THE CONTROL OF AGRICULTURAL PROCESSING AND DISTRIBUTION

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This paper examines the sources and consequences of control in food processing and distribution and offers some recommendations for public policy. By control I shall mean power over decisions--economic, political, and social. The ability to control derives from the environment in which the controllers function.

Industrial organization theory provides the framework for examining the interrelations between the economic environment and the controllers, positing that certain characteristics of a market's structure determine the extent of control possessed by participants in the market. But market participants' behavior is also influenced by myriad and complex legal rules reflective of the social and political environment.

In our model, the participants do not respond passively to their environment. Rather, they actively try to shape (control) economic and noneconomic institutions to their own advantage and aggrandize their power, wealth, and prestige. Industrial organization theory, broadly defined, explains how those in power use their control over markets to reap benefits in the marketplace. Unfortunately, it has less to say about how the fruits of power may in turn be used to restructure markets and change institutions so as to achieve additional power or prevent erosion of existing power.

In food processing and distribution the main participants (controllers) are a few hundred corporations that, implicitly, have been granted the privilege, though not an explicit responsibility, of running this industrial sector in the manner of huge corporations elsewhere in

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the economy. Longtime ITT board chairman, Harold Geneen, acknowledges baldly these realities: "Increasingly, the larger corporations have become the primary custodians of making our entire system work." This heavy dependence on huge corporations quite naturally raises questions about the legitimacy of their custodianship, of whether they are running the system in the public interest. Resolving this issue frequently leads to a clash between the corporation and democratic institutions. Since the main threat to private power not disciplined by market forces is the state, corporate power may seek to subvert, neutralize or co-opt the state, making it an ally rather than a foe in the struggle for control.

Thus, inquiry into questions of control inevitably lead to questions of public policy; indeed, this is the major reason independent researchers need make inquiry into the matter. In order to contribute meaningfully to the public policy dialogue it is necessary to understand the sources, nature, and consequences of corporate control. Determining the legitimacy of these consequences brings us to the area of performance norms, a subject to which I shall return. But first I shall examine briefly the economic sources of control, namely the structures of modern markets and the forces changing them.

Market Structure

Industrial organization theory defines market structure sufficiently broadly to admit examination of any market characteristic that has a significant influence on market behavior. In practice, however, three characteristics are singled out for special attention: the numbers and degree of product differentiation. These variables receive special attention because economic theory suggests they are particularly relevant in explaining behavior and partly because these are the only variables for which data are available across many industries. And of this trinity of variables, data are most readily available and reliable for market concentration, a proxy for the number and size distribution of firms. The considerable attention given to examining concentration has led some to characterize industrial organization as being preoccupied with a "numbers game." While the criticism has some justification, it misses the point that not only does market concentration have a sound theoretical basis in its own right, but its significance is heightened as an index of changing power relationships because it is correlated with other structural indices, especially barriers to entry and product differentiation.

Connor shows that not only are the food industries on average more concentrated than other industries, but that there is an upward trend in concentration (p. 17). This overall trend, however, conceals more than it reveals because of the contrasting patterns among industries. Concentration patterns in food are similar to those in all manufacturing industries, where average concentration is stable or declining in producer products and increasing in consumer products. The latter increases are both substantial and persistent in those industries where advertising is most important (Mueller and Rogers).

The structure of grocery retailing also is experiencing rising concentration, both nationally and locally. The trend seems to have accelerated in recent years despite the virtual completion of the conversion from small stores to supermarkets, a growth in the number of viable medium size chains, and the decline of the industry's long-time leader, A&P. The most significant change--for issues of potential control--is the increase in the number of highly concentrated markets. Whereas in 1954 the top four corporate chains made 60 percent or more of the sales in only 5 percent of 194 metropolitan markets (SMSAs), by 1972 this level of concentration existed in 25 percent of these markets (Marion, et. al., p. 18). Moreover, these trends accelerated since 1972. This is important because empirical studies have demonstrated that when four firms make 50 to 60 percent of a market's sales they achieve substantial control (Weiss). Nor is food retailing an exception to this near universal finding (Marion, et. al.).

The preceding indicates that judged by traditional indices of industrial organization, the degree of corporate control over food processing and distribution has risen throughout the post-World War II years. But market concentration is only one source of market control. Another source, and a generally neglected one, is conglomerate-derived power. Whereas oligopoly theory explains power derived from the characteristics of a particular market, conglomerate power derives from the internal characteristics of firms, in particular their participation in many industries, which enables them to pursue a variety of competitive strategies in the many diverse markets in which they operate. These strategies include cross-subsidization in pricing or marketing, reciprocal trading involving separate treaties that short-circuit market exchange with customers and suppliers, and forbearance in competing with actual or potential competitors (Mueller, 1977). These dimensions of power differ from those arising from oligopoly, which promote shared control over market relationships with customers and suppliers. In contrast, conglomerate power most often is used to restructure markets and thereby to reinforce or augment the power conferred by oligopoly. Time does not permit elaboration of the theory of conglomerate power, though I remain persuaded that firm conglomeration remains a much neglected structural variable in industrial organization research in the food sector (Mueller, 1969).

Although many may view these characterizations as unfounded speculation, the facts of conglomeration are becoming so impressive that even skeptics can no longer ignore them. Although there long have been some multimarket corporations in the food industry, today such firms are the rule, not the exception. Connor estimates that 200 corporations control about 63.5 percent of all food and tobacco processing sales (Connor, p. 62). All these corporations are conglomerates. The most conglomerated of these is Beatrice Foods, which operated in at least 40 grocery and 37 nonfood industries (as measured by 4 digit SIC industries) in 1975.

Large food retailers also qualify as conglomerate enterprise because they operate across many geographic markets as well as engage in manufacturing some of their own products, assume the branding function for many more and, increasingly, are parts of large nonfood chain enterprises (Marion, et. al.). This multimarket presence in food retailing carries the same potential for conglomerate power as the multiproduct operations of food manufacturers.

Causes of Changing Structure

Market concentration in food and other manufacturing industries has been propelled only in part by plant and multiplant economies of scale. While technological imperatives have caused increased concentration in some industries, examination of concentration changes between

1947 and 1972 reveal a surprising pattern. The average level of concentration in manufacturing industries has remained remarkably stable over the period. Indeed, it has shown some tendency to erode in producer product industries, where technological and capital requirements of scale are most important. In contrast average concentration has risen in consumer product industries, which encompass practically all food processing industries. Mueller and Rogers found that while changes in scale economies played some role in this process, the prime force for increasing concentration is found in factors related to advertising-achieved product differentiation. The uniqueness of this study is the finding that television advertising played a central role in growing market concentration in consumer product industries.

This supports the hypothesis that the introduction of commercial TV advertising after World War II created a disequilibrium in the structure of markets lending themselves to image building advertising. The disequilibrium resulted because there are substantial real and pecuniary economies of scale in TV advertising. Though the pecuniary economies were greatest and most blatant until the late 1960s, when maximum rate discounts for network TV reached 60 percent, they continue today in more subtle forms. But the structural disturbances caused by advertising go beyond those arising from real and pecuniary advantages of scale. There is compelling evidence that large conglomerate firms often engage in what amounts to predatory marketing strategies, current examples of which are the expansion tactics of Procter & Gamble in coffee and Philip Morris in beer.

Following the acquisition of the Folger Company in 1963, and an antitrust settlement in 1965 that permitted P&G to keep the Folger brand, P&G has pursued an aggressive expansionary policy (Mueller, 1978a). In its quest for greater market control, P&G marched eastward from Folger's traditional strong western markets. Following a well-planned itinerary, P&G swept eastward from city to city until today it is besieging the huge New York City market. In its march to the sea it used a variety of marketing techniques including price discounts, heavy TV advertising, and couponing. The P&G example illustrates the special structural impact when two conglomerates become locked in a struggle for preeminence. General Foods, long the leader in the coffee industry, was unwilling to yield the field to P&G without giving battle. In the ensuing struggle many smaller, single-line coffee companies became casualties, with even third place Hills Brothers losing almost one-half its market share. Although P&G apparently is encountering especially severe resistance in General Foods' stronghold in New York, the structure of the industry is being drastically altered. P&G's losses of $60 million on its Folger coffee operations in fiscal 1977 attest to its ability and willingness to forego enormous short-term losses to gain long-term market control.

The application of conglomerate power to restructure the beer industry is even more dramatic. This is a matter on which I acknowledge a personal interest. I first became interested in developments in the beer industry two years ago when a law firm representing a leading regional brewery asked me to analyze the probable competitive effects of the Philip Morris-Miller merger in 1970. However, the views expressed here are my own (Mueller, 1978b).

Following Philip Morris' acquisition of Miller Brewing in 1970, Philip Morris used its huge multinational resources to launch a massive program of subsidized advertising and brewery plant expansion. Miller rose from eighth to second place in six years, an unparalleled accomplishment in this industry, as it pursued a publicly proclaimed policy of becoming number one. The result has been an unprecedented increase in market concentration, as the top five companies' share rose from 49 percent in 1970 to 73 percent in 1978. Evidence of Philip Morris' power is that even the leading regional and national brewers are having difficulty competing with Philip Morris. Anheuser-Busch was the only leading brewer other than Philip Morris-Miller to gain market share in 1977, and even A-B's share remained below the share it held prior to the prolonged strike it experienced in 1976. Developments in brewing lay bare the unique and awesome power of the conglomerate enterprise competing with specialized firms, whose livelihood depends entirely on a single-line of business.

The impact on industrial structure of conglomerate power in grocery product manufacturing is duplicated in grocery store retailing. When retailers operate across a number of metropolitan markets their behavior is not constrained by the structure of any one market. They may employ strategies not available to smaller, less diversified firms, a freedom enjoyed to varying degrees by all large retailers (Marion, et. al.). Again, the effects of cross-subsidization are most devastating for single-market firms caught in the middle when large conglomerates battle over market shares. Our empirical analysis reveals that as the presence of conglomerates in a local market increases sales concentration among the top few firms also tends to increase. More surprising, however, is the finding that concentration increases when conglomerate grocery retailers or large nongrocery retail firms enter a new market, whether by acquisition or de novo. This may surprise some persons who believe de novo entry always erodes concentration. But our finding requires qualification because the sample of de novo entrants was heavily weighted to less concentrated markets. The analysis therefore does not tell us the effects of de novo entry in highly concentrated markets.

Strategies aimed at increasing market share will be attractive if foregone profits today can change the market environment sufficiently to enhance profits tomorrow. Increasingly large corporations appear to be pursuing such strategies, taking their clue from the teachings of the Harvard Business School and others. Buzzell, et. al., recently reported: "An ongoing study of 57 companies reveals a link between ROI and market share--the bigger the better" (p. 2). This finding is hardly new. An FTC study of food manufacturing firms in 1950 found a strong positive relationship between a firm's relative market share and its profit rates. Imel, Behr, and Helmberger found a similar relationship for the early 1960s, and an unpublished study by the NC-117 research core group found a similar relationship for the late 1960s. Marion, et. al., also found that the relative market share held by a large retail food chain in a metropolitan market is positively correlated with both its profit rates and relative prices.

These research findings are of more than academic interest. Bloom and Kotler discuss strategies to achieve increased market share. Business consulting firms, such as the Boston Consulting Group and Mitchell Hutchins, Inc., actively advise businessmen to pursue market enhancing strategies. Listen to the sort of advice Mitchell Hutchins gives its clients:

> The goal of investment strategy should be to prevent rivals from obtaining a sufficient share to achieve a competitive ROI, to place competitors in a long-run cash-trap position, and to discourage investment.
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> Pricing strategies can take numerous forms: price cuts..., advertising and promotion..., innovative new-product introductions..., store sites, dealer systems and credit arrangements..., service and marketing organizations, <u>or any other mechanism that increases the cost of effective competition</u> (emphasis added).
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> When an important market position (a minimum 25% of the leader's position) cannot be obtained, cashing out becomes an appropriate strategy."

Though this advice is not necessarily new, it does appear that more large food processors and retailers are pursuing systematically such market share strategies today than in the past. Perhaps this reflects greater managerial sophistication; but more likely it reflects the greater capacity and flexibility large conglomerates possess in pursuing such objectives. Herein lies a connecting link between increased conglomeration and increased market concentration.

The Extent and Use of Control

We now turn to the question, just how much economic power is possessed by the corporate controllers in food manufacturing and distribution. The common adage, wealth is power, has meaning in the business world as well as in the affairs of men. Not only are profits the fruits of power but the seeds of additional power. When corporations achieve supranormal profits they gain a degree of immunity from financial markets, a not insubstantial advantage. They also have discretion in how they use their profits. Profits may be used to pay higher salaries and wages, reinvested at expected long-run returns below those that financial markets would condone, invested in short-run cross-subsidization strategies aimed at enhancing market share, etc. Thus one reason for studying the relative profitability of corporations is that profits provide a means for achieving greater control over the system. This interest differs from the traditional concern of economists with excess profits as a measure of welfare loss and income redistribution.

The preceding section showed how the huge conglomerate corporation can deploy its resources to restructure markets. I include this as an important dimension of performance because it distorts the "natural" evolution of market structures by resulting in the survival of the most powerful rather than the most efficient. By this standard, much conduct of huge firms must be judged as resulting in socially undesirable performance.

Some segments of the food system also appear to be causing waste and worsening income distribution. Recent studies have estimated the size of monopoly overcharges (which measure both allocative efficiency and distributive effects of monopoly) in food distribution and manufacturing. Marion, et. al. concluded that the existence of market power in many metropolitan markets resulted in monopoly overcharges of $662 million in food retailing in 1974 (p. 80), an estimate that may understate total overcharges since it covers only the four largest retailers in SMSAs covering about 73 percent of total grocery store sales.

The monopoly overcharges for food manufacturing appear even greater than those for food retailing. Using three alternative procedures, Connor and Parker estimate monopoly overcharges of over $10 billion, or over 5 percent of food manufacturing sales in 1975. Doubtless some will be skeptical of these estimates, especially those who were "shocked" by the monopoly overcharge estimates of under 1 percent of sales in food retailing.

The above suggests the consequences of private control over the food manufacturing and distribution system, consequences that affect both farmers and consumers, as well as other less powerful actors in the system. But some may still defend the performance of those food manufacturers with great power on grounds that excess profits are necessary for, or the result of, their innovative behavior in developing new products that lessen the homemaker's burden. While not demeaning all such efforts, it seems to me that the main thrust of these efforts involves image building advertising and the creation of new market segments, the net result of which frequently is to persuade consumers to pay more for the same, and sometimes more for less. Philip Morris-Miller's introduction of its Lite brand is the ultimate triumph of advertising-created product differentiation, allowing a product that costs less to produce to be sold at a premium price. The Lite story is only a play within a larger play, the consistent theme of which is to persuade consumers to live in worlds of illusion and to switch up to premium and superpremium beer brands. I estimate that the leading brewers' success in increasing the share of premium and superpremium beers from about 30 percent of the market in 1970 to 60 percent in 1978 will cost beer drinkers $400 million in 1978. This is a conservative estimate, because I used the price of Pabst (the premium of the non-premium beers) to estimate the cost of the increased share of consumption going to premium and superpremium beers. There is no evidence that consumers can detect in blind tests real taste differences among beers. Significantly, in an FTC investigation of the industry in the early 1970s, the leading brewers steadfastly resisted data requests for consumer taste tests. Scherer, who was the FTC's chief economist at the time, infers from this resistance that the brewers' own studies would have shown that "American consumers pay their premium price mainly for the label rather than for the quality of the contents" (Scherer, 997-98).

Some may still insist, I suspect, that consumers are nonetheless better off because they think they are better off. This is the kind of silly reasoning that gives "sophisticated" economics a bad name among people of common sense. Let us be done with such rationalization. The prices consumers pay in these circumstances are determined by the market power of sellers, rooted in large part in consumer ignorance and confusion created by advertising. Merely because a consumer is willing to pay more for a light (lower calorie) beer is no reason he should pay more if it costs less. Many Americans prefer "2 percent" or "skim" milk to ordinary whole milk. And doubtless many consumers would be willing to pay more for the lower cost fluid milk products. The reason they need not pay more is that competition forces prices to reflect cost differences. This is the way prices are expected to function in a market where competition is working properly.

Time prevents examination of other dimensions of performance, e.g., technological progressiveness, which I judge to be quite good in food manufacturing. Suffice it to say that food corporations have a great deal of control over the food system, and that if present trends continue this control will increase. This raises the question of whether there are public policy options available to deal with existing control and the prevention of greater control in the future.

Public Policy Initiatives

There was a time when I disagreed sharply with John Kenneth Galbraith's views of the antitrust laws (Mueller, 1967). But experience has converted me to Galbraith's view that much antitrust is, indeed, a "charade." By promising more than they can deliver, antitrusters mislead the public into believing economic power is being policed successfully. Thus a deluded public has come to believe that some industries are becoming more concentrated because the big are always the best and that the small are always the least efficient.

But having acknowledged my disenchantment with much antitrust, I still cannot embrace Galbraith's prescription that we concede the failure of the antitrust laws and "allow them quietly to atrophy." Galbriath urged this course in the expectation that having done so, "Then we would face the real problem which is how to live with the vast organizations--and the values they impose--that we have and will continue to have" (Galbraith, 1967, p. 11).

Professor Galbraith's recommendation that we permit the antitrust laws to atrophy assumes that they will be replaced with more effective instruments of social control. But what are these new instruments of social control and who are their champions? I am not at all confident that those who control "these vast organizations" will permit Galbraith's bright new day to dawn. No, until an laternative is found we must retain and strengthen our antitrust laws and enforce them with greater vigor, not less, while recognizing that they must be supplemented by other forms of social control. I am gratified that Galbraith recently recanted at least some of his earlier views on antitrust, and now is especially critical of conglomerate mergers (Galbraith, 1978).

Time permits only a brief summary of steps that might be taken to cope with the growing centralization of corporate power and its consequences. The antitrust alternatives include restraints on conduct and industrial restructuring.

The following are types of conduct that deserve special attention:

-- Selective anticompetitive geographic price discrimination in both food retailing and food manufacturing.

-- Preemption of preferred television time by the leading firms in an industry.

-- Massive advertising to deter entry in food retailing.

-- Restrictive leases that preempt choice store location in food retailing.

-- Massive subsidized television and related advertising and promotion by huge conglomerate food manufacturers when bringing out new products or expanding sales of existing brands.

-- Acquisitions and mergers that eliminate actual and potential competition or which entrench an established firm.

Each of the above types of conduct can be challenged under the antitrust laws, although the efforts have been quite ineffective in recent years.

Structural problems requiring attention include:

-- Shared monopoly both in some food retailing markets and food manufacturing industries.

-- Increasing industrial conglomeration.

-- Advertising-created barriers to entry.

Although these structural problems may be reached by existing law, new legislation would expedite relief. Excessive concentration in some local grocery store markets could be challenged as shared monopolies under the Sherman Act, an alternative that the Justice Department reportedly is considering at the present time. The Canadian government has attacked the problem by placing a limit on the growth of the dominant chain in a market for a limited period of time (Hearings, p. 27).

The problem of increasing conglomerate power can be dealt with partially by more aggressive antimerger enforcement under existing law, although new legislation is needed here as well. Although such actions would only slow growing conglomeration, they would be a significant accomplishment since they would discourage the kind of drastic restructuring currently occurring in some manufacturing industries and some grocery retail markets.

Additional means of controlling conglomerate power include greater public disclosure of the operations of huge conglomerate corporations. The recent Supreme Court decision in <u>First National Bank v. Bellotti</u> permits corporations to use their funds to influence matters having nothing to do with "the property, business or assets of the corporation." This is merely the last link in a chain of decisions beginning in 1886 granting the corporation the same rights as a person with respect to property. Arthur S. Miller, a leading constitutional scholar, reasons that this decision has set the stage for "the Justices to take another mutational leap--to 'constitutionalize' the corporation once and for all, and thus to ensure that those artificial persons accord fundamental fairness and decency to all whom they touch and concern" (p. 8). I fear the current Supreme Court will not take this "leap." I therfore prefer the more direct approach, though perhaps one equally unlikely to succeed, of enacting legislation requiring federal chartering of large corporations (Mueller, 1973).

Finally, there is the matter of what to do about power originating in advertising-created product differentiation. This is both the most persistent and the most difficult problem to deal with. But steps can be taken, and the first steps have. Since the main problem derives from the distorting impact of advertising on consumer choice, the solution to the problem must begin here. A series of initiatives aimed at this problem were taken over the last 15 years including: (a) affirmative disclosure requirements; (b) corrective advertising; (c) substantiation of advertising claims; (d) counter-advertising; and (e) greater consumer education in the high schools and elsewhere. More direct initiatives also are needed including greater application of the antitrust laws to advertising strategies that injure competition.

Many more items could be added to the list of needed initiatives. But our inability to fashion appropriate means of social control of private power does not stem from a lack of ideas. The problem lies in a social-political climate highly resistant to reform. As I noted at the outset, those possessing economic power seek out ways to influence the political environment to protect and where possible enhance their privileged position. Never in my career have huge corporations exercised such great power over the political environment as they do today. In his insightful examination of the modern corporation's place in a democratic society, the insightful political-economist, Charles E. Lindblom, ends on a discouraging note. Many will be troubled with his conclusions while finding it difficult to reject them:

> ...Enormously large, rich in resources, the big corporations...can, over a broad range, insist that government meet their demands, even if these demands run counter to those of citizens....Moreover, they do not disqualify themselves from playing the partisan role of a citizen--for the corporation is legally a person....They are on all these counts disproportionately powerful. The large corporation fits oddly into democratic theory and vision. Indeed, it does not fit. (p. 356)

REFERENCES

*William F. Vilas Research Professor, University of Wisconsin-Madison.

Bloom, P.N. and P. Kotler, "Strategies for High Market-Share Companies," Harvard Business Review, November-December 1975, pp. 63-72.

R.D. Buzzell, B.T. Gale, and R. Sultan, "Market Share--A Key to Profitability," Harvard Business Review, January-February 1975, pp. 95-105.

Connor, J.M., "Competition and the Role of the Largest Firms in the U.S. Food and Tobacco Industries, 1975" (forthcoming).

Galbraith, J.K., Hearings on Planning Regulation and Competition, before the Select Committee on Small Business, U.S. Senate, June 29, 1967.

Galbraith, J.K., Hearings before the Subcommittee on Antitrust, Consumers, and Employment, House Small Business Committee, U.S. Congress, May 17, 1978.

Hearings before the Joint Economic Committee of the Congress, Prices and Profits of Leading Retail Food Chains, 1970-74, March 30 and April 5, 1977.

Miller, Arthur S., The Progressive, July 1978.

Mitchell Hutchins, Inc., Corporate Strategy Analyses, March 7, 1977.

Imel, B., M. Behr, and P.H. Helmberger, Market Structure and Performance, 1972.

Lindblom, Charles E., Politics and Markets, 1977.

Marion, B.W., W.F. Mueller, R.W. Cotterill, F.E. Geithman, and J.R. Schmelzer, The Profit and Price Performance of Leading Food Chains, 1970-74, A Study for the Use of the Joint Economic Committee, Congress of the United States, April 12, 1977.

Mueller, W.F., Hearings on Planning Regulation and Competition, before the Select Committee on Small Business, U.S. Senate, June 29, 1967.

____________, "Firm Conglomeration as a Market Structure Variable," American Journal of Agricultural Economics, 51 (1969): 1488.

____________, "Corporate Secrecy vs. Corporate Disclosure," in R. Nader and M. Green (eds.), Corporate Power in America, New York, Grossman, 1973.

____________, "Conglomerates: A Nonindustry," in W. Adams (ed.), The Structure of the American Economy, Macmillan, 1977, pp. 442-81.

___________, "The Need for Vigorous Antitrust Enforcement," Hearings before the Subcommittee on Antitrust, Consumers, and Employment, House Small Business Committee, U.S. Congress, May 17, 1978.

Mueller, W.F. and R.T. Rogers, "The Role of Advertising in Changing Concentration of Manufacturing Industries," Working Paper No. WP-17, May 1978, NC Project 117, University of Wisconsin-Madison.

Parker, R.C. and J.M. Connor, "Estimates of Consumer Loss Due to Monopoly in the U.S. Food Manufacturing Industries," Contributed paper presented at the annual meetings of the AAEA, August 1978.

Scherer, F.M., "The Posnerian Harvest: Separating Wheat from Chaff," The Yale Law Journal, April 1977.