Bureau of Business Research
Graduate School of Business Administration
University of Michigan

February, 1971

BUREAU OF BUSINESS RESEARCH WORKING PAPER NO. 25

MARKET POWER, PRODUCT PLANNING, AND MOTIVATION

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BACKGROUND OF THIS PAPER

This article is based on research done at the Bureau of Business Research, Graduate School of Business Administration, University of Michigan, under a grant from the Automobile Manufacturers' Association to support the project on Evolving Competitive Aspects in Major Industries.

Introduction

One of the few areas of agreement between corporate leaders and their critics is their common dissatisfaction with government policies as they influence marketing strategies of large firms. The reasons for the dissatisfaction are, however, quite different. The critics of big business feel that the government has not been effective in curtailing the market power of such firms as General Motors and IBM. Businessmen argue that the intervention by governmental agencies, court rulings, and pressures exerted by congressional hearings are reducing the ability of firms to compete effectively in today's markets. Some businessmen feel that the current consumerism movement has added to their already long list of troubles. Their critics, however, applaud the increasing emphasis on consumer affairs and point out that it was an inevitable result brought about by the failure of the government to curb market power.

There is, of course, a long history of debates between business and its critics dating back to before the turn of the century. To the many persons familiar with this extensive literature, the recent arguments are viewed as passé if not downright boring. Nevertheless, an attitude of indifference to the issue of market power is certainly not

a luxury that can be afforded by the leaders of large corporations. Every wave of public indignation created by the more widely-publicized professional critics brings about a new round of governmental studies and congressional investigations. These, in turn, require the preparation of a new set of rebuttals. Such prolonged activities usually result in new legislation that is generally viewed as excessive by businessmen and inadequate by their critics. [1/]

The problem of dialogue

It has been observed by Bauer and Greyser [2/] that, in spite of the long history of disagreements between business and its critics, there has not really been an effective dialogue based on an understanding of the opposition's point of view. If an effective dialogue is to occur between business and its critics--and this would be beneficial to both sides--then it is clear that there must be recognition of the subtleties of the areas of disagreement. To achieve this improvement in communications, there must be more attempts to clarify the issues involved; this is one of the purposes of this paper.

In order to be as specific as possible about market power issues, this discussion will be limited to the pros and cons of product planning in the automobile industry. This industry is not only the standard example in treatments of market power but has been the topic of annual congressional hearings for several years. [3/] These automobile industry hearings provide ample evidence of Bauer and Greyser's point that the debates that occur do not constitute an effective dialogue.

The data needs

It is not enough, however, to say only that the issues need to be clarified. As has been observed many times, there exists a real need for improved research results on the essence of the arguments. 4/ With due apologies to interested parties on both sides of these debates, this article will also cite the need for further research. The question raised here, however, is whether or not enough is known at this time to justify the research studies usually proposed. For example, Louis Stern stresses the need for "highly scientific studies" to examine the extent of economies of scale in marketing activities. 5/ Undoubtedly everyone would be in favor of studies that are highly scientific; he goes on to say, however, that "such studies require that the major companies open their books to economists and that the economists apply their techniques without encumbrance." 6/

The need for corporations to open their books for examination by economists and government agencies has been stressed in several reports including those of two Presidential Task Forces--the Neal Report and the Stigler Report. 7/ Even if we ignore the political difficulties of forcing firms to submit their internal records to scrutiny, there is the practical question of whether or not such examinations would provide the essential data required for proposing a new governmental posture toward large corporations. The governmental action most often recommended by economists is the divestiture

of large corporations. It is conceivable that access to the financial records of corporations would be helpful in obtaining background data that could be used to develop arguments for or against this proposal, but it is doubtful that the data would really resolve the arguments.

One of the obvious problems that would exist in such a study is that the same data might be used to support opposing interpretations of the behavior of large firms. This possibility exists because an examination of the financial records would allow the reconstruction of only a small portion of the factors that influence product planning decisions. It is generally accepted that expectations about the reactions of consumers and competitors is a more important factor in a firm's decision-making behavior than historical financial data. It would not be possible to determine the state of these expectations from a study of financial records. Most economists, given perfect hindsight about the market outcomes of a particular marketing plan, would be able to cite several ways in which the plan might have been improved. The more challenging problem, however, is to suggest improvements while the plan is being developed and is subject to many sources of uncertainty.

The position taken in this paper is that additional data on the extent to which uncertain market forces influence product planning behavior should receive a higher priority than attempts to obtain proprietary financial records. The central problem in evaluating proposed structural changes on competitive behavior is that of de-

veloping an adequate predictive capability. As a prerequisite to prediction, it is necessary to understand the behavior of elements of the system. Thus, it is argued here that more creative efforts are needed to combine the data that is now available on organizational decision making with the untested theories of industrial organization. Such efforts, at the very least, should result in research strategies that would be more valuable than officially authorized witch-hunting expeditions.

Market Power and Product Planning

The extensive literature on market power has focused on the extent to which the market is controlled by the marketing decisions of large firms rather than by being controlled by the purchase decisions of consumers. There has been constant reiteration of the themes, "we give customers what they want," versus "you manipulate the unsuspecting consumer so that he buys only what you want to sell." In brief, the question being debated is, where does the power lie? In the impersonal operations of the market place or in the hands of managers of large firms in concentrated industries? The answers to these questions necessarily depend on one's operational concept of market power.

The traditional definitions of market power have emphasized that any firm capable of developing a marketing strategy, i.e., selecting from alternative price and product plans, possesses market power. [8]

On the basis of this concept, almost every firm in the United States economy, regardless of size, has market power. 9/ The controversial issue, however, as expressed by Douglas Dowd, is the extent to which a firm has:

> ...the ability to control or influence, to make decisions in one's own terms and to significantly affect, influence, or control decisions of others on matters relevant to the holder of power. 10/

There is really no question that businessmen as well as their critics recognize the existence of market power. Certainly large firms such as General Motors have the ability to influence the market place. It is also obvious that the market place, i.e., consumers and intraindustry members, also exert influence on large firms. In the strict definition of market power, every new car buyer who negotiates price is exercising market power. Everyone would agree that the effect of this is insignificant compared to the effects of a marketing strategy developed by GM. But how are the differences to be determined? The problem is that there is no acceptable measure of the extent to which a firm is able to exercise market power, nor is there any good indicator of the effects of this on consumers.

Edward Chamberlin once contrasted market power to physical health by pointing out that a doctor may take one's temperature, pulse, etc., but couldn't come up with a single index of good health. A similar problem confronts anyone who would measure market power. The analogy could be extended to say that just as a patient's evaluation of

his own health is very subjective, industrialists' estimates of their influence over the market often differ from estimates made by outside observers.

It should be emphasized that there is no attempt here to assert that the automobile firms do not possess market power. That is, automobile firms do plan new products, establish prices, etc. Something that is often not recognized, however, is that even if there were divestiture of GM and Ford, the auto industry would not revert to autonomous structures required for the absence of market power. Lawrence White, in a study of the auto industry, pointed out that for a firm to compete effectively in the auto industry it would need annual sales of 800,000 cars. 11/ Thus, if the industry were composed of ten to twelve firms, each of these firms would still be large--annual sales of $4 to $5 billion--compared to firms in other industries. They would certainly not be atomistic units.

Since it cannot be argued that any restructuring of the auto industry would eliminate market power, it must be felt that the new structure would reduce the market power of the new firms and, among other things, produce planning that is more responsive to the needs of the people. This is the main point of critics who recommend divestiture of the auto industry.

Product Planning in the Auto Industry

In a condemnation of the automobile industry, William Shepard argues that GM, Ford, and Chrysler were able to withdraw from the

small-car field in the period from 1964 to 1969 by focusing their efforts on the more profitable large cars. 12/ Lawrence White pointed out that the Big Three reacted sluggishly in entering the compact car market in the late 1950s and the subcompact car market in the late 1960s. 13/ These two authors reason that the industry acted sluggishly because they acted jointly as a shared monopoly. They were able to do this because they possess market power.

The effects of market power as seen by critics are straight forward; General Motors is able to make decisions based solely on self-interest because it holds the largest market share in a four-firm industry. Ford and Chrysler have no choice but to follow the lead of GM. When GM decides that the small-car market is big enough for all three firms to profitably share, they produce a small car and the others follow the lead of GM. Thus, consumers are presented with real product alternatives only when GM decides that foreign imports are above a tolerable limit. This critical view has been supported by Bert Elwert in a speech to the American Marketing Association:

> ...there are respectable reasons for doubts about how well planning is serving what may be important market demands for variety and diversity. Take the United States auto market as an example. Would marketing planning ever have produced a small economy car if the domestic market had not been invaded from abroad? 14/

Although the various critics of the auto industry seldom make their data explicit, presumably they must be basing their observations on the market share of auto sizes. These data, for the relevant pro-

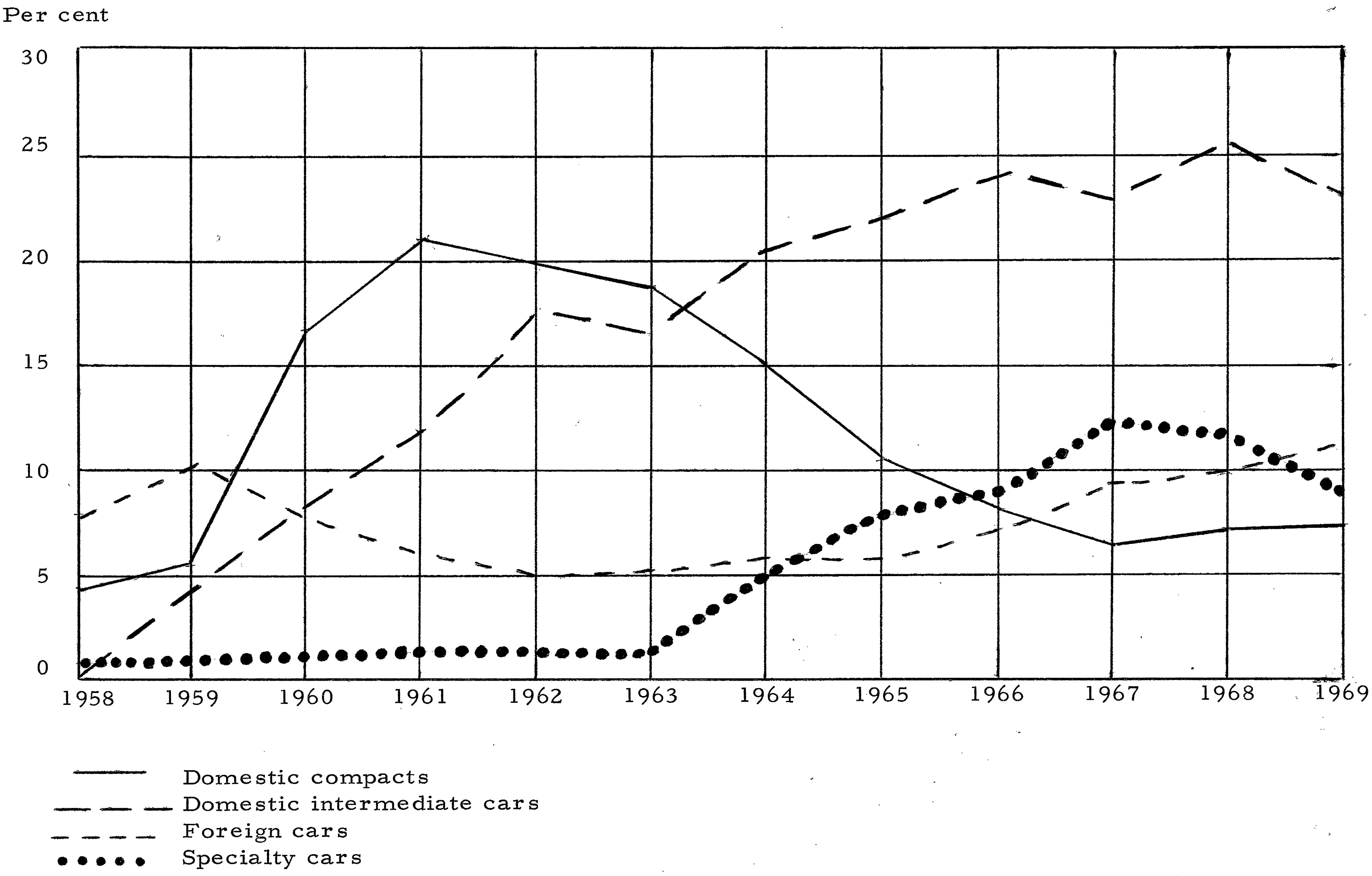
duct classes, are shown in Figure 1. It is interesting to compare the interpretation of these same trends by General Motors:

> Changes in customer demand have produced significant shifts in product composition....
> The customer--rather than any manufacturer, American, or foreign--determined these trends. In varying degrees, some manufacturers succeeded in anticipating the changing customer preferences. No producer could ignore them. None could control them. 15/

This difference of opinion on the performance results of the automobile industry, which is based on the same set of data, illustrates the central problem of analyzing market power. To what extent can the product planning issues of market power be resolved by examining data that are free from value judgments? If insights are to be made that can be used as the basis of making recommendations to (1) officials responsible for antitrust policy, and (2) executives responsible for product policy of firms, then it is necessary to do a better job of separating facts from ideology.

A basic theory of industrial organization is that the more firms in an industry, the better their performance will be. That is, if there were eight or ten firms in the auto industry rather than the present number, the firms would then be forced to be more responsive to the variety of needs in the market, particularly those on the lower-price end. Although the postwar data of the auto industry used by Shephard and White support this theory, prewar data on the industry do not.

FIGURES ONE: REGISTRATIONS BY PRODUCT CLASS (PERCENTAGE)



Sources: Data for 1958-68 from Ward's Automotive Yearbook. Data for 1969 from Automotive News Almanac, 1970.

As Richard Fabris has pointed out, the product lines of most firms in the auto industry before the depression in the 1930s were oriented to the high-priced market. 16/ It was the low-priced lines of the present Big Three combined with an active policy of product innovation that allowed them to withstand the depression. A current example might be provided by the construction industry. Certainly there is no concentration in this industry, which is larger than the automobile industry, and yet an important social problem is the lack of adequate low-cost housing and construction.

Even though opinions differ regarding the past performance of the auto industry, the important question is whether or not any of the alternative structures proposed by critics would change the elements of the product planning system. The answer to this question requires a better understanding of the effects of alternative structures on the product decisions of firms. These are the data needed in a study of competition.

The position taken here is that the study of competition in an industry should properly be concerned with the study of the decision-making activities of firms in that industry. The basic theory underlying this approach is that the organizational arrangement existing in a firm and in an industry influences decisions, especially those decisions regarding product planning.

This discussion would be remiss if it did not acknowledge the arguments raised in opposition to the need to utilize studies of the behavioral theory of the firm. The dialogues between Machlup and

Lester have provided the most extensive discussion of the issues. 17/ One of the arguments by Machlup was that the proper test of a theory is its predictive ability and that the validity of the assumptions is only secondary. Thus, while most economists agree that the assumptions used to define perfect competition are unrealistic, the concept still has good predictive ability. The point of the structuralists is that only aggregate behavior need be studied, not the behavior of individual firms. This has resulted in a plethora of statistical studies that attempt to correlate profit rates and concentration measures.

The problem, however, is in the interpretation of the results of these statistical studies. For example, Robert Bork, in a dissenting statement to the Neal Report, 18/ indicated that the statistical results did not support the recommendations that there should be divestiture of concentrated industries. Recently the Graduate School of Business Management at UCLA has conducted studies which question the validity of the usual cause-and-effect relationships between structure and profit rates. 19/ The reactions of representatives of the Justice Department were skeptical. Although a spokesman for the Justice Department accepted the possibility that the statistical studies of structure, profits, and prices may not provide results completely consistent with oligopoly theory, he pointed out that there may be other reasons for desiring less concentration:

> Among them the [Justice Department] spokesman said is the lack of stimulus to technical advancements that often come from smaller, younger firms with strong motivation to get ahead. 20/

Product Planning and Motivation

The concept of motivation is really the heart of the problem. The theory of oligopoly would predict that there will not be forces exerted on firms to introduce new products because of the market power of the leading firms. There have been many attempts to correlate the rate of product innovation with structure, and these, like the attempts at profit-rate correlation, are not conclusive and are subject to continued debate. 21/

It should be emphasized that the ultimate goals of executives and business critics are basically the same. Each would like to create an atmosphere in which the firm responds positively to changes in technology and consumer demand. The differences of opinion center on the conditions required to create this atmosphere. Critics argue that only a competitive structure will guarantee a responsive environment for the firm, while businessmen argue that this environment can be and must be created internally. The reason for these differing views is that there is not an adequate theory of the "economics of adjustment to change," 22/ particularly as this is affected by structure.

What the structural economists have failed to observe is that much of the product planning literature written by and for executives also emphasizes the difficulties that firms have with the timely introduction of important new products. One of the most widely read business articles is Ted Levitt's "Marketing Myopia" 23/ which contains many examples of this problem. Unfortunately, what the critics have not recognized is

that the reasons attributed to the slowness with which GM responded with a new small-car line are the same reasons that Parker Brothers failed to recognize immediately that there was a market for the game of Monopoly, or that "mom and pop" stores failed to recognize there would be market demand for self-service grocery stores, etc.

The reasons for these problems have very little to do with structure--they are problems of motivating individuals in organizations. Motivation is a direct response of the reward system, but a reward system must, of necessity, be arranged so that current operating problems receive highest priority. Current operating problems are, in turn, related to perceptions of the market which may be influenced by the structure of the industry. It is this cycle that should be studied.

The reason that executives' estimates of their ability to influence the market often differ from the estimates of their critics is because industrial organization theory has not felt the need to understand the problems of internal resource allocation in firms. Anyone who has been exposed to the product planning activities of large firms will readily identify with Joseph Bower's observation that:

> ...the results of business decisions viewed from the outside look a lot more convincing because offsetting mistakes, delays, corrections, and crash programs even out some of the unbalanced effects of imperfect decisions made under great uncertainty that radically affect the careers of individual managers. 24/

The failure of traditional economic theory to recognize the importance of this is adequately documented and forcefully presented by Paul McNulty when he stresses the need to study competition as a behavioral process. 25/

Although the analysis may be simplified by ignoring the behavioral cycle and assuming that product innovations will be influenced by structure, the conclusions from such an analysis may be quite misleading. Thus it is not at all obvious that product responsiveness would improve with a change in structure. In many industries, autos being one of them, the opposite reaction is just as likely to occur. A complete explanation of these views will not be given here, but one example from studies of corporate decision making will be used to illustrate the need for studying the behavioral process.

One of the most important observations to this discussion is that studies of organizational decision making conclude that financial criteria are only partially significant in the evaluation of major product-line decisions. 26/ This means that the methods used by firms--such as target return on investment--are of very little importance to the final decision. Thus the arguments that firms do not maximize profits because they do not use the theoretically and socially correct marginal analysis is really beside the point.

The most important factor in gaining approval for important new-product proposals are the strategic aspects of the product-market concept. 27/ The reason for this is that the most crucial phase of a

new product as it progresses from being an idea to receiving final approval is gaining organizational support. This is, in fact, one of the significant factors in explaining the length of time necessary to get a firm to make a financial commitment to a new product line.

The argument of Shepard and White that the auto firms were slow to introduce a small-car line when they could have made a crash effort to speed up the process is probably correct. Undoubtedly, proposals to produce such a car had existed in each of the firms for some time. But to conclude that the reason for delay was because of "room-for-all" considerations induced by the industry structure is simply not valid. This logic fails to recognize that for a firm to take such an important step there must be impetus generated at several levels.

Whether a firm is large or small, or atomistic or monopolistic, there must be impetus generated for the idea by the members of a firm. Before a new product is introduced by a firm--that is, before it receives the official blessing of the corporate officers who must sign on the dotted line--there must have been one or more sponsors who moved the product along. In other words, someone was personally motivated to care for and nurse the product through the organization.

The crucial question is whether or not the structure of an industry affects this personal motivation! Does a ten-firm industry create an environment more conducive to individuals' taking personal responsibility and personal risk than a Big Three industry? If structural economists

can validate an affirmitive answer to this question, then they can make a strong predictive argument for the effects of a change in structure. To date, however, they have not done so, nor have they even attempted to do so. Research directed at this question will provide more insight into the extent to which an industry is competitive. The results of such a study should certainly be more beneficial to antitrust officials and business executives than efforts to untangle the morass of past financial records.

FOOTNOTES

1/ Theodore Levitt provides an interesting summary of some of these issues in "Why Business Always Loses: A Marketing View of Government Relations," in Marketing for Tomorrow...Today, American Marketing Association, June, 1967.

2/ Raymond A. Bauer and Stephen A. Greyser, "The Dialogue That Never Happens," Harvard Business Review, XLV (Nov.-Dec., 1967).

3/ The two most recent hearings concerned with the issues of market planning and market power are U.S., Congress, Senate, Select Committee on Small Business: (1) Planning, Regulation and Competition: Automobile Industry, Hearings, before Subcommittees, 90th Cong., 2d sess., 1968; (2) Role of Giant Corporations, Part 1, Automobile Industry, Hearings, before the Subcommittee on Monopoly, 91st Cong., 1st sess., 1969.

4/ See E.T. Grether and Robert J. Holloway, "Impact of Government upon the Market System," Journal of Marketing, XXXI (Apr., 1967).

5/ Louis W. Stern, "Perspective on Public Policy: Comments on the 'Great Debate,'" Journal of Marketing, XXXIII (Jan., 1969).

6/ Ibid., p. 39.

7/ Phil C. Neal, Chairman, "Report of the White House Task Force on Antitrust Policy," July 5, 1968; George J. Stigler, Chairman, "Report of the Task Force on Productivity and Competition," February 18, 1969. Both are in Journal of Reprints for Antitrust Law and Economics, I, Part 1 (Winter, 1969).

8/ One of the more complete discussions on market power has been prepared by Professor William Shepard, a former advisor to the Assistant Attorney General for Antitrust. His definition is: "Market power is the ability of a market participant or group of market participants (persons, firms, partnerships or others) to influence price, quantity and the nature of the product in the market place." Market Power and Economic Welfare: An Introduction (New York: Random House, Inc., 1970), p. 3.

9/ Shepard (ibid., p. 3) goes on to say that "the key point is the discretion which market power provides in choosing among alternative price, innovation, investment and other strategies. Firms which have no such latitude do not possess market power."

10/ U.S., Congress, Senate, Select Committee on Small Business, Role of Giant Corporation, Part 1, Automobile Industry, Hearings, p. 522.

11/ Lawrence J. White, The American Automobile Industry in the Post War Period (unpublished Ph.D. dissertation, Harvard University, March, 1969).

12/ Shepard, Market Power and Economic Welfare, p. 240.

13/ White, The American Automobile Industry in the Post War Period, p. 251.

14/ Bert Elwert, "Social and Ethical Problems of Marketing Planning," reprinted in Marketing and Society: The Challenge, ed. by Robert J. Lavidge and Robert J. Holloway (Homewood, Ill.: Richard D. Irwin, Inc., 1969), p. 174.

15/ General Motors Corporation, "The Automobile Industry: A Case Study of Competition," in U.S., Congress, Senate, Select Committee on Small Business, Role of Giant Corporations...Hearings, pp. 645-46.

16/ Richard H. Fabris, "A Study of Product Innovation in the Automobile Industry During the Period 1919-1962" (Ann Arbor, Mich.: University Microfilms, Inc., 1966).

17/ References to these debates are provided by Fritz Machlup in "Theories of the Firm: Marginalist, Behavioral, Managerial," American Economic Review, LVII (March, 1967).

18/ Robert Bork, loc. cit., p. 805.

19/ Al Delugach, "UCLA Researchers Claim U.S. Antitrust Theory 'Disproved,'" Los Angeles Times, Nov. 11, 1970.

20/ Ibid.

21/ Edwin Mansfield, Monopoly Power and Economic Concentration (New York: W.W. Norton & Co., Inc., 1968).

22/ Machlup, "Theories of the Firm," p. 13.

23/ Theodore Levitt, "Marketing Myopia," Harvard Business Review, XXXVIII (July-Aug., 1960).

24/ Joseph L. Bower, "Planning within the Firm," Harvard University, 1969, p. 10.

25/ Paul J. McNulty, "Economic Theory and the Meaning of Competition," Quarterly Journal of Economics , LXXXII (1968).

26/ There are several studies that support this argument. Some of these are: (1) Robert W. Ackerman, "Influence of Integration and Diversity on the Investment Process," Administrative Science Quarterly, XV (Sept., 1970); (2) Yair Aharoni, The Foreign Investment Decision Process (Cambridge, Mass.: Harvard University, 1966); (3) Joseph L. Bower, Managing the Resource Allocation Process (Cambridge, Mass.: Harvard University, 1970); and (4) H. Paul Root, "The Use of Subjective Probability Estimates in the Analysis of New Products," in Marketing Involvement in Society and the Economy, ed. by Philip R. McDonald (Chicago, Ill.: American Marketing Association, 1969).

27/ In addition to the references cited above see H. Igor Ansoff, Corporate Strategy (New York: McGraw-Hill Book Co., 1965) .