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FEDERAL MARKET ORDERS FOR FRUITS AND VEGETABLES*

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Much attention has recently been focused on food costs, their inflationary impact, and any programs that may affect food costs. Market order programs have been frequently cited as examples of programs favoring agricultural producers at the expense of consumers. Statements and questions about their inflationary impact often reflect lack of information on the use of market order regulations, speculation on their effectiveness, and erroneous implications drawn therefrom.

A USDA interagency task force recently reported on the inflationary price impact of federal market order programs.[1] I am preparing a publication on fruit and vegetable market orders detailing their operation and assessing their economic impacts based on available data. This paper highlights the general thrust of market order activities in the fruit and vegetable industries.

Types of Market Order Provisions

Levels of regulation under market orders are established periodically by USDA, usually at the recommendation of administrative committees comprised of industry members. The programs rely primarily on three categories of regulation to enhance the level and stability of producer returns: quality control, market flow, and volume management.

Quality control regulations specify minimum grades and sizes marketable, eliminating smaller sizes and lower grades to improve the degree of uniformity and reliability in general quality to obtain higher prices. By restricting marketing of lower quality products during periods of large supply, they also keep the price of higher quality products above what might otherwise occur.

Market flow regulations attempt to even out market shipments to avoid market gluts which result in low prices and product waste, or shortages which cause lost sales and higher prices. They are implemented as weekly shipment limits or shipping holidays and are primarily used in citrus marketing programs.

Volume management regulations restrict supplies going into primary markets, either through reserve pools, market allotments, or diversion of excess supplies to alternative outlets such as export or nonfood use. They are used mostly for readily storable crops such as dried fruits and nuts.

These market order provisions are designed to regulate supply variables, hence require separable markets with different characteristics relating to time, location, quality, or product form. Each of the markets can be regulated accordingly and carries its particular limitations on gains obtainable.

In addition to these primary market order provisions, several supplementary provisions are widely used. They specify standard packs and containers, fund research and development activities, and provide a funding mechanism for commodity advertising and promotion.

Of the 48 existing market order and agreement programs for fruits, vegetables, nuts and specialty crops, 22 contain provisions for direct regulation of quantities marketed, including three which provide for shipping holidays that probably have little impact. Most quantity regulation orders also contain provisions for grade and size regulation, while 26 orders allow only grade and size regulation to enhance the level and stability of producer price.

Limitations On Gains Obtainable

Potential gains to producers, and gains or losses to handlers and consumers, depend on supply and demand characteristics of the commodity, its market share, and order provisions applied. Economic and legislative constraints will determine the extent of gains realized or costs incurred.

There is a tendency to emphasize price enhancement aspects of market order operation, though price and quality stability are often cited as important goals. Such enhancement is indeed permissible by authority contained in the legislation and, from the viewpoint of an individual producer, using market order provisions to increase prices is a legislative specification designed to limit price enhancement potential, economic limitations are the more effective constraint.

*The views are those of the author and not necessarily of the U.S. Department of Agriculture.

[1] *Price Impacts of Federal Market Order Programs,* Report of the Interagency Task Force, Special Report 12, Farmer Cooperative Service, USDA, January 7, 1975.

Gains obtainable through manipulation of supply are limited by substitution between the regulated commodity and competing supplies from other production areas or imports, processed or nonregulated forms of the commodity, and other commodities. Limits are also imposed by lack of production control authority for most market orders. Individual producer's supply response to price gains under order provisions will limit gains obtainable. Because of the large investments and lengthy time period preceding maturity of orchards, tree crops do not respond as vigorously to price changes in a given year as vegetable crops, which may allow for significant changes in production at relatively low cost.

Evidence of Market Order Impact

Two general types of evidence may be marshalled about the impact of market orders: 1) The ways regulations are imposed provides a basis for judging the intent of regulation; and 2) results obtained indicate the impact on producers, handlers, and consumers.

The extent of regulation indicates whether the intent is to stabilize price by regulating in both directions or to raise price by limiting troughs but letting peaks obtain their own level. Volume management regulations issued only in years of large supply will limit price troughs but not peaks. Final disposition of a reserve pool also indicates intent. Producer allotments vary depending on the expected market situation and inventory. Grade and size regulations may only control quality or may be varied relative to crop size.

Results from market order regulation are shown by the level and stability of quantities and prices, supply imbalance which indicates excessive shifts in resource allocation, and distributional effects between and within producer, handler, or consumer groups. This latter result is difficult to measure due to inadequate data relating market order parameters to various parties involved.

Price and quantity of the regulated commodity may be compared annually with appropriate competing commodities or groups. Comparison of average levels over an extended period will indicate longer run impacts. Stability effects may be judged from relative variances over the longer run. Quantity comparisons are most appropriate on a per capita basis. Actual or deflated prices may be compared, the latter preferable for the longer run. Depending on the particular situation, appropriate comparisons may be made for a controlled crop before and after instigation of an order, between controlled and competing portions of the same crop, or regulated commodities and other fruits or vegetables.

Grade and Size Regulations

Grade and size regulations may conceivably be used for two purposes. If used merely to maintain quality of the commodity marketed, one would expect to find nearly the same restrictions each year and benefit possibly accruing to all parties in the market system. Quantity regulation may be presumed the primary purpose if grade-size restrictions vary according to crop size. Higher minimum standards for larger crops and some or no minimums for small crops evidence attempts to regulate quantity in addition to quality, by holding the lower quality off the market to support price for the better segment of the crop, but in this case net benefits experienced by various parties are difficult to unravel.

Greater potential producer gains from grade and size regulations exist if the market order applies to a large portion of the total supply of the commodity and most production in the regulated area is marked fresh. Evaluating the quality and quantity effects of grade-size regulations requires assessing the potential impact based on grade-size distribution of the commodity and the level at which regulations were established.

Data show that grade and size regulations implemented do not change for most commodities regardless of crop size, indicating no attempt to significantly control quantities marketed. Most changes observed involved relaxation or removal of standards indicating intent to support price for the best part of the crop in years when regulations were left in effect, simultaneously avoiding losses from marketing the lowest quality portion for which prices may not cover costs. For most commodities, a small portion of actual shipments fall into the minimum size class, implying that considerations other than size regulations determine amounts marketed.

For citrus crops, except for Florida tangerines with 30 percent of the crop estimated to fall below the minimum size eligible for marketing fresh, no size regulation would have excluded more than 15 percent of the crop from being marketed fresh. The 85 percent or more of the crop thus eligible for fresh market substantially exceeded the portions of the crop actually marketed fresh. Even Florida tangerines, which dominate the U.S. market volume, have had a lower mean price with more stability in price and quantity than competing but unregulated California tangerines.

Available grade-size distribution data for crops other than citrus indicate than quantities eliminated from fresh marketing by minimum standards are generally less than 10 percent of production. Exceptions are Oregon-Washington-California winter pears, Oregon-Washington Bartlett pears, and Idaho-Eastern Oregon onions. Most winter pear production goes to fresh market but enough is processed to use pears eliminated by fresh market grade-size minimums. Only about 25-30 percent of Oregon-Washington Bartletts

are marketed fresh. Idaho-Eastern Oregon onions represent about 15 percent of total U.S. production, and their prices have varied above and below U.S. average prices.

While size regulation for Florida tomatoes is well known for its earlier effects on winter tomato imports from Mexico, the program has operated in recent years only to establish clearly minimal quality standards. Almost no shipments have been made in the smallest categories permitted. In addition, Mexican authorities have been effectively establishing limits on their exports.

The preceding analysis indicates no recent activity under grade-size regulations having significant price enhancement effects through quantity impacts. They probably have some effect by keeping lower quality fruit from replacing sales of higher valued fruit in the fresh market, but the percentages of most crops marketed fresh imply that such effects are minimal and price comparisons support that conclusion.

Flow to Market Regulations

Though market flow regulations limit quantities permitted to be marketed fresh in a given time period, there may not be much effect on total supply for the entire season. Evidence of the extent to which these regulations are used exist in the amounts marketed in each individual time period, but accurately assessing their impact would require elaborate analysis of demand in the different periods. Evidence of results obtained by flow regulation include changes in per capita marketings in different forms, and relative level and stability of prices. Limits imposed by competing supplies may show up in the relative market share and share of production for the area regulating fresh marketings.

Before-after analysis is appropriate for the two Florida grapefruit orders regulating market flow. Comparisons are appropriate also between regulated Florida grapefruit and unregulated flows of Texas and California-Arizona fruit. Regulated California-Arizona oranges may be compared to Florida oranges which are not.

Flow regulation may have significant impact for both California-Arizona orange orders; 65-80% of the navels are marketed fresh, and peak shipments of valencias occur during July through October when there are few competing supplies. The portion of Florida grapefruit marketed fresh leaves doubt that flow regulation is very restrictive, but its substantial share of U.S. fresh sales indicates potential impact.

California-Arizona navels had the highest mean price and the lowest coefficient of variation for 1960-73 when compared to all other orange production areas, and valencias were next in order. The market orders may have raised and stabilized prices simultaneously. Deflated prices for periods of equal length before and after implementation of the Florida grapefruit orders indicate higher average prices, with greater stability in one regulation area but less in the other area. Florida grapefruit shows lower mean prices and greater instability than California-Arizona desert grapefruit. Thus, the order may have aided in raising prices but the extent of impact has not been very substantial. The relatively inelastic demand for fresh lemons and the quantities diverted from the fresh market indicate that the California-Arizona lemon market order has provided significant price enhancement.

Volume Management Regulations

Volume management regulations allocate quantities into different market outlets, set producer market allotments, or establish reserve pools. The extent of use is evidenced by the portion of the crop declared surplus or put into reserve pools. The use of a reserve pool to normalize marketings requires that quantities withheld in one period be put onto the market in succeeding periods of shorter production. Disposal into nonfood or secondary markets would be prima facie evidence of use only to avoid low prices. Evidence of resource misallocation due to incentives from market order results would include increasing disposal in nonfood uses, exports, or other secondary markets; surplus declaration; or pooling. Other evidence of order effects would be stability or increases in price relative to other parts of the crop going to other outlets. In the case of producer market allotments, per capita marketings relative to other commodities may be appropriate to measure results.

Ten commodities are regulated through market order provisions which limit the volume going into the primary market outlet. Market allocation orders in effect for almonds, filberts, walnuts, dates, raisins, and cranberries set maximum allowable marketings for the primary market, usually the domestic market. Surplus amounts may be sold in noncompetitive outlets such as secondary food markets, export, and/or nonfood uses, or put into the reserve pool. Market allocation has had significant impact for walnuts and cranberries. And it could do so for almonds, but has apparently not in recent years. However, earlier allocation programs encouraging efforts to develop the export market for almonds resulted in it becoming the primary outlet.

Reserve pools are authorized for dried prunes, hops, raisins, and red tart cherries. Quantities withheld from the market in reserve pools in the early part of the market season may be released later, carried into the next season, or disposed of in a noncompetitive outlet. Reserve pool regulations have caused significant price enhancement for dried prunes in recent years and for tart cherries in 1972-73. Prices for raisins have been enhanced through

a combination of reserve pool and market allocation regulations.

Producer allotments authorized for three commodities prorate marketable quantities among producers. For hops, the allotment operates in conjunction with the reserve pool program. Marketable allotments provide the sole quantity control mechanism for celery. A marketing allotment program became available for the 1974 cranberry crop but was not implemented. The producer market allotment programs for hops and Florida celery operate to enhance price by indirectly controlling production. They also create barriers and thus higher costs of entry into these industries. But this may be weakened somewhat by the fact that California celery competes with that from Florida in approximately equal volume.

Summary

In summary, it appears that federal market order programs have had significant impact on price level and stability for some commodities, mostly those 10 subject to regulations governing volumes marketed in primary outlets and several of the citrus crops under market flow orders. The remaining orders probably have had limited impacts on stability or level of prices.