Annual Style Change in the Automobile Industry as an Unfair Method of Competition

Since 1935, General Motors, Ford and Chrysler have accounted for about 90 per cent of automobile sales in the United States. This Note will argue that such a concentration of sales in three firms is inimical to competition in this industry. Moreover, it will contend that these firms achieved and preserved undue concentration in violation of Section 5 of the Federal Trade Commission Act through their pursuit of an "unfair" trade practice: annual style change. Part I briefly sets forth the relevant economic and legal criteria for evaluating competition in the automobile industry. The preliminary economic analysis in Part II suggests the anticompetitive nature of annual style change which justifies a more searching analysis by the Federal Trade Commission. Part III argues the applicability of Section 5 of the Federal Trade Commission Act to annual automobile style change, and Part IV outlines some considerations regarding appropriate relief which the FTC could seek.

I. Evaluating Competition

Industrial competition is the unequivocal premise of free market economic theory and of antitrust doctrine. It is generally evaluated in terms of three distinct market elements: structure, conduct and performance. The competitiveness of an industry's structure depends upon

1. The most thorough treatment of the combined legal and economic implications of industrial competition is that of C. Kaysen & D. Turner, Antitrust Policy: An Economic and Legal Analysis (1965). That competition is the fundamental premise of antitrust doctrine was proclaimed early by the Supreme Court in Standard Oil Co. v. United States, 221 U.S. 1, 52 (1911); and more recently in Northern Pacific Ry. v. United States, 356 U.S. 1, 4-5 (1958): "the unrestrained interaction of competitive forces will yield the best allocation of our economic resources, the lowest prices, the highest quality and the greatest material progress . . . ."

market concentration (the number of firms and their individual shares of industry sales) and barriers to entry (obstacles that impose on newcomers higher costs per unit than those encountered by the established firms). The competitiveness of an industry's conduct depends upon how constituent firms make price and output decisions (independently, interdependently or collusively) and with what purpose or effect (enhanced interfirm rivalry, exclusion of newcomers, or predation). The competitiveness of an industry's performance depends upon the extent to which its conduct contributes to progressiveness (the number and importance of actual innovations as compared with what optimally could have been developed) and to efficiency (the reduction of costs and prices to absolute minima).

A. Economic Criteria: Market Structure as the Determinant of Industry Conduct and Performance

Holding that structure determines conduct and conduct determines performance, much antitrust economic theory posits that an anticompetitively structured industry precludes the long-run survival of effectively competitive conduct and performance. In fact, empirical studies indicate that high market concentration and high barriers to entry (structural factors) engender price fixing, price leadership, product imitation and other forms of collusive and interdependent behavior.

3. The competitive significance of market concentration is said to lie in the fact that, as the number of firms decreases and the percentage of total industry sales held by each increases, the probability of their recognizing their "mutual interdependence," i.e., starting to price like collective monopolists rather than independent competitors, begins to increase significantly beyond a critical point. Mueller, supra note 2, at 89.

Barriers to entry are generally treated in three separate categories: (1) scale economy barriers (cost disadvantages resulting from inefficient levels of production), (2) product differentiation barriers (relating to promotional cost disadvantages), and (3) absolute cost barriers (primarily cost disadvantages encountered by entrants in securing essential input factors, e.g., patents or capital). For a detailed explication of these various concepts, see J. BAIN, BARRIERS TO NEW COMPETITION (1956) [hereinafter cited as BARRIERS].

4. As distinguished from structure or performance, "conduct" refers to those actions taken by the individual firm as part of its competitive strategy. It involves two dimensions: (1) whether price and output decisions are made independently or collusively (collusion in the economic sense, thereby including interdependent oligopoly behavior as well as conspiratorial overt or tacit agreement), and (2) the intent (i.e., predation) or effect (heightened interfirm rivalry or exclusion of competitors). Mueller, supra note 2, at 90.

5. "Performance" refers to the appraisal of how much the economic results of an industry's conduct deviate from the best possible contribution it could make to achieving the general goals of a free market economic system, particularly efficiency in production, distribution and progressiveness in the development and application of technological innovation. See Caves, supra note 2, at 96-115.


7. Id. at 91. "[A]n industry which does not have a competitive structure will not have competitive behavior." United States v. du Pont (Cellophane), 351 U.S. 377, 426 (1956) (dissenting opinion).
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(conduct), which lead to artificially inflated prices and diminished rates of innovation (performance features).  

More specifically, an impressive amount of economic data supports the judgment that concentration of more than 50 per cent of an industry's sales in four or fewer firms (i.e., a "tight oligopoly") gives rise to conduct and performance which approximate that of a monopolist or well-disciplined cartel. This degree of concentration destroys the incentive for independent decisions on price and output, and encourages instead the development of "oligopolistic interdependence," a recognition that the profits of each firm are dependent on the decisions of each of the others. As a result, these few firms collectively eschew price and product competition in favor of "joint-profit maximization": output is restricted and prices are set above competitive levels, albeit in a noncollusive fashion. In effect, the industry is "collectively monopolized."

Barriers to entry comprise the second structural criteria for evaluating industrial competition. Leading firms in a tight oligopoly can set higher-than-competitive prices and reap monopoly profits only if they are able to deter new entrants whose added output would push prices back to a competitive level. The effectiveness of these barriers is reflected generally by the persistence of high concentration levels.

8. See, e.g., Erickson, The Economics of Price Fixing, 2 Antitrust Law & Econ. Rev. 94 (Spring 1969); Mueller, supra note 2, at 90-91; Weiss, Average Concentration Ratios and Industrial Performance, J. of Indus. Econ. (July 1963); Collins & Preston, Concentration and Price Margins in Food Manufacturing Industries, J. of Indus. Econ. 226 (July 1965); Stigler, A Theory of Oligopoly, 72 J. Pol. Econ. 44 (1964); Mann, Seller Concentration, Barriers to Entry, and Rates of Return in Thirty Industries, 1950-1960, Rev. of Econ. & Stat. 296-307 (August 1966). See generally M Channel, Oligopoly and the Free Society, 1 Antitrust Law & Econ. Rev. 11 (July-August 1967). A voluminous compilation of economic studies concerning the effect of high industry concentration on market competition and performance is contained in Hearings on Economic Concentration, Before the Subcomm. on Antitrust and Monopoly of the Senate Comm. on the Judiciary, 89th Cong., 1st Sess. (1965).


10. Id. at 112-16. Galbraith refers to this form of price and output behavior as "oligopolistic rationality." Hearing on Planning, Regulation and Competition in the New Industrial State, Before Subcomm. of the Select Comm. on Small Business, 90th Cong., 1st Sess. 8 (1967). In ruling on mergers, the Supreme Court has acknowledged the problem of mutual interdependence in highly concentrated industries. It has noted that as industries become more highly oligopolistic "... the greater is the likelihood that parallel policies of mutual advantage, not competition, will emerge." United States v. Aluminum Co. of America, 377 U.S. 271, 280 (1964).


13. See Caves, supra note 2, at 22-23; note 3 supra. Established firms in persistently concentrated industries have accomplished this by erecting obstacles that impose on newcomers higher costs per unit than those encountered by firms already in the industry. Mueller, supra note 2, at 89 n.4.

14. Thus, it has been suggested that where an industry's concentration ratio has been at
More precise measurements of entry barriers, however, have been developed. Empirical investigations reveal that large economies of scale, high promotional expenditures, and enormous capital requirements are powerful deterrents to new entry. If an industry is surrounded by any one of these barriers, the possibility of new entry is substantially reduced. If it is protected by all three, entry is "effectively blockaded." By preserving tight oligopolies from the deconcentration which would result if new firms were able to enter, barriers of such magnitude contribute to anticompetitive conduct and unsatisfactory performance.

Accordingly, some antitrust economists now urge divestiture of leading firms in industries with 4-firm concentration ratios of 50 per cent or more and with barriers which all but foreclose new entry. They contend that deconcentrated industries would behave more competitively in making price and output decisions and would perform more satisfactorily by providing consumers with lower prices, reduced production and distribution costs, and an accelerated rate of technological innovation. In short, they argue that a larger number of competitors would provide a greater degree of competition.

B. Legal Criteria: The Gap Between Economic Reality and Antitrust Laws in the Automobile Industry

As measured by either of the structural economic criteria, automobile manufacturing is one of the least competitive industries in the American economy. Its structural concentration is unprecedented. Ninety-seven per cent of domestic production is centered in three firms; four firms account for all passenger vehicles produced in this country.

70 per cent or more for 7 of the past 10 years, substantial barriers can be presumed. The NEAL REPORT, supra note 11, at 5-7, 15. But see Brozen's criticism that the NEAL REPORT fails to deal explicitly with entry barriers. The Antitrust Task Force, 13 J. LAW & ECON. 279, 284 (1970).

15. See generally BARRIERS, supra note 3. In his intensive survey of 20 American industries, Professor Bain for example found that entry was extremely unlikely in concentrated industries with significant economies of scale up to 5 per cent or more of national sales volume Id. at 81. Tremendous promotional expenditures which compel newcomers to outspend established firms by an additional 5 per cent of unit retail price in countervailing promotion represented a further impediment to new competition Id. at 127. Moreover, when the initial capital required for entry into an industry at an efficient level of production and distribution exceeded $100 million, entry was highly improbable. Id. at 198.


17. See, e.g., RAYESE & TURNER, supra note 1, at 266-72; Smith, supra note 2, at 20-21. Other economists set the critical 4-firm concentration ratio for divestiture purposes at 70 percent. The NEAL REPORT, supra note 11, 12-15.

18. STANDARD & POOR, INDUSTRY SURVEYS: Autos—Basic Analysis (October 1, 1970) at A161. The market shares by producers for 1969 were as follows: General Motors—58.7%, Ford—26.3%, Chrysler—16.9%, American Motors—3.0%. Although generally not considered a passenger car producer, Checker Motors accounted for the 0.1% remainder of 1969 production. Id. The Big Three continued to hold 96.6% of the market during the first half of
This degree of concentration is twice that generally considered inimical to competitive conduct and performance. Moreover, the condition of entry into automobile production has been described as "effectively blockaded." Concentration has exceeded the 70 per cent threshold for presumptively high barriers to entry not only for 7 of the past 10 years, but for each of the past 40 years. More precisely, the industry strikingly exhibits the indicia of high barriers to entry: large economies of scale, high promotional expenditures, and enormous capital requirements.

Given its anticompetitive structure, the anticompetitive nature of the automobile industry's conduct and performance is not unexpected. In fact, the Big Three interdependently engage in price and product conduct which has the same anticompetitive impact as if it had been collusively planned. As a result, the industry is said to exhibit the indicia of unsatisfactory market performance: inflated selling costs, product imitation, higher-than-competitive prices, collusive suppression of technological innovation, and persistently high rates of return.


19. See note 9 supra.

20. L. WEISS, ECONOMICS AND THE AMERICAN INDUSTRY 375 (1966). Bain concludes that obstacles to entry into the industry are "insurmountable." INDUSTRIAL ORGANIZATION, supra note 2, at 287. Economists Schupack and Carroll describe the wall surrounding the automobile industry as "insurmountable" and "impregnable," respectively. HEARINGS BEFORE SUBCOMMITTEE OF THE SENATE SELECT COMMITTEE ON SMALL BUSINESS ON PLANNING, REGULATION, AND COMPETITION IN THE AMERICAN INDUSTRY, 90th Cong. 2d Sess. 907, 920 n.6 (1968) [hereinafter cited as 1968 Hearings]. But see note 124 infra.

21. The Big Three (GM, Ford and Chrysler) have accounted for more than 70 percent of industry sales since 1929. FEDERAL TRADE COMMISSION, REPORT ON THE MOTOR VEHICLE INDUSTRY 29 (1939) [hereinafter cited as FTC Report]; AUTOMOTIVE NEWS, ALMANAC ISSUES, for each of the years since 1937.

22. Economies of scale in this industry require that, merely to survive, a firm must capture from 4 to 6 per cent or more of total sales. These percentages were derived from Bain's minimum scale economy estimates of 300,000-600,000 unit production per year, as applied to 1969 industry sales of $8.38 billion. INDUSTRIAL ORGANIZATION, supra note 2, at 256-58; STANDARD & POOR, supra note 18, at A159. This scale economy disadvantage was found by Bain to be one of the most formidable of its kind in American industry. See note 15 supra. Promotional losses, resulting particularly from price concessions necessary to maintain a solvent national dealership system, would likely average at least 5 per cent of factory price over the first 5 to 10 years. INDUSTRIAL ORGANIZATION, supra note 2, at 265-66. This represents the severest of promotional disadvantages revealed in Bain's studies, See note 15 supra. The absolute minimum amount of capital required for efficient production and distribution has been estimated at $779 million, or more than 7 times larger than the amount considered by Bain as making entry highly improbable. See note 15 supra and p. 588 infra. Significantly, not a single firm has entered the automobile industry since 1923. See generally Valter, The Closure of Entry in the American Automobile Industry, 4 OXFORD ECON. PAPERS 213 (1959).

23. See, e.g., BARRIERS, supra note 3, at 216; Galbraith, supra note 10, at 8.

24. See WEISS, supra note 20, at 350-68; LANZILLOTTI, THE AUTOMOBILE INDUSTRY, in W. ADAMS, THE STRUCTURE OF AMERICAN INDUSTRY 338-46 (1961); Laeschier in 1965 Hearings, supra note 20, 913-17. The industry's protective imitation of product designs has been underscored by Bain in INDUSTRIAL ORGANIZATION 425; LANZILLOTTI, supra at 329-30. Its failure to develop durable and pollution-free vehicles is emphasized in J. ESPOSITO, VANISHING AIR:...
Just from available data, a strong presumption arises that in structure, conduct and performance, the automobile industry is, at least by comparison to other industries, markedly anticompetitive. Yet, it has escaped antitrust prosecution. It seems to represent, therefore, a striking example of the gap which exists between economic reality and antitrust remedies.

Unlike antitrust economic theory, the antitrust laws focus on the behavioral rather than structural element of the structure-conduct-performance triad. They are primarily concerned with outlawing offensive business conduct rather than with striking down anticompetitive structures which produce unsatisfactory performance. Thus, the Sherman Act proscribes not structural monopoly but collusive activities "in restraint of trade" and activities that tend to "monopolize" trade. Economists and antitrust officials generally agree, however, that while the Big Three's price and output conduct has an impact effectively equivalent to that of a Sherman Act conspiracy, these decisions are

The Nader Report on Air Pollution ch. 2 (1970); and by Sen. Nelson in Hearings on the Role of Giant Corporations Before the Subcomm. on Monopoly of the Senate Select Comm. on Small Business, 91st Cong. 1st Sess. 538-39 (1965) [hereinafter cited as 1969 Hearings]. See also the complaint filed by the Antitrust Division of the Department of Justice in January of 1969 charging that the Big Three had conspired in violation of section 1 of the Sherman Act to suppress the development of automotive emission control devices, United States v. Automobile Mfrs. Ass'n, Inc. (D. Cal. January 10, 1969). A consent decree was entered enjoining the conspiracy in October. (1969 Trade Cases ¶ 72,907). But fifteen states subsequently have sued parens patriae in the Supreme Court asking for a mandatory injunction compelling the auto makers to develop a pollution-free engine at the earliest possible date. State of Washington v. General Motors, 5 TRADE REc. REP. 50,285, at V5,613 (August 17, 1970). Indeed, within the past few months GM, Ford and Chrysler have joined in a major counter-attack against government agencies and consumer protection groups which complained that the industry was refusing to produce safer, pollution-free cars. Ford, for example, has sent brochures which term automotive air pollution a myth to its 7,000 dealers for distribution to the public. Similarly, Chrysler has sent its chief emission expert around the country to argue that the elimination of automotive emissions "cannot be justified during most of this decade." N.Y. Times, November 18, 1970, at 6, col. 1. Meanwhile, GM has set a new trend in automotive safety by seeking a court injunction against a Department of Transportation recall order regarding serious safety defects in the wheels of 200,000 GM pickup trucks. Newsweek November 28, 1970, at 112. But see recently enacted federal legislation encouraging the production of pollution-free automobiles. Pub. L. No. 91-601 (Dec. 31, 1970).


made interdependently, without any evidence of collusion. Moreover, although the exclusion of nearly a hundred earlier producers and erection of insurmountable barriers to new entry were as effective as the conduct of a predatory monopolist, this result could not provide the basis for a Sherman Act charge of monopolization absent the emergence of a single monopoly firm. Similarly, the Clayton Act reaches mergers or coercive practices such as exclusive dealing and tying arrangements. Although the Big Three's conduct is analogous in anticompetitive impact to these forbidden practices, it is again distinguishable by its lack of agreement.

For years, antitrust commentators have sought to stretch existing antitrust doctrine to reach the presumed anticompetitive aspects of the automobile industry. Professors Turner and Posner, for example, have argued that "agreement" under the Sherman Act might include or be redefined to include interdependent though non-collusive behavior by jointly-acting oligopolists. The broadest reading of conspiracy law holdings under the Sherman Act, however, would not permit such an elastic interpretation of agreement.

Alternatively, Professors Turner and Sherwood have suggested that since the Sherman Act looks to substance rather than form, the conduct of jointly-acting oligopolists should be treated as that of a single monopolist when their effects are almost identical. Thus, they have urged that where oligopolists effectively "share monopoly power" and engage in predatory or exclusionary practices, they might be charged with having monopolized in violation of the Sherman Act. Significantly, however, neither Turner nor Sherwood could cite a single

27. Weiss observes, for example, that the automobile industry "avoids formal collusion" and that "[t]here is no evidence that blockaded entry was intentionally sought by members of the industry," supra note 20, at 375; Barriers, supra note 3, at 216.
28. But see note 33 infra.
30. See pp. 605-07 infra.
precedent in support of their argument. Indeed, after considering both these approaches, a recent White House Task Force on Antitrust Policy rejected them and concluded that competition in highly concentrated industries could probably only be restored by enactment of new legislation empowering courts to dissolve leading firms in entrenched oligopolies.\(^{34}\)

With respect to restoring competitive structure and performance to the automobile industry, however, there may be a viable alternative to either stretching the Sherman or Clayton Acts beyond the limits of precedent or relying upon new structural, antitrust legislation. A particular form of conduct, annual style change, may have largely determined this industry's anticompetitive structure and may as a result constitute an "unfair method of competition" under Section 5 of the Federal Trade Commission Act.\(^{35}\) The Sherman and Clayton Acts, to be sure, proscribe several kinds of specific business behavior such as mergers and predatory or exclusionary practices by a dominant firm which can severely alter the structure of an industry, rapidly transforming an unconcentrated competitive structure to a concentrated oligopolistic one.\(^{36}\) They fail, however, to reach other forms of "concentration-increasing" conduct which may amass most of an industry's total sales within a few firms and erect formidable entry barriers to newcomers.\(^{37}\) Arguably, annual style change is conduct of this latter variety and should be condemned as "unfair" under Section 5.

The primary purpose of this Note, therefore, is to suggest strongly that the three leading firms in the automobile industry have engaged in conduct—annual style change—which ultimately transformed a competitive structure to an anticompetitive oligopolistic one in violation of Section 5 of the Federal Trade Commission Act. By way of a preliminary economic analysis, this Note will argue that annual style change has drastically increased market concentration, raised impenetrable barriers to entry, and directly contributed to this industry's record of noncompetitive market performance. Then, by analogizing the anticompetitive impact of annual style change to recognized anti-

\(^{34}\) The White House Task Force proposed a new statute, the "Concentrated Industries Act," which would prohibit any market structure in which, for a prescribed period of years, four or fewer firms had an aggregate market share of 70 per cent or more and industry sales exceeded $500 million. Relief would take the form of dissolution to the point where no single firm would hold more than 12 per cent of total sales. \textit{The Neal Report}, supra note 11.


\(^{36}\) Mueller, supra note 2, at 110.

\(^{37}\) See Smith, supra note 2, at 51-52 (advertising); Mueller, supra note 2, at 110 n.39 (exclusive distributorships).
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trust violations, as Section 5 cases seem to require, a prima facie case of illegality under Section 5 will be established.

What follows, however, is no substitute for a full-scale economic investigation and legal assessment of this practice by the FTC. Rather this Note is designed to suggest on the basis of available evidence the anticompetitive implications of annual automobile style change and the compelling need for the FTC to undertake a more thorough inquiry of the possible illegality of annual automobile style change under Section 5 of the FTC Act.

II. Economic Impact of Annual Style Change in the Automobile Industry: A Preliminary Analysis

Before analyzing the anticompetitive impact of annual style change on structural concentration and barriers to entry and its impairment of this industry's competitive market performance, a distinction between style change and performance modifications must be drawn. As complex pieces of machinery, automobiles present manufacturers with practically unlimited opportunities for physical product modification in both appearance and performance. Their appearance may be drastically altered by varying the amounts of chromium and contour trim, changing the body shell patterns and radiator grill designs, and altering the range of colors and interior textures. Their performance may be modified by structural changes which affect safety, durability, economy, reliability, carrying capacity, maneuverability, comfort, and convenience.

In this Note, "style changes" will refer solely to alterations in the appearance, as contrasted with modifications in the performance, of automobiles. It is not unrealistic to distinguish style from performance changes, since the Bureau of Labor Statistics in the U.S. Department of Labor has for many years made this determination in compiling official consumer price indexes. Specifically, the BLS employs detailed

38. J. KEATS describes this process pithily:
The basic shell is bent a little bit this way, this year, and is bent slightly that way next year. The headlights are higher one year, lower the next, or grow in double . . . The door knobs are hidden, or recessed, or turned into buttons or bars . . . Tail fins grow higher, or maybe, grow in sidewise.
THE INSOLENT CHARIOTS 54-55 (1958). Annual style change may be accomplished either by altering existing models or by annually introducing "entirely new" model lines.

This distinction is not always easily drawn. E.g., has the migration of the gear shift from floor to steering column and, recently, back to floor again affected performance or appearance? INDUSTRIAL ORGANIZATION, supra note 2, at 423-24.
criteria for evaluating annual automobile model changes in order to adjust quoted prices of new automobiles for changes in "quality." In making these quality adjustments, it is compelled to distinguish between structural changes which affect safety, reliability, durability, economy, and comfort and "[s]tyle, or changes in appearance design solely to make the product seem new or different." The BLS adjusts new automobile prices only for changes of the former variety. Thus, a distinction between style and performance changes would appear to be empirically justifiable.

Annual model change has presumably consisted of both style changes and performance modifications. The industry's persistent refusal to provide inquiring Congressional committees with cost data, however, precludes a precise dichotomy between annual expenditures for style as contrasted with expenditures for performance alterations. Nonetheless, several economists have testified that annual model change is predominantly oriented to changes in style rather than improvements in performance. Indeed, they emphasize that, before the 1920's, models were changed every few years to incorporate significant technological breakthroughs, but that since then the rate of technological progress has declined while model changes have become an annual phenomenon. Of course, the performance of automobiles has improved since the 1920's, but arguably not at a rate justifying annual model change. For example, in 1969, the Big Three spent $1.56 billion or about $195 per automobile to change its models; the Bureau of Labor Statistics reported, however, a net reduction in performance improvements of $—3 per automobile, or approximately $—23.9 million for the Big Three's combined output. Consequently, they spent more than a billion and a half dollars to make their 1969 models seem "new and different" in appearance. BLS performance data, computed for every model year since 1968, moreover, indicated that the 1969 results were not exceptional. The value of performance improvements in 1968 through 1971 models averaged $5.50 per automobile each year, or less than 3 per cent of the Big Three's total model change expenditures

41. The BLS does make adjustments, however, for those style changes previously offered as options and purchased by the majority of consumers, id. Presumably, this exception allows for explicit consumer preference.
43. Senate subcomm. on Antitrust and Monopoly of the Comm. on the Judiciary, Study of Administered Prices in the Automobile Industry, 85th CONG., 2d Sess. 81-87 [hereinafter cited as ADMINISTERED PRICES]; Lanzillotti, supra note 24, at 842-43.
44. ADMINISTERED PRICES, supra note 43, at 81-87; Lanzillotti, supra note 24, at 842-43.
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during that period. In short, it would be reasonable to assume that annual model change has consisted primarily of changes in styling characteristics.

A. Style Change as a Market Weapon for Achieving Concentrated Economic Power

The trend toward concentration in the automobile industry is unequalled in the history of American manufacturing. From the inception of this industry in the late 1890's, the number of independent producers grew steadily to a peak of 88 in 1921. Then, suddenly, about 1923, the number of automobile producers began to decline rapidly. In the course of three years, from 1923 to 1926, 43 firms left the market. By 1935, only 10 firms were producing automobiles. Today, 4 producers remain, with 3 firms accounting for 97 per cent of all domestic car production.

Economists generally agree that four factors were primarily responsible for the rapid demise of competitors since the 1920's: components integration, large-scale advertising, franchised distribution, and a tremendous increase in capital requirements. Arguably, these four decisive factors resulted from the development of an even more fundamental industry practice: annual style change. Significantly, it was in 1923, a near high-water mark in terms of the number of active

45. 1969 combined retooling figure for the Big Three obtained from STANDARD & POOR, supra note 18, at A170. Their combined output amounted to 7.98 million units in 1969. Id. at A161. The BLS reported a net performance increase in the 1969 models of $1 which includes, however, a $2 expenditure to meet higher federal safety standards. Non-mandated performance changes, therefore, amounted to $-3. U.S. DEPARTMENT OF LABOR PRELIMINARY REPORT ON PRICES OF NEW PASSENGER CARS, USDL-9994 (October 7, 1969). Per unit average performance improvement figure of $5.50 for model years 1968-71 derived from the following BLS data: 1968 (Statement of Peter Henle, Chief Economist, Bureau of Labor Statistics, in PRICES OF MOTOR VEHICLE SAFETY EQUIPMENT, Hearings Before the Subcomm. on Executive Reorganization, of the Senate Comm. on Government Operations, 90th Cong., 2nd Sess. 122-24 (1968)); 1969 (USDL-9994, October 7, 1969); 1970 (USDL-10-818, November 18, 1969); 1971 (USDL-11-555, November 6, 1970). Given annual sales by the Big Three at about 8 million units and average model change expenditures at about $1.5 billion per year for the 1968-71 period, a $5.50 performance increase represents 2.9 per cent of estimated total model change costs (8 mil. × $5.50/$1.5 bil. = 2.9%). See also Ralph Nader's criticism that as a result of industry pressures the BLS overstates quality improvements and that industry expenditures attributed to safety features actually include the costs of styling changes. PRICES OF MOTOR VEHICLE SAFETY EQUIPMENT, supra, at 69-70.

46. Lanzillotti, supra note 24, at 312.

47. R. Epstein, THE AUTOMOBILE INDUSTRY 176 (1928). The depression of 1921-1922 and consequent decline in automobile demand brought this figure down to 83 by the end of 1922. Id. at 176, 187.

48. Id. at 176.


50. See note 18 supra.

automobile producers, that General Motors introduced annual change.\footnote{52} By 1928, it had become the industry practice.\footnote{53}

Prior to the introduction of annual style change in 1923, entry into the automobile industry was relatively easy, exits were insubstantial in number, and concentration was consequently low.\footnote{54} Scale economies in components integration provided no significant deterrent to the large number of early entrants to this industry.\footnote{55} Similarly, entry was not precluded by a need to engage in massive advertising.\footnote{56} Moreover, the availability of standardized interchangeable replacement components up until the 1920's obviated any need for integration forward into extensive networks of franchised dealers with specialized maintenance capabilities.\footnote{57} Thus, capital requirements for entry prior to the 1920's were negligible. The industry's emphasis upon external economies of independent parts manufacturers rather than internal scale economies of integrated fabrication, for example, greatly reduced the amount of initial investment required for operation.\footnote{58} The Ford

52. A. SLOAN, My YEARS wrrH GENERAL MOTORS 167 (1964); L. SELTZER, A FINANCIAL HISTORY of THE AUTOMOBILE INDUSTRY 212 (1928). See also GM's account of its introduction of a "new dynamic product concept" in the early 1920's, i.e., annual style change. GENERAL MOTORS, THE AUTOMOBILE INDUSTRY: A CASE STUDY in COMPETITION 4-7 (1968).

53. Menge has argued that since the mid-1920's "[s]lowly and inexorably a code of behavior based upon rapid periodic style change" drove "the small producers from the Industry." Style Change Costs as a Market Weapon, 76 Q.J. OF Econ. 632, 634 (1962).

54. See generally Lanzillotti, supra note 24, at 314. In 1915, 3-firm concentration stood at approximately 50 per cent. FTC REPORT, supra note 21, at 29. In only one year (1910) did the rate of failure greatly exceed the rate of entry. It has been argued that this deviation from an otherwise uniformly positive entry-exit ratio up until the early 1920's was due to the refusal by many producers to change from 1- and 2-cylinder engines to the 4-cylinder version. ADMINISTERED PRICES, supra note 43, at 4.

55. INDUSTRIAL ORGANIZATION, supra note 2, at 296. Automobile producers were primarily "assemblers" of bodies and engines purchased from firms specializing in automotive parts production. Id.; Vatter, supra note 22, at 216-17. Since producers had access to parts from external suppliers, they were not compelled to integrate backward into components production. Consequently, most of them engaged exclusively in assembly operations, which required only minimal levels of output for optimal efficiency (i.e., lowest per unit production costs). INDUSTRIAL ORGANIZATION, supra note 2, at 296.

56. Since the designs of most automobiles produced before 1923 remained basically unchanged for substantial periods of time, the public became familiar with them. Thus, there was little to be gained by repeatedly calling the public's attention to the outstanding features of unchanged models. See generally ADMINISTERED PRICES, supra note 43, at 96. Total magazine advertising expenditures by all passenger car manufacturers in 1915, for instance, amounted to less than $3 million. Epstein, supra note 47, at 127.

57. In fact, automobile manufacturers during this period generally distributed their products to independent wholesalers and retailers who resold to the public. FTC REPORT, supra note 21, at 106-10.

58. Engaged only in the assembly and sale of completed vehicles, early producers were therefore able to shift the financial burdens of automobile production to owners of already existing capital equipment: the specialized parts manufacturers. SELTZER, supra note 52, at 19; Lanzillotti, supra note 24, at 314. The assemblers were able to reduce their capital requirements further by purchasing parts on credit and then selling cars to dealers on a cash basis. SELTZER, supra note 52, at 20-21; FTC REPORT, supra note 21, at 108. Many of these firms were able to lower start-up costs even further by leasing rather than purchasing assembly facilities. Vatter, supra note 22, at 217.
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Motor entry was typical. The Company was incorporated in 1903 with only $28,000 in cash. This ease of entry was reflected in industry concentration. Not until the 1920's did the three leading firms account for much more than half of total sales.

Product variation was not new to the automobile industry in 1923. From the very beginning, it had served as a key element of competition among the many early producers. But pre-1923 variations differed from subsequent product changes in two significant ways: they occurred less frequently, and they generally represented substantial improvements in performance capabilities rather than mere changes in style. Thus, before 1923, the frequency of model change was closely geared to the rate at which technological breakthroughs were achieved; these occurred every four or five years. Moreover, it will be demonstrated that this rate of product change enabled independent parts manufacturers to supply small volume assemblers with efficiently produced and improved components. The advent of annual product variation, however, drastically altered this process.

In 1923, General Motors introduced annual style change. Whether by design or mere accident, GM’s device accomplished much more than planned obsolescence: it eliminated smaller producers unable or unwilling to restyle their products every year. As the first company to employ this market weapon, GM increased its share of total industry sales dramatically from 13 to 43 per cent in the 5 years between 1922 and 1927. Chrysler, after its well-financed entry in 1923, quickly imitated GM’s restyling policy and increased its market share to 6 per cent by 1927. Ford, at first ignoring the practice of changing styles annually,

59. Of the $100,000 in stock originally subscribed to by a dozen people, $72,000 was paid in the form of patents, machinery and supplies. SELTZER, supra note 52, at 88 n.5.
60. EREIN, supra note 47, at 163-64, 176. Three-firm concentration derived from FTC REPORT, supra note 21, at 29. In 1911, General Motors and Ford accounted for only 33 per cent of passenger car production. By 1929, they shared 64 per cent of sales, and together with Chrysler (which entered in 1923), 72 per cent of the industry. Id.
61. See, e.g., EREIN, supra note 47, at 87-93; LANZILLOTTI, supra note 24, at 314-15.
62. See p. 576 supra. There was a substantial variation in performance alternatives prior to 1923. In 1910, for example, consumers could choose among electric, steam and gasoline vehicles, which offered widely divergent performance capabilities. Among gasoline powered cars, for instance, there were one, two, three, four and six cylinder engines available. EREIN, supra note 47, at 87-88; SELTZER, supra note 52, at 18.
63. See notes 43-44 supra. See also WEISS, supra note 20, at 342-43.
64. By 1920, the demand for new automobiles had been largely saturated and had become a replacement demand initially sensitive to the alternative supply of used cars and costs of repairs. Accordingly, price reductions were less effective in generating increased purchases as new car demand became less elastic. WEISS, supra note 20, at 332-34; Vatter, supra note 22, at 218. A new market device was required to coax additional purchases from consumers by persuading them that their present cars were obsolete.
65. Computed from data contained in SELTZER, supra note 52, at 213; FTC REPORT, supra note 21, at 29; LANZILLOTTI, supra note 24, at 919.
66. FTC REPORT, supra note 21, at 29; 549-51. Chrysler’s successful entry was a function
suffered an equally dramatic decline in its market share during this same period, falling from 51 per cent in 1922 to 9 per cent by 1927. In 1928, it adopted an annual restyling policy which within two years boosted Ford's share of the market to 31 per cent. While aggressively pursuing annual style change, GM, Chrysler and Ford increased their collective share of industry sales from less than 65 per cent in 1923 to more than 90 per cent by 1935.

An inevitable result of the drive to produce "all-new" cars annually was an industry trend toward components integration. Previously, producers had attained optimal efficiency at low output volumes by assembling basically interchangeable body and engine components purchased from external suppliers. By contrast, after 1923 the annual need to produce uniquely styled vehicles, including redesigned bodies and rearranged (although not necessarily improved) engines, caused producers to integrate body and engine production within their own plants.

This shift from assembly of body and engine components to their integrated fabrication had a substantial impact upon the scale of production necessary for optimum efficiency as measured in terms of lowest per unit production costs. For a firm engaged in both mass production and assembly of annually modified bodies and engines, the optimal output was from 3 to 5 times greater than that required for mere assembly operation. After 1923, an integrated firm which changed its styles annually needed a volume of at least 250,000 cars

both of its sizeable financial resources and its early acquisition of a large integrated plant and powerful dealer organization. Weiss, supra note 20, at 338.

67. Lanzillotti, supra note 24, at 319; FTC Report, supra note 21, at 29.

68. Barriers, supra note 3, at 298 (1962). Ford had frozen the design on its "Model T" since 1909 and had concentrated its energies on mass production at low cost. Until the early 1920's, its efforts were completely successful as measured by its increase in market share from 9 per cent in 1909 to 55 per cent in 1921. With the introduction of its "Model A" in 1928, Ford managed briefly to regain its leading position in 1929-30; but then GM took and kept the lead thereafter. Seltzer, supra note 52, at 120-24; Lanzillotti, supra note 24, at 318-20.

69. FTC Report, supra note 21, at 29.

70. As significant technological breakthroughs were achieved, performance modifications had been made by ordering from independent components manufacturers specially-tooled parts which were then added to the basic body and engine assemblies. See Lanzillotti, supra note 24, at 314; Vatter, supra note 22, at 216-17.

71. This is not intended to suggest that all backward integration occurred after 1923. On the contrary Ford through internal growth and General Motors by merger had early begun integration of components production. See Seltzer, supra note 52, at Ch. 3 and 4. What it does imply, however, is that whereas before 1923 components integration did not affect entry or survival conditions appreciably, after 1923 it became an absolute necessity. Consult Industrial Organization, supra note 2, at 296.

72. The critical stage in plant economics is found in the production of body and engine components, not in assembly operations. Optimal size for assembly purposes ranges from 60,000 to 180,000 units per year. Integrated optimal production scale requires volumes of from 300,000 to 600,000 units per year. Barriers, supra note 3, at 245.
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a year to operate at maximum efficiency. At lower outputs, it would experience production costs substantially higher than larger volume producers.

One of the most serious disadvantages for producers operating at below the optimal scale of output required for style changes was the premature scrapping of expensive tools and dies. Assume, for example, that prior to 1923 General Motors and firm X in Figure I had identical cost curves (AC) but dissimilar outputs. GM’s production exceeded 400,000 units; while firm X produced a little more than 50,000 vehicles a year. Both producers, therefore, had achieved the minimum level of output necessary for optimally efficient assembly operations (50,000 units in 1923). Assume also that prices were constant at p.

In 1923, when it initiated annual style change, GM purchased at great expense the special tools and dies required for completely re-styling its products. It found, however, that after the production of approximately 250,000 cars this equipment was physically deteriorated and could be fully amortized. In 1923, it exhausted three full sets of dies and tools in producing a record 775,000 automobiles (point GM1923 in Figure I). Thus, it could replace the 1923 dies and tools

73. Estimate by Paul Hoffman of Studebaker Corp., 21 TNEC HEARINGS 11218 (1941).
74. This graphic analysis draws heavily from Menge, supra note 53, at 634-43.
75. The average life of dies and special tools during this period approximated 250,000 units. See note 73 supra. Of course, if GM had produced 500,000 cars that year, it would have only partially exhausted a second set of equipment. Nonetheless the premature scrapping costs could have been spread over a larger volume of automobiles than if it had produced less than 250,000. Hence, its per unit scrapping costs would have been substantially lower if it exceeded rather than fell below this production level.
76. General Motors output amounted to 442,981 units in 1922; 774,617 in 1923. Epstein, supra note 47, at 328.
with identical equipment or, at no extra cost, with dissimilar equipment. Consequently, GM changed the style characteristics of its 1924 models without increasing its costs, thereby remaining on AC in Figure I (point GM1924).

In order to compete with GM's restyled 1923 models, firm X also purchased the expensive tools and dies necessary for the integrated production of uniquely styled vehicles. But unlike GM, it was unable to amortize this equipment over a year's production. Since dies and tools deteriorated only after the production of 250,000 units, its output in 1923 of 50,000 (point X1923) consumed but one-fifth of their physical usefulness. Consequently, it could bring out a newly styled model in 1924 only by scrapping equipment which was not yet worn out and could only be partially amortized. As a result, it would experience higher average costs in 1924 (i.e. curve AC1 in Figure I) for any level of output below 250,000 units. Assuming that its 1924 output did not exceed that of the prior year, its costs exceeded price at point X1924, and it was forced out of the market.77

After 1923, therefore, survival as a style-change manufacturer required construction of a plant capable of producing at least 250,000 automobiles per year from internally manufactured and annually altered components. Significantly, only two of the 81 firms independent of Ford and GM which were operating at the beginning of 1923 ever reached the 250,000 minimum optimal integrated level of output.78 These two companies, Chrysler and Hudson (which later merged

77. The slope of AC, was of critical importance for small volume producers and potential entrants after 1923. A steeper slope relative to AC indicated higher average costs due to style change expenses for every level of output below 250,000 units, the minimal scale for optimal efficiency in integrated production. Primarily, the slope of AC1 was the product of additional costs incurred in the premature scrapping of special tools and dies. These costs, of course, were directly related to the expense of procuring new equipment. Significantly, the costs of special tools, dies and jigs have risen dramatically since 1923. Although about the same number of cars were sold in 1923 and in 1940, for example, special tools cost ten times as much in 1940. Again, about twice as many cars were sold in 1957 as in 1923, but tooling costs had increased 100 times. WEISS, supra note 20, at 386. As noted, by 1970, the Big Three were spending $1.5 billion each year for special tools and dies. Combined expenditures for special tools, dies, jigs and fixtures by the Big Three amounted to $1.559 billion in 1969. STANDARD & POOR, supra note 18, at A170. Sen. Nelson estimated the cost of annual style changes at $1.5 billion. N.Y. Times, Aug. 5, 1970, at 23, col. 3.

78. Chrysler has exceeded this sales volume for every year since 1928 with but one exception, in 1932; Hudson attained this output from 1924 through 1929, but then dropped below it during the 1930's. In 1954, Hudson merged with Nash to form the American Motors Corporation. AUTOMOTIVE NEWS, ALMANAC ISSUE 72 (1951).

It should be emphasized that after General Motors introduced annual restyling, abstention from this practice was apparently not perceived as a realistic alternative by smaller automobile producers. Menge, supra note 53, at 643. A possible explanation is that once all three leading companies began saturating the market after the 1920's with annually restyled cars, a small volume of standard-styled vehicles by comparison might have appeared obsolete.
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with Nash to form American Motors), would become the sole competitors of Ford and GM by the 1960's. Neither Kaiser-Frazer nor Crosley, the only firms to attempt entry after 1923, ever achieved this production scale.\(^7\)

Annual style changes imposed a second burden upon smaller automobile producers: large-scale annual investments in advertising. Before 1923, automobile designs remained basically unchanged for several years.\(^8\) With the introduction of annual style change, however, producers were compelled to undertake annual advertising campaigns to impress consumers with the unique appearance of annually altered automobiles.\(^9\) The style change race had engendered an advertising competition in which only the financially resourceful could remain.\(^1\)

Moreover, smaller producers were seriously disadvantaged because of the scale economies associated with extensive promotional efforts. To accomplish the same or even sparser market coverage, small volume producers spent considerably more per unit of output than did large volume manufacturers. For example, GM was able to obtain 10 times more advertising space in 1930 than did Nash, a lower volume firm, at half of the latter's per car cost.\(^2\) Returning to the analysis accompanying Figure I, therefore, it can be argued that the need to engage in large scale advertising annually, no less than the need to scrap expensive dies prematurely, increased average costs and consequently the slope of \(AC_d\), thereby driving scores of smaller producers from the market.\(^3\)

The annual style change policy begun by GM also required a national system of adequately financed and strategically located dealers with

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79. AUTOMOTIVE NEWS, ALMANAC ISSUE 60 (1970).
80. See note 56 supra.
81. See ADMINISTERED PRICES, supra note 43, at 96.
82. Advertising expenditures increased dramatically as producers attempted to convince consumers of the obsolete character of older models which only a year earlier had been advertised as the ultimate in new design. Id. Consequently, industry promotional expenditures rose rapidly during the 1920's from approximately $5 million in 1922 to nearly $25 million by 1930. Nor was this increase due to an expansion in automobile sales. Output remained about the same for both years. AUTOMOTIVE NEWS, ALMANAC ISSUE 1931. By 1930, industry advertising expenditures amounted to approximately $400-$500 million. See note 163 infra.
83. In 1930, GM secured nearly $20 million worth of advertising coverage at a per car cost of $17. By comparison, Nash obtained less than $2 million in coverage at a cost of $34 per car. FTC REPORT, supra note 21, at 714-15; WEISS, supra note 20, at 359.
84. Smaller producers were unable to spread advertising and retooling expenses over the large volumes of output enjoyed by the Big Three. Consequently, their advertising and retooling costs per unit of output (i.e. average costs) were substantially higher than those of GM, Ford and Chrysler. Compelled to charge higher prices to cover higher average costs, these smaller firms found themselves priced out of the market. WEISS, supra note 20, at 340-47.
unique service facilities. Prior to the advent of periodic restyling there was little need for manufacturers to establish retail outlets with specialized maintenance capabilities.\textsuperscript{85} Independent retailers provided adequate sales and service for a wide variety of automobiles.\textsuperscript{86} By contrast, the need to differentiate the appearance of automobiles annually and the consequent decline in the interchangeability of components required the establishment of unique nationwide service organizations.

The need to establish nationwide service networks posed not only a great financial burden for smaller producers; it also involved significant economies of scale. The minimum volume sufficient to permit the maintenance of a nationwide system of dealerships with servicing facilities probably ranged from 100,000 to 150,000 units per year.\textsuperscript{87} As a certain minimal sales volume was necessary to maintain a solvent dealer, producers with smaller annual outputs would have experienced severe difficulties in retaining an adequate number of dealers for national coverage. Significantly, few producers other than the Big Three ever reached this volume after 1923.\textsuperscript{88} Consequently, their average distribution costs were substantially higher than those of GM, Ford and Chrysler. Moreover, as the Big Three expanded their dealer networks, smaller producers found it increasingly difficult to establish and maintain retail outlets without experiencing increased per unit costs.\textsuperscript{89}

The need to integrate forward into retail distribution, therefore, was another factor attributable to style change that substantially raised the amount of capital necessary for successful entry and survival in the automobile manufacturing industry. Each of the three factors necessary for annual style change involved tremendous capital investments of hundreds of millions of dollars.\textsuperscript{90}

\textsuperscript{85} See p. 578 supra.
\textsuperscript{86} See note 57 supra.
\textsuperscript{87} Although this estimate was derived during the early 1950's it is most likely also applicable to periods before and after. Barrie, supra note 3, at 301-05. Weiss, supra note 20, at 343.
\textsuperscript{88} Of the 21 producers other than the Big Three operating during the years 1931-41, for example, only Studebaker reached this output for two years (1940-41). Automotive and Aviation Industries, March 15, 1946, at 88.
\textsuperscript{89} As one economist has observed: "[b]y saturating an area with dealers handling their own respective products exclusively," the Big Three "can effectively deny their smaller existing and potential competitors access to the best sites and most efficient retailers, thus raising the per-unit sales and distribution costs of these actual and potential competitors ... ." Mueller, Sources of Monopoly Power: A Phenomenon Called "Product Differentiation," 2 Antitrust Law & Econ. Rev. 59, 80 (Summer 1969).
\textsuperscript{90} "The most important factor that caused the defunct companies to fail was the lack of capital to meet the increasing emphasis and staggering cost of frequent product changes and other product differentiation policies and practices of the Big Three." Lanzillotti, supra note 24, at 348.
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This brief analysis indicates that the automobile industry became increasingly concentrated following the introduction of annual style change in 1923. There are, however, other hypotheses which might explain this phenomenon. For example, declining economic conditions and a rise in automobile mergers might have contributed to increased industry concentration. But these developments could not have been the primary cause of the dramatic change in this industry's structure. For example, the rate of attrition for automobile firms during the depressed 1930's was only slightly greater than in the booming 1920's. Moreover, the predominant number of firms which left the market did so because of failure rather than combination.

Instead, this economic analysis suggests that four factors (components integration, formidable advertising, franchised distribution, enormous capital requirements) were the direct cause of concentration and that each of these developments was linked in turn to the introduction of annual style change. Other hypotheses, however, could aid in explaining the emergence of these four factors. Substantial fluctuations in economic conditions following World War I, for example, may have contributed in part to the industry's movement toward captive production and distribution facilities. On the other hand, these four developments cannot be accounted for, as some have urged, by a "drive for efficiency" in performance improvement. The foregoing analysis demonstrates that without the need to restyle annually, optimal efficiency in the production of automobiles with increasingly improved performance capabilities had been reached by many firms in the industry. Once annual style change became the industry code of behavior, however, efficiency in the production of annually restyled vehicles made these four developments almost inevitable.

On balance, therefore, this brief analysis indicates that although other hypotheses might assist in the explanation of how this industry became highly concentrated in a short period of time, annual style change might well have been its fundamental cause.

91. See, e.g., ADMINISTERED PRICES, supra note 43, at 8-9; EPSTEIN, supra note 47, at 187.
92. Lanzillotti, supra note 24, at 321.
93. Id.
94. See SELTZER, supra note 52, at 114-20, 191-97.
95. See, e.g., GENERAL MOTORS, supra note 52, at 71-75 (1968). GM argues that these developments resulted from a drive for efficiency in the production of automobiles. Yet it admits that the concept of efficiency is not fixed and depends, inter alia, upon "product characteristics." Id., at 73 n.36. In short, these developments were engendered not by any vague pursuit of "efficiency" but rather by a fundamental change in product policy, i.e., the introduction of annual restyling.
B. Style Change as a Market Weapon for Preserving Concentrated Economic Power: Barriers to Entry

Style change has proved to be as effective a market weapon in preserving concentrated economic power in the automobile industry, it can be argued, as it had been in achieving it. By causing formidable entry barriers to be raised, style change insured that the vacancies created by the exit of nearly one hundred firms were not filled by newcomers.

The same four factors which by eliminating earlier producers led to concentration seem also to have erected insurmountable barriers to potential entrants. The magnitude of these barriers can be measured in at least three separate ways. First, the experience of the only firm seriously to attempt entry since 1923, Kaiser-Frazer, can be evaluated. Second, industrial studies of the automobile manufacturing process can reveal the minimum scale of operations, minimum promotional expenditures, and minimum capital resources necessary for entry today. Finally the estimates of firms which have recently contemplated (but decided against) entry may be examined.

Since 1923, a handful of attempts at entry, all unsuccessful, have been undertaken. Of these, only the Kaiser-Frazer endeavor of 1945-1954 could be considered a serious challenge. Kaiser had already successfully broken into two of the most highly concentrated industries in the American economy (aluminum and steel). Given a most propitious time of practically insatiable postwar demand, its venture into automobiles seemed assured of success. It commanded the talents of experienced executives, the backing of a multi-million dollar industrial empire, and the acquired production and distribution facilities of an operative automobile organization (Graham-Paige Motors). Through stock offerings, loans from private and government agencies, and financial resources derived from other Kaiser enterprises, it raised more than $200 million. Within a record time of 11 months, it produced a car which was praised for both its engineering achievement and for its style. Its market share rose to nearly 5 per cent of industry

96. See Vatter's account of closure of entry into this industry, supra note 22.
97. Unsuccessful attempts were made, for example, by Durant Motor Co. of Indiana (1924), Rollin Motors Co. (1924), Klieber Motor Co. (1925), Falcon Motors Corp. (1927), Crosley Motors, Inc. (1939), and Kaiser-Frazer Corp. (1945). Epstein, supra note 47, at 577-82; Administered Prices, supra note 43, at 82.
98. Weiss, supra note 20, at 338-39. For a general account of the Kaiser venture into automobiles, see also Lanzillotti, supra note 24, at 328-29; Vatter, supra note 22, at 230-33; Kaiser-Frazer: "The Roughest Thing We Ever Tackled," 44 Fortune 74 (July 1951).
99. Fortune, supra note 98, at 156, 158.
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sales by 1948. Yet, by 1949, the Kaiser venture was doomed to failure. Its share of sales fell back to a little more than 1 percent, and by 1954, it had ceased production.

The reason for this sudden reversal in Kaiser's market position after 1948 has been succinctly stated by economists: its survival required the launching of a new model, yet it was unable to finance a restyled automobile for 1949. Although sales in 1948 had reached 181,000 units, that volume was insufficient to finance formidable re-tooling and advertising costs. As Kaiser Industries reported later:

'To stay in the market, Kaiser-Frazer now had to play the "new models" game for the first time; new models took tools; tools took major financing. An attempt was made to sell a third stock issue to the public in 1948, but that ran aground...

Consequently, it was forced to sell its 1948 models again in 1949 and 1950. In 1951, it managed to produce a newly styled model; but by then its output was far below the minimum volume necessary for optimum efficiency. As a result, higher per unit production costs forced its prices above those of the Big Three. Thereafter, its sales plummeted, and it accumulated uninterrupted losses until it withdrew from the market in 1954, with an earned surplus deficit amounting to more than $100 million.

Evaluation of the short-lived Kaiser entry suggests that it suffered in varying degrees all the disadvantages which had contributed to the elimination of the earlier producers. Formidable scale economies in production and retail distribution, massive promotional activities, and enormous capital requirements were the principal factors accounting for its demise. As evidenced by its inability to finance a 1949 model, its 1948 record volume of 181,000 units was below the minimum optimal scale for integrated production, which had been estimated at about 250,000 for the early 1940's. During succeeding years, how-

100. AUTOMOTIVE NEWS, ALMANAC ISSUE 60 (1970).
101. Id.
102. See Lanzillotti, supra note 24, at 328-29.
103. Id; see also note 72, supra.
105. After failure of the public issue in 1948, Kaiser went to the banks which had helped fund its breakthrough into aluminum and steel, but they considered the risks prohibitive and refused further participation. Lanzillotti, supra note 24, at 329.
106. FORTUNE, supra note 98, at 161. In 1950, it lost $13 million on its sale of 151,000 automobiles. Id.
108. INDUSTRIAL ORGANIZATION, supra note 2, at 235-87.
109. Id. See also Lanzillotti, supra note 24, at 328-29.
110. See note 78 supra.
ever, it suffered further scale economy disadvantages as its volume dropped below the minimum 100,000-150,000 unit volume required for optimal efficiency in retail distribution.\(^1\) To meet the retooling and readvertising requirements of annual style change, moreover, Kaiser would have needed an additional $150 million, which would suggest a total capital resources entry barrier exceeding $350 million.\(^1\)

In fact, this $350 million estimate is probably too low for a potential entrant today since Kaiser enjoyed several advantages which are no longer accessible to a newcomer in the 1970's.\(^1\) Reviewing the failure of Kaiser's automobile venture despite its sizeable resources and its record as one of the country's most formidable challengers of concentrated industries, one industrial economist concluded in 1966: "The idea of any further entry into the industry today seems preposterous."\(^1\)

Subsequent studies of the Kaiser-Frazer attempt and the recent operations of the Big Three now afford a more precise determination of the actual magnitude of barriers to entry into this industry, barriers which may be largely attributable to annual style change. In 1970, it would cost a company $779 million to enter the automobile industry. The costs of annual style change capability, it is estimated, account for fully $724 million, or more than 90 per cent of this figure.\(^1\)

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\(^1\) AUTOMOTIVE NEWS, ALMANAC ISSUE 60 (1970).

\(^2\) As sales fell, Kaiser's dealers were unable to meet their overhead costs and declined from a high of 4700 in 1948 to 2700 in 1951, scarcely 200 more than the number considered minimally necessary for national coverage. Weiss, supra note 20, at 343; Fortune, supra note 98, at 158. With regard to capital required for annual restyling and advertising, Kaiser later concluded conservatively that it needed at least $150 million more in equity resources. Fortune, supra note 98, at 161. When added to the more than $200 million Kaiser actually raised, this would indicate a capital requirement of more than $350. See p. 586 supra.

\(^3\) For example, through its acquisition of Graham-Paige Motors, it was able to obtain an operational manufacturing and dealer organization. By contrast, today's entering firm would have to construct both de novo. The production facilities of the earlier independents have either been sold to the four domestic producers or scrapped; their retail networks have long since disappeared. ADMINISTERED PRICES, supra note 43, at 14. Absent the opportunity to acquire existing facilities, however, newcomers would require from an estimated $779 million to $2 billion to build both systems at the minimum optimal volume necessary for annual style changes (i.e., 300,000 units), See notes 115, 123 infra.

\(^4\) Weiss, supra note 20, at 339.

\(^5\) Yearly restyling requires efficient assembly and integrated components production facilities at a minimum plant investment of $250 million. Bain estimates that efficient production and assembly of body and engine components would require a minimum plant capacity of 300,000 units, at a cost of $250 million. INDUSTRIAL ORGANIZATION, supra note 2, at 286. Annual restyling also necessitates integration forward into a nationwide distribution network costing no less than $326 million. This was Romney's estimate of the capital required by a 220,000 unit firm in 1958 to establish a national distribution system. ADMINISTERED PRICES, supra note 43, at 16 n.28. Finally, annual style change would compel retooling and readvertising at a minimum annual rate of $180 million and $23 million, respectively. This annual retooling figure assumes output at the minimum efficient level of 300,000 units. It was obtained by multiplying the per unit full factor costs for style change (i.e. including the actual added production costs of producing the redesigned vehicle) as calculated at $600 by Fisher, Griliches & Kaysen, The Costs of Automobile Model Change During a Decade,
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over, to merely recapture its $779 million investment, an entering firm would need to secure from 4 to 8 per cent of total industry sales for an efficient scale of operations. In addition, it would encounter for 5 to 10 years a net price disadvantage of at least 5 per cent of factory price due to higher per unit countervailing advertising expenses and price concessions necessary to maintain a solvent national dealership system.

By contrast, had the industry not been restructured by annual style change, it is estimated that entry in 1970 could have been achieved for $55 million, or less than one-tenth as much as the actual capital requirement. Absent annual style change, an entrant could operate efficiently with an estimated 0.7 to 2.1 per cent of the market without encountering promotional or distributional price disadvantages.

To the extent, therefore, that style change transformed the condition of entry into this industry, barring all but completely integrated firms able and willing to spend not merely $55 million but $779 million, it

70 J. Pol. Econ. 433, 450 (1962), by the output (500,000 x $600 = $180 million). The readvertising amount was obtained by multiplying the current $75 per car advertising expenditure of the Big Three (see Lanzillotti, supra note 24, at 343) by the minimum efficient output level of 300,000 units = $22.5 million. Realistically, a new firm would probably expend at least twice that amount overcoming consumer loyalty to current automobile models engendered by decades of advertising by established sellers. In 1958, Romney then president of American Motors estimated that a plant with a 250,000 unit output would require $35 million for annual advertising. ADMINISTERED PRICES, supra note 43, at 17, table 1. The costs of annual style change capability are $779 million less $55 million, or $724 million. See note 118 infra.

116. See note 22 supra.
117. Id.
118. Absent the need for an entering firm to restyle annually and assuming the existence of independent parts manufacturers and independent distributors, the formidable costs of components production and of distribution would have been borne not by the entrant but by these specialized independent enterprises. Thus, an assembler of automobiles could have accomplished entry under these hypothetical conditions by merely constructing an assembly plant at a cost of $50 million and by spending an additional $5 million for introductory promotion. On the basis of the Kaiser experience and from studies of the Big Three's manufacturing operations, Bain has estimated that an assembler could operate with optimal efficiency at a minimum output of 60,000 vehicles per year. BARRIERS, supra note 3, at 245. See also ADMINISTERED PRICES, supra note 43, at 14. The cost of an assembly plant one-fifth as large as that minimally required for annual restyling (i.e., 300,000 units) has been assumed to be one-fifth of the cost of the latter facility, or $30 million. See note 115 supra. Assuming that a new entrant would engage in countervailing advertising at a rate equal to that of the Big Three, the cost of such advertising for the first year may be computed by multiplying the average Big Three per car advertising expenditure of $75 (see note 115 supra) by the minimum efficient level of output for an assembler of 60,000 units: $75 x 60,000 = $4.5 million. Assuming further, however, that the assembler's product would remain basically unchanged pending major technological breakthroughs, subsequent advertising expenditures should decline as the public becomes acquainted with the characteristics of the assembler's unchanged model. See note 56 supra. But these conditions no longer obtain; entry as an assembler has not been feasible since the 1920's.

119. These percentages were derived by calculating the share of total industry sales in 1969 (8.38 million per note 18 supra) represented by the minimum efficient scale for assembly operation, estimated at from 60,000 to a high of possibly 180,000 units per year. BARRIERS, supra note 3, at 245.
120. See note 22 supra.
raised the capital costs of entry considerably more than tenfold.\(^1\) This is a conservative estimate of the entry barriers attributable to annual style change. For example, Bain argues that an entering firm would probably encounter break-in losses of $15 million annually for a ten year period, or $150 million. Indurtry Organization, supra note 2, at 286. Romney's estimate of the first year capital requirements necessary for a 250,000 unit integrated operation in 1958 amounted to $902.2 million. This figure included $862.2 million to establish a national dealer system. Administered Prices, supra note 43, at 16 n.28. See also Sen. Morse's statement as to a subsequent increase in Romney's estimate to roughly $2 billion. Hearings Before the Senate Select Comm. on Small Business on the Status and Future of Small Business in the American Economy, 90th Cong., 1st Sess., pt. 2, at 431 (1967).

\(^2\) See, e.g., Joint Hearings on the Automobile Steam Engine and Other External Combustion Engines [hereinafter cited as J. Hearings—Steam], 90th Cong., 2nd Sess. (1968); Electric Vehicles and Other Alternatives to the Internal Combustion Engine, Joint Hearings Before the Senate Comm. on Commerce and the Subcomm. on Air and Water Pollution of the Senate Comm. on Pub. Works, 90th Cong., 1st Sess. (1967) [hereinafter cited as J. Hearings—Electric]. For suggestions regarding "major antitrust action" to restructure the industry, see testimony of Arkus-Duntov in 1969 Hearings, supra note 24, at 404-06. Regarding the alternative need for government subsidization of entry, see testimony of Ayres in J. Hearings—Steam, supra at 10-12.

\(^3\) Prospective automobile firms place the minimum optimal scale for integrated production at 500,000 instead of 300,000 units. Arkus-Duntov, 1969 Hearings, supra note 24, at 406. They also state that an annual sales volume of 500,000 or more vehicles is minimally required to maintain a national dealer system. Wyman, Can the Steam Automobile Come Back, 9 STEAM AUTOMOBILE #2 (1967). The initial capital investment required merely to build an integrated plant with this annual capacity has been estimated at $1 to $2 billion. Arkus-Duntov, 1969 Hearings, supra note 24, at 406.

Moreover, there are indications that the Big Three are pursuing programs which will raise entry barriers even further. While their trend toward more complete backward integration has continued unabated, see, e.g., Standard & Poor, Industry Surveys: Auto Parts—Basic Analysis A138 (October 8, 1970), these firms have begun to place major emphasis on greater forward integration into retail distribution and are buying up formerly franchised outlets. Until recently, the Big Three distributed their automobiles through a large number of franchised dealers who although pressured to accept a policy of exclusivity might have been at least theoretically accessible to new automobile producers. See Ralph Nader's testimony in 1968 Hearings, supra note 50, at 155. Now, however, they are rapidly eliminating dealerships and replacing franchised outlets with factory-controlled operators or "house dealers." See Note, Antitrust Law and The New Industrial State: An Application to Automobile Distribution Practices, 4 Univ. of San Francisco L. Rev. 78, 111 (1969). As a result, the number of active dealerships has declined from 49,173 in 1949 to 27,486 in 1969, or by more than 44 per cent. See testimony of Hammond in 1969 Hearings, supra note 24, at 19. In addition, franchised dealers who have not yet been replaced by factory operators, increasingly are being bypassed by direct "fleet sales" made by the manufacturers to retail customers at below dealer or even production cost. Hearings Before the
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General Motors, Ford and Chrysler reject any notion of “artificial” barriers to entry into the automobile industry. Instead, they contend that there are no obstacles which cannot be overcome. In support of their position, they cite the possibility of conglomerate entry by General Electric and Westinghouse and the actual expansion of several foreign manufacturers into the market. But conglomerate entry by either of these firms has failed to materialize despite the technological capability of both to produce reliable electric vehicles and the vast financial resources of the former. The Big Three's second line of defense involves the successful expansion of standard styled foreign imports, particularly Volkswagen and Toyota, into the American market. This comparison of foreign with domestic entry possibilities, however, is entirely inappropriate. Moreover, it suggests that by

Special Subcomm. on Automobile Marketing Practices of the Senate Comm. on Commerce, 90th Cong., 2d Sess. 5-8 (1968). These developments, however, will not only absolutely foreclose retail outlets from new entrants, it will also deprive those few remaining independent parts manufacturers of the outlets they require for survival. Furthermore, the elimination of components producers will augment existing barriers to entry by new automobile manufacturers.

124. General Motors suggests, for example, that “entry into the business is open to all who are willing to assume the risks: there are no artificial barriers.” GENERAL MOTORS, supra note 52, at 81. It concedes, however, that there are “certain critical requirements for entry” including large capital investment and substantial economies of scale. Id., at 83. But it implies that these entry requirements are compelled in part by the “competitive necessity” of engaging in annual style change. Id., at 83-84, 29. Thus, it argues that annual restyling is a form of efficiency mandated by consumer preference and that any barriers resulting therefrom are inherently “natural” rather than “artificial.” Id., at 29, 52-53, 71-75, 84-85. This argument assumes implicitly, however, that consumer acquiescence in the Big Three's policy of planned obsolescence is equivalent to consumer preference for that policy. Upon closer examination, such an assumption appears to be wholly unwarranted. See note 141 infra. Moreover, there is evidence that by substantially inflating production and distribution costs and by discouraging technological innovation, annual style change has actually led to a net reduction in efficiency. See note 136 infra.

125. General Motors, for example, relies on the rumored possibilities of electric car entry by General Electric or Westinghouse to support its argument that entry into the industry remains possible. GENERAL MOTORS, supra note 52, at 83-84. For a similar suggestion regarding the possibility of conglomerate entry into the industry, see Shubik, A Game Theorist Looks at the Antitrust Laws and the Automobile Industry, 8 STAN. L. REV. 594, 624-25 (1956).

126. See J. Hearings—Steam, supra note 138, at 205-06; J. Hearings—Electric, supra note 138, at 466-87. Moreover, as the nation's fourth largest industrial corporation, General Electric in particular should have no financial entry difficulties—if access is as open as General Motors suggests. For GE's sales rank, see FORTUNE, May 1970, at 184.

127. GENERAL MOTORS, supra note 52, at 81, n.46.

128. Unlike a prospective domestic entrant, foreign producers such as Volkswagen and Toyota relied upon large plant scale economies in Germany and Japan, respectively, and enormous world-wide sales to support their expansion into the American market. These companies marketed vehicles in America for nearly a decade before their sales volumes here reached the 60,000 unit level considered minimally adequate for efficient production of standard-styled cars. See Schupack, 1963 Hearings, supra note 20, at 920. Indeed, even GM admits this distinction. GENERAL MOTORS, supra note 52, at 23. Volkswagen began producing automobiles in 1945 but did not begin selling in the United States until 1949. In that year, it sold two vehicles. Not until 1958 did its sales volume in this country exceed 60,000 units. FORTUNE, August 1957, at 116; FORTUNE, March 1963, at 116. Similarly, Toyota first began selling vehicles in this country in 1958, but only in 1963 did its sales
simply not annually changing model styles a domestic firm could overcome all the structural obstacles occasioned by nearly five decades of annual restyling by the Big Three. This is demonstrably untrue.\textsuperscript{129}

The foregoing analysis suggests that by pursuing annual style change the Big Three may have created an anticompetitive industry structure of three well-entrenched manufacturers. High market concentration may enable them to restrict output and raise prices above competitive levels. High barriers to entry may deter newcomers attracted by the tight oligopoly's greater-than-competitive profits. Again, pending a more exhaustive investigation by the FTC, annual style change appears to have been the underlying cause of these developments.

C. Style Change and Performance

For most antitrust economists, noncompetitive performance (e.g., high prices, high costs, retarded innovation) is an inevitable result of anticompetitive structure.\textsuperscript{130} It has been suggested, however, that due to their relative inexperience in the economics of industrial organization, the courts might be less willing to make this causal leap and might demand instead a showing of both anticompetitive structure and noncompetitive performance.\textsuperscript{131} Some manifestations of unsatisfactory performance resulting from the automobile industry's anticompetitive structure have already been described.\textsuperscript{132} To the extent, therefore, that annual style change was responsible for this structure, it indirectly impaired the industry's performance. This section briefly suggests, however, that annual style change itself may directly con-

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\textsuperscript{129} Entry as an assembler is no longer feasible. The independent parts manufacturers and independent retail distributors of earlier years have largely vanished as the Big Three have moved toward complete vertical integration. See note 113 supra. Consequently, an entrant bent on producing a standard-styled vehicle in 1970 would need nonetheless to integrate backward into components production and forward into a nationwide distribution system, at a capital investment cost estimated at more than half a billion dollars. Backward integration would require a minimum of $250 million; forward integration could be achieved at a cost of no less than $326 million. Note 115 supra. Even were it able to raise this amount of capital, a firm offering standard-styled cars to consumers accustomed to annually restyled products would probably be compelled to undertake lengthy and expensive countervailing promotional campaigns and to sell its vehicles at a substantial price disadvantage for a decade or more. See p. 589 supra. Indeed, it took Volkswagen and Toyota that long; and unlike a domestic entrant, these firms were able to rely on substantial worldwide sales to subsidize their prolonged break-in losses in this country. Schupack, 1968 Hearings, supra note 20, at 920 n.6.

\textsuperscript{130} See, e.g., Mueller, supra note 2, at 89-90; notes 2 & 5 supra.

\textsuperscript{131} Smith, supra note 2, at 57-58.

\textsuperscript{132} See note 24 and accompanying text supra.
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tribute to unsatisfactory market performance by reducing efficiency and retarding progressiveness.

Efficiency in terms of market performance is generally measured by comparing actual costs and prices with those that would obtain in a competitively structured market. Annual style change has substantially inflated production and distribution costs, and hence prices, by vastly increasing selling and retooling costs. In 1969, as noted above, the Big Three spent $1.56 billion, or $195 per car, for restyling. Advertising accounted for another $75 in per unit expenditures. These costs amounted to several billion dollars in consumer expenditures for 1969. Yet buyers were never given a choice between purchasing the same model as last year's at a lower price and a new model at a higher price.

Moreover, there is some evidence that the Big Three may employ annual style change as a surrogate for cost-saving innovations. By introducing a "new" model each year, they provide consumers with the illusion of progress and yet avoid the necessity of adopting technological improvements which would lower maintenance or initial purchase costs. It has been argued, for example, that application of known

133. See note 5 supra.
134. See p. 576 infra.
135. See note 115 supra.
136. Turner has framed the cost savings loss argument in the following manner: The major producers evolved a policy of annual model changes that, by accelerating the scrapping of expensive machine tools and dies, substantially increased the cost of automobiles. Since all of the major producers pursued this policy, and since the products of small producers were for a variety of reasons unappealing to most consumers, buyers were never given a choice between purchasing the same model as last year's at a lower price and a new model at a higher price. Conglomerate Mergers and Section 7 of the Clayton Act, 78 HARV. L. REV. 1313, 1335 (1965). See also Weiss, supra note 20, at 364-65. The study by Fisher et al. estimated that the cost savings loss to consumers resulting from annual style and performance changes amounted to approximately $5 billion annually, supra note 115, at 493-51. BLS data indicate that nearly all of the $3 billion model change cost to the consumer is attributable to restyling rather than performance modification. See pp. 576-77 supra. To this figure must be added the cost savings loss due to the diversion of resources from technological improvements to style alterations. For example, had the Big Three spent $36 of the estimated $195 consumed in restyling (see p. 576 supra) for processing its sheet metal with a chrome over galvanized steel process, the resulting doubling in the automobiles longevity would have saved consumers $2.1 billion a year. See p. 594 infra.
137. See testimony of Arkus-Duntov in 1969 Hearings, supra note 24, at 402-03. For example, if the chrome over galvanized steel treatment discussed at p. 594 infra, were utilized, automobiles would physically deteriorate less than twice as rapidly. Presumably, industry sales would therefore fall as the demand for replacements declined. The failure of this industry to adopt measures such as these which would improve the durability of its products, coupled with its promotion of psychological deterioration through annual style changes, has led many economists to charge the Big Three with "planned obsolescence." See, e.g., Lanzillotti, supra note 24, at 344-45; Dowd in 1969 Hearings, supra note 24, at 524. Moreover, it has been suggested that the Big Three are reluctant to introduce steam or electric vehicles because the number of parts required for these propulsion systems is far less than those needed for conventional gasoline engines. Since these firms derive a substantial amount of profit from "aftermarket" (i.e., replacement parts) sales, they
metallurgical processes would permit doubling the life of an automobile for an additional cost of $36 per year, resulting in an annual savings to consumers of more than $2 billion.\textsuperscript{138} Crash-absorption bumpers have been developed which could save the public an additional $1 billion a year.\textsuperscript{139} Pollution-free electric and steam vehicles can now be produced which would cost half as much to own and even less to operate than conventional gasoline automobiles.\textsuperscript{140} These developments, however, would increase automobile durability and thereby reduce demand, price and profits on new car sales. It is suspected, therefore, that the Big Three have repressed these cost-savings advances while offering consumers instead an annual restyling policy designed to bolster replacement demand through planned obsolescence.\textsuperscript{141}

Similarly, annual style change may have retarded this industry's

are unwilling to produce pollution-free vehicles which have a significantly smaller aftermarket. Esosirro, \textit{supra} note 24, at 35. There is perhaps another reason for this reluctance. It has been suggested that were the Big Three to produce electric vehicles, for example, industry barriers to entry would decline due to lower production costs and minimum scale economies. Ayres, \textit{J. Hearings—Steam}, \textit{supra} note 122, at 8.\textsuperscript{138} Testimony of Luntz in \textit{1969 Hearings}, \textit{supra} note 24, at 468-70.


\textsuperscript{141} See note 137 \textit{supra}. It might be suggested, nevertheless, that unless consumers were completely content with annual restyling they would not continue to purchase vehicles from the Big Three. See note 124 \textit{supra}. This argument, however, is specious. It is tantamount to suggesting that whenever consumers willingly buy products from a monopolist or oligopolist, they are content with the price and quality of the goods purchased. In fact, the public pays higher-than-competitive prices for less-than-optimum-quality goods when there is an absence of alternative suppliers, \textit{i.e.}, an absence of competition. Such is the condition of the automobile industry. Unless a consumer can utilize the less than standard-sized vehicles of the foreign automobile producers, he has little choice but to purchase annually restyled automobiles. Moreover, the substantial rate of depreciation engendered by annual restyling will encourage him to repurchase on an annual or semi-annual basis. The fact that consumers continue to purchase annually restyled vehicles, therefore, does not necessarily imply that they would not prefer a wider range of alternatives provided by a less concentrated automobile industry. See Dowd in \textit{1969 Hearings}, \textit{supra} note 24, at 540; Schupack in \textit{1969 Hearings}, \textit{supra} note 24, at 541.

Within the past few months, the Big Three have introduced "subcompact" vehicles to compete with the imported standard-sized automobiles of foreign manufacturers, particularly Volkswagen and Toyota. Whether these subcompacts will be annually restyled is still an open question. Ford has suggested that its subcompact entry, the \textit{Pinto}, might remain as basically unchanged as its earlier \textit{Model T}. New York Times, November 6, 1970, at 42. Nevertheless, the Big Three's earlier introductions of "compacts" in the early 1960's were accompanied by similar overtones of standard-styling. Yet, the compacts were in fact restyled annually. Moreover, even if the subcompacts do remain unchanged, they will not encourage \textit{de novo} entry into the automobile field by other firms. To meet the short-term threat of attempted entry into the subcompact market, the Big Three could rely on profits from their sales of restyled, regular-sized vehicles to subsidize increased promotion and near-cost sales of their subcompacts. To survive, a new domestic entrant would require a share of the regular-sized car market, but that larger field is still very much influenced by the Big Three's annual restyling policies.
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progressiveness as measured by the number and importance of actual innovations that have been developed as compared with what could have been achieved absent style change. It has been noted, for example, that the innovative characteristics of the industry began to decline shortly after annual restyling was introduced in the 1920's. Moreover, there is evidence that since then an increasing proportion of the Big Three's resources have been shifted from research and development to restyling and related promotional activities. Perhaps as a result, most recent innovations have come from outside the leading firms. Improvements such as new suspension systems and disc brakes were first introduced by small European firms. Other advances, notably automatic transmissions and power steering, originated in small domestic concerns. In short, an emphasis on style change may have supplanted the drive for technological progress in this industry.

Furthermore, it has been suggested that, paradoxically, annual style change does not result in a wide variation in the appearance of different automobile makes. Instead, given their high degree of interdependence, the Big Three protectively imitate each other's designs. Thus, Professor Bain has found that in this industry "the highly imitative product policies of rival oligopolists seem to lead to substantial uniformity of available products and to a suppression of the potential variety in products." Annual style change, then, may only have increased the rate rather than the degree of style innovation.

As a fundamental determinant of this industry's highly anticompetitive structure, annual style change may have been the primary factor accounting for what could be termed noncompetitive performance in automobile manufacturing. In addition to increasing concentration and raising barriers to entry, it appears to have substantially impaired industry market performance by reducing efficiency and retarding technological growth.

142. See Lanzillotti, supra note 24, at 345.
143. Testimony of Arkus-Duntov, 1969 Hearings, supra note 24, at 402-03. GM, for example, reported that in 1967 it spent $564 million for R&D, as compared with $881 million for annual restyling. 1968 Hearings, supra note 20, at 736, 746.
144. Lanzillotti, supra note 24, at 344. Disc brakes were mass produced by smaller European automobile manufacturers for more than a decade before they appeared on American cars. Nader in 1968 Hearings, supra note 20, at 212.
145. Lanzillotti, supra note 24, at 344.
147. See note 24 supra.
148. INDUSTRIAL ORGANIZATION, supra note 2, at 425.
149. For example, the migration of the gear shift from floor to steering column and, recently, back to floor again affected the rate but not the net amount of change. Note 39 supra.
III. Automobile Style Change as an “Unfair Method of Competition” Under Section 5 of the Federal Trade Commission Act

As previously noted, annual style change is a form of oligopoly conduct apparently invulnerable to prosecution under conventional Sherman and Clayton Act standards. This, however, was the type of problem Congress sought to solve by enactment of Section 5 of the Federal Trade Commission Act in 1914. More than two decades had passed since its passage of the Sherman Act in 1890; but Congress believed that its earlier legislation had been largely ineffective in halting a widespread and growing concentration in industry.\textsuperscript{150} To avert further concentration, it created the Federal Trade Commission as an administrative tribunal capable of undertaking intensive economic investigations and empowered under Section 5 to strike down “unfair practices” which, although lawful in themselves, nevertheless tended toward a suppression of competition through the elimination of actual or potential rivals.\textsuperscript{151} Congress deliberately left unspecified those practices which the FTC might proscribe as “unfair” in order to allow the Commission the widest latitude in dealing with novel methods by which concentration might be increased.\textsuperscript{152}

In reviewing FTC findings of “unfair methods of competition” in cases brought under Section 5, the Supreme Court has complied with the intent of Congress by establishing flexible guidelines for illegality. It has deferred to the FTC’s administrative expertise, holding that “[t]he precise impact of a particular practice on the trade is for the Commission, not the courts, to determine”\textsuperscript{153} and limiting its function.


\textsuperscript{151} Id. at 442-43.

\textsuperscript{152} Id. at 423; S. Rep. No. 597, 63d Cong., 2d Sess. 13 (1914). The Conference Report stated: “It is impossible to frame definitions which embrace all unfair practices. There is no limit to human inventiveness in this field.” Id. By enacting Section 5, Congress hoped to establish an expert body which by “careful study of the business and economic conditions of the industry affected” could detect and condemn concentration-increasing conduct which was impossible to reach under the Sherman Act or the recently enacted Clayton Act. Federal Trade Commission v. Keppel & Bros., 291 U.S. 304, 314 (1934); S. Rep. No. 597, supra, at 9, 11.

on review to "determining whether the Commission's decision has warrant in the record and a reasonable basis in law."\textsuperscript{154} It has ruled that to be "unfair," conduct need not violate other antitrust laws, but must merely "conflict with the basic policies of the Sherman and Clayton Acts."\textsuperscript{155} To give meaning to this general standard, the Court has upheld FTC findings of "unfair" practices when their anticompetitive impact as determined by the Commission was characteristic of conduct already proscribed under Sherman and Clayton Act standards.\textsuperscript{156} Thus, the Court could be expected to uphold an FTC finding


\textsuperscript{156} In Brown Shoe and Atlantic Refining, for example, it upheld the FTC's proscription of practices which accomplished the same anticompetitive end as exclusive dealing and tying arrangements, respectively (i.e., market foreclosure), but which violated neither the Sherman nor Clayton Act. In Atlantic Ref. Co. v. FTC, 381 U.S. 377 (1965), the Supreme Court held that the FTC was warranted in finding a sales-commission plan between a gasoline distributor and a major tire manufacturer an unfair trade practice because although not a tying agreement, "the effect of this plan is similar to a tie-in." 381 U.S. at 371. The arrangement condemned here involved Atlantic's sponsoring of Goodyear-supplied tires, batteries, and accessories to Atlantic's wholesalers and retail dealers. This arrangement has been termed a "quasi-tying agreement" because Atlantic did not manufacture the tied product, although it received a commission on dealers' purchases. See Comment, Per Se Rules and Section 5 of the Federal Trade Commission Act, 54 Calif. L. Rev. 2049, 2055-63 (1966). In FTC v. Brown Shoe, 384 U.S. 316 (1966), the Court found that respondent's franchise program, by effectively foreclosing competitors from selling to a substantial number of retail shoe dealers, "obviously conflicts with the central policy of the Sherman and Clayton Acts." 384 U.S. at 321. Here a franchise agreement, whereby Brown agreed to give valuable services to independent retail stores in exchange for the latter's contractual promise to deal "primarily" in Brown shoes, was held an unfair method of competition. This agreement has been termed a "quasi-exclusive dealing" arrangement because of the absence of the usual promise from the dealer not to handle any goods which compete with those of the seller. See Comment, supra, at 2065-66. But see FTC v. Sperry & Hutchinson Co., 439 F.2d 146 (5th Cir. 1970), cert. granted, 39 U.S.L.W. 3424 (U.S. Mar. 30, 1971) (No. 1278).
that annual style change as interdependently pursued by the Big Three violated Section 5 if the Commission demonstrated that in the automobile industry this practice had accomplished the same anticompetitive ends as had recognized antitrust violations.

Part I of this Note established that the premise of antitrust legislation was unequivocally competition and that persistently high structural concentration and accompanying high barriers to entry are inimical to that objective. It suggested that certain forms of conduct could produce these anticompetitive structural features. Part II demonstrated that as pursued interdependently by the Big Three annual style change seemed to be conduct of this kind. As suggested above, the broad legislative mandate underlying Section 5 of the Federal Trade Commission Act was that concentration-increasing practices be identified and proscribed as “unfair.” The case law under Section 5, however, requires analogy to antitrust violations. It will now be argued that the impact of annual style change upon industry concentration and entry barriers is sufficiently analogous to the structural impact of excessive promotional expenditures, predatory pricing and spending activities, and monopolistic practices to warrant a finding of illegality under Section 5.

The impact of any particular practice upon industry concentration can be factually demonstrated to a reviewing court by proving the extent to which it increases the market shares of the leading firms and increases the height of barriers to entry.\textsuperscript{157} The issue of illegality, however, may pose a more difficult problem because it necessitates a determination of the threshold beyond which concentration and barriers to entry become clearly anticompetitive and the practices producing them may be termed “unfair.” An abundance of economic evidence suggests that when 50 per cent or more of an industry's total sales is concentrated in four firms, and substantial barriers to entry are raised against newcomers, the survival of effectively competitive conduct and performance in that industry is highly improbable.\textsuperscript{158} Consequently, while the question of threshold illegality might arise in other industrial contexts, it need not unduly concern a court reviewing competition in the automobile industry. As noted earlier, with three firms sharing 97 per cent of total domestic sales and without a successful newcomer in nearly fifty years, this industry is one of the most highly concentrated and entry-resistant enterprises in American manufac-

\textsuperscript{157} See note 3 \textit{supra}.
\textsuperscript{158} See p. 569 \textit{supra}.
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turing. In short, if it could be shown that annual style change produced a high level of concentration and engendered substantial entry barriers and that these two structural effects could be analogized to results arising from other practices proscribed under the antitrust laws, there would be no problem in deciding that the degree of concentration and the height of entry barriers in the automobile industry were sufficient to warrant a finding of a Section 5 violation.

A. The Analogy of Style Change to Excessive Promotional Expenditures: The American Tobacco and Clorox Cases

Excessive promotional expenditures, those which might increase concentration beyond the tight oligopoly threshold (i.e., four firms with persistently 50 per cent or more of industry sales), have been banned under the antitrust laws when they occurred in the context of collusion or merger. By vastly increasing the countervailing selling costs required for entry or survival in the market in which they are employed, promotional expenditures of large magnitude may threaten the existence of actual competitors and deter potential entrants. Arguably, annual style change has an analogous impact upon actual and potential competitors in the automobile industry. Indeed, it has been suggested above that annual restyling may not only raise selling costs by requiring massive readvertising and retooling each year, but it also may increase distribution costs by requiring the establishment of a nationwide retail network and may increase production costs by requiring higher volumes of output.

Although the Supreme Court has never explicitly held that heavy promotional expenditures per se constitute an antitrust violation, it has recognized their anticompetitive implications when undertaken as a result of collusion or merger in Sherman and Clayton Act cases, respectively. As early as 1946, the Court noted that “tremendous advertising” outlays had been used by the Big Three cigarette manufacturers to foreclose new entry. In American Tobacco, it affirmed the convictions of American, Liggett and Reynolds for conspiracy to monopolize in violation of Sections 1 and 2 of the Sherman Act. Although these defendants had engaged in several exclusionary activities, including predatory price cutting and coercive purchasing programs, the Court placed substantial emphasis upon their $40 million annual advertising

161. Id.
campaigns, finding that this activity required entrants to engage in equally massive and costly countervailing advertising. It concluded that to a considerable extent, the Big Three had preserved their two-thirds share of the tobacco industry by wielding a "powerful offensive and defensive weapon against new competition" which had served to warn any prospective competitor that it "dare not enter such a field, unless it be well supported by comparable national advertising."\textsuperscript{102}

Of course, the practices condemned in \textit{American Tobacco} are not precisely similar to the phenomenon of style change in the automobile industry. The former involved only advertising, whereas, the latter includes several additional activities which inflate entry costs. Moreover, conduct was pursued differently in these two cases. Unlike the leading automobile producers, the three largest cigarette manufacturers had acted in concert. Furthermore, the Court's statements concerning their promotional expenditures were dicta given the evidence of overtly predatory pricing practices.

Nonetheless, the concentration-increasing impacts of the cigarette and automobile firms' conduct are analogous. Although annual style change was pursued interdependently by the Big Three automobile companies, it could scarcely have served as a more effective deterrent to new entry had it been pursued in concert. In fact, annual restyling by the leading automobile producers very likely exceeded the deterrent capacity of the tobacco firms' advertising expenditures.\textsuperscript{103} Thus, by analogy to the anticompetitive structural impact of advertising in \textit{American Tobacco}, annual style change in the automobile industry would seem to constitute an "unfair method of competition" under Section 5.

In 1967, this time in the context of a Clayton Act Section 7 merger

\textsuperscript{102} Id.

\textsuperscript{103} Assuming, for example, that the costs of countervailing promotion might equal the established firms' collective promotional efforts, a newcomer would be at least ten times more able to meet the entry costs generated by the three tobacco firms' $40 million expenditures than those resulting from the Big Three's $400-$600 million advertising campaigns. The upper range of advertising expenditures was obtained by multiplying Lan-zillotti's $75 per car figure (see note 115 supra) by the Big Three's current collective output of 7.98 million vehicles. \textit{Standard \\& Poor}, \textit{supra} note 18, at A161. The lower advertising estimate was based on advertising expenditures in selecting media for 1968 reported by \textit{Standard \\& Poor}, id. at A170. Moreover, a firm contemplating entry into the automobile industry would encounter the additional costs and risks associated with requisite backward and forward integration as well as annual retooling expenditures.

That annual style change may have actually exerted a greater anticompetitive impact on the structure of the automobile industry than that of heavy advertising on the structure of the cigarette industry may be seen in the concentration trends of the two markets. From 1931 until the time of suit in 1939, the three cigarette firms' collective market share dropped from 91 to 68 percent. 328 U.S. 781 at 795. During that same period, the leading three automobile companies' share rose from 81 to 90 percent. FTC \textit{Report}, \textit{supra} note 51, at 29, 1058.
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case, the Court reiterated its concern that advertising resources might be used by dominant firms in a tight oligopoly to increase and/or preserve high concentration. In *FTC v. Procter & Gamble Co.*, it upheld a Commission finding that Procter & Gamble's conglomerate acquisition of Clorox Chemical Co., the leading manufacturer of household liquid bleach, might substantially lessen competition or tend to create a monopoly in the production and sale of liquid bleach. At the time of the acquisition, Clorox and one other firm accounted for 65 per cent of industry sales, and with four other firms, for almost 80 per cent. In this already tightly concentrated industry, the Court held that Procter's acquisition of Clorox might increase concentration further or at least prevent possible deconcentration by raising barriers to entry. It specifically held that Procter's postmerger ability to divert a large portion of a promotional budget exceeding $120 million to meet the short term threat of attempted entry created a formidable obstacle to newcomers. Moreover, it intimated that the substitution of the powerful Procter for the smaller but dominant Clorox might lead to promotional competition which would eliminate the remaining smaller firms in this industry.

Although the Court's acknowledgement in *Clorox* of the anticompetitive implications of excessive promotional expenditures arose in the context of a merger, the holding might best be explained in terms of tight oligopoly structure. The Clorox-Procter merger had not been a horizontal merger of competitors but instead a conglomerate product extension. The Court was primarily concerned not with the elimination of competition by merger but with the postmerger impact that Procter's advertising resources might have upon concentration in the tightly oligopolistic bleach industry. Regardless of how the giant Procter had entered this industry, i.e., whether de novo or via merger, its enormous promotional resources threatened to increase concentration by eliminating smaller firms and raising barriers to entry.

Viewed from this perspective, the situation the Court feared in *Clorox* begins to approach the factual setting of annual style change in the automobile industry. In both situations, competitive industry structure is threatened by the concentration-increasing conduct of dominant firms. Annual style change by the Big Three, no less than Procter's advertising advantages, might have raised selling costs above the level

165. Id. at 571.
166. Id. at 573, 579.
167. Id. at 578.
tolerable for smaller actual and potential competitors. In fact, the former conduct seemed to produce the greater anticompetitive impact. For example, were Procter to have devoted its entire $120 million promotional budget to thwarting attempted entry, a newcomer to the liquid bleach industry would have confronted a barrier one-third as costly to surmount as that erected by the Big Three’s collective advertising efforts.\textsuperscript{168} Moreover, annual style change arguably occasioned more than massive advertising in the automobile industry; it might very well have led to the several other entry-deterring developments described earlier. Finally, in the automobile industry, unlike in Clorox, the anticompetitive impact quite possibly was real rather than merely potential. Annual style change may have actually eliminated nearly one hundred smaller producers. By contrast, the Court ordered Procter’s divestiture of Clorox on the basis of a concentration-increasing impact that could \textit{potentially} result were Procter to employ its promotional resources as a weapon against actual and prospective competitors. By reason of its arguably real and more formidable impact upon the competitive structure of the automobile industry, annual style change would seem to warrant condemnation as “unfair” under Section 5.

In American Tobacco and Clorox, the Court acknowledged that in highly concentrated industries excessive promotional expenditures whether actually undertaken by collusive oligopolists or merely threatened by a merger partner could seriously impair competitive structure. More recently, antitrust commentators have argued that excessive advertising \textit{per se} by leading firms in a tight oligopoly should be proscribed under Section 5 because it can vitiate competitive structure and performance to the same extent as more common forms of concentration-increasing activities such as mergers.\textsuperscript{169} One study has concluded:

To be sure, there can no longer be any serious doubt about the capacity of certain kinds of advertising, pursued with sufficient intensity, to bring about a massive restructuring of an industry, to “concentrate” its sales volume in the hands of two or three firms and thus to impose on the consuming public all the ills the law has long recognized as being associated with inordinately high concentration ratios. In a situation where advertising has \textit{in fact} been used to achieve this kind of result, it should enjoy no more immunity from the antitrust laws than any other kind of concentration-increasing behavior.\textsuperscript{170}

\textsuperscript{168} See note 163 \textit{supra}.
\textsuperscript{169} S. Smith, \textit{supra} note 2, at 51.
\textsuperscript{170} \textit{Id.}
Automobile Industry

This argument would seem to apply with even greater force to the concentration-increasing activities engendered by the Big Three's annual automobile restyling policy.

B. The Analogy of Style Change to Predatory Price Cutting: Standard Oil and "Predatory Spending"

The anticompetitive impact of annual restyling on industry structure is also similar to that produced by the recognized antitrust violations of predatory pricing and spending. Of course, these latter violations differ by nature from style change in that they involve some form of "predatory intent," whereas no such element has been discovered in various studies of the automobile industry. Nevertheless, the effects of all three practices on competitive structure are fundamentally analogous.

Prolonged sales by powerful firms at prices below out-of-pocket costs are banned as predatory when they drive out competitors or bar new entry. This practice is illegal because it enables firms with vast financial resources to outlast smaller competitors and ultimately to reap the abnormally high profits associated with high industry concentration. Such "predatory price cutting" has been proscribed as an attempt to monopolize by the Sherman Act since the landmark Standard Oil of New Jersey v. United States decision of 1911 and has been recently condemned as a Robinson-Patman Act violation in United States v. National Dairy Products Corp.

Similarly, excessive spending by huge manufacturers which requires countervailing expenditures that are unprofitable for smaller competitors has been regarded as predatory when it results in heightened concentration by excluding actual or potential competitors.

171. See note 27 supra.

172. Standard Oil Co. of New Jersey v. United States, 221 U.S. 1 (1911).


174. See Turner, Conglomerate Mergers and Section 7 of the Clayton Act, 73 Harv. L. Rev. 1313, 1345-46 (1965); P. AREEDA, ANTITRUST ANALYSIS 519-20 (1967). Indeed, careful study of the Standard Oil case revealed no evidence of that predatory tactic. See McGee, Preatory Price Cutting: The Standard Oil (N.J.) Case, 2 J. L. & Econ. 137 (1959). Predatory promotional spending, however, is beginning to be recognized by the courts. An allegation that "excessive advertising expenses" and rapid product modification has been employed to drive out competition survived a motion to dismiss in Bailey's Bakery, Ltd. v. Continental Baking Co., 235 F. Supp. 705 (D. Hawaii 1964), aff'd per curiam, 401 F.2d 182 (9th Cir. 1968), cert. denied 393 U.S. 1086 (1969). By "predatory" nothing more is meant than the effect of unnecessarily impairing competition by raising barriers to new entry. No specific intent to exclude is implied, although it may very well exist. E.g., refer to the
Predatory spending is an even more effective exclusionary weapon than predatory price cutting. Market strategies predicated upon price cutting are economically viable only if the surviving firm can recoup its losses through excessive profits obtained by pricing well above the competitive level. But these abnormally high profits will very likely bring new competition back into the field. A predatory price-cutter, therefore, might not be free from new entry for the length of time necessary to permit recovery of its original losses. By contrast, a predatory spender not only drives out competitors unable to keep up, it also deters new competition by raising barriers to entry.

Significantly, annual style change appears to be more closely analogous in anticompetitive impact to predatory spending than price cutting. As indicated earlier by the preliminary analysis of the automobile industry, this practice seemed responsible both for the elimination of smaller producers and the deterrence of firms attracted to the industry's extraordinarily high rates of return. In short, annual restyling is similar to predatory spending in that both practices increase concentration by setting expenditure rates at levels in excess of what either smaller producers or newcomers could afford.

Although the Supreme Court has never explicitly dealt with a case involving only allegations of predatory spending, it has implied that this practice might violate the Sherman Act since its decision in the early *United States v. American Tobacco Co.* case of 1911. In that case, it found as evidence of predatory intent American Tobacco's "persistent expenditure of millions upon millions of dollars in buying out plants, not for the purpose of utilizing them, but in order to close them up and render them useless for the purposes of trade"; the Court held that this firm had attempted to monopolize and had in fact monopolized the tobacco industry in violation of the Sherman Act.

In *Tobacco*, the Court found that expenditures for the purchase and scrapping of plants helped achieve and preserve an extreme degree of concentration by eliminating potential as well as actual competition.

175. See note 174 supra.
176. Id.
178. 221 U.S. 106 (1911).
179. Id. at 113.
Unable to acquire existing tobacco facilities, prospective entrants were compelled to invest in the construction of new plants. Indeed, a similar form of predatory spending characterized the United States v. Aluminum Co. of America case. There, Judge Learned Hand ruled that Alcoa’s anticipation of increases in demand for aluminum by doubling and redoubling its capacity excluded new competition in violation of the Sherman Act. In both Tobacco and Alcoa, the costs of survival and entrance were heightened by the established firms predatory spending programs.

Of course, Standard Oil, Tobacco and Alcoa all involved monopolists; automobile manufacturing is dominated by oligopolists. But this difference in the degree of structural concentration achieved does not negate a basic similarity in the anticompetitive impact of the conduct involved. By excluding competitors and raising barriers to entry, annual style change by the Big Three may have been as effective in creating a tight oligopoly in the automobile industry as price cutting by Standard or predatory spending by American and Alcoa were in establishing monopolies in the oil, tobacco and aluminum industries, respectively. Indeed, the Big Three’s annual $400-$600 million advertising campaigns, their $1.5 billion annual restyling expenditures, and their past investment of billions of dollars in backward and forward integration might approach if not equal the anticompetitive structural consequences of the spending programs proscribed in Tobacco and Alcoa. The predatory pricing and spending programs of the monopolists in these three cases resulted in Sherman Act violations. Accordingly, the similarity in anticompetitive impact of annual automobile style change with that of predatory pricing and spending provides another justification for the FTC declaring this practice “unfair” under Section 5.

C. The Analogy of Style Change to Monopolistic Practices: The Motion Picture Advertising Decision

The implication of annual restyling by the Big Three for competitive industry structure is also analogous to that of monopolistic practices which have been declared “unfair methods of competition”
under Section 5. When pursued interdependently by firms effectively sharing monopoly power, both forms of conduct tend to preserve if not increase high concentration by eliminating competitors with smaller market shares.

In *FTC v. Motion Picture Advertising*, for example, the Supreme Court held that an advertising film company with 40 per cent of the relevant market, together with its three major nondefendant competitors, had collectively monopolized 75 per cent of the advertising film industry by jointly, although noncollusively, negotiating similarly exclusive contracts with theater owners.\(^1\) Since the theater owner was paid to display these films, the exclusive dealing prohibition of Section 3 of the Clayton Act was inapplicable.\(^2\) Moreover, respondent's less-than-dominant market position precluded a charge of monopolization under the Sherman Act. Instead, the Court treated the four jointly-acting firms as one and weighed the collective impact of their conduct on the advertising film industry's structure. It accepted the FTC's finding that this shared conduct had foreclosed to competitors all but 25 per cent of the available outlets for this business in the country and had resulted in the exit of several smaller film distributors.\(^3\) Consequently, it held that "a device which has sewed up a market so tightly for the benefit of a few" constituted an "unfair method of competition" within the meaning of Section 5.\(^4\)

In effect, the Court in *Motion Picture Advertising* analogized the anticompetitive impact of the four oligopolists' exclusive contracts to that which would have resulted had the contracts been unilaterally undertaken by a single monopolist. The latter situation, of course, would have provided the basis for a Sherman Act monopolization charge. Given this similarity in the collective concentration-increasing effects of the advertising firms' conduct, therefore, with that of a recognized antitrust violation, Motion Picture Advertising's contracts were held "unfair" under Section 5.

Annual style change by the three leading automobile companies, like the exclusive contracts of these four advertising film firms, arguably excludes competitors and increases concentration. It would thus seem to fall well within the analysis employed in *Motion Picture Advertising*. If General Motors, for example, managed to increase its

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183. 344 U.S. 392 (1953).
184. This section makes unlawful a lease, sale, or contract for sale which substantially lessens competition or tends to create a monopoly. 15 U.S.C. § 14 (1964).
185. 344 U.S. at 899, 896.
186. Id. at 899.
current market share to monopoly proportions and to preserve this position by accelerating the rate and extent of its style variations, a charge of monopolization under the Sherman Act would lie. Yet, if GM, Ford and Chrysler effectively share monopoly power and jointly deter new competition through annual variations in automobile styles, the consequences are as anticompetitive as if any one of these firms alone possessed monopoly power. Here, as in Motion Picture Advertising, the similarity in impact with that of a Sherman Act monopolization can be demonstrated. The results, therefore, should be the same: annual style change should be declared an "unfair method of competition" in the automobile industry.

The anticompetitive, concentration-increasing impact of annual style change by the Big Three in the automobile industry matches and surpasses that of several practices proscribed under the Sherman and Clayton Acts when undertaken by dominant firms: excessive promotional expenditures, predatory pricing and spending, monopolistic conduct. This analogy in terms of the comparable structural consequences of style change to recognized antitrust violations is all that is required for a Section 5 violation.

For over thirty years, the FTC has been aware that annual automobile restyling was impairing the competitive structure of this industry. In 1939, an FTC report recounted the marked decrease in the number of passenger car manufacturers and noted that the "introduction of yearly models, and the increasing importance of the style factor, the large amount of capital required to finance new models in good and bad years, all favored the large manufacturing company with huge capital and equipment resources." Detailed examination of annual restyling practices undertaken by GM, Ford and Chrysler as an unfair method of competition under Section 5 would appear long overdue. Only the FTC's political or administrative paralysis would seem to stand in the way of bringing a well-founded antitrust suit against the automobile manufacturers.  

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187. FTC REPORT, supra note 21, at 26.
188. For a recent attack upon the FTC's failure to divest GM, with the consequent loss in consumer savings of several billion dollars a year in lower automobile prices, see Foreword to 2 ANTIT. LAW & ECON. REV. 13-15 (Summer 1969). The Justice Department has also been severely criticized for its unwillingness to prosecute the passenger car industry. Indeed, it has failed to take any action despite its preparation of a 104 page complaint in 1965 charging GM with having violated sections 1 and 2 of the Sherman Act and section 7 of the Clayton Act. Significantly, the proposed suit alleged among other items that the effect of GM's annual restyling since the 1920's upon competitors was "obvious and dramatic." It declared further that "tools and dies for new models are high-cost items that GM's smaller competitors can less easily afford." Wall Street Journal, October 31, 1967, at 24, col. 3. But see the FTC's recent complaint against the nation's five leading tire manufa-
IV. Some Considerations Regarding Relief

In antitrust, providing an adequate remedy is as important as proving the antitrust violation. Were style changing by automobile manufacturers found to violate Section 5, the formidable task of devising appropriate relief would still remain. Two different approaches suggest themselves which will be only briefly outlined here: structural dissolution of the Big Three or a moratorium on their annual style changes.

A. The Appropriateness of Structural Dissolution

If the preliminary economic analysis proves to be correct, restoration of competition to the automobile industry would require structural dissolution of the Big Three into independent assembly, manufacturing and distribution facilities. As discussed in Part II, GM's 1923 introduction of annual style change revolutionized this industry's structure. By giving rise to components integration, heavy advertising, franchised distribution and enormous capital requirements, it transformed an industry of numerous assemblers to one dominated by three completely integrated firms. In their drive to achieve full integration backward into manufacturing and forward into distribution, the Big Three have either acquired or eliminated the vast majority of companies which assembled cars, the manufacturers of automotive parts, and the independent wholesale/retail distributors. Dissolution would reverse this process. It might undo what more than four decades of annual style change have accomplished: a fully integrated, highly concentrated, anticompetitive industry structure.

The remedy of divestiture as applied to the automobile industry raises two important issues: is it economically feasible in an oligopoly setting and is it legally justifiable under Section 5?

Divestiture in oligopoly is no less feasible than in monopoly. In both cases, feasibility depends upon the absolute size of the firm relative to economies of scale. Absent annual restyling requirements of integrated components production, technical efficiencies in the assembly
of automobiles could be achieved at any level of output greater than 60,000 units per year. At this volume, performance capabilities could still be efficiently improved through the purchase and assembly of specially tooled parts from external suppliers. Significantly, the average annual output of the Big Three's 45 assembly plants is approximately 177,000 cars per plant. Divesting GM, Ford and Chrysler of all but one of their respective assembly facilities, therefore, would provide plants with capacities well in excess of the efficiency threshold for 42 new producers. Spin-off of the Big Three's parts and distribution facilities, moreover, would enable these competitors to assemble automobiles with improved performance capabilities from components supplied by a variety of independent parts manufacturers and sold through independent distributors. Consequently, economists have generally concluded that dissolution would not lessen the efficiency with which automobiles are produced. On the contrary, they argue that it would lead to increased efficiency.

Divestiture would also appear to be legally justifiable under Section 5. The Supreme Court has apparently sanctioned the FTC's use in Section 5 proceedings of this and other remedies designed to effect structural reorganization. Although in the past, courts rarely imposed this drastic sanction, more recently the Supreme Court has indicated that such reluctance is unwarranted when other remedies alone could not adequately dissipate undue market concentration resulting from a proscribed activity. Accordingly, if the impact of annual style change on the structure of the automobile industry has been as profound as suggested above, structural reorganization through divestiture might be warranted.

190. General Motors operates 23 assembly plants; Ford operates 15 and Chrysler 7 such facilities. AUTOMOTIVE NEWS, ALMANAC ISSUE 68 (1970). Given the Big Three's current (1969) production at 7.96 million (note 45 supra), each assembly plant produces an average of 177,000 units per year.

191. The Big Three would each operate a single assembly facility thereby freeing their other 42 plants for operation by new competitors.


193. See, e.g., Loecher, 1968 Hearings, supra note 20, at 915.

194. Whatever doubts may have existed concerning the extent of the Commission's remedial authority under section 5, they seem to have been firmly resolved in favor of according this agency the complete array of powers of a court of equity "including divestiture and other remedies designed to effect structural reorganization," Ekco Prods. Co. [1963-65 Transfer Binder] TRADE REG. REP. ¶ 16,879, at 21,904 (F.T.C. 1964), aff'd 347 F.2d 745 (7th Cir. 1965). See the Supreme Court's apparent recognition and sanction of this position in Pan American World Airways v. United States, 371 U.S. 296, 312 n.17 (1963) and United States v. Philadelphia National Bank, 374 U.S. 321, 359-40 n.17 (1963).

Dissolution of the Big Three along the lines suggested would not only be economically feasible and legally justifiable, it would also be competitively beneficial. It would substantially reduce entry barriers by weakening the market power of the leading producers. Under these eased entry conditions, economists have estimated that more than 100 additional firms could enter and compete effectively in the automobile industry.\textsuperscript{196}

B. \textit{A Moratorium on Annual Style Change}

Although economically feasible and legally justifiable, dissolution of the Big Three might nevertheless be precluded by political considerations. In that case, the FTC might wish to devise less drastic remedies specifically directed at the "unfair" practice. It might, for example, order a fixed term moratorium on all automobile style changes by the Big Three. Presumably, it would except performance modifications from its decree. As noted in Part I, the Bureau of Labor Statistics currently distinguishes between style changes (such as varying amounts of chromium and contour trim, changing body shell patterns and radiator grill designs) and performance changes (modifications of safety, efficiency, comfort or durability).\textsuperscript{197} By framing its injunctive relief in terms of BLS criteria, the FTC could interdict anticompetitive annual style changes without affecting safety modifications or technological innovations.

A moratorium on style changes, however, might not be sufficient. Absent dissolution, new competition will emerge in the automobile industry only as a result of new entry. But proscribing annual restyling by the Big Three would not eliminate all the obstacles to entry which

\textsuperscript{196} Loescher in 1968 \textit{Hearings}, \textit{supra} note 27, at 915. New companies could enter more easily and compete with those formed through dissolution of the Big Three's assembly facilities. \textit{See} note 191 \textit{supra}. These new producers, like those created by divestiture, would be able to obtain components and accessories from the independent suppliers created through spin-off. \textit{See} p. 609 \textit{supra}. They would be able to dispose of their products through dealers who were no longer pressured to deal exclusively with a single dominant firm. Finally, they would not need to undertake massive retooling and readvertising expenditures annually. \textit{Id.}

By breaking up existing firms and encouraging new ones to enter, divestiture would improve competitive market performance. If a dozen firms of similar size replaced the current industry structure, there is evidence that the average ratio of price to cost would be substantially reduced, thereby enhancing efficiency. Loescher in 1968 \textit{Hearings}, \textit{supra} note 20, at 918. Likewise, it has been suggested that an industry of from 15 to 30 firms would greatly advance the rate of technological innovation and result in a wider variety of automobiles. Schupack, in 1969 \textit{Hearings}, \textit{supra} note 24, at 541. On the basis of these expectations, an automobile industry of perhaps 100 or more producers would contribute immeasurably to this industry's performance. This is the industry which dissolution would engender.

\textsuperscript{197} \textit{See} pp. 575-76 \textit{supra}.
have resulted from more than four decades of this practice. It would not, for example, recreate the independent distributors and parts manufacturers which no longer exist but which are indispensable to entry by nonintegrated firms. Consequently, additional relief would be necessary to provide prospective entrants with access to these facilities.

In fashioning supplemental relief to encourage the re-emergence of parts manufacturers and nonfranchised or factory owned distributors, the FTC could rely on ample precedents. It is well settled that in order to restore competitive conditions, the Commission may under Section 5 forbid acts lawful in themselves or compel affirmative acts of compliance. To facilitate the growth of parts suppliers, for example, it could impose purchasing requirements upon the Big Three similar to those commonly contained in antitrust consent decrees. Such a requirement was included in a consent judgment entered in 1964 against American Cyanamid, a manufacturer of laminated melamine products which had integrated back into melamine production and with several co-conspirators had restrained competition in violation of Sherman and Clayton Act provisions. To enhance entry opportunities for prospective non-integrated laminators, the decree encouraged the development of new sources of melamine supply. It did this by ordering American Cyanamid to purchase a specified amount of melamine from external suppliers. Moreover, it imposed limitations upon the defendant's own production of this material.

Similarly, the FTC could order the Big Three to freeze components production at current levels and purchase additional parts necessary for anticipated increases in automobile demand from external suppliers. Since industry sales forecasts indicate that demand should rise by more than 40 percent by 1975, future orders from the Big Three would constitute a certain and sizeable market for new parts manufacturers. A reappearance of independent components firms would reduce, in turn, the backward integration requirements that bar entry by new automobile producers.

Alternatively, the FTC might simply order the Big Three to sell

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200. 1964 Trade Cas. 79,628, 79,635.
201. Id. at 79,631.
202. STANDARD & POOR, supra note 18, at A159.
parts to entering firms on a nondiscriminatory basis. Presumably, this entry of new automobile producers would be soon accompanied by the emergence of independent parts manufacturers seeking to supply the entering assemblers. When this occurred, the order could be rescinded.

With respect to other obstacles arguably occasioned by style change, the Commission could devise similarly specific relief. It could greatly alleviate the problem of achieving nationwide distribution, for instance, by requiring that the Big Three’s franchised dealers carry the products of entering firms. Moreover, it could reduce countervailing advertising requirements by setting limitations on the amount of annual advertising expenditures that the Big Three may undertake.

Ideally, a style change moratorium accompanied by supplemental equitable relief would attract new firms formerly incapable of overcoming the obstacles established by annual restyling. In any event, jurisdiction could be retained by the court to permit either the FTC or the defendants to move for modification of the decree. If, for example, a substantial number of producers entered the market sooner than anticipated, the court might set aside certain portions of the injunctive relief. Conversely, if no entry was forthcoming, it might prolong the decree or take more drastic corrective steps, perhaps of a structural nature.

203. Apparently, dual or multi-line retail automobile distribution is common in Europe where it is referred to as “the supermarket approach.” Hearings Before the Select Committee on Small Business on the Status and Future of Small Business, 90th Cong., 1st Sess. at 451 (1967).

204. Turner has argued that extensive advertising by tight oligopolies create formidable barriers to entry and substantially increase concentration. He suggests that it would be quite appropriate to impose, for a limited time, absolute or percentage limitations on promotional expenditures of firms that have obtained undue market power through antitrust violations. Turner, supra note 159, at 93-96. See also p. 602 supra. A similar suggestion has been recently advanced by two antitrust economists, Asch & Marcus, Returns to Scale on Advertising, 15 Antitrust Bull. 33, 39-40 (1970). Mueller contends that government limitations of advertising expenditures by oligopolists would not raise first amendment problems. Mueller, supra note 2, at 89-90. Subsection (e) of the proposed Concentrated Industries Act of the White House Task Force on Antitrust Policy also suggests possible limitations on advertising expenditures. The Neal Report, supra note 11, at 66.

205. In United States v. United Shoe Machinery Corp., 391 U.S. 244 (1968), the Supreme Court made it clear that an antitrust decree which has failed to accomplish its intended purpose of restoring effective competition may be modified to provide additional structural relief. The district court in the earlier United States v. United Shoe Machinery Corp. case, 110 F. Supp. 295 (D. Mass. 1953), had rejected the government’s request for divestiture. Following the Supreme Court’s ruling that the initial decree was inadequate, the district court has recently entered a divestiture order. United States v. United Shoe Machinery Corp., 1969 Trade Cas. 86,444 (D. Mass.).

Annual style change has been a characteristic of numerous other durable goods industries since the late 1940’s. Significantly, concentration has increased more rapidly in this sector than in any other area of manufacturing. By 1966, style-changing industries exhibited the following 4-firm concentration ratios: home freezers—82%, typewriters—79%, washing machines—79%, vacuum cleaners—78%, refrigerators—72%, cameras—97%, computers—67%, and televisions—88%. Hearings Before the Subcomm. on Antitrust and
Automobile Industry

If annual style change in the automobile industry is an unfair method of competition under Section 5 of the Federal Trade Commission Act, only the FTC can sue for relief. This Note calls upon that agency to investigate and, if appropriate, to bring suit against this practice.

Monopoly of the Senate Comm. on the Judiciary on Economic Concentration, S. 89th Cong., 1st Sess., 1901-1905 (1965); U.S. DEPT. OF COMMERCE, ANNUAL SURVEY OF MANUFACTURERS: 1966, at ch. 11. In light of this Note’s findings with respect to the automobile industry, an economic and legal investigation of annual restyling in these concentrated industries might also be in order. Significantly, the FTC is currently studying “style or nonfunctional” model changes in household appliances and other consumer products for evidence of “planned obsolescence.” The Commission suggested that “the practice might run afoul of Federal antitrust laws as well as those against unfair or deceptive trade practices.” N.Y. Times, March 28, 1971, at 40, col. 2.

206. The Federal Trade Commission has exclusive jurisdiction to enforce Section 5. 15 U.S.C. § 45 (1964). As a result, the Department of Justice cannot bring suit against alleged violations of that section. Marquette Cement Mfg. Co. v. Federal Trade Commission, 147 F.2d 589 (7th Cir. 1944), rev’d on other grounds sub nom. Federal Trade Commission v. Cement Institute, 333 U.S. 683 (1948). Apparently, private antitrust suits cannot be brought under Sections 4 (treble-damage actions) or 16 (injunctive relief) of the Clayton Act (15 U.S.C. §§ 15(a), 15(b), 26) for alleged violations of Section 5 of the Federal Trade Commission Act. See Nashville Milk Co. v. Carnation Co., 355 U.S. 373, 376 (1958); Atlanta Brick Co. v. O’Neal, 44 F. Supp. 39 (E.D. Tex. 1942); Rader v. Balfour, 1968 Trade Cas. ¶ 72,709 (N.D. Ill. 1968). This does not prevent private parties, however, from calling upon the FTC to investigate and, if appropriate, to bring suit against the Big Three automobile manufacturers. See FEDERAL TRADE COMMISSION, PROCEDURES & RULES OF PRACTICE, 16 C.F.R. § 2.2: “Any individual . . . may request the Commission to institute an investigation in respect to any matter over which the Commission has jurisdiction” as long as the application sets forth “the alleged violation of law with such supporting information as is available . . . .”