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IMPACTS OF MARKET POLICY ON THE STRUCTURE OF AGRICULTURE[1]

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Reasonably astute observers by now are certainly aware that, how agriculture is structured does make a difference. To appease those with the "if it isn't broken, don't fix it" mentality, I will not suggest that it is equally clear how agriculture ought to be structured if (or when) structural modification becomes a public policy objective.

I do not propose to discuss the desirability of structural change. Rather, my purpose is to examine the impacts of market policy upon structural change; that is, the relationships between market policy and the structure or organization of agriculture. My emphasis is mainly at the farm level, focusing on market policies for farm products and the structure of the farming industries.

The intellectual underpinnings of market policy rest primarily upon industrial organization theory. This theory holds that the way in which industries are structured affects the behavior of firms in their markets, and vice versa, and that both structure and conduct influence performance which is the end result of economic activity by those firms.

Market policies can be directed toward both structure and conduct. However, the direction of causality is not always clear, that is, whether market policy influences, or responds to, market structure and behavior. Probably both. This does not obscure the fact that market policy and industry structure are inexorably interrelated. Structural goals cannot be achieved in the absence of compatible market policy — otherwise, the marketing system will evolve unguided in response to economic opportunism, technological development, and economic and social power rather than toward a specific target or idealized objective.

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In essence, compatible market policy is a necessary ingredient in any purposeful policy to achieve structural change. In most instances, however, it must be joined with other policies to fully realize structural objectives. This is to say that market policy is necessary, but not necessarily sufficient.

What is Market Policy?

Market policy concerns the subset of public policies that directly influences the process of economic exchange or transaction between economic entities. The purpose is to guide the exchange process in such a way that it facilitates achievement of the goals of society, or at least the goals of those in positions of sufficient political power to sway public policy. Goals for market policy can include industry structure.

More frequently, goals are expressed in terms such as "generating prices that are adequate in view of production costs, or that provide sufficient rewards for superior entrepreneurship," "to provide equality in bargaining power," "to assure access to markets," "to assure a viable choice among competing vendors," or perhaps the grandest platitude of all, "to establish and maintain orderly market conditions."

To the extent that structure is explicitly recognized in market policy, it is usually viewed in the context of achieving other goals rather than as an objective in itself. Nonetheless, market structure is one of two key variables which is directly influenced by market policy aimed at achieving the variously stated declarations of "Congressional intent" and/or the "public interest." The other is market conduct, which often indirectly impacts upon market structure. Thus, despite the expressed goals of various market policies, industry structure is likely to be affected.

Market structure includes factors such as market concentration reflected in the number and relative size of firms in the market, the extent to which products sold in a market by different vendors are differentiated, and the number and height of barriers to the entry of new firms into the market and the exit of old firms from the market. Also, the extent to which firms in a market are vertically, horizontally, conglomerately, or multinationally integrated is of increasing importance.

Market conduct refers to the way that firms act in their input and product markets. Important conduct variables include pricing methods, the quantity and type of products produced and efforts to affect the image of those products through advertising and other means of promotion, and methods of harmonizing behavior with customers and suppliers (vertical coordination) and with rivals (tacit or overt collusion).

Examples of market policies directed toward structure and conduct abound. Structure is directly affected by much of this nation's antitrust policy which is generally aimed at the preservation of competition and prevention of monopoly. The Sherman Act of 1890 set the stage by declaring any combination of firms which results in restraint of trade to be illegal. Mergers between firms which would lessen competition were prohibited by the Celler-Kefauver Act of 1950. And uniquely affecting agriculture, combinations between meatpackers and certain mergers involving meatpackers were declared unlawful by the Packers and Stockyards Act of 1921 in order to prevent collusion and to maintain a competitive market structure.

In contrast, concentration and economic combinations have been facilitated in parts of the agricultural sector through policies such as those embodied in the Capper-Volstead Act of 1922, the Agricultural Marketing Agreement Act of 1937, and various commodity promotion laws such as the Cotton Research and Promotion Act of 1966 and the Egg Research and Consumer Information Act of 1974. Such policies have generally been enacted on the rationale that farming is too dispersed for effective market control.

Policies affecting market conduct are even more pervasive. Price discrimination in favor of large firms was outlawed by the Robinson-Patman Act of 1936. The Clayton and Federal Trade Commission Acts in 1914 and the Wheeler-Lea Act of 1938 proscribe as unfair any behavior which lessens competition among rival firms in a market. Specific to agriculture, pricing behavior has been influenced as a matter of public policy since the inauguration of price reports on spot commodity markets in 1915. Product differentiation (or lack thereof) has been affected through public programs for the development of grade standards and actual product classification. Various discriminatory marketing practices are made unlawful by the Perishable Agricultural Commodities Act of 1930, the Agricultural Fair Practices Act of 1967, the Commodity Exchange Act of 1954, the U.S. Warehouse Act of 1916, among others.

The intent of most trade practice policies is to encourage market behavior that is more similar to the theoretical concept of pure competition than it would otherwise be. Some, such as the Agricultural Fair Practices Act, are designed to encourage less perfect competition, although they are frequently enacted under the guise of creating "countervailing power" for farmers. In almost all cases, however, policies which influence conduct indirectly impact upon structure by molding market behavior into a more, or less, competitive pattern.

Market Conditions for a Dispersed Agriculture

Before turning to market policy options for influencing the structural evolution of American farming, it is instructive to examine

the market characteristics which are generally associated with a dispersed, competitive industry as compared to one that is highly concentrated.

Perhaps the most unique characteristic of a truly dispersed industry is that the firms therein have only market ties to other firms in their economic sector. That is, firms deal with suppliers, customers and rivals through arms-length transactions conducted in accordance with impersonal rules of the marketplace. By implication, this is an atomistic, competitive, open market system. Brimyer and Flinchbaugh made this point succinctly in the "Who Will Control U.S. Agriculture?" project when they labelled this type of farm organization as the "dispersed, open market agriculture".

This concept of a dispersed agriculture precludes the use of contracts between farmers and others in the marketing channel. By contracts I refer to any form of private agreement made prior to the actual exchange of title, including production contracts, resource-providing contracts, and marketing contracts, treaties or agreements.

To argue the opposite, that a contract farmer is still an independent entrepreneur because he can decide whether to contract or not — whether to produce or not — is much like arguing that a factory worker is an independent economic entity because he can decide whether to go to work or not.

The market system in this situation is closely akin to Adam Smith's concept of a self-regulating market. Students of classical economics know this as the perfectly competitive market and students of neoclassical economics know it as atomistic competition. The most significant characteristics of this marketing system are familiar to every student of economics, and their relation to existing market policy is straightforward:

1) Firms are too small to individually influence the market — hence, antitrust and antimerger policies;
2) Products are standardized and nondifferentiated — hence, grade standards and classification programs;
3) Price is the primary allocator of resources and is established competitively rather than administratively or by bilateral bargaining — hence, price reporting and fair trade practice policies;
4) Equal access to information on market conditions and equal rights to act based upon that information — hence, market news and anti-exclusionary policies; and
5) Impersonal rules govern the exchange process — hence, anti-coercion and deception policies.

One final characteristic of this system is worthy of recognition. Market behavior of firms is generally explained by microeconomic

theory. This may explain why so many agricultural economists, armed with considerable training in microeconomics, mourn the passing of the dispersed farm system. To understand the behavior of firms in other systems requires new investments in the intellectual capital of agricultural economics. It may not explain, however, why many others are concerned.

Market Conditions for a Concentrated Agriculture

One important distinguishing characteristic of a concentrated economic sector is the existence of numerous nonmarket ties among firms. By and large, this means vertical integration arrangements between farmers and their suppliers and/or customers. These arrangements take many forms, including production and resource-providing contracts, ownership integration, marketing contracts and other private marketing treaties and agreements. Additionally, some horizontal aggregation of farm enterprises may occur, most notably farmers joining together for group action.

In essence, vertical integration creates a concentrated system because decision-making flexibility, at least regarding many market variables such as price, product quality, and timing of delivery, are given over by the farmer to a contractor or integrator. That is, management becomes concentrated, usually in the hands of an off-farm agribusiness firm.

These are normally large corporations with extensive operations in the farm supply and/or food manufacturing and distribution industries. Concentration occurs regardless of who actually owns and operates the farm enterprise — control of the production-marketing system becomes concentrated as managerial decision-making shifts to relatively few, large scale integrators or systems managers.

Perhaps, it is misleading to even discuss market conditions in a managerially concentrated agriculture. In an integrated system, economic coordination between farmers and their suppliers and customers is not accomplished through spot transactions negotiated in a competitive market environment. The market as such is replaced by an exchange system within which many and sometimes all terms of exchange are administratively specified by management.

Contracts, private agreements, and joint ownership are all instruments for effectuating such administered exchange. Even in cases of horizontal farm combines for group action, many marketing decisions are transferred to collective management where bilateral bargaining replaces the competitive marketing process.

A few reasons why this integrated, managerially concentrated system evolves in an industrialized agriculture deserve mention as they explain much of the change from market to administered exchange. Specialization, interdependence, and merchandising are key factors. On-farm work activities have become more specialized

and many functions that were once performed on farms have been restructured into off-farm enterprises. Feed formulation, fuel production, and product marketing are examples. This increases interdependence among operationally separate activities, and increases both risks and costs to all participants if someone else fails to perform satisfactorily.

The task of coordinating these highly interdependent activities often becomes too much for price changes alone to manage. The more traditional impersonal market gives way to more personal methods of resource allocation, that is, management direction or administration. Also, merchandising has evolved as a means of reducing the risks of losing customers. But, when massive expenditures are made to presell customers, risks of insufficient supply increase. This further erodes the willingness of managers to rely upon the uncertainties of open market supplies and adds further pressure for specified or administered exchange.

Prices in this system tend toward instruments of equity rather than short term allocative signals. Prices are the method by which relative shares of the economic rewards are determined for individual participants, including farmers. In the concentrated system, competition in price making becomes much less important than comparability, that is, assuring that the price one person receives is comparable with what others receive who are doing similar work.

This, in turn, encourages price establishment through administrative decision, bilateral bargaining and by formulation from various indices. Some existing market policies support this system. For example, administrative pricemaking is facilitated by the milk market order and price support programs as is bilaterial bargaining by the Capper-Volstead and Agricultural Fair Practices Acts.

It also gives rise to several of the current market policy debates. Intermittent efforts to enact a national agricultural bargaining act provide one example. Another is the wide ranging policy discussions concerning formula pricing of eggs, wholesale meat, and livestock and the efficacy of the price reports upon which these formula prices are based, in particular the National Provisioner's "Yellow Sheet" and Urner Barry's "Producers' Price-Current."

Economic input into policy decisions that address market or exchange phenomena in large scale, managerially concentrated systems is complicated by the inability of received microeconomic theory to predict, even approximately, organizational response to various stimuli. For one very basic example, the traditional profit maximization objective function is supplanted by a complex organizational objective which appears to include variables such as economic growth, organizational stability, executive perks, organizational slack, and a targeted market share, all subject to the earning of a minimum acceptable level of profits.

Other theories of firm behavior such as those of organizational behavior and industrial organization are required. These theories cannot continue to be viewed by agricultural economists as illegitimate offspring of the economics profession if we are to provide constructive input into policy discussions concerning a concentrated agriculture.

Market Policy Alternatives to Achieve a Dispersed Agriculture

Understanding the relationship between market conditions and industry structure helps to identify market policy options that are consistent with a given structural objective. Some are rather obvious, particularly when the goal is to create or at least facilitate the emergence of a dispersed industry.

It has already been shown that several of the existing market policies facilitate the open market system and thus should help maintain a dispersed agricultural sector. Yet, it is obvious that, over time, U.S. agriculture is increasingly deviating from a dispersed structure. A recent analysis by Jim Shaffer and myself has shown that concentrated management structures, including both vertical ownership and contract integration, currently account for at least one fourth of all U.S. farm production and perhaps as much as 40 percent. This excludes horizontal concentration through collective action which, if included, could easily put the relative share for concentrated agriculture above the 50 percent mark. Thus, one must conclude that existing open market policies are ineffective and/or insufficient in and of themselves in assuring a dispersed system.

The most obvious market policy choice to achieve a dispersed farming sector is to proscribe any form of nonmarket, integrative arrangement or linkage between farm enterprises and others in the food and fiber production and marketing system. This is somewhat akin to Carroll Bottum's policy suggestion of several years ago that, to maintain open markets in agriculture, buyers of farm products be required to purchase some minimum share of their acquisitions through an organized, open market such as a terminal or auction. It is unfortunate that Bottum's suggestion did not receive more attention at the time. Policymakers have largely ignored the structural and policy implications of the steady erosion of the open market by the persistent pressure to reduce risks through contract farming, private marketing treaties and agreements, and vertical integration.

To assure a dispersed agriculture, the "market share" requirement is insufficient. At best, it would result in a mixed system of managerially independent and integrated farms. Even though it would assure the existence of open market institutions, it would not prevent the use of nonmarket institutions through which considerable decision-making independence by farmers is given over to a relatively few.

A fully dispersed agriculture calls for a complete ban on contracts, private agreements, and other nonmarket linkages at the farm gate. Such a policy could be effectuated either through an outright ban on the use of nonmarket, integrative arrangements or by a mandate that all farm production must be sold on an open market.

At least one precedent for such a policy exists in the western world. Concern by some Canadians in the late 1950's about industrialization of swine production and the potential for broiler-type contract integration in this industry lead to the formation of a pork producers marketing board in the province of Ontario. In the early 1960's, the Ontario board developed a province-wide open marketing system for slaughter hogs which utilized a teletype auction network for interconnecting all livestock assembly yards and meat packers in the province. This was a forerunner of today's concept of an electronic market. The board also mandated that all hogs produced in the province were to be sold on this open market system. That policy remains in effect today.

No similar policy decision was made in Quebec, the other major hog producing area in Canada. Currently, Quebec and Ontario each account for about 35 percent of that nation's total hog production. Today there is virtually no open market for hogs in Quebec. Contract and ownership integration dominate. By contrast, contracting is nonexistent in Ontario and, while one meatpacker has some confinement hog production facilities, it has to compete with all other packers in the open market for the acquisition of the hogs produced therein. One final comparison: there are now 4.3 times as many farmers producing hogs in Ontario as in Quebec, with each province producing about 3 million market hogs annually.

This experience suggests that a mandatory open market policy by itself might be sufficient to facilitate a dispersed structure. Of course, there are trade-offs. The technological imperative for close nonmarket coordination in an industrialized system is disrupted. Inefficiencies, slower growth, and inequities vis-a-vis others in industrialized sectors are possible outcomes.

Short of a mandatory market policy there are a number of policy actions that can improve the viability of organized markets in agriculture, thus perhaps slowing the transition toward nonmarket concentration. First, existing market facilitating programs such as grading and product standardization, price reporting, and market news could be strengthened and expanded. Some form of mandatory price reporting, or at least enforcement of current laws that require truthful reporting, would help slow the erosion of reliable market information. Next is more vigorous enforcement of antitrust policy, including clear and enforceable antimerger guidelines. These would need to apply to farmer cooperatives as well as to other business firms.

Also, efforts can be encouraged to develop more sophisticated open, organized marketing methods which can meet the complex coordination needs of an industrialized agriculture. Computerized or electronic markets provide one possibility. Finally, consideration could be given to revocation of the Capper-Volstead Act and the Agricultural Marketing Agreement Act, effectively forcing farmers into competition with one another.

Market Policy Alternatives to Achieve a Concentrated Agriculture

Finally, let us look briefly at some market policy options that can help to achieve a concentrated farming sector. In a sense, these are "mirror images" of the dispersed policy alternatives. As was the case above, this list is illustrative but not exhaustive.

Several policy actions could be taken to enhance collective action by farmers. These include passage of a "union shop" type of collective bargaining law for farm producers, modification of the Capper-Volstead Act to specifically allow intercooperative mergers and joint ventures between cooperatives and other agribusiness corporations, and broadening the commodity coverage of market orders. Market facilitating programs such as market news and grading and standardization could be sharply curtailed or even eliminated. Efforts to develop electronic markets or other innovative approaches to organized marketing could be forestalled.

Even greater deficiencies and legal roadblocks could be wrenched upon our antitrust policies and enforcements thereof. Or, antitrust policy could be foregone in entirety. Consideration could also be given to the treatment of agriculture as a public utility with the appropriate controlling body constituted from among consumer activists, organized labor, government regulators, elected officials, lawyers, agribusiness executives, and perhaps even a farmer.

Alternatively, we can do nothing different from our current pragmatic mix of structurally inconclusive or nondirective market policies.

Final Comment

It was mentioned earlier that market policy is only one policy element which can affect structure, and that market policy alone is probably insufficient to achieve a specific structural objective. By like token, compatible market policy is necessary to achieving any structural goal.

The fact that we currently observe a partially dispersed, partially concentrated structure to farming is at least in part a reflection of our existing mixture of competition enhancing and competition restricting policy goals. This may reflect an even more basic goal conflict between equity and efficiency. Until such basic goal conflict is resolved, emergence of market policies, as well as structural policies, with a clear sense of direction is highly unlikely.