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Retail Consolidation and Produce Buying Practices: A Summary of the Evidence and Potential Industry and Policy Responses

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INTRODUCTION

I ncreasing concentration among food retailers has sparked concern among growers and shippers of fresh fruits and vegetables over retailers' potential use of their market power in determining the prices suppliers receive and the fees they are asked to pay. Industry concern over shippers' disadvantageous bargaining position in price negotiations is not new, but the debate has become more pointed and more vocal as the suppliers' position seems to be deteriorating further. Moreover, the manifestation of retailers' market power seems to be taking on a new form that is particularly disturbing to growers. For example, retailers have begun to require fresh fruit and vegetable suppliers to pay slotting fees, pay-to-stay levies, failure fees, promotional allowances, and other off-invoice charges. These fees and charges had been limited traditionally to consumer dry goods. Although retailers claim that these fees are necessary to help share the risk of the potential failure of a product, to pay for the cost of re-shelving, or simply to share the cost of promotion, the imposition of such charges nonetheless raises several economic and legal issues, especially when shippers realize few of the shared benefits promised (Food Institute, 2000).¹

Responding to concerns about the evolution of concentration and pricing practices in the U.S. produce sector, the U.S. Department of Agriculture Economic Research Service (ERS) undertook a detailed investigation of the changing nature of relationships between produce shippers and retailers and the implications for competitive behavior. Results of the

ERS investigation are contained in a series of four reports. Kaufman et al. provide a comprehensive overview of the produce industry. Calvin et al. identify and characterize the types of pricing practices used in the produce industry, including fees and services provided by shippers, contracts, and other marketing practices. The final two reports contain empirical analyses to investigate retailers' pricing practices and their potential market power in the procurement and sale of several produce commodities. In particular, Richards and Patterson examine fresh orange, fresh grapefruit, table grape, and fresh apple markets; Sexton, Zhang and Chalfant investigate markets for iceberg lettuce, fresh tomatoes, and bagged salads.

Although this report is not produced as part of the ERS investigation, it is intended to complement the aforementioned reports by discussing possible strategic and policy responses in light of the findings from that investigation. This report first summarizes the evidence of the extent to which U.S. grocery retailers exercise market power as buyers from grower-shippers in the produce industry and as sellers to consumers. We then investigate the economic issues underlying the retailers' emerging practice of requiring grower-shippers to pay various fees and perform various services. Finally, we address possible responses to retailer market power and the pricing practices associated with that power, including potential strategies available under current antitrust laws, possible modifications to existing law, and countervailing power through cooperatives and/or marketing orders.

¹ Slotting fees, the most common practice cited by shippers, involves a manufacturer or supplier paying a fee to a retailer to provide shelf space for a new product. The total of such fees has been estimated at between \$9 and \$18 billion in the U.S. in 1998.

EVIDENCE OF FOOD RETAILER MARKET POWER

Market power is a necessary condition for pricing schemes like slotting fees to develop, and the increasing consolidation of sales among large supermarket chains in the U.S. has made retailer market power in the food industry a topical issue. At a conceptual level, two basic factors suggest that grocery retailers possess some degree of market power and, thus, an ability to influence prices. First, as several authors have noted, the spatial dimension of retail food markets is important because consumers are distributed geographically and incur nontrivial transaction costs in traveling to and from stores.² This condition leads to a spatial distribution of grocery stores and gives the typical store a modicum of market power over those consumers located in close proximity to it and hence the ability to influence prices at least to some extent.³ Second, retailers have the ability to differentiate themselves through the services they emphasize, advertising, and other marketing strategies. The question, thus, is not whether retailers have the ability to influence prices, but the extent of that influence and its implications.

Empirical evidence on retailer market power in setting prices to consumers is contained in studies such as Hall, Schmitz and Cothorn; Lamm; Newmark; Marion, Heimforth and Bailey; and Binkley and Connor, all of whom examined average retail food price relationships using cities as the unit of observation. Other studies, including Cotterill (1986), Kaufman and Handy, Marion et al., and Cotterill (1999), focused on the behavior of individual stores, providing an opportunity for increased precision and relevance in constructing explanatory variables relative to earlier studies. Cotterill (1986) studied food retailer monopoly power in Vermont, a sparsely populated state, which provided a nearly ideal setting in which to delineate relevant geographic markets for identifying concentration. Seller concentration variables were positively

associated with price and were statistically significant. Cotterill's (1999) parallel study of Arkansas supermarkets reached similar conclusions regarding the impacts of retailer concentration on food prices.

However, not all studies of grocery retailing have found a positive association between concentration and price. Kaufman and Handy studied 616 supermarkets chosen from 28 cities that were selected at random. Both firm market share and a four-firm Herfindahl index were negatively but insignificantly correlated with price. Newmark also obtained a negative and insignificant coefficient on four-firm concentration in a study of the price of a market basket of goods for 27 cities. Binkley and Connor suggest one explanation for the conflicting results in terms of product coverage in the price variable. They found a positive and significant concentration-price correlation for dry groceries but a negative and insignificant correlation for fresh and chilled food items.

Other investigations into food retailer pricing have focused on the transmission of prices from the farm to retail for commodities. This research has emphasized two primary issues: the "stickiness" of retail prices relative to farm prices and potential asymmetries in the transmission of price from farm to retail. Of particular concern is the allegation that retail prices tend to respond more quickly and fully to farm price increases than to farm price decreases. To the extent that such behavior occurs, it is harmful to both consumers and producers. For example, if a farm-level price decreases due to a large harvest but that decrease is not transmitted to consumers, additional sales needed to consume the larger crop do not occur, exacerbating the decrease in the farm price.

The implications for competitiveness of food retailing from the research on rigidity of retail prices and asymmetry of transmission of farm-level price changes

² For discussions of food retailing from a spatial economics perspective, see Faminow and Benson, Benson and Faminow, Walden, and Azzam.

³ Market power due to location is inevitable when consumers are distributed geographically and incur nontrivial transportation costs. Even when large numbers of sellers exist in a market, any one seller competes actively with only its nearest rival(s). In the absence of barriers to their doing so, retailers will enter a geographic market until economic profits are driven to zero. Prices will exceed marginal costs on average, however, based on the fixed costs of entry.

are not clear. Conceptual research by Rotemberg and Saloner has shown that sellers with market power are more likely to maintain stable prices in response to changing costs than are competitive firms.⁴ Re-pricing or menu costs also contribute to explaining retail price rigidities. Changing prices is costly for retailers, so a product's price will remain fixed unless its marginal cost or demand changes sufficiently to justify incurring the cost of re-pricing. Moreover, from a marketing strategy perspective, one plausible pricing strategy in grocery retailing is to stabilize prices to consumers by absorbing shocks in farm-level and wholesale prices for certain frequently purchased staple commodities. This type of pricing behavior by retailers can hardly be construed as evidence of market power. It simply represents a marketing strategy by the retailer to attract and retain customers.

Asymmetry of price transmission, where farm price increases are passed on to consumers more quickly than farm price decreases, is less readily explained. In a standard model of monopoly or oligopoly pricing, the optimal price change in response to a given increase or decrease in marginal costs may not be symmetric and depends upon the convexity/concavity of consumer demand (Azzam). This consideration, however, does not explain a delay in responding to a price decrease relative to a price increase.

The empirical evidence of asymmetry in price transmission is mixed. Studies by Kinnucan and Forker for dairy products, Pick, Karrenbrock and Carman for citrus, and Zhang, Fletcher and Carley for peanuts found evidence that retail prices and margins were more responsive to farm price increases than decreases. More recently, Powers and Powers found no asymmetry in the magnitude or frequency of price increases relative to price decreases for California-Arizona (CA-AZ) lettuce, based on a sample of 40 grocers and 317 weekly observations from 1986 to 1992.

Comparatively little research has been conducted on the topic of food retailers' power as buyers from food shippers and manufacturers. The issue is quite difficult to address because prices paid by retailers to shippers and manufacturers typically are not revealed. Retailers' selling costs are also generally confidential

and, moreover, almost impossible to apportion to individual products given the multitude of products sold in a store. Produce commodities provide one of the better opportunities for examining retailer buying power because farm-level prices are typically reported, as are shipping costs to major consuming centers, and sales are often direct from grower-shippers to retailers. Sexton and Zhang (S&Z) examined pricing for CA-AZ iceberg lettuce for January, 1988, through October, 1992, and concluded that retailers were successful in capturing most of the market surplus generated for that period, essentially consigning grower-shippers' economic profits to near zero over the time period analyzed.

The ERS Studies of Retailer Market Power

The Richards and Patterson (R&P) and Sexton, Zhang and Chalfant (SZ&C) analyses conducted as part of the ERS investigation used weekly retail-scanner price and sales data for 1998-99 (104 total observations) for 20 retail chains from six major metropolitan markets in various regions throughout the country. Within each market, most major retail chains were represented in the data. Although the R&P and SZ&C studies used rather different analytical frameworks, each reached similar conclusions, affirming that grocery retailers exercise some degree of market power as buyers of produce commodities from grower-shippers and as sellers of those commodities to consumers.

R&P found that retail prices responded more swiftly to price increases at the shipping point than to price decreases. This result is then further evidence in support of the proposition that retail prices do respond asymmetrically to changes in price at the farm level and that the asymmetry works to the detriment of producers. In addition, R&P found that retail prices were, on balance, highly inflexible despite considerable volatility in pricing at the farm gate. R&P note that the ability to maintain stable selling prices despite volatile acquisition costs implies an ability on the retailers' part to control prices, but they also acknowledge potential benefits to consumers from price stability and cost-based rationales for maintaining constant selling prices.

⁴ The fundamental intuition is that individual sellers perceive an increasingly elastic demand as the extent of competition increases. This makes price changes more beneficial because some of the benefits are derived at the expense of competitors.

R&P also developed and estimated a structural model of price determination at retail and wholesale markets based on the logic of a “trigger-pricing” theory of firm behavior. These models admit the possibility that firms may undertake collusive behavior but assume that such collusion is likely sustained by periods of aggressive (competitive) pricing intended to “punish” competitors thought to be cheating on the collusive agreement. The model thus allows the data to reveal episodic periods of both cooperation and competition among retailers. R&P found evidence to support this model of retailer behavior for each of the four commodities included in their study, though results did vary considerably by commodity. The analysis for apples revealed evidence of both buying and selling power on the retailers’ part. For table grapes and fresh oranges, the evidence suggested a consistent pattern of seller power but inconsequential power as buyers from grape shippers. The analysis for grapefruit revealed a consistent pattern of seller market power but an irregular pattern of buyer power across the six metropolitan markets investigated in the study. On balance, R&P concluded that periods of collusive behavior among retailers occur roughly two-thirds of the time.

The SZ&C analysis involved three major components, including a detailed investigation of price spreads (margins) for CA-AZ iceberg lettuce, vine-ripe tomatoes from California, and mature green tomatoes from both California and Florida. A central point of the price-spread analysis was to investigate the role of total shipments in influencing the price spread. Under competitive procurement of these commodities, there is little reason for shipment volume to affect the margin.⁵ However, under imperfect competition, the authors hypothesized that high shipment volumes for a perishable commodity would diminish the bargaining power of sellers relative to buyers and lead to widening of the margin. This effect was confirmed for each of the commodities studied.

Notably, R&P found an opposite effect for the commodities they analyzed—higher volumes were associated with a loss of retailer buyer power. The contrast in results is probably explained by the types of

commodities analyzed in the two studies. Because the commodities included in the R&P analysis are storable, retailers wishing to procure large volumes, for purposes of offering the item on sale for example, must offer favorable prices to create incentives to move the product from storage to the market.

An additional result of note from the SZ&C margin analysis was that changes in shipping costs tended to have little effect on the price spread, a result that is also consistent with retailers’ interest in stabilizing prices to consumers.

SZ&C also conducted formal tests for buyer market power in procurement of fresh produce commodities, based upon the short-run pricing model developed by S&Z. The S&Z model posits that supply of a produce commodity is fixed by planting decisions made months in advance of the harvest period and thus, at all prices above per-unit harvest costs, supply is fixed (unresponsive to price changes). Estimation results for iceberg lettuce supported the earlier conclusion of S&Z that retailers were able to capture the lion’s share (about 80 percent) of market surplus, whereas under competitive procurement the entire surplus would go to producers. In other words, under competition, price would be determined where the fixed harvest intersected the retailers’ demand curve, and thus the entire surplus accrues to producers as owners of the asset in fixed supply, namely the available harvest.

These results also lend support to the finding from the price-spread analysis that large harvest volumes reduced sellers’ relative bargaining power. Application of the model to fresh tomatoes yielded mixed results. A hypothesis of perfect competition in procurement could not be rejected for either Florida or California mature green tomatoes, and the producers’ share of the market surplus was considerably higher for tomatoes than for iceberg lettuce. Florida’s mature green tomato industry in particular appeared to have been effective in utilizing collective action to maintain a floor on its selling price and capture a substantial share of the market surplus in excess of the floor.

Finally, an analysis of retailer market power in selling iceberg lettuce and fresh tomatoes to consumers

⁵ A referee suggested the possibility that retailer losses due to spoilage might be higher during periods of high shipments, thus contributing to higher retailer costs and a widening farm-retail price spread during these periods.

suggested that retailers are setting prices for these commodities in excess of full marginal costs but are not exploiting the magnitude of the market power available to them, based on the estimated price elasticities of demand for each store. Also noteworthy was that several retailers maintained constant selling prices for iceberg lettuce throughout the two-year sample period. Although such pricing may be part of a rational retail strategy to attract and retain customers, fixing or stabilizing prices generally is harmful to producer welfare because it leads to greater price volatility in the segments of the market that do not hold prices fixed.

The analysis of retail pricing for each commodity revealed a great diversity among retailers in pricing strategies. For example, focusing on iceberg-based salads, SZ&C found that chains differed both in terms of pricing and product selection, including whether or not to carry a private-label brand. The data revealed no evidence of coordination among retailers in setting prices for bagged salads. The analysis also revealed a nearly complete absence of relationship between the farm-level price for iceberg lettuce and prices set at retail for iceberg-based bagged salads. Thus, while the link between farm and retail prices for primary produce commodities is often characterized by sticky retail prices and asymmetric transmission of prices from farm to retail, there is essentially no link at all for a processed commodity such as bagged salads.

On balance, the empirical evidence generated by the R&P and SZ&C studies, as well as the prior studies mentioned, supports the conclusion that buyers are often able to exercise oligopsony power in procuring fresh produce commodities. This result should not be surprising, given the structural conditions in these markets. Produce sellers are small and numerous relative to retail-chain buyers. In addition, most produce commodities are highly perishable, meaning that the supply at any point in time responds little to changes in price. The need to move product to market quickly to avoid losses limits shippers' bargaining power in dealing with retailers. As noted, the structure of grocery retailing on the selling side also necessarily gives large retailers some degree of market power in terms of an ability to influence the price to consumers. Ample evidence of this power lies in the wide variety of pricing strategies that were manifest for the commodities included in the R&P and SZ&C studies.

This affirmative conclusion as to retailers' market power, as both buyers and sellers, raises the prospect that the off-invoice fees charged by retailers are a manifestation of that power, are designed to facilitate that power, or both. We next examine the various economic arguments that have been offered to explain these types of fees in food retailing.

OFF-INVOICE CHARGES AND IMPERFECT COMPETITION

Economic Theories of Slotting and Other Fees

Many economists argue that off-invoice fees, commonly referred to as slotting fees,⁶ arise from efficient operation of a free market for new products. These arguments follow six primary lines of reasoning in maintaining that slotting fees are levied: (1) as an efficient signal of those products most likely to be successful, (2) as a screening device by retailers, (3) as a price that is necessary to equilibrate the number of new products suppliers bring to the market with the number that consumers demand, (4) as a means by which retailers allocate shelf space among competing uses, (5) as a means of sharing the risks of failed products between supplier and retailer, and (6) as a way for retailers to legitimately cover the costs of removing failed products, thereby charging lower retail prices. Retailers, therefore, maintain that these practices are used in the normal course of doing business in a highly competitive, risky environment where suppliers bring thousands of new, largely untested products to market each year.

The opposing school of thought maintains that these payments either are the product of a noncompetitive market or serve to sustain the monopoly power of those involved. Arguments supporting this view are: (1) that slotting fees represent a means by which retailers signal to other retailers that they will not compete aggressively on the retail price as they have taken their profits upfront; (2) that slotting allowances act as barriers to entry by small independent suppliers, sustaining the monopoly power of larger players; (3) that off-invoice fees are merely creative ways of implementing two-part, discriminatory pricing schemes among cartels of retail buyers and are rarely uniform among suppliers, therefore violating the Robinson-Patman Act; (4) that, by monopolizing a distribution channel, suppliers who pay slotting fees significantly raise costs for their rivals, thereby harming the rivals' ability to compete; and (5) that slotting fees increase

the total cost of bringing new products to market and thus reduce the rate of innovation.

The various arguments surrounding slotting and related fees have only recently been subjected to rigorous empirical investigation. Much of the evidence regarding the existence, use, and effect of slotting fees is anecdotal, as recent testimony before the Federal Trade Commission and Senate Small Business Committee attests.

If suppliers do indeed possess information about the likely strength of retail demand for their products that is superior to that of retailers, then they may offer slotting fees in order to provide a signal of confidence in their product. For this signal to be of value, however, the quality of the suppliers' information is clearly key. Although it is impossible to measure the quality of information, there is a more direct way to evaluate this assumption—ask retail buyers directly if slotting is important in their decisions regarding whether to buy new products. If such fees are not important to these decisions, then clearly they cannot be a very good source of market information. Several studies of grocery buying managers have shown that slotting fees are either unimportant (McLaughlin and Rao) or relatively less important than other factors, such as wholesale price, marketing support, supplier reputation, and introductory allowances, in influencing their decisions (Bloom et al.; White et al.). In fact, Rao and Mahi found that slotting allowances are lower when suppliers have more information, the opposite of the result predicted by the signaling theory and one that is more consistent with retailers possessing superior market information.

Similarly, retailers may respond to a lack of information regarding the likely success of a new product or new supplier by setting slotting fees to screen out suppliers who do not think their products will sell enough to justify the high entry price. If slotting allowances are to be valuable as screening devices, then retailers must occupy a dominant position in the

⁶ The off-invoice fees discussed in this paper are broadly referred to as slotting fees, but they include numerous other fees described as introductory fees, pay-to-stay levies, and failure or removal fees, along with others.

channel relative to their suppliers. However, market power is a necessary but not sufficient condition for buyers to actually use slotting as a screening device. In fact, survey evidence from McLaughlin and Rao, Bloom et al., and Rao and Mahi suggests that any market power retailers do have is not used to screen new products. Neither the suppliers nor the retailers surveyed in Bloom et al. believe that slotting fees are an effective means of determining which products are likely to be successful.

Given the tenuous nature of any of these theories that rely on an asymmetry of information between suppliers and retailers, it may be that slotting allowances are simply a way of equating the supply with demand for shelf space, as proposed by Sullivan. Based simply on the numbers of new products introduced in grocery stores each year, 19,300 new products in 1997 alone (Food Institute), the need for some sort of allocation mechanism is apparent. One implication of this theory, however, is that slotting allowances must rise with retailers' cost of handling new products. There is no evidence that this is the case, and in fact, Rao and Mahi offer survey evidence that the opposite is true. Finding that slotting allowances and retailer costs are negatively correlated, they tentatively concluded that more efficient retailers enjoy a greater measure of market power because of their ability to dominate the retail market. However, in their direct survey of grocery managers, Bloom et al. found both retailers and suppliers agreeing that the most plausible explanation for slotting fees is that there is simply an oversupply of new products relative to the demand in the market for them. Although retailers do not agree with the related statement that "slotting fees are simply rental fees for shelf space," suppliers in this survey expressed their belief that this is indeed an apt description of their economic role. Many also believe that slotting allowances serve not only to allocate shelf space among competing products but also to apportion the risk of failure among retailers and suppliers.

In fact, these two explanations are closely related in that they both describe allowances as a market response to an inherently uncertain prospect, namely future sales of a new product. Because retailers must forgo sales from incumbent products if they introduce a new one, their investment begins with the introduction of a product and grows over time if a product

underperforms the one that it replaces. With 95 percent or more of new products failing to meet sales targets within the first six months, the likelihood of incurring a loss is quite high. Therefore, the notion that retailers attempt to shift some of this risk back to suppliers is plausible. Indeed, White et al. found in their survey of retail buyers that "riskier" new products (defined as those with little promotional support, lower margins, slow category growth, or sold by suppliers with no reputation for introducing successful new products) are more likely to be accepted by retail buyers only with relatively high introductory allowances or slotting. Similarly, Bloom et al. found that suppliers believe that paying slotting allowances places more risk of failure on their shoulders, but retailers do not perceive a commensurate reduction in their own risk.

If retailers perceive that slotting reduces their risk, then it is plausible that they use the promise of certain upfront profit to compete more aggressively on price at the consumer level. However, empirical results do not support this contention. Shaffer provides anecdotal evidence that slotting fees are instead used to allow retailers to charge higher retail prices. Further, Bloom et al. report survey data indicating that both suppliers and retailers believe slotting fees have a price-increasing effect. This result suggests that any pro-competitive impacts of slotting fees may be overwhelmed by more significant anti-competitive effects.

The notion that slotting fees are a strategic means of reducing competition has been advanced as an explanation both for fees requested by retailers (Shaffer) and for fees that are offered by suppliers (Cannon and Bloom). Among retailers, competitors in the same market may signal their intention of not competing on price by charging high slotting fees to suppliers and also agreeing to pay a relatively high acquisition price. In this way, channel profit as a whole is higher and all members potentially benefit. Shaffer supports his argument with anecdotal evidence linking this practice to resale price maintenance cases such as *Monsanto Co. v. Spray-Rite Service Co.* [465 U.S. 752(1984) U.S. Supreme Court] and *Business Electronics v. Sharp Electronics* [485 U.S. 717(1988) U.S. Supreme Court].

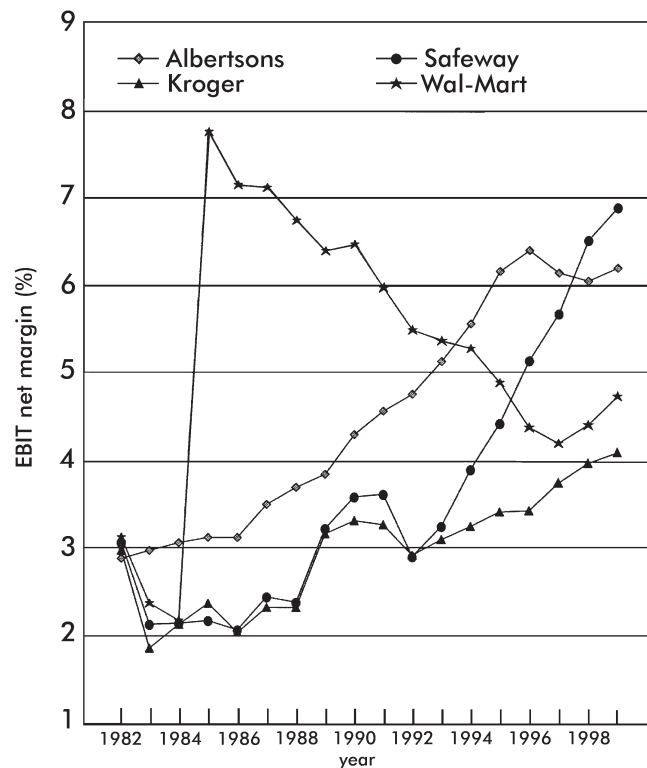
If suppliers initiate slotting allowances, it may be that they thereby prevent competition by offering fees that are sufficiently high to "buy the market." There is a large volume of anecdotal evidence in support of this

allegation, including surveys of produce industry participants conducted by Calvin et al. and claims of small business owners that they have been shut out of markets due to the fees paid by better-financed rivals (U.S. Senate Committee on Small Business). Indeed, suppliers overwhelmingly agree that such fees have caused firms to leave their industry and seek alternative channels for their products and that they have prevented many good products from making it to market (Bloom et al.). Other survey results provide evidence that larger suppliers benefit from slotting while smaller ones are harmed. Both retailers and suppliers agree that slotting reduces the rate of new product development among small suppliers but has no impact on large suppliers, perhaps due to their greater ability to pass along any increase in costs.

In contrast to the various empirical studies supporting the view that grocery retailers possess considerable power to set prices and determine the structure of fees, Sullivan presents evidence that neither retail concentration nor profitability is associated with the increased use of slotting fees. However, her data are at aggregate level and thus ignore many factors that have also changed at the same time and that may provide better explanations for profit or concentration levels observed among retailers. Although aggregate concentration measures in the grocery industry have stayed relatively constant for decades, local (metropolitan area) four-firm concentration measures rose from 49.3 percent in 1958 to 62.4 percent in 1987 and most assuredly have risen far above those levels in more recent years. Supporting this structural argument for the likely existence of retailer buying power, Bloom et al. cite survey results of retailer conduct showing that (1) the use of slotting fees has increased as a result of greater retail influence over buying transactions, (2) larger retailers are more likely to charge slotting fees, and (3) fees are more important to profits for large retailers than for small ones.

Although it may be coincidental, the increased use of slotting fees appears to follow upward trends in retail

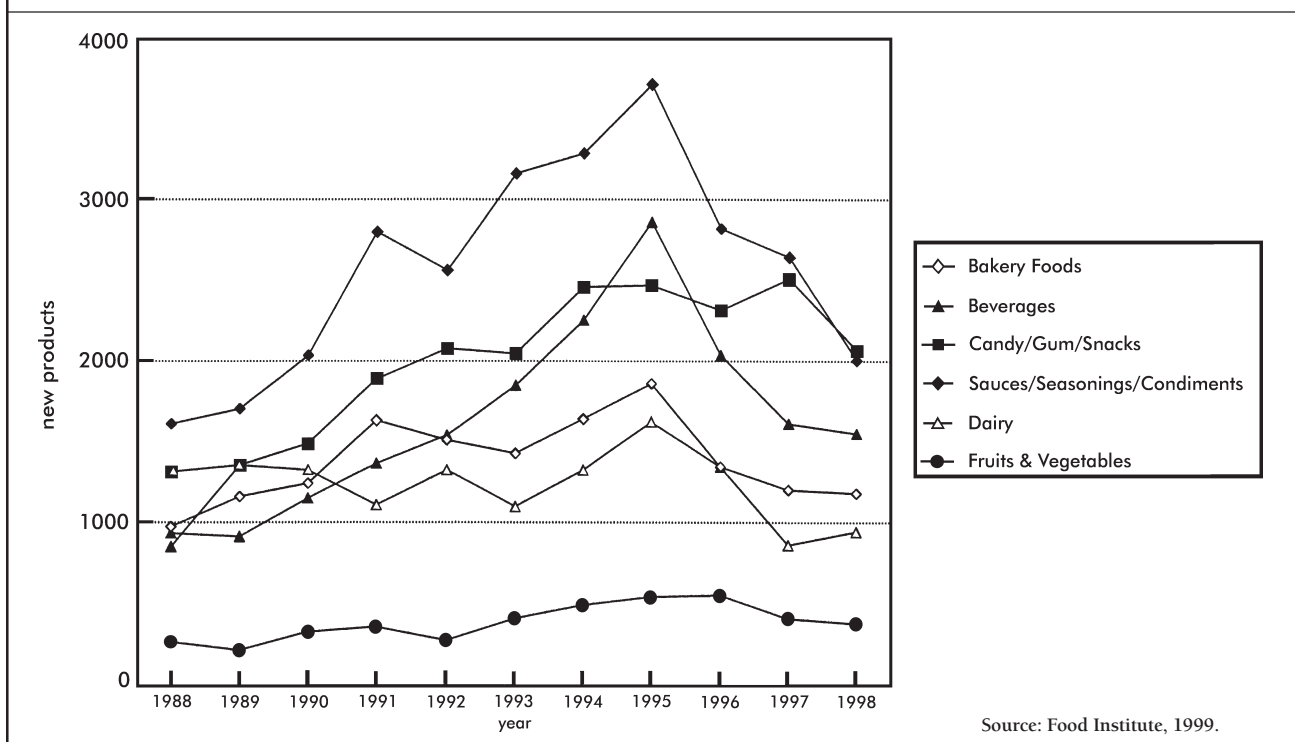
Figure 1. Retailer Profitability 1982–1999



Source: Standard & Poor's Compustat.

consolidation and retail profitability, as Figure 1 illustrates. This suggests that there is some evidence of at least a one-directional impact flowing from market power to the use of slotting fees. It does not necessarily follow, however, that antitrust officials need to be concerned with the embodiment of market power in slotting fees, as their use may result in a more efficient economic outcome for society as a whole. Officials may, however, see issues with the potential for slotting fees to be used in a discriminatory manner and how this use may impact the competitiveness of rivals within a particular market.

If a supplier offers a different fee to each retailer, or if retailers request slotting fees that vary with the supplier, and the difference in fees is not related to differences in costs of doing business, then each is practicing discriminatory pricing. Indeed, there is considerable empirical evidence that for both retailers and suppliers slotting fees are likely to be negotiated and, therefore, to differ in value from transaction to transaction. By levying a fixed charge in addition to paying the competitive price for all produce that is

Figure 2. New Product Introductions in Selected Grocery Categories

purchased, retailers are potentially able to extract all surplus from the transaction, but nonetheless generate a result that is socially efficient. In fact, this practice may yield a more efficient outcome than pure monopoly pricing, but it leaves suppliers with no economic surplus from selling their output. As such, though this kind of two-part pricing strategy is not necessarily undesirable from a purely economic perspective, it does raise issues of equity or fairness that regulators often consider as well. Rather than a source of market power, this outcome results from retailers using a dominant market position to maximize their profits. The existing evidence on this practice is scant but unequivocal. The fact that slotting varies by supplier—a practice confirmed by the survey results of Bloom et al.—suggests that rent extraction may indeed be the intent of retailers.

Another possible concern for antitrust officials is the impact of slotting fees on the rate of new product introduction. When suppliers are required to pay to introduce new products, these fees become another cost of development that must be covered by future profits. In the highly competitive produce industry, future profits are likely to be small, so fewer new products will be able to justify a large product-development

budget. Survey results reported by McLaughlin and Rao and Rao and Mahi suggest that slotting allowances are a very weak factor in determining whether or not new products are purchased by retail buyers, implying that they are neither beneficial nor harmful to the rate of new product innovation. However, because a supplier's decision to develop a new product must occur long before the buyer's decision occurs, any choice about whether to go forward is influenced by expected market conditions at the time of introduction, including any introductory fees or allowances. Not surprisingly, therefore, the suppliers surveyed by Bloom et al. believed that slotting fees have impeded both the quality and number of new products, while retailers agreed only that they have reduced the volume. At an aggregate level, the data in Figure 2 show a marked decline in new product introductions after 1995 in all categories. While this evidence is indirect at best, its coincidence with the rise in slotting allowances is suggestive of a causal relationship.

Does the Consumer Packaged Goods Model Apply to Produce Industries?

While this review of the evidence presents a rather discouraging outlook for produce suppliers in terms of

the competitive implications of slotting allowances and other off-invoice assessment practices, there are many reasons why the business model that applies to trade in consumer packaged goods does not apply to fresh fruits and vegetables. If structural economic conditions in the produce market simply are not conducive to levying slotting fees, then the practice will not be in the long-term interest of retailers and thus will not be sustained. Fresh produce is fundamentally different from other products, in the way it is produced and in the way it is marketed.

Shortages induced by crop failures, consumers' intermittent perceptions of low quality, price spikes, and inconsistent sizing are all examples of problems in fresh produce supply that are rarely experienced with consumer packaged goods. For growers of commodities, such as table grapes for example, the seasonal nature of their production, illustrated in Figure 3, means that an individual supplier cannot credibly claim ownership to shelf space throughout the year. At the most basic level, the supply of fruits and vegetables is subject to vagaries of the agricultural production process. Although shippers are increasingly better able to provide a consistent supply of good quality produce, often year round, commitment by a retailer to provide a certain amount of shelf space to an individual supplier may not always be feasible from the supplier's perspective, nor desirable for the retailer.

Retailers increasingly are looking to local supplies of produce so they can develop an image of emphasizing freshness and of commitment to the local community, as well as to take advantage of consumers' trust in locally grown products. In fact, *Progressive Grocer* (Turcsik and Heller) reports that 98 percent of grocery retailers stocked local produce in 1999 while such produce was

available only 21 weeks of the year on average. As a result of the uncertainty of supply, supplier-retailer relationships associated with produce are typically more dynamic and fluid than those for other goods. "Failure" of a new consumer packaged good may mean several weeks of lower sales relative to what an alternative use for the shelf space would produce. Failure of a particular supplier is fundamentally different. Because fresh fruits and vegetables are highly perishable, retailers cannot acquire weeks worth of stock to guard against interruptions in supply. Moreover, the reputation of the entire store is so critically dependent upon the availability and appearance of good quality produce that retailers cannot leave their stocking policy to chance. Indeed, 59 percent of consumers regard the quality of a retailer's produce as "extremely important" in choosing the store they frequent (Turcsik and Heller). Slotting allowances are probably not a good tool to ensure a consistent, high quality supply. Rather, practices such as seasonal contracts, forward buying, and preferred supplier arrangements are more likely to convince suppliers to work with retailers than are the disincentives inherent in slotting fees. With the importance of the produce aisle in determining overall store profitability, it would

Figure 3. U.S. Table Grape Supply 1999

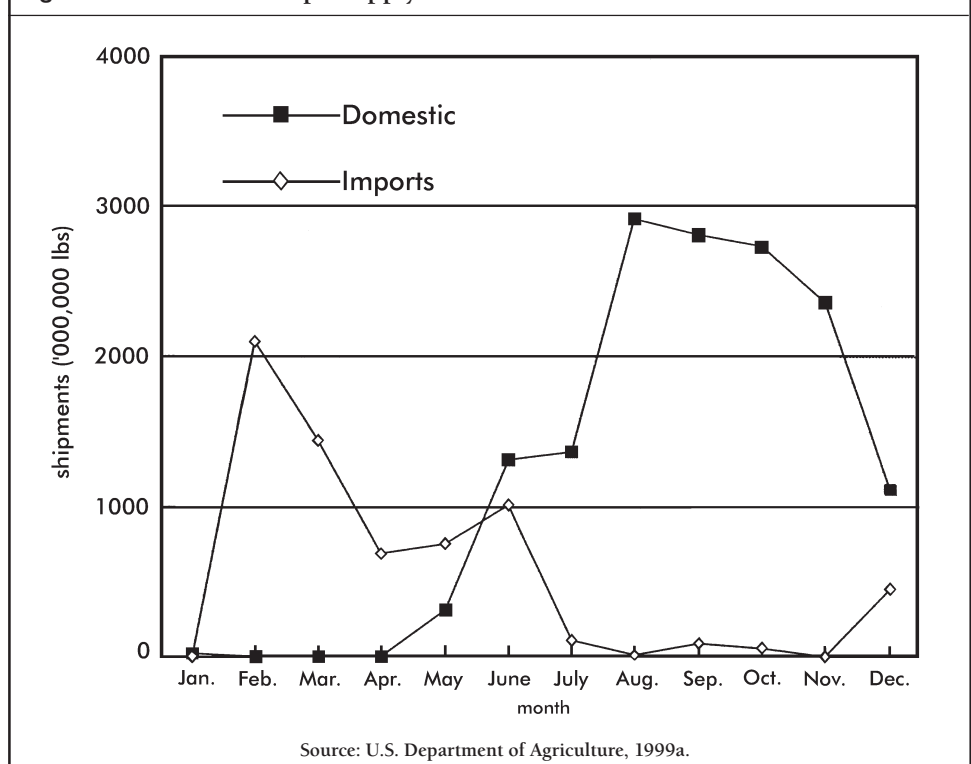
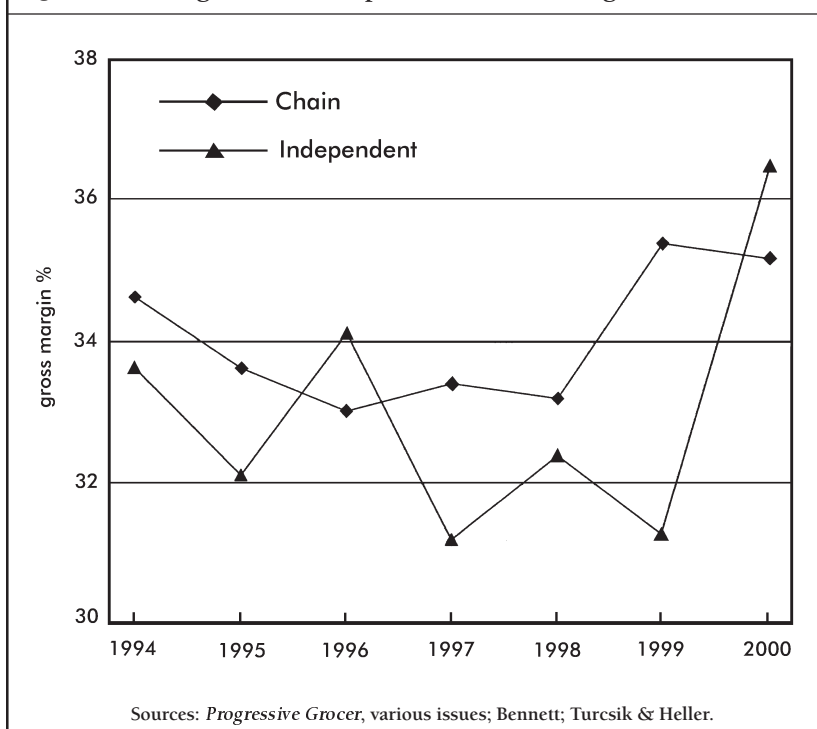


Figure 4. Average Produce Department Gross Margin

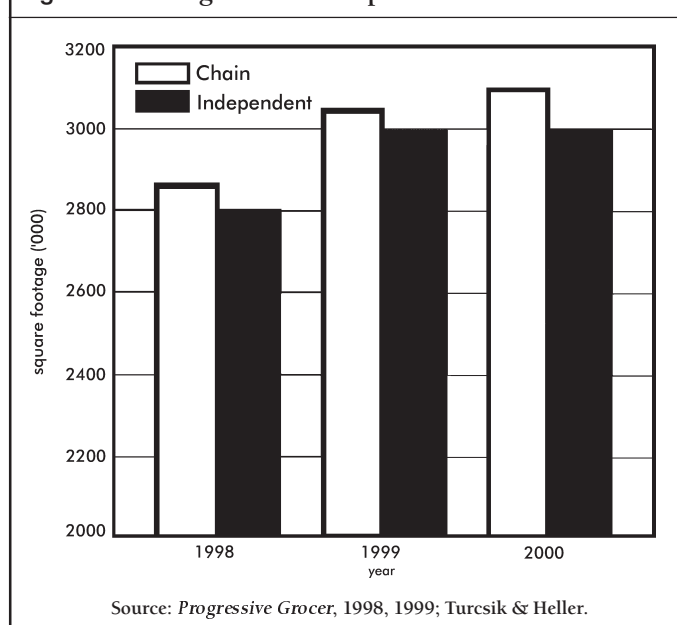
seem that retailers' interests lie more in developing good long-term relationships with quality produce suppliers. Specifically, they should forgo the opportunity for short-term gain in order to foster long-term profit.⁷

Indeed, produce is typically one of the highest-margin categories in a store, with gross margins ranging from 33 to 36 percent (see Figure 4), while the gross margin for all grocery store products is at least 12 percent lower (Bennett). Although produce margins reflect higher shrinkage and handling costs, the size of produce margins suggests that retailers are able to earn a significant amount of profit from produce sales without side payments from suppliers. If the opposite were true, then we would expect to see the produce aisle shrinking, both in terms of area within the store and in the number of products offered. However, Figures 5 and 6 show that this is not the case. In fact, produce is becoming more and more important to retailers' bottom lines, both in its own right and through its impact on consumers' perceptions of the quality of the store in general. So

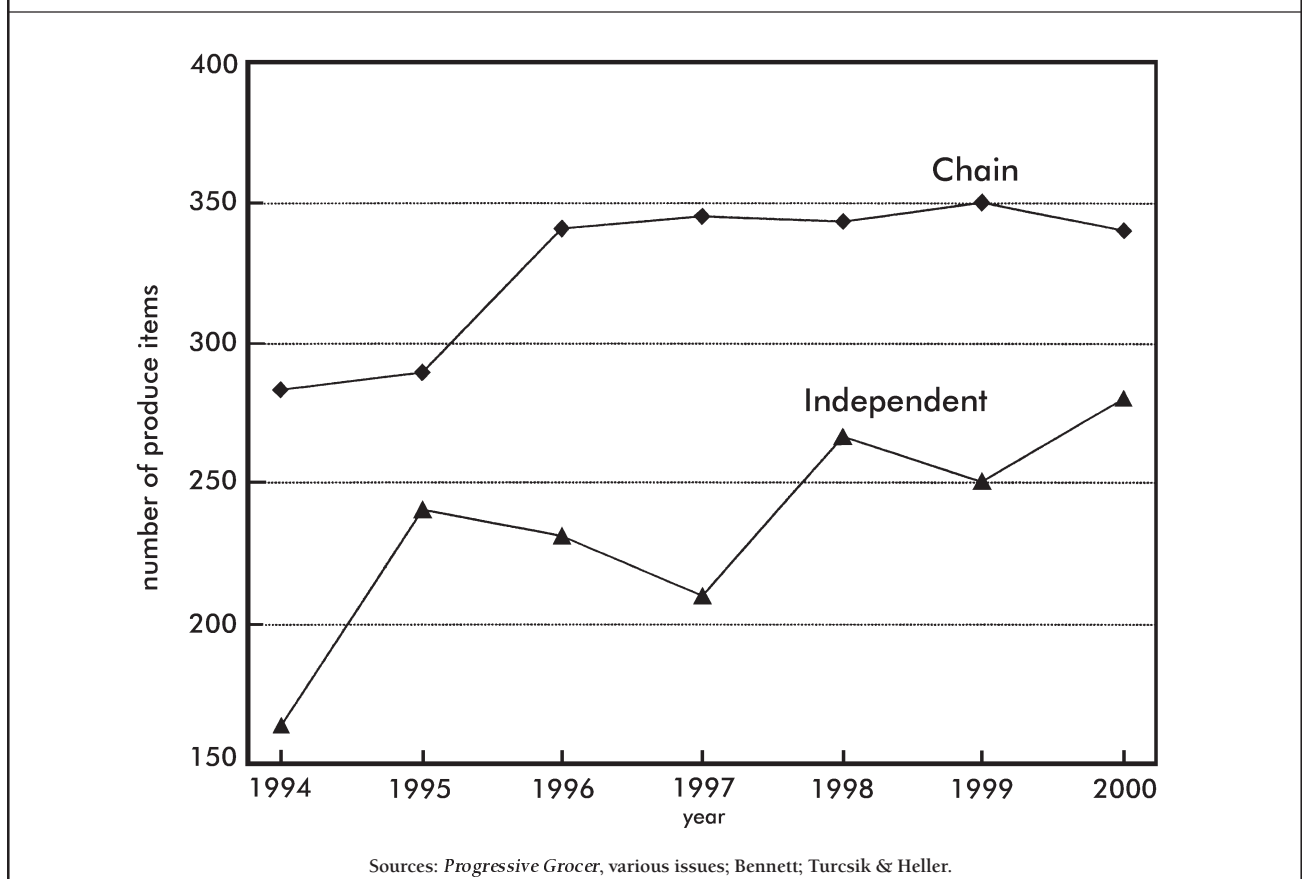
again, it does not appear to be in retailers' best interests to alienate their suppliers.

It may be the case, however, that slotting fees are meant to serve another purpose besides pure profit extraction. According to some arguments, slotting fees are intended to shift some of the risk that a new product or brand will fail from the retailer. Except for growth in some value-added categories such as fresh cut salads or fruits, Figure 2 illustrates that there are relatively few items in the produce aisle that are truly new and innovative. Indeed, if the most valid rationale for assessing slotting fees is to attain a balance between supply and demand for new products (Bloom et al.), then Figure 2 suggests that charging a fee is not needed to control an "oversupply" of

new products in the produce aisle. Retailers are likely well aware of the prospects for success of an apple or tomato from a new supplier because it will differ little from what is currently offered. For produce, therefore,

Figure 5. Average Produce Department Size

⁷ However, a reviewer has made the observation that slotting allowances may increase a supplier's commitment to a retailer and, thus, enhance the supplier's incentive to maintain the relationship by consistently providing the quality that the retailer desires. If slotting fees are charged on a one-time basis, then a supplier who is "dropped" by a retailer for whatever reason will probably have to pay additional fees to come on board with new retail customers.

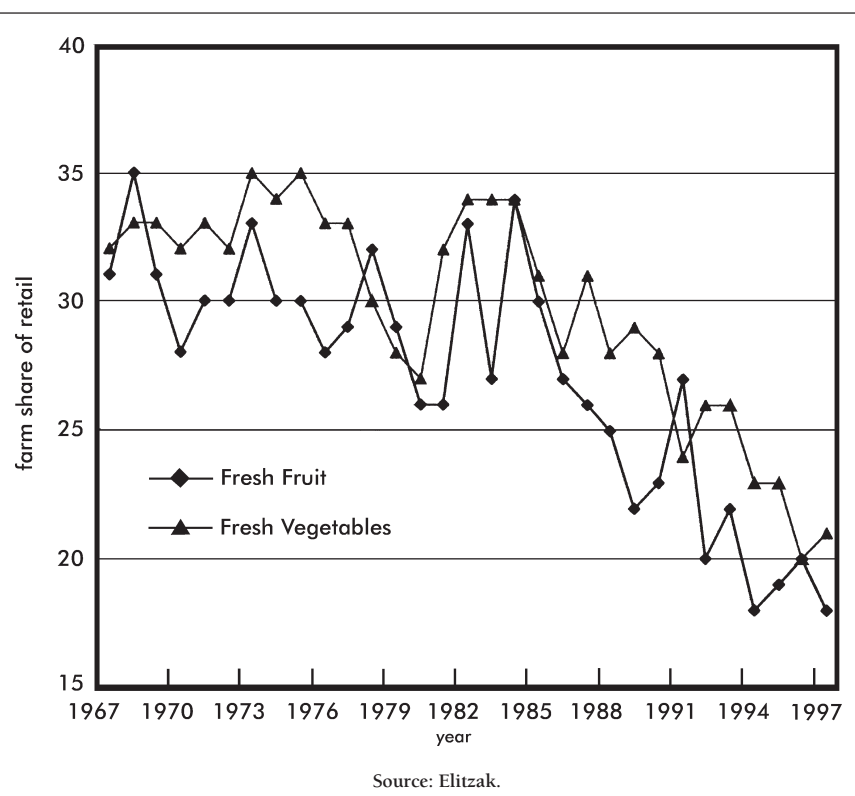
Figure 6. Average Number of Produce Items per Store

use of an introductory fee appears to serve an entirely different purpose. Slotting fees, therefore, are better described as shelf-space rental by new suppliers than as one-time fees for access by new products. With increasing scrutiny of such practices, retailers may become reluctant to call attention to themselves by alienating suppliers further. Ultimately, suppliers need to see value for the payments they make and, given that there are few strong brands in the produce category, payment for brand visibility appears to lack a sound economic basis.

Indeed, some question whether brands exist in produce at all. Excluding categories such as bananas, fresh cut salads, and perhaps citrus, few consumers recognize or purchase fresh produce based on brand. In 1999, only 19 percent of products in the average produce aisle were branded products (Kaufman et al., 2000). For a brand to have value, a consumer must be able to associate the name with a consistent, reliable standard of quality, something that is simply not possible when produce quality is subject to the vagaries of climate. If branding has no value and if consumers

are reasonably well acquainted with each product's attributes, then "selling" produce shelf-space to a particular supplier is clearly in neither the retailer's nor the supplier's interest. From a retailer's perspective, there is no assurance that the supplier will be able to provide a consistent supply of high quality produce; from a supplier's perspective, the commitment to a particular level and quality of supply may be infeasible or prohibitively costly.

In fact, it is this lack of market power that provides perhaps the strongest argument against the likelihood of slotting fees being sustained in the produce industry. Food manufacturers, unlike suppliers of fresh produce, can take advantage of economies of scale, advertising investments, differentiated products, brand identity, brand loyalty, and strategic pricing practices to maintain a certain amount of market power. In doing so, they are able to set list prices that retailers must pay or risk losing a brand that consumers expect to see in their stores. When suppliers can set prices for their products, and where slotting fees are simply regarded as a cost of doing business, suppliers can pass

Figure 7. Farm Share of Retail Dollar

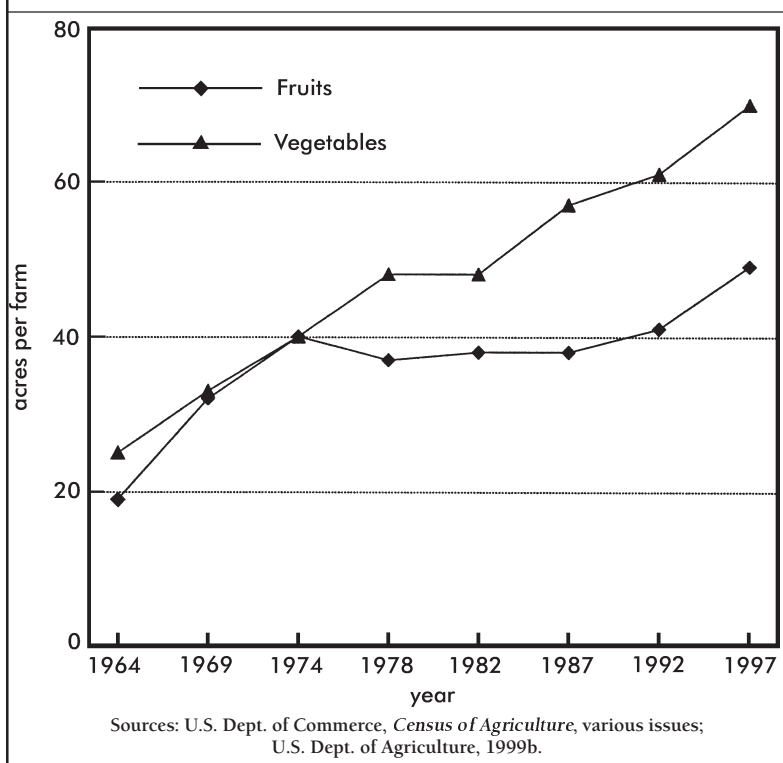
along the higher costs by raising wholesale prices. Produce suppliers, on the other hand, exist in an industry where prices are largely set in the open market and where any price premiums achieved by individual suppliers are typically small, highly variable, and bear no relation to any promotional expenditures. Although shippers may be able to pay some type of allowance in good years when scarcity has provided them with relatively high profits, over the long run prices cannot differ substantially from costs per unit, including a modest return to capital. If they did, then other growers would allocate additional land to the more profitable crops, increasing the supply and driving the price back down to levels consistent with near-perfect competition. In fact, while the top 12 food processing firms earned an average net profit margin of 6.8 percent in 1998, Figure 7 shows that growers' shares of the retail fruit and vegetable dollar reached record lows, continuing almost three decades of decline. In sum, if produce grower-shippers are capturing few economic rents, there is little for retailers to gain by trying to extract those rents through a variety of fee arrangements.

While buyers have the benefit of central coordination and sharing of market intelligence, growers and

shippers are geographically disparate, independent, and largely unwilling to share information with others in their industry. These attributes often leave suppliers in a relatively weak bargaining position. Growers and grower-packers have been responding to consolidation on the buying side with consolidation of their own, attempting to match power with power (see Figure 8). As we argue later, produce suppliers can also form bargaining associations or marketing cooperatives under the auspices of the Capper-Volstead Act. As independent suppliers become larger, however, they see less of a need for cooperative marketing associations and feel that they can deal on their own with large buyers. As Figure 9 shows, retailers are buying more and more

produce direct from grower-packers and less from the traditional "middle market." In some sense, therefore, the industry is becoming more fragmented instead of less. Whereas large retailers (greater than \$1.5 billion in sales) dealt with an average of 415 produce suppliers in 1994, by 1999 the number had grown to more than 450 (McLaughlin et al.). Increasingly, the sector is composed of a relatively few large, multi-product shippers and a large number of single-product packers. The large suppliers that emerge among growers and grower-packers may do well in this new industry, while smaller growers will have even less power to negotiate favorable prices or other terms. So, supplier consolidation, once advocated as a solution to the problems created by retail consolidation, may in fact have a perverse effect on marketing practices in the industry.

However, not all of the structural changes among retailers bode ill for fresh fruit and vegetable suppliers, as some of the new players seek fundamentally different ways to meet consumer demands for high-quality produce in the most efficient way possible. Specifically, the so-called "Wal-Mart" model provides a new way of doing business that may obviate many existing complaints. Generally, this model has set in place three

Figure 8. Growth in Farm Size in Acres of Fruits and Vegetables

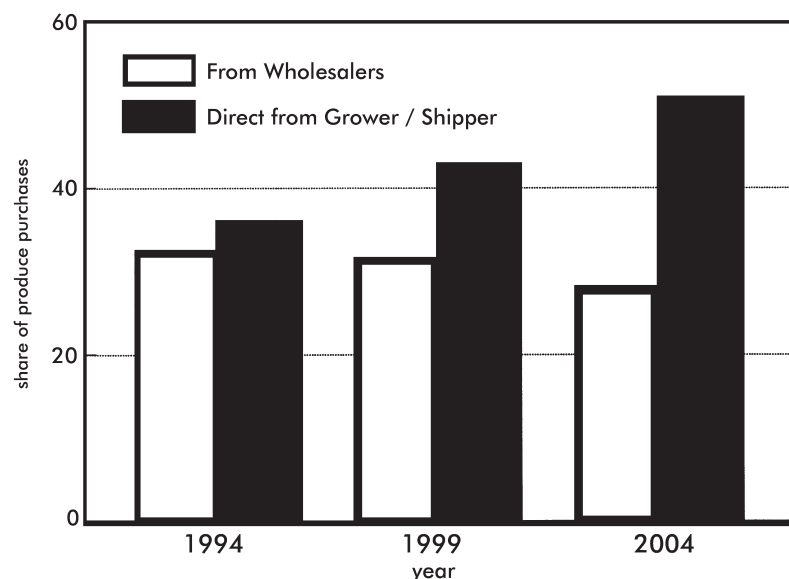
trends that may render current retail practices obsolete: (1) the increased market share of supercenters, (2) adoption of efficient consumer response (ECR) methods, and (3) the emergence of retail contracting. Although each of these developments is likely to exert its own influence on retail practices, they are not independent of each other, as supercenter operators tend also to be proponents of the other two practices. While not ranked ten years ago, in 1999 Wal-Mart Supercenters formed the second largest retail grocery chain, falling behind only Kroger Co., with some \$45 billion in sales and a 9.8 percent share of the national grocery market (*Supermarket News*). This trend is significant because the Wal-Mart business model requires each product to succeed or fail on its own merits. Suppliers buy their way onto the shelves only through superior

product performance, which is monitored on a daily basis.

Wal-Mart uses many of the retailing techniques that practitioners describe as ECR. Essentially, ECR is a retail paradigm that includes efficient promotion, efficient assortment, efficient product introduction, and efficient replenishment. Detailed knowledge of consumer buying behavior, gained from rigorous analysis of scanner data, allows retailers and suppliers to determine which products are selling, how much to order, and what prices to set irrespective of “side deals” such as slotting allowances or pay-to-stay fees. Further, their everyday low price (ELP) strategy does not allow suppliers to pass slotting allowances through to consumers by setting high wholesale prices. If they are not forced to pay slotting allowances, then suppliers will be able to deal from the lowest cost possible.

A key part of their efficient replenishment strategy involves using retail contracts.

In fact, many retailers are beginning to access stable sources of high quality produce through retail contracts. Drabenstott reports that between 1986 and

Figure 9. Changing Produce Distribution Channel – 1994–2004 (Est.)

Source: McLaughlin et al., 1999.

1990 the proportion of fresh fruit and vegetable transactions by contract rose from 45 percent to 65 percent. Increasingly, however, structural changes in the retail grocery industry point to a trend toward contracting for fresh fruits and vegetables directly between retailers and shippers, or even growers (*The Packer*). In fact, in 1997 fully 56 percent of all produce shippers used retail contracts for at least 10 percent of their sales, a figure that is projected to rise to 85.5 percent by 2004 (McLaughlin et al.).

Some feel that contracting fresh fruits and vegetables represents a fundamental change in the way produce will be marketed in the future. Whereas growers of many commodities are conditioned to expect large, daily fluctuations in price, retail contracts typically specify minimum shipment quantities over a month, quarter, or marketing season at a fixed, contract-period average price with adjustments for deviations in quality from some standard level. Clearly, there are incentives to enter into such contractual relationships for both buyer and seller. Retailers benefit from contracting by being better able to maintain relatively constant levels of stock for each commodity, something that is critical to the efficient distribution and inventory systems for which Wal-Mart is well known. Further, by awarding contracts based on timeliness and quality of supply, retailers are able to offer more consistent quality to their consumers, a critical factor in building produce volume (Peterson). While contracts may not necessarily provide retailers with the pricing advantages inherent to the open market, price stability provides a measure of upside protection should shortages arise. On the other side, suppliers benefit from the security of an assured market, relatively stable prices, and the ability to redirect sales personnel to more customer-service oriented roles designed to enhance a supplier's reputation and future business prospects.

The prevalence of contracting has direct implications for retailers' use of slotting fees and other forms of off-invoice charges. Negotiating, writing, and abiding by contracts designed to build effective long-term supply relationships is not consistent with suppliers having to buy their way into a store with upfront money. However, both ECR methods and contracting often require significant investments in skilled personnel and technology on the part of the supplier. By creating a

bias toward scale-intensive technologies, the trend toward contracts likely increases consolidation among suppliers, perhaps resulting in a more level playing field for retailer-supplier interactions. Because contract terms are negotiated between buyer and seller, however, contracts do not represent a means of addressing the fundamental problem of asymmetrical bargaining power. Rather, the development of successful long-term relationships that typically involve contracts cannot occur in the hostile environment created by slotting fees (Bloom et al.).

Summary of Economic Arguments

Any characterization of the competitive effects of slotting fees must be clear as to the source of the fees—whether they are offered by suppliers or demanded by retailers—because this is often of some question and is critical to whether the effects are likely to be good or bad for competition. If offered by suppliers, then the potential for competitive foreclosure and raising of barriers to entry is clear. On the other hand, much of the empirical and anecdotal evidence suggests that such fees often arise from retailer demands. Retailers with power over their suppliers can choose one of two pricing strategies. First, in the extreme case of monopsony power, they may set price as monopsonists and pay suppliers a price below the “marginal value product” or competitive level. Because this strategy requires retailers to buy less than the competitive amount, consumers pay more for the produce than they would otherwise, and a loss of efficiency is imposed on society. Instead, retailers may choose to set the price to growers competitively and use a fixed fee, such as a slotting allowance or any other type of off-invoice levy, as a rent-extraction device. In this case, suppliers may be left with little or no surplus from the transaction. But because they are paid a competitive price, there are no efficiency losses imposed on society.

To put this result into a general framework, it can be shown that the more elastic the supply of a commodity, the more likely retailers will be to pay a competitive price and levy a fixed fee. Examples of products with elastic supply include any manufactured good, or a good that is easily storable or imported. Conversely, if a commodity has an inelastic supply, such as a perishable commodity like tomatoes or lettuce, a retailer is more likely to set price as a

monopsonist and extract rents through the pricing mechanism because little efficiency loss is created by monopsony pricing when supply is relatively inelastic. In summary, therefore, to the extent that they represent a simple transfer of rents from suppliers, fixed fees are not anti-competitive *per se*, but are likely to engender

poor relations in the channel due to the fact that they leave suppliers with less profit from the transaction. Such rent shifting may also have some other unfavorable dynamic effects, as it may slow the rate of new product introduction or remove the incentive for suppliers to adopt cost-reducing technologies.

LEGAL ISSUES

Channel relationships have long been an issue of contention in the food and agricultural sector. Indeed, it was concern over the power wielded by the so-called “big four” meat packers that led to passage of the Sherman Antitrust Act in 1890 (Thorelli). This act promulgated future antitrust laws in the United States, such as the Robinson-Patman Act of 1936. This latter act was directed at competitive problems among retail grocers, particularly the then dominant A&P (Sherer and Ross; Skitol). These and other antitrust laws are now being reviewed as official discussions on slotting fees and retail consolidation proceed. During 1999 and 2000, four government hearings were held on these issues,⁸ continuing the debate on slotting fees that began at a Federal Trade Commission (FTC) hearing in 1995. During fiscal year 2001, the FTC received an additional \$900,000 in its annual appropriation to further investigate slotting fees (U.S. Senate). All these events accentuate the importance, confusion, and emotion associated with slotting fees on the part of suppliers, including U.S. produce grower-shippers.

It might be argued that some of these fees resemble commercial bribery. Such instances would be addressable through either state or federal criminal laws. Others are legal, likely justifiable, and do not harm competition. In between these extremes is a gray area, including practices that may adversely affect competition and that are possibly best addressed through antitrust laws. However, until fairly recently, antitrust regulatory authorities and the courts showed little inclination to investigate, prosecute, or support charges against slotting fees under these laws. This reluctance arose from a vast misunderstanding of these fees and a lack of credible and factual evidence on their use. Enforcement is made more difficult by the broad definitions used for slotting fees. Further, application of appropriate laws depends on who is considered the offending party and on the competitive environment.

While growers have been most vocal about the alleged noncompetitive behavior of grocery retail buyers

and the effect such actions have on them, there are several other challenges and competitive dimensions to consider. Smaller retail grocery stores could argue that the practices and buying power held by their larger competitors are injurious to them. Alternatively, the small retailer could challenge the fees paid by a supplier to a larger, favored retail buyer. Similarly, a small supplier could argue that the fees paid by its larger rival suppliers tend to place it at a competitive disadvantage by restricting or foreclosing market access. Therefore, these challenges could pit suppliers against buyers, small buyers against large buyers, small buyers against suppliers, and small suppliers against large suppliers. In addition to private antitrust cases involving the aforementioned parties, the FTC, the U.S. Justice Department, and state attorneys general could pursue cases against the listed parties.

The arguments underlying these various potential cases are summarized in Table 1.

Supplier versus Buyer

In general, suppliers have shown a great reluctance to bring cases against their buyers or to support federal regulators in bringing cases against buyers for fear of reprisals in the form of lost business and ostracization in the industry. Indeed, only a few arguments appear to support a supplier's suit against a buyer under existing antitrust laws. One approach would be for the supplier to use the brokerage provision of Section 2(c) of the Robinson-Patman Act. This provision outlaws the payment or receipt of fees for “compensation in lieu of brokerage” (Skitol, 1995). It thereby expressly outlaws all brokerage commissions, except for those paid to independent brokers. The fees, though, are allowable if the retailer does provide some services in exchange for them according to the “except for services rendered” proviso. The law was aimed at large retailers who could get a price reduction equivalent to a brokerage fee by buying direct. This type of transaction could potentially harm suppliers or competing retailers

⁸ Hearings and workshops were held by the Senate Small Business Committee on September 14, 1999, and September 14, 2000; by the House Judiciary Committee on October 20, 1999; and by the Federal Trade Commission on May 31, 2000.

who are unable to secure as favorable a deal. As such, the law may be applied to cases against larger buyers or competing suppliers. The defendants in this case could argue that services were rendered, especially if the transaction involves stocking a new product or providing space for an in-season product.

An alternative course of action for a supplier intent on challenging the fees required by its buyer would be to use the “buyer-induced promotional discrimination” argument allowed under Section 2(f) of the Robinson-Patman Act (Cannon and Bloom). Under Section 2(d), sellers are required to make all promotional allowances available to all buyers in proportionally equal terms (Greer). Therefore, for 2(f) to be applied in a suit against a buyer, the supplier must admit to committing acts of price or promotional discrimination under Section 2(a) or 2(d) of the act (Cannon and Bloom). In essence, to bolster a case against a retail buyer, the supplier must admit to committing an illegal act, creating a highly untenable legal strategy. Retailers have also successfully defended their actions by claiming that they only unknowingly induced the discriminatory promotion or by arguing that their suppliers were only meeting terms of their competition.

Beyond the practical matter of not wanting to sue its own customer, a supplier may be reluctant to bring such a case in an environment where slotting fees may be charged by many buyers. Individual suppliers are unlikely to have the resources to engage in protracted litigation against several buyers. Further, the problem may not lie with the buyers.

Small Supplier versus Large Supplier

The genesis of the fees paid by suppliers may be attributable to the voluntary offers of competing suppliers (Calvin et al., 2001). Existing antitrust laws provide more opportunities for a small supplier to challenge the practice of large, rival suppliers offering these fees and allowances.

In some cases, a supplier may feel that its rivals use these fees to block their access to retail shelves. This argument, the “Essential Facility Doctrine,” is supported under Section 2 of the Sherman Act (Cannon and Bloom). In such a case, the plaintiff must show that the defendant, a large rival supplier, has monopoly

power over the facility—shelf space. It also must be demonstrated that the plaintiff has no viable alternative outlet for the product and that improving access would substantially improve competition. These requirements are quite stringent and relatively easily dismissed by the defendant. In particular, it is broadly presumed that retailers ultimately control their shelf space, not the suppliers.

Alternatively, a small supplier could argue that the promotional allowances paid by its rival amount to a form of predatory promotion. Here, the argument is that the fees are used with the intent of raising a rival’s costs (Salop and Scheffman) and potentially putting it out of business. This case, too, would fall under Section 2 of the Sherman Act. The point where aggressive promotion becomes predatory is difficult to determine. To demonstrate that predatory promotion has occurred requires that promotion expenditures were in excess of profits, a difficult charge to prove. In addition, intent and probability of success must also be demonstrated. Probability of success is defined most often by the level of concentration in the affected market. In a concentrated market with some form of entry barrier, there is a better chance of successfully pursuing this case. However, the defendant can argue that the promotion was temporary or was executed as a way of meeting the competition (Greer).

It remains unclear whether slotting fees are a component of a product’s wholesale price or a promotional expense. Provided that the slotting fees may be interpreted as some form of a “price,” a supplier is forbidden under Section 2(a) of the Robinson-Patman Act from offering alternative prices that are not justifiable based on cost to alternative buyers where the effect would be to lessen competition either among competing suppliers (primary injury) or retail buyers (secondary injury) (Greer). The greatest difficulty in pursuing this case rests on the assumption that the slotting fee may be interpreted as a component of the product’s price. Again, the defendant would be allowed to invoke the meeting-the-competition defense, or argue that price reductions were related to the cost of supplying alternative buyers. Application of this argument largely stood without precedent until the recently settled McCormick and Company case (U.S. FTC, 2000a). This case, brought by the FTC and settled

Table 1. Statutes Potentially Applicable to Challenging the Use of Slotting Fees

Statute & Argument	Defendant¹	Evidence Required²	Defense Available	Probable Outcome
Sherman Act, Sec. 2 – Essential Facility Doctrine				
	Supplier	Facility is essential; supplier controls facility; access would improve competition.	Challenge supplier control of “essential” facility.	Low chance of success; buyer generally controls facility.
Sherman Act, Sec. 2 – Predatory Promotion				
	Supplier	Supplier’s allowance unprofitable; market structure allows predation; subjective intent.	Allowance is temporary promotion; meeting the competition.	Moderate chance in high concentration sector; promotional defense is strong defense.
Robinson-Patman Act, Sec. 2(a) – “Price” Discrimination				
	Supplier – Primary Injury – Secondary Injury	Proof that the fee constitutes a “price;” noncompetitive effect on market.	Challenge “price” assertion; cost justification; meeting the competition.	Moderate chance of success; some recent acceptance of “price” assertion.
Robinson-Patman Act, Sec. 2(c) – Brokerage Commission				
	Supplier or Buyer	Evidence of retailer’s failure to render services.	Challenge meaning of “services rendered.”	Low chance of success; scope of section is more narrow.
Robinson-Patman Act, Sec. 2(d) – Promotional Discrimination				
	Supplier	<i>Per se</i> violation—show allowances not proportionally equal.	Meeting the competition; allowances not comparable in time.	Strong case to show violation; damages difficult to prove.
Robinson-Patman Act, Sec. 2(f) – Buyer-Induced Promotional Discrimination				
	Buyer	Supplier must be shown to violate Robinson-Patman Act, Sec. 2(a) or 2(d); buyer must knowingly induce illegal action.	Supplier acted to meet competition; buyer naively induced action.	Low chance of success; stringent evidence; Sec. 2(f) may not be applicable.
FTC Act, Sec. 5 – Essential Facility Doctrine				
	Supplier	Same as for Sherman Act case.	Same as for Sherman Act case.	Same as for Sherman Act case.
FTC Act, Sec. 5 – Predatory Promotion				
	Supplier	Same as for Sherman Act case.	Same as for Sherman Act case.	Same as for Sherman Act case.

1. Either individuals (firms) or the Justice Department or FTC may act as plaintiffs in an antitrust case; enforcement of the Sherman Act is theoretically the purview of the Justice Department; the FTC can reach cases under this act through the broad language of the FTC Act.

2. Generally, private plaintiff must show evidence of injury; FTC need not show injury.

Adapted from Cannon and Bloom.

through a consent decree, held that McCormick's "net price," which included allowances, was discriminatory, causing injury to nonfavored grocery retailers.

The McCormick case notwithstanding, distinguishing whether slotting fees are a component of price or purely promotional expenses will remain a difficult issue. If they are interpreted as promotions, Section 2(d) of Robinson-Patman declares promotional discrimination to be *per se* illegal (Cannon and Bloom). Promotional allowances must be provided to all buyers in a proportionally equal manner. This case could be mounted by either a competing supplier or by a disfavored buyer. The defense can again use the meeting-the-competition defense. Further, it may argue that promotions offered at different points in time cannot be directly compared (Greer). However, proof of competitive injury by the plaintiff is not required under *per se* cases.

FTC versus Supplier or Retailers

All of the cases brought under the Robinson-Patman Act against buyers or suppliers could be initiated by the FTC. Thus, the FTC can employ price discrimination (Section 2(a)), brokerage commission (2(c)), or promotional discrimination (2(f)) arguments in cases brought against suppliers. Unlike private cases, where

the plaintiff must demonstrate competitive injury, particularly if it wishes to collect damages, the FTC is under no requirement to show an injury or financial loss. It is only required to show a reasonable possibility of injury. The FTC may also employ the essential facility doctrine or predatory promotion argument under Section 5 of the FTC Act in cases brought against suppliers. This section allows the FTC to enforce the Sherman Act and grants it the ability to prevent "unfair methods of competition." This gives the Commission the latitude to enforce not only the letter but also the spirit of the law (Areeda).

In terms of addressing the discriminatory and non-competitive fees allegedly demanded by retailers, the FTC has only a few options. It may charge retailers with illegally inducing promotional discrimination under Section 2(f) of Robinson-Patman, or it may charge a retailer with illegally accepting a brokerage commission under Section 2(c). Finally, it may challenge the fees as broad forms of unfair competition, as allowed under Section 5 of the FTC Act (Skitol, 1995). This strategy would be supported under the statute to the extent slotting fees foreclose market entry for some suppliers, damage competition among retailers, or result in fewer product offerings and less innovation for consumers.

IMPLICATIONS FOR ENFORCEMENT AND REGULATION

Unfortunately, the legal prescriptions available with regard to slotting fees are at best imprecise, as they depend on a host of factors. Pursuit of an anti-trust case is further complicated by the political ramifications that would accompany a supplier's complaint, the complexity of the problem, and a lack of information. However, in an environment where extensive upstream (supplier) and downstream (retailer) consolidation has occurred, some suggestions may be made that could be advocated by representatives for produce growers and shippers, beginning with a new view on merger policies.

New Focus for Merger Policy

Overall, the FTC can be credited with pursuing an aggressive policy toward mergers and acquisitions in the grocery retail sector, as evidenced by their effective blocking of the Ahold-Pathmark transaction and the record 144-store divestiture obtained in response to the Albertson's-American Stores transaction (McAvoy). Indeed, the FTC has produced an impressive analysis of the potential for noncompetitive pricing behavior to consumers in local markets, such as in Prescott, Arizona (U.S. FTC, 2000b). However, that analysis focused on the potential for monopoly power over consumers; the mergers in question would have resulted in a lack of effective competition in those markets, potentially resulting in higher consumer prices.

However, produce shippers claim that the national consolidation in grocery retailing has also had a profound impact on their relationships with retail buyers, resulting in a less competitive environment with the balance of power shifting to retailers. It is argued that this environment fosters the potential for slotting fees and other required allowances and lowers the price received by shippers, reduces available supply, and raises consumer prices. The potential for upstream noncompetitive behavior has not been a matter of extensive concern for antitrust regulators overseeing mergers in the U.S. Recent cases in Europe, though,

emphasize the need for this alternative view (Skitol, 1999). In Finland, the merger of two leading supermarket chains, Kesko and Tuko, was blocked due to concerns over upstream competition (Curtin, Goldberg and Sorvrin). Similarly, when commenting on a proposed merger between Carrefour and Promodies, a French official was quoted as saying that "We must protect in these deals, and verify, what happens to both consumers and suppliers" (*New York Times*). Although the FTC established an extensive set of guidelines on mergers in 1992, it did not consider the possibility for monopsony market power. The FTC may need to revisit these guidelines to consider the possibility of development of monopsony market power following a merger.

FTC Guidelines for Slotting Fees

Settlement of the McCormick case is evidence that the FTC is willing to pursue cases concerning slotting and related fees and that existing laws, namely Robinson-Patman, are applicable. Recent court cases have also shown renewed support for the application of Robinson-Patman (Skitol, 1999).⁹ Still, the environment for the pursuit of cases like these and business relationships in general could be improved by development of some FTC guidelines on the use of slotting fees and other promotional allowances.

Such guidelines could do much to first define "slotting fees," which under current use include a broad number of fees and practices. They could then provide an interpretation of existing laws and how they apply to the various forms of slotting fees under certain market conditions. The proposed guidelines could be viewed as an extension of the current FTC guidelines on advertising allowances and other merchandising payments and services, which seek to define the applicability of Sections 2(d) and 2(e) of Robinson-Patman to advertising and merchandising.¹⁰ The new guidelines could also address questions applicable under Section 2(a, c, and f) and under Section

⁹ *Hygrade Milk & Company v. Tropicana Products, Inc.*, 1996-1 Trade Cas. (CVH) 71,438 (S.D.N.Y. 1996); *Atlantic Coast Vess Beverages, Inc. v. Farm Fresh, Inc.*, Civ. Action 3:93CV284 (E. Va. 1993).

¹⁰ FTC Guide for Advertising Allowances and Other Merchandising Payments and Services, 16 240.

5 of the FTC Act. It should be emphasized that FTC guidelines do not carry the full force of law that FTC trade rules do.

One proposed set of guidelines on slotting fees has already been offered by counsel for the Independent Bakers Association, the National Tortilla Industry Association, and the National Association of Chewing Gum Manufacturers (Skitol and O'Neill). These proposed guidelines would govern the conduct of suppliers that account for more than 20 percent of the product category's sales in a given market and of retailers that account for 20 percent of retail food sales in a given market. The guidelines are based on recognized interpretations of existing antitrust laws as applied to sales promotions. Within this framework, per-unit slotting allowances are considered lawful provided that they (1) bear some resemblance to costs of stocking or displaying a product, (2) do not carry an understanding of foreclosing competition, and (3) are provided in a nondiscriminatory manner to all retailers. Similarly, lump sum payments are considered lawful provided they (1) are not intended to foreclose competition, and (2) are nondiscriminatory. Suppliers would be required to document the retailer's cost of stocking a product and retailers would be required to publicly post their slotting allowance policies. Upon receiving a slotting fee, a retailer's subsequent refusal to carry a competing product without a demonstrably valid business justification would be considered evidence of a prior foreclosure agreement. Suppliers would also be encouraged to publicize their slotting allowance policies. In cases where allowances may not be extended to all retailers and are in response to offers by competing suppliers, a supplier would still be allowed to invoke the meeting-the-competition defense.

Critics of slotting fee guidelines argue that they are unnecessary, as existing antitrust law enforcement is adequate and overreaching (McAvoy). The requirement that would compel suppliers and retailers to post their slotting allowances is considered onerous and invasive. However, this type of requirement is similar to existing merchandising guidelines (see footnote 10). Critics also argue that the proposed slotting guidelines, unlike previous FTC guidelines, are not based on case

law. However, there are few legal precedents involving slotting fees. Given the extensive misunderstandings that exist with regard to these practices, slotting fee guidelines could make a positive contribution to future enforcement efforts.¹¹

Industry Support for Analysis and Enforcement

A further factor impeding government action in the area of slotting fees is lack of industry cooperation. When regulators or researchers begin an investigation into a matter like slotting fees, they need reliable information on the extent of these practices. Unfortunately, individual firms are reluctant to release this information for fear of damaging relations with customers and revealing their strategies. For example, the recent General Accounting Office (GAO) report produced no new evidence on slotting fees thanks to a lack of cooperation in the retail grocery industry and the grocery manufacturing sector. Similarly, grower-shippers in the produce industry were only willing to provide general information on the use of slotting fees in the produce sector (Calvin et al., 2001). While suppliers and growers may be reluctant to discuss these matters with government officials, mechanisms for collecting information on the use of such fees that preserve the confidentiality of both the buyer and seller could be developed and administered by industry trade associations.

Trade associations, however, are limited by antitrust laws in the functions that they can perform. In particular, such associations cannot be used for formulating joint marketing strategies or agreeing upon pricing parameters because this type of activity would represent a *per se* violation of Section 1 of the Sherman Act. Congress has, however, given agricultural industries two important legislative tools that enable them, under certain circumstances, to undertake collective action in product marketing. These tools are unavailable to other industries, and they offer growers the potential to exercise power to countervail the oligopsony power that today's food retailers appear to be exercising. We turn now to a discussion of these legislative acts and their relevance to the produce industry.

¹¹ In 2001, the FTC commissioned an in-depth study into whether it would be in its interest to issue guidelines on slotting fees. In June, 2002, the Commission decided not to issue guidelines and to study the issue further. The report U.S. FTC (2002) summarizes the Commission's deliberations to date.

INSTITUTIONAL RESPONSES

The Capper-Volstead Act

The Capper-Volstead Act of 1922 grants associations of agricultural producers certain exemptions from the antitrust laws of the U.S. It consists of two short sections. The first section authorizes the existence of agricultural marketing cooperatives that meet certain restrictions (see, for example, Jesse et al. and Manchester). Section 1 of the act was deemed necessary because in its absence the horizontal coordination of producers in a cooperative and their associated activities, such as price setting and joint marketing, could be construed as a *per se* violation of the Sherman Act. Section 2 of Capper-Volstead authorizes the Secretary of Agriculture to investigate and order the cessation of monopolizing activity by a cooperative that “unduly” enhances price. This provision has never been enforced, although the U.S. Department of Agriculture has investigated various complaints launched under Section 2 (Manchester).

Qualifications for protection under the auspices of Capper-Volstead are important to discuss in the context of the produce industry. Qualification criteria consist of two parts: (1) who can be a member of a protected association, and (2) what types of organizations are protected. As to membership criteria, the act specifies that only “persons engaged in the production of agricultural products as farmers, planters, ranchmen, dairymen, nut or fruit growers” can qualify. This provision has been interpreted narrowly by the courts. Membership of *any* nonqualifying entity disqualifies the entire organization from Capper-Volstead’s protection, and entities whose primary function is packing, shipping, or processing rather than producing are specifically excluded from membership.¹² However, “persons” as the term is used in the act need not be

individuals. Any organizational form, including sole proprietorships, partnerships, corporations, and other cooperatives, qualifies for membership as long as it qualifies as a producer.

This limitation on membership is clearly an important consideration in the produce industry, where in many cases producers have integrated their operations downstream to perform packing, processing, and shipping functions. Performing these functions does not preclude such entities from membership in an organization that enjoys Capper-Volstead protection so long as they are also actively engaged in production. Protection for entities that produce and ship on their own account but that also ship product for other growers is an unsettled issue.

The second set of criteria for eligibility under Capper-Volstead pertains to the structure and operation of the cooperative organization itself. Unlike the membership criteria, the requirements pertaining to the organization are not very restrictive and are easy to satisfy:

- The organization must be “operated for the mutual benefit of the members.” In practice, this criterion is met by an organization that operates on a zero profit basis and allocates income and costs to members in rough proportion to each business’ volume in the cooperative.
- Voting must not be based on stock ownership or membership capital *or*, alternatively, dividends on stock or membership capital must not exceed 8 percent per year.¹³
- The volume of business conducted with non-members may not exceed the volume conducted with members.

¹² This principle was codified in the Supreme Court’s decision in *Case-Swayne v. Sunkist Growers* [389 U.S. 384 (1967)]. Sunkist’s membership at the time included citrus packing houses that did not engage in production, and the Court ruled that their presence in Sunkist removed the organization from the realm of Capper-Volstead’s protection. This opinion was reaffirmed in the 1978 Supreme Court case of *National Broiler Marketing Association v. United States* wherein a poultry cooperative included as members some integrated producers whose primary business was processing poultry but not producing it. The Court wrote in part, “We hold that such members are not ‘farmers,’ as that term is used in the Act, and that a cooperative organization that includes them—or even one of them—as members is not entitled to the limited protection of the Capper-Volstead Act.”

¹³ Note, in particular, that the common perception that cooperative associations must base voting on the one-person, one-vote criterion is incorrect. Voting, for example, may be in proportion to business volume conducted with the association.

The courts have given wide latitude as to the types of functions that can be performed by organizations that qualify under Capper-Volstead. Most obviously, based on the clear language of the act, joint processing, marketing, price setting, and selling are protected. Perhaps paradoxically, litigation has ensued when associations have performed *fewer* and less extensive marketing activities than would be performed by a traditional agricultural marketing cooperative. These cases ultimately have been decided in the associations' favor through liberal interpretations by the courts of the term "marketing" as contained in the act. A key case is *Treasure Valley Potato Bargaining Assn. v. Ore-Ida Foods, Inc.* [497 F.2d 203 (9th Cir. 1974), *cert. denied*, 419 U.S. 999 (1974)], wherein the 9th Circuit Court held that associations that engage only in collective bargaining are protected; the Supreme Court refused to consider an appeal. In particular, members need not transfer title of their product to the association and may market it unilaterally, subject to whatever agreements have been made through the bargaining entity.

A district court ruling pertaining to the Central California Lettuce Producers Cooperative (henceforth called Central) affirmed the legality of a cooperative whose primary activity was to provide a forum for its members to meet and agree upon pricing strategies, even though actual selling was not conducted through the cooperative [*Northern California Supermarkets, Inc. v. Central California Lettuce Producers Cooperative*, 413 F. Supp. 984 (N.D. Cal. 1976)]. This decision was upheld by the appeals court [580 F.2d 369 (1978)], and *certiorari* was denied by the U.S. Supreme Court [439 U.S. 1090, (1979)], thus firmly establishing the legal foundation for this type of cooperative.¹⁴

This discussion of the Capper-Volstead Act and its subsequent interpretation by the courts establishes clearly that agricultural producers have, in the parlance of economics, the legal right to act as a cartel. However, the law does limit cooperatives' exercise of market power. Although a cooperative may acquire market power through the voluntary association of producers, attempts to acquire a monopoly position through

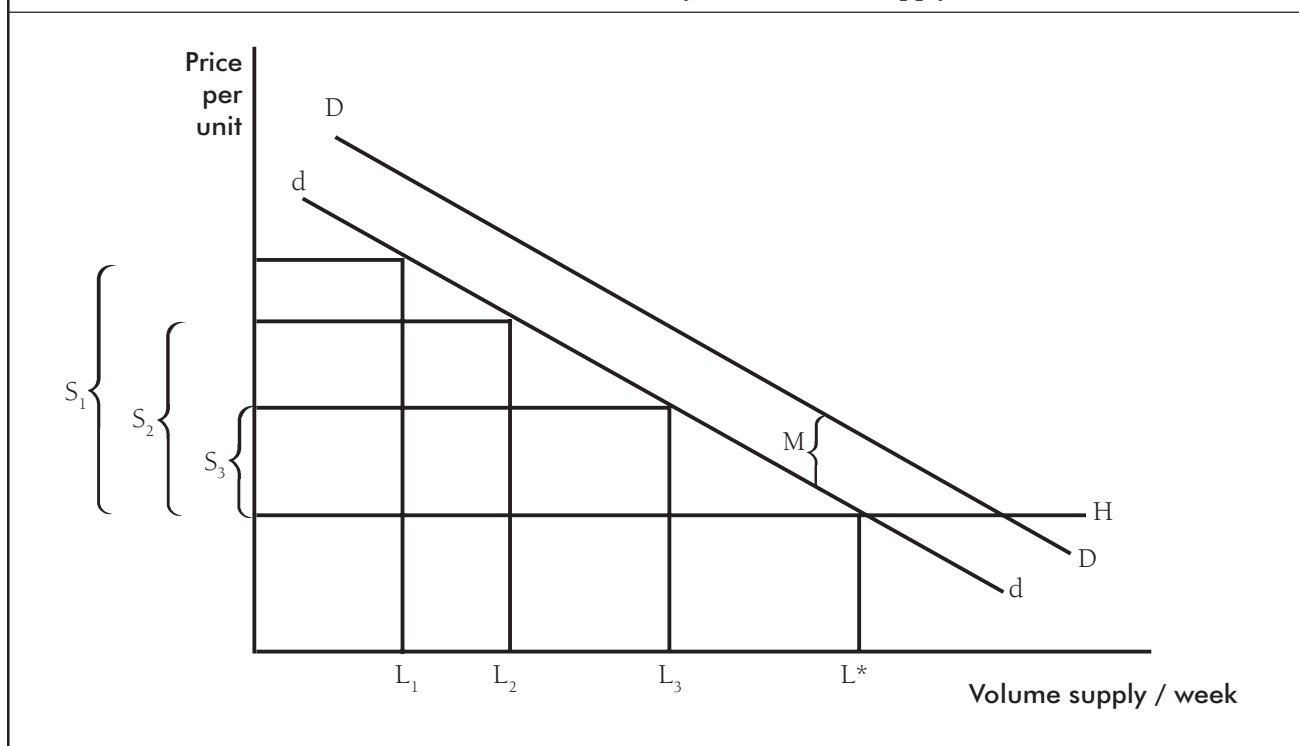
acquisitions of investor-owned firms, predatory practices, and other anti-competitive activities have been judged outside protection of the act and are prosecutable under the Sherman Act [*U.S. v. Maryland Coop. Milk Producers, Inc. and Maryland and Virginia Milk Prod. Assn., Inc.*, 145 S. Supp. 151 (DC, 1956)]. Similarly outside the scope of protection are joint ventures with noncooperative businesses [*U.S. v. Borden Co.*, 308 U.S. 188 (1939)]. However, mergers and joint ventures among cooperatives have never been challenged and are commonly believed to be protected under Capper-Volstead (Manchester). Critics have argued that this protection was not intended and should not be provided (U.S. FTC Staff, 1975).

History records many instances of successful agricultural marketing cooperatives that have solved marketing problems, developed successful brands, acquired large market shares, and during most times earned higher returns for their members than were attainable elsewhere. We do not regard this type of traditional cooperative organization as a viable short-run solution to problems in the produce industry, both because the success of organizations like Sunkist, Blue Diamond, Sunmaid, and Oceanspray was attained gradually through investments made over a long period of time and because grower-shippers of fresh produce value their marketing independence. Few are likely to cede authority for marketing their products to a centralized organization.

However, bargaining, information sharing, and agreements on pricing guidelines can be accomplished with little capital investment and with individual sellers retaining most of the control of marketing their products. We thus focus our discussion on the potential role for this type of collective action in the produce industry.

On the surface, the potential for organizations of this type to play an affirmative role in the produce industry appears high. Produce commodities are mostly either perishable annuals or perennial fruit. In either case, the supply of the commodity at any harvest period is very *inelastic* (i.e., unresponsive to price) because

¹⁴ Central also came under attack from the FTC, which in June, 1974, issued a complaint against it, alleging violation of Section 5 of the FTC Act (essentially equivalent to violating Section 1 of the Sherman Act). An administrative law judge entered an initial decision on March 13, 1975, sustaining the FTC's complaint and ordering the dissolution of Central. That decision was appealed to the full Commission, which dismissed the complaint in an order issued July 25, 1977 [Federal Trade Commission Decisions, Docket 8970, 90 FTC. (1977)].

Figure 10. Price Determination for a Produce Commodity with Inelastic Supply

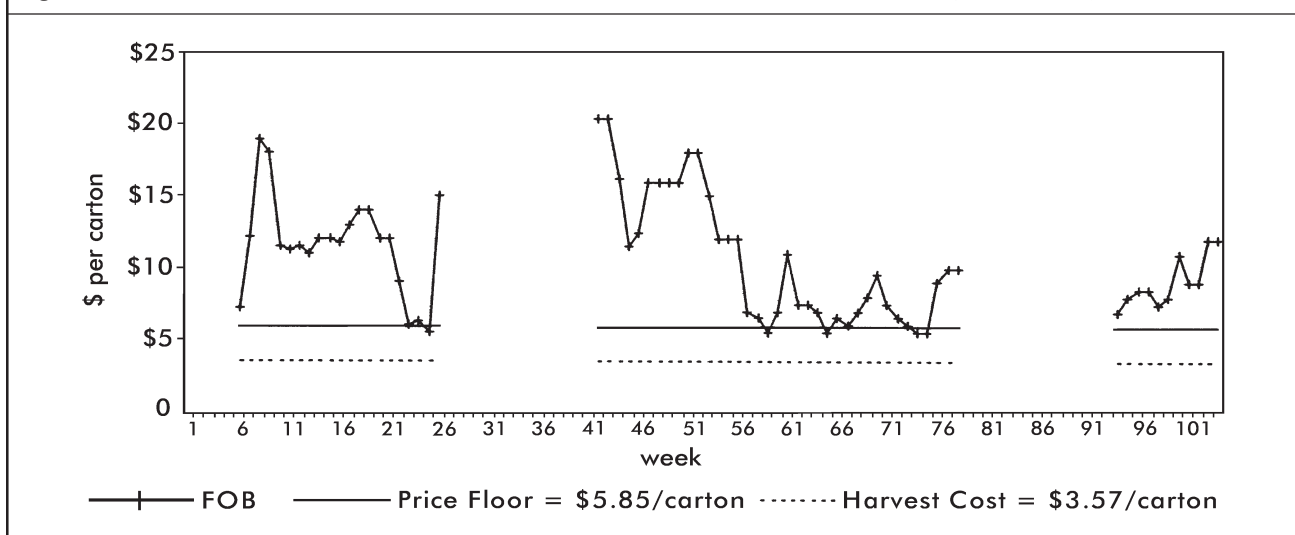
the available harvest is the outcome of planting decisions made some months (in the case of annuals) or years (in the case of perennials) previously. This circumstance typically creates a wide range within which price may be set. An upper bound on price is the retail value of the commodity, less costs of shipping and retailing, while the lower bound on price is the cost of harvesting (i.e., any price at or above the marginal costs of harvesting will ensure that the available supply is brought to the market).

Figure 10 illustrates this situation for a commodity with retail demand denoted by DD . The schedule dd represents the maximum price retailers can pay to producers after paying all marketing costs, M (assumed for purposes of the figure to be constant on a per-unit basis). If retailers compete vigorously to procure the commodity, the FOB price is bid up to the level where the available harvest, L , intersects dd . The farm-retail price spread in this case is determined completely by the level of marketing costs.

The dd curve intersects the harvest cost line, H , at the volume of crop labeled L^* . Any volume greater than L^* will not be harvested because the retail price less marketing costs is not sufficient to pay the costs of harvesting under any form of competition. However,

in periods where $L < L^*$, a per-unit surplus, S , exists that is equal to the amount below dd and above the harvest cost. Figure 10 illustrates this surplus for three alternative harvest volumes, L_1 , L_2 , and L_3 . Clearly, the per-unit surplus is larger for smaller crops. The existence of surplus in weeks when $L < L^*$ implies a range of indeterminacy for the FOB price unless retailers procure it under conditions of perfect competition, a scenario that is rejected in most cases by the recent empirical work conducted by R&P and SZ&C for the ERS study. The FOB price may lie anywhere between dd and H , depending on the division of surplus between grower-shippers and retailers. This indeterminacy of pricing lends credence to the common complaint heard among growers in the produce industry that the forces of supply and demand don't seem to "work" in the industry.

The SZ&C analysis of pricing for California iceberg lettuce and California and Florida tomatoes is based on a mathematical representation of the model described verbally in the preceding two paragraphs. SZ&C analyzed price determination within the bounds formed by dd and H as an informal bargaining problem. They concluded that the vast majority of the market surplus (approximately 80 percent) in the

Figure 11. Florida Mature Green Tomatoes FOB, Price Floor, and Harvest Cost (1998–1999)

CA-AZ iceberg lettuce industry is not captured by the producers in these industries. In addition, SZ&C found strong support for the proposition that the producer's share of the surplus is less in periods of relatively high supply. In other words, retailers are apparently able to use a relative abundance of the commodity to play grower-shippers off among one another and bid the FOB price down more than would result from the normal operation of supply and demand. Results were less conclusive for Florida and California fresh tomatoes due to some statistical problems in estimating the model. On balance, however, the analysis suggested that tomato grower-shippers were more successful than their counterparts in the lettuce industry in obtaining a larger share of the available market surplus.

These results indicate an imbalance of bargaining power in at least some produce industries. This conclusion is not especially surprising when one considers the structural conditions that are common in these industries. Consolidation among retailers and the use of joint purchasing agents by independent retailers mean that in most cases the available buyers are few relative to the number of sellers (despite attendant increases in concentration among grower-shippers). Perhaps more important than mere numbers of players is the asymmetry of power between buyers and sellers. Because many produce commodities cannot be stored at all and others are storable only for relatively short periods at considerable cost, grower-shippers are always under considerable pressure to move their crops

to market, creating great incentive for price cutting as a selling tool.

What is the track record of information-sharing and bargaining cooperatives in produce industries as tools to address the imbalance of power in the produce industry? Unfortunately, there have been few systematic studies of their performance. Central was the grandfather of the breed of cooperatives whose primary function is to provide a forum for its members to exchange market information behind the shroud of Capper-Volstead's protection. Central and its offspring generally perform no handling or other traditional marketing activities, nor do they perform a collective bargaining function for their members. Rather, they exist as devices that assist their members in communicating, sharing information on production plans and other market intelligence, and formulating pricing strategies. Simply put, these organizations perform many of the traditional functions of a cartel, though in practice they usually have not formed explicit pricing rules for their members, instead restricting themselves to placing limitations on terms of trade and establishing pricing guidelines, such as setting price floors.

Experience with this type of cooperative organization has been limited mainly to produce in California and includes, in addition to Central, melons in the western San Joaquin and Imperial Valleys (California Cantaloupe Growers Assn.); kiwifruit (Kiwifruit Marketing Association); table grapes (Coachella Grape Growers); fresh peaches, plums, and

nectarines (Associated Fruit Producers' Cooperative); and mushrooms (California Mushroom Growers Assn.). More recently, this breed of cooperative has emerged in Florida's produce industry as a factor, for example, in pricing Florida's mature green tomatoes.

Central itself was formed by 22 central California lettuce grower-shippers in May, 1972. According to the agreement, its purpose was "preventing the demoralizing of markets resulting from dumping and predatory practices; mitigating the recognized evils of a marketing system under which prices are set for the entire industry by the weakest producer."

The growers signed identical marketing contracts with the cooperative in June, 1973. The original agreement, which was limited to the Salinas-Watsonville (summer-fall) marketing season, imposed the following requirements on members:¹⁵

- Reporting all relevant production information, including plantings, expected harvest dates, and volumes.
- Establishing prices within the limits of weekly or daily ceiling or floor prices established by the cooperative.
- Agreeing to ship only on terms authorized by the cooperative. In particular, no open consignment sales or "unsold rollers" were allowed. "Price protection" was also prohibited.¹⁶

Bargaining cooperatives represent a slightly higher level of member commitment than is involved in an information-sharing cooperative in that specific prices are generally agreed upon between the cooperative and the purchasers with whom it bargains. In many cases, however, the bargained prices have the character of "base" prices, and buyers and sellers are free to negotiate price premiums in excess of the base. Similar to information-sharing cooperatives, bargaining cooperatives normally do not handle or take title to the bargained commodity. Sellers are free to contract with any buyer who negotiates with the bargaining association. Iskow and Sexton reported 29 active agricultural

bargaining associations in the U.S. Cooperative bargaining in the U.S. is most prominent for processing fruits and vegetables, and it has been little used in fresh produce marketing.

In the overwhelming majority of cases, bargaining has been employed for commodities that have one or a few well-defined harvest periods, and bargaining concerns the terms of trade for a given year's harvest. An immediate impediment to utilizing bargaining in produce industries is the continuous nature of production, geographic shifts in production throughout the marketing season, and the extreme perishability of the product. Protracted negotiations do not represent an efficient way to establish price in these settings, and any deterioration of product while an agreement is pending damages producer returns.¹⁷

However, one must consider that the Internet offers considerable potential for marked enhancement in the efficiency of price determination in a bargaining or auction setting. Of course, online trading of commodities is already fairly common. These scenarios, however, involve producers competing against each other for available sales. It is certainly plausible under Capper-Volstead to unite sellers under a single organization to avoid destructive competition among them.

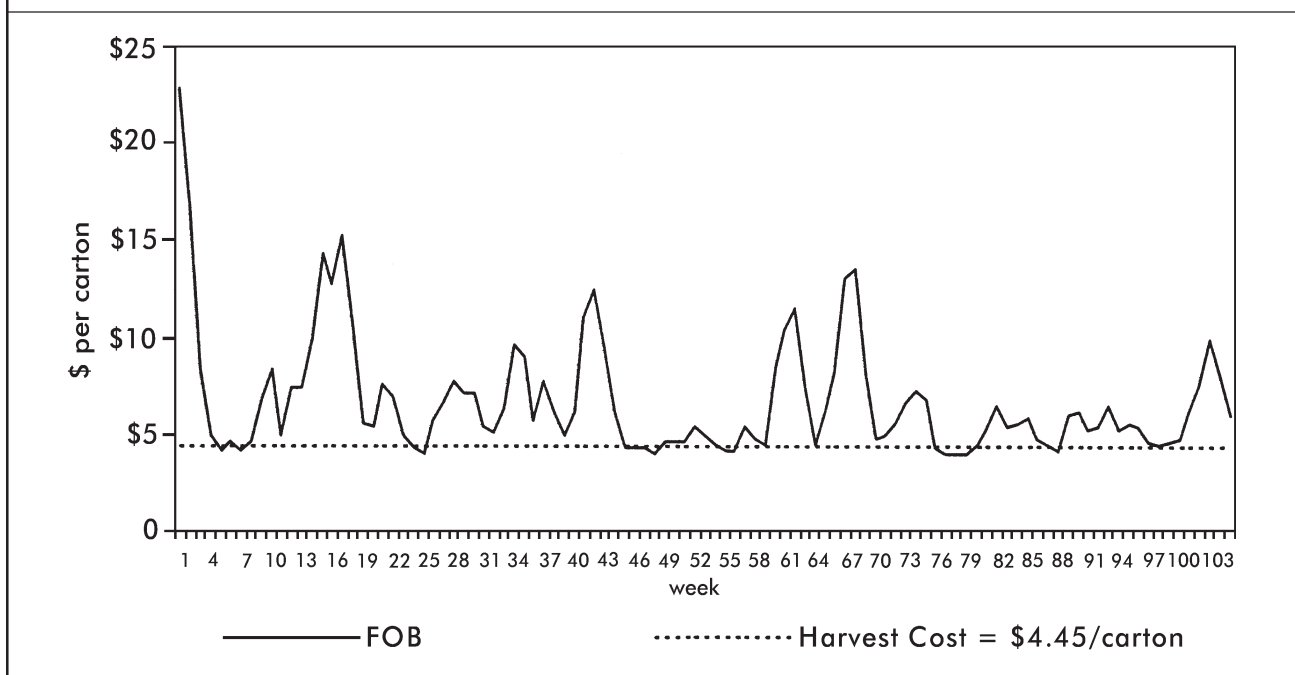
About 89 percent of the respondents in the Iskow-Sexton bargaining survey reported that their associations had achieved higher prices for members and 86 percent believed that price stability was accomplished as well. Of course, this type of response does not constitute hard evidence, and unfortunately, empirical studies of the effectiveness of bargaining and information-sharing cooperatives are lacking.

A bit of evidence as to the effectiveness of a price floor established by a cooperative is provided in the Florida mature green tomato market. The cooperative in this instance established a price floor of \$5.85 per carton for the 1998-99 and 1999-2000 market seasons. As Figure 11 indicates, this floor appears to have been effective. Although the FOB price fluctuated

¹⁵ Subsequent agreements with Central extended to the Imperial Valley (winter-spring) marketing season.

¹⁶ Price protection is a practice in the produce industry whereby the shipper agrees to compensate the buyer if prices fall below the agreed upon FOB price while the shipment is enroute to its destination.

¹⁷ One way to surmount the problem of an impasse in bargaining is to have an arbitration procedure in place. Thirteen associations in the Iskow-Sexton survey reported use of an arbitration procedure. A typical pattern is for arbitration to involve a three-person committee consisting of a grower representative, a processor representative, and a third person selected by the two other members. In most cases, "final offer" arbitration is used. The arbitration committee decides between the final offers put forth by the processor and the bargaining association. Arbitration procedures can be a matter of state law, as they are in Maine and Michigan.

Figure 12. Iceberg Lettuce FOB Price and Harvest Cost (1998–1999)

considerably, it appears not to have fallen below the floor and, in particular, remained above the harvest cost line, estimated to have been about \$3.57 per carton.¹⁸ Contrast Figure 11 with FOB pricing for California iceberg lettuce presented in Figure 12 for the same time period. Here, no effective floor had been established, meaning that harvest costs ended up providing the price floor. Indeed, Figure 12 shows price falling to the level of harvest costs during 38 of the 104 weekly observations.

Absent conclusive empirical evidence, economic theory can be used to provide guidance as to when a seller association might achieve market power or countervail buyer market power without direct government intervention. There are four fundamental prerequisites to successfully exercising countervailing market power (Jacquemin and Slade): (1) an agreement must be reached among sellers; (2) because participants have incentive to cheat on any agreement that raises price, cheating must be detected; (3) cheating, once detected, must be punished; and (4) outside entry must be deterred.

Reaching agreement among independent sellers as to a marketing strategy may not be easy. Indeed, reaching an agreement on market strategy can be a primary function of an information-sharing or a bargaining cooperative. However, neither these cooperatives nor cooperatives in general have been able to bring all relevant production within their membership. Thus, full agreement is seldom if ever achieved, and outsiders are able to free-ride on any agreement among cooperative members. Because outsiders do not abide by the restrictions contained in the agreement (for example, limitations on plantings or production), they do better than the cooperating growers, and this fact provides a basis for members to defect from the cooperative.

Detecting cheating hinges upon observing unexpected patterns in sales or price. When there are many sellers, the effects of cheating on individual firms' sales may be difficult to detect. Similarly, agricultural prices are often highly volatile, so price decreases cannot be easily attributed to cheating. These characteristics of agricultural markets make detecting cheating difficult

¹⁸ Enforcement of this price floor was facilitated by the agreement negotiated in 1996 between tomato shippers in Florida and Mexico to suspend the U.S. Commerce Department's investigation into dumping charges lodged by the Florida industry against Mexican tomato exporters. As part of this agreement, Mexican tomato shippers agreed to a price floor of \$5.17 per 25-pound box. The Mexican price floor was increased to \$5.27 in 1998. The agreement required that exporters representing at least 85 percent of traded tomato volume be signatories and was not binding upon nonsignatories.

and, hence, successful collusion less likely (Green and Porter).

Firms that cheat on agreements make short-term gains. The key to punishing cheating and thus deterring it is to ensure that long-term losses from cheating outweigh short-term gains. A key feature of cooperative organizations is their legal right under Capper-Volstead to sign binding marketing agreements among members. These agreements need not be adhered to, but if the penalties for breach of the contract are stringent enough and the probability of detection is high enough, it is rational for individual members to abide by the agreement. The ability to sign binding marketing agreements through cooperatives thus facilitates the exercise of market power. In most cases, however, producers will balk at signing agreements that restrict their exit from the cooperative. Agreeing to strong marketing contracts has the effect of credibly tying producers' hands, which then confers a strategic advantage. Retailers who observe such contracts know that they cannot encourage member defections and thus must commit to dealing with the member association.

Preventing entry appears to be a compelling obstacle to cooperatives' use of Capper-Volstead to exercise market power. Even a cooperative that succeeded in bringing all relevant production under its umbrella would normally be powerless to prevent outside entry. Barriers to outside entry into production in agriculture are typically low, and entry can be accomplished in many cases simply by shifting acreage to the product or products in question. Tree crops with four- to seven-year maturities, however, provide a natural and relatively immutable short-run barrier to entry. Outside entry may also come in the form of imports.

If they choose, retailer-buyers can also play an active role in stimulating entry to counteract a successful cooperative. As Innes and Sexton showed, a buyer can guarantee the success of an entrant by committing *ex ante* to a contract with that entrant that provides sufficient revenue to allow recovery of the entrant's start-up costs. One manifestation of this phenomenon in grocery retailing is the explosive growth in house brands and private labels.

Because U.S. growers seasonally produce the lion's share of the total supply for many major produce commodities, these industries *collectively* possess a good deal of market power. However, these industries have seldom been able to exercise this power effectively. The evidence summarized in this report suggests that producer grower-shippers are likely victimized by the oligopsony power of food retailers. The Capper-Volstead Act invites producers to exercise market control through bargaining, sharing information, setting pricing guidelines, etc. Absent this type of collective decision making, competitive sellers will always bid against one another and drive price down—in many instances down to the immutable floor set by harvest costs.

When collective action has been attempted, its effectiveness has been attenuated by the inability of most cooperatives to bring a dominant share of total production under its auspices and by defections of members, usually during years of tight supplies and high prices. Member defections occur because usually there are no meaningful sanctions for exiting the cooperative. In sum, despite the federal government granting producers a credible tool with which to exercise market control, in many cases producers have been their own worst enemies in terms of applying the tool effectively.

Marketing Orders

The Agricultural Marketing Agreement Act (AMAA) of 1937 and parallel state-level legislation allow farm industries to act collectively for purposes of financing research and advertising, setting grades and standards, and regulating industry sales.¹⁹ Marketing orders must be for specific commodities and organized in as small a region as possible to further the objectives of the order. They are implemented by an initiative from the industry involved. Federal orders must have the concurrence of the Secretary of Agriculture and a two-thirds affirmative vote (based either on the number of voters or on the volume of product marketed) from the producers who will be subject to its provisions. Depending upon the provisions of the order, the agreement of handlers who control at least 50 percent

¹⁹ The constitutionality of marketing orders was upheld in *United States v. Rock Royal Co-op* [307 U.S. 533 (1939)].

of the product's volume may also be required. If an order is implemented, its provisions become legally binding upon all industry participants. The Secretary of Agriculture must nullify an existing order upon a simple majority vote to do so by the growers under its authority.

Although a wide variety of functions are performed under the auspices of marketing orders, the provisions that are most relevant to the present discussion are those that allow industries to regulate the amount of product brought to the market through volume controls such as mandatory product diversions, reserve pools, prorates, and minimum quality standards. Direct volume or market flow controls are authorized only in a minority of federal marketing orders, and they are not present under any state orders. Presently, only nine of 42 federal orders have active volume control provisions (Lee et al.).

Similar to the Capper-Volstead Act, the AMAA gives agricultural industries the opportunity to exercise a modicum of cartel power. Consider again the four prerequisites to achieving market power through joint action: (1) an agreement must be reached; (2) cheating on the agreement must be detectable; (3) cheating, once detected, must be punished; and (4) outside entry must be deterred. Marketing orders solve the first and the third criterion and have some influence on the second. Their mandatory nature facilitates reaching of a *de facto* agreement (i.e., if an order is enacted, even dissenting participants must abide by its provisions, and defectors are subject to legal penalties). Heuristic evidence indicates that cheating on agreements is a problem in U.S. marketing orders, but at least the orders can provide resources for monitoring compliance.²⁰ Orders, however, generally do not prevent entry into an industry, nor can they regulate behavior by producers outside of their geographic boundaries. This last limitation makes it crucial for an order to control a large share of the relevant market supply to be effective.

A relative comparison of what is possible under the AMAA versus the Capper-Volstead Act is useful. The mandatory nature of marketing order regulations gives them an important advantage over attempts to influence markets through a cooperative, where membership is voluntary and free-riding is a perpetual concern. However, all marketing order regulations are subject to approval of the Secretary of Agriculture, who, depending on the politics of the day, may or may not support infringements on the free operations of markets. Conversely, cooperatives may undertake any decision they wish, subject to the laws of the land. Orders do not allow producers to set prices directly or even to set limits on pricing such as price floors. Price must be influenced indirectly by affecting the volume of product placed on the market.

Lee et al. reported 13 active federal orders in California, but only three of the products under order (almonds, raisins, and spearmint oil) were subject to active volume control provisions. In addition, there were 48 state-authorized programs emphasizing primarily research, promotion, quality standards, and inspection. Thus, the most potent tools with which to influence markets in the marketing order arsenal are the ones least frequently used in California. Conversely, Florida producers are more predisposed to use volume control. Among five federal orders specialized to Florida crops, three orders (for oranges, grapefruit, tangerines, and tangelos [all covered in one order] and for limes and celery) have active volume control provisions.

Despite their paucity of use at present among western produce commodities, volume regulations do offer the potential to improve short-run returns to growers. In reaching this conclusion, a key first consideration is that market demand at the producer level for many produce commodities is *inelastic*, implying that sales revenue is declining as a function of the volume of product placed on the market.²¹ Thus, the price increases engendered by selling less through volume controls more than offset the impact from

²⁰ The most extensive evidence of cheating involves federal orders for Arizona and California oranges and lemons. The USDA's decision to terminate those orders in 1994 was primarily in response to several lawsuits that had been filed over alleged cheating on the orders' provisions. See *United States ex rel. Sequoia Orange Company v. Sunkist Growers et al.* regarding the allegations of false claims filed under the order.

²¹ S&Z estimated that the demand elasticity for California iceberg lettuce was -0.164 , meaning that a one percent reduction in sales would cause a 6.1 percent increase in the FOB price.

reduced sales, raising revenue on net. A second factor is the evidence noted previously that large harvests have an additional deleterious impact on producer revenues by diminishing grower-shippers' bargaining power relative to that of retailers. In these settings, it is nearly a certainty that volume control in some form, if managed properly, can achieve higher grower revenues and profits.

Several factors, however, counterbalance the preceding positive assessment of the potential for volume control in produce industries. Destruction of edible product or its diversion to secondary uses is not popular among either producers or consumer advocates. Volume regulations are also subject to the Secretary of Agriculture's approval. Although history suggests approval is likely for well-reasoned requests, it cannot be assured. In addition, volume controls are only a temporary fix in cases of chronic oversupply, and their use merely postpones an inevitable restructuring of the industry. Highly successful application of volume controls through a marketing order also has the potential to stimulate entry, which the order is powerless to prevent.

Some evidence on the pricing impacts from marketing orders is available. Ippolito and Masson estimated that U.S. milk marketing orders for 1973 were able to increase fluid milk prices relative to manufacturing milk prices by as much as \$1.26 per 100 pounds, although the difference in production costs was only \$0.15. Transfers to milk producers in 1973 dollars as a consequence were estimated at \$210 million.²²

Powers used the price differential between fresh oranges and processing oranges to measure the extent to which the CA-AZ navel orange order was successful in exercising monopoly power in allocating oranges between fresh and processed use. Powers found modest but statistically significant monopoly power. Market power was found to decrease after 1983 when the U.S. Department of Agriculture implemented rules that limited the number of weeks that allocation restrictions were in effect.

Occasionally, suspension of an order's provisions provides a natural experiment as to the regulation's effect on market behavior. Thompson and Lyon

estimated that suspension in 1985 of the CA-AZ orange prorate caused a reduction in the farm-retail price spread of about \$0.01 per pound. This work was subsequently criticized by Powers, whose own estimates suggested that the price spread *increased* by about \$0.01 per pound during the periods of suspension. An increase in the proportion of sales allocated to fresh uses should decrease both retail and farm prices, making the effect on the price spread ambiguous and perhaps explaining why Powers and Thompson and Lyon obtained small and opposite predicted effects.

Joint Application of Marketing Orders and Cooperatives

The AMAA and the Capper-Volstead Act should be regarded as complementary market tools at producers' disposal. Several industries feature both cooperatives and marketing orders. In fact, drafters of the AMAA envisioned cooperatives and marketing orders working hand in hand to improve producer welfare because the act includes a provision allowing qualifying cooperatives to discharge their members' votes as a bloc, meaning that a cooperative that controls sufficient volume in the market can also control decision making in the marketing order.

Prominent examples of the preceding model in the produce industry are the celery and mature green tomato industries in Florida. In each instance, most of the industry output is in the hands of a relatively small number of grower-shippers. In turn, most of the grower-shippers are members of a marketing cooperative, and each industry operates under the auspices of a federal marketing order. The Florida Celery Exchange is a producer cooperative that acquires title to the production and has complete control over its marketing. The celery industry's federal marketing order contains provisions for producer allotments, shipping holidays, and prorates. The industry has been the object of various studies (Shonkwiler and Pagoulatos; Taylor and Kilmer; Sexton, Kling and Carman). Although the evidence is somewhat mixed, it suggests that the Exchange did achieve a degree of market power in several of the years that were investigated. A limitation on its power

²² Kwoka also concluded that fluid milk prices were raised from 7 percent to 15 percent above competitive levels through the operation of federal marketing orders.

is the fact that California is a larger celery supplier than Florida, and competition from California tended to reduce or eliminate Florida's market power in many of the time periods. Indeed, Sexton, Kling and Carman's results suggest that Florida's power was greatest in those metropolitan markets where it faced

relatively little competition from California celery.²³ As noted, the Florida mature green tomato industry, through its collective marketing apparatus, was able to successfully implement a price floor well above the level of harvest cost for the 1998-99 and 1999-2000 marketing seasons.

²³ Other examples of strong cooperatives operating in consonance with a federal marketing order include citrus marketing, which has been dominated by Sunkist (Rausser; Shepard). Rausser argued that failure of attempts at market control through cooperatives in the CA-AZ orange industry in the early 1900s due to free-ridership led to formation of the federal marketing order in 1933. U.S. milk marketing is regulated by marketing orders, but cooperatives also dominate various regional markets. Masson and Eisenstat argued that the cooperatives were able to achieve price discrimination over and above what was mandated through the marketing orders.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Numerous economic arguments have been raised to support the position that slotting and related fees are either good or bad for competition. In attempting to clarify and focus the economic debate, it is important to first separate cases where slotting fees are demanded by retailers from those where they are offered by suppliers. If fees result from retailer requests, and if retailers possess sufficient market power, then slotting fees are likely to be part of a two-part pricing strategy where retailers pay nearly competitive prices and then extract any profit or “scarcity rents” from suppliers by way of the fixed fee. Although this type of slotting fee may be efficient from a purely economic perspective, it leaves little or no profits on the table for growers and shippers, raising serious questions of fairness. Alternatively, retailers may use their market power to set monopsony prices instead, which not only usurps most of the suppliers’ potential profit but is also inefficient from society’s perspective because too little is purchased and subsequently brought to market. Retailers are likely to use monopsony prices for goods that are inelastic in supply, such as perishable commodities, but to have a greater interest in competitive prices and slotting for elastically supplied goods. On the other hand, if the fees are used by suppliers to monopolize a distribution channel, the effect is likely to be anti-competitive, as they prevent access to the channel by small suppliers and may discriminate among retailers.

Irrespective of their source, slotting fees may also impose more subtle, dynamic costs on society by removing incentives to develop new and better products and by allowing retailers to charge higher prices as the industry coalesces around a high-price, high-fee business model. Indeed, the impact of buyer market power by retailers in general, as evidenced by declining margins, the loss of supplier profits, slotting fees, charges for new distribution facilities, and other profit-shifting strategies in the face of increased retailer concentration, may be the real problem facing the industry. Each of these types of charges are but symptoms of the greater problem. The imbalance of power, which allows the retail chain to demand the fee if it desires,

would, in the absence of such fees, also allow the buyer to force prices down to noncompetitive levels, stripping away producer profits in the process.

At present, slotting and related fees in the produce industry, although relatively widespread, amount to just one or two percent of sales (Calvin et al., 2001). Most shippers and retailers surveyed by Calvin et al. reported that the incidence and magnitude of fees and services had increased over the past five years. Nonetheless, several characteristics of the produce industry may limit the growth of such fees over the longer term, including the seasonality of supply, perishability, the relative lack of identifiable brands, a general lack of seller power among commodity suppliers, and a relative scarcity of truly new products. Of course, packaged, branded produce items such as bagged salads are the exception and may be more susceptible to slotting fees in the future. Indeed, these fees may stymie future product innovations in the produce sector. Still, evolving best practices in retail produce procurement and marketing, such as the increasing use of efficient consumer response methods and retail contracting, may limit the expansion of fees in the produce sector.

Information-sharing or bargaining cooperatives and marketing orders may assist growers in achieving a stronger bargaining position and countervailing retailer market power. These institutions also face significant challenges, given the broad geographic distribution of some crops, shifts in production regions occurring over a growing season, the strong desire for independence by growers, the difficulties in financing and sustaining a not-for-profit organization, and the “free-rider problem” typical of any situation in which an individual may benefit from the collective action of others while avoiding payment.

Cooperative efforts may hold more promise than individual actions, particularly legal actions aimed directly at slotting fees. Although existing antitrust laws could support a direct challenge to slotting fees, it may prove to be politically and financially infeasible for a single supplier to challenge the actions of its buyers. Further, these fees may arise from noncompetitive actions of a competing supplier, which again may be

addressed through a civil suit. However, cases brought by the FTC against either retailers or suppliers are more likely to be successful and can be supported by stronger legal arguments. The recent settlement of the FTC's case against McCormick and Company is a signal of the FTC's willingness to pursue slotting fee cases under the Robinson-Patman Act. The FTC should also take a tougher stance on grocery mergers and acquisitions, with a new focus on their potential impact on competition between retailers and suppliers. Efforts to more formally codify the applicability of existing anti-trust laws to slotting fees, through the development of FTC guidelines, would aid in future enforcement and would help to establish boundaries on the legal use of slotting and similar fees.

In summary, it is recommended that produce grower-shippers and their associations consider the following four future actions:

- Investigate the formation of cooperatives or marketing orders, which would offer growers some degree of countervailing market power. It is conceivable that cooperatives could include membership from a broad geographic region or even include producers of various commodities. The Internet could be used as a tool to facilitate bargaining and information-sharing activities.
- Continue efforts to urge the FTC to further investigate slotting fees.
- Encourage the FTC to reconsider its merger guidelines and to consider the impact of mergers on upstream competition, which may be at the root of the problems in the produce industry today.
- Support the development of FTC guidelines on the use of slotting and other promotional fees.

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