courts to declare specific conduct unlawful with little risk of error. This lead to the emphasis on "false positives" and served to focus antitrust analysis even more narrowly on the merits of specific conduct. Even in the cases in which conduct was condemned,[86] the condemnation rested on an assessment of the merits of the specific conduct as much as or more than the market position of the defendant.

The final component of the re-imagining of monopoly law came most expressly in the *Trinko* decision where the majority declared that monopoly was economically desirable as a "reward" for risk taking and innovation.[87] The Court saw no irony in praising monopoly in a case involving a divested part of the AT&T monopoly operating in an industry where Congress had

Peter C. Carstensen, *False Positives in Identifying Liability for Exclusionary Conduct: Conceptual Error, Business Reality, and* Aspen, 2008 WIS. L. REV. 295 (2008) [hereinafter Carstensen, *False Positives*].

85. SCM Corp. v. Xerox Corp., 645 F.2d 1195, 1213 (2d Cir. 1981).

86. *See, e.g.*, Eastman Kodak Co. v. Image Tech. Servs., Inc., 504 U.S. 451, 483 (1992) (affirming denial of Kodak's summary judgment motion because Kodak's parts and services policies constituted "exclusionary action to maintain its parts monopoly"); Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 610 (1985) (concluding that Aspen Skiing Company "made a deliberate effort to discourage its customers from doing business with its smaller rival"); United States v. Dentsply Int'l, Inc., 399 F.3d 181, 196 (3d Cir. 2005) (condemning Dentsply for "effectively chok[ing] off the market for artificial teeth" by pressuring its dealers), LePage's Inc. v. 3M, 324 F.3d 141, 159–63 (3d Cir. 2003) (holding that 3M's rebate programs and other actions, taken as a whole, had an anticompetitive, exclusionary effect).

87. Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 407 (2004).

determined that competition should replace regulated monopoly.[88]

A stronger defense of the rules protecting the freedom of monopolists with respect to their conduct might have existed if the courts had simultaneously pointed up the fact that the plaintiffs in these cases were not seeking to restore competition. They only sought to have the courts regulate the use of market power in their own interest and, usually, share some of the monopoly profits. This would, in turn, suggest that a monopoly case would exist only if the plaintiff was challenging the possession of the monopoly itself and seeking to dissipate the monopoly power to restore competition. Challenges to specific, allegedly abusive, conduct could then be characterized as "attempts to monopolize" and be subject to stricter standards of proof with respect to the lack of merit of the conduct.[89]

Unfortunately, the distinction between challenges to the conduct of a monopolist where the challenger implicitly or explicitly accepts the continued existence of the monopoly and challenges to the monopoly itself were not drawn by the courts. Instead, by the time the *Microsoft* case was before the D.C. Circuit, the court could state with some confidence that structure remedies, that is, remedies aimed at actually dissipating monopoly power, were disfavored in monopoly law.[90]

One likely consequence of the failure to address the retention of monopoly power is that the courts are likely to expand the scope of rules regulating its use. The framework adopted by the D.C. Circuit in the *Microsoft* case expressly invites that kind of scrutiny.[91] Assuming a monopoly, the plaintiff must establish two elements: that specific conduct as a matter of theory and practice harmed competition (not just a competitor). If this proof exists, then the defendant monopolist (step 3) must offer an excuse of justification for its conduct. This will usually be a legitimate business reason but may in some circumstances rest on entitlements arising from patent or copyright law. The defendant has the burden of going forward with this evidence. The plaintiff can then respond (step 4) by showing either that the claimed justification is "pretextual" or that there is a less competitively harmful way to accomplish the legitimate

88. To be sure, the Court in *Standard Oil* and the Second Circuit in *Alcoa* expressed the view that short-term monopoly was part of the dynamics of the economy. Standard Oil Co. v. United States, 221 U.S. 1, 7–8 (1911); United States v. Aluminum Co. of Am., 148 F.2d 416, 429 (1945).

89. *See* Spectrum Sports, Inc. v. McQuillan, 506 U.S. 447, 454–59 (1993) (explaining what is required to sustain a charge for attempted monopolization). I have developed this idea in couple of other articles. *See* Carstensen, *False Positives*, *supra* note 84, at 322–27; Peter C. Carstensen, *Predatory Pricing in the Courts: Reflection on Two Decisions*, 61 NOTRE DAME L. REV. 928, 935–41 (1986).

90. United States v. Microsoft Corp., 253 F.3d 34, 105–07 (D.C. Cir. 2001).

91. *Id.* at 58–59.

objective of the monopolist. This framework invites a more focused and nuanced review of the merits of unilateral conduct by dominant firms. But the court went even further and concluded that even if the defendant shows that its harmful conduct has a legitimate justification, (step 5) the courts can still condemn the conduct if, "on balance," the court determines that the harms to competition outweigh the benefits to economic efficiency.[92] Not only is this an invitation to an open-ended, unstructured review of specific conduct, but it also implies a scope of authority for courts to regulate business behavior that is very broad.

In the *Microsoft* case itself, the court never had to go beyond the third step of its framework because either the conduct was justified without refutation or lacked any justification. Going forward, however, the framework is exactly what one would expect if the interpretation of Section 2 has moved to regulating monopoly conduct and abandoned the goal of remedying the monopoly power itself.

V. THE PRESENT STATE OF THE RELIEF: *MICROSOFT* AND *INTEL*

The two most recent challenges to monopolies are the *Intel* and *Microsoft* cases. In both, the results were consent decrees, although the *Microsoft* decree came only after the D.C. Circuit had rejected a litigated decree and the judge on remand had, to some minor extent, modified the decree. Both decrees set up regulations of business conduct and impose no structural or other relief that might directly dissipate the monopoly situation. It should also be acknowledged that both cases involved monopolies that had grown without major mergers that added to their core market position. This meant that dissipating the monopoly power of the enterprises would be a more daunting task.

In the case of *Microsoft*, the government recommended a vertical dissolution.[93] This would separate the operating system from the various applications. The theory was that the two firms would not act to jointly monopolize but would instead eventually compete in terms of both operating system and applications. There is some reason to believe that the government initially sought to find software companies that would license the Windows system and develop their own versions.[94] Unfortunately, the

92. *Id.* The historic rejection by the Supreme Court of such an open-ended standard for regulating corporate conduct is the subject of Professor Meese's article, *supra* note 13, on the *Standard Oil* decree.

93. United States v. Microsoft Corp., 97 F. Supp. 2d 59, 64 (D.D.C. 2000).

94. I have never seen anything official, but my conversations with various lawyers who had

Windows system is a Jerry-built program that is poorly documented as to parts of its code. This makes it very difficult to take the program and use it. Glitches of various kinds will arise and the programmer will have a very hard time discovering the source of the problem. So there were serious technical reasons that made it economically problematic for a competing company to take the operating system and market their own substitute.[95]

Hence, the government proposed the second best solution, which at least had the potential to open up some greater potential for competition. Although the trial court accepted this remedy,[96] the Court of Appeals rejected it for a variety of reasons:[97] the judge had not had a hearing on the issues; he had not provided a sufficient rational for breaking up the company; and most importantly, it would seem, divestiture is a disfavored remedy for a monopoly. The strong inference from the decision is that the remedy should be narrowly tailored to remove specific "bad" practices but not strike at the power that created the monopoly.[98] An implicit concern that seems to have motivated this approach was a belief that size and scope of the business, together with its unitary character, were important aspects of its purported innovation. How actually innovative Microsoft was (or is) continues to be a highly contentious question, as is the further assumption that its size is a necessary element of whatever success it achieved as an innovator. It is especially dubious to adopt such assumptions in the context of computer software innovation where the track record is that it is the new entrants that are the recurring innovative forces.

On remand, the Assistant Attorney General for the newly elected Bush administration entered into a consent decree with Microsoft that imposed constraints on its conduct with respect to applications access.[99] This is ironic in that such relief, while focused on the misconduct that the record demonstrated, is essentially addressing the use of market power in one market to affect competition in another market, in other words, leveraging,

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some involvement in the prosecution of the case on behalf of the states and federal government have left the distinct impression that such an effort was made.

95. Over a period of time, it might have been possible to have Microsoft redo the program into modules having specific functions with overall links. So long as the modules were sold individually, one could assemble an operating system using a variety of sources for the components. For a full discussion on how such a remedy would have made Windows itself into a semi–open source system and dissipated the power inherent in its ownership, see Peter C. Carstensen, *Remedying the Microsoft Monopoly: Monopoly Law, the Rights of Buyers, and the Enclosure Movement in Intellectual Property*, 44 ANTITRUST BULL. 577, 614–16 (1999).

96. *Microsoft*, 97 F. Supp. 2d at 64.

97. *Microsoft*, 253 F.3d at 101–07.

98. *See id.* at 106–07.

99. New York v. Microsoft Corp. 224 F. Supp. 2d 76, 267–72 (D.D.C. 2002).

which is a strongly disfavored theory of liability. To be sure, there was good reason to believe that Microsoft engaged in its exclusionary conduct with respect to these related markets primarily with the goal of protecting its basic market. Overall, the result was a weak regulatory decree that expired in 2007.[100]

Ten years later, Microsoft remains the overwhelmingly dominant operating system provider as well as the source of many important applications. Competition has emerged with respect to internet browser services with Microsoft's entry losing substantial market share over time.[101] In addition, the new handheld communication devices often use non-Microsoft operating systems. Thus, in new areas of technological competition, the decree may well have had the desired effect of constraining Microsoft's ability to control new software and link it to its established base. Hence, this decree may have had some inhibiting effect combined with the dynamics of the software market especially in its links with the internet that has allowed the emergence of more competition in a range of related markets. It is also probably the case that the *AT&T* decree, which freed up telecommunications and opened the door to many ways to transmit data, also has played a significant role in the evolution of competition, however imperfect, in the computer software industry broadly defined.

The FTC's 2009 case against Intel came after an earlier more limited settlement with it[102] and a global set of litigation against Intel for its exclusionary conduct.[103] The FTC complaint, like the *Microsoft* case,

100. *Id.* at 274.

101. *See Browser Wars*, WIKIPEDIA.COM, http://en.wikipedia.org/wiki/Browser_wars (last updated Feb. 16, 2012, 05:54).

102. *See In re* Intel Corp., 128 F.T.C. 213, 225–29 (1999). For an analysis on the global antitrust cases against Intel, see Sokol, *supra* note 8, at 725–30.

103. The EU, Summary of Commission Decision of 13 May 2009 Relating to a Proceeding Under Article 82 of the EC Treaty and Article 54 of the EEA Agreement (COMP/C-3/37.990—Intel) 2009 O.J. (C 227) 13; Korea, *see* Young Jin Jung, Hyeong Jun Hwang & Sang Wook Han, YULCHON ATTORNEYS AT LAW, *Corrective Measures Against Intel's Abuse of Market Dominance* (July 31, 2008), http://yulchon.com/DEU/resource/Publications/view.asp?CD=882&page=5&SearchString=&sltPractice=&keyword=; and Japan, *see* Press Release, Japanese Fair Trade Comm'n, The JFTC Rendered a Recommendation to Intel K.K. (March 8, 2005), *available at* http://www.jftc.go.jp/en/pressreleases/uploads/2005-Mar-8.pdf, all had sued Intel for various practices and had imposed injunctions and fines. AMD had a private action complaining about Intel's exclusionary practices, Complaint at 44–46, Advanced Micro Devices, Inc. v. Intel Corp., No. 05-441-JJF (D. Del. Filed Jun. 27, 2005), 2005 U.S. Dist. Ct. Pleadings LEXIS 8782, and the state of New York had also filed a law suit by the time the FTC acted, Arik Hesseldahl, *NY AG Cuomo Files Antitrust Lawsuit Against Intel*, BLOOMBERG BUSINESSWEEK (Nov. 4, 2009), http://www.businessweek.com/the_thread/techbeat/archives/2009/11/

highlighted a concern for a variety of actions that served to entrench Intel's position as the dominant producer of central processing units ("CPUs"). The FTC also charged that Intel was leveraging its position in the CPU market to exclude competition in the related graphic processing unit ("GPU") market.[104] The processors are both essential elements of most conventional desktop and laptop computers. The complaint itself only asked for conduct-type relief—a list of twenty-six such demands was included.[105]

The settlement which came quite quickly after the initiation of the suit, consistent with the complaint, imposed a complex and convoluted set of conduct rules on Intel but did not address its global monopoly.[106] It did nothing to reduce the barriers to entry into the production or distribution of CPU units by new entrants. What it did do was forbid Intel from using certain business practices, including giving discounts for volume purchases,[107] which had effectively precluded its one major competitor from making sales. It also required greater honesty by Intel with respect to the testing and reporting of attributes of its CPUs in comparison to those of its competitor.[108] Effectively, then, this decree regulated the competition between Intel with approximately 80 percent of the market and AMD, its primary competitor, with approximately 20 percent share.[109]

There were other options for the FTC if it had wanted to address the challenge of eliminating or reducing the market power of Intel. For example, it could have required Intel to divest some of its production facilities along with the requisite technology to make CPUs and required that for a period of time any new advances must be shared with the divested units while they developed their own research and development capacity. Obviously, such a more dispersed industry would need to develop a standard for interoperability among the various designs so that computers

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104. Complaint at 2–5, *In re* Intel Corp., No. 9341, 2010 FTC LEXIS 82 (FTC Oct. 29, 2010), 2009 FTC LEXIS 227, at *3–12.

105. *See id* at 19–23.

106. *See In re* Intel Corp., No. 9341, 2010 FTC LEXIS 82, at *11–36 (FTC Oct. 29, 2010); James Biese, Trust-Busting: A Critical Look at the *Intel* Case and the Growing Problem of Global Monopoly (2010) (unpublished seminar paper) (on file with author) (arguing that Intel had a global monopoly in CPU production and that there was little or no potential for new entry into the production of this essential element of the conventional computer).

107. *In re Intel*, 2010 FTC LEXIS 82, at *20–21.

108. *Id.* at *33–34.

109. *See* Complaint, *supra* note 104, at 2. The decree specifically identifies two other producers of CPUs and GPUs who get some benefit. *In re Intel*, 2010 FTC LEXIS 82, at *6–7. But no potential entrant has any entitlement under this settlement to access Intel's patent-protected technology.

would operate smoothly and application designers could be assured that their applications would run successfully on the competing systems.

That the FTC, despite its success in the *Xerox* case in stimulating competition by ensuring competitors access to the basic technology, does not seem to have even considered such relief is again indicative that monopoly remedies have moved from a goal of eliminating monopoly to one of regulating its use. This is consistent, of course, with a belief that the dynamics of technology will in time overcome the monopoly position of the incumbent and result in greater future competition. The strongest argument for this strategy is that by seeking to reduce the artificial barriers to entry and expansion by competitors, the law will facilitate a gradual restoration of competition. If, at the same time, there are serious risks of adverse effects on either production or innovation that might result from a more forceful and immediate effort to deconcentrate the market, then this gradualist strategy might be acceptable. Indeed, such a strategy echoes another passage in the *Standard Oil* decision that suggests legal intervention in monopoly markets is unnecessary if the "centrifugal and centripetal forces" of the market will remedy the situation.[110] The question becomes whether those forces will replace either Microsoft or Intel as the dominant firms in their respective industries in the foreseeable future. Even if, in the long run, they loose their dominance, there is a significant potential cost to the economy in the loss of innovation that arises from a single dominant firm controlling technological access as the case histories of *Xerox* and *AT&T* demonstrate.

VI. THE OPTIONS FOR THE FUTURE

The challenge for the legal system when it confronts a monopoly is the kind of remedy that ought to be imposed. This presupposes that there is a standard for judging when a monopoly is unlawful. Despite the doctrinal confusion resulting from dealing with conduct and structure under the same key word of Section 2, the distinction, when it comes to remedy, is manifest. Is the challenge one to specific conduct or to the continued existence of the monopoly itself? In the world post *Bell Atlantic Corp v. Twombly*,[111] it should not be unreasonable for courts to insist on more specific pleading when it comes to remedy. This in turn would allow courts to frame more precisely the issues that would have to be litigated and

110. Standard Oil Co. v. United States, 221 U.S. 1, 62 (1911).

111. Bell Atl. Corp. v. Twombly, 550 U.S. 544 (2007). Under *Twombly*, pleadings are now required to contain enough facts to sustain a plausible claim for liability. *Id.* at 556–57.

resolved before a plaintiff could prevail. This would also require plaintiffs to be more focused on the question of remedy at an early stage in the development of the case. This is a recurring recommendation of commentators, but also one that has not received clear recognition in public prosecutions.

Microsoft is perhaps the best illustration of the failure to organize a challenge to a major monopoly around potential relief. The government case morphed over time from a narrowly focused tying case directed at the internet browser market to one aimed at the overall existence of Microsoft as an entrenched monopolist. But because the issue of remedy was not central to the development of that case, when the time came, the government had not shaped a record to demonstrate the merits of its proposed relief.

It is also the case that public prosecutions are the most likely ones to result in major structural changes to monopoly markets. Private litigants are, in general, unlikely to advance such claims for strategic reasons. If a private party did make such an effort, the courts could undoubtedly find a way to induce either the FTC or the Antitrust Division to engage with the case at least at the remedy stage.[112]

Ultimately, the policy question is whether there should continue to be a concept of an unlawful monopoly as opposed to unlawful conduct by a monopolist. If the latter is the only concern of Section 2, then the remedy question is resolved. The relief need only focus on the specific misconduct because the monopoly is not itself the source of legal concern. If, however, Section 2 is to retain its commitment to the view articulated and implemented in the *Standard Oil* and *American Tobacco* decisions, then the strategies of relief need to be revisited. The goal of such relief would be the termination of the monopoly itself. The monopoly cases discussed earlier demonstrate that there are a variety of ways in which monopoly can be eliminated including divestiture but often eliminating one way or another the control over the aspect of the market that continues and retains the monopoly power.

This is not easy. Much of the criticism of remedies in the past has juxtaposed some abstract competitive absolute and unarticulated model of an ideal world against the intervention that occurred in the context of a

112. One way to address the problem of private cases seeking injunctive relief would be to expand the option given in Section 7 of the FTC Act for a federal court to refer the relief issues in a case to the FTC. 15 U.S.C. § 47 (2006). This provision, apparently never invoked, currently applies only to cases brought by the Justice Department. *Id.*

dynamic market with changing technology, new products, and changing patterns of demand. As Neil Komesar has observed, all alternatives are likely to be "imperfect," and imperfection becomes more likely as the problem being addressed is more complex.[113] The challenge of developing effective decrees that address the monopoly power itself is made even more demanding in the context of rapid technological change. As AT&T, Xerox, Microsoft, and Intel all demonstrate, when the monopolist controls technological change, the pace and direction of that change is less desirable and useful to society as a whole.

VII. CONCLUSION

Despite the great difficulties of formulating relevant and workable remedies that address the actual monopoly power of those found to be unlawful monopolists, the lesson from *Standard Oil* and *American Tobacco* is that the challenge of remedy must be embraced. This requires a clearer recognition of the difference between cases challenging the conduct of a monopolist whose monopoly is itself not being challenged and those that challenge that monopoly itself. The second type of challenge should be subject to different standards to establish liability, which centrally should include the demonstration that there is a remedy for the monopoly.

113. *See generally* NEIL K. KOMESAR, IMPERFECT ALTERNATIVES: CHOOSING INSTITUTIONS IN LAW, ECONOMICS, AND PUBLIC POLICY (1994) (discussing the choice of allocating decisionmaking power to different institutions).