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ADVERTISED SPECIALS AND LOCAL COMPETITION AMONG SUPERMARKETS

A large proportion of the supermarket advertising dollar is spent for local newspaper advertising, which in most metropolitan areas of the United States has come to feature special prices on a select list of items. The investigation whose findings are summarized in this report has focused upon these advertised specials, in the hope of gaining some insight into a competitive device which has been growing in importance (*1*, p. 134, table 37). The findings reported here are relevant to some only of the many questions that might be posed regarding the practice. An obvious question concerns the extent to which prices on featured items are reduced from their regular levels; the clear indication is that they are reduced considerably. The relative importance of the featured items was also examined, but since we did not obtain any data on relative sales, this could only be inferred from stated assumptions whose validity was not tested. The inference drawn is that the specials can be quite important in the household food budget. Another question concerned the extent of correspondence between specials and over-all price levels from store to store. Do the special prices reflect any information about regular shelf prices? No very sharp general picture emerged here, but comparisons between certain stores are suggestive of the different role and emphasis given to specials. A further question pertained to store strategy in the use of specials, insofar as this can be detected in the selection of items and prices. Awareness of the danger that we might presuppose it where no conscious strategy existed may have discouraged us in this quest, which in any event produced little evidence. The final question on which we sought evidence was whether the so-called "battle of the brands"[1] was manifest in specials advertising. The threatened brand franchises of manufacturers had been built largely upon advertising; *a posteriori* it seemed that they would be defended through advertising. The evidence suggests that they are being defended in the weekly specials, or even that a counterattack on behalf of manufacturer's brands is conducted here.

The Sample

The prices used in this analysis were obtained by direct enumeration in eight stores in Palo Alto, California, during eight successive weeks, from January 20

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[1] A very common designation is that of "private labels" for what we refer to as retail brands; whereas manufacturer's brands are sometimes more loosely termed "name" brands, "major" brands,

to March 10, 1960. Since several of the chain stores have more than one outlet in Palo Alto, the eight stores represent thirteen retail outlets. Each of these is a supermarket, as defined by the Bureau of the Census in terms of annual sales volume of at least $500,000. The stores are located in various shopping centers in the city, and include most of the competitive possibilities for a resident who shops locally. We presume that a large proportion of the food purchases for the 50,000 inhabitants of Palo Alto are made in these stores. Large and small corporate chains, an independent, a member of a voluntary chain, and a consumer's cooperative are included in the eight firms represented.

The procedure for selecting the list of items to be priced each week began with the weekly newspaper advertisements. From these eight advertisements were selected items that we could confidently expect to find in all stores. This meant that we listed the well-known manufacturer's labels of most branded items, and also the more common cuts of meats or varieties of fresh fruits and vegetables. The problem of quality differences enters with any departure from identical branded merchandise. There is apparently no complete solution to this problem. There are several well-accepted brands of many common shelf items; it seemed unduly restrictive to accept no substitution among them. We accepted the retail stores' pricing practice as the guide in such cases; any pair of brands which were regularly priced the same in any given store were considered perfect substitutes. We also equated the same cuts of meat among stores, as well as the same varieties of fresh fruits and vegetables, despite our subjective feeling that important quality differences prevail. The U.S. Department of Agriculture inspects and grade stamps fresh meats: the stores in this survey sold only the "choice" grade.[2] We occasionally excluded fresh fruits or vegetables because of their conspicuously low quality, judging from appearances. Most of our tabulations show the meat and produce results separately, which allows them to be discounted or disregarded in view of possible quality differences, and also reveals different emphasis from store to store.

Also recorded from the advertisements, in order partially to compensate for the bias in favor of major manufacturer's brands that inheres in the aim to select generally available items, were "low-price specials" on items of lesser known manufacturer's labels, or more often retailer's labels. One of the stores, for example, might feature its own lowest price brand of canned fruits or vegetables; we then specified "lowest-priced No. 1 can of cut green beans," e.g., at the same time that Del Monte and its equivalents were also priced.

Without pretending to have solved the quality problem, we feel that interesting and useful results flow from our treatment of it, which accords considerable significance to brands, to common pricing practice, to grade labeling of meats, and to our own judgment of the appearance of fresh fruits and vegetables. Our procedure said in effect that all major manufacturer's labels that were priced together within stores were of equal quality. Similarly, the lowest priced labels of branded items were treated as being of equal quality. Finally, all meats of

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or even "advertised" brands in contradistinction to "private" labels. We follow Mueller and Garoian (*1*, p. 92) in distinguishing between retail brands on the one hand and, under the heading of manufacturer's brands, either manufacturer's or distributor's brands on the other.

[2] Cf. *2* for illustration of the range of quality found within the U.S.D.A. choice grade.

similar cut and with occasional exceptions all fresh fruits and vegetables were considered equal in quality.

The list of items priced during the fifth week of the survey is shown below, in order to provide some indication of the coverage of a list growing out of the procedure employed.

Cereals and Bakery Products:

- Flour* †
- Biscuit Mix
- Rice
- Rolled Oats
- Corn Flakes
- Bread
- Graham Crackers
- Soda Crackers
- Party Crackers
- Oat Meal Cookies
- Sandwich Cookies

Meats, Poultry, and Fish:

- T-Bone Steak
- Round Steak
- Sirloin Steak
- Porterhouse Steak
- Chuck Roast
- Cross Rib Roast
- Standing Rib Roast
- Ground Beef
- Pork Chops
- Bacon
- Ham
- Lamb Leg
- Frankfurters
- Canned Luncheon Meat
- Frying Chicken
- Frozen Fish Sticks
- Frozen Meat Pies
- Canned Salmon
- Canned Tuna

Dairy Products:

- Ice Cream
- Butter
- American Cheese
- Cheddar Cheese
- Cottage Cheese
- Evaporated Milk
- Instant Milk

Fruits and Vegetables:

(Frozen)
- Strawberries
- Orange Juice*
- Vegetables
- Fruit Pie

(Fresh)
- Apples
- Bananas
- Oranges
- Lemons
- Grapefruit
- Potatoes
- Yams
- Onions
- Carrots
- Lettuce
- Celery Hearts
- Cabbage
- Tomatoes
- Avocado
- Cauliflower
- Spinach

(Canned)
- Peaches‡
- Pineapple
- Fruit Cocktail*
- Pears*
- Apricots*
- Applesauce‡
- Pineapple Juice‡
- Corn*
- Peas‡
- Tomatoes*
- Green Beans*
- Tomato Juice*
- Baby Food (strained)
- Baby Food (junior)

(Dried)
- Prunes
- Beans

Other Foods:

- Vegetable Soup
- Meat Soup
- Vegetable Soup Mix
- Meat Soup Mix
- Onion Soup Mix
- Beans with Pork
- Dill Pickles
- Catsup
- Instant Coffee
- Coffee
- Tea Bags
- Cola Drink
- Vegetable Shortening
- Margarine‡
- Lard
- Mayonnaise
- Salad Dressing
- Peanut Butter
- Cooking Oil
- Sugar
- Corn Syrup
- Grape Jelly
- Chocolate Bar
- Pudding
- Eggs
- Gelatin Dessert

* Both a major manufacturer's brand and a low-priced brand were priced.

† This list does not include the complete description of the item, nor does it include several cases in which more than one variety of the same item was priced, apples for example.

‡ Only a low-priced brand was priced.

We also compared our list with the basic list of the U.S. Bureau of Labor Statistics (B.L.S.) (*3*), from which official food price indexes are computed, in order to gain an objective indication of the extent of coverage of our list. There are 77 items on the basic B.L.S. list, between 60 and 71 of which appeared on our list from one week to another. In addition, of course, items appeared on our list, which contained from 90 to 103 items, that do not appear on the basic B.L.S. list.

The rules that were followed in preparing the list for enumeration were inherently not ironclad, but on the two occasions when the two authors prepared the lists independently they conformed very closely, being exact duplicates excepting for two or three items. The advertisements change markedly even over a brief period, what with special holiday fare being featured at one time or store, canned goods at another, retailer's brands at another, or some individual manufacturer's brand at another, so that the extent and coverage of the list is not always uniform. Only food items were included in our survey; other items are important in the stores and are included in the advertisements. Availability of items was not a problem; in only one instance, obviously unintentional, was the advertised item not available at all, and in few instances was the supply exhausted before the time covered by the advertisement had elapsed. No adjustment was made if sales per customer were limited. Once or twice shelf supplies of a particularly attractive special were exhausted but were quickly replenished upon request. In the first two weeks of the survey we spot-checked prices after the specials period had expired, and learned that in every case the price went back to the higher "normal" level. We thereupon abandoned this check, on the assumption that this pattern would continue.

Are Specials Really Special?

The first question posed was whether the advertised specials incorporate *bona fide* price reductions. Occasionally, of course, items are listed in the advertisements at their standard prices, particularly when an advertising theme is being carried out, or perhaps "fillers" are being placed in the advertisements. On very rare occasions a featured item may even be priced above its standard price. But in the great preponderance of cases—92 per cent of all 1,546 observations of specials—the price of the item was lower in the stores that advertised it than in those that did not. Our specials list contained a total of 225 items, each of these averaging nearly seven appearances to make the total of 1,546 observations. For each of the 225 items the average special price was compared with the average non-special price, and the mean of all these ratios was 78.6 per cent, indicating a saving of over 20 per cent for buying these items on special. Furthermore, the incidence of an item in the specials list, indicative of its "competitive focus," influences the degree of price reduction. At one extreme, 50 items appeared only once during the survey, and their average price reduction was 13.3 per cent; at the other extreme, 55 items appeared ten or more times each, and their average price reduction was 26.3 per cent. The remaining 120 items that appeared two to nine times each were reduced 22.5 per cent in price on the average.

It pays, not only to shop the specials, but also to keep posted on which items are being most widely and frequently featured. There may be a number of reasons for this. An item may be a traditional loss leader, selected to attract customers into the store in the hope that they will buy other items as well. Since legal problems arise, the store managers are reluctant to talk about loss leaders,[3] but items like vacuum packed major brand coffee at less than the wholesale price of green coffee beans in San Francisco, Gold Medal Flour at 39 cents when the regular price was 67 cents, or Best Foods Mayonnaise at 39 cents instead of 59 cents may belong in this category. This need not mean, of course, that the retail store is suffering any loss on such items, as the manufacturer or distributor may offer substantial price concessions (advertising allowances) to promote the product or forestall defections to private brands.

Another reason that certain items may be featured is that they are in abundant supply. The advertisements provide valuable information when spring lamb comes to market; or when fruit or vegetable harvests are in full swing, with perhaps bountiful crops of some and short crops of others; or when in a variety of other circumstances they call attention to abundance. Or the advertisements may be keyed to consumer preferences; the Lenten period, for example, occasioning the recurrence of certain types of items at certain times. The store that plans such themes may buy ahead in large volume and thereby obtain price concessions which are passed along to the consumer. The last two weeks of our survey period fell within Lent, which led several stores to feature Lenten treats or Lenten specials such as fish at below regular prices.

Competition itself may force lower prices on certain prominently featured items. The advertising copy is not prepared in a vacuum; on the contrary, close attention is given to what others are featuring and which of their specials seem to be winning customers. Pressure may be brought on the distributor—"You gave this special to our friends across the street; give it to us if you want to see it on our shelves"—or the store may absorb the cost of meeting the competition.

New products are also introduced in this milieu. New brands of instant coffee, for example, were brought out during the period of our survey. Introductory prices were placed on these and they were given considerable space in the newspaper advertisements and in the stores. Other established brands, to prevent inroads being made onto their franchise, retaliated in kind. Price wars flare up, from this or other causes, and may persist for a time to the delight of the observant consumer.

The price reductions are real and substantial; but it may be objected that chasing all over town to run down the various specials is worthwhile only when there is a gasoline price war too, or that even the time and effort consumed in trying to fit a menu to the specials is more than the saving warrants. How important and broadly representative and widely distributed are the specials?

[3] Since the period of our survey, a new California law, aimed at loss leaders, forbids the practice of limiting the number of items that will be sold to an individual customer. On at least one occasion, a competing store has sent a truck to haul away a large volume of an advertised special. One store in our group changed its competitive strategy drastically in the context of the new law and the attendant publicity given loss leaders. This store adopted the practice of listing items and prices that it considered to be loss leaders at other stores. Its own strategy was then to rely upon a 5 per cent discount on *all* merchandise in all purchases in excess of one dollar; and its advertising slogan became "Choose Your Own Specials." After a brief and unhappy experience, this effort to depart from the "specials game" was abandoned.

The Coverage of the Specials

Economizing by purchasing specials obviously does not permit an unlimited range of choice. The typical weekly specials advertisement contains about 50 food items which seems trivial by comparison with the more than 5,000 food items carried in the store. But the specials are more important than their mere numbers indicate: a random selection each week of 50 items in a store for a 20 per cent price reduction would not be nearly so meaningful as the selection of prominent items, from a food budget standpoint, that is actually made.[4] The specials list comprised a large fraction of the list of items in the B.L.S. index, but this exaggerates the coverage of the specials, owing to the fact that the list was taken from the advertisements of all eight stores. Shopping in as many as three stores would be convenient in terms of their proximity but it would be scarcely reasonable to shop in all eight. More than 75 per cent of the 77 items in the basic B.L.S. list, accounting for more than 85 per cent of the relative importance, appeared each week in our own specials list. Any one of three clusters of three stores each that are located in convenient proximity accounted for upwards of 40 per cent of the items and 47 per cent of the relative importance. The average for an individual store, so extensive was the overlapping, was 26 per cent of the items and 33 per cent of the relative importance. And the specials list, as was mentioned earlier, understates the coverage of specials because we chose items with a view toward direct price comparison, thus omitting many. The buyer who has room to store some items, enough leeway in the budget, and enough menu flexibility to accommodate the specials, can make an important part of her food purchases from the advertised specials.

An index of the combined effect of price reductions *and* specials coverage is obtained by answering the following question: How do the prices of those items actually priced in a given store, about one-fourth of which were on special (see Appendix Table I) compare with their average non-special price at all stores over the eight-week period? The answer is shown, by stores and departments, in Table 1, where the average saving per store is seen to range from 0.5 to 11.9 per cent. This table suggests that the specials may reduce food bills up to 10 per cent, depending upon which one store she shops in, for the consumer who pays enough attention to specials for her shopping list to be made up of one-fourth specials and the remainder non-specials. This overstates the savings to the extent that our selection procedure favored specials more than the housewife is likely to; but it understates savings to the extent that consumers shop specials in more than one store.

The Specials as an Index of Store Prices

The question arises as to the extent to which advertised prices reflect the general level of store prices. "We sell for less" is what the advertisements tend to

[4] A limitation on measuring the importance of specials arises from the impossibility of saying how much value consumers place on "choice" or "variety" as such, as well as on a particular good or brand. One who has already selected presumably places no value on the discarded alternatives, but before the selection he may value (*a*) his known first choice or (*b*) the privilege of choosing from among many. Some discount houses that have added grocery departments have reversed the tendency of supermarkets to enlarge the range of choice, while preserving the other major features of supermarket merchandising.

TABLE 1.—INDEX[a] OF PRICES SHOWING THE EFFECT OF SPECIALS

Store	Departments			Total
	Meat	*Produce*	*Other*	
A	84.4	96.0	91.2	88.1
B	88.8	88.0	95.4	91.9
C	92.4	94.9	93.2	92.9
D	97.4	92.4	92.2	94.8
E	96.3	88.6	92.5	94.2
F	91.2	94.0	97.1	94.1
G	96.3	94.1	95.1	95.6
H	102.3	92.7	97.2	99.5

[a] The index number compares the cost of our list in the designated store, its specials included, to the same list in all stores *excluding* specials.

suggest, and often to claim. Some of the advertisements do stress quality of course, and there is even some hint in the advertising that the specials are a misleading guide to store price levels.[5] Such departures are exemplified by one store which repeatedly emphasizes the trim of its meat cuts in an obvious effort to justify higher prices by weight; while another store advertises "lowest everyday shelf prices" in an apparent attempt to persuade the consumer that its store price level is lowest, apart from the question of comparative specials.

The rankings of the unweighted price indexes of the specials and of the non-specials are compared in Table 2. The unweighted price index is simply the

$$\frac{\text{Sum of the prices of each item priced in each store each week}}{\text{Sum of the average prices of the same items in all stores all weeks.}}$$

The indexes were ranked each week, then simply summed, so that if a store had the lowest prices every week it would have a rank sum of 8, or highest prices every week a rank of 64, and the mean rank sum would be 36.

TABLE 2.—REFLECTIONS OF NON-SPECIAL PRICES IN SPECIAL PRICES

Store	Rank sum of	
	Unweighted price index of items on special	Unweighted price index of items not on special
A	12	50
B	29	19.5
C	47	25
D	31	29
E	59	43
F	36	22
G	30	36.5
H	44	63

[5] One store, as mentioned earlier, recently launched an attack on the loss leader aspect of the specials, and abandoned this form of rivalry in favor of an across-the-board 5 per cent price reduction from the shelf prices of all items. But it soon returned to the "specials" fold.

Store A has a much higher relative price level for items not on special than for featured items, as does Store H. Stores C and E display the opposite characteristics, and in general the special prices provide a poor indication of price levels on items not featured.

There is some indication here, then, that if one shops the specials he had better stick to the specials and not trust them to lead him to the best bargains in general. No doubt the specials are intended in some degree as "come-ons," as this evidence suggests. We pursue the suggestion further by examining individual store data by departments and in some detail.

Pricing Policy and the Use of Specials: A Two-Store Comparison

Stores E and A, an independent and a small chain, respectively, afford an interesting contrast in the use of specials and pricing policy for several reasons. As mentioned above, their specials price indexes diverge in opposite directions from their non-specials indexes. Both stores feature manufacturer's brands to the virtual exclusion of retailer's brands (see Appendix Table III). Both also emphasize meats, although from opposite standpoints: Store A was formerly almost exclusively a meat market that featured low-priced meats, which policy has carried over as the store expanded, becoming a small chain of large supermarkets with very large meat departments and heavy emphasis upon meat items in the specials, having by far the largest proportion of meat items in the ads of any store. (See Appendix Table III). Store E features a large meat department under separate management within the store. This meat department emphasizes the quality of its meats and makes no pretense of being low-priced. In the weekly advertisements, meats are frequently featured, with the second largest proportion of meat specials of any store, but nearly always at *regular* prices—certain cuts of beef for example were featured during every week of the survey and always at the same price, which was considerably higher than the average special price. And while we did not undertake an objective comparison of meat quality, it is our opinion, based upon a general *appearance* of quality and upon hearsay, that Store E sells a superior quality and better trim of meat than Store A, and indeed that these two stand at or near the opposite extremes in this regard among the stores studied.

In this light it is pertinent to look at the price indexes of these two stores by departments. Their rank totals and the arithmetic means of their weekly price indexes are shown in Table 3.

TABLE 3.—COMPARISON OF STORES A AND E

Store	Meat		Produce		All Other	
	Special	Non-special	Special	Non-special	Special	Non-special
A (Rank totals)	17	13	25	53	14	63
E (Rank totals)	63	43	33	39	25	39
A (Price indexes) ...	73.4	93.3	64.2	107.8	76.8	103.9
E (Price indexes) ...	92.6	99.9	68.7	102.2	84.5	100.4

The contrasting meat policies show up clearly, Store A featuring low meat prices in its advertisements and selling meat at low prices, while Store E ranks highest in the advertised prices of meats, yet sells meats otherwise at about average prices. In both the produce department and the far more important "all other" category, Store A displays a very pronounced contrast between its special and non-special prices. In the produce instance, the wider spread between special and non-special prices probably owes to the fact that perishable items need to be moved and clearly warrant special pricing for this purpose; yet this does not explain the discrepancy in rank totals, since all stores face the same problem.

If we focus attention on the price index comparisons instead of their rank totals, we find that buying non-specials in Store A is relatively much more costly than buying specials. Given the quality comparison problem in both meats and produce, plus the contrasting meat reputations of the two stores, and the fact that both feature well-known labels in the "all other" category, it seems fair to make the comparison rest heavily upon this latter category. This comparison suggests that one should buy specials at Store A and non-specials at Store E, as between these two stores; or perhaps a better reading of the data is simply "beware the thousands of non-specials at Store A."

Specials Strategy

So clear is the indication that Store A must follow a deliberate policy of pricing other items high in order to support its specials merchandising that we pursue evidence on this point one step further. Many of the items that appear in the survey have a strongly modal price; the same, or what might be called the "standard" price appearing on many items in most stores. This is especially relevant where the product is identical—a branded can of peas or sack of flour—from store to store. Hence we omit fresh meats and produce again, and tabulate instances of prices on any non-special item, compared to the all-store all-period average non-special price of that item. For Store A, such a price was higher than average 206 times, the same 110 times, and lower 55 times. Moreover, Store A was the only store, as seen in Table 4, for which this price was higher than average more times than it was either the same or lower, and here it exceeded *both* other categories. The store with the *lowest* priced specials obviously maintained higher prices on its non-specials. For the bewildered and beleaguered consumer, the simple maxim that it pays to shop the specials needs to be refined: it pays to shop the specials, but beware the non-specials, especially where the specials are best.

TABLE 4.—NUMBER OF INSTANCES OF PRICES HIGHER, LOWER, OR SAME AS MODAL PRICE

Store	Higher	Same	Lower
A	206	110	55
B	74	215	140
C	93	183	134
D	46	222	164
E	132	194	92
F	110	220	127
G	100	187	136
H	126	184	100

The Battle of the Brands

One way to save on the grocery bills, according to a recent article in *Consumers Report* (4) is to purchase retailer's instead of manufacturer's brands. Reach for the Ann Page (A&P) instead of Krafts; or for the Town House (Safeway) instead of Del Monte. This prescription is admittedly an oversimplification, which "does not reveal the full story of the brutal battle of the brands." Whatever the comparative merits of the products—which *Consumers Report* took for granted in this instance—it is clear from their encroachment onto store shelves that enormous gains have been made by the retailer's brands. But the proprietors of manufacturer's and distributor's brand franchises have contested the encroachment, as was to be expected, and the manner in which they have contested it was also predictable: these brand franchises had been established through advertising and they would be defended through advertising. One of the more important battlegrounds in this struggle has been the institution of the weekly special.

When a store stocks 5,000 different food items, plans a deliberate strategy of "synthetic competition," and has frequent opportunities to reflect advertising allowances from its suppliers, it is not only the consumer who may be bewildered into some rule-of-thumb basis for choice. The consumer research organization itself understandably prefers stating a useful rule-of-thumb to the apparently impossible task of naming the "best food buys," which are necessarily evanescent in this context. Nevertheless, we may despair too quickly of the possibilities of gleaning useful information from this complex.

It is not difficult to discern the battle of the brands in the weekly specials. One need only observe the contrasting participation in the weekly special institution between the stores that emphasize their own brands and those that emphasize manufacturer's brands. Only Store D, which alone accounted for half of the retailer brands featured in all advertisements, may be said from these to be a predominantly retailer brand store, for it alone mentioned its own brands more frequently than the manufacturer's brands. The manner in which this store employs the institution of the weekly special makes another revealing contrast with Store A, which is highly oriented to manufacturer's brands. In the present section we first focus upon this contrast.

A high proportion of the items in Store A's advertisements entered into our list by virtue of the fact that it features many standard cuts of meat and a high proportion of brand names among its specials. Store D, in contrast, placed a low proportion of its items on our list by featuring few meat cuts and a low proportion of brand names (see Appendix Table III). Our list may be said to have a bias in favor of Store A as an inevitable result of the procedure by which the list is formed. However, retailer brands do enter into the list among the lowest priced items (irrespective of brands) and also among the unbranded items. But the incidence of comparable items in each advertisement is no doubt a reflection, in part, of deliberate strategy; hence the degree of this bias may be small. One sense in which Store A uses the weekly special more than Store D, in other words, may be the deliberate selection of items that occur more frequently in all the advertisements and thus facilitate price comparisons. Of the items mentioned in

Store A's advertisements, 56 per cent appeared in our lists, compared to only 34 per cent of those mentioned in Store D's advertisements.

A more important sense in which Store A uses the special more than Store D is manifest in the price comparisons. Store A reduces the prices of its specials more, relative to its own general price level, than does Store D, with the result that the specials price comparison is far different from the non-specials price comparison. Table 5 shows this contrast.

Comparing prices on all 861 observations over the eight weeks, Store D had lower prices more times than Store A. But these lower prices occurred predominantly in the list of items not on special at either store, whereas Store A had lower prices more frequently among the approximately half of all items which were on special at one or both stores. This latter contrast was considerably influenced by meats (which as noted earlier are very prominently featured by Store A), such that omitting meats from the comparison virtually eliminates the advantage that Store A has among the specials.

The contrast is confirmed and extended by measuring the extent of price reduction in the specials in terms of the weekly index value. In the important grocery category (exclusive of meats and produce), where many of the specials are nationally advertised brands, Store A has consistently greater price reductions on its specials. Its specials index averaged 27 points lower than its non-specials index compared to a 16 point difference for Store D, and these differences were quite consistent from week to week. Yet Store A has so much higher regular prices than Store D that its specials are not much lower priced than D's, the difference in index values being four points or less in six of the eight weeks. The *non*-specials index was always higher at Store A (higher than for *any* store), and in seven of the eight weeks was five points or more higher than D's.

In fresh produce the picture was much the same, only more extreme while less reliable because of a limited number of observations. While Store A has higher priced groceries, but lower prices on a limited number of grocery specials, it has much higher priced produce, but much lower prices on a very limited number of produce specials. In produce, A's specials index averaged 45 points lower than its non-specials index; while for Store D this difference averaged 26 points. The inherently greater variability in produce prices undoubtedly accounts for the higher differences—the pattern is much the same as in groceries. Store D's advantage in the non-specials price index was slightly more than its disadvantage in the specials index.

In meats the comparison was quite different in two respects. Store A had a

TABLE 5.—COMPARISON OF STORES A AND D

Description	*A* lower than *D*	Same	*A* higher than *D*
Total	296	172	393
No specials involved	88	109	229
Specials involved	208	63	164
Specials involved (meat excluded)	148	52	141

lower non-specials index, and with almost the same degree of reduction to its specials index, also a lower specials index. In addition, A had a much higher number and proportion of meat specials than any other store—40 per cent of the food items in A's advertisements were meats, compared to 15 per cent in D's advertisements.

The battle of retailer vs. manufacturer brands is of course virtually confined to items other than fresh meats and produce. Therefore, it is reasonable to abstract from the meat and produce comparisons in interpreting these results in terms of the battle of the brands.

There is some danger of distorting the scene on the brand battlefront by letting Stores A and D represent, respectively, retailer and manufacturer brands. We can guard against this danger by viewing the scene more broadly, having treated these stores as the leading protagonists in order to obtain a vivid picture. We first view, in Table 6, the two-store contrast in the setting provided by all eight stores. Store A stands out from all others in two major respects, its specials price index is distinctly lower than the cluster, and its non-specials index is distinctly higher than the cluster. Thus the store that promotes manufacturers' brand names is making more use of specials than others. Store D's non-specials index is lower than the cluster while its specials index is approximately in the middle. The store that promotes its own brands, like all the stores, prices its specials below regular prices, but has lower regular prices than other stores. Its specials in comparison with other specials are more modestly reduced—much more so than those of Store A.

That this contrast is manifest throughout the eight stores may be seen by dichotomizing them according to the proportion of retailer brands to other brands in their advertisements. Of the four stores with the lowest proportion, two had no retailer brands and the other two less than one-tenth as many retailer as other brands. Of the other four stores, all had more than one-fourth as many retailer as other brands, and one, Store D, had more retailer than other brands. The specials indexes and the non-specials indexes, both dichotomized in the above manner, are shown in Table 7.

The four manufacturer-brand stores had lower specials indexes and higher non-specials indexes, suggesting that they make more use of the weekly special as a competitive weapon than do the retail-brand stores. This is not to imply, however, that the best shopping strategy is to buy specials from manufacturer-brand stores and non-specials at retail-brand stores. The latter very frequently match (or even undercut) the manufacturer-brand specials of other stores with retailer-brand specials of their own. Our selection procedure did not equate retailer and manufacturer brands, hence it was biased against the retail-brand

TABLE 6.—SPECIALS AND NON-SPECIALS PRICE INDEXES, EXCLUDING MEATS AND PRODUCE, EIGHT-WEEK AVERAGES

Price indexes	A	B	C	D	E	F	G	H
Specials								
Price index ...	**76.8**	82.9	83.5	**81.4**	79.3	81.5	81.4	83.0
Non-specials								
Price index ...	**103.9**	98.9	100.0	**97.7**	100.4	100.5	99.6	100.1

TABLE 7.—SPECIALS AND NON-SPECIALS PRICE INDEXES, EXCLUDING MEATS AND PRODUCE, EIGHT-WEEK AVERAGES, FOUR "RETAIL-BRAND" STORES VS. FOUR "MANUFACTURER-BRAND" STORES

Price indexes	"Manufacturer-brand" stores[a]	"Retail-brand" stores[b]
Specials price index	80.2	82.3
Non-specials price index	101.2	99.0

[a] Stores B, D, C, G.
[b] Stores A, E, F, H.

stores, quality disregarded. It appears rather that the retail-brand stores are the better sources of non-specials *including* manufacturer-brands; and quite possibly also the better sources of specials, if one is willing to equate retailer and manufacturer brands. Since this willingness is implicit in the *Consumers Reports* prescription that we took as our point of departure in this section, it might seem that our attempt to refine the prescription has come to naught—one should, as they advised, buy in the retailer-brand stores. It still is not obvious how this would compare with buying specials almost exclusively in one or two stores that make the most of the specials technique. It is apparent that the consumer who watches the specials *in addition* to following the *Consumers Reports* advice will have a still lower food bill.

Concluding Remarks

This study scratches the surface of one segment of a major problem area—the continuing structural change in the food economy of the United States—which has attracted the interest of many economists. The famous A&P decision (*5*) elicited some of the most fascinating economic interpretations of the present age (*6, 7, 8, 9*). More recently the Federal Trade Commission has completed an extensive study of the food marketing structure (*10*) which Hoffman had analyzed two decades earlier (*11*), and Mueller and Garoian (*1*) have updated the catalogue of structural changes, while undertaking also to interpret these in the light of contemporary price theory. Still no one pretends that the phenomenon is adequately understood, and Galbraith's contention (*12*) that orthodox price theory has little to contribute toward understanding this and similar structural changes in other industries, although widely challenged, can hardly be said to have been refuted. The most prominent aspect of the larger phenomenon has been the rise of the retail supermarket, the more recent appearance of which in other countries may also prove a harbinger of far-reaching changes in the structure of their food economies (*13*). The struggle of supermarkets to ascendancy in the United States food marketing structure has certainly involved them in conflict against the pre-existing retail food outlets, but it could not stop there. The struggle had to permeate the entire system of distribution because the various functions are closely interrelated. Latterly a focal point of the continuing struggle has been a contest between the larger corporate chains of supermarkets and manufacturers or distributors of food products in promoting their respective brand labels.

The evidence shown here has little direct bearing on the larger issues of industry performance, but in the course of the investigation we formed impressions, and asked further questions, that may be worth stating in this larger context. Advertising plays a key part in the drama, yet economists have less to say about its causes and consequences than about any other part. It is usually classified as a form of nonprice competition that emerges in a market structure where monopoly profits are attainable through product differentiation. In much advertising, price is not mentioned, and in a great deal more in which it is mentioned, price is treated as an incidental item of information. But it is also frequently a vehicle through which price competition is conducted, through the conveyance of price information or the announcement of price reductions or prices lower than those available elsewhere. Where rivalry is intense the specials advertisement can become an instrument of price warfare on a selected list of items. It can also blossom into virtual price competition: unintentional in the case of a firm that is drawn into a specials program by the actions of others, or where consumer strategy forces it; intentional in the case of a firm that sees in the practice an opportunity for covert price competition where overt price competition would be self-defeating. Arthur (*14*) has aptly referred to this form of rivalry as "synthetic competition," without intending to minimize the very real competition that sometimes emerges from it. We find at least the possibility that competition may be generated by a mechanism which is initially and overtly a departure from competition. "Synthetic competition" may take on the attributes of the real thing, as specials lists approach the full market basket in their coverage, and to the extent that the price variable is emphasized within and among the lists. A question that Dirlam and Kahn asked, "Did A&P's bargaining force heavy advertisers . . . to forego advertising for price competition," and partially answered, "On the contrary, suppliers may well have responded by intensifying their advertising," (*7*, p. 129) leaves still open the possibility of increased price competition through advertising.

None of this is necessarily anomalous in the framework of market structure theory. Mueller and Garoian (*1*) for example have been careful to avoid so broad a reading of the evidence, or so narrow an interpretation of market structure, as would require a judgment of diminished competition. It may be that the range of alternatives confronting the grocery shopper has been enlarged, what with such broad changes in the shopping environment as have been wrought by the changing role of the automobile, and the expanding use of advertising; so that the relevant market structure has become more competitive, despite diminishing numbers of retail food outlets. This would suggest that more competitive performance could be rationalized in terms of orthodox theory simply by appropriately redefining the extent of the market, or otherwise refining the theory, and recognizing that even price competition requires communication.

At the same time it must be recognized that the particular form assumed by rivalry among firms, or individual firm policy, may be conducive toward results that are not predictable from structural considerations. We also deem it possible that the battle between retailer and manufacturer brands may interact with the inter-firm rivalry at the retail level and result in an intensification of competition beyond the mere addition of the forces taken independently. The evidence shown here says very little about these important issues; insofar as it barely suggests the relevance of specials to market performance, or the patterns of pricing strategy, or the types of interaction that may occur here. But if it does suggest a greater emphasis upon price than contemporary structure theory would predict, or a higher level of performance than either the predictions of theory or the performance of the corner grocery store regime, it will have served its purpose.

After a much larger study than this one, Mueller and Garoian conclude at one point: "The preceding comments are not offered as conclusive proof that local retail market structures have, in fact, resulted in market behavior consistent with that which economic theory implies. Rather, we report it here simply to illustrate that scattered evidence suggests that such behavior may indeed exist" (*1,* p. 136). And at another point: ". . . [There has been] a generally downward trend in profit margins in these industries since prewar and postwar years. Moreover, profit margins of chains have not increased during this period even though grocery retailers are performing more functions than previously. This suggests that the food-retailing industry is also performing in an improved manner" (*1,* p. 154). It would overburden our meager evidence to claim that it does any more than lightly underscore the recognized limitations of market structure theory in interpreting one facet of performance. But it may underscore more heavily the conclusion that "additional research is needed to give a conclusive picture of the type of competitive behavior actually extant in local markets" (*1,* p. 136).

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12 John Kenneth Galbraith, *American Capitalism, The Concept of Countervailing Power,* Boston, 1952.

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Appendix Table I.—Percentage of Items on the Specials List that Were on Special, by Stores and Departments

(*Eight-week averages*)

Stores	A	B	C	D	E	F	G	H
Meats	49.1	39.4	21.2	23.1	39.1	22.8	18.4	24.7
Produce ..	26.5	34.3	25.4	28.2	34.7	23.2	24.6	26.4
All other ..	34.6	24.3	27.9	24.0	23.9	15.8	16.2	25.4
Total	35.3	28.6	27.1	24.6	28.3	18.1	17.8	25.6

Appendix Table II.—Unweighted Price Indexes[a] Based on the Specials List

Item	A	B	C	D	E	F	G	H
			SPECIALS					
Meat	73.4	76.6	79.0	79.4	92.6	81.2	77.7	79.6
Produce	64.2	67.7	72.5	72.5	68.7	72.9	65.5	62.6
All other	76.8	82.9	83.5	81.4	79.3	81.5	81.4	83.0
All products ...	74.9	79.4	81.8	79.3	84.5	80.7	79.1	81.6
			NON-SPECIALS					
Meat	93.3	98.5	96.7	101.0	99.9	95.0	99.2	108.2
Produce	109.2	95.6	98.9	99.8	102.2	101.5	100.8	102.3
All other	103.9	98.9	100.0	97.7	100.4	100.5	99.6	100.1
All products ..	101.1	98.6	98.7	99.0	100.3	98.7	99.5	102.9
			TOTAL					
Meat	82.9	89.8	91.9	95.9	96.8	91.5	95.5	101.7
Produce	97.4	85.3	93.2	91.4	90.2	94.9	92.8	93.9
All other	94.6	95.3	95.5	93.3	94.2	97.2	96.2	95.8
All products ...	89.9	92.8	94.2	94.1	94.8	95.2	95.7	97.6

[a] The unweighted price index for a given store and week =

$$\frac{\text{Sum of prices in that store of all items priced that week}}{\text{Sum of average prices of those items in all stores, all weeks}}$$

The index numbers given here are averages, for the eight weeks, of those weekly indexes.

Appendix Table III.—Size and Composition of Weekly Advertisements of Eight Stores

(*Eight-Week Averages*)

Nature of advertising	A	B	C	D	E	F	G	H
Total items	59	57	85	68	53	35	46	63
Newspaper columns	8	9	12	13	7	6	8	9
Retailer brands	4	8	14	35	0	0	7	4
Manufacturer brands	32	32	55	19	35	23	23	41
Meat	24	13	17	11	18	11	9	12
Fresh produce	4	7	4	7	6	4	4	5
Non-food	1	7	14	8	5	2	7	6