Structural Shared Monopoly under FTC 5: The Implications of the Exxon Complaint

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Previous judicial decisions interpreting the antitrust laws have developed only mechanical and crude tests of market power. Unfortunately, these tests have been rendered inadequate by the complexity of contemporary economic institutions. The author suggests that the solution to this problem may lie in a structural analysis of the economic power within a market. Such an analysis would confront the realities of industrial concentration in the market system. The author discusses the application of a structural analysis approach to the Exxon complaint, an action filed by the Federal Trade Commission against the eight major oil companies, and concludes that a structural analysis approach should be accepted.

I. INTRODUCTION

The enforcement of the antitrust laws against monopolization has generally depended upon the identification of reprehensible conduct by firms with significant control over prices and competitors. This emphasis upon unlawful conduct has occurred because of the particular ability of the courts to ascertain what behavior has taken place and to evaluate whether that behavior has violated a specific statutory provision. Most courts have construed the Sherman Act to proscribe even beneficial and routine industry conduct when a firm has exercised significant market power. However, the mere unexercised ability to control prices and to exclude competitors has never been sufficient to support a finding of monopolization.

Because of the focus on conduct, judicial decisions have employed mechanical and crude tests of market power which are easily applied

1. See, e.g., American Tobacco Co. v. United States, 328 U.S. 781, 803-04 (1946). The government alleged that three companies with 90 percent of the national cigarette market had purchased a cheap grade of tobacco which they did not use in the manufacture of their own cigarettes to deprive the manufacturers of cheaper cigarettes of a necessary raw material, as well as to raise the price of that raw material.


4. This is an economic definition of monopolization, but not a sufficient legal premise for finding violative conduct. Even in the decision which comes closest to proscribing an industry structure, United States v. Aluminum Co. of America, 148 F.2d 416 (2d Cir. 1945), the court recognized such policy defenses as "superior skill, foresight and industry." Id. at 430.
by a trial bar and a judiciary possessing little economic expertise.\(^5\) The essential portion of this analysis of market power has been the calculation of a firm's market share. This calculation requires first a determination of a product market and then an outlining of a relevant geographic market. The market share of any given firm is the proportion its sales constitute out of all the sales of all the firms in the relevant product and geographic markets.\(^6\) This method of analysis identified strongholds of market power in an era of simpler economic and industrial institutions. The courts, however, have been dissatisfied with this analysis and have gerrymandered geographic and product markets from time to time in order to avoid a finding of monopoly.\(^7\) This discontent resulted from the realization that the judicial test of market power did not correspond to actual market conditions.

The answer to this dissatisfaction with the market power test may lie in modifying the customary approach and adopting a structural analysis of the economic power within a market, or at least an analysis from a structural perspective. This structural analysis would not be constrained by arbitrary product and geographic definitions, but would encompass all facets of the market, including structural agreements. Such an analysis would not only provide a more accurate and comprehensive calibration of market power, but would also illustrate the inadequacy of the bare judicial requirement of significant reprehensible conduct. That is, as more complex economic and corporate institutions are analyzed for the market power each contains, it will become clear that market structure and the conduct of firms within that market are not two distinct substantive elements,\(^8\) but, instead, coalesce as a struc-

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5. This gap between antitrust enforcement and economic theory has long been recognized. The classic discussion of the problem is found in Mason, *Monopoly in Law and Economics*, 47 Yale L.J. 34 (1937).

It is fully consistent with the legal conception of the monopoly problem that the courts should inquire into the actual or probable results of agreements to restrain competition. But to do so would be to give up the traditional tests of monopolizing and to grapple with the problem of what is an unreasonable control of the market . . . .

On the other hand, if economics is to be put itself in the position to contribute to the formulation of public policy, it must conceive the monopoly problem in a more extensive way . . . . The formulation of public policy requires a distinction between situations and practices which are in the public interest and those which are not. And this requirement imposes the necessity of elaborating tests which can be applied by administrative bodies and courts.

*Id. at 48–49.*


7. See notes 59-67 infra and accompanying text.

actual agreement in which past conduct (structure) would support present anticompetitive conduct.

Such a structural analysis is consistent with the spirit of the Sherman Act,9 the application of the Clayton Act,10 and the terms of section 5 of the Federal Trade Commission Act,11 as these statutes have been interpreted in a variety of opinions. Nevertheless, Exxon Corp.,12 a complaint under FTC 5 against the eight major oil companies13 for reinforcing a noncompetitive market structure through various common and accommodating activities, requires an extension of present law. The success of the action depends upon a structural analysis of market power, as well as a finding of "structural agreement,"14 which is essentially evidence of past exclusionary conduct by permitting individual firms and groups of firms to control prices and exclude genuine competitors from the market.15

This Note will examine the application of a structural analysis to the Exxon defendants, eight vertically integrated shared monopolists. The concept of structural analysis will be developed from its substantial basis in existing case law and economic reasoning. Finally, the acceptance of such an analytical technique will be urged for its value in promoting more rational and effective enforcement of the antitrust laws against monopolization.

II. THE COMPLAINT

The FTC has alleged16 that the defendant firms have engaged in various common and accommodating activities. These practices pervade the industry from crude oil production, transportation, and refining to marketing. The major integrated firms, majors, have evolved a buyer-controlled pricing system for crude oil in which one of the majors offers a price for a specific density of crude oil in a field where it

13. The defendants are the eight largest petroleum companies in the nation. In order of size they are: Exxon Corp., Texaco Inc., Gulf Oil Corp., Mobil Oil Corp., Standard Oil Co. of California, Standard Oil Co. (Indiana), Shell Oil Corp., and Atlantic Richfield Co.
14. See section V-B infra.
15. Id.
16. This Note assumes that the FTC's allegations are true.
operates the gathering lines. The other majors follow that firm’s lead by posting identical prices in other oil fields. Although these posted prices exceed those which would be attained in a competitive market, the integrated firm until recently benefited from inflated crude oil prices. Since the majors each have substantial crude oil holdings, the market price of crude oil determines the amount a major integrated firm has “paid” itself, which, until recently, was identical to its depletion allowance. Any “payment” between the refining division of an integrated firm and its crude oil division may function as a transfer of profits from the refining division to the crude oil division. However, these artificially high prices for crude oil are both real and substantial costs to the independent refiner. By “shifting profits” in this manner, the majors keep prices and profits in oil refining artificially low. Low profits, of course, discourage new entry.

The defendant firms own or control, individually or jointly, many of the pipelines which transport crude oil and refined products throughout North America and the world. Access to these pipelines is essential to all refiners because pipelines provide the least expensive and most


19. Until the passage of INT. REV. CODE OF 1954, § 613A, which effectively prevents use of the depletion allowance by the majors, inflated crude oil prices permitted major integrated firms to shift profits from refining to crude oil production in order to take advantage of higher depletion allowances.


22. Staff Report E-8. For example, the Colonial Pipeline is owned as follows: (assets = $480.2 million)

<table>
<thead>
<tr>
<th>Company</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlantic Richfield</td>
<td>1.6%</td>
</tr>
<tr>
<td>Amoco</td>
<td>14.3%</td>
</tr>
<tr>
<td>Cities Service</td>
<td>14.0%</td>
</tr>
<tr>
<td>Continental</td>
<td>7.5%</td>
</tr>
<tr>
<td>Phillips</td>
<td>7.1%</td>
</tr>
<tr>
<td>Texaco</td>
<td>14.3%</td>
</tr>
<tr>
<td>Gulf</td>
<td>16.8%</td>
</tr>
<tr>
<td>Sohio</td>
<td>9.0%</td>
</tr>
<tr>
<td>Mobil</td>
<td>11.5%</td>
</tr>
<tr>
<td>Union Oil</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

Joint Share of Defendant Firms = 44.2%
efficient form of bulk land transport. By charging excessive (though approved) rates for transporting crude oil, the integrated majors may subject competing independents to a price squeeze. Potentially more devastating in its impact is the majors' control of access to these pipelines by a variety of complex scheduling and storage devices. As a result of this control, the independent refiner may have difficulty acquiring the quantity of crude oil required in a given production period. Supply difficulties not only reduce the amount of refined product produced, which usually reduces profits, but also increase the cost of production by hindering efficient operation. Naturally, high pipeline costs and periodic constrictions in supply to independent refiners are passed through as short supply or increased costs to their major customers, the independent marketers.

The major oil companies have developed a system for interfirm exchange of crude oil and refined products which enables the eight largest firms, and, to a lesser extent, the next 10 to 12 integrated firms, to exchange crude oil and refined products. Through these

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Olympia Pipeline Co. is owned as follows:

(assets = $30.7 million)

<table>
<thead>
<tr>
<th>Company</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shell</td>
<td>43.5%</td>
</tr>
<tr>
<td>Mobil</td>
<td>29.5%</td>
</tr>
<tr>
<td>Texaco</td>
<td>27.0%</td>
</tr>
</tbody>
</table>

Joint Share of Defendant Firms = 100%.


24. Pipelines are interstate carriers, 49 U.S.C. § 1 (1970); thus, their rates are subject to approval by the ICC. Id. § 6. It is, nevertheless, possible that these approved rates could be excessive. In at least one instance rates were approved by a regulatory commission with the knowledge that "[n]o single producer's actual costs, actual risks, actual returns are known." Permian Basin Area Rate Cases, 390 U.S. 747, 829 (1968) (Douglas, J., dissenting).


27. If production is reduced to a level below that of the minimal optimal scale (MOS), efficiency suffers. See Scherer, Economies of Scale and Industrial Concentration, in Industrial Concentration: The New Learning, supra note 21, at 26, Table 3.


29. Staff Report E-4, Fig. I-1, Fig. I-3; and E-9. For a detailed discussion of how other types of product exchanges work, see Hearings on S. 1167, supra note 17, at 12-21.

exchange agreements the major firms can function essentially as a single operating unit with proportionately larger reserves. At the same time, they provide crude oil to independents only under contractual processing agreements. These processing agreements permit the transferring company to retain the ownership of both the crude oil and the refined product. In effect, these transfer agreements provide for a service charge for the use of the independent's refining facilities. Such agreements permit the majors to exert considerable control over the output and the refining capacity which the independent refiners might otherwise economically attain.

The eight major oil companies consistently refuse to provide an adequate supply of refined products to independent marketers, despite the ready exchange among themselves and with the next 10 or 12 largest integrated firms. Additionally, the majors, in their own marketing operations, consistently avoid price competition. Instead of competing by price, they rely upon product differentiation realized through heavy advertising, credit cards, full lines of tires, batteries and accessories, and densely located stations.

As the result of the above institutions and practices of the oil industry, the FTC alleges that "[t]he normal response of supply to demand for refined petroleum products has been distorted." In addition, "[s]hortages of petroleum products have fallen with particular severity on sections of the country where independent refiners and marketers are primarily located." At the same time, the majors have recorded record profits. Despite these large earnings, the major oil companies face no significant potential or new actual competition because of the insurmountable barriers to entry which arise from their common vertical integration and their accommodating horizontal practices.

III. THE ECONOMIC BASIS

To appreciate the application of the proposed structural analysis

31. Staff Report E-9. "There is little information on the frequency of this practice in the industry but it is known that, in some cases, refineries which appear to be independents are under long-term contract to provide refinery service to major oil companies." T. Duchesneau, supra note 30, at 132.
32. See HIGHWAY ROBBERY 180-85.
33. COMPETITION, LTD. 237-38.
34. Id. at 212.
35. Id. ch. 2.
37. Id.
to the *Exxon* defendants, it is useful to consider industrial organization economics and the concept of the market. Industrial organization economics is the branch of economics employed in antitrust analysis. Traditional concepts of the market have not heretofore utilized industrial organization economics to any great extent, but a structural analysis would invite more of an economic definition in market delineations. This would, in turn, produce a more accurate and realistic determination of product and geographic markets.

A. *Industrial Organization Economics*

In a perfectly competitive economy firms and consumers exert the primary influence over the allocation of resources.\(^{40}\) Through their ability to change demand, consumers dominate in the perfect competition model.\(^{41}\) In a state of imperfect competition, however, the structure of a market may become sufficiently rigidified to allow a firm to determine its individual demand curve, rather than merely to ascertain the demand curve for the entire market.\(^{42}\) As a firm's knowledge of structure becomes more specific and as the firm is willing to act upon this knowledge, the balance of power tips in favor of the producers rather than the consumers. If, for example, only a few companies manufacture widgets and advanced technology presents substantial barriers to new manufacturers seeking to enter the widget market, the firms which produce widgets may reduce supply or increase prices in order to maximize profits.

Unlike the broad-ranging analyses of macroeconomics, industrial organization economics focuses on the performance of individual firms and industries. The industrial organization economist utilizes three basic concepts in describing a firm or an industry: structure, conduct, and performance.

Industry structure is determined by a number of factors. Among these factors are the number of leading firms, their relative size, and the overall concentration of the market. Besides those relatively objective measurements, a number of subjective elements shape an industry configuration: the extent to which sellers recognize their interdependence, the ability of individual sellers to change market demand by product differentiation, and the ease with which new firms may enter the market.\(^{43}\)


\(^{41}\) In such an economy the individual firm has no control over price; it can sell as much or as little output as it likes at one particular price, set by the market. P. SAMUELSON, *ECONOMICS* 482 (9th ed. 1973).

\(^{42}\) *Id.* at 273.

The behavior of firms is either consistent with existing market structure or aimed at realigning the market. Gasoline marketing, for example, has two types of retailers: the major-branded retailers and the independent private-branded retailers. It would be consistent with the structure of the retail gasoline market for independent private dealers to price below the major-branded stations in order to retain their share of the market. When the independents drop their prices more than that amount required to equal the brand value of the majors, they may increase their share of the market. Such an action would realign the market structure.

Except for exclusionary or coercive conduct, many economists have generally discredited the use of price or quality practice alone as sound indicators of performance. Despite this guidance by economists, however, the courts have generally relied upon conduct, per se, rather than upon structure, to establish an adverse impact upon competition. In a compromise but probably correct position, Carl Kaysen and Donald Turner have stated that the rigid distinction between structure and conduct is probably inappropriate:

[S]tructure in a broad sense can be taken to include both structure proper and conduct. In this broad sense, the structure of a market, from the point of view of a particular firm,

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44. COMPETITION, LTD. ch. 3.

Too often the law—as drawn up by Congress, enforced by the Department of Justice, and adjudicated by the courts—regards various vigorous forms of competition that tend to eliminate firms and reduce the discrepancy between price and marginal cost as crimes rather than good deeds. The legal mind is not so much concerned with the distortion of prices which it has no means of measuring, as it is with methods by which prices are set. Yet economic and legal minds do seem today to be converging.

P. SAMUELSON, supra note 41, at 528.

Professor Turner also discussed this test of conduct:

Conduct is a more familiar test of legality both to courts and those to whom the law applies. Conduct is a test that ordinarily can be easily complied with; it is easier for an individual to avoid bad conduct than to avoid a bad situation or result, because the latter may depend in large part on the behavior of others and on external events. . . . The forms of conduct we are concerned with are forms that cannot readily be classed as either good or bad in themselves. . . . It is necessary to examine the economic context in which the conduct takes place. . . . And typically the restrictive effects will vary directly with the market power of the firm involved. In short, in an attempt to determine the legality of market power by assessing conduct, one tends to end up again with questions of power, and an attendant lack of clear standards.

comprises the circumstances external to that firm which condition its decisions, including the characteristic conduct of other firms in the market.47

Performance measures the extent to which a market system satisfies social, economic, and political wants and needs as well as the extent to which market institutions mold and create future goals consistent with basic social, economic, and political precepts.48 In economic terms a firm performs most efficiently when it achieves all important economies of scale, produces the most goods at the lowest practicable price, and makes "normal" rather than excessive profits.49 The concentration of market power in the hands of certain firms must be viewed as a political force. For example, the extensive advertising campaigns launched in certain industries not only provide a type of nonprice competition, but also create a demand for the product. Thus, these market leaders effect a change in the allocation of future resources and the eventual distribution of goods. This self-perpetuation is inconsistent with the concept of creative destruction in the free enterprise system.50

The value of a market structure may not be measured by the size and stability of its representative institutions, i.e., its firms, but by the structure's ability to fulfill changing needs and desires:

The choice of institutions involves some view of human good and of the design of institutions to realize it. This choice must, therefore, be made on moral and political as well as economic grounds. Considerations of efficiency are but one basis of decision and often relatively minor at that. Of course, this decision may not be openly faced; it may be made by default. We often acquiesce without thinking in the moral and political conception implicit in the status quo, or leave things to be settled by how contending social and economic forces happen to work themselves out.51

To the extent that a given market structure encourages economic efficiency and innovation, it might be undesirable to reform the structure, since such reforms could cause consumers to pay more for the goods produced by the industry. Nevertheless, when this argument is asserted as a defense to a deconcentration action, investigators should examine whether the alleged economies are in production or

47. C. Kayser & D. Turner, supra note 8, at 60.
50. See J. Schumpeter, Capitalism, Socialism, and Democracy, chs. 7-8 (1942).
merely in promotion. In a few cases, whatever the cost of lost efficiencies, the social cost of reducing the number of decisionmaking centers may require deconcentration. Conversely, political considerations as to the adverse effect of deconcentration of an industry on the balance of payments or on the construction of badly needed refineries might prevail against both economic and social costs.

Although anticompetitive effects are most readily discerned when the prohibited results have been realized, such enforcement of the laws against monopolization would be clear, predictable, and relatively valueless. The policy against anticompetitive practices is so clear that agreements to restrain trade violate the antitrust laws even if those agreements do not and could not result in monopolization. The courts have emphasized conduct in monopolization, and conduct plus intent are required by the terms of the statute in order to support a finding of an attempt to monopolize. However, courts have permitted such indicators of market structure as market concentration to magnify the reprehensibility of certain conduct so that it achieves the level needed for a violation. Nevertheless, the judiciary has been unwilling to examine structure as a sole criterion for monopolization of a line of commerce.

B. The Market

Antitrust case law has developed two types of markets which operate together as a framework for the analysis of the economic impact of the alleged anti-competitive activities. First, to determine which firms compete with each other, a relevant geographic market is outlined. In many cases that market is essentially an arbitrary delineation of political divisions or a listing of several, possibly


54. One of the factors in the controversial ITT settlement was the effect on the balance of payments.


58. See United States v. Aluminum Co. of America, 148 F.2d 416 (2d Cir. 1945).

noncontiguous, areas where the firms being investigated do business. As such, the geographic market is only a crude measure of the economic impact of anticompetitive behavior, and may carry more validity when the markets are defined by transportation costs or other factors which would establish the area or areas recommended as economically integrated. If, for example, it is demonstrated that people living within a particular metropolitan area buy most of their consumable goods in that area then that area might be a valid geographic market for the retail sale of gasoline.

The other element in this portion of the economic analysis is termed the relevant product market. The product market should include all those products which are reasonably interchangeable or which can reasonably be considered to compete. In practice, the courts have stretched reason to its limits by including bottles and cans in the container market, all fuels in the energy market, and cellophane in the flexible packaging material market, while isolating car and refrigerator enamel from other enamel. In each of these instances, the determination of the product market has been primarily result-oriented with little regard for its economic legitimacy.

Because these techniques for establishing the relevant market are easily applied by the noneconomists who serve as trial counsel and judges, the mechanical requirements are complied with in virtually every antitrust complaint and hearing. Unfortunately, both the geographic and product markets are readily subject to judicial gerrymandering to evade precedent or statutory requirements, since the relevant markets are findings of fact.

The Supreme Court expressed the purpose of the geographic market in United States v. Pabst Brewing Co., in which the Government challenged the merger of Pabst with Blatz Brewing Company under section 7 of the Clayton Act. The district court had dismissed the action because the Government had not shown that either the State

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66. An empirical basis for the determination of geographical markets has been developed by Professors Elzinga and Hogarty. This analysis is discussed in T. Duchesneau, Competition in the U.S. Energy Industry 28-29 (1975).
of Wisconsin or the three-state area of Wisconsin, Illinois, and Michigan was a relevant market. The majority of the Supreme Court reversed, holding that all the Government needed to show was that the merger had a "substantial anticompetitive effect somewhere in the United States . . . ."69 The implication of this decision is that a relevant geographic market is merely a device to delineate a workable area in which to collect data and to analyze conduct. If the Government is able to show large market shares nationally or in large politically-defined areas, courts may assume that there is a substantial anticompetitive effect in some economically relevant and substantial area.

Yet, even if the Government purports to define a specific geographically and economically relevant market as well as a relevant product market, these definitions may not delineate the competitive arena or the actual structure of the market. Such would be the case if, for example, there has been little recognition of the complexity and peculiar structure of the industry being investigated. Instead of defining a market horizontally, *e.g.*, gasoline refining or gasoline marketing, some markets may be better delineated not only by horizontal product lines but also by vertical production lines. Oil production, refining, transportation, and marketing are clearly identifiable horizontal markets,70 but the effect of operation in all of these markets may synergistically exceed the mere accumulation of certain shares of each horizontal market. The calibration of market power in the oil industry might include the barriers to entry into this heavily integrated industry as well as the oligopoly and oligopsony powers of the firms. In addition, the economist might depart from his normal static-snapshot approach to analyze the evolving and dynamic nature of the industry. A dynamic analysis would evaluate the continued stability of market power in the face of the classical presumption that a free market constantly changes because of its exposure to storms of creative destruction.

**IV. Market Power and FTC 5**

The concept of structure is also important in market power analysis and the enforcement of the antitrust laws. An examination of market power and the antitrust statutes is a necessary precursor to a consideration of a structural analysis of the *Exxon* complaint.

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69. 384 U.S. at 549.
A. The Structural Analysis of Market Power

A firm possesses market power when it can behave persistently in a manner different from the behavior that a competitive market would enforce on a firm facing otherwise similar cost and demand conditions. 71

Traditionally, market power has been measured by defining a horizontal market and then by determining the defendant's share of sales within that market. This horizontal dominance test has been used in both monopolization and merger cases. 72 Where firms operate simultaneously in several interrelated production and product markets, however, as do all vertically integrated companies, a measure of their sales in one horizontal market may not be an accurate test of their market power, either in that single horizontal product market or in the market structure which includes both production and product levels. A structural analysis of the market may demonstrate that market power resides not only in the breadth of a market, but also in its depth. Vertical ties and vertical integration are conduits which transfer power from one horizontal market to another for use at strategic times. These vertical relations thus assure the long-term stability of the firm as it faces the external storms of creative destruction. Beyond these advantages of leverage and flexibility, however, integrated firms are also more capable of interrelating more frequently with other integrated firms than are firms operating within a single horizontal product market. 73 For example, in the oil industry the eight major firms share crude oil leases and pipeline ownership among themselves and with the next dozen integrated firms. 74 Another pool of interest exists in the non-profit exchanges of crude oil or refined products. 75 When these companies interact in similarly inefficient marketing systems, it is not surprising that they should avoid price competition. The existence of a scarce raw material 76 magnifies the oligopoly and oligopsony powers and, so, further benefits each of the defendants.

The petroleum market structure assures some common activities

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71. C. Kayser & D. Turner, supra note 8, at 75.
74. See note 22 supra.
75. See text accompanying notes 29-32 supra.
76. The importance of scarce raw materials is an important consideration in deciding whether or not to challenge a merger under the guidelines promulgated by the Department of Justice. U.S. Department of Justice, Merger Guidelines, 1 Trade Reg. Rep. ¶ 4510, at 6,886 (1968).
and makes other accommodating activities possible without agreement. For example, control over crude oil and refined products' prices can be achieved without the use of traditional antitrust conduct violations as price-fixing. Nevertheless, a major firm's individual actions redound to the common interest of all the majors and to the common detriment of independent producers, refiners, and marketers. In addition, the structure of the petroleum industry certainly maintains a significant amount of residual power to be wielded against competitors in any horizontal product market. Even more significant are the elements of perpetual existence, dominance, and stability. When forces external to the industry, such as the institutional advantage of the depletion allowance, are altered or eliminated, these vertically integrated oligopolists can shift their resources to regulate supply and cost to maintain their desired dominance. The ability of the majors to withstand such a severe shock as the repeal of the depletion allowance merely suggests the security of their fortress-like market structure.

The horizontal dominance test is a mechanical measure of a static condition which may reveal concentration or monopolization within a single horizontal product market. Although this test has been the one traditionally applied by both economists and the courts, the governing statutes do not require a mechanical test of the concentration in a single horizontal market to reveal monopoly or oligopoly power. The power of vertically integrated oligopolists is difficult to assess by such a static test since the power they share is dynamic. Often, the courts confront such a dynamic force in a single horizontal market in proceedings brought for the attempt to monopolize, but the judiciary has in such instances relied upon the requirement of intent. In such cases, the power of the would-be monopolizers has not usually been sufficient to control supply or price. In the oil industry the major oil companies may have achieved that control—

77. This power was demonstrated by the price squeeze on independent refiners in the early 1960's. See COMPETITION, LTD. 156-78.
78. See, e.g., HIGHWAY ROBBERY 182-85.
80. For a historical discussion suggesting application of the Sherman Act to the oil industry, see E. ROSTOW, A NATIONAL POLICY FOR THE OIL INDUSTRY 123-44 (1948).
81. See American Tobacco Co. v. United States, 328 U.S. 781, 785 (1946); Swift & Co. v. United States, 196 U.S. 375, 396 (1905). See also Turner, supra note 46, at 305.
or monopoly power—but the primary evidence of that power is the conspiracy of structure in which the industry is ensconced.

B. *The Statutory Basis*

Three statutes provide the framework for antitrust enforcement: the Sherman Act, the Clayton Act, and the Federal Trade Commission Act. As the oldest of these acts, the Sherman Act combines common law words and phrases to vest in the federal courts a new jurisdiction and to indicate the direction in which the federal judiciary should develop this grant of authority. The plain meaning of the words in the statute does not indicate whether the Sherman Act includes the concept of a "structural agreement." Instead, the analysis must be directed at various prosecutions under the Act which have suggested a clear judicial reticence in accepting this type of structure as a presumptive violation.

Sherman Act prosecutions have been closely related to the horizontal dominance test of market power and successful actions have required a showing of very large horizontal market shares. It is impossible to predict how such an easily applied test for market power will be translated into a measure of market control that includes vertical ties between divisions of a firm, horizontal ties and accommodations between competitors, and even possibly ties between facilities in different regions. It is highly probable that courts will rely upon their horizontal dominance test and use these other factors only to magnify the impact of that market share in the same manner as courts currently treat such factors as a trend toward concentration. Not only would such a test be less reflective of the actual market control, but it would also prohibit the prosecution of a complaint like the one in *Exxon* since there is a danger that the structural conditions in the market would not sufficiently enhance the

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84. *Id.* §§ 12-27.
85. *Id.* §§ 41-58.
86. The relevant language is Sherman §§ 1 & 2, 15 U.S.C. §§ 1, 2:

§ 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal . . . .

§ 2. Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States or foreign nations, shall be deemed guilty of a misdemeanor . . . .

88. *See text accompanying notes 117-19 infra.*
approximate 50 percent combined market shares of the defendants. Until structural agreement analysis has been more widely developed in other types of antitrust prosecutions, it is unlikely to be accepted under Sherman Act criminal prosecutions unless an exceptional case is proffered for its adoption, since defendants must be proved guilty beyond a reasonable doubt. FTC 5 imposes no criminal penalties; the Commission is required only to establish its case by a preponderance of evidence. This lesser burden of proof and the absence of criminal sanctions may be helpful to the Commission since the *Exxon* complaint seeks the acceptance of novel violations and novel proofs.

In the same year as it adopted FTC 5, Congress completed its antitrust statutory scheme with the passage of the Clayton Act. For the purposes of this article, the importance of the Clayton Act is in its application to mergers which would only remotely tend toward monopoly as measured by the horizontal dominance test. The particular zeal with which the courts have enforced the Clayton Act reflects the frustration of both courts and plaintiffs in their efforts to reach industrial concentration which does not itself constitute a Sherman 2 violation. A structural analysis of market power under FTC 5 would close this gap between Sherman 2 and Clayton 7 as well as reduce the need and inclination for the more extreme Clayton Act decisions.

In considering under the Clayton Act what mergers might "substantially lessen competition," the courts have taken notice of vertical and conglomerate integration, particularly in three settings: foreclosure, reciprocity, and elimination of potential competi-

89. The eight defendants shared the following portions of the crude oil, refining, and marketing horizontal markets:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Net Crude Production (1969)</td>
<td>50.54%</td>
</tr>
<tr>
<td>Domestic Crude Oil &amp; Gasoline Refining Capacity (1970)</td>
<td>58.07%</td>
</tr>
<tr>
<td>Gasoline Market Share (1970)</td>
<td>55.01%</td>
</tr>
</tbody>
</table>


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

91. *See, e.g.*, United States v. Von's Grocery Co., 384 U.S. 270 (1966). This decision may have been correct in terms of structural monopoly.


tion. These Clayton Act cases provide the closest approach to a structural market analysis. Logically, they should be extended to support the adoption of this test in deconcentration actions under FTC 5 or Sherman 2, except that the costs of such deconcentration may far exceed the cost of merely enjoining a merger.

FTC 5 was passed by Congress in conjunction with the Clayton Act in order to provide direction to courts which were threatening to use the rule of reason to return to common law enforcement. At the same time, Congress framed FTC 5 to provide flexibility in antitrust enforcement:

Issue was sharply joined on the question of whether the new Trade Commission was to deal with "unfair methods of competition" or whether the law should attempt to define those methods with some precision. The weight of opinion was against an elaborate enumeration of such unfair practices. The Commission, under judicial supervision, could work out the exact meaning of "unfair methods of competition" as concrete cases arose. It is clear, however, that Congress expected the Commission to build up its own administrative law of unfair trade practices and not be limited rigidly to what had already been held to be unfair trade practice at common law.

Similarly, interpretation of FTC 5 by the Supreme Court has indicated that it would be consistent with the policy and terms of FTC 5 to apply that section's prohibition to structures, relationships, or conduct which have not previously been recognized as anticompetitive.

V. THE CONSPIRACY OF STRUCTURE

Traditionally, courts have initially considered the market power of a firm charged with monopolization and have proceeded to consider conduct aimed at competitors or customers only when the horizontal dominance test indicates the existence of substantial monopolistic power. Structural monopoly does not directly depend upon either a certain horizontal market share or some specific

98. See Standard Oil Co. v. United States, 221 U.S. 1 (1911).
101. See note 87 supra.
degree of vertical restraint, but it does require an analysis of market power, including an analysis of common practices, common vertical structures, patterns of behavior, and patterns of organization and industry structure as they interact to create an intangible control of the market. This can become fairly involved, since vertical restraints vary in kind and are not as easily or objectively measured as are the sales in a horizontal market. Conceptually, the analysis of an area of market power aids in understanding an industry such as the petroleum industry because it reveals a solid bloc of power opposite atomized independents strewn across each level of the industry. The following analysis reverses the traditional order by approaching monopolization first through a consideration of the power inherent in the vertical structure of each of the defendant firms, and only then examining their joint market power shared through a conspiracy of structure.

A. The Structure of the Defendant Companies—The Vertical Analysis

Market power may reside not only in the breadth of a market but also in its depth. In one of the earliest monopolization decisions, United States v. Aluminum Company of America, the Second Circuit held that a 90 percent share of the domestic aluminum market evidenced sufficient control over the market to violate Sherman 2. Although the Alcoa opinion could easily be interpreted as holding that the company's horizontal market share, by itself, was sufficient to establish monopolization, later courts have been less willing to make size alone an offense. This judicial hesitancy was manifested in United States v. United Shoe Machinery Corp.

United Shoe dominated the shoe machinery market, accounting for 75-95 percent of market sales. However, the court's decision was based primarily on United Shoe's past and continuing conduct rather than on the company's market share. Judge Wyzanski concluded that a substantial portion of United Shoe's market power was derived from a restrictive system of leasing, rather than selling, its complicated and unique shoe machines. Although the court recognized that these leases had been made for "honestly industrial" purposes, that the leases were legal, and most importantly that the leases were beneficial to shoe manufacturers, it ruled that such apparently justifiable and even admirable conduct was exclusionary and proscribable when carried on by the giant of the industry. The court's analysis

102. COMPETITION, LTD. 212.
103. 148 F.2d 416 (2d Cir. 1945).
105. Id. at 323-25.
used the size of the horizontal market share to magnify the repre-
hensibility of the firm's business conduct.

United Shoe's leasing agreements fall within Kaysen and
Turner's broad definition of structure which includes exclusionary
conduct. These machinery leases included clauses providing for
both a substantial return charge and full-capacity use as well as the
integration of maintenance charges into the charges for the machine
during a ten-year term. These contractual bonds between United
Shoe and its customers were clearly assets of significant economic
power; that is, they stabilized, albeit temporarily, a vertical relation-
ship and made other dealings with these same customers all the
more likely. To the extent that these temporary vertical bonds im-
munize the supplier-purchaser relationship from normal, destructive
market forces, judicial injunction of these relations is no less struc-
tural relief than is divestiture, although it is clearly less drastic.

Just as a single dominant firm may develop a system of vertical
restraints within a structurally defined market, oligopolists or shared
monopolists may similarly rigidify the vertical structure of a
market. In 1970 the Federal Trade Commission proposed a com-
plaint against Goodyear and the four largest remaining bus tire
manufacturers. The five companies which accounted for 99
percent of the market were charged with monopolization by main-
taining exclusionary leases with transit authorities and other bus tire
users. These leases were similar to those found to be objectionable
in United Shoe. They provided for a three- to five-year term with
service available only through these agreements, and a substantial
penalty attached for termination. The proposed Bus Tire Complaint
approached the conclusion that parallel business conduct was illegal
if it enabled a few companies to dominate an industry, but the action
was settled by a consent decree. Whether the ties are made pos-
sible only by horizontal domination of a market, by control of a
scarce raw material, or by some other device, this alteration of mar-
et performance transforms the market structure.

This conscious alteration of market behavior was illustrated in
United States v. Parke, Davis & Co., in which the Supreme
Court dealt with a vertical retail price maintenance combination by
including the victims of the combination as parties to an agreement

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106. C. KAYSEN & D. TURNER, ANTITRUST POLICY: AN ECONOMIC AND LEGAL
ANALYSIS 60 (1965).
REP. ¶ 19,381, at 21,510 (FTC 1970) [hereinafter referred to as the Bus Tire
complaint].
violative of Sherman 1. In that case, Parke, Davis and its wholesale distributors maintained exclusive control over its patent medicines and brand name drugs, which may be analyzed as a type of scarce raw material. This exclusive control gave Parke, Davis, with its distributors, a significant amount of power over independent marketers. Parke, Davis exploited this power by threatening both wholesalers and retailers with termination of supply if they failed to charge certain minimum prices, and by threatening wholesalers with termination of supply if they did not terminate the supply to these retailers, once supplied with their names by Parke, Davis. In this way, the company successfully utilized power from a legal monopoly and its differentiated brand name drugs to influence their retail price.

The majority of the Court was careful not to overrule expressly the right of a particular dealer to comply with a supplier's unilateral and unenforced (except by termination) restrictions in order to obtain a unique or peculiarly desirable product. In other words, as in Theatre Enterprises, Inc. v. Paramount Film Distributing Corp., the Court did not recognize that the structure of the industry precluded the buyer's free choice or genuine bargaining power. However, the Court did view Parke, Davis' program as a system of restriction, i.e., a conduct violation, even if the systemic or structural violation was not recognized.

This analysis of vertical relationships applies not only to temporary vertical relations, but also to the permanent bonds of vertical integration. The Supreme Court twice reviewed decisions made by the Federal Trade Commission involving agreements, similar in effect to tying arrangements, between certain individual oil companies and Goodyear Rubber Company. In Atlantic Refining Co. v. FTC, the Court explicitly recognized that the contract was not a tying arrangement, but that the effect was the same, i.e., that it was "[t]he utilization of economic power in one market to curtail competition in another." The Court's decision also relied upon the coercion of dealers by the oil company pursuant to the agreement. The second FTC decision reviewed by the Supreme Court was Federal

110. 381 U.S. 357 (1965).
111. Id. at 365.
112. Id. at 369.
Trade Commission v. Texaco, in which a similar arrangement, which did not include coercive enforcement activities by the oil company but merely a directory policy, was struck down. The clear implication was that because of the structure of the oil industry any type of exclusionary agreement would unfairly burden competition. In both Atlantic Refinery and Texaco the structure of the industry magnified the reprehensibility of the exclusionary arrangements and so was found to violate FTC 5.

Although vertical integration has had a significant impact in making relatively obscure and progressively less reprehensible conduct a violation of the antitrust laws, the Supreme Court has specifically refused to accept the Justice Department's argument that vertical integration itself violates the Sherman Act. As notable a commentator as Robert Bork has argued that vertical integration is not properly within the reach of antitrust enforcement, and that similarly vertical agreement and arrangement, with only a few exceptions, should evade prohibition. The only expression of enforcement policy against vertical integration is in the Justice Department Merger Guidelines under Clayton 7. These guidelines and the enforcement of Clayton 7 offer another perspective on vertical integration and market power, since many more elements are considered in determining whether there is a probability of lessening competition. The guidelines state that "the Department's enforcement activity under Section 7 of the Clayton Act . . . is intended to prevent changes in market structure that are likely to lead over the course of time to significant anticompetitive consequences." Notably, the guidelines address themselves to barriers to entry, resting on the potential ability of the combined firms to effect a price or supply squeeze or resulting from economies of scale unrelated to production or distribution, e.g., promotional economies. Other important considerations are the trend toward vertical integration in the industry and control of a scarce raw material.

It is unclear whether any one of the defendants in the Exxon complaint individually possesses enough power in both supplying markets and purchasing markets to violate the guidelines, but the structure

113. 393 U.S. 223 (1968).
116. It may be noted that the dearth of prosecutions under these vertical merger guidelines suggests that many economists and attorneys within the Department of Justice subscribe to the Bork view.
of the oil industry imparts control of scarce raw materials to the majors sufficient to magnify the horizontal market shares to the level of guideline violation. This is because it is a multilevel industry with at least two scarce commodities, crude oil and refined product, and a "scarce" facility, oil pipelines. The Supreme Court has heard few vertical merger cases, but the holding in Brown Shoe Co. v. United States suggests a strict view towards vertical mergers. The acquisition by Brown Shoe (a shoe manufacturer) of Kinney (a national retail chain), whose market share accounted for 1 percent of men's shoes, 1.5 percent of women's shoes and 2 percent of children's shoes was found to be violative of section 7 of the Clayton Act. Besides examining the concept of market shares, the Court recognized the strong trend toward vertical integration in the shoe industry. In considering vertical mergers, the Court emphasized the importance of examining each merger separately "in the context of its particular industry."

This consideration in the context of the particular industries has at least two distinct virtues: (1) the minimal optimal scale (MOS) for industry facilities can be determined, and (2) economies of scale may be considered as they actually apply to that industry. Economies of scale are those reductions of cost per product unit which are associated with maintaining a certain large volume in production, distribution, or marketing. Economies of scale can further be refined by the concept of MOS. MOS is shorthand for the point on the unit cost curve at which the cost levels out and further size will bring no further savings in production — the single most important economy of scale. For example, if the MOS of production in an industry is ten percent of industry capacity, an oligopoly of ten firms would be economically justifiable and desirable. At the same time, an MOS of ten percent would not, in itself, justify an oligopoly of five firms.

In determining policy in regard to the structure of an industry, the primary question is the extent to which economies of scale require production facilities so large that only a few firms may efficiently co-exist in the industry. In 1951 economist Joe Bain conducted a pioneering study which indicated that the average MOS plant capacity in integrated petroleum refining (in coastal locations) was 1.75 percent of national capacity. Two recent studies have suggested that, in the late 1960's, the MOS plant size for petroleum refineries rose to 1.9-2.0

118. Id.; see Staff Report E-1, E-7, E-8.
120. Id. at 332.
121. Id. at 321.
122. J. Bain, Barriers to New Competition 86 (1956).
percent of national capacity. At the time of these studies, the four-firm concentration ratio was 33 percent, rather than the eight percent needed to maximize production economies.

Other factors peculiar to certain industries may be important in determining the relation of size to the economies of distribution. For example, the MOS may change from one region to another. A prairie refinery receiving its oil by transcontinental pipeline may exhaust shipping and storage economies at a much lower volume than seaside refining facilities. In a competitive marketplace, then, petroleum companies would be expected to curtail refinery size at approximately MOS for production and to locate their refineries at the points of most efficient distribution.

Frederick M. Scherer, chief economist for the FTC, has suggested a type of distribution economy peculiar to the multiplant firm. The economy envisioned by Scherer is not directly one of distribution, but of managerial investment; it reflects the effect of the structure of the industry upon decisionmaking. Such multiplant scale economy is particularly important in processing industries such as petroleum refining, where investment decisions may restrict the possibility of achieving scale economies for decades to come. Scherer's nonaggressive, market-sharing hypothesis is that the higher the concentration in an industry, the larger the plants will tend to be. Managers of the major firms will make their investment partly in routine replacement and partly in anticipation of increased demand. A dominant firm will consider itself to have a claim on a certain fraction of the increase in demand. It will, therefore, be in a better position than smaller fringe firms to build the facilities necessary to satisfy this increase, since the major firm will have control of both crude oil and oil pipelines. Confronting such market control, it would be both difficult and foolhardy for a regional independent to invest $250 million in a new refinery. If the major firms have strong control over a certain percentage of the market (e.g., 50 percent) the market might be too rigid to absorb the entire production of such a facility. A major firm may coordinate small increases in capacity in several contiguous regions to supply slightly increased demand with little or no impact on the rigid market structure.

Despite the increase in the cost of transportation, initial mathematical analysis indicates that such an investment strategy might save as


124. Id.

125. Id. at 34-35.
much as 20 percent of total discounted capital, operating costs, and transportation. This theory would provide a plausible, but not laudable, response to the contention that concentrated industries may be more adaptable to changes in scale economies. This multiplant, multi-region economy of scale is a second-best economy achievable only to the extent that the competitive market system has broken down. "[T]he extent of market failure is susceptible to a considerable amount of policy control. The more concentration is permitted to develop, the more likely market failure will be, and hence the more importance the second-best benefits of concentration will assume."^127

In 1974 the Supreme Court in United States v. Phillips Petroleum Co.^128 affirmed by memorandum decision the district court's analysis of the structure of the California oil industry as it related to the doctrine of potential competition. The district court noted that the California gasoline market fit within the Kaysen and Turner definition of an oligopoly and that high entry barriers precluded most companies from standing on the edge of the market as potential entrants. Presumably, Phillips' merger with Tidewater Oil was proscribed because of the expected future conduct of both Phillips and the other companies in the market, which now had one less potential competitor. The district court noted that the Supreme Court had specifically reserved ruling on whether a merger violated Clayton 7 if the firm had not been objectively perceived as a potential entrant or if the firm did not occupy a substantial position in the market following the acquisition. The lower courts found that Phillips had been a potential competitor, although it is not clear from the opinion whether Phillips was "a dominant force" in the market after acquisition. Perhaps the court inferred such dominance from the oligopolistic market structure. If Phillips was not considered to be such a major participant in the oligopoly following its acquisition of Tidewater, then the enforcement of Clayton 7 was triggered by present market structure plus expected future conduct.

This speculative analysis depended heavily upon the court's assessment of the industry on a national level; a national marketer would achieve greater advantages in advertising, brand loyalty, and credit cards, as well as added flexibility in exchanging crude oil and refined products. While a nationally integrated firm would reap these bene-

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127. Scherer, Economies of Scale and Industrial Concentration, supra note 123, at 40.

fits because of both its own and the industry's structure, independent marketers would be hampered by the entry of a new major firm through acquisition rather than through internal expansion, since no additional refining capacity would be created. Although the court did not refer to the insularity of the major oil companies, the merger increased the likelihood that a smaller percentage of the existing production of refined gasoline would be available to independents because of inter-major exchange agreements.\textsuperscript{129} Judicial eagerness to employ doctrines such as potential competition reflects dissatisfaction with existing, concentrated market structures.\textsuperscript{130}

Although the Sherman Act has not traditionally been used to deal with vertically integrated market structures, certain theories used for enforcement, such as bottleneck monopoly and intra-enterprise conspiracy might be logically extended to encompass concentrated markets within the Act's prohibitions against restraint of trade. Bottleneck monopoly,\textsuperscript{131} first of all, could be applied to an individual company, joint venturers, or the eight defendants because of their control and alleged abuse of oil pipelines. As the most economical means of bulk land transport, access to these pipelines is crucial to refining operations, and unimpeded use is essential to efficient operation. Pipeline shipment is a rather complex operation. It would be relatively easy for the majors to impede the use of the pipelines by any independent who either did not have storage facilities at the trunk line station, or who shipped a relatively small amount of crude oil. In addition, the rates may be kept artificially high through bookkeeping adjustments for the integrated companies, although such adjustments are real costs to independents. If the majors can be shown to have foreclosed the use of individual pipelines, the bottleneck monopoly doctrine could be effectively employed. The difficulty with the doctrine is that it was developed by the courts to deal with isolated, specific, and complete exclusions, not with systematic and systemic frustration of independents.

An additional difficulty with the application of the bottleneck theory is that the joint ownership and control of these pipelines, as well as the rates charged, are approved by the Interstate Commerce Commission since the pipelines are classified as "common carriers." This approval confers a partial antitrust exemption which is troublesome for two reasons: 1) the Commission is not primarily skilled in recognizing and preventing anticompetitive activity and 2) decisions of the Commission are made primarily in reliance upon information

\textsuperscript{129} See \textit{HIGHWAY ROBBERY} 171; \textit{Staff Report} E-4.

\textsuperscript{130} Cf., \textit{e.g.}, \textit{United States v. Penn-Olin Chem. Co.}, 378 U.S. 158 (1964).

provided by the companies themselves. In one regulatory case reviewed by the Supreme Court, the dissent noted that the rates in question had been approved without knowledge of the cost involved in any one specific instance.  

The inability to make judgments as to anticompetitive effects, particularly in areas peripherally related to the regulation has been solved in certain cases by permitting the Justice Department to bring suit. In other cases the Department has been given statutory authority to object to the grant of a license before the regulatory commission involved. Recent Supreme Court decisions suggest that the primary and exclusive jurisdiction of regulatory agencies may well be recognized, at least in cases where the regulation is pervasive. The statutory right of objection affords at best a circuitous route to conduct which is largely unrelated or only incidentally related to the regulated activity. The test for jurisdiction in these cases could, more reasonably, be whether the regulated activity is being challenged or whether that portion of the company or industry is peripherally related to the violation alleged. Regulation should be no defense to a plan of divestiture. In this instance, an allegation of bottleneck monopoly would fall directly within activity regulated by and best confined to the ICC.

A second theory in support of application of the Sherman Act could be intra-enterprise conspiracy. The Supreme Court recognized this doctrine by finding a conspiracy between a firm and its incorporated subsidiaries. Later, the Hawaii district court extended this doctrine to unincorporated subsidiaries, and although the Ninth Circuit reversed, the reversal was expressly limited to the facts of that case. In both cases, the subsidiaries were distrib-

135. This is true in cases where electric utility companies apply to the Nuclear Regulatory Agency for permission to construct nuclear-powered generation units. 10 C.F.R. § 2.102(d)(1) (1975).
140. We confine our decisions to the facts of this case. We agree that a "combination or a conspiracy" to establish a common distributor could be shown to have such an adverse purpose or effect on competition that it would violate section 1 of the Sherman Act as an unreasonable restraint of trade.

Id. at 78.
utors, but neither court limited the doctrine to horizontal combinations of corporate units having the same function. The doctrine of intra-enterprise conspiracy is not a radical nor a theoretical doctrine; it is a pragmatic approach to the organization of modern corporations. Briefly, each division is given substantial independence and is charged with the responsibility of earning a profit for itself, with little regard for the interests of other divisions. However, the logical result of this structure is that the divisions have sufficient independence to combine in restraint of trade to the same extent as any independent companies. The clearest application of the intra-enterprise conspiracy doctrine would be cases involving "shifting of profits" vertically between divisions.\footnote{142}

Although this allegation would require more proof than just the balance sheets of the divisions, it would seem that, if all of the majors are shown to have "shifting profits" from their refining divisions to their crude oil divisions, such actions would go beyond the damage caused by common, independent business judgments or conscious parallelism in an oligopolistic market structure.\footnote{143} In some of the cases of conscious parallelism, a sound argument admittedly could be made for the business decision to pursue certain conduct. In this instance, however, shifting refining profits backwards, although against the interests of the refining division, clearly has an adverse effect upon independent refiners.

Barring substantial extension of the Sherman Act through judicial interpretation, these two theories provide the type of approach available under the Act for dealing with the concentration of the petroleum industry. Of these two schemes, the bottleneck conspiracy doctrine appears to be blocked by ICC regulatory authority. The Clayton Act merger challenges are being forced into more extreme and speculative theories to prevent further concentration. Not only is there a substantial gap in enforcement between the Sherman Act's horizontal monopoly and the reach of the Clayton Act, but, in addition, those remedies achieved under either act would be piecemeal at best. A structural analysis of the monopoly power in concentrated industries would be consistent with the terms

\footnote{141. In a different context, the chairman of ITT testified to this structure as a defense to an antitrust action. The testimony gave rise to the "profit-center" defense. Geneen, \textit{Concepts of a Conglomerate or a Multimarket Company: A Businessman's View}, 39 \textit{Antitrust L.J.} 4, 13 (1969).


143. \textit{See} text accompanying notes 145-47 \textit{infra}.}
of FTC 5 and would fill the analytical and practical gap between the Sherman and Clayton Acts.144

B. The Structure of the Industry

The structure of an industry may affect the type or quality of agreement necessary to violate Sherman 1. As the structure of the industry becomes more concentrated, the agreement may be shown progressively by express agreement, tacit assent, and finally conscious parallelism. Not only is the amount of proof of agreement reduced with the concentration of market power, but the reprehensibility of the conduct which must be shown is diminished. A monopolist or a member of a very tight oligopoly may have to show both that his acts were justified by independent business judgment and that his conduct was of the least anticompetitive nature possible.

In Interstate Circuit, Inc. v. United States,145 the Supreme Court initially considered the relationship between the parallel conduct of oligopolists and the requirement of agreement. In that case the cooperative actions of the distributors of 75 percent of the films in commerce resulted in minimum admission prices and in certain other uniform restrictions. The district court found an agreement among the distributors, but the Supreme Court added in affirmance that, in the circumstances of the case, such a finding of "agreement" was not a prerequisite to "an unlawful conspiracy [which] may be and often is formed without simultaneous action or agreement on the part of conspirators."146 It was reasonable to consider such a formulation of agreement in Interstate Circuit, since the activities of each individual firm would not have been beneficial unless similar action had been taken on the part of each of the major firms.

Substantially identical business policies by the firms controlling the distribution of 75 percent of first-class feature films suggests that film exhibitors did not independently choose to accept these minimum admission fees to acquire peculiarly desirable films. Rather, the structure of the industry, along with this uniform conduct, precluded a sufficient supply of nonrestricted films.

The defendant oil companies in the Exxon complaint do not possess such clear horizontal dominance147 in addition to their vertical bonds. The vertical interrelation in the petroleum industry, however, is more significant in its scope and permanence.148

146. Id. at 227.
147. See note 89 supra.
148. HIGHWAY ROBBERY 216-18.
structural analysis should employ Kaysen and Turner's dynamic definition of structure as including conduct.\(^{149}\) Certainly the clearest example of conscious parallelism, or at least of common "activity," is the common vertical integration of the major firms. Because of the relatively low joint horizontal market share, courts might demand more evidence of active rather than of passive cooperation as well as a sufficient degree of reprehensibility.

Despite its novelty as a judicial doctrine, conscious parallelism of structure should prove more compelling than mere present conduct, since the structure evidences past, present, and presumptively future conduct. Without considering any possible collusion between the companies, certain anticompetitive consequences suggest themselves. Each of these companies individually occupies a significant portion of the horizontal market. It is not impossible that this individual horizontal market share, magnified by the effect of extensive vertical integration, could reflect monopoly power sufficient to violate Sherman 2. When this individual structure is repeated eight times, it necessarily isolates a large portion of the structural market from the normal destructive forces of the market. In a structural market, concentration applies both to the number of competitors and to their share of the structural market which reflects the extent of vertical integration.

This internal and parallel rigidity of the majors is made more reprehensible by their supplier status with respect to independent refiners. The majors uniformly refuse to supply independent refiners with any significant amount of crude oil, but they nevertheless control the supply since they provide the next 10 to 12 largest integrated firms with a substantial amount of crude oil.\(^{150}\) By reducing the supply to this second tier of firms, the majors determine the amount to be funneled through that tier to the independents. This further parallel conduct might only affect reprehensibility were it not for exchange agreements among the majors themselves. These agreements permit no-cost exchanges of either crude oil or refined products. If company A has a shortage in Area 1, it may arrange for company B to supply its refinery in Area 1, while A supplies B's refinery in Area 2 where B has crude oil in short supply. This coordination is undoubtedly valuable to the major firms in that it allows them to utilize each other's reserves of crude oil and refined product.

Despite the clear business justification for such agreements and even possible secondary benefits and economies resulting from them,

\(^{149}\) See text accompanying note 47 supra.

\(^{150}\) Staff Report E-4.
the agreements form a distinct link between the individual firms. Furthermore, since none of these agreements are made with independents, they combine the majors in a single unit apart from the remainder of the industry. The only arrangements which are entered into between majors and independents are contractual processing agreements whereby a major firm retains ownership of both the crude oil and refined product — in effect merely paying a service fee for the use of an independent's refining facilities. With proof of this type of horizontal link between the majors, their joint horizontal market power could be magnified by vertical bonds in order to demonstrate the scope and tightness of the combination.

These exchange agreements and other horizontal links, such as joint ventures in both oil leases and pipelines, result in the majors being drawn together into a single unit virtually indivisible for the purpose of evaluating the division of power within the industry. Whether this combination is one of tacit agreement or of a conspiracy of structure, the major firms have common and collective interests in their relationships with independent producers, refiners, marketers, and the consuming public, as well as in their mutual perpetuation. The common vertical integration across so many horizontal markets by firms with half the sales in each horizontal market would itself rigidify the structural market in order to confer a limited immunity from normal destructive market forces. Since the power within this structure is not entirely static, but also dynamic (i.e., through conduct), the combination and its market power is self-perpetuating. Because the perpetuation of common interests makes possible the retention of monopoly, the structure alone in such an industry could be found violative of the antitrust laws.

151. In the bidding for offshore leases, 6 of the 8 defendants made their bids in the following manner:

<table>
<thead>
<tr>
<th>Independent Firms</th>
<th>Independent Bids</th>
<th>Joint Bids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlantic Richfield</td>
<td>12</td>
<td>293</td>
</tr>
<tr>
<td>Exxon</td>
<td>80</td>
<td>0</td>
</tr>
<tr>
<td>Gulf</td>
<td>17</td>
<td>32</td>
</tr>
<tr>
<td>Mobil</td>
<td>8</td>
<td>103</td>
</tr>
<tr>
<td>Shell</td>
<td>59</td>
<td>93</td>
</tr>
<tr>
<td>Texaco</td>
<td>15</td>
<td>32</td>
</tr>
</tbody>
</table>


152. See note 22 supra.

A friendly relationship within such a long established industry is, in itself, not only natural but commendable and beneficial, as long as it does not breed illegal activities. Such a community of interest in any industry, however, provides
This stability or power of self-perpetuation can be identified in the present, rapidly changing petroleum industry. Because institutional advantages such as the depletion allowances have been removed, crude oil production is no longer so highly profitable as it was. As a result, the inefficient, low-volume service stations, which had been subsidized by production profits, are being replaced by fewer, high-volume outlets; i.e., the majors are more actively pursuing their marketing operations. Not only can they avail themselves of such competitive tools as advertising and credit cards, but they also have extensive control over two scarce raw materials (crude oil and refined product) as well as a scarce facility (oil pipelines). The majors need not generate an energy crisis to benefit from the periodic scarcity of supply which can be aimed at competing independent marketers. It is not unreasonable to expect the majors to subject independent marketers to a product or price squeeze similar to that previously experienced by independent refiners.

In Theatre Enterprises, Inc. v. Paramount Film Distributing Corp., the Supreme Court appeared to reject conscious parallelism as being, in itself, a violation of the Sherman Act. The common conduct alleged was the refusal of distributors with 63 percent of the first-run film market to supply a suburban theatre with first-run films. The Court ascertained that the distributors had exercised bona fide business judgment in pursuing the most profitable mode of distribution. This finding may have been influenced by the Court's greater sympathy for the supplier's unilateral right to choose its customers than for systems of price restriction. However, the Court did fail to recognize that justifiable business conduct might still be exclusionary. Beyond this objection, the implicit conclusion that a system of distribution is efficient is unsupportable without a consideration of the entire structure of the industry. A noncompetitive market structure may generate certain secondary benefits in advertising or management, but the structure may prevent price competition and the realization of MOS with respect to both production and distribution.

In Theatre Enterprises, the producer-distributors supplied only 63 percent of the first-run movies shown in Baltimore. The Court may
simply have concluded that this collective market share was too small to violate the Sherman Act under the horizontal dominance test. In its analysis the Court did not consider the status of the defendants as both producers and distributors; nor did it calculate the effect of the contractual licensing agreements with exhibitors which extended the defendants' power into yet a third horizontal market. The effect of these vertical relationships and the parallel refusal to supply first-run films was to exclude suburban theatres from that portion of the movie market. Simultaneously, of course, the defendants' licensee exhibitors were insulated from this potential competition by higher barriers to entry into the first-run market.

It is clear that the Supreme Court employed an inadequate method of analysis in *Theatre Enterprises*. By the passage of the Sherman Act, "[Congress] did not condone 'good trusts' and condemn 'bad' ones; it forbid all." The economic efficiencies which the Court implicitly considered a part of good business judgment were not defenses to monopolization. Even if the Court believed it necessary to consider certain economies, however, the judiciary must use a structural analysis to discern whether the economies are primary ones which reduce the cost of production or distribution, or secondary economies, such as those of management and advertising, which are realized only to the extent to which the competitive market has broken down. Without such an analysis, the Court would be unable to determine whether a more competitive and deconcentrated industry would attain comparable and preferable efficiencies.

The Third Circuit Court of Appeals did not permit *Theatre Enterprises* to prevent a finding of conscious parallelism or structural agreement in *Milgram v. Loew's, Inc.* In that case distributors of 85 percent of all first-class films combined to create a standardized environment from which one type of distributor was systematically excluded. The court of appeals presumed that a competitive system of film distribution would encourage innovation in exhibition facilities. The decision noted that the distributors had developed a general and, by implication, a national policy towards first-class drive-ins. The national scope of this policy appeared to influence the court's decision; a generalized practice among 85 percent of the national film

159. United States v. Aluminum Co. of America, 148 F.2d 416, 427 (2d Cir. 1945).
162. In *Theatre Enterprises*, the facilities in question were first-class drive-ins.
distributors would create a more exclusive structure than if the firms had implemented this policy in a single region. Under this reasoning, the major integrated oil companies become more susceptible to a finding of conscious parallelism as they participate in interregional exchange agreements, engage in interregional and international joint ventures in oil leases and pipelines, and establish a uniform domestic system for the pricing of crude oil.

Conscious parallelism is clearly in disfavor as the basis of an independent violation of the Sherman Act or as proof of such a violation. Due to the paucity of cases brought on this theory subsequent to the Theatre Enterprises decision, it has not been established whether a more extensive showing of common activity, and perhaps proof that the parallel activity was not supported by independent and bona fide business judgment, would violate the Sherman Act proscription of agreements in restraint of trade. If extensive common conduct can be combined with horizontal links between the dominant companies in an industry, it seems likely that the resultant standardization and rigidity of environment within the industry would restrain trade. This is particularly true if the suggested structural method of market analysis is employed, because parallel structure and parallel conduct can be shown in the depth as well as the breadth of the market.

Although logically appropriate, conscious parallelism is, in itself, only arguably a Sherman 1 violation or even proof of such a violation. This significant uncertainty, however, does not extend to conscious parallelism as an unfair method of competition under FTC 5. In Federal Trade Commission v. Cement Institute, the Commission alleged that the Cement Institute, a trade association, its 74 corporate members, and 21 individuals associated with the Institute had maintained a multiple-based point system for pricing. The result was that virtually all cement buyers in any locality had been unable to purchase cement for delivery from any one producer at a cost lower than that of any other producer. Although the Court did not indicate the concentration of the industry by the use of conventional market shares, it noted that since 80 cement producers operated 150 plants, "[t]his concentration of productive capacity made concerted action far less difficult than it would otherwise have been." From evidence that the Institute worked in cooperation with its members to maintain the base-pricing system, the Court affirmed the Commission's finding that there was an understanding between the parties.

The opinion, however, also indicated that such a conclusion could

163. 333 U.S. 683 (1948).
164. Id. at 713.
be justified because the pricing system produced "uniform prices and terms of sale throughout the country." This statement supports the standardized environment theory suggested in the discussion of Mil-gram; i.e., a uniform pattern of behavior plus sufficient market concentration or other evidence of market power would violate FTC 5. The cooperative pricing system in Cement Institute is analogous to the posted pricing system in crude oil fields, with the notable distinction that the multiple-based point pricing system reflects oligopoly pricing power, while the posted pricing system reflects oligopsony power. The courts have not yet applied the antitrust laws to oligopsony power. In fact, they have only rarely acknowledged its existence. Nevertheless, on the assumption that the Commission and the reviewing courts will recognize the similar ultimate effects of oligopoly and oligopsony pricing systems, the posted pricing system would fall squarely within the holding of Cement Institute.

A second critical distinction between Cement Institute and the Exxon complaint is that the latter conceives of this pricing system and other parallel conduct as symptomatic of a structural concentration and stagnation of power. Unlike Cement Institute, Interstate Circuit, or United Shoe, the Commission does not seek the injunction of a practice with serious structural implications. The Exxon complaint demands the more drastic structural remedy of divestiture. The other conduct by the Exxon defendants is not so blatant as the almost identical prices in Cement Institute.

Activities of the petroleum companies, however, are generally much more pronounced than those in Kellogg Co., another pending FTC complaint. The Cereal complaint approaches the charge that parallel vertical integration is illegal per se when accompanied by the market power inherent in a tight oligopoly. The complaint alleges that in 1970, after a steady increase in market concentration, the four dominant ready-to-eat (RTE) cereal manufacturers jointly controlled 90 percent of the market. These firms were charged with the following violation of FTC 5:

For at least the past 30 years, . . . respondents . . . have engaged in acts or have practiced forbearance with respect to the acts of the other respondents, the effect of which has been to maintain a highly concentrated, non-

165. Id. at 716.
166. Oligopsony power was alluded to in the Permian Basin Area Rate Cases, 390 U.S. 747, 792-95 (1968).
competitive market structure in the production and sale of RTE cereal.\textsuperscript{168}

Following the issuance of the complaint, an FTC spokesman attempted to assuage the fears of concentrated industries by characterizing the complaint as an action against certain marketing practices—peculiarly the use of heavy advertising to differentiate trademarked products. Essentially, the complaint states not only that economies of scale in advertising are an insufficient justification for permitting the concentration of monopoly power, but also that advertising is actually an unfair trade practice if it promotes or permits the retention of monopoly or oligopoly power.

The Cereal complaint resembles the Bus Tire complaint in that the defendants are members of a very tight oligopoly. The notable distinction between the two complaints is that the alleged abusive conduct in the Cereal complaint has only scant support in case law. This support is based on the theory that there is a point at which product differentiation no longer serves the general welfare by conveying information, but instead becomes a wasteful technology which merely entrenches market leaders.\textsuperscript{169} Traditionally, heavy market concentration would magnify even conduct beneficial to the industry into a violation.

The Cereal complaint is a departure from conduct-focused enforcement, but the traditional horizontal dominance test reveals a very tight oligopoly. For that reason, the case will be tried routinely, only the requested relief will focus on structure. Indeed, one FTC Commissioner has suggested that recent merger cases reflect "the growing judicial receptivity to showings that conduct-based relief is sometimes not enough to terminate a violation. I see no a priori reason why that may not be equally true of [Sherman] Section 1 or [FTC] Section 5 cases."\textsuperscript{170}

The Exxon complaint goes far beyond its predecessors. The market concentration is much lower if a traditional horizontal measure is applied — eight firms share 58.07 percent of domestic crude oil refining capacity, 58.78 percent of domestic gasoline refining capacity, 50.54 percent of domestic crude oil production, and 55.01 percent of retail gasoline marketing.\textsuperscript{171} A new analysis of market power is therefore necessary unless the courts are to be urged to depart radically from present law. A structural analysis of oligopoly power...

\textsuperscript{168} Id. (emphasis added).
\textsuperscript{170} Oligopoly Pricing, CCH TRADE REGULATION REPORTS No. 166, March 3, 1975, at 6 (Statement by FTC Commissioner Nye).
\textsuperscript{171} Staff Report E-4, E-6.
and vertical integration would fill this void.\footnote{172} Economist William Adams has suggested how such an analysis might have been properly applied in United States v. Penn-Olin Chemical Co.\footnote{173} In that case the Government charged that a joint venture formed to produce and sell sodium chlorate was a violation of both Sherman 1 and Clayton 7. Two chemical companies who competed in many other markets had formed a joint venture and centered the sodium chlorate market in the southeastern United States. Before the formation of the joint venture, the market had been dominated by two firms which had shared 90 percent of the market.

Both the district court and the Supreme Court became entangled in the problem of subjective proof of the reasonable probability of independent entry. An objective approach to measuring the probable injury to competition is clearly preferable to a subjective inquiry into future intent. At the trial level the Government alleged that the joint venture would reduce the competition between Pennsalt and Olin in the many other markets in which they did business. The lower court rejected this argument, finding that calcium hypochlorite was not within the relevant product market—chlorates. Although the Government did not appeal this determination, such an objective structural test would certainly provide a better indication of the probable injury to competition than does a subjective measure of the effect and intent of potential competitors.\footnote{174}

If firms compete in a variety of markets which are dominated by a few firms of similar size, they are likely to be aware of these "direct rivals."\footnote{175} When such direct rivals engage in a joint venture, they act under an explicit contractual agreement. Without deciding the proper application of this test to conglomerates, the joining of direct rivals in a single substantial joint venture, or in multiple joint ventures, should create a presumption that these direct rivals would not perform as active competitors in other levels of that market. If these rivals follow cooperative or mutually beneficial policies in other areas of the market, they should be presumed at least to be consciously parallel, if not tacitly accepted.

The defendants in the Exxon complaint operate numerous joint ventures overseas, joint ventures in oil pipelines, and joint bidding for offshore oil leases. Although only oil pipelines are specifically cited in the complaint, it is noteworthy that members of an oligop-

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\footnote{172} William Adams, Market Structure and Corporate Power: The Horizontal Domi-
nance Hypothesis Reconsidered, 74 Colum L. Rev. 1276 (1974).
\footnote{173} 378 U.S. 158 (1964).
\footnote{174} William Adams, supra note 172, at 1296.
\footnote{175} Cf. R. Lipsey & P. Steiner, Economics 316-17 (2d ed. 1969).
olistic market who exhibit extensive common behavior and whose corporate structures bear such a close resemblance should choose to enter a partnership in which they are protected by a statutory exemption. Furthermore, when these partnerships occur at strategic points in a vertically integrated market, it is difficult to believe that those firms will engage in any activity which could harm their mutual interests at another level.

This joint control of scarce crude oil or refined products, as well as pipelines, may be construed as collective power assets which not only perpetuate but expand the majors' collective power. The clearest example of the effectiveness of such power assets is manifested in the advertising practices of the firms named in the Cereal complaint. Advertising may advance the interests of all the oligopolists who sell nationally-branded cereal by increasing the overall demand for brand-name RTE cereal as well as by raising barriers to entry to impossible heights. Selective restriction or exclusion from access to pipelines similarly inhibits independent refiners and discourages new entry, since entry on an integrated scale would be too costly.

VI. CONCLUSION

The Exxon complaint provides the courts with a factual situation ideally suited to the adoption and use of a structural market analysis. The judiciary will perhaps be hesitant to adopt a test which focuses on structure if it fails to recognize structure as a dynamic process which, like pure conduct, may be the basis of monopoly power even though proven lawful and beneficial in its own terms. Logically, a structural monopoly does not differ from a horizontal monopoly. The structural analysis, however, can be applied with less concern about unfairness under FTC 5, since a Sherman violation may entail both criminal liability and the threat of private treble damage actions. A second problem of inequity may arise upon the granting of remedies, because one oligopolist may have a significantly larger portion of the market than another. In the Bus Tire complaint, oligopolists had market shares ranging from 33 percent to 7 percent, but the vertical restraint was identical in each case—restrictive leasing agreements. To the extent that the structure has come about by uniform practices, e.g., advertising, there may be little unfairness in proportionally reducing this supergrowth or superstability capacity to desired

176. T. DUCHESNEAU, supra note 155, at 50-58.
levels. The individual firm size, however, should be discounted for nonproportional growth based upon acquisitions. The relief requested in the Exxon complaint is sufficiently flexible to permit adjustments for disproportionate stability or growth displayed by any of the companies. The FTC's requested relief focuses on divestiture of 40 to 60 percent of the defendants' collective refining capacity and the creation of 10 to 13 firms to assume this function. Since the majors would then have more crude oil than they could refine and less refined product than required by their marketing division, the temptation to engage in either price or product squeezes would presumably be mitigated. Clearly, the Commission hopes to remove many of the middle links in the production chain.

The relief, however, does not disregard the remainder of the market structure. Besides a prohibition against future refinery acquisitions, the Commission seeks the limitation of joint ventures, processing arrangements, and crude and product exchanges. The goal of this request is clearly to disrupt the community of interest and "power assets" of these direct rivals, as well as to reduce physically their share of the refining market. Such a request is the essence of structural relief: the deconcentration of market power by physical divestiture, as well as the destabilization of the facility to eliminate control of the market.

The recognition of a structural monopoly or structural oligopoly violation under FTC 5 will enable private and government enforcement of the antitrust laws against concentrated industries. Courts have occasionally suggested their aversion to handholding among the largest corporations in America, but have used this innate distrust to stretch existing doctrines and to adopt subjective theories of future conduct. Structural monopoly under FTC 5 would fill the gap in enforcement powers between the present Sherman Act and the Clayton Act, thus promoting a more objective and rational antitrust enforcement policy. Finally, the acceptance of structural monopoly, along with the appropriate divestiture and injunctive relief, may encourage risk-conscious management in concentrated industries to spin-off divisions voluntarily and to pursue truly independent business planning.

Gertrude A. Fraas

180. In this regard see the restructuring of Gulf Oil's operations as described in FORBES, Jan. 15, 1976, at 24 ("The Oil Giants: An Irresistible Target").