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PRICES AND PROFITS OF LEADING RETAIL FOOD CHAINS, 1970–74

HEARINGS

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PRICES AND PROFITS OF LEADING RETAIL FOOD CHAINS, 1970–74

WEDNESDAY, MARCH 30, 1977

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The committee met, pursuant to notice, at 10:20 a.m., in room 318, Russell Senate Office Building, Hon. Gillis W. Long and Hon. Margaret M. Heckler, cochairpersons (members of the committee), presiding.

Present: Representatives Bolling, Long, Brown of Ohio, and Heckler; and Senators Roth, McClure, and Hatch.

Also present: John R. Stark, executive director; George R. Tyler, Steve Watkins, and Katie MacArthur, professional staff members; Mark Borchelt, administrative assistant; and Charles H. Bradford, George D. Krumbhaar, Jr., M. Catherine Miller, and Mark R. Policinski, minority professional staff members.

OPENING STATEMENT OF REPRESENTATIVE LONG

Representative LONG. This hearing will come to order. At the direction of the chairman of the Joint Economic Committee, Representative Bolling of Missouri, I call to order this Joint Economic Committee hearing. It is a full committee hearing on "Prices and Profits of Leading Retail Food Chains, 1970–74."

Today the committee will hear testimony on a study prepared for the committee and at the committee's request, started some time ago and prepared for the committee and for the Congress by Mr. Willard Mueller, Mr. Bruce Marion, and a number of other economists at the University of Wisconsin. The study examines the relationship between supermarket price levels, food chain profits, and the structure of local markets. This study is the most recent component of a broad series of studies that the Joint Economic Committee has been making into factors causing inflation. It was initiated in the fall of 1974, 2½ years ago.

Economists have said that studies of food retailing—and some governmental statistical studies as well—all suffer markedly from inadequate data. Publicly available data are too aggregated and too inconsistent; data coverage, they say, has been too spotty to assure a base of information broad enough on which to proceed. In an effort to rectify the problem, the committee subpenaed price and profit data from the 17 largest national food chains. Two preliminary hearings by the Joint Economic Committee were held in November and December of

1974, based on a portion of this subpenaed data. Additional data were then collected through the summer of 1975.

To digress, an enormous amount of data—confidential data—was acquired. The committee compiled more than eight file cabinets of data. For the past 2 years, since that summer of 1975, the five-person research team from the University of Wisconsin has been compiling, coding, and interpreting this data with the use of computers. In addition, a sizable volume of data in the public domain was used, including the FTC chainstore premerger forms that stores file in a number of instances, and Commerce Department market concentration data.

With this data, the researchers evaluated the statistical relationship between food price levels, food chain profits, and the degree of competition that existed in the local food retail markets.

A variety of relationships were tested using multiple regression equations in this endeavor. The regression analysis was designed to test the basic economic thesis that high food prices and chain profits exist where little competition exists, such as where few stores control a large portion of the local supermarket sales.

The analysis generally confirms this thesis. A strong statistical relationship was discovered to exist between high food prices and local market concentration in the period, 1970–74, covered by this study.

For example, the study concludes that consumers buying food in markets where only a few firms compete paid up to 14 percent higher prices than consumers shopping in more competitive markets. In fact, the researchers concluded that these higher prices added, at minimum, a staggering $662 million to consumer food bills in 1974 due to uncompetitive market conditions in food retailing.

The researchers also maintain that higher food prices did not translate entirely into higher profits. As prices went up, food retailers seemingly became somewhat more inefficient, according to the researchers' findings, allowing costs to rise for really no apparent reason.

Nationally branded supermarket food items were priced 12 percent higher, on average, than so-called store brands, even though both brands frequently contained identical products, according to the results of this study.

As I understand it, the data that has been utilized is far more detailed and extensive than has ever before been used to examine food retailing. I believe that this study must be taken seriously by this committee and by the Congress, because it raises quite serious policy implications for the FTC, particularly regarding food chain mergers.

A number of the FTC consent decrees issued for food chain mergers over the past 10 years are going to expire very soon; unless some FTC action is taken to renew these decrees, there is reason to believe that we will see a resurgence of merger activity which may reduce competition in food retailing and raise food prices.

We think this study ought to be available to the Federal Trade Commission in making its determination as to whether or not to attempt to continue in existence the consent decrees.

A second day of hearings on this study will be held on April 5 to explore this and other policy issues raised by the study. The authors of the study are certainly to be congratulated for their work. It's a

remarkable study, given the tremendous difficulties that they faced based upon the past experiences others have had in trying to piece this data together.

They are all members of the University of Wisconsin Food System Research Group of NC 117, which is a North Central regional research project on the organization and control of the U.S. food system.

Two of the authors, Mr. Willard Mueller and Mr. Bruce Marion are with us today and will lead off the hearing in a moment to present their study to the committee.

Following the presentation by Mr. Mueller and Mr. Marion, we will have a panel of three economists that will individually make a presentation; they have been invited to comment on this study. This study, of course, has been made by economists, using economists' analytical techniques. Consequently, it is only fitting that at this first hearing we hear how other economists view this particular study.

The other witnesses are Mr. Ray Goldberg, from Harvard; Mr. Kenneth Farrell, with the U.S. Department of Agriculture; and Mr. Tim Hammonds, with the Food Marketing Institute. Mr. Eugene Boyle, who is with the Virginia Polytechnic Institute and State University was also invited to be with us today, but unfortunately Mr. Boyle is ill and will not be able to be with us.

Congresswoman Heckler, we would be happy if you have an opening statement that you would like to make at this time.

Opening Statement of Representative Heckler

Representative Heckler. Thank you, Congressman Long.

These hearings come at a time of renewed concern about rising food prices, with projections of a possible 10-percent increase next year if adverse weather conditions continue. There is little we can do about droughts and other acts of God, but we do have the opportunity perhaps to influence artificial costs in food pricing. The purpose of these hearings is to explore the relationship between competition in the retail food industry and pricing and profits. The study concludes that prices and profits are higher where there is market concentration by a few large retail grocery firms; that consumers are paying a penalty for market domination by a few firms as a result of diminished competition. The validity of the study's conclusion is in itself a question to be addressed at these hearings.

The critics will be heard and their assessments will be considered in our efforts to deal with the problem of rising prices.

I trust that these hearings will enable us to better understand the specific role of the retail chain within the entire spectrum of food costs. The entire burden of cost is not the responsibility of the retail outlet; but we do have a unique opportunity today and at our hearing in April to isolate and consider that portion of the costs attributable to the retailer. If the report and these hearings do reveal that industry practices are creating extra costs for American households, then it will be incumbent upon Government to take all steps necessary to bring these practices to a halt.

Clearly, inflation has ravaged the budgets of most American families in the past several years and we must not tolerate any contributory factors which can be eliminated.

I look with great anticipation to the testimony of our witnesses today, Congressman Long.

Representative LONG. Thank you, Congresswoman Heckler.

Senator Roth.

Senator ROTH. I have no opening statement.

Representative LONG. Senator Hatch.

Senator HATCH. I have no opening statement, either.

Representative LONG. Thank you very much.

Mr. Mueller, Mr. Marion, would you proceed as the leadoff witnesses?

STATEMENT OF WILLARD F. MUELLER AND BRUCE W. MARION, MEMBERS, FOOD SYSTEM RESEARCH GROUP, UNIVERSITY OF WISCONSIN, MADISON, WIS.

Mr. MUELLER. Thank you, Congressman Long, members of the committee. We are pleased to report to you the results of our study of recent changes in the competitive structure of food retailing and the determinants of the profit and price performance of leading food chains.

Before discussing our findings I would like to clarify one point. I was somewhat puzzled by the prepared statement of Mr. Hammonds, a food chain lobby employee with the Food Marketing Institute, in which he refers to this as the Mueller report. While I would gladly accept this characterization as an accolade, this would be a serious injustice to the very competent, industrious, hard-working researchers who did most of the work on this study with me.

Representative LONG. Mr. Mueller, I read Mr. Hammonds' comments last night. If that is the only exception you are going to take to it—— [Laughter.]

Mr. MUELLER. At this time.

I might add, I haven't been attacked with such bitterness since the last time I had an encounter with the representatives of the National Association of Food Chains. They have had a change in their name and leadership, but apparently this is a case where a name change doesn't change things a great deal.

Much of this study would not have been possible had not the committee obtained detailed profit and price data not available to independent researchers. Little progress will be made in gaining reliable insights into the way competition works in many industries unless congressional committees and other public bodies exert their authority to obtain the information necessary for such analyses.

We were asked to analyze information obtained by this committee and prepare a report of our findings. We hope our efforts will be helpful to this committee and others in better understanding the emerging structure of food retailing and its competitive performance.

Our testimony will cover three areas:

Recent changes in the structure of food retailing and some of the causes of these changes.

The relationship between the competitive environment in which large food chains operate and their profits and prices.

Public policy implications of our findings and some alternative means of maintaining and/or increasing competition.

Mr. Marion will summarize the findings of our report after which I will discuss in summary form some of our public policy recommendations.

Mr. MARION. Representative Long, members of the committee, there has been a long-term trend toward larger and fewer stores and increased concentration in grocery retailing. Some of the major changes, as illustrated by figures in the report, are as follows:

Figure 1.4—page 10 of the full study—indicates that grocery chains with 11 or more stores expanded their share of grocery store sales from 34 percent in 1948 to 57 percent in 1972.

Figure 1.5—page 12—illustrates the fact that the 20 largest chains increased their share of total grocery store sales from 26.9 percent in 1948 to 37 percent in 1972. Excluding A. & P., their share rose from 16.2 to 32.1 percent over the period.

Figure 1.6—page 14—indicates that the largest eight voluntary group wholesalers and the eight largest cooperative groups wholesalers quadrupled their share of wholesale grocery sales from 8.0 percent in 1948 to 33.4 percent in 1972.

Table 1.3—page 16—indicates that the average market share of the four leading grocery retailers in 194 metropolitan areas rose from 44.9 percent in 1954 to 52.9 percent in 1972. The increase was greater than this for metropolitan areas whose definitions were not changed over the period; these increased from 44.8 percent to 53.9 percent.

Table 2.3—page 34—indicates that large food chains operate across an increasing number of markets. Such multimarket operations confer potential market power and the capacity to engage in competitive tactics not open to smaller food chains and independents that operate in single markets.

The overall picture that emerges from this summary is one of increasing concentration of grocery procurement in both local and national markets, of increasing concentration of sales in local markets, and of increasing participation of large chains in these markets.

These trends were fueled in part by a substantial merger movement that commenced in 1955 and continues today. During the period 1949–75, there were over 1.000 retail food store acquisitions with combined sales of about $13 billion. Until the mid-1960's, when several antitrust actions occurred, most acquisitions were made by the largest 20 chains. Mergers were largely responsible for these chains' growing share of national sales between 1948 and 1964. During 1965–75, acquisitions by the top 20 chains slowed considerably as antitrust actions channeled merger activity toward smaller food retailers, grocery wholesalers, and nongrocery firms. Most acquisitions during 1967–75 were so-called "market extension" mergers—mergers between food retailers operating in different markets—and "conglomerate" mergers—mergers between food retailers and firms not engaged in food retailing.

Our analysis strongly suggests that horizontal mergers involving leading firms in local markets and market extension or conglomerate acquisitions by firms that were large in absolute size tended to increase concentration in metropolitan areas. Between 1967 and 1975, horizontal mergers increased the market share of the top 4 firms in 22 markets an average of 2.1 percentage points. These mergers were found to be posi-

tively related to change in four-firm concentration between 1967 and 1975.

Whereas the effect on concentration is obvious when two firms operating in the same market merge, the effects are less obvious when grocery retailers in different metropolitan areas merge, or when a grocery retailer is acquired by a large nongrocery firm. However, economic theory suggests and some industry experience supports the hypothesis that such mergers may increase concentration even though, unlike horizontal mergers, they have no immediate effect on concentration. In testing this hypothesis, we found a significant positive relationship between change in concentration and a large chain or nonfood firm's entry into a market by merger. That is to say, when such firms acquired a retail grocery firm in a market, the top four firms' share of sales in that market tended to increase between 1967 and 1975. This finding has important implications for public policy because the FTC recently has not challenged such mergers, although it did so in the 1950's and 1960's.

Our analysis of change in concentration also found a positive relationship between the number of large chains in a market in 1967 and the change in concentration during the 1967 and 1975 period. Finally, the analysis found that even when large chains entered a market de novo, concentration tended to increase.

These various findings suggest that the market power large chains derive from their multimarket operations is contributing to increased concentration in local markets. Some might argue that these increases occur because large chains are more efficient than other retailers. In any event, our findings do not support the expectation that concentration is eroded as the number of large chains in a market increases—whether due to entry by merger or by internal expansion. This is a disturbing finding. It implies that concentration will continue to increase—albeit at a lower rate—even if the antitrust agencies pursue a hard line on mergers by large chains.

Let me now turn to the impact of competition on profits and prices. This analysis makes up a major portion of our report.

IMPACT OF COMPETITION ON PROFITS AND PRICES

Data obtained by the Joint Economic Committee permitted analysis of the profit and prices performance of food chains for the period 1970–74. In many ways this was an atypical period. Wage-price controls, mercurial raw material prices, a recession concomitant with double-digit inflation, and A. & P.'s price-cutting "WEO" program subjected the grocery industry to severe shocks, particularly during 1972–73. Average profits in the industry were generally depressed below historical levels for the industry.

It is important to keep these facts in mind when interpreting the significance of our findings. Generally, studies of the sort undertaken here have found weaker relationships during periods when inflation and other historically unique disequilibrating forces are affecting an industry than during more "normal" times. We emphasize this because our statistical findings generally are robust despite the abnormal period covered.

Our analysis was concerned primarily with testing hypotheses of the relationship between the market power held by food chains in different markets and the level of their profits and prices. It should be kept in mind that the profits analyzed are for the supermarket operations of large chains in different markets and geographic areas rather than the publicly reported profits for their entire operations, which may include drugstores and other types of retailing or manufacturing operations as well.

Likewise, the price data used are for a market basket of grocery products in the same chains in different metropolitan areas, rather than the average prices for all grocery stores in a market. We did not examine the prices of convenience stores, mom-and-pop stores, or other independent grocery stores.

Both the profit and price data were supplied to the Joint Economic Committee by the chains analyzed. Comparable profit data were available for 96 divisions of 12 large chains and for 6 large chains in 50 metropolitan areas. Price data were compiled for 3 large chains in 32 metropolitan areas.

Our analysis sought to identify and measure various factors believed to influence the level of profits and prices in metropolitan areas. The relationship of these factors to profit and price levels was examined using multiple regression analysis. This is a statistical procedure that allows the investigator to sort out the relative impact of various competitive and market characteristics on profit and price levels in the markets.

ANALYSES CONFIRM RELATIONSHIP OF MARKET POWER TO HIGHER PRICES AND PROFITS

The analyses confirmed economic concepts that the degree of market concentration and the market position of firms are important determinants of market power. Statistical analysis of chain profitability revealed that profits are significantly higher in markets where a few firms control most grocery store sales. The analysis also found that when a chain has a dominant share of a market—measured as a percentage of the top four chains' market share—it enjoys substantially higher profits than in markets where it has small market shares. Thus, these two crucial market characteristics, relative firm market share and the level of four-firm concentration, exert separate effects on a chain's profits.

I might clarify this point. When we talk about four-firm concentration or CR_4 we are referring to the combined market share of the largest four chains in the market. The average for all metropolitan areas in the United States is approximately 52 percent.

When we talk about relatively firm market share, we are talking about the market share of individual firms as a percent of the share held by the largest four. For example, if the largest four firms have 60 percent of the market, and one chain has 20 percent, the relative firm market share of that firm is 33 percent.

The statistical analysis found these variables to be statistically significant; that is, it is highly unlikely that these relationships were due to chance.

Although of particular significance for policy purposes, these two variables were not the sole determinants of chain profits. The growth in a firm's sales—absent the effects of mergers—was used as a proxy for the caliber of its management. As expected, the more successful firms in gaining sales also experienced significantly higher profits than other chains. The growth in market sales was also found to have a significant positive effect on chain profit. That is, chains tended to realize higher profits in rapidly growing markets than in slowly growing or declining markets.

During much of the study period, A. & P. was engaged in a dramatic effort to reverse its declining sales through its WEO program. The profits of A. & P. divisions were found to be significantly lower than the profits of other companies. In addition, our analysis revealed that direct competitors of A. & P. realized higher profits, except in 1972, than chains that did not compete with A. & P.

The level of prices in different markets was examined by computing the cost to consumers of a market basket containing 110 grocery, frozen food, and dairy products. Prices were obtained from price comparison reports that had been conducted by several of the chains and were submitted to the Joint Economic Committee. The products included in this market basket were those on which the chains themselves most frequently made price checks to compare their prices with the prices of their competitors. The cost of the market basket in the highest priced metropolitan area was 14 percent higher than in the lowest priced metropolitan area.

The statistical analysis of grocery prices in 32 metropolitan areas indicated a highly significant positive relationship between price levels and both relative firm market share and four-firm concentration. That is, other things held constant, as the relative market share of a firm and/or the four-firm concentration of a market increased, a chain's grocery prices also increased. Thus, the analysis of prices confirms the findings of the profit analysis that both market concentration and relative firm dominance confer market power on large grocery chains.

On average, the companies included in the price analysis charged 12 percent more for approximately 50 national brand products than for comparable store brands. Differences in the prices of national brands and store brands were also computed for the same 10 products examined by the National Commission on Food Marketing. Whereas the Commission found the national brands of these products were priced 21.5 percent higher than comparable store brands, the present study revealed a 9.9-percent difference. The advantage to consumers of buying store brands has therefore declined during the decade since the Food Commission report.

The overall influence of relative firm market share and CR_4 on prices and profits of individual chains can be estimated from our statistical results. Table 1 shows estimates of grocery price levels and pretax profit-to-sales ratios for different combinations of RFMS and CR_4. These estimates indicate the independent influence of these two measures of competition when all other variables included in the analysis are held constant.

[1] See table 1, p. 28.

If you refer to that table, you will note that with a CR_4 of 40 and a relative firm market share of 10, the grocery price index equals 100, and pretax profits—in column two—are estimated at 0.37 percent of sales.

When CR_4 is 40 and relative firm market share is 25, the combination we have selected as the competitive norm, the index of grocery price is 100.8 and estimated pretax profits are 1.15 percent of sales.

It is instructive to compare these estimated prices and profits with those when CR_4 is 70 and relative firm market share is 55. At this combination—lower right extreme of table—the index of grocery prices is 108.9, an increase of 8 percent above where CR_4 is 40 and relative firm market share is 25. If costs were the same in the two markets—that is, there was simply a change in prices but costs stayed the same—we would expect this 8 percent to show up in increased profits.

If we look at the profit figure, this is not what does show up. The estimated firm profits are 3.62 percent at the extreme combination, CR_4 is 70 and a relative firm market share of 55. This is an increase of only 2.47 percentage points. Comparing this with the 8-percent increase in prices, it indicates that increase in profits only account for about 30 percent of the change in price levels.

It should be emphasized that average chain profits during the 1970–74 period were depressed by a combination of unusual factors. Nonetheless, this analysis indicates that chains holding dominant market positions in highly concentrated metropolitan areas enjoyed substantial profits. The profits shown in table I.1 are expressed as a percentage of sales before taxes. The relevant profit measure in evaluating profits of firms in one industry relative to those in another are profits expressed as a percentage of stockholders' investment. Pretext profits of 3.62 percent of sales—the highest shown in that table—translate to aftertax profits of over 20 percent of stockholders' investment. This was far above the average profits of all chains during the 1970–74 period, and well above the average of all but the most concentrated American industries.

Caution must be exercised in making direct comparisons between the price and profit analysis since they are based on different samples. Nonetheless, they provide no support for the notion that high market concentration and/or high individual chain market shares result in higher profits because of lower costs. Rather, the analysis suggests the opposite. As relative firm market share or CR_4 increase, a chain's prices increase more rapidly than its profits—suggesting that costs also increase. Other studies have found that market power stimulates inflated costs and inefficiencies as well as higher prices. Our results suggest that this is also true in food retailing.

EXTENT OF MONOPOLY OVERCHARGES

The study findings provide strong evidence that monopoly overcharges, that is, prices above those in competitive markets, are likely in markets that are dominated by one or two firms or where sales are highly concentrated among the largest four firms. Using the structural combination of CR_4 of 40 and relative firm market share of 25 as the competitive norm, monopoly overcharges by the largest four firms in the 32-sample SMSA's were estimated at 1.6 percent of sales

or $161 million in 1974. If these findings are typical of the situation in all SMSA's, then the national monopoly overcharges by the four largest firms in each SMSA are estimated to total $662 million for 1974. Since this estimate includes the sales of only the four largest retailers and only sales in SMSA's, it may well understate the national overcharge that is due to noncompetitively structured markets.

Overcharges vary greatly among cities. For example, a selected Midwestern case market—table 3.6 on page 74 of the study—had a relatively competitive market structure and only $1.6 million in estimated monopoly overcharges by the largest four firms—0.3 percent of their sales. By contrast, a comparably sized but highly concentrated eastern market—table 3.5 on page 72 of the study—with two dominant firms had estimated 1974 monopoly overcharges by the top four chains of $83 million or almost 7 percent of their sales. This illustrates the impact on prices consumers pay for food when a market becomes highly concentrated and has one or more dominant firms.

[The tables referred to follow:]

TABLE 3.6.—AVERAGE COST INDEXES FOR MEAT AND MARKET BASKET ITEMS SOLD BY CHAINS IN CITY C, OCTOBER 1974 [1]

Company	1974 market share [2]	Grocery basket	Market basket [3]	Meat basket	Market and meat basket
T	15.8	99.6	99.6	99.7	99.7
H	14.1	98.9	98.7	96.1	98.2
J	10.9	101.4	101.3	102.5	101.7
A	6.9	100.9	100.5	101.1	100.7
S	2.4	99.1	99.3	100.3	99.6

[1] See appendix B. Indices were derived by expressing the estimated market basket costs as a percent of the mean value
[2] The 1974 market shares are the average market share for each firm from the 1975 and 1976 issues of "Grocery Distribution Guide," Metro Market Studies, Inc., adjusted proportionally to equal the 1974 concentration ratio. The latter was estimated from the 1972 census concentration ratio, hard data, and metro market. See app. B.
[3] Included grocery, dairy, frozen food, and health and beauty aid products for all firms except firm S, in which health and beauty aid products were not included.

TABLE 3.5.—AVERAGE COST INDEXES FOR MEAT AND MARKET BASKET ITEMS SOLD BY 5 FIRMS IN CITY B, OCTOBER 1974 [1]

Company	1974 market share [2]	Grocery basket	Market basket [3]	Meat basket	Market and meat basket
E	31.8	102.4	102.2	103.4	102.5
K	30.5	102.3	102.0	100.0	101.5
A	6.8	100.0	100.2	100.5	100.3
F	6.4	99.7	99.3	102.8	100.2
I	1.4	95.5	96.3	93.3	95.5

[1] See appendix B. Indices were derived by expressing the estimated market basket costs as a percent of the mean values.
[2] The 1974 market shares are the average market share for each firm from the 1975 and 1976 issues of "Grocery Distribution Guide," Metro Market Studies, Inc., adjusted proportionally to equal the 1974 concentration ratio. The latter was estimated from the 1972 census concentration ratio, hard data, and metro marketl. See app. B.
[3] This market basket contained frozen food, dairy, and grocery products.

Mr. MARION. These findings do not necessarily imply that all grocery chains realize excess profits. Average profit rates of grocery chains during 1970–74 were below those of many industries. It seems unlikely, however, that the generally depressed profit levels of this period will continue. During part of the period studied profits were depressed by the price control program and by the A. & P. WEO program.

Since 1973, average profit margins have risen, and there is reason to expect that they will continue to improve. This analysis found that despite the unusual combination of circumstances depressing profits during most of the period studied, in some markets firms had sufficient market power, either due to their individual dominance or the high level of concentration in the market, so that they enjoyed considerable discretion over pricing. In these situations, market forces did not protect consumers from excessive prices and profits.

Whether or not excess profits are achieved by the industry as a whole, performance found by this study indicates substantial variation in profits and prices among cities. At the very least, one might conclude that firms in markets where considerable market power exists subsidized their operations in more competitive metropolitan areas. If so, some consumers benefited at the expense of others. In addition, some competitors, and perhaps competition, may have been injured in the subsidized markets. It appears, however, that consumers in the least competitive markets were also footing the bill for inefficiencies and excessive costs that so frequently are the handmaidens of shared monopoly situations.

Mr. MUELLER. In our study we did not make any public policy recommendations. We have a number in our prepared statement which are written out in some detail. I won't try your patience by going over all of them in detail, but I will highlight each of the alternatives which we mentioned. I hope that this prepared statement will be included in the record in full.

Representative LONG. Without objection, Mr. Mueller, it will be made a part of the record following your comments.

As you know, the April 5 hearing that we have scheduled has been set aside specifically to deal with the question of public policy implications of this study and with what steps might be taken. Consequently, we will make the remainder of your prepared statement a part of the record, and we will ask our witnesses at our April 5 hearing to comment on the prepared statement at that time.

Mr. MUELLER. I hope it will stimulate some discussion on this subject. I would also request that if—as is likely will be the case—we do not have an opportunity to comment on the criticisms made by some of the panelists of our study, that we be permitted to present our comments in writing for the record.

Representative LONG. Without objection, I think that would be in order. We would welcome that and make that a part of the record, Mr. Mueller, following your comments and those of critical witnesses.

POLICY RECOMMENDATIONS

Mr. MUELLER. Well, we mention five ways in which competition can either be maintained where it exists. First, I want to emphasize, as I think Mr. Marion did, that we aren't implying that the entire food industry is monopolistic. Fortunately, there are a good many competitively structured markets, however one wishes to define them. There are many independents and small chains that do not have a significant amount of market power and some large chains do not have market power in certain markets.

One important recommendation deals with ways in which entry barriers can be reduced. There are some natural entry barriers into any business or industry; but there also may be some artificial barriers created by competitive tactics of firms. In our prepared statement, we discuss an example of the successful use of selective price discrimination to prevent the entry of a firm into the Washington, D.C., market.

Generally the American antitrust agencies have not challenged this practice. As we point out, Safeway was challenged in Canada, and under a consent decree it was prohibited from engaging in this practice. It also was prohibited from engaging in market-saturation advertising which can also be a serious deterrent to entry and may have a damping effect on competition.

Personally, I think these practices could be challenged under the Robinson-Patman Act, the Federal Trade Commission Act. and perhaps even under the Sherman Act. The antitrust agency should challenge them. If not, they should explain why they cannot, and the Congress should then consider whether this is a sufficiently serious problem that legislation should be strengthened in this area.

As to merger policy, in the 1960's, the Federal Trade Commission took a number of initiatives to curb mergers in food retailing. These various actions sent a clear signal to large chains that the Commission would probably challenge any substantial market extension merger by large chains as well as horizontal mergers that violated the standards of the Supreme Court in the *Von's Grocery* case.

For a decade those actions had the effect of virtually stopping acquisitions by large chains. They didn't stop all mergers by any means, nor was this the intent. Rather, they channeled the merger activity away from the leading firms.

By the middle 1970's the FTC was at a public policy crossroads. As its consent orders with leading chains began expiring, the industry waited for new signals as to what the law and its enforcement was likely to be. The FTC was given ample opportunity to act during 1975 and 1976 when five substantial mergers occurred.

It challenged only one of these. a merger between two regional chains in the Piedmont Region of North Carolina which involved a horizontal merger.

I am not criticizing that action. I happened to be a witness in the case for the Federal Trade Commission; I provided an affidavit. It was stopped when the FTC won a temporary restraining order.

The failure of the FTC to challenge other mergers that in my judgment were more of a threat to competition than this one had the effect of sending out signals to the industry that they could go ahead with the mergers. Most important was its failure to challenge a horizontal merger between Lucky and Mayfair Stores in Seattle and the largest market extension merger in history: The acquisition of Kimbell Stores by Winn-Dixie. This was a $500 million acquisition.

As Supermarket News put it so well, "The FTC looked the other way when Winn-Dixie swallowed Kimbell, Inc."

In recent months Lucky Stores and Grand Union have announced they intend to resume making acquisitions. The point is that signals have been sent out which are being believed by the industry that the policy has changed.

In the case of the Arden-Mayfair acquisition, we lay out some of the facts in our statement. The staff of the Federal Trade Commission recomemnded action, but their recommendation was not approved by the Commission, with only Commissioner Hanford dissenting; the merger went ahead.

I think this matter in particular set the stage for the horizontal mergers involving A. & P.'s acquisition of National Tea Stores in Chicago. and Allied's acquisition in Detroit.

I think it would be a serious mistake for the Commission to abandon its merger policy as pursued in the 1960's. With respect to horizontal mergers, it should enforce the law as strictly as the Supreme Court has enunciated in the *Von's* case. With respect to market extension mergers, it should not abandon the policy expressed in the National Tea decision by the Federal Trade Commission and in the Federal Trade Commission's merger guidelines.

Another recommendation is to improve consumer information. The results of this study indicate that a firm's prices in different metropolitan areas are positively related to its market share and the level of market concentration. This suggests that price differences within markets persists at least in part because consumers are unable to actively evaluate price levels of competing sellers.

Everyone knows that it is an extremely complex job to figure out where you get the best buy. The search time involved is so great that a significant, strong case can be made for much greater information. We report the results of two recent Canadian studies which examine this question. They show that better price information has an important impact on the price behavior of retailers in a market.

Time does not permit me to discuss these studies in detail, but I hope they will be given serious consideration by this committee, by consumer groups in this country, and by the FTC.

Turning to consumer cooperatives, which generally have played a very small role in the United States compared to other nations, I think perhaps the time has come to again give serious consideration to this alternative. Although various reasons explain why cooperatives in food retailing have not been very successful historically in the United States, I think one reason is that when they were first tried around the turn of the century and then the thirties, food retailing was quite competitive, margins were low, and prices were low. As a result, co-ops really didn't have much to offer. So I am saying, in effect, that perhaps the time has come to take a new look at this approach, particularly in concentrated markets.

One of the few empirical studies of the subject in the United States found that a chain's prices were generally lower in markets where they competed with a consumer cooperative than comparable markets without a co-op.

Whereas the average savings are rather low, even in the United States, some cooperatives provide savings on the order of 3 to 6 percent of sales, which is an insignificant amount.

The potential benefits of successful consumer cooperatives is illustrated by the Calgary Co-op in Canada, which is the largest consumer co-op in North America.

It is interesting this is located in Calgary, an extremely concentrated market, the market where the Canadian Government brought

a suit against Safeway which held nearly half of the sales. In this environment, Calgary has been able to increase its sales to about 30 percent of the market. Its members actually include over 100,000 persons; about two-thirds of the people in the city do some shopping there. It has gross margins on its supermarket operations of about 17 percent, which is far below those in the United States on the average, and I believe in Canada, as well.

In addition, it was able to give its consumers last year a 3.2-percent patronage rebate and I think the year before it was 4 percent. So its effective gross margins were on the order of 14 percent, which is very low.

It does illustrate, I think, that something in this area can be accomplished with the right mix of factors. We don't have a program here to propose that will immediately result in the success of consumer co-ops, but I think a couple of the recommendations we make, those relating to ways in which to lower entry barriers and those providing consumer information, would not only help smaller food chains and independents to survive and grow, but also create an environment in which a consumer cooperative could operate more effectively.

Finally, we come to the area of industrial restructuring, which usually scares the heck out of a lot of people these days.

The various options mentioned above may not be sufficient to erode concentration or eliminate its adverse effects in markets that have become highly concentrated, especially where one or two firms dominate a market. In these cases, which fortunately are still relatively few, more direct action may be required to reduce market power or its effects.

One alternative is to permit such power to exist but to control its use through Government regulation. We reject this as an unrealistic alternative. We think setting prices in food retailing would be a regulatory nightmare.

A second alternative involves industrial restructuring. This requires a case-by-case approach. In excessively concentrated markets, however defined, there are two main options.

The most drastic approach requires leading firms to divest part of their business in a particular market. The other restructuring approach places restraints on the growth of the dominant chain or chains in a market until such time as its or their market share is reduced to some target level.

Again, the Canadian Government under their antitrust laws have tried this; and Safeway is under such a decree in the cities of Calgary and Edmonton for a period of 3½ years whereby it cannot expand.

Many public policy officials and courts are reluctant to restore competition through industrial restructuring. This often reflects a fear that such actions will drastically disrupt business affairs, eliminate jobs, injure stockholders, and perhaps even injure consumers.

While not unmindful that difficult problems may arise in the course of publicly ordered restructuring, in our judgment such fears are greatly exaggerated. Experience has shown that businessmen are adept at adjusting to changing circumstances. Certainly they are very adept at restructuring actions to result in high concentration. Such actions on their part likely inflict greater costs on injured competitors and con-

sumers than they themselves would experience if forced to divest themselves of some properties or, in particular, to limit for a time their expansion.

The public policy issue is clear: Where excessive market power cannot be adequately redressed by other means, are we sufficiently concerned about the costs to consumers and competitors to take the steps necessary to reduce such power?

Thank you.

[The prepared statement of Mr. Mueller and Mr. Marion plus related correspondence follow:]

PREPARED STATEMENT OF WILLARD F. MUELLER AND BRUCE W. MARION*

THE STRUCTURE AND PERFORMANCE OF FOOD RETAILING

Mr. Chairman and members of the Committee: We are pleased to report to you the results of our study of recent changes in the competitive structure of food retailing and the competitive determinants of the profit and price performance of the leading food chains.

Much of this study would not have been possible had not the Committee obtained detailed profit and price data not available to independent researchers. Little progress will be made in gaining reliable insights into the way competition works in many industries unless Congressional Committees and other public bodies exert their authority to obtain the information necessary for such analyses.

We were asked to analyze information obtained by this Committee and prepare a report of our findings. We hope our efforts will be helpful to this Committee and others in better understanding the emerging structure of food retailing and its competitive performance.

Our testimony will cover three areas:

Recent changes in the structure of food retailing and some of the causes of these changes.

The relationship between the competitive environment in which large food chains operate and their profits and prices.

Public policy implications of our findings and some alternative means of maintaining and/or increasing competition.

Recent structural changes

There has been a long-term trend towards larger and fewer stores and increased concentration in grocery retailing. Among the major changes are the following:

Grocery chains with 11 or more stores expanded their share of grocery store sales from 34 percent in 1948 to 57 percent in 1972.

The 20 largest chains increased their share of total grocery store sales from 26.9 percent in 1948 to 37.0 percent in 1972. Excluding A&P, their share rose from 16.2 to 32.1 percent over the period (Table 2).

The largest 8 voluntary group wholesalers and the 8 largest cooperative group wholesalers increased their shares of wholesale grocery sales from 8.0 percent in 1948 to 33.4 percent in 1972 (Table 3).

The average market share of the four leading grocery retailers in 194 metropolitan areas rose from 41.5 percent in 1954 to 52.1 percent in 1972 (Table 4). The increase was greater than this for metropolitan areas whose definitions were not changed over this period; these increased from 44.8 percent to 53.9 percent.

Large food chains operate across an increasing number of markets (Table 7). Such multimarket operations confer potential market power and the capacity to engage in competitive tactics not open to smaller food chains and independents.

*The authors are members of the Food System Research Group located at the University of Wisconsin, Madison. This group is part of NC 117, a North Central Regional Research Project on the Organization and Control of the U.S. Food System. Other members of the research team working on this project were Messrs. Ronald W. Cotterill Frederick E. Geithman, and John R. Schmelzer.

The overall picture that emerges from this summary is one of increasing concentration of grocery procurement in both local and national markets, of increasing concentration of sales in local markets, and of increasing participation of large chains in these markets.

These trends were fueled in part by a substantial merger movement that commenced in 1955 and continues today. During 1949-1975, there were over 1,000 retail food stores acquisitions with combined sales of about $13 billion (Table 5). Until the mid-1960s, when several antitrust actions occurred, most acquisitions (measured by acquired sales) were made by the top 20 chains. Mergers were largely responsible for these chains' growing share of national sales between 1948 and 1964. During 1965–1975, acquisitions by the top 20 chains slowed considerably as antitrust actions channeled merger activity toward smaller food retailers, grocery wholesalers and nongrocery firms (Table 6). Most acquisitions during 1967–1975 were so-called "market extension" mergers (mergers between food retailers operating in different markets) and "conglomerate" mergers (mergers between food retailers and firms not engaged in food retailing).

Our analysis strongly suggests that horizontal mergers involving leading firms in local markets and market extension or conglomerate acquisitions by firms that were large in absolute size tended to increase concentration in metropolitan areas. Between 1967 and 1975,[1] horizontal mergers increased the market share of the top four firms in 22 markets an average of 2.1 percentage points.[2] These mergers were found to be positively related to change in four-firm concentration between 1967 and 1975 (see Appendix E of the full study).

Whereas the effect on concentration is obvious when two firms operating in the same market merge, the effects are less obvious when grocery retailers in different metropolitan areas merge, or when a grocery retailer is acquired by a large nongrocery firm. However, economic theory suggests and some industry experience supports the hypothesis that such mergers may increase concentration even though, unlike horizontal mergers, they have no immediate effect on concentration. In testing this hypothesis we found a significant positive relationship between change in concentration and a large chain or nonfood firm's entry into a market by merger. That is to say, when such firms acquired a retail grocery firm in a market, the top 4 firm's share of sales in that market tended to increase between 1967 and 1975. This finding has important implications for public policy because the FTC recently has not challenged such mergers, although it did so in the 1950s and 1960s.

Our analysis of changes in concentration also found a positive relationship between the number of large chains in a market in 1967 and the change in concentration between 1967 and 1975. Finally, the analysis found that even when large chains entered a market de novo, concentration tended to increase.

These various findings suggest that the market power large chains derive from their multi-market operations is contributing to increased concentration in local markets. Some might argue that these increases occur because large chains are more efficient than other retailers. In any event, our findings do not support the expectation that concentration is eroded as the number of large chains in a market increases—whether due to entry by merger or by internal expansion. This is a disturbing finding. It implies that concentration will continue to increase—albeit at a lower rate—even if the antitrust agencies pursue a hard line on mergers by large chains.

Impact of competition on profits and prices

Data obtained by the Joint Economic Committee permitted analysis of the profit and price performance of food chains for the period 1970–1974. In many ways this was an atypical period. Wage-price controls, mercurial raw material prices, a recession concomitant with double-digit inflation and A&P's price cutting "WEO" program subjected the grocery industry to severe shocks, particularly during 1972–73. Average profits in the industry were generally depressed below historical levels for the industry.

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[1] This period was selected because the Federal Trade Commission provided the Joint Economic Committee the merger notification reports received by the Commission as required by its Food Distribution Merger Enforcement Policy initiated in January 1967. The metropolitan areas were those for which it was possible to make reasonably accurate estimates of four-firm concentration in 1975.

[2] This was the direct effect of these mergers. Our analysis suggests that the direct and indirect effect exceeded this amount.

It is important to keep these facts in mind when interpreting the significance of our findings. Generally, studies of the sort undertaken here have found weaker relationships during periods when inflation and other historically unique disequilibrating forces are affecting an industry than during more "normal" times. We emphasize this because our statistical findings generally are quite robust despite the abnormal period covered.

Our analysis was concerned primarily with testing hypotheses of the relationship between the market power held by food chains in different markets and the level of their profits and prices. It should be kept in mind that the profits analyzed are for the supermarket operations of large chains in different markets and geographic areas rather than the publicly reported profits for their entire operations. Likewise, the price data used are for a market basket of grocery products in the same chains in different metropolitan areas, rather than the average prices for all grocery stores in a market.

Both the profit and price data were supplied to the Joint Economic Committee by the chains analyzed. Comparable profit data were available for 96 divisions of 12 large chains and for six large chains in 50 metropolitan areas. Price data were compiled for three large chains in 32 metropolitan areas.

Our analysis sought to identify and measure various factors believed to influence the level of profits and prices in metropolitan areas. The relationship of these factors to profit and price levels was examined using multiple regression analysis. This is a statistical procedure that allows the investigator to sort out the relative impact of various competitive and market characteristics on profit and price levels in the markets.

The analyses confirmed economic concepts that the degree of market concentration and the market position of firms are important determinants of market power. Statistical analysis of chain profitability revealed that profits are significantly higher in markets where a few firms control most grocery store sales. The analysis also found that when a chain has a dominant share of a market (measured as a percentage of the top four chains' share), it enjoys substantially higher profits than in markets where it has small shares. Thus, these two crucial market characteristics, relative firm market share (RFMS) and the level of four-firm concentration (CR_4), exert separate effects on a chain's profits. The statistical analysis found these variables to be statistically significant, that is, it is highly unlikely that these relationships were due to chance.

Although of particular significance for policy purposes, these two variables were not the sole determinants of chain profits. The growth in a firm's sales (absent the effects of mergers) was used as a proxy for the caliber of its management. As expected, the more successful firms in gaining sales also experienced significantly higher profits that other chains. The growth in market sales was also found to have a significant positive effect on chain profit. That is, chains tended to realize higher profits in rapidly growing markets than in slowly growing or declining markets.

During much of the study period, A&P was engaged in a dramatic effort to reverse its declining sales through its WEO program. The profits of A&P divisions were found to be significantly lower than the profits of other companies. In addition, our analysis revealed that direct competitors of A&P realized higher profits, except in 1972, than chains that did not compete with A&P.

The level of prices in different markets was examined by computing the cost to consumers of a market basket containing 110 grocery, frozen food and dairy products. Prices were obtained from price comparison reports that had been conducted by several of the chains and were submitted to the Joint Economic Committee. The cost of the market basket in the highest priced metropolitan area was 14 percent higher than in the lowest priced metropolitan area.

Statistical analysis of grocery prices in 32 metropolitan areas indicated a highly significant positive relationship between price levels and both relative firm market share (RFMS) and four-firm concentration (CR_4). That is, other things held constant, as the relative market share of a firm and/or the four-firm concentration of a market increased, grocery prices also increased. Thus, the analysis of prices confirms the findings of the profit analysis that both market concentration (CR_4) and relative firm dominance (RFMS) confer market power on large grocery chains.

On average, the companies included in the price analysis charged 12 percent more for approximately 50 national brand products than for comparable store brands. Differences in the prices of national brands and store brands were

also computed for the same 10 products examined by the National Commission on Food Marketing. Whereas the Commission found the national brands of these products were priced 21.5 percent higher than comparable store brands, the present study revealed a 9.9 percent difference. The advantage to consumers of buying store brands has therefore declined during the decade since the Food Commission report.

The overall influence of RFMS and CR_4 on prices and profits of individual chains can be estimated from our statistical results. Table 1 shows estimates of grocery price levels and pretax profit-to-sales ratios for different combinations of RFMS and CR_4. These estimates indicate the independent influence of these two measures of competition when all other variables included in the analyses are are held constant.

The table shows an index of estimated grocery prices: when CR_4 is 40 and RFMS is -0, the index equals 100. At this combination of CR_4, and RFMS. pretax profits are estimated at .37 percent of sales. When CR_4 is 40 and RFMS is 25, the combination we have selected as the competitive norm, the index of grocery prices is 100.8; estimated pretax profits are 1.15 percent of sales.

It is instructive to compare these estimated prices and profits with those when CR_4 is 70 and RFMS is 55. The index of grocery prices is 108.9, an increase of 8 percent above where CR_4 is 40 and RFMS is 25. Estimated firm profits are 3.62 percent, an increase of 2.47 percentage points. The change indicated in profit levels thus accounts for only 31 percent of the change in price levels.

It should be emphasized that average chain profits during the 1970–74 period were depressed by a combination of unusual factors. Nonetheless, this analysis indicates that chains holding dominant market positions in highly concentrated metropolitan areas enjoyed substantial profits. The profits shown in Table 1 are expressed as a percentage of sales before taxes. The relevant profit measure in evaluating profits of firms in one industry relative to those in another are profits expressed as a percentage of stockholders' investment. Pretax profits of 3.62 percent of sales (the highest shown in the table) translate to aftertax profits of over 20 percent of stockholders' investment. This was far above the average profits of all chains during the 1970–74 period, and well above the average of all but the most concentrated American industries.

Caution must be exercised in making direct comparisons between the price and profit analysis since they are based on different samples. Nonetheless, they provide no support for the notion that high market concentration and/or high individual chain market shares result in higher profits because of lower costs. Rather, the analysis suggests the opposite. As RFMS and/or CR_4 increase, a chain's prices increase more rapidly than its profits—suggesting that costs also increase. Other studies have found that market power stimulates inflated costs and inefficiencies as well as higher prices. Our results suggest that this is also true in food retailing.

Extent of monopoly overcharges

The study findings provide strong evidence that "monopoly overcharges", i.e., prices above those in competitive markets, are likely in markets that are dominated by one or two firms and/or where sales are highly concentrated among the largest four firms. Using the structural combination of CR_4 of 40 and RFMS of 25 as the competitive norm, monopoly overcherges by the largest four firms in the 32 sample SMSAs were estimated at 1.6 percent of sales or $161 million in 1974. If these findings are typical of the situation in all SMSAs, then the national monopoly overcharges by the four largest firms in each SMSA are estimated to total $662 million for 1974. Since this estimate includes the sales of only the four largest retailers and only sales in SMSAs, it may well understate the national overcharge that is due to noncompetitively structured markets.

Overcharges vary greatly among cities. For example, a selected midwestern case market (Table 9) had a relatively competitive market structure and only $1.6 million in estimated monopoly overcharges by the largest four firms (0.3 percent of their sales). By contrast, a comparably sized but highly concentrated eastern market (Table 8) with two dominant firms had estimated 1974 monopoly overcharges by the top four chains of $83.0 million or 6.9 percent of their sales. This illustrates the impact on prices consumers pay for food when a market becomes highly concentrated and has one or more dominant firms.

These findings do not necessarily imply that all grocery chains realize excessive profits. Average profit rates of grocery chains during 1970–74 were below

those of many industries. It seems unlikely, however, that the generally depressed profit levels of this period will continue. During part of the period studied profits were depressed by the price control program and by the A&P WEO program.

Since 1973, average profit margins have risen, and there is reason to expect that they will continue to improve. This analysis found that despite the unusual combination of circumstances depressing profits during most of the period studied, in some markets firms had sufficient market power, either due to their individual dominance or the high level of concentration in the market, so that they enjoyed considerable discretion over pricing. In these situations, market forces did not protect consumers from excessive prices and profits.

Whether or not excess profits are achieved by the industry as a whole, performance found by this study indicates substantial variation in profits and prices among markets. At the very least, one might conclude that firms in markets where considerable market power exists subsidized their operations in more competitive metropolitan areas. If so, some consumers benefitted at the expense of others. In addition, some competitors, and perhaps competition, may have been injured in the subsidized markets. It appears, however, that consumers in the least competitive markets were also footing the bill for inefficiences and excessive costs that so frequently are the handmaidens of shared monopoly situations.

Public policy alternatives

Grocery store sales in many metropolitan areas are quite highly concentrated and have become increasingly so over the past two decades. This has important public policy implications because our analysis provides strong evidence that consumers pay substantially more in highly concentrated markets dominated by one or two firms than in less concentrated markets without a dominant firm.

We emphasize, however, that whereas our study strongly suggests there is a market concentration problem in food retailing, many markets are still quite competitively structured. Moreover, many independents and small chains, as well as large chains in many of their markets, do not have significant market power. We emphasize this point lest our findings are misinterpreted as implying all retailers have market power. Our chief concern is with the troublesome fact that the number of highly concentrated markets (where 4 firms make over 60 percent of sales) has increased substantially—from 5 percent of the total in 1954 to 25 percent in 1972—and is likely to increase further unless public policy intervenes.

This raises the question, what can be done to preserve competition where it still exists and to increase competition in markets that are very concentrated? We shall discuss five ways to help maintain or increase competition in grocery store retailing. Four of the options involve fostering an environment where "natural" economic forces will erode concentration, prevent its emergence, or intensify competition without changing the levels of concentration in the short run. The fifth approach involves direct actions to reduce excessive market concentration.

Reducing entry barriers

Concentration can only be reduced—absent direct public actions—if new firms enter the market or if smaller firms already in the market expand at the expense of the market leaders. As pointed out in our report, the economics of food retailing create significant entry barriers for new competitors. Most of these barriers are not in violation of present antitrust laws and cannot be easily reduced. However, there are some possibilities.

An important barrier to new entrants, as well as an impediment to the expansion of independent retailers, is the difficulty in gaining access to preferred store sites. Leading chains in a market are generally the preferred tenants in shopping centers. In some cases, restrictive lease arrangements limit competition in a center. These practices act to further strengthen the market power of leading retailers in a market. The antitrust agencies should continue to examine this problem and act aggressively in striking down discriminatory and restrictive site arrangements.

Entry barriers can also be magnified if firms already in the market engage in selective price cutting targeted at the stores of the new entrant. This occurred in Washington, D.C., in 1967 when Shop Rite (Foodarama), an aggressive discounter headquartered in New Jersey, attempted to enter the market. The stores of two leading chains "located near the stores of the new entrant cut their prices substantially below those charge in the rest of the metropolitan area. In doing so, these stores operated on abnormally low margins—and for those stores for

which data were available—sustained substantial losses." [3] This strategy of discouraging entry succeeded, and Shop Rite ultimately withdrew from the market.

Such selective price cutting seriously raises entry barriers to would be entrants, thereby protecting established firms from potential competition.

The American antitrust agencies have not challenged this practice in food retailing since the A&P case.[4] (Incidentally, as we recall, A&P did not engage in selective price cutting in the Washington, D.C., incident mentioned above.) However, the Canadian government recently prohibited such predatory behavior. In 1973 the Attorney General of Canada initiated an antitrust action under the Canadian Combines Act challenging Canada Safeway Limited for alleged "actions directed toward its competitors which limited the expansion of its competitors and created barriers to entry of other competitors to the market." [5] One provision of a consent order in the case provides that for a period of six years.

"The Defendant shall not knowingly charge a price for any grocery item in any one or more of its stores in Calgary for the purpose of meeting or undercutting the price of a competitor, unless the price so charged by the Defendant is applied uniformly and simultaneously by it, for the identical grocery item in all of its Calgary grocery stores".[6]

The order also recognized that entry barriers and a new-entrant's costs can be raised by massive advertising. One provision of the decree therefore provided: "A further prohibition prohibits Safeway for five (5) years from engaging in market saturating advertising policies".[7]

Selective price cutting and massive advertising that discourages entry also probably violate the Robinson-Patman Act and/or the Federal Trade Commission Act, and perhaps even the Sherman Act. If so, the antitrust agencies should challenge such practices as well as stating publicly their views on such behavior. If these practices cannot be challenged under existing laws, the Congress should consider strengthening them.

Merger policy

In the 1960's, the Federal Trade Commission entered agreements with six food chains prohibiting future grocery store mergers for 10 years without prior FTC approval.[8] Additionally, in January 1967 the FTC issued its food distribution merger guidelines which said that any but very small acquisitions by large chains (defined as chains with annual sales exceeding $500 million) would be carefully scrutinized. The guidelines applied to both horizontal mergers (those between direct competitors) and market extension mergers (i.e., between chains that operated in different metropolitan areas).

These various actions sent a clear signal to large chains that the Commission would probably challenge any substantial market extension mergers by large chains as well as horizontal mergers that violated the standards established by the Supreme Court in its 1966 decision in the *Von's Grocery Co.* case.[9] For a decade these actions had the effect of virtually stopping acquisitions by large chains (see Table 5). Not all mergers were stopped nor was this the FTC's intent. Although *total* acquisitions of food retailers rose in subsequent years, practically all (85 percent) acquisitions were made by retailers smaller than the top 20, by wholesale distributors, or by nonfood conglomerate firms. Thus, a salutary effect of the FTC actions was to channel mergers away from the industry leaders, thereby slowing the trend toward growing national concentration.

By the mid-1970's, the FTC was at a public policy crossroads. As its consent orders with leading chains began expiring, the industry waited for signals indicating the direction of future policy. The FTC was given ample opportunity to act during 1975 and 1976, when five substantial mergers occurred.

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[3] Staff Report to the Federal Trade Commission on "Food Selling Practices in the District of Columbia and San Francisco." July 1969, p. 4. See also, Staff Report to the Federal Trade Commission, "Discount Food Pricing in Washington, D.C.." March 1971, p. 11.

[4] *U.S.* v. *Great Atlantic & Pacific Tea Co.*, 67 Fed. Supplement 626 (1946).

[5] Statement by the judge in summarizing the prohibitions contained in a consent order in *Regina* v. *Canada Safeway Limited*, Alberta, Canada, October 5, 1973, as reported in the "Antitrust Bulletin", vol. XIX, No. 1, spring 1974, p. 61.

[6] *Ibid.*, p. 63.

[7] *Ibid.*, p. 63.

[8] Consent orders involved Grand Union (1965 and 1968); National Tea (1966); Winn Dixie (1966); Consolidated Foods (1968); H. C. Bohack (1968). An Affidavit of Voluntary Compliance was entered with Lucky Stores in 1968.

[9] *United States* v. *Von's Grocery Co.*, 384 U.S. 270 (1966).

In 1975, Lucky Stores requested premerger clearance of its proposed acquisition of Arden-Mayfair's grocery stores in Seattle and Tacoma. This horizontal merger, which involved sales of $40 million, increased Lucky's market share in both markets. The FTC approved Lucky's request and the merger was consummated.

In 1976, shortly after its 10-year consent decree restricting acquisitions expired, Winn Dixie expanded into the southwest by acquiring Kimbell Stores headquartered in Texas. This market extension merger was the largest acquisition in Winn Dixie's history.[10] Kimbell operated 135 food stores and a wholesale division serving 1,500 independents in the southeast. Its total sales exceeded $500 million in 1975.[11]

Allied Supermarkets' purchase in 1976 of Great Scott Supermarkets reportedly tripled Allied's share of the Detroit market—from 8 percent to over 20 percent, making Allied the market leader.[12] The top four chains held 50 percent of the Detroit market in 1972. Allied, the acquiring chain, reportedly had financial difficulties prior to the merger.

A&P purchased 62 National Tea Co. stores in Chicago in 1976. This merger increased A&P's share in this market from about 4 percent to 11 percent, making it the second or third largest chain in the market.

In early 1976 two regional North Carolina chains—Food Town and Lowe's Food Stores—announced their intention to merger. In 1975 Food Town had sales of $130 million and Lowe's had sales of $76 million. The two chains were actual competitors in several markets and potential competitors in others.

The only merger challenged during 1975–1976 was the Food Town-Lowe's merger, Following this challenge, the FTC won a temporary restraining order by the Court of Appeals, after which the chains abandoned the merger.

The failure of the FTC to challenge other mergers, especially the horizontal merger involving Lucky and Mayfair and the market extension merger involving Winn Dixie and Kimbell, evidently has led some large chains to infer that the FTC has abandoned the policy adopted in the 1960s. As Supermarket News put it, the "FTC looked the other way when Winn-Dixie swallowed Kimbell, Inc." [13] In recent months, both Lucky Stores and Grand Union have announced that they intend to resume making acquisitions.[14] Other chains apparently are unclear as to the FTC policy.

Based on our analysis of the impact of market extension mergers by large food chains, we believe abandonment of the FTC's past policy will result in further centralization of food retailing in local and national markets. Prior to initiating a strict policy toward market extension mergers in the mid-1960s, the top 20 chains acquired 55 chains with combined sales of $2.1 billion. These mergers were largely responsible for these chains' increased share of food store sales between 1948 and 1964.[15] Our analysis strongly suggests that when a large food chain or large nonfood firms makes a market extension merger an increase in concentration in the market involved can be expected. Thus, there is persuasive evidence that competition in food retailing will be injured if the FTC abandons the policy toward market extension mergers adopted in the 1960s. Additionally, our analysis warrants extending this policy to acquisitions of food retailers by large, powerful firms not engaged in food retailing.

Since the Supreme Court's 1965 decision in *Von's*,[16] both antitrust agencies have pursued a relatively strict line on horizontal mergers. However, during 1975–1976, they permitted three substantial horizontal mergers by large companies (Lucky, Allied, and A&P). Each of these acquisitions was made by one of the nation's largest food chains and resulted in greater combined market shares

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[10] Supermarket News, January 3, 1977, p. 16.
[11] Supermarket News, May 19, 1976, p. 36.
[12] Supermarket News, May 24, 1976, p. 12.
[13] Ibid.
[14] The president of Lucky was quoted as saying that the FTC's failure to challenge recent acquisitions "gives us the idea that the FTC will look more kindly on acquisitions." Supermarket News, November 22, 1976, p. 1. He reportedly stated Lucky would accelerate acquisitions shortly after its consent agreement expires in late 1977. Ibid.
[15] Federal Trade Commission Staff Report, "Structure and Competitive Behavior of Food Retailing", January 1966, pp. 164–167.
[16] In addition to the FTC's *Food Town-Lowe's* case, the Department of Justice in 1974 challenged the acquisition by Albertson's, Boise, Idaho, of Mountain States Wholesale Co., also of Boise. This case was recently settled with a consent decree requiring Albertson to divest Mountain States and to refrain for five years from acquiring any grocery wholesalers in Idaho or Eastern Oregon without prior approval.

than those in the *Von's-Shopping Bag* case.[17] In addition, four-firm concentration was much higher in each of these cities than in *Von's*.[18]

Time permits examination of only one of these mergers in some detail, Lucky's acquisition of Arden-Mayfair in 1975. The failure to challenge this acquisition is particularly significant because Lucky had previously signed an "Assurance of Voluntary Compliance" (AVC No. 895) in connection with another matter which requires Lucky to secure Commission approval prior to acquiring food stores. By permitting the merger in 1975 the Commission gave explicit approval of a merger of this type, thereby providing precedent for the large horizontal mergers made by Allied and A&P in 1976.

The salient facts are these. With sales of $2.9 billion, Lucky was the fourth largest food retailer in 1974, and with sales of $649 million Arden-Mayfair was the 20th largest food retailer. Lucky and Arden-Mayfair each operated stores with annual sales of about $33 million in the Seattle metropolitan area,[19] resulting in a combined share of about 10 percent.[20] The combined shares in the Tacoma market appeared to be somewhat higher.[20a]

Based on its analysis of the probable competitive effects, the Commission staff recommended that the proposed acquisition not be approved. But, according to then FTC chairman, Louis A. Engman, "The Commission after careful consideration, approved the acquisition, with Commissioner Hanford dissenting." [21] Engman stated that important in the Commission's decision was "the distinct possibility that Lucky and Arden-Mayfair would leave the Seattle and Tacoma markets if the acquisition was not permitted." Arden-Mayfair, whose Seattle-Tacoma operation allegedly had suffered a loss in the first quarter of 1975, told the Commission it was withdrawing from these markets. Lucky informed the Commission it also would leave the market "because of below-normal profits unless it could strengthen its operation by the proposed acquisition." [22] Engman stated that "departure of Lucky and Arden-Mayfair would likely result in Safeway becoming more entrenched. Therefore, although the acquisition would combine the operations of two competitors, disapproval of the proposal could have a very substantial adverse effect on the state of competition in the relevant markets." [23]

The Commission's justification for its action was questionable at best. The merger made Lucky the second largest chain in both Seattle and Tacoma; in each market the top four firms made 49 percent of sales. Although the merger may well have improved Lucky's profit and growth prospects, this is not sufficient public policy grounds for approving the merger. It is incorrect to infer that what is good for Lucky is good for competition. Insofar as the merger improved Lucky's position vis-a-vis Safeway, it presumably also improved its position vis-a-vis smaller retailers. Indeed, by permitting the merger the Commission may have fostered the emergence of two dominant firms instead of one, as well as contributing to an increase in four-firm concentration. Our economic analysis indicates that under these circumstances consumers in these markets are likely to pay higher prices.

Many independent retailers in the Seattle and Tacoma market expressed fears that FTC approval would result in adverse competitive effects. Mr. F. N. McCowan, Executive Director of the Washington State Food Dealers Association, which represents about 1,000 retail grocers in the State of Washington, told the FTC that after the merger: "the market would be controlled by three chains [Safeway, Lucky, and Albertson's]." [24]

Mr. Morrie Olson, owner of a number of small stores in Seattle urged the Commission to "withhold" its approval because:

"The monopoly resulting from this transaction would intensify the growth and dominance of these three chains in the Seattle area, as well as enabling them to

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[17] In *Von's*, the merging retailers had a combined market share of only 9 percent of the Los Angeles market. In 1968 the FTC disapproved a proposed merger where the acquiring company's market share was 18 percent and the proposed acquired retailer operated three supermarkets with about 1.5 percent of the market. Federal Trade Commission, advisory Opinion Digest No. 344.

[18] In 1958 the top four firms had only 24.4 percent of the Los Angeles market.

[19] Letter from Lewis A. Engman, Chairman of the Federal Trade Commission to Congressman Edward Mezvinsky, December 30, 1975.

[20] This is an estimate. Metro Markets estimates the shares of Lucky and Arden-Mayfair as 6.1 percent and 4.7 percent, respectively.

[20a] Metro Markets estimates the respective shares as 12.8 percent and 2.6 percent.

[21] Engman, *op. cit.*

[22] *Ibid.*

[23] *Ibid.* Emphasis added.

[24] Letter from F. N. McCowan to FTC, May 21, 1975. The FTC requested public comment on the proposed merger. Four grocery retailers, a food wholesaler, and the executive director of a retail grocery association opposed the merger. (The retailers operated from two to ten stores each.) Two Mayfair stockholders wrote in favor of the merger.

expand this dominant control into the outlying communities of western Washington".[25]

Mr. Richard C. Rhodes, owner-operator of three supermarkets observed the irony that Lucky and Mayfair "got their start" in the market by acquiring successful small businesses but were now asking to merge with one another rather than giving small businessmen a chance to buy Mayfair's stores. He wrote:

"It is interesting that Lucky and Mayfair got their start in this market through acquisition of successful small companies who couldn't turn down the lucrative offers made by these two chains.

"The independent retailers' position is not being jeopardized because of his skill or ability to compete price-wise or management-wise, but because of the lack of opportunity for growth. If the opportunity to purchase the Mayfair stores were presented to the independent grocers, I doubt that Mayfair would have difficulty in disposing of their stores—providing the price was fair".[26]

Since neither Lucky nor Mayfair were failing firms, they could not rely on the failing company doctrine. And while Mayfair-Arden evidently was intent on leaving this market. Lucky merely threatened to do so (unless the Commission permitted the merger) because it was earning "below normal profits."

In rejecting its staff view that the merger not be permitted, the Commission traded off lower market concentration and the probable increased competitive viability of several small chains (that would have purchased the Mayfair-Arden stores) for increased four-firm concentration and the hope that increasing Lucky's market share would increase competition. This was a dubious trade-off. It was based on the assumption that competition is more likely to be enhanced by a merger leading to a market dominated by two or three chains than a merger that would lessen concentration and strengthen the competitive position of a number of small chains. We believe that not only did the Commissions' decision have an adverse effect on the Seattle and Tacoma markets, but that it set an unfortunate precedent for other mergers, specifically the two large horizontal mergers permitted by the FTC in 1976 (Allied and A&P).

In sum, we believe the Commission should not abandon the merger policies it pursued in the 1960s. With respect to horizontal mergers it should enforce the law as strictly as enunciated by the Supreme Court in its *Von's* decision. With respect to market extension mergers, it should not abandon the policy expressed in the *National Tea* decision[27] and FTC's 1967 food distribution guidelines, which state:

". . . whereas mergers by retail firms with annual sales in excess of $500 million may contribute to further concentration of buying power, in addition to any adverse effect that they may have at the retail selling level, it is unlikely that the prohibition of mergers by such companies would have an adverse effect on efficiency. Moreover, insofar as economies of scale require fairly large scale operations, the goal of promoting efficiency might be better achieved by channeling mergers away from the largest firms to those whose efficiency would be enhanced by further growth."[28]

Improving consumer information

The results of this study indicate that a firm's prices in different metropolitan areas are positively related to its market share and the level of market concentration. This suggests that price differences within markets persist, at least in part, because consumers are unable to accurately evaluate the price levels of competing sellers.[29]

The complexity of the retail grocery market requires consumers to possess substantial amounts of information to evaluate alternative sellers. Individual consumers can seldom afford the search time required to become adequately informed when the average supermarket stocks 8,000 items, changed prices relatively often, and offers a variety of weekly specials to attract customers.

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[25] Letter from Morrie Olson to FTC. May 15, 1975.
[26] Letter from Richard C. Rhodes to FTC. May 19, 1975.
[27] FTC Opinion Docket No. 7453, National Tea Co., March 4, 1966.
[28] FTC, "Enforcement Policy with Respect to Mergers in the Food Distribution Industries." January 3, 1967.
[29] Since in a market economy, "sovereign" consumers are relied upon to direct the allocation of resources, either misinformed or uninformed consumers can lead to faulty market signals. Consumers may be "sovereign" in a technical sense (their decisions still determine the allocation of resources among alternative uses) but are unable to knowledgeably exercise this power for their own best interest.

A significant gap between the information needed and available to consumers is therefore likely.

Few empirical studies have examined the adequacy or influence of market information. Two recent Canadian studies examined the effects of increased retail food price information; their findings merit note.

A study in Ottawa-Hull in 1974 collected prices weekly on 65 food items in 26 supermarkets over a 28 week period.[30] Prices were collected but not published for 17 weeks, after which they were collected and published in daily newspapers for the following five weeks. Thereafter prices were monitored for six weeks but not published.

The impact of this information program on the level and dispersion of store prices in the market was substantial. Immediately prior to the publication of information, there was a 15 percent difference in the weighted market basket price at the highest and lowest priced stores. An 8 percent difference existed between the average prices of the highest and lowest priced corporate or voluntary chains.

During the information publication period, price dispersion across stores dropped to 5 to 8 percent, suggesting that previous price differences did not accurately reflect consumer valuation of the differences in the goods and services offered. The differences in the average prices of different chains declined to 3 to 5 percent.

Average prices for the entire market declined by 7.0 percent during the period when price information was published as high priced stores rapidly dropped prices to become competitive. During the six week post-information period in which prices were monitored but not published, average prices increased 8.8 percent. Because the study took place during a period of inflationary food prices, prices in other Canadian markets increased throughout the study period. Thus, even with the post-information price increase of almost 9 percent, Ottawa-Hull prices remained low relative to other markets (fig. 1).

Pre-test and post-test surveys of Ottawa consumers indicated some significant shifts in patronage away from higher to lower priced firms. The largest chains in the market generally benefited from this shift; four-firm concentration increased from 74 percent during the pretest to 81 percent during the posttest period. Although the evidence suggests that the market became more competitive during the publishing of price information, the resultant increase in market concentration could lead to a deterioration in long-run competitive performance.

A post-test survey indicated consumers would be willing, on average, to pay 34 cents per week for the price comparison information. With approximately 120,000 families in the Ottawa-Hull area, the perceived value of the information was about $40,000 per week. The cost of the program, including consumer questionnaires, was approximately $875 per week.

Although the results of the Ottawa study were impressive, information was published for too short a period to ascertain the long-run effects. The price reductions that occurred in Ottawa may have been a short-run response that would not and perhaps could not be sustained over a longer time period. In the long-run a price information program might also be used as an instrument for the collusion of leading companies, particularly in highly concentrated markets.

A follow-up study by the same researcher was conducted in Regina and Saskatoon during 1976. Prices were published weekly over a 6-month period. Preliminary results indicate similar though less dramatic results than in Ottawa. The dispersion of prices across stores and firms was reduced; average prices in both markets also declined. When prices in Regina and Saskatoon were compared to prices in other Canadian cities prior to and during the information period, the information program was estimated to have led to a 1 to 2 percent decline in prices over the 6-month period. Although the reduction in prices that occurred at the outset of the information program was less than in Ottawa, a substantial portion of this price decrease was maintained throughout the 6-month publication period. Both markets are highly concentrated. However, there was no noticeable change in concentration as a result of the information program.

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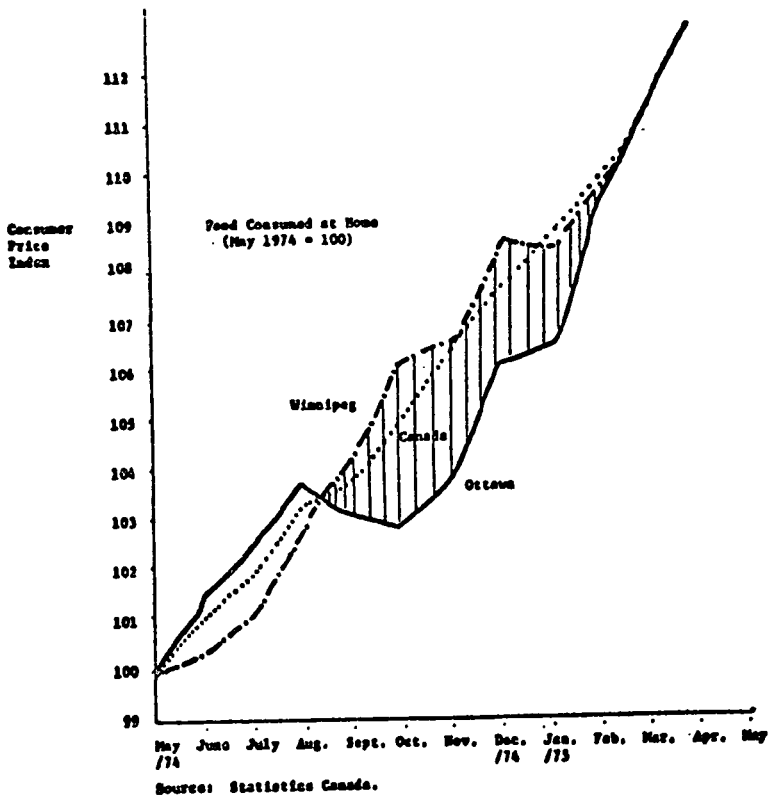
[30] D. Grant Devine. "An Examination of the Effects of Publishing Comparative Price Information on Price Dispersion and Consumer Satisfaction", unpublished PhD dissertation, Ohio State University, 1976.

FIGURE 1.—Monthly Consumer Price Indexes for food consumed at home for Ottawa, Winnipeg, and all Canada, May 1974 to May 1975.



No comparable studies have been conducted in the United States. In a few cases, consumer organizations or newspapers have published comparative prices on a sample of items. The accuracy, duration and effects of these efforts has not been assessed, to our knowledge.

The effects of comparative price information programs on market concentration is an important long-run concern. The results of the present study indicate that a firm's prices are positively related to their position in the market. In markets where this is true, (e.g., city b in report), comparative price information would be expected to cause some shift in patronage to the lower market share and lower priced firms (thereby reducing concentration) and/or a rapid realignment of prices in the market. In the long run, shifts in consumer patronage would depend upon the cost levels of competing sellers (and hence their ability to compete on a price basis), and the importance to consumers of differences in the non-price offers of competing firms. Although large chains appear to enjoy some cost advantages, independent supermarkets and small chains may have lower wage rates and superior store level operations.

The ability of large chains to subsidize across markets could result in their using comparative price information programs to restructure markets. This makes it particularly important to develop price monitoring programs in a number of metropolitan areas, (whether or not the information is published in all cases) so that cross-subsidizing behavior can be detected.

An important long run salutatory effect of a comparative price information program is the erosion of entry barriers. The advertising advantages of large established firms would be substantially reduced by a credible and readily avail-

able source of price information. Established firms would find themselves in less secure positions, and would be expected to reduce prices to a level that discourages new entrants. Thus, whether entry is actually increased or not, the reduction in entry barriers would be expected to have beneficial results.

The potential impact of increased information on consumer and seller behavior is sufficient to warrant additional exploration and analysis by government agencies. The Bureau of Labor Statistics, Department of Agriculture, or the Federal Trade Commission are likely the most logical federal agencies to explore the feasibility of such a program. Appropriate state agencies might also be encouraged to support such programs. A variety of publication procedures should be tested, including continuous publishing every week, periodic publishing for 4 to 6 weeks but with continuous price monitoring, and continuous price monitoring with once a month publishing of the previous four weeks of data. The number of metropolitan areas involved in the program should gradually be expanded to allow analysis of the impact of comparative price information in different market environments. If data were available for 30 to 50 markets with a variety of structural characteristics, efforts to collude in any particular market would be quickly detectable. Such a body of data would also allow periodic analyses of the factors affecting both price levels and price changes in different markets.

The cost of such an effort would be reasonable considering the potential benefits. The Canadian studies cited earlier employed professional price takers at $15/store/week for a market basket of 85 items. Using this rate, if 20 stores were price checked in 30 markets every week of the year, the total amount collection cost would be approximately $450,000. If BLS were to collect the data, the complimentary with its present price collection efforts should result in an incremental cost that is lower than this estimate. The costs of analyzing and publishing the data must also be considered but are not likely to exceed the cost of price collection.

Some may argue that such comparison price information programs constitute public invasion of business privacy. However, we believe public comparison of privately displayed prices is a legitimate function of the public sector, not unlike the many market news programs for farm products sponsored by U.S.D.A. and many states. Since informed consumers are a *sine qua non* of a viable market system, programs to improve consumer information should be an essential part of an overall pro-competition policy.

Consumer cooperatives

Consumer cooperatives play a small role in food retailing in the U.S. compared to some other nations. For example, consumer cooperatives make only about 0.5 percent of U.S. grocery store sales compared to about 17 percent in Great Britain and 27 percent in Sweden.[31] They also are very important in some Canadian cities.

Although various factors may explain the historically low profile of consumer cooperatives in the United States, perhaps one reason is that food retailing here has generally been more competitive than in other nations. In any event, given the increasing concentration in food retailing and the resulting noncompetitive prices and profits, consumer cooperatives should be included among the alternative public policy options dealing with excessive market power in food retailing.

One of the few empirical studies of the subject found that a chain's prices were generally lower in markets where it competed with a consumer cooperative than in comparable markets without a cooperative. The average price difference for the 27 paired markets studied was approximately 1 percent and was statistically significant.[32] Although the price difference was modest, the results support the hypothesis that consumer cooperatives are a beneficial influence on competition.

Many consumer cooperatives apparently had little or no impact on competition. Some, however, did result in sizeable savings to their customers—in the order of 3 percent to 6 percent. This suggests that consumers can only expect to realize meaningful savings if cooperatives are well run and of sufficient size to achieve all or most economies of scale.

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[31] Lovs L. Mather, "Consumer Cooperatives in the Grocery Retailing Industry", Ph.D. dissertation : University of Wisconsin, 1968.

[32] Mather, *op. cit.*, p. 93–130.

The potential benefits of successful consumer cooperatives is illustrated by the Calgary Cooperative Association, reportedly the largest consumer cooperative in North America.[33] Organized in 1958, this Canadian cooperative's 114,000 members included two-thirds of the population of Calgary by 1976.[34] It had total sales of $92.5 million in 1976, $67 million of which came from its eight supermarkets.

Not only were its supermarket gross margins below 17 percent, but it paid its members a patronage rebate of 3.2 percent of sales. Its effective gross margin of less than 14 percent was well below the average gross margins of large chains in the United States.

The Calgary Cooperative example is especially relevant because of the competitive environment in which it operates. The top four chains in the market (including the cooperative) had over 80 percent of sales in 1976. Although Safeway is the market leader with nearly 50 percent of sales, by 1976 Calgary Cooperative had expanded its share to approximately 30 percent.

Our analysis shows that a dominant chain in a comparably concentrated U.S. market would enjoy prices about 9 percent above a more competitively structured market where the top four firms each had 10 percent of sales. This suggests the magnitude of savings consumers could realize from efficient consumer cooperatives in highly concentrated markets.

We are unable to propose a program for creating efficient consumer cooperatives in the United States, where to date they generally have had lackluster records. Two of our other recommendations—lowering entry barriers and improved consumer information—would improve the environment for the development of cooperatives. But additional steps are needed. Consumer organizations should give high priority to aiding the development of consumer cooperatives, especially in highly concentrated markets where the stakes are high.

Industrial restructuring

The various options mentioned above may not be sufficient to erode concentration or eliminate its adverse effects in markets that have become highly concentrated, especially where one or two firms dominate a market. In these cases, which fortunately are still relatively few, more direct action may be required to reduce market power or its effects.

One alternative is to permit such power to exist but to control its use through government regulation. We reject this as an unrealistic alternative. Setting "appropriate" prices in food retailing would be a regulatory nightmare.[35]

A second alternative is industrial restructuring. This requires a case-by-case approach. In excessively concentrated markets, however defined, there are two main options.

The most drastic approach requires leading firms to divest part of their business in a particular market. The other restructuring approach places restraints on the growth of the dominant chain (or chains) in a market until such time as its (or their) market share is reduced to some target level.

The Canadan consent decree mentoned earlier limited Safeway's expansion for three and one-half years in the cities of Calgary and Edmonton. The decree provided that Safetway "will not significantly increase the total square footage occupied by its stores and will be restricted to opening only one (1) new store in each of the two cities."[36]

Many public policy officials and courts are reluctant to restore competition through industrial restructuring. This often reflects a fear that such actions will drastically disrupt business affairs, eliminate jobs, injure stockholders, and perhaps even injure consumers.

While not unmindful that difficult problems may arise in the course of publicly ordered restructuring, in our judgment such fears are greatly exaggerated. Ex-

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[33] *Coop Consumer*, February 1977. p. 3.

[34] *Ibid.* and Calgary Cooperative Association, *20th Annual Report.*

[35] The price controls in effect during 1971–74 did not deal with the monopoly problem in food retailing or in other industries. They limited price increases of all retailers, whether in competitive or highly concentrated markets. As shown in our report, profits of food retailers were positively associated with the level of concentration and firm dominance during the price control years as well as before.

[36] Consent Order in *Regina* v. *Canada Safeway Limited, op. cit.*, p. 62.

perience has shown that businessmen are adept at adjusting to changing circumstance. Certainly they are very adept at restructuring actions that result in high concentration. Such actions likely inflict greater costs on injured competitors and consumers than they themselves would experience if forced to divest themselves of some properties or limit for a time their expansion.

The public policy issue is clear: Where excessive market power cannot be adequately redressed by other means, are we sufficiently concerned about the costs to consumers and competitors to take the steps necessary to reduce such power?

TABLE 1.—ESTIMATED INDEX OF GROCERY PRICES AND PRETAX PROFIT-TO-SALES RATIOS ASSOCIATED WITH VARIOUS LEVELS OF MARKET CONCENTRATION AND RELATIVE FIRM MARKET SHARE

	4-firm concentration ratio (CR [1])							
	40		50		60		70	
	Index of grocery prices [1]	Profits as percent of sales [2]	Index of grocery prices	Profits as percent of sales	Index of grocery prices	Profits as percent of sales	Index of grocery prices	Profits as percent of sales
Relative firm markets share (RFMS):								
10	100.0	0.37	101.0	0.99	103.0	1.22	105.3	1.28
25	100.8	1.15	101.8	1.77	103.7	2.00	106.1	2.06
40	102.4	1.93	103.4	2.55	105.4	2.78	107.7	2.84
55	103.6	2.71	104.5	3.33	106.5	3.56	108.9	3.62

[1] The estimated grocery basket cost for each combination of RFMS and CR_4 was calculated using equation $1g_2$ table 3.3 and holding other independent variables at their respective means. The index was constructed by setting the grocery basket computed for RFMS=10, CR_4=40 equals to 100.

[2] Profits as a percent of sales were estimated for each combination of RFMS and CR_4 using equation 1d, table 2.7 introducing all other variables except API at their means; the binary variable API was introduced with a value of 1. Equation 1d was developed using the average division profit levels for the 3 years 1970, 1971, and 1974. The grocery price models were based upon 1974 prices.

TABLE 2.—MARKET SHARE OF THE 20 LARGEST GROCERY CHAINS, CENSUS YEARS, 1948–75 [1]

[In percent]

Rank of chains	Share of grocery store sales in—						
	1948	1954	1958	1963	1967	1972	1975
A. & P.	10.7	11.3	11.1	9.4	8.3	6.6	4.9
1st to 4th	20.1	20.9	21.7	20.0	19.0	18.1	17.9
5th to 8th	3.6	4.5	5.8	6.6	6.7	7.1	7.6
1st to 8th	23.7	25.4	27.5	26.6	25.7	25.2	25.5
9th to 20th	3.2	4.5	6.6	7.4	8.7	11.9	11.5
1st to 20th	26.9	29.9	34.1	34.0	34.4	37.1	37.0
Top 20 excluding A. & P.	16.2	18.7	23.0	24.6	26.1	30.5	32.1

National Tea and Loblaw were treated as a single entity and their sales were combined accordingly. This adjustment placed National Tea-Loblaw 4th among the largest grocery chains in both 1963 and 1967 and 9th among the chains in 1972.

Source: 1948–63 estimates based upon U.S. Census as reported in National Commission on Food Marketing, "Organization & Competition in Food Retailing," June 1966. Estimates for 1967 are based upon the Federal Trade Commission, 1969 Food Retailing Survey and 1967 Census of Business, Retail Trade. Estimates for 1972 are based on data supplied by leading retail food chains and the 1972 Census of Business, "Retail Trade, Establishment and Firm Size," RC72–S–1, September 1975 and the 1972 Census of Business, "Retail Trade, Merchandise Line Sales," RC72–L. September 1975. Estimates for 1975 from "Weekly Digest," American Institute of Food Distribution, vol. 83, No. 27, July 3, 1976.

TABLE 3.—SHARE OF GENERAL-LINE WHOLESALE GROCERY SALES, BY TYPE OF ORGANIZATION, CENSUS YEARS 1948–72

[In percent]

Type of business	Share of sales in—					
	1948	1954	1958	1963	1967	1972
Affiliated:						
Voluntary groups:						
4 largest	2.2	5.2	7.4	9.7	11.2	14.9
8 largest	3.8	9.2	11.8	13.6	(1)	21.2
All voluntaries	(1)	(1)	38.5	45.7	47.4	[2] 29.9
Cooperative groups:						
4 largest	3.2	5.2	7.9	8.5	10.0	8.3
8 largest	4.2	7.3	10.6	12.4	(1)	12.2
All cooperatives	(1)	(1)	25.4	24.4	26.4	32.2
Nonaffiliated	(1)	(1)	36.1	29.5	26.2	[2] 37.9
Total	(1)	(1)	100.0	100.0	100.0	100.0

[1] Not available.
[2] Although these figures appear to be in error, staff members in charge of the "Census of Wholesale Trade" were unable to either find an error or explain the drastic changes in 1972. "Progressive Grocer" reports that wholesale grocery sales in 1974 were distributed as follows: 49 percent to voluntary wholesales, 29 percent to cooperative wholesales and 22 percent to unaffiliated wholesalers. "Progressive Grocer," "42d Annual Report of the Grocery industry," April 1975.

Source: Data for 1948, 1958, and 1963 are from National Commission on Food Marketing, Organization and Competition in Food Retailing, technical study no. 7, appendix table 17. Data for 1967 were estimated from issues of monthly "Wholesale Trade." Data for 1972 are from Bureau of Census, "Census of Business 1972, Wholesale Trade."

TABLE 4.—AVERAGE 4-FIRM CONCENTRATION FOR 194 SMSA'S CLASSIFIED BY 1954 4-FIRM CONCENTRATION LEVEL, 1954–72

Market size and level of 4-firm concentration level in 1954	Number of SMSA's	4-firm concentration					Average 1972 market sales (thousands)[1]
		1954	1958	1963	1967	1972	
SMSA's over 500,000:[2]							
CR_4 less than 40	17	35.3	39.7	40.8	41.5	46.4	$803,505
40.0 to 49.9	21	45.4	49.2	49.4	47.5	49.2	568,975
50.0 to 59.9	18	53.5	55.6	54.1	54.2	53.0	725,802
60.0 and over	2	69.7	68.7	67.9	67.3	75.0	524,411
Number and average	58	45.8	49.1	49.0	48.5	50.4	684,850
SMSA's under 500,000:[2]							
CR_4 less than 40	44	34.8	41.8	42.6	45.6	46.8	113,654
40.0 to 49.9	54	45.2	49.0	51.0	52.7	54.1	107,092
50.0 to 59.9	30	54.0	57.1	57.4	56.1	57.1	107,916
60.0 and over	8	64.0	63.9	62.4	60.3	61.7	111,216
Number and average	136	44.9	49.3	50.4	51.6	52.9	109,639
Average all SMSA's		45.2	49.2	50.0	50.7	52.1	281,610

[1] Grocery store sales for establishments with payroll.
[2] Population in 1970.

Source: 1954 and 1958 Census of Business, Retail Trade, vol. 1, summary statistics; 1963 Census of Business, Retail Trade, United States, BC 63-RA1; 1967, a special tabulation by the Bureau of Census for the Federal Trade Commission; 1972, a special tabulation by the Bureau of Census for the Federal Trade Commission and the U.S. Department of Agriculture. Appendix F shows data for individual SMSA's.

TABLE 5.—ACQUISITIONS OF FOOD RETAILERS, 1949–75

[Dollar amounts in millions]

Year	By all acquirers		By 20 leading food chains [1]			By 10 leading food chains [1]		
	Number of acquisitions	Sales of acquired	Number of acquestions	Sales of acquired	Percent of total acquired sales	Number of acquisitions	Sales of acquired	Percent of total acquired sales
1949	5	$66	1	$47	71	1	$47	71
1950	5	4	2	3	75	1	1	25
1951	12	28	6	25	89	5	19	68
1952	10	71	5	55	77	4	53	75
1953	13	88	4	77	88	2	61	69
1954	24	76	7	37	50	4	31	41
1955	55	559	23	465	83	15	267	48
1956	69	450	32	310	69	20	141	31
1957	52	319	20	194	61	14	170	53
1958	74	517	41	361	70	27	261	50
1959	63	319	34	136	43	14	24	8
1960	44	307	25	201	65	10	36	12
1961	50	518	30	407	79	16	292	56
1962	53	306	24	179	58	14	157	51
1963	51	568	27	463	82	16	416	73
1964	41	312	16	188	60	8	153	49
1965	28	558	5	61	11	3	35	6
1966	40	539	6	110	20	3	73	14
1967 [2]	33	1,350	3	21	2	0	0	0
1968	51	1,155	12	[3] 314	[4] (12) 27	6	[3] 199	[4] (2) 17
1969	45	715	14	41	8	6	13	3
1970	36	688	9	74	11	5	22	3
1971	27	435	2	28	6	2	28	6
1972	59	[5] 1,069	6	242	20	1	3	[6]
1973	27	[5] 206	13	[5] 29	14	3	11	5
1974	18	[5] 1,591	4	30	2	3	14	1
1975 [7]	29	255	5	99	39	3	.84	35
Total	1,014	12,879	376	4,197	32	206	2,611	20

[1] For 1949–66, data are for largest chains of 1963. Subsequent data are for the largest chains of 1975.
[2] The FTC merger notification program did not require reports from food distributors until June of 1976.
[3] Includes Lucky's acquisition of Eagle Stores, with estimated sales of $175,000,000. See text.
[4] Percent excluding Lucky's acquisition of Eagle Stores, which was approved by the FTC. See text.
[5] Sales data not available for 1 firm in this category.
[6] Less than 1 percent.
[7] Data for 1975 are not complete since premerger notification data were available only for the 1st months of 1975.

Source: Data from 1949–66 are from Bureau of Economics, Federal Trade Commission as reported in Willard F. Mueller, "The Celler-Kefauver Act: Sixteen Years of Enforcement." Report to the Antitrust Subcommittee of the Committee on the Judiciary, House of Representatives, Oct. 16, 1967. Data for 1967–75 from FTC merger notification reports supplied to the Joint Economic Committee, and from secondary sources. FTC data reported 185 retail acquisitions with combined sales of $4,455,000,000. Secondary sources reported 142 retail acquisitions with combined sales of $2,954,000,000. Of this latter total, 8 acquisitions had combined sales of $1,265,000,000, These large acquisitions involved the acquisition of large food retailers by large firms not involved in food retailing. The FTC notification program did not require reporting these mergers.

TABLE 6.—FOOD RETAILER AND WHOLESALER ACQUISITIONS, BY TYPE OF ACQUIRING FIRM, 1967–75

[Dollar amounts in millions]

Nature of acquiring firm	Acquired grocery retailers by type of acquisition						Acquired food wholesalers	
	Total		Horizontal		Market extension			
	Number	Sales	Number	Sales	Number	Sales	Number	Sales
Food retailers:								
Top 10	29	$372	17	$104	12	$268		
Top 20	68	876	43	[1] 316	28	560	1	$45
Other retailers	162	2,477	105	[1] 1,206	67	1,271	13	105
Food wholesalers	83	808	71	530	17	278	25	996
Conglomerate	12	3,108						
Total	[2] 325	7,269	219	2,052	112	2,109	39	1,146

[1] Sales data not available for 1 firm in this category.
[2] Number of mergers in various categories do not add to total because some mergers involved 2 categories.

Source: Federal Trade Commission merger notification reports submitted to Joint Economic Committee, and secondary sources. FTC data reported 211 acquisitions of grocery retailers and wholesalers with combined sales of $5,494,000,000; secondary sources reported an additional 155 acquisitions with combined sales of $3,601,000,000. Of the latter total, 8 acquisitions had combined sales of $1,256,000,000. These large acquisitions involved the merger of large food retailers and large firms not involved in food retailing. The FTC merger notification program did not require reporting these mergers.

TABLE 7.—COMPETITIVE INTERFACE BETWEEN 17 LARGE GROCERY CHAINS, 1966 AND 1974[1]

	A. & P.	Acme	Albertson's	Allied	First Nat'l	Fisher	Food Fair	Giant	Grand Union	Jewel	Kroger	Lucky	Nat'l Tea	Safeway	Supermkt. Gen'l	Stop & Shop	Winn-Dixie	Competitive interface (1966 and 1974)	Percent change (1966–74)	Number of SMSA's 1966	Number of SMSA's 1974	Net change (1966–74)	Percent change (1966–74)
A. & P.		30 (35)	2 (2)	48 (16)	20 (24)	9 (5)	38 (37)	2 (2)	24 (22)	17 (11)	60 (69)	9 (7)	24 (28)	16 (18)	16 (8)	21 (19)	37 (34)	373 (335)	+11.3	147	142	—5	—3.4
Acme	30 (35)		10 (1)	5 (2)	4 (6)	6 (0)	19 (18)	2 (2)	13 (11)	0 (0)	6 (6)	13 (2)	7 (8)	17 (9)	8 (8)	5 (0)	0 (0)	145 (108)	+34.3	36	44	+8	+22.2
Albertson's	2 (2)	10 (1)		3 (0)	0 (0)	3 (0)	1 (0)	0 (0)	0 (0)	1 (1)	4 (1)	12 (4)	1 (0)	27 (11)	0 (0)	0 (0)	0 (0)	64 (20)	+220.0	11	29	+18	+163.6
Allied	48 (16)	5 (2)	3 (0)		0 (0)	7 (0)	5 (0)	0 (0)	3 (0)	3 (2)	39 (16)	4 (0)	9 (2)	10 (7)	0 (0)	0 (0)	17 (2)	153 (47)	+225.5	24	56	+32	+133.3
First National	20 (24)	4 (6)	0 (0)	0 (0)		0 (0)	7 (12)	0 (0)	12 (14)	7 (4)	0 (0)	0 (0)	0 (0)	0 (0)	9 (5)	20 (17)	0 (0)	79 (82)	—3.7	24	21	—3	—12.5
Fisher	9 (3)	6 (0)	3 (0)	7 (0)	0 (0)		0 (0)	0 (0)	0 (0)	1 (0)	11 (3)	4 (0)	0 (2)	5 (0)	0 (0)	0 (0)	0 (0)	46 (8)	+475.0	3	14	+11	+266.7
Food Fair	38 (37)	19 (18)	1 (0)	5 (0)	7 (12)	0 (0)		2 (2)	17 (12)	0 (1)	0 (1)	1 (0)	2 (1)	7 (6)	13 (8)	9 (7)	14 (8)	136 (113)	+20.4	37	40	+3	+8.1
Giant	2 (2)	2 (2)	0 (0)	0 (0)	0 (0)	0 (0)	2 (2)		1 (1)	0 (0)	0 (1)	1 (0)	0 (0)	2 (2)	0 (0)	0 (0)	0 (0)	10 (10)	0	2	2	0	0
Grand Union	24 (22)	13 (11)	0 (0)	3 (0)	12 (14)	0 (0)	17 (12)	1 (1)		1 (1)	0 (1)	1 (0)	5 (5)	1 (1)	8 (4)	13 (7)	0 (0)	99 (79)	+25.3	22	26	+4	+18.2
Jewel	17 (11)	0 (0)	1 (1)	3 (2)	7 (4)	1 (0)	0 (0)	0 (0)	1 (1)		6 (7)	4 (1)	7 (3)	2 (2)	0 (0)	8 (5)	0 (0)	57 (38)	+50.0	13	20	+7	+53.8
Kroger	60 (69)	6 (6)	4 (1)	39 (16)	0 (0)	11 (3)	0 (1)	0 (1)	0 (1)	6 (7)		4 (3)	9 (21)	10 (6)	0 (0)	0 (0)	17 (16)	166 (151)	+9.9	71	65	—6	—8.5
Lucky	9 (7)	13 (2)	11 (4)	4 (0)	0 (0)	4 (0)	1 (0)	1 (0)	1 (0)	4 (1)	4 (3)		7 (4)	17 (12)	0 (0)	0 (0)+	0 (0)	77 (33)	+133.3	16	25	+9	+56.3
Nat'l Tea[2]	24 (28)	7 (8)	1 (0)	9 (2)	0 (0)	0 (2)	2 (2)	0 (0)	5 (5)	7 (3)	9 (21)	7 (4)		1 (2)	0 (0)	0 (0)	2 (2)	77 (78)	—1.3	33	28	—5	—15.2
Safeway	16 (18)	17 (9)	27 (11)	10 (7)	0 (0)	5 (0)	7 (6)	2 (2)	1 (1)	2 (2)	10 (6)	17 (12)	1 (2)		0 (0)	1 (1)	0 (0)	116 (77)	+50.6	57	62	+5	+8.5
Supermkt. Gen'l[3]	16 (8)	8 (8)	0 (0)	0 (0)	9 (5)	0 (0)	13 (8)	0 (0)	8 (4)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)		10 (0)	0 (0)	64 (33)	+93.9	8	16	+8	+100.0
Stop & Shop	21 (19)	5 (0)	0 (0)	0 (0)	20 (17)	0 (0)	9 (7)	0 (0)	13 (7)	8 (5)	0 (0)	0 (0)	0 (0)	1 (1)	10 (0)		0 (0)	87 (56)	+55.4	19	23	+4	+21.
Winn-Dixie	37 (34)	0 (0)	0 (0)	17 (2)	0 (0)	0 (0)	14 (8)	0 (0)	0 (0)	0 (0)	17 (16)	0 (0)	2 (2)	0 (0)	0 (0)	0 (0)		87 (62)	+40.3	34	38	+4	+11.8

[1] Based on 199 SMSA's.
[2] National Tea includes Loblaw stores in 1966 and 1974.
[3] Supermarkets General operated under Shoprite logo prior to 1969.

Note.—1966 markets in parentheses.

Source: Metro Market Studies 1967 and 1975. Supermarket News 1968–69 and 1975.

TABLE 8.—AVERAGE COST INDEXES FOR MEAT AND MARKET BASKET ITEMS SOLD BY 5 FIRMS IN CITY B, OCTOBER 1974 [1]

Company	1974 market share [2]	Grocery basket	Market basket [3]	Meal basket	Market and meat basket
E	31.8	102.4	102.2	103.4	102.5
K	30.5	102.3	102.0	100.0	101.5
A	6.8	100.0	100.2	100.5	100.3
F	6.4	99.7	99.3	102.8	100.2
I	1.4	95.5	96.3	93.3	95.5

[1] See app. B. Indices were derived by expressing the estimated market basket costs as a percent of the mean values.
[2] The 1974 market shares are the average market share for each firm from the 1975 and 1976 issues of "Grocery Distribution Guide." Metro Market Studies, Inc., adjusted proportionally to equal the 1974 concentration ratio. The latter was estimated from the 1972 census concentration ratio, hard data, and metro market. See app. B.
[3] This market basket contained frozen food, dairy, and grocery products.

TABLE 9.—AVERAGE COST INDEXES FOR MEAT AND MARKET BASKET ITEMS SOLD BY 5 CHAINS IN CITY C, OCTOBER 1974 [1]

Company	1974 market share [2]	Grocery basket	Market basket [3]	Meat basket	Market and meat basket
T	15.8	99.6	99.6	99.7	99.7
H	14.1	98.9	98.7	96.1	98.2
J	10.9	101.4	101.3	102.5	101.7
A	6.9	100.9	100.5	101.1	100.7
S	2.4	99.1	99.3	100.3	99.6

[1] See app. B. Indexes were derived by expressing the estimated market basket costs as a percent of the mean value.
[2] The 1974 market shares are the average market share for each firm from the 1975 and 1976 issues of "Grocery Distribution Guide," Metro Market Studies, Inc., adjusted proportionally to equal the 1974 concentration ratio. The latter was estimated from the 1972 census concentration ratio, hard data, and metro market. See app. B.
[3] Included grocery, dairy, frozen food, and health and beauty aid products for all firms except firm S, in which case health and beauty aid products were not included.

THE UNIVERSITY OF WISCONSIN,
SCHOOL OF ECONOMICS,
Madison, Wis., July 16, 1977.

Representative GILLIS W. LONG,
House of Representatives,
Congress of the United States,
Washington, D.C.

DEAR MR. LONG: I suspect you have seen the enclosed article on food prices appearing in the June 30th issue of the Washington Post. It compares chain grocery store prices in 19 cities.

You will recall that at the hearings on our Report the industry witnesses criticized our price data because they excluded meat and produce products and were based on a single month, October 1974. The critics asserted that for these reasons our sample prices for cities were not representative of actual prices. We agreed that there might well be errors in our sample, but that the effect of any such errors was to weaken the statistical relationship we observed.

You may therefore be interested in how our prices compared with those appearing in the Washington Post story. The Post sample consisted of any 35 items, including eight meat items and seven produce items. Unfortunately, only five of our cities overlapped those in the Post story. It is interesting, however, that the relative prices in these five cities were remarkably similar in the two samples, with one exception. Below I have listed the five cities and expressed the estimated prices in each as a percent of the estimated prices in Phoenix, the lowest price city in both samples.

[In percent]

City	J.E.C. October 1974	Washington Post June 1977	Difference
Phoenix	100.0	100.0	
Dallas	107.4	107.3	0.1
St. Louis	108.8	107.9	.9
Denver	105.5	109.3	3.8
Washington, D.C	116.4	116.8	.4

Of the five cities included in both studies, Washington and Phoenix had the highest and lowest prices in both samples, differing by about 16% in each year. The relative prices for Dallas and St. Louis also were very close in the two samples, differing by less than 1 percent.

The only noncomparable city is Denver, where prices were 3.8% higher (relative to Phoenix) in June 1977 than in October 1974. This is a very interesting difference because it bears out the point we made that any errors in our data resulting because prices were temporarily out of line during October 1974 would weaken our relationship. As it happens, the Denver price was a very bad observation in our study. Based on the high level of concentration and the relative dominance of the leading firms in Denver, our statistical analysis predicted higher prices in Denver than actually existed in October 1974. Thus, the Washington Post price estimate for Denver in June 1977 was much more in line with expected prices than our estimated prices in October 1974. Had we used a price for Denver comparable to that found in June 1977, our statistical findings would have been even stronger than we reported.

Although the number of comparable cities in the two studies are quite limited, and the sampling procedures different, I think this is another piece of evidence supporting the basic validity of our study.

We have received many inquiries about the study. Independent economists who have examined it carefully have commented favorably on it. I have received copies of several letters that leading scholars in the field have written to Mr. Bolling and you. I hope that written comments, whether favorable or unfavorable, could be included with the printed public record of the hearing. I think this would be particularly appropriate in this case because no independent economists testified at the hearing, whereas the industry hired several academic economists to comment on the study. Although one of these—Mr. Padberg—did not even appear at the hearing, his statement was placed in the record.

Sincerely,

WILLARD F. MUELLER,
Professor of Research.

Enclosure.

[From the Washington Post, June 30, 1977]

Food Prices: Washington Tops the List

(By William Rice)

A national market basket survey conducted early this month placed Washington supermarket food prices at the top of 17 cities in the continental United States. Prices were higher only in Anchorage, Alaska, and Honolulu, Hawaii.

The price of the 34-item market basket in Washington was $34.93. This was 9.2 percent over the national average and 7.8 percent higher than the price of the same items one year ago.

Food editors in each city shopped in three chain stores on June 2. The lowest price they found for an item in each category was used to compile their market-basket. Editors in five Canadian cities conducted a simultaneous survey. The cost of the market basket was higher than Washington's in every Canadian city.

Washington led the American survey with its price for canned tuna fish (17 cents above the average)and was highest in the continental United States for instant coffee (a whopping 91 cents above the average), evaporated milk, canned peaches and canned pineapple. The sugar price, $1.15 for five pounds of granulated white, was equalled only in Portland, Ore., and Denver, Colo.

Anchorage, participating in the survey for the first time, was not factored into the averages. Market baskets were not compiled in two cities that participated last year, Philadelphia and Detroit.

On a national basis, the market basket reflected the effect of the cold winter on fruit and vegetable supplies and improved supplies of meat and poultry. Prices were down from 1976 for eggs, flour, sugar, beans, rice, rump roast, ground beef, pork chops, wieners and chicken. The items that had increased most sharply in price were: instant coffee (up 52.9 percent), mayonnaise (up 20 percent), ice cream (up 20.2 percent), frozen orange juice (up 20 percent), frozen broccoli (up 23.6 percent), carrots (up 47.3 percent) cabbage (up 23 percent), lettuce (up 26.5 percent) and oranges (up 16.7 percent).

Washington was below the average for eight items: cheese, bread, cereal, beans, ham, cabbage, bananas and tomatoes. The ham price, 69 cents for one pound of smoked butt end, was the lowest in the survey, 35 cents less than the average.

On the other hand, District prices were significantly above the average for 10 items in addition to tuna fish and coffee. Among them: mayonnaise (39 cents above the average), rump roast, pork chops and wieners (all more than 20 cents above the average), and oranges (20 cents above).

Last year orange and orange juice prices here, as well as ham, were well below the average.

Boston, another city in the "Northeast Corridor," where operating costs for supermarkets are traditionally high, had a market basket valued at $34.04, trailing Washington by 89 cents. But New York City, with a $32.85 market basket, was well down the list.

Industry experts cite numerous factors that result in the high price of food here, including labor costs, distance from centers of production of meat, fruits and vegetables, local demand for high quality and service. They also point out deficits in this and other market baskets. The 34 items are only a minute sampling of the 10,000 or more items stocked by large supermarkets. The survey is done only on a single day, is subject to error and is not weighted. (For example, a 10-ounce jar of instant coffee will last a family some time; one pound of steak will disappear during a single meal.)

Paul Forbes, assistant to the president of Giant Food, said the consumer should realize supermarket pricing is not similar to automobile pricing. "There is not a fixed wholesale and a fixed markup," he said. "It all depends on the ever-changing merchandise mix and you can determine that only by looking at the total market basket."

But the food editors' market basket is a snapshot of food prices and Washington has consistently been near the top. Other studies, more thorough and more extensive, tend to support this finding.

One charge raised consistently by consumerists is that food prices are high in Washington because it is a concentrated market, with more than 60 percent of sales divided between only two chains, Safeway and Giant. The chains refute this, contending there is considerable competition.

According to Bruce Marion, a University of Wisconsin professor who helped prepare a study on prices and profits in the supermarket industry for the Joint Economic Committee of the Congress, "there is pretty strong evidence" that lack of competition "tends to lead to high prices.

"When a market is dominated by two chains, as is the case in Washington, two things happen. The firms tend to shy away from head-on price competition and move toward non-price competitive factors (such as advertising and games) and prices go up enough to result in increased profits."

Marion discounted transportation and rent or building costs as not significant enough to explain price differences in a market such as Washington. Labor, he said, is a "real biggie," but Washington labor costs are not the industry's highest, he said. He cited "softer competition" as a potential cause of looser cost controls and internal inefficiency."

The Joint Economic Committee study said of City B, since identified as Washington: "little, if any, price competition existed between these two (dominant) firms." The result, the study concluded, was that consumers here paid an additional 6.9 percent for groceries in 1974.

Even if the market basket is small, the survey findings have been consistent. But for explanations, the industry and its critics will have to look elsewhere.

A NATIONAL MARKET BASKET SURVEY PLACES WASHINGTON'S FOOD COSTS AT THE TOP OF 17 CITIES IN THE CONTINENTAL UNITED STATES—ONLY HONOLULU AND ANCHORAGE, SHOWN SEPARATELY BECAUSE IT WAS NOT SURVEYED LAST YEAR, WERE HIGHER

[Shopping date: June 2, 1977]

Item	1976 average	1977 average	Percentage difference	San Diego	Tampa	San Francisco	Des Moines	Phoenix	Milwaukee	Atlanta	Dallas
Milk, homogenized, ½ gal	$0.78	$0.81	+3.8	$0.64	$0.88	$0.69	$0.81	$0.71	$0.80	$0.97	$0.85
Eggs, 1 doz grade A, large	.70	.62	−11.4	.63	.48	[1].73	[1].59	.69	.63	.58	.53
Cheese, 10 ozs, sharp, Cracker Barrel	1.36	1.42	−4.4	1.39	1.29	1.43	1.39	1.47	1.45	1.44	[2]1.43
Margarine, 1 lb, 4 sticks, Blue Bonnet or Parkay	.47	.55	+17.0	.49	.62	.44	.49	.55	.50	.44	.55
Bread, white, sliced, 24-oz loaf	.46	.50	+8.7	.25	[4].38	.49	.63	.43	.45	.45	.53
Flour, 5 lb, all-purpose, Gold Medal or Pillsbury	.83	.78	−6.0	.63	.68	.67	.57	.67	.79	.79	.85
Special K, 11 oz package	.78	.88	+12.8	.80	.85	[3].93	.83	.80	.81	.89	.86
Sugar, 5 lb, white granulated	1.12	.92	−17.9	.96	.87	1.10	.99	.93	1.13	[3].58	.99
Instant coffee, 10 oz, Nescafe or Maxwell House	2.80	4.28	+52.9	[3]3.39	3.39	3.69	3.49	3.69	4.32	3.78	4.19
Great Northern beans, dry, 1 lb	.43	.36	−16.3	.32	[4].36	.35	.31	.32	.37	.37	.29
Rice, 2 lb, Uncle Ben's converted	1.09	1.04	−4.6	.99	.95	1.05	.99	1.05	.99	1.04	.99
Mayonnaise, 1 qt, Best Foods, Hellman's, or Kraft	1.10	1.32	+20.0	.98	1.18	1.27	1.19	.95	1.19	1.29	1.47
Peanut butter, 18 oz jar, smooth, Jif, Peter Pan, Planters or Skippy	.94	.95	+1.0	.89	1.02	.99	.89	1.02	.79	.79	.99
Tuna, 6½-oz can, light chunk meat in oil, Chicken of the Sea or Starkist	.57	.64	+12.3	.58	[3].49	.59	.67	.63	.65	.68	.69
Evaporated milk, 14.5-oz can (13 fluid ounces), Carnation, Golden Key, or Pet	.33	.36	+9.0	.31	.30	.35	[3].30	.32	.39	.34	.35
Cling peach halves, 29-oz can, heavy sirup, Del Monte, Hunt, Libby, or Stokley	.56	.61	+13.0	.51	.59	.45	.63	.59	.67	.59	.59
Pineapple, 20-oz can, sliced, heavy sirup or own juice, Del Monte or Dole	.56	.61	+8.9	.56	.60	.59	.59	.56	.63	.61	.57

Ice cream, ½ gal, any brand	.89	1.07	+20.2	[3].69	[3].77	1.19	.98	1.09	1.05	.78	1.39
Frozen orange juice concentrate, Grade A or Fancy, 6-oz can, any brand	.25	.30	+20.0	.23	.26	[3].34	.25	.31	.31	.30	.35
Broccoli spears, frozen, 10-oz package, grade A or fancy	.38	.47	+23.6	.43	.49	.51	.53	.39	.49	.45	.61
Rump roast, boneless, Choice, 1 lb	1.60	1.43	−10.6	1.19	1.78	1.39	1.49	1.69	[3]1.19	[3]1.18	1.38
Sirloin steak, bone-in, Choice, 1 lb	1.77	1.80	+1.7	[6]1.48	1.88	[6]1.49	1.79	2.09	1.89	2.19	1.48
Ground beef, regular, 1 lb	.81	.79	−2.5	1.19	.78	.68	.69	.69	.79	.88	.68
Pork loin chops, 1 lb, ½ to ¾-in thick, with tenderloin	1.83	1.75	−4.3	1.88	1.78	1.79	1.59	1.79	1.69	1.79	1.79
Ham, smoked, butt end, 1 lb	1.01	1.04	+3.0	1.18	.88	.89	.89	.98	.79	[3].78	1.09
Bacon, regular slice, 1 lb, Armour, Cudahy, Hormel, Oscar Mayer, Rath, Swift or Wilson	1.68	1.38	−17.9	1.18	1.19	1.63	1.25	1.33	1.19	1.39	1.65
Wieners, all meat, 1 lb, Armour, Cudahy, Hormel, Oscar Mayer, Rath, Swift or Wilson	1.08	1.07	−.93	.89	1.09	.79	1.24	.95	1.29	[3].89	.133
Chicken, whole, broiler-fryer, never frozen, grade A, 1 lb	.54	.50	−7.4	.49	.48	.45	.49	.49	[3].39	[3].38	.45
Potatoes, 5 lb, regular, all purpose, US1	.87	.90	+3.4	.50	.79	.49	.98	.69	.89	.99	.89
Carrots, whole, 1 lb, US1	.19	.28	+47.3	.20	.23	.25	[4].30	.20	.34	.29	.29
Cabbage, 1 lb, US1	.13	.16	+23.0	.08	.14	.12	.19	.12	.14	[3].10	.10
Lettuce, 1 head, US1	.34	.43	+26.5	.29	.34	.29	.49	.39	.39	.34	.33
Bananas, 1 lb, yellow	.24	.26	+8.3	.19	.23	.29	.25	.29	.29	.23	.20
Tomatoes, 1 lb, vine-ripened, 3 in in diameter	.45	.46	+2.2	.39	.35	.39	.59	.20	.69	.59	.39
Oranges, 5 lb, juice fruit	.90	1.05	+16.7	[4].87	.98	.79	[4].86	1.00	[4]1.19	1.39	.99
Subtotal	29.82	31.75		27.67	29.38	29.58	30.21	29.90	31.57	30.57	32.09
Percentage tax on food				0	0	0	0	5.0	0	0	0
Amount of tax on food				0	0	0	0	1.50	0	1.22	0
Total	30.45	32.29	+6.0	27.67	29.38	29.58	30.21	31.40	31.57	31.79	32.09
Percentage of difference from average				−14.3	−9.0	−8.4	−6.4	−2.8	−2.2	−1.5	−.61

See footnotes at end of table.

A NATIONAL MARKET BASKET SURVEY PLACES WASHINGTON'S FOOD COSTS AT THE TOP OF 17 CITIES IN THE CONTINENTAL UNITED STATES—ONLY HONOLULU AND ANCHORAGE, SHOWN SEPARATELY BECAUSE IT WAS NOT SURVEYED LAST YEAR, WERE HIGHER—Continued

[Shopping date: June 2, 1977]

Item	New York	Salt Lake City	Chicago	Portland, Ore.	Cleveland	St. Louis	Denver	Boston	Washington, D.C.	Honolulu	Anchorage
Milk, homogenized, ½ gal	$0.73	$0.74	$0.84	$0.72	$0.78	$0.82	$0.85	$0.73	$0.83	$1.11	$1.36
Eggs, 1 doz, grade A, large	.83	[1].50	.595	.485	.495	.575	.59	.79	.67	.73	[1].72
Cheese, 10 oz, sharp, Cracker Barrel	1.43	1.49	1.52	1.395	1.39	1.29	1.40	1.25	1.29	1.75	1.73
Margarine, 1 lb., 4 sticks, Blue Bonnet or Parkay	.65	.47	[3].50	.57	[3].39	.59	.65	.69	.63	.65	.79
Bread, white, sliced, 24 oz loaf	[4].73	.50	.49	[3].27	.595	.50	.53	[4].54	.49	[3].69	.96
Flour, 5 lbs., all-purpose, Gold Medal or Pillsbury	.83	.87	.90	.99	.85	.69	.775	.89	.99	[3].60	1.25
Special K, 11-oz package	.88	.91	.83	.91	.89	.87	.91	.89	.87	1.17	1.05
Sugar, 5 lbs., white granulated	[3].89	.99	[5].69	1.15	[3].79	[3].29	1.15	1.05	1.15	[3].895	1.32
Instant coffee, 10 oz, Nescafe or Maxwell House	4.29	4.59	[3]4.70	4.99	[3]4.79	4.98	4.58	4.19	[3]5.19	4.79	5.49
Great Northern beans, dry, 1 lb	.43	.34	.35	.38	.39	.33	.29	.43	.29	.55	.41
Rice, 2 lbs., Uncle Ben's converted	1.09	1.15	.99	1.12	1.05	1.15	.89	1.05	1.09	1.12	1.29
Mayonnaise, 1 qt., Best Foods, Hellman's or Kraft	1.47	1.27	1.47	1.49	1.49	1.29	1.52	1 55	1.49	[3]1.19	1.79
Peanut butter, 12-oz jar, smooth, Jif, Peter Pan, Planters or Skippy	.89	1.06	.955	1.09	[5].79	.97	1.05	.99	1.00	[3].89	1.33
Tuna, 6½-oz can, light chunck meat in oil, Chicken of the Sea or Starkist	.71	.54	[3].55	.68	.49	.67	.67	.79	.81	[4].71	.75
Evaporated milk, 14.5-oz can (13 fluid ounces), Carnation, Golden Key or Pet	.38	.34	.39	.39	.40	.34	.37	.38	.41	.35	.43
Cling peach halves, 22-oz can, heavy syrup, Del Monte, Hunt, Libby or Stokely	.61	.67	[3].49	[3].62	.71	.55	.66	.65	.69	.62	.73
Pineapple, 20-oz can, sliced, heavy syrup or own juice, Del Monte or Dole	.64	.63	.65	.63	.63	.59	.62	.63	.69	.56	.73
Ice cream, ½ gal., any brand	1.19	1.16	[3].79	1.19	1.29	[5].99	1.22	.99	1.29	1.23	1.69
Frozen orange juice concentrate, Grade A or Fancy 6 oz can, any brand	.30	[3].20	.35	[3].25	.35	.33	.29	[3].34	.30	.35	.49
Broccoli spears, frozen, 10 oz package, grade A or fancy	.49	.43	.47	.39	.53	.45	[3].40	.47	.50	.49	.45

Rump roast, boneless, Choice 1 lb	[3] 1.19	[3] 1.19	[3] 1.19	1.34	1.48	1.59	[3] 1.48	[3] 1.39	1.69	1.89	1.85
Sirloin Steak, bone-in Choice, 1 lb	1.49	[3] 1.98	[3] 1.38	[6] 2.57	1.58	1.69	1.58	1.99	1.94	1.99	[6] 2.79
Ground beef, regular, 1 lb	.95	[3] .55	.79	[4] .74	.72	.69	.69	.99	.79	.95	.85
Pork Loin chops, 1 lb ½ to ¾-in. thick, with tenderloin	2.09	1.78	[7] 1.09	1.88	1.58	1.89	1.75	1.79	1.99	1.19	2.45
Ham, smoked, butt end, 1 lb	1.25	1.19	.99	.89	1.38	.77	1.15	1.69	.69	1.19	1.09
Bacon, regular slice, 1 lb Armour, Cudahy, Hormel, Oscar Mayer, Roth, Swift or Wilson	.89	[3] 1.29	1.19	1.09	1.68	1.69	1.55	1.59	1.39	1.59	1.93
Weiners, all meat, 1 lb Armour, Cudahy, Hormel, Oscar Mayer, Roth, Swift or Wilson	1.19	[3] .88	.79	[3] .99	1.19	1.35	[3] .92	1.09	1.29	1.09	1.59
Chicken, whole, broiler-fryer, never frozen, grade A, 1 lb	.45	.49	[3] .38	[3] .49	.58	.49	.62	.55	.57	.69	.95
Potatoes, 5 lbs regular, all purpose, US1	.89	[3] .45	1.59	[4] .60	1.29	1.09	.95	.98	.99	1.09	1.25
Carrots, whole, 1 lb US1	.29	.20	[4] .34	.25	.33	.33	.29	.34	.34	[3] .25	.49
Cabbage, 1 lb US1	.19	.15	.25	[3] .15	.25	.19	.12	.23	.14	.13	.29
Lettuce, 1 head, US1	.59	.30	.59	.39	.49	.59	.49	.34	.49	[4] .61	.69
Bananas, 1 lb yellow	.19	.30	.25	.34	.16	.27	.29	.30	.25	.33	.45
Tomatoes, 1 lb vine-ripened, 3 ins. in diameter	.49	.49	[8] .39	.39	[9] .57	.39	.39	.39	.45	.79	.69
Oranges, 5 lbs juice fruit	[4] .98	1.00	1.39	[4] .99	1.12	.99	[3] 1.00	1.09	1.25	1.00	1.89
Subtotal	32.58	31.09	31.11	32.80	33.48	32.27	32.68	34.04	34.93	35.52	44.11
Percentage tax on load	0	5.0	5.0	0	0	4.5	3.5	0	0	4.0	0
Amount of tax on food	0	1.55	1.55	0	0	1.45	1.14	0	0	1.42	0
Total	32.58	32.64	32.66	32.80	33.48	33.72	33.82	34.04	34.93	36.94	44.11
Percentage of difference from average	+.89	+1.1	+1.1	+1.6	+3.7	+4.4	+4.7	+5.4	+8.2	+14.4	+36.6

[1] Grade AA eggs.
[2] Extra sharp cheese.
[3] Special.
[4] Price adjusted.
[5] With coupon.
[6] Boneless sirloin steak price adjusted 50 cents per pound to compare with bone in steak prices.
[7] Combination of cuts from pork loin.
[8] Small salad tomatoes.
[9] Hot house tomatoes.

Representative LONG. Thank you, Mr. Mueller and Mr. Marion. Most interesting.

I have had an opportunity to review the study a good bit, and have three or four questions to ask that I think go to the heart of the matter. The 14-percent price variation between cities due to the absence of competition, I guess, is the most startling result of your study. That is quite a large variation in price levels. Your study also suggests that a good portion of this—an indeterminate amount, I guess, but really a good portion of the 14 percent—is due to the absence of stiff competition in particular markets and to the fact that a few firms really hold up the prices in those areas.

Is it fair to say that food chains go to the extent of subsidizing the operations in competitive markets with profits that are earned in markets where little competition exists and where the chains can charge higher prices? In your study, did you have any evidence of this?

Mr. MUELLER. We had a table in the study that does show the food chain store operating divisions over the study period which experienced substantial losses; and the only way in which these firms could maintain those divisions is to subsidize their operations from profits out of other markets.

Were A. & P., for example, to consist of numerous independent firms in lieu of each of its divisions, many of those divisons would have had to shape up a lot earlier. So, yes, there is a great deal of cross-subsidization in retailing.

Representative LONG. Does that carry down to individual stores? Let's assume that one chain attempts to penetrate a market. The chain builds two stores at the beginning in particular neighborhoods. Do you have any evidence whether existing chains lower their prices at their stores in those particular neighborhoods in order to undercut the competition?

Mr. MUELLER. In the example I gave in our prepared statement on public policy, the evidence did show that in Washington, D.C., this did happen.

Representative LONG. They actually——

Mr. MUELLER. Yes. The leading chains reduced prices, not across the entire city, but rather in the area in which these new stores were located.

Mr. MARION. This was also a factor in the consent decree that we referred to in Canada. Safeway was involved in this sort of practice in Edmonton and Calgary; that is, selective price cutting in certain areas. The consent decree forbid them from continuing this pricing behavior within those metropolitan markets.

I would like to make a clarification on that 14-percent figure. That was the range in prices we found between the high and low—the two most extreme markets. At the same time, our statistical analysis indicated that there was not, on average, that much difference between less concentrated and highly concentrated markets.

Representative LONG. I understood that was from the very top to the bottom.

Mr. MARION. Yes. On average, we are talking about more like an 8-percent difference between the least competitive and most competitive markets.

Representative LONG. Even 8 percent itself is very substantial when you are dealing with these items.

The thing that seems to me to be lacking here is a proper consideration of the cost differences in the different areas. Being relatively unsophisticated in this field, it's difficult for me to determine whether or not the difference in the costs in a particular area and the cost of living in that area are a cause of this or an effect of it.

I would like both of you to comment on that, if you would.

Mr. MARION. One of the costs that one would expect might be important would be labor costs, because labor constitutes approximately half of the operating expenses of retail food firms and does vary from one market area to the other. Now, there is no particular reason why we would expect union wages to vary directly with concentration; that is, to be higher in concentrated markets and lower in unconcentrated markets. Union wages are bargained and set largely on a regionwide basis.

Nevertheless, to cover this possibility, we did obtain data for 22 SMSA's on union wages for retail clerks and meatcutters, and included a wage rate variable in our price model. This is not included in our report, since we did it just recently in response to the comments received from some of those who reviewed the study.

We thought this was one cost element that was worth looking at to see whether it had any influence on prices. When included in our regression model, the wage rate variable itself was very insignificant and had essentially no influence on the overall regression results. The results came out essentially the same whether the union wage rate for the different metropolitan areas was in the model or left out. This suggests that differences in wages do not explain the differences in prices in the different markets.

So we did test this major cost factor.

The other cost factor that could be involved is differences in transportation costs. A transportation variable was included in the study by the USDA, which incidentally is not comparable to ours and cannot be used to confirm or refute our study. The price data used in that study is not sufficiently disaggregated for use in a sophisticated intercity-firm analysis. It's just not adequate as the authors themselves realized.

INADEQUACY OF USDA STUDY RECOGNIZED BY USDA AND AUTHORS

Representative LONG. As you know, this USDA study is one I will put in the record at the end of these hearings. I went back and made a rather cursory examination of the study, attempting to determine what their views were on this particular problem. If you look at the Grinnel-Crawford-Feaster study on this, which I gather was basically paid for by the Department of Agriculture, it strikes one that the authors seemed to have experienced some frustration. They say such things as, "All retail food price series are hampered by a lack of usable price information."

They say, "The question of whether individual firms with high market shares charge higher prices was not addressed in the study."

They say, "Data are not available to determine whether market concentration is positively related to identical items among the series."

They say, "It could not be determined whether food prices increased over time due to rising levels of concentration in a given market."

They say, "Additional price data are needed for more cities."

They say, "Additional price measures are needed to more adequately make price comparisons among cities."

If you come down to their conclusions, they said that because of data limitations and model insensitivity, the findings of their study should not be considered conclusive. It is of no value in evaluating the relationship of prices and market concentration because, "price data was not available." Yet, this is exactly the new data you had which they did not have.

I really ended up not getting very much out of it. But I think it ought to be put in the record just in order to make the record complete. Do you feel, with respect to a study of the cost factors, that they did go into that in some detail?

Mr. MARION. I just wanted to comment that there was one cost factor that they included in their models that came out highly significant. That was a proxy variable for transportation.

Representative LONG. How do you feel the availabality of data to you in the study that was conducted by yourself and Mr. Mueller and your groups, compare with the data that were available to this group, which evidenced considerable frustration about the inability to have what data they needed to form any logical conclusion?

Mr. MARION. There are some very important and substantive differences in the data sets. In our study, we were comparing prices of food chains across different markets—the same chains across different markets—for a standard market basket of items. If we had Minute Maid orange juice in our basket, we priced Minute Maid orange juice across all markets.

Representative LONG. You feel it is much more substantive.

Mr. MARION. Yes. The USDA study is based upon BLS data which even BLS stresses are not suitable for comparisons across markets because the brands of products included in the market basket change from one market to another. They may price orange juice, but they may pick up Minute Maid at one store and a private label in another store or another market.

The BLS data used in this USDA study also includes prices from small stores, convenience stores, and other food stores in their calculations since they are attempting to come up with an average price across the whole market.

BLS data is designed to compare changes in prices in particular markets over time, not at comparing prices across markets. It becomes extremely tenuous to try to use this data to compare prices across markets in order to learn something about competition.

Representative LONG. I assume that is the reason why most people who have attempted to do studies in this field, without having evidence and information of the type that was available to you, have felt those same frustrations.

Before my time is up, let me ask you two short questions, hoping that you can simplify your answer because I have about expended all my time.

One, what do you two gentlemen see as the reason behind the cost differential between name brands and house brands, and why has the difference between the two been reduced during the last few years by the degree that you mentioned earlier in your report?

Mr. MARION. We can only conjecture on that. I would think of two things. One is that as consumers have become more conscious of house

brands because of publicity that house brands are cheaper, they have perhaps turned to them more and chains have been able to charge somewhat higher prices for them as a consequence. The acceptance of private brands probably has increased over time.

I also think that during 1972–74, many chains were in a profit crunch. One of the places where a retailer might pick up a little margin would be by increasing the price on house brands. It is tougher for shoppers to compare prices on house brands than it is on national brands.

Representative LONG. What causes the basic differential?

Mr. MARION. What causes the basic differential?

Representative LONG. Yes. How are they able to sell house brand products so much cheaper than they are able to sell name brand products?

Mr. MARION. In most cases they cost much less.

Representative LONG. What underlies that additional cost?

Mr. MARION. The manufacturers of store brands are not involved in extensive advertising and product differentiation activities which add to the cost of the national brand products.

Representative LONG. Aren't the name brands and the house brands basically—as everybody says exists in gasoline—made and manufactured by nearly the same people?

Mr. MARION. I think in many cases this is true, although we don't really have evidence in our report to be able to document that one way or the other.

Representative LONG. Mr. Mueller, do you have any comment on this?

Mr. MUELLER. I agree with Mr. Marion.

Representative LONG. Let me ask one more question. Back in 1974, at the time the Joint Economic Committee staff evaluated the preliminary data that were available to them under the subpenas that had been issued, the staff discovered that the two largest chains in one city had identical prices on 66 percent of their items. Identical prices on 66 percent of their items. They also discovered that prices were changed in a parallel fashion. Not only were they parallel in 66 percent of the items, but when one chain changed a price, in 75 percent of the cases the other chain changed it again to an identical price.

Is this a common occurrence in food retailing?

Mr. MUELLER. I think in the market that you are discussing we had two dominant chains. Competition was less intense.

It is true that in a perfectly competitive market, like the grain exchange or the stock exchange, prices tend to be identical. In an industry such as food retailing where there is some service differentiation, firms do not have identical prices. They do have different mixes in their prices.

Representative LONG. Are you saying that this——

Mr. MUELLER. I think it is an understatement to say that this is evidence of the absence of keen price competition.

Representative LONG. That's the question I was about to ask. This evidently is a characteristic more common to a market where there is a lack of competition than it is to a market where there is a great deal of competition.

Mr. MUELLER. It is quite an achievement for two chains to have so many identical prices.

Representative LONG. Fine. Thank you very much.

Congresswoman Heckler.

Representative HECKLER. Thank you, Congressman Long.

Mr. Marion, in your prepared statement you said that the increase in food costs in 1974 attributable to the lack of competition might total $662 million.

As you propably know, the food industry news organ Supermarket News has taken issue with your study and with some of your conclusions. I am sure they would take issue with that one.

As a matter of fact, I think some of their questions should be raised here relating to the methodology of your study itself.

Concerning the issue of monopoly overcharge, which we have been discussing, there's some question about the criteria that you have selected. That is, you assume that overcharges exist in any market where the largest four firms control 40 percent or more of the total food sales.

Why did you select 40 percent instead of 49 percent which is the national average?

Mr. MARION. The reason for selecting that particular benchmark was that our computer mathematical analysis of prices indicated that prices are apparently competitive and change little at lower levels of market concentration but increased quite sharply above that threshold level.

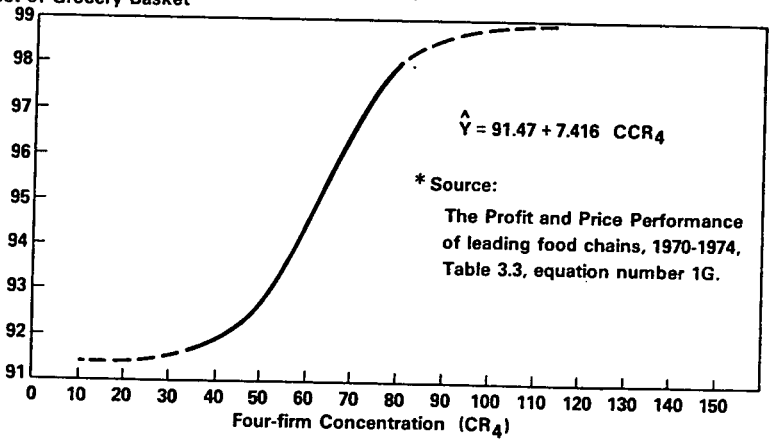
This graph, which we just prepared, shows the pattern of prices that we found for different levels of concentration. As you can see, prices flatten off about at the level where CR_4 is 40. At this point, and lower levels of concentration, prices are apparently competitive. As expected, prices are essentially the same in competitive markets.

As concentration increases above a CR_4 of 40, however, prices go up as well. Eventually, all of the monopoly profits are achieved at very high levels of concentration, and prices level off again.

The rationale for our selecting a relative firm market share of 25 as the competitive norm was simply that this would mean the top four firms have equal market shares.

[The graph referred to follows:]

Relationship of Four-Firm Concentration Ratios and Food Prices*



Representative HECKLER. What do you think the graph would look like if you had chosen a CR_4 of 49 for the national average? How would that have affected your estimate of monopoly overcharges?

Mr. MARION. The monopoly overcharge would have beeen reduced. However, it would still have been fairly substantial. From our prepared statement you can see there is one market alone, for example, that had $80 million in overcharges. Those markets that are extremely concentrated and have dominant firms end up with very high monopoly overchage figures.

Representative HECKLER. How many SMSA's would fall into your category of the largest four chains sell at least 40 percent of all the food sales?

Mr. MARION. What percentage?

Representative HECKLER. How many cities nationally fall into your monopoly overcharge category?

Mr. MUELLER. Over 50 percent.

Representative HECKLER. Over 50 percent?

Mr. MARION. I can check and give you a precise figure.

Mr. MUELLER. While he is looking up the figure I might mention one thing. The range between 40 and 50 is one in which prices are increasing modestly. It is 1 percentage point. It is when you get above this that it takes off by a larger amount.

Mr. MARION. There were 89 percent of the SMSA's in 1972 that had CR_4's over 40 percent.

Representative HECKLER. Eighty-nine percent?

Mr. MARION. Eight-nine percent. Substantially more than half. There are a big chunk of them—about one-third of all markets—where the CR_4 is between 40 and 50.

Representative HECKLER. Another criticism of your study was the fact that you selected only about 100 food items, and omitted some fairly common, and definitely essential commodities such as meat.

Now how do you justify your conclusions and consider them representative considering the exclusion of something like meat?

Mr. MARION. First of all, I think it is important to recognize—and I think we made this fairly clear in the report—that we were limited by the data that was available. We would have liked to have included meat. We would have liked to included fluid milk. We would have liked to have included other items. However, price comparison data for those were not provided by the food chains, despite subpenas.

What we have then are 110 grocery products and then about an additional 50 private label items. We have something like 160 items that are largely in the grocery area. Those were the items that the food chains themselves price checked most frequently—a key point I urge you to keep in mind.

I think it is reasonable that the most price sensitive products—those that chains are going to be the most concerned about trying to keep in line with their competitors—are not so likely to be meat and produce items which can vary in quality, which experience frequent price changes from week to week, and hence are more difficult for consumers to compare prices. Chains much prefer to focus store pricing strategies on standard items, that shoppers can easily compare—items like Campbell's soup, Maxwell House coffee, Tide soap, and so forth. These

are the products that you or I can walk into any supermarket and compare the prices with the store down the street.

If firms have the discretion to increase the prices of these items, which are most price sensitive and have the most influence on their price image, then it is hard for me to believe that they could not likewise increase their prices on meat, produce, and less easily compared items.

So in this sense, we recognize that our market basket is not complete, but at the same time, we have picked out that part of the store where we would least expect price differences.

Mr. MUELLER. Just to amplify on that, one of the criticisms made by food chain representatives is that these other items would have less variation.

Based on some of the data that we report here from the chains themselves, the price data show them to be entirely off base; it shows the contrary, that for health and beauty needs, for example, the range of prices between high and low are actually greater than on the items we included.

We have some tables on that.

Representative HECKLER. Most essentially you said that limitations on your study are really due to the fact that the information available also was restricted, therefore, you did not have a total range of commodities to study?

Mr. MARION. That's right.

Mr. MUELLER. The important point is that while these were data from the chains, their price checks data, these were prices that were important to them and they—not us—selected them in making their price checks to find out how their rivals were doing.

Meat is an extremely difficult thing to price check. Many chains just did not even attempt to make the comparison, but if they do have discretion in pricing these items, one would expect that they would have discretion in pricing others as well.

So we are limited by the kind of data that chains themselves are limited to in making their price decisions.

Representative HECKLER. You selected 110 items upon which to base your comparative price check. How many other items were available that you might have used, items that the supermarkets had made available in terms of prices and information? Did you select all of the items they provided information on or did you select out a few?

Mr. MARION. The items that we selected were essentially all of the items that we could get on which prices were available for the three chains and 32 SMSA's.

When we looked at the chain price data for the three companies across markets, you quickly sort down from the price check information that was provided. Some companies provided whole books of price information. If for other markets or other companies you have only prices on 200 or 300 items, that limits the number that you can select for the whole sample.

We tried to pick up every price that we could meaningfully compare across markets and across firms.

Representative HECKLER. What about the criticism that you used only 1 month's study of the prices? Was this a typical month? Was it atypical? Is that a representative sampling, the study of 1 month?

Mr. MUELLER. First, it was the month available. Insofar as this is a bias in a statistical sense, one would expect that having 1 month instead of being able to average them for 12 months would bias our results toward zero. Of course, we would like to have more price data. However, in the case of our profit data, we average over 4 years which is an accepted statistical procedure in this area.

Yes, we had 1 month. There's no reason to believe that the level of prices in that month would be irrelevant. It is statistically highly unlikely that the relationships we found were due to chance.

The striking fact is that our findings are so strong in spite of the fact we only had 1 month, whereas ideally we would like to have more. That lends strength to the study.

Representative HECKLER. Two other quick questions, Mr. Mueller.

You have stated that there is something of a lethargy at the FTC in terms of antitrust enforcement against food chains. How would you characterize the present attitude. Second, why is it that this lethargy, or looking the other way, developed? What prompted that? Is there some justification in the marketplace for that?

Mr. MUELLER. Well, I see no reason, first with respect to market extension mergers, why the FTC would have been concerned during the fifties, one with a Republican administration, and during the sixties, in a Democratic administration, with these kinds of mergers and not be concerned today.

I can only explain it by a radical change in their philosophy of what the antitrust laws involve and what the possible effects of these kinds of mergers are.

As to horizontal mergers: All the cases, plus one I didn't cite, have been difficult cases in the sense that one of the companies is usually in financial difficulty.

We should always make every effort—and the FTC in the *Arden-Mayfair* case did not—to seek out buyers other than a leading firm in the market.

Representative HECKLER. Mr. Mueller, you have, I think, reached an all-time high in the mastery of semantics. You referred to industrial restructuring. That has much less of a chill factor than divestiture. You get right down to divestiture really when you start to restructure.

Based on the study that you have compiled and your investigation of the facts which have been made available, is it your judgment that a strong case for divestiture exists based on this study itself?

Mr. MUELLER. Well, first, I am not afraid of the word. There's been a great deal of restructuring and there have been divestitures in food retailing and merger cases under very difficult circumstances, so it can be done and it isn't all that painful.

As to the need, as I said, there are two alternatives. One is the less drastic; namely, placing a limitation on the growth of a chain for a period of time. That has problems in it as far as I am concerned.

The other is to require that the offending chain divest itself of part of its stores, and I think there are several markets that are so highly concentrated that the antitrust agencies should look at it.

Representative LONG. Thank you very much, Congresswoman Heckler.

Senator Roth.

Senator ROTH. Thank you, Congressman Long.

If I understand the principal thrust of your testimony, it seems to me you are saying that as far as the antitrust laws are concerned, they are probably adequate to deal with these things. What is needed is a change of policy in the Federal Trade Commission, is that correct?

Mr. MUELLER, I think for the most part, yes. There are other non-antitrust approaches that could complement those agency decisions. I have mentioned co-ops and more consumer information, for example.

Senator ROTH. One question that concerns me is whether or not the consumer is paying a fair price. Your study has pretty much looked at the horizontal problem, but in trying to determine whether this is a competitive market and the consumer is paying a fair price, a number of other questions come to mind, at least so far as I am concerned, which your study doesn't deal with.

I would like to get your reaction. For example, I know a lot of farmers have asked me why, when the price of farm products go up, the price of bread and commodities seem to go very substantially higher. Yet when they are on a downward trend, you never see prices fall back.

Take the case of sugar; sugar went up very high, and then went down. I have small children. They are always buying candy, for example. I know candy and gum went up. Gum for years was 5 cents. When the price of sugar went up, gum and candy went up very substantially. There has never been any fallback. Why is that?

Mr. MUELLER. First, I am not sure that everybody would agree that it does happen. There are independent researchers who have studied it.

I think one reason is that during periods of inflation, firms—depending upon their competitive circumstances—are always looking at opportunities to increase prices to reflect cost increases irrespective of the competitive situation. So, if some product goes up in price because of a reduction in the supply, say at the farm level, they may, after it has fallen in price to them, try to keep its price up in order to get a larger margin on it. So there is some understandable business reason why firms tend to behave in this fashion.

Mr. MARION. I think prices tend to be sort of sticky. Consumers don't like wildly fluctuating prices either, and so retailers tend to move up only after a time or move down after a time when they have made sure that the price changes are in fact going to be permanent.

Senator ROTH. Many people tend to blame the middleman. I don't know whether you would say that is right or wrong. As a matter of technique, if you are going to study prices, wouldn't it be desirable to make a vertical study as well as the horizontal?

Mr. MUELLER. I think the Council on Wage and Price Stability has essentially asked that question.

We are asking whether chains are able to, not just in a short run, but over a sustained period of time maintain significantly higher prices, and enjoy higher profits in less competitive markets than in competitive ones. I don't think we had any data really to test this other problem, which I believe is a problem worthy of study.

Senator ROTH. You mentioned in your own testimony the experience of A. & P. I gather from what you said that in addition to A. & P. there have been a number of other companies that have been failing or having serious problems.

Does that indicate that there is competition generally speaking or is it just poor management? Why are some of the large companies having these difficulties?

Mr. MUELLER. First, A. & P. has had difficulties for a good many years, almost from the day there were actions brought against it to prevent it from getting discriminatory prices from its suppliers. I think the industry generally feels, and observers agree, that A. & P. has been less than a very efficient firm. Although it is certainly large enough to achieve all the economies of scale, it hasn't been as efficient as other firms. So you can have large but inefficient firms in financial difficulties in industries that are becoming increasingly concentrated.

Also, I think you have to distinguish between competition and rivalry.

Senator ROTH. Between competition and what?

Mr. MUELLER. Between competition as we talk about it and simply competitive rivalry, different strategies in food retailing. There are a lot of nonprice means of competing. Many of these are desired by consumers. A. & P. has been less effective, I think, in keeping up with its large as well as its small rivals in this area. And a couple of years ago it was passed by Safeway in volume of sales.

Senator ROTH. One final question.

As I understand it, your study was based on a 5-year period but 2 years were dropped out, is that correct?

Mr. MUELLER. No. We had 5 years of data for profits. As is a common statistical technique, we pooled the 5 years for some statistical analyses, then we showed the results for individual years as well.

In one equation we used all the years except 1972 and 1973 because they were not representative years in terms of profits. In fact, the whole period is rather abnormal in terms of the history of food retailing, but those 2 years' profits were particularly depressed.

So when we compared our profit and price models, we left out those 2 years in that equation.

Mr. MARION. If we had left 1972 and 1973 in, it would have shown even a greater difference between the increase in prices and the increase in profits. It would have strengthened our findings. But, would have just been an unfair comparison. Those were very depressed profit years.

Let me make that point again: By leaving out those two really abnormal years, we purposely sought to test our model under the weakest set of conditions. Yet, we still found a strong, very strong link between market concentration and high profits.

Senator ROTH. I am not personally drawing any conclusion. I understand there are those that are critical of that method if it is limited to 3 years and you have thrown out 2 years where profits were relatively low.

Let me ask you this. Do you think it would be desirable to extend the period of study?

Mr. MARION. Would it be desirable to extend it beyond the present time?

Senator ROTH. Yes, to continue the study, try to get a better grasp of what is happening? Or do you think the present study is adequate?

Mr. MARION. I think the present study is adequate for the time being. I do think it would be extremely useful to have the sort of data that would allow us to continually monitor what is happening both pricewise and profitwise in retailing across markets. Let me remind you that inclusion of those two abnormal years would have strengthened our results, not weakened them. Our critics are missing this point entirely, to our puzzlement.

Senator ROTH. Thank you.

Representative LONG. Thank you.

One question in regard to what Senator Roth asked: Does the FTC, Mr. Mueller, do any monitoring along the lines which Mr. Marion is speaking of?

Mr. MUELLER. Not to my knowledge.

Representative LONG. Thank you very much.

Senator Hatch.

Senator HATCH. With regard to those 2 years which you dropped out, if I understand the footnote in your study, it says that inclusion of those years would have lowered the profit estimate of 1.15 by 0.36 percentage points in the areas in which concentration is equal to 40 and relative market share is equal to 25.

Does that mean the profit would be reduced by one-third to 0.79?

Mr. MARION. It does.

Senator HATCH. Would other estimates be reduced by the same percentage?

Mr. MARION. Yes. But keep in mind that the key point was the difference in profits between firms—the relative profits of different firms is different markets—and not absolute profit levels. Different absolute profits would have no impact on that sort of analysis.

Senator HATCH. Isn't this more than a "slightly lower" estimate for profits that you characterized it as in your report?

Mr. MARION. The profit estimates would be lower across the board. I think one thing to keep in mind is that we only dropped out those 2 years in one model out of all the models we examined. Most of them have the whole 5 years.

The only reason we used that particular model for this comparison was that in looking at all of the other evidence in the report, you can hardly say that 1972 and 1973 are typical profit years for this industry.

So, in putting together a table which compares prices in 1974, a more normal period, with profits, we wanted to use those profit years that were the most normal, 1970, 1971, and 1974.

Senator HATCH. Your study maintains that the inclusion of those years, 1972 and 1973, would lead to "slightly lower" profits estimates for various estimates of market shares. What I point out is if the profit estimates would be reduced by more than one-third that would be more than just "slightly lower" which is your characterization. I just wanted to bring that out.

The study seems to make some very important statement on profits in this industry based on a 5-year period but only after 2 years of data are removed.

These 2 years would have shown very little profit for the firms. I think you would agree with that, is that correct?

Mr. MARION. Yes. But let me repeat, the relationship we found between concentration and profits is independent of the issue you have just raised.

Again, adding these 2 years would have strengthened our results.

Senator HATCH. I would like to ask you, Mr. Mueller, if the exclusion of these 2 years lessens the significance of the study in your eyes?

Now you have indicated, at least the way I have interpreted it, that you don't think that it does.

Mr. MUELLER. No; not at all. Quite the reverse.

Senator HATCH. I am not talking about the mathematical significance of it.

Mr. MUELLER. No; because even A. & P., for example, which is very depressed, when we have a table in the appendix showing just the A. & P. divisions, we still come up with these strong relationships between concentration and profits.

A. & P. itself does better in concentrated markets than in less concentrated markets. The main thing we were looking for was the differential price and profit relations across markets, not the particular level of profits. Let me say again: There are tables in the study which reveal how depressed 1972 was in this industry, but the basic relationship between the variables we used came through in those years as well as others.

Again, the basic relationship we found between prices/profits and market concentration existed with or without the 1972 and 1973 profit data.

We explained why for a particular purpose we thought it appropriate to exclude those years. It was solely to show a comparison of a more normal level of profits.

Senator HATCH. There's a crucial question concerning the concentration-price relationship. I would like to address it to you at this time. That is, in reaching the relationships between concentration and relative firm market share with prices, data concerning 3 of the 17 shows 39 observations on 94 items was used. This data was compiled for only 1 month, October 1974.

Now is it risky to make broad statements based on data from only 1 month? For a few of the firms? After all, if 1974 is the only reference point, could not the conclusions drawn be somewhat clouded by the strange economic appearances of that time?

For example, during the fourth quarter of 1974 employment was rising very rapidly and inflation was quite high. I ask you is there a problem with the narrow scope of the price data on which the study's conclusions are drawn if we try to expand those conclusions to other time periods or try to say they are typical of time periods other than the one study here?

Mr. MARION. That is the same question raised earlier. And I think the response Mr. Mueller gave Congresswoman Heckler covers the issue concerning the use of a single month's prices. The representativeness of the three firms and 39 markets is a relevant question that does need to be considered.

What we are really asking here is: Are these typical observations, representative for the whole industry? In our report we make it fairly clear that we can't say that they are. We have looked at these firms, at the markets that were included——

Senator HATCH. You have to admit they were relatively limited?

Mr. MARION. That's right. Because that's all the data which the food chains supplied on prices even though they were under subpena.

Senator HATCH. You have a very limited, very narrow scope?

Mr. MARION. 32 markets, 36 observations. If you look at the average concentrations for those markets, it was very similar to the average concentrations for all SMSA's. Our markets tended to be somewhat more clustered than the whole population in the CR 40 to CR 60 range.

As to the three firms involved, we took a look at their division profits and compared them with the distribution of division profits for all 17 firms. The distribution of their profits is very similar to the distribution of division profits for all 17 chains.

I don't think we are able to stand up and say we can be assured that these are representative. At the same time, there is no strong evidence that they are not representative either—that there's some sort of a bias.

Senator HATCH. You would admit that the scope of your evaluation was quite limited and quite narrow?

Mr. MUELLER. No. No impartial economist could agree to that assertion either. And, I would not agree with that. You interpreted it to imply that we think the number of areas covered is inadequate in any way in a statistical sense. That is an incorrect interpretation.

For example, the USDA study used only 20 markets.

Senator HATCH. That doesn't justify saying that this is a definitive study. The thing that bothers me is not that you may be right. What bothers me is it is so narrow I think it should be considered highly questionable.

I would like to know—from what I see here in your study—it doesn't appear to me that it is broad enough nor is it expansive enough nor is it pervasive enough to really give us a definitive set of conclusions. Therefore, you are judging the whole industry by this study which seems to me to be very narrow in scope and very restricted.

Mr. MUELLER. In a statistical sense, the possibility of our findings being due to chance is extremely remote. That's the bottom line and I think that is why industry spokesmen are so concerned—and critical—of this study as we'll no doubt see later.

Senator HATCH. Based upon the criteria you have used, can you determine that from your statistical test?

Mr. MUELLER. Yes. The tests are traditional, standard academic ones to test whether our findings are in effect due to random events or whether these are due to the variables that are being used to explain them.

You have confidence, do you not, in the USDA Food Market Basket Price Index data? Well, we used more cities than they do. Did you know that, sir?

Senator HATCH. Let me ask another question. During 1974 when pricing samples were taken, the average negotiated wage increase was 9.8 percent for the supermarket industry. This uncharacteristically higher.

Also, there were poor crop years in 1970 and 1974, two of the years in the study. These reports suggest supermarkets were faced with high increases in costs at the time of your pricing survey. If the time period

studied may contain unusual pressures on prices, wouldn't the model only reflect the prices of those few years and not necessarily for other years? Don't we run into problems when we try to use a model such as this that uses data from what must be considered an unusual economic time period and try to make predictions?

Mr. MUELLER. Well, I think probably we failed to make completely clear to you what is involved here. The matter of, say, wage contracts, or other factors that are pushing up the overall price level are one thing, but you would not expect that this would result in this kind of a dispersion of prices across markets related to competitive situations.

You would expect all prices to be pushed up across all markets. It is absurd to suggest as some might that a differential pattern of rising costs are responsible for the strikingly strong and consistent pattern we found of high prices and profits in concentrated markets and lower prices and profits in more competitive ones. No professional economist or statistician would be that naive.

Additionally, those kind of shocks to an industry would tend to bias our results toward zero and result in our not finding any relationship.

We asked ourselves the same kinds of questions you are asking. I am perfectly happy to try to answer them to your satisfaction.

What factors could there be that might have resulted in these kinds of findings that we haven't taken into account?

As I said, one of the main problems is that this is a period in which there have been those kinds of shocks, and yet despite the fact that these would tend to result in our not finding any relationship, we find quite robust ones.

Representative LONG. My colleague, Congressman Brown.

Representative BROWN of Ohio. Thank you, Congressman Long.

I would like to continue on the line that Senator Hatch has been on for a minute.

Mr. Mueller, you cite a study by Mr. Willard Hunt, the coauthor of the Cornell University project, entitled "Operating Results of Food Chains." Mr. Hunt spent a little time with one of the members of my staff and he says this concerning price conclusions: His theory about taking the data from 1 month is that the food chains may operate in a price cycle determined in part by the season of the year.

In other words, at different times during the year you have different prices in a particular community.

Now, I come from a community of 12,000 people where we had, a couple of years ago, two chain supermarkets. One chain had two or three stores, that was it. And the other one was an independent which had two stores in that community.

I don't know whether they qualify as the over-a-million dollar sales supermarket or not, but nevertheless, in our community they are all supermarkets.

Each of those stores, at different times of the year, does different things depending upon the purchases that they can make sometimes from the local community farmers, sometimes from their suppliers and their wholesalers, and sometimes from corporate headquaters.

I guess that is what Mr. Hunt is inferring. Also, he believes in addition that because of the use of computers in price determination, price testing is now much more frequently done. In other words, you can

very quickly jack up prices on one product for a period of time, knock them down at another time when you want a loss leader.

He concludes that those two factors combined mean that a single month, your test period, may be too short a time period when you are dealing with a local market.

Now, can you give me some kind of reaction to that?

Mr. MARION. It is an irrelevant comment. I think that for this rump suggestion to be valid, then what we would essentially have to say is that seasonality of prices, or the increasing and decreasing of prices by chain is in some way related to the concentration of different markets. Although some of this may be occurring—they may go through certain price-rising cycles—there is no reason to believe that this would occur in a certain way in concentrated markets, and in a different way in unconcentrated markets. The point is that our study showed different prices between stores depending on market structure at the same time. So, seasonality is not an issue.

Representative BROWN of Ohio. I am not suggesting it is for different markets that it is different. It may be different for different markets at different times.

I am assuming that as the pigs farrow or sows farrow at different times of the year in various parts of the country, you might have pork sales related to that at a different time in different parts of the country. But you do have that impact on prices, if you pick a certain month? You have certain things going on that operate differently in that month?

Mr. MARION. That is true, particularly in the perishable area. If we had been pricing produce items in different parts of the country, that would have been a valid concern, even for one single month. We may have quite different produce prices in some of the different areas.

For canned grocery products—if you take one point in time—you are not going to have any particular difference across the country.

Representative BROWN of Ohio. You might have a difference in canned items, let me say, if you went to last-in, first-out accounting procedure as opposed to a first-in, first-out accounting procedure, wouldn't you?

In other words, if you had something that had been on the shelf for 3 months, and canned peas doubled in a 3-month period, and if you priced on the basis of a first in, first out, you would still be pricing your can of peas at 18 cents if you did it that way; but if you changed to last in, first out, you might very quickly move that can of peas up to 36 cents, wouldn't you?

Mr. MARION. That would have had no impact on our study results—which focused on prices and profits for the same chains in different markets. As you know, any price change due to accounting alterations would generally be true across the whole firm.

Representative BROWN of Ohio. Let me ask you, how would that be reflected in terms of a profit for the company that changed its accounting procedure? Wouldn't the profit be one-time only inventory profit?

Mr. MARION. It would be a reduction in the year the change in valuation is made, and 1974 as we indicated before, for the 4 firms out of 17 that did make that change——

Representative BROWN of Ohio. So that excuses the study to some extent?

Mr. MARION. No. You see, those accounting changes, of course, occurred at the end of 1974 for the entire profit year. Our profit data for 1974 are for the first three quarters. If you weigh those in with the other 4 years, the effect is extremely small in terms of effect on profit. Let me also make our earlier point: our study focused on relative price differences between stores, not on absolute profit levels. I urge you to keep that salient point in mind.

Mr. MUELLER. Again, if I may add to Mr. Marion's comments. Both the sort of random events that impact on profits and on prices would work to undermine the kind of findings we came up with. That reality strengthens our findings, because the random events would normally result in not having differences based on the level of concentration or the importance of the firm in the market.

Representative BROWN of Ohio. Let me look, if I can, for a minute at the figures which impacted on the food industry during the years of the study or the year of the study.

Farm products went up 18.7 percent in 1972. Processed foods and feeds went up only 11.6.

The next year farm prices went up 36.1 percent. Now these are the years in which you had an effort at price control by the Federal Government. You remember the wonderful time when we didn't have any beef on the shelves because the Federal Government, in its wisdom, was controlling prices and the farmers just said thanks a lot, we can't grow it and loose money, so we won't grow it or sell it.

In 1973, there was a 36.1-percent increase in farm commodity costs in the wholesale price index, and a 20.3-percent increase that year in processed foods.

Now the next year, farm product costs went down 1.9 percent from the previous year, but processed food costs continued to go up 20.9 percent. So there is a lag behind, because in the next year, farm prices, wholesale, went up 5.5 percent, but processed food costs went down 3.8 percent.

Now I want to go to 1974, the year of your study. Farm product wholesale prices were going down 1.9 percent, while processed food costs were going up 20.9 percent, but let me look—I don't have the monthly figures for that particular year, but I do have the monthly figures for 1976.

In the food costs of the Consumer Price Index, there is 1 month in 1976 when they went down 0.9 percent, which I suppose translates into—what would that be? What would that reflect on an annualized basis?

Down 10.8 percent, right? If you picked that month, food prices would be going down.

If you picked the same month a year later, the same month now, food prices went up 0.9 percent. So that would be an increase of 10.8 percent.

Yet, here you had during that 1-month period the total change for the year was 0.6 percent. Now, I guess what I am getting at is that it seems to me the monthly variation and what was happening to the

food price situation at a very volatile time, it was going down in the wholesale area and up in the process area still.

The next year it went up in the wholesale area and down in the processed retail food area. The month you pick in a volatile time like that is significant, isn't it?

Mr. MARION. Well, I think that it becomes particularly important if you want to try to compare prices across time periods. But, if you are comparing prices across markets at the same time as we did, then similar types of cost increases or decreases are going to be impacting on companies throughout the country. You gentlemen must understand this key point.

You are talking about national types of trends here. There is no reason for us to expect that they would impact differently on concentrated markets than they would on unconcentrated markets. The impact is going to be the same.

So we would have no expected effect on the relationship of prices across markets and market concentration at the same period in time.

Mr. MUELLER. Just remember what we are doing. We have a chain, one chain with a market basket, an identical market basket going across 15 markets. The question we are asking is: Why does it charge a higher price for the same products for which it presumably has paid about the same price in city A than in city B or in city C?

Why does a chain operating across, say, 10 markets and with an identical market basket and costs operate this way? Why does it charge more at the same point in time in city A than in city B?

So we separate out those factors that would tend to elevate the whole level of prices in our attempt to answer this question.

Why does the same chain charge different prices for the same products in different markets?

Representative BROWN of Ohio. I guess the point I am getting at is that the part of the country which I represent is served by some nationwide distributors, some regional food distributors, some three and four supermarket chain owners, and as I noted, a couple of stores in that community and that is all. It seems to me if you are a nationwide food distributor, and you are doing business on a last-in, first-out basis, that you are likely to experience a sharp inventory profit when there is a sharp change in food prices, or inventory loss conversely if it goes down sharply. Would that be true?

Mr. MUELLER. Yes. But that will have no——

Representative BROWN of Ohio. All right. The little operations in this community are a lot more flexible, because they frequently buy their beef off the farm, grind it up, and have hamburger at a much lower price than the chain operation can have it because the chain operation made arrangements perhaps for their hamburger out of Chicago and the contract is let 2 months ahead of time or 3 months ahead of time.

They have a price factor that has to stick with that hamburger as it goes through their chain operation. I was trying to remember in the situation I described to you whether the nationwide chainstore operated in our community in October of 1974.

The only thing I can tell you is that they are not in the community now. The guy that drove them out was the guy with the six chainstore

outlet or six-store outlet. He is currently in trouble because he is now being competed with from both ends by the two-store man and the regional chain operator.

It is such a volatile profit, pricing, and availability of commodities kind of business—I must say I don't understand it—that I can't understand why the big chain got driven out after 1974 or about 1974 by a guy who is now in some trouble in that community because he is getting pressure from two other kinds of food operations. I really don't understand from your study how that can be, because your study seems to come to the conclusion that by all rights the only store we should have left is the nationwide chain operation. It isn't the case.

Mr. MUELLER. No. On the contrary, we show that when large chains are unable—if you want to characterize it that way—unable to compete effectively because of whatever reason in a situation such as you described, they would have low profits and low prices. They don't win every battle; but, the long-term trend suggested they are winning more than they are losing as indicated by their increasing share of the business.

Representative BROWN of Ohio. My time is up, but what I am suggesting is: If you took 1 month in this continuing struggle of who has the food market leverage in one community, it might skew your study rather significantly because what was going on 3 years ago isn't going on there today. It changes with the changing times, availability, what's happening in the total consumer price index, the wholesale price of food, the farmers, and the whole spectrum of things that impact on food, production, and sales.

Mr. MUELLER. Well, in our price analysis based on computer programs we did analyze these short-run effects. We have a volatility index as a variable.

Our analysis is significant without it in there, but it is more significant with it in. That would have reflected the situation you described.

If the leading firms were experiencing increasing or decreasing market share, this is an indication that competition is——

Representative BROWN of Ohio. Could I just ask a question directly? Why didn't you take a 2-year study and do it on that basis?

Mr. MARION. We would have loved to if we had had the data on prices. We had 5-year data on profits and examined that full period in the analysis.

Representative BROWN of Ohio. Do you think the data could have been different from what you got on a 1 month?

Mr. MARION. The data would have been different, but the results the same. The chances of coming up with the relationships we did by chance for a 1-month study are extremely small. If we had had 1 whole year or 2 years of price data we could have averaged, and I would have expected the relationships to have been stronger.

Representative LONG. It seems to me that either I didn't understand it correctly or that the line of questioning as to the absolute level of prices is really relatively insignificant here.

Mr. MARION. The latter is correct.

Representative Long. The thing you were attempting to determine was the relative difference in prices between markets, rather than

the absolute level of prices. I assume that the base you used is representative; I have got to believe that it is. I looked at the Department of Agriculture report and they had only 17 or 19 cities—19 cities, I guess—in that report. You have 32 in yours, and this seems to me to indicate a much greater degree of representatives than found in any prior report.

I assume that both of you gentlemen are absolutely convinced—insofar as you can be when you are dealing with statistics—as to the reliability of the statistics in the period that you used to support the conclusions that you drew; is that correct?

Mr. MUELLER. That is correct. Your characterization is precisely what we were concerned with. Not looking at prices over time, but rather looking at prices across markets at a point in time.

Representative LONG. We will go into this further. If it is agreeable, what we will try to do is go through and try to finish here. We can spend another hour at it.

I would like to ask our panel members to come forward, if they would.

Mr. Goldberg, I would like to ask you to lead off.

Mr. Goldberg is a Moffett professor of agriculture and business at the Graduate School of Business Administration, Harvard University. We are pleased to have you here. Mr. Goldberg has had an opportunity to review the report at the request that we received from the Food Marketing Institute. He is not here as an employee of the Food Marketing Institute. although his appearance is at that organizations specific request. He is an outstanding scholar in his field.

Mr. Goldberg, we are glad to have you. Would you proceed?

STATEMENT OF RAY A. GOLDBERG, MOFFETT PROFESSOR OF AGRICULTURE AND BUSINESS, GRADUATE SCHOOL OF BUSINESS ADMINISTRATION, HARVARD UNIVERSITY, APPEARING AT THE REQUEST OF THE FOOD MARKETING INSTITUTE

Mr. GOLDBERG. Thank you, Congressman Long and members of the committee. I appear before your committee to provide one perspective of the Mueller-Marion study on the profit and price performance of leading food chains in 1970 and 1974.

In my research and teaching activities, my purpose is to train private and public managers in administration in order to improve the performance of individual participants in the food system in response to the changing economic, political, and social demands of consumers.

Therefore, our perspective is one that tends to take into consideration the requirements of the many participants in the food system, labor, producer, processor, retailer, financier, and farm suppliers as they coordinate their activities to respond to consumer needs.

My principal concern in reading the original and current draft of the study is noted in my letter of November 15, 1976, and March 14, 1977, to the JEC is that the authors ignored the studies and practical information that lead to cost and competitive patterns different from those they have assumed in their study.

In addition, they have ignored their own excellent words on the caution one must take in making assumptions about chain pricing based on 39 observations of 3 chains in 1 month in 1974.

Parenthetically, I might add that when it came to writing conclusions, they didn't reiterate cautions. They did not put their cautions very close to the conclusions. If they did, the reader would have a different perception of the study.

Also, in their footnote on page 2, chapter 4, in the earlier draft of the study, they noted that in the Canadian study from which they quoted, "No correlation was found between four-firm concentration and operating expenses."

The first point I would like to make concerns labor costs. Labor costs in all food marketing had a 10-percent increase in 1974, but for food retailing including restaurants, labor costs rose 22 percent. Not all labor costs are the same. They may vary between areas, between labor contracts, and between union and nonunion wage rates.

One of the most profitable chains cited in the study has 95 percent nonunion labor. Retail clerks in 1974 had a rate of $5.81 per hour in one city and $3.90 per hour in another, both union rates, by the way.

In 1973, the range was $5.27 to $3.50 and the high city in each year was different.

In my hometown of Boston, Mass., 40 percent of the retail market is organized, 60 percent is nonunion. One reliable industry source estimates that 55 percent of the 20-percent gross margin cost is labor cost and that the nonunion differential in the form of restrictions, benefits and pensions would amount to 1 percent on sales difference between the two types of operators.

Similarly, a St. Louis operator indicates that 67 percent of their total cost of doing business is labor. He pointed out that retail clerks in St. Louis for a 40-hour week averaged $300 in 1976 whereas in Miami they averaged only $159.

More important than just the labor cost differences between areas in union and nonunion labor rates are the work restrictions in some cities such as St. Louis where retailers cannot buy boxed beef, prepackaged chickens, or have central meat operations. Costs in different locations involve more than market structure differences. They also involve the nature of the labor market that represents 55 to 67 percent of the costs.

TRANSPORTATION COSTS

In a 1974 Governors Commission on Food for the Commonwealth of Massachusetts, a nonpartisan report organized by a Republican Governor and implemented by a Democratic Governor, it was noted that Boston is one of the 4 highest of 38 metropolitan areas in the United States with respect to food costs. It was shown that the main reason for the food costing more in Massachusetts and New England was the high cost of transportation.

I hope you will permit a portion of that report which is attached to this statement to appear in the record.

Similarly, a more recent study in 1976 by Department of Agriculture employees, Grinnell, Crawford, and Feaster indicated the same point as well as taking exception to the Mueller-Marion hypothesis [sic].

I realize that Professor Marion and Professor Mueller don't think too much of that study, but nevertheless it did come up with the opposite conclusion. The fact they didn't even note it bothered me.

EXCESS CAPACITY

Excess capacity in the food distribution of the United States is an overriding factor in determining the future shape and structure of the supermarket industry in 1980.

In an excellent study by Prof. Robert Buzzell and Prof. Walter Salmon of my faculty, underwritten by Circle magazine [sic], a division of the New York Times, and presented at an annual meeting of the National Association of Food Chains at the expense, by the way, of Circle magazine and the New York Times, not the Association of Food Chains, the effects of this excess capacity were set forth. To quote:

"Concurrent with the growth of super-stores and convenience stores, price competition intensified. This situation reflected growing idle capacity in food distribution.

"From 1968 to 1972, sales per square foot adjusted for inflation actually declined by 1.9 percent. It also reflected growing recognition that additional volume could be achieved at only modest additional expense. This situation encouraged selected food store operators to initiate price wars in the hope of capturing and retaining additional share of market. It quickly became apparent that, even in a period of prosperity"—that was before our current recession—"with food stores' prices rising more slowly than the overall cost of living index, additional patronage was attracted by strong price appeals." [1]

Again, I have included the entire report of Professors Buzzell and Salmon as part of this overall report to you.

Excess capacity is not a barrier to entry but rather leads to more competition by the independents. The A. & P. selling of stores to local managers is but one indication of this.

In a way, A. & P. is forming a giant cooperative of independent managers which is probably a good way, and is another recommendation that Professor Mueller and Professor Marion might want to add to their excellent ones.

Anyway, the quotation from Buzzell and Salmon is as follows:

A second aspect of industry structure involves who will own the selling points. The most significant issue in this area is whether chains or independents will gain in market share. The thrust of this study is that the chain share of market will level out or even decline slightly. There are several reasons for this conclusion.

First, independents through affiliation with cooperative or voluntary wholesalers have gained the staff services and, in many instances, even the financial muscle formerly available only to the chains.

Second, independents are not as frequently unionized as the chains. This situation may result in somewhat lower wage rates. Such differences are important, particularly in the operation of the consumer desired and labor-intensive service departments.

In addition, the lack of union restrictions for independents may result in greater flexibility in hours of operation.[2]

Other weaknesses in the study are the fact that items such as meat, produce, dairy, frozen foods, health and beauty aids which amount to over 50 percent of the supermarket volume could show different profit patterns as would the selection of other divisions, and the size of store used by the participants with the higher market share.

[1] "The Consumer and the Supermarket—1980," p. 13.
[2] Ibid, p. 24.

One of the reasons A. & P. is having so much trouble is not because of their huge market share, it is because of their very small stores. Some of these weaknesses are acknowledged by the authors and then ignored in reaching their conclusions. That I don't understand.

By the way, this view of mine is shared by Professor Buzzell of Harvard University, who at my request and on a confidential basis, maintained the confidentiality requested by the committee, reviewed the study and had the following observations:

"One, the inference that food chains with large relative market shares tend to have both higher profits and higher operating expenses seems very tenuous to me."

I think it is important here to make sure that Buzzell is not arguing that market share and profits go together. What he is arguing is whether both higher profits and higher operating expenses may go together.

"The authors are saying, in effect, that there are no real economies of scale in food retailing. The basis for this is a comparison of the results of the separate profit and price regressions which, as the authors acknowledge, are based on different samples."

Although the authors assert that "other studies show relationship between market power and inefficiency, my own experience"—this is Buzzell speaking—"is quite the reverse."

"Certainly our analysis of the relationship between market share has shown that a large share of businesses tend to enjoy economies of scale reflected in lower operating expense and better utilization of facilities.

"In food retailing specifically, it is generally believed, although perhaps not documented publicly, that large share of local market brings with it operating economies in warehousing, delivery, supervision, and advertising costs, among others.

"Obviously, this point is a crucial one. If chains with large market shares are profitable because of economies of scale, then the alleged monopoly overcharges may not exist or may be much less in magnitude than the authors claim."

The important thing here is that I don't think anyone really knows, sir. I don't think the authors of the article who wrote this statement to me or anybody else really knows the answer to the question, but the real problem is to make an assumption and say that that is the answer. Buzzell also said, "The authors use a base point of CR_4 equal 40 and relative share equal 25 as a standard for determining 'monopoly over charges.' I don't understand the rationale for this 'base point.' According to table 1.3, why is 40 used as the basis for a computation of overcharges?" I thought I should raise the same question he raised.

The third point Buzzell makes is that the regression models used to explain variations in profits and prices do not include some potentially important variables. The variables include:

Differences in product mix, especially the extent of nonfoods; intermarket differences in wage rates, extent of unionization, real estate costs, and general level of consumer prices.

Finally, what are the implications of the study for antitrust enforcement?

First of all, I might say that I thought the suggestions made by Professor Mueller are good ones. I find no fault with trying to improve competition in the United States, but the implications of this study for antitrust enforcement is that if one takes into account an excess capacity, changing labor markets, union versus nonunion competition, chain versus independent competition, then food retailing is one segment of the food system that should remain extremely competitive over the next several years.

This study would have been useful if it had taken into consideration other studies related to it, and most important of all to me, had taken into consideration the total food system and the economic environment in which this analysis was made.

This committee has a reputation for being nonpartisan. It has reason to study and be concerned with concentration. There are also many studies that indicate a correlation between profits and market share.

Unfortunately, this particular study has not taken into consideration so many factors that lead to the opposite conclusion with respect to cost assumptions by the authors that it may tend to discredit other valuable studies that point up the necessity of maintaining creative competition responsive to changing consumer needs.

I have taken more than my time, but I would like to say if you do read the Buzzell and Salmon report very carefully, you will find different answers to the questions that were raised earlier in this morning's hearings.

[The comments on Mr. Goldberg's testimony by Messrs. Mueller and Marion and the prepared statement of Mr. Goldberg follow:]

COMMENTS ON TESTIMONY OF RAY A. GOLDBERG BY WILLARD F. MUELLER AND BRUCE W. MARION

At the request of the National Association of Food Chains (now Food Marketing Institute) the Joint Economic Committee asked Mr. Goldberg to review a pre-publication version of the Report in the fall of 1976. In his initial review of the Report, Mr. Goldberg raised several points for consideration and commented, ". . . the report is a very scholarly work, very thorough and well documented". Most of his criticisms were minor, in our judgment, and are dealt with in footnote 6 of chapter 4 of the Report.

In an unsolicited follow-up review of the Report on March 14, 1977, Mr. Goldberg reflects a change of heart. Although the Report had been changed little from the earlier version he reviewed, Mr. Goldberg now finds that, "the conclusions of the authors are open to attack because other reputable studies have shown different and in some cases even opposite relationships. The authors have jumped to conclusions with insufficient and/or unrelated data". The latter letter was sent during the period the Food Marketing Institute was organizing its efforts to discredit the report, and echos several of the criticisms made by FMI economist, Mr. Hammonds.

In his testimony on March 30, 1977, Mr. Goldberg reiterated several of the criticisms raised in his two review letters. His criticisms will be answered in the order they are given.

1. The study fails to consider differences in wage rates and in the degree of unionization in different markets and geographic regions (Goldberg, p. 1–2).

Although we have been unable to examine the influence of unionization, wage rates were included in our price models and were not significantly related to grocery prices. (See Comments to Hammonds, C.2.)

2. The study fails to consider differences in transportation costs (Goldberg, p. 2). (See Comments on Hammonds, C.2.)

3. Inadequate attention is given in the study to the competitive influence of excess capacity (Goldberg, p. 2, 3).

Goldberg bases his argument on a report written by Buzzell and Salmon for Circle Magazine. See our discussion of this report in Comments on Hammonds, E., Buzzell-Salmon Report.

4. The study findings indicate no economies of scale in retailing as a firm's market share increases. This is contradictory to conventional wisdom and to a study by Buzzell, Gale and Sulton (Goldberg, p. 3).

We have not claimed that our study provides conclusive evidence that scale economies are nonexistent in food retailing. Some scale economies may exist as market share increases but be offset by increases in other expense categories due to the greater emphasis on non-price competition. Potential scale economies also may not be captured due to a relaxation of cost controls by firms with large market shares. Thus, although our study results suggest that retail expenses per dollar of sales increase as firm market share increases, the study provides no direct information on why this is so.

The Buzzell, Gale and Sulton study referred to by Goldberg examined the relationship of market share to the various cost factors of 620 divisions of 57 large companies from a variety of industries. The data and analytical procedures used in this study are extremely crude. The mixed results concerning scale economies are therefore difficult to interpret.

5. The choice of CR_4 of 40 as the competitive norm is questionable when the average CR_4 for all SMSAs was 52.1 in 1972 (Goldberg, p. 4). (See Comments on Hammonds, A.)

6. The regression models for profits and prices do not include some potentially important variables such as differences in product mix and intermarket differences in wage rates, extent of unionization, real estate costs and general level of consumer prices (Goldberg, p. 4).

The product mix of supermarkets does vary some from one geographic area to another. However, there is no reason to expect product mix to be systematically related to market concentration or relative firm market share in such a fashion as to be responsible for our findings based on a market basket whose mix does not change among markets.

The other "important variables" were referred to under 1 and 2 above and are discussed in our comments on Hammonds, C. 2.

PREPARED STATEMENT OF RAY A. GOLDBERG

Mr. Chairman and Members of the Committee, I appear before your committee to provide one perspective in evaluating a previous and current draft of the Mueller-Marion Study on "The Profit and Price Performance of Leading Food Chains, 1970–74". In our research and teaching activities our purpose is to train private and public managers in administration in order to improve the performance of individual participants in the food system in response to the changing economic, political, and social demands of consumers. Therefore, our perspective is one that attempts to take into consideration the requirements of the many participants in the food system—labor, producer, processor, retailer, financiers, and farm suppliers—as they coordinate their activities to respond to consumer needs.

My principal concern in reading the original and current draft of the Study, as noted in my letters of November 15, 1976, and March 14, 1977[1] to Mr. Tyler, of the committee staff, is that the authors ignored important studies and practical information that lead to cost and competitive patterns different from those they have assumed in their Study. In addition, they have ignored their own excellent words on the caution one must take in making assumptions based on 39 observations of three chains in one month in 1974. Also, in their footnote on page 2 of Chapter IV in the early draft of their Study, they noted that in the Canadian Study from which they quoted, "No correlation was found, however, between four-firm concentration and operating expenses."

LABOR COSTS

Labor costs in all food marketing averaged a 10 percent increase in 1974, but for food retailing and restaurants, labor costs were 22 percent higher. Not all labor costs are the same; they may vary between areas, between labor contracts,

[1] See attached letters to this statement.

and between union and non-union wage rates. One of the most profitable chains cited in the Study has 95 percent non-union labor. Retail clerks in 1974 had a rate of $5.81 per hour in one city and $3.90 per hour in another. In 1973 the range was $5.27 to $3.50 and the high city in each year was different. In Boston, Mass., 40 percent of the retail market is organized, 60 percent is not. One reliable industry source estimates that 55 percent of the 20 percent gross margin cost is labor cost and the non-union differential in the form of restrictions, benefits and pensions would amount to 1 percent on sales difference between the two types of operators. Similarly, a St. Louis operator indicates that 67 percent of their total cost of doing business is labor. He pointed out that retail clerks in St. Louis for a 40-hour week averaged $300 in 1976, whereas in Miami they averaged only $159. More important than just labor costs differences between areas and union and non-union labor rates are the work restrictions in some cities such as St. Louis, where retailers cannot buy boxed beef, pre-packaged chickens, or have central meat operations. Costs in different locations involve more than market structure differences, they also involve the nature of the labor market that represents 55 percent to 67 percent of the cost.

TRANSPORTATION COSTS

In a 1974 Governor's Commission on Food for the Commonwealth of Massachusetts, it was noted that Boston is one of the four highest of 38 metropolitan areas in the United States with respect to food costs. It was shown that the main reason for food costing more in Massachusetts and New England was the high cost of transportation. Similarly, a more recent study in 1976 by Grinnell, Crawford, and Feaster indicated the same point as well as taking exception to the Mueller-Marion hypothesis, and I quote:

"Models I and II show that when price changes due to time are removed, distance (from production areas) is very important in explaining intercity price variation while 4, 8, and 20 firm concentration ratios are not significant and may be inversely related to price." [2]

EXCESS CAPACITY

Excess capacity in the food distribution function in the United States is an overriding factor in determining the future shape and structure of the supermarket industry in 1980. In an excellent study by Professors Robert Buzzell and Walter Salmon, underwritten by Circle Magazine, a Division of the New York Times, and presented at an annual meeting of the National Association of Food Chains, the effects of this excess capacity were set forth:

"Concurrent with the growth of super-stores and convenience stores, price competition intensified. This situation reflected growing idle capacity in food distribution. From 1968 to 1972, sales per square foot adjusted for inflation actually declined by 1.9 percent. It also reflected growing recognition that additional volume could be achieved at only modest additional expense. This situation encouraged selected food store operators to initiate price wars in the hope of capturing and retaining additional share of market. It quickly became apparent that, even in a period of prosperity with food stores' prices rising more slowly than the overall cost of living index, additional patronage was attracted by strong price appeals." [3]

Excess capacity is not a barrier to entry but rather leads to more competition by the independents. The A&P selling off of stores to local managers is but one indication of this, as Buzzell and Salmon indicate:

"A second aspect of industry structure involves who will own the selling points. The most significant issue in this area is whether chains or independents will gain in market share. The thrust of this study is that the chain share of market will level out or even decline slightly. There are several reasons for this conclusion. First, independents through affiliation with cooperative or voluntary

[2] "Analysis of the Impact of Market Characteristics on City Food Prices" by Gerald E. Grinnell, Terry L. Crawford, and Gerald Feaster. American Agricultural Economics Association Annual Meeting, August 1976, Pennsylvania State University.

[3] "The Consumer and The Supermarket–1980," Prof. Robert Buzzell and Prof. Walter Salmon, Harvard Business School, Circle Family Magazine, 1976, page 13.

wholesalers have gained the staff services and, in many instances, even the financial muscle formerly available only to the chains. Secondly, independents are not as frequently unionized as the chains. This situation may result in somewhat lower wage rates. Such differences are important, particularly in the operation of the consumer desired and labor-intensive service departments. In addition, the lack of union restrictions for independents may result in greater flexibility in hours of operation." [4]

OTHER WEAKNESSES

Other weaknesses in the Study are the fact that items such as meat, produce, dairy, frozen foods, and health and beauty aids which amount to over 50 percent of the supermarket volume could show different profit patterns, as would the selection of other divisions, and the size of store used by the participants with the higher market shares. Some of these weaknesses are acknowledged by the authors then ignored in reaching their conclusions. This view is shared by Professor Buzzell of Harvard University, who at my request and on a confidential basis reviewed the Study and had the following observations:

1. The inference that food chains with large relative market shares in concentrated markets tend to have both higher profits and higher operating expenses seems very tenuous to me. The authors are saying, in effect, that there are no real economies of scale in food retailing. The basis for this is a comparison of the results of the separate profit and price regressions which, as the authors acknowledge, are based on different samples. Although the authors assert that "other studies" show a relationship between "market power" and inefficiency, my own experience is quite the reverse. Certainly our analyses of the relationship between market share and profitability in the PIMS project have shown that large-share businesses tend to enjoy economies of scale, reflected in lower operating expenses, and better utilization of facilities. (See the article by Buzzell, Gale, and Sultan, "Market Share—A Key to Profitability," Harvard Business Review, Jan.–Feb. 1975). In food retailing specifically, it is generally believed (although perhaps not documented publicly) that large share of a local market brings with it operating economies in warehousing, delivery, supervision, and advertising costs, among others. Obviously, this point is a crucial one: if chains with large market shares are profitable because of economies of scale, then the alleged "monopoly overcharges" may not exist or may be much less in magnitude than the authors claim.

2. The authors use a "base point" of CR_4=40 and Relative Share=25 as a standard for determining "monopoly overcharges." I don't understand the rationale for this "base point." According to Table 1.3, the average CR_4 for SMSA's was 52.1 in 1972. Why is 40 used as a base for computation of "overcharges"?

3. The regression models used to explain variations in profits and prices do not include some potentially important variables:

(1) Differences in product mix, especially the extent of non-foods.

(2) Intermarket differences in wage rates, extent of unionization, real estate costs, and general level of consumer prices.

IMPLICATIONS FOR ANTI-TRUST ENFORCEMENT

The implications of this Study for anti-trust enforcement is that if one takes into account excess capacity, changing labor markets, union versus non-union competition, chain versus independent competition—then food retailing is one segment of the food system that should remain extremely competitive over the next several years. This Study would have been useful if it had taken into consideration other studies related to it and had taken into consideration the total food system and the economic environment in which this analysis was made. This Committee has a reputation for being non-partisan. It has reason to study and be concerned with concentration. There also are many studies that indicate a correlation between profits and market share. Unfortunately, this particular Study has not taken into consideration so many factors that lead to the opposite conclusion with respect to cost assumptions by the authors—that it may tend to discredit other valuable studies that point up the necessity of maintaining creative competition responsive to changing consumer needs.

Attachments.

[4] Ibid., page 24.

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C., September 24, 1976.

Prof. RAY A. GOLDBERG,
Harvard University,
School of Business Administration,
Boston, Mass.

DEAR PROFESSOR GOLDBERG: I am delighted that you are willing to evaluate the attached Report to the Joint Economic Committee by Bruce Marion, Willard Mueller and others at the University of Wisconsin. This evaluation is exclusively for the JEC and at the request of the National Association of Food Chains.

Messrs. Marion and Mueller have been asked to make all data available to you upon request. They can be reached in Madison at (608) 263–4176.

This Report and its conclusions must remain confidential while in your possession. Some of the data utilized in its preparation is confidential. And, the unauthorized release of it to anyone or to any organization would be a clear and specific violation of Committee rules. Of course, only data presented in the final version of this Report eventually released by the JEC will be available for your future public use.

Because the Committee's membership will be revised in January, please consider November 1, 1976, a deadline for your evaluation.

Thank you, again.

Sincerely,

GEORGE R. TYLER, *Economist.*

HARVARD UNIVERSITY,
GRADUATE SCHOOL OF BUSINESS ADMINISTRATION,
GEORGE F. BAKER FOUNDATION,
Boston, Mass., November 15, 1976.

Mr. GEORGE R. TYLER,
Economist, Joint Economic Committee,
Congress of the United States,
Washington, D.C.

DEAR MR. TYLER: Thank you so much for your letter of September 24 and for our phone conversation of last week. I am also sending a copy of this letter and my statements to Mr. Bruce W. Marion and Mr. Willard F. Mueller, 905 University Avenue, University of Wisconsin, Madison, Wisconsin 53707. As I indicated to you, there were a few questions which I clarified with them over the phone on Friday, November 12. As per your original letter of September 24, all of the material I have been reviewing will be naturally treated as confidential until any or all of it is made public.

First, I think the report is a very scholarly work, very thorough and well documented. At the same time, through no fault of the authors, there are areas that might have been explored further, and in that exploration they either add additional evidence to their conclusions or result in slightly different priorities and different answers. The items that I feel require additional analysis or require taking into consideration are as follows:

1. The cost factors were not examined in the study so many inferences had to be made by the authors with respect to them. They assumed that where there were higher prices and higher concentration and still the profit levels did not rise very quickly that this meant that the larger firms may have been competing with a variety of costly services to get the consumers' attention or using additional advertising, etc. I believe that a different scenario was probably taking place at that time than the one that they suggested, namely, that costs were rising rather rapidly in the industry due to the fact that during the freeze period, or price control period, wages were held down at an unusually low level. For example, labor costs in all food marketing averaged a 10 percent increase in 1974, but for food retailing and restaurant labor, costs were 22 percent higher than in 1974 than in 1973 and labor costs account for more than 50 percent of total retail and institutional costs in the food spread analysis.

The other factor that was important during this period is that the industry itself is in an excess capacity situation. This means that profits are under tremendous pressure as every retailer attempts to get volume in his or her store. The excess capacity probably works to the advantage of the larger and stronger firms. On the other hand, to try to soak up that excess capacity, they may acquire smaller chains but in the process create a high cost structure which then invites the independents to come in and become successful competitors to them. This excess capacity, I believe, will continue into the next decade, and to support this contention as an appendix to this brief report, I am enclosing an analysis made by two professors at the Harvard Business School on the industry about a year ago. As recently as the Business Week edition of November 22, 1976, which has just been released, the price wars pertaining to firms such as Safeway are reported on pages 54 and 55 of that magazine, which begins to substantiate some of these predictions.

2. Although the study is a thorough one, it is so broad that it is difficult for it to take into account the various structural differences in various firms. For example, one does not know whether the concentration in one area is by a firm that has many small stores competing with more efficient smaller firms that have larger stores and therefore may be at a competitive disadvantage rather than advantage, even though the market share at that particular moment in time may be higher.

3. Another area that is not clear is the impact of inflation. Many of the firms had increased profits because of inventory increases. Some firms opted for a Lifo method which spread out the value of these inventory profits, others did not. Again, this particular item would confuse some of the findings.

4. The fact that the spread widened between private label and branded items is a plus for the consumer, because all costs were rising at that time and, therefore, the widened differential would mean one form of price competition.

5. I don't believe that the at least temporary new balance of power in favor of the raw material suppliers was mentioned. It is important in the study and again the farmers' share increased during much of this time because of raw material shortages. I don't believe that in the long run this will continue to occur, except on a temporary basis. But, nevertheless, because of the excess capacity in the retailing area, many food retailers are looking at procurement contracts and long-term relationships there as a means of improving profits or reducing costs, as well as diversifying their operation.

6. As further corroboration of the fact that cost structure is more important than was given credit in this study was the footnote to the Canadian study where it was stated that no correlation was found between four firm concentration and operating expenses, and frankly I would think that it was a correct conclusion. I believe that the market structure differences between individual firms are actually more important than the concentration ratios. I also believe that the excess capacity environment of this industry means that it will continue to be extremely competitive in spite of concentration ratios in local areas. I also believe that labor attempting to play catch-up because of being held down during the price control programs are not only playing catchup for those programs but are also still trying to keep up with a lower but still inflationary pressure.

The report is an excellent one, but I feel that it does need to take into consideration the other factors that I have mentioned. That is not to say that one should not be aware of the continued danger of monopoly control in the industry or monopoly pressure. I think we are fortunate, however, that the industry itself has so many technological and excess capacity pressures, as well as unique managerial control pressures at the local level, that this should remain a highly competitive industry, but one, nevertheless, that continues to need to be monitored carefully by capable and informed people as the authors of this particular study are.

I hope these few comments and to the excellent paper that has been presented for you and put it into a broader perspective than the one I feel was left at the end of the summation of this particular study. I hope these few remarks are useful to you.

Sincerely,

RAY A. GOLDBERG.

HARVARD UNIVERSITY,
GRADUATE SCHOOL OF BUSINESS ADMINISTRATION,
GEORGE F. BAKER FOUNDATION,
Boston, Mass., March 14, 1977.

Mr. GEORGE R. TYLER,
Economist, Joint Economic Committee, Congress of the United States, Washington, D.C.

DEAR MR. TYLER: In your letter of November 24, 1976, you indicated that my critique of the Mueller-Marion draft would be taken into consideration by the authors. It is my understanding that, unfortunately, this is not the case; therefore, I am expanding my original critique. What I am saying is that the conclusions of the authors are open to attack because other reputable studies have shown different and in some cases even opposite relationships. The authors have jumped to conclusions with insufficient and/or unrelated data.

There are three main areas that need to be examined and that lead to my strong concern.

I. Profit

The whole question of profit was based on inadequate data.

(*a*) First they rely on profit on sales rather than on assets or equity—the former being a poor and many times misleading indicator of the profitability of the firm.

(*b*) They threw out two low profit years of 1972 and 1973—all firms were affected by price controls not just chains.

(*c*) There is no way of knowing how SMA areas and division areas correlate.

(*d*) There is no way of knowing how representative division analysis is of profit for the total firms.

(*e*) Mr. Kenneth Farrell, Deputy Administrator of the Economic Research Service, U.S.D.A. states: "Based on the earnings performance of food companies, profits cannot be logically used as a major explanation for the magnitude of the increase and upward trend in farm-retail price spreads or retail food prices." [1]

(*f*) Excess capacity in the industry has put tremendous downward pressure on profits and was ignored by the authors. For example, note Professors Buzzell and Salmon's statement: "Concurrent with the growth of super-stores and convenience stores, price competition intensified. This situation reflected growing idle capacity in food distribution. From 1968 to 1972, sales per square food adjusted for inflation actually declined by 1.9 percent. It also reflected growing recognition that additional volume could be achieved at only modest additional expense. This situation encouraged selected food store operators to initiate price wars in the hope of capturing and retaining additional share of market. It quickly became apparent that, even in a period of prosperity with food stores' prices rising more slowly than the overall cost of living index, additional patronage was attracted by strong price appeals." [2]

(*g*) Excess capacity is not a barrier to entry but rather leads to more competition by the independents. The A&P selling off of stores to local managers is but one indication of this, as Buzzell and Salmon indicate: "A second aspect of industry structure involves who will own the selling points. The most significant issue in this area is whether chains or independents will gain in market share. The thrust of this study is that the chain share of market will level out or even decline slightly. There are several reasons for this conclusion. First, independents through affiliation with cooperative or voluntary wholesalers have gained the staff services and, in many instances, even the financial muscle formerly available only to the chains. Secondly, independents are not as frequently unionized as the chains. This situation may result in somewhat lower wage rates. Such differences are important, particularly in the operation of the consumer desired and labor-intensive service departments. In addition, the lack of union restrictions for independents may result in greater flexibility in hours of operation." [3]

(*h*) Previous studies indicate correlation between market share and profits but not between market share and costs. For example, in the Mueller and Marion Study a footnote on the Canadian Study cited indicated that no correlation was found between four firm concentration and operation expenses.

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[1] "Market Performance in the Food Sector," ERS 653, U.S. Government Printing Office 1977 0-241-456/ERS-16.

[2] "The Consumer and The Supermarket—1980." Professor Robert Buzzell and Professor Walter Salmon, Harvard Business School. Circle Family Magazine. 1976, page 13.

[3] Ibid., page 24.

II. Price analysis

(*a*) Attempting broad conclusions based on 39 observations of three chains on 94 items for 1 month seems to be very tenuous.

(*b*) The authors exclude meat, produce, dairy, frozen foods, and health and beauty aids—over 50 percent of a store's product mix which could lead to a completely different price analysis.

(*c*) The authors complain that two stores having identical prices are not competing—other economists have argued that this would indicate intense competition.

III. Relationship of Price to Profits

In this area the authors have excluded critical variables such as:

(*a*) Labor costs and unionization for chains and non-unionization for independents. (Parenthetically there was a major union settlement in October of 1974 in the one area of their study which was much higher than in other parts of the country leading to a high cost differential.)

(*b*) Distance from farm production areas also affect the cost of food as the Massachusetts Food Commission Report (1974) indicates. Also, see the Grinnell, Crawford and Feaster Study. "Models I and II show that when price changes due to time are removed, distance (from production areas) is very important in explaining intercity price variation while 4, 8, and 20 firm concentration ratios are not significant and may be inversely related to price." [4]

(*c*) Finally, Professor Buzzell of Harvard University, at my request and on a confidential basis, reviewed the study and had the following observations:

1. The inference that food chains with large relative market shares in concentrated markets tend to have both higher profits and higher operating expenses seems very tenuous to me. The authors are saying, in effect, that there are no real economies of scale in food retailing. The basis for this is a comparison of the results of the separate profit and price regressions which, as the authors acknowledge, are based on different samples. Although the authors assert that "other studies" show a relationship between "market power" and inefficiency, my own experience is quite the reverse. Certainly our analyses of the relationship between market share and profitability in the PIMS project have shown that large-share businesses tend to enjoy economies of scale, reflected in lower operating expenses, and better utilization of facilities. (See the article by Buzzell, Gale, and Sultan, "Market Share—A Key to Profitability," Harvard Business Review, Jan.–Feb., 1975). In food retailing specifically, it is generally believed (although perhaps not documented publicly) that large share of a local market brings with it operating economies in warehousing, delivery, supervision, and advertising costs, among others. Obviously, this point is a crucial one: if chains with large market shares are profitable because of economies of scale, then the alleged "monopoly overcharges" may not exist or may be much less in magnitude than the authors claim.

2. The authors use a "base point" of CR_4=40 and Relative Share=25 as a standard for determining "monopoly overcharges." I don't understand the rationale for this "base point." According to Table 1.3, the average CR_4 for SMSA's was 52.1 in 1972. Why is 40 used as a base for computation of "overcharges"?

3. The regression models used to explain variations in profits and prices do not include some potentially important variables:

(1) Differences in product mix, especially the extent of nonfoods.

(2) Intermarket differences in wage rates, extent of unionization, real estate costs and general level of consumer prices.

I believe the above information raises serious questions about this study.

Sincerely,

RAY A. GOLDBERG.

Representative LONG. We will postpone questioning until after we finish with all three of the panelists. I would like to make one point, though, Professor Goldberg, if I may. You cite here that the study you refer to and rely upon, to the degree that you do, by Buzzell and Salmon, was underwritten by Circle magazine.

[4] "Analysis of the Impact of Market Characteristics on City Food Prices" by Gerald E. Grinnell, Terry L. Crawford, and Gerald Feaster. American Agricultural Economics Association Annual Meeting, August 1976, Pennsylvania State University.

The fact of the matter is that the publication itself says it was sponsored by the National Association of Food Chains.

Mr. GOLDBERG. May I clarify that, sir?

The reason that was done is that Circle magazine wanted the research done. The National Association of Food Chains has an annual meeting. At that annual meeting, various people are invited to present their findings; and because these findings were presented at that meeting, they had their name on the cover. There wasn't 1 cent of financial support given to this by the National Association of Food Chains.

To clarify the record further, I was also asked to speak at that particular meeting and so were farmers who grow turkeys and farm cooperatives and farm suppliers and food processers. So if you want to, you can say that anybody who attended that meeting might be tainted. I wanted to clarify that.

Representative LONG. The study you referred to is quite concise. It says the study was sponsored by the food chains and that Family Circle selected the particular authors, Buzzell and Salmon, as a result of discussions with the food chains. I think it is considerably different when the report itself says that it is sponsored by the food chain association rather than someone from the food chains just appearing at the meeting. I won't belabor the point.

Mr. GOLDBERG. I agree with you. I think that was just being courteous to them, sir.

Representative LONG. Mr. Farrell, we would appreciate hearing from you now. Mr. Farrell is Deputy Administrator, Economic Research Service, Department of Agriculture. He will give his views on the study.

Mr. Farrell, we appreciate your comments on the report even though we recognize that you have not yet had a really long time to look at it.

STATEMENT OF HON. KENNETH R. FARRELL, DEPUTY ADMINISTRATOR, ECONOMIC RESEARCH SERVICE, DEPARTMENT OF AGRICULTURE

Mr. FARRELL. Thank you, Congressman Long and members of the committee.

I am pleased to appear before your committee to comment upon the report entitled "Profit and Price Performance of Leading Food Chains, 1970–74," prepared by Messrs. Marion, Mueller, and others at the University of Wisconsin. With your permission, Congressman Long, I will attempt to keep my comments brief.

Representative LONG. Please proceed as you wish, Mr. Farrell.

Mr. FARRELL. First, I would like to indicate that in my judgment, the Marion-Mueller study is an important contribution in the agricultural economic literature to a better analysis and to better understanding of the performance of the food industry. I think it is very significant that for the first time in more than a decade, non-Government researchers have had available to them a comprehensive set of firm and market-specific data with which to conduct empirical analyses of structure-performance relationships at these levels of the food industry.

The Joint Economic Committee is to be commended for recognizing the analytical potential of these data obtained from major food retailers and in making them available for analysis and in supporting this particular study.

I welcome this report as a means of generating renewed interest, discussion, and hopefully more research on performance of the food industry.

Because of the length of the report, and the varied methodology and data combinations which were used by the authors, more importantly because of the limited time available to me for examination of the report, my comments are going to be of a fairly broad general nature and will be directed primarily at matters relating to the adequacy of data and analytical methods.

Now, I think it important at the outset to reinforce what the authors themselves point out in the study; and that is, that there were or are several limitations to the data and to the methodologies used in the analysis.

Now, I would mention among those which the authors themselves point out and are cognizant of the following: One, abnormality of the time period studied; two, the lack of a statistically representative sample of firms and SMSA's; three, incomplete reporting of prices and profit data—the profit analysis was based on data for 96 divisions of 12 chains and the price analysis was based on data for 3 firms in the 32 SMSA's—four, the price and profit analyses were based on different samples; five, available market structure data used in the profit analyses were for 1972 only; six, 1 month's prices were obtained only for competitively sensitive, as opposed to randomly selected, items representing grocery products which account for about 49 percent of total consumer expenditures in grocery stores; and seven, the need to approximate several market structure variables by use of proxies, including market rivalry, the use of supermarkets, barriers to entry and establishment differentiation.

I would like to turn to a brief examination of the results of their price analysis. In my judgment, perhaps the most important technical limitation of the price analysis is that the authors found it necessary to compare a firm's price level and market share in one city with its or other firms' prices and market shares in other cities without being able to control for all of the differences and factors that are potentially important determinants of prices in each city.

For example, costs of goods sold vary among cities because of transportation differentials from sources of supply. Wage rates also vary among cities. For example, in 1974, retail clerks' weekly wages were $187 in Atlanta compared with $252 in Kansas City. Occupancy costs may vary significantly among different parts of the country.

Second, as the authors note on page 73 of their report, price data used in their analysis represented only 49 percent of grocery store sales and excluded significant meat and produce items which grocery chains often directly use for price specials to generate store volume. Different results might have been obtained—and I stress might have been obtained since we simply don't know—if data had permitted price comparisons based on full market baskets of foods including meat and produce.

Further, because of the diversity of the products and services provided in retail food outlets, assuring comparability among products for purposes of price analyses is always difficult. If firms in this particular study that had higher market shares also offered more nonprice features that consumers desired and were willing to pay for, the conclusion that prices are high solely because of market share needs at least some qualification.

Fourth, the study compared prices only among leading firms in various urban areas. Because they did not have price data for nonleading firms, they could not statistically determine whether a leading firm had high or low prices in relation to the average for all grocery retailers in that market.

The authors argue that a firm's prices are positively related to its relative market share. I think there is no convincing empirical evidence that this price is above the market average or that it raises the average price level in that market.

Turning briefly to their profit analysis, as in the case of their price analysis, the authors were forced by data limitations to estimate profit relationships with incomplete data. Most notably, they tried to relate a firm's profits at the division level to structural characteristics of standard metropolitan statistical areas included in the division's service area.

The profits data covered the 5 years, 1970–74, although most of the market structure data were available for only 1972. The authors state—and I quote, "the period included in the profit analysis was atypical for the grocery retailing industry by nearly any standard." We do know that changes in market structure, including market share, occur in the very dynamic food industry.

Further, I would point out that differences in firm productivity could not be taken into account. Relatively efficient firms in our economy may be rewarded by higher profits, at least in the short run. The National Food Commission stated—and I quote—"Sales per square foot of selling area was the most important determinant of net margins."

Because firms with higher market shares tend to have higher sales per square foot, it is possible that the study or at least the way in which the authors state their results may overstate market share in explaining profit variations.

The Food Commission also reported that profits, or as they call them, net margins, of grocery stores depend more heavily upon features of the individual stores such as its setting, nature of its clientele, and volume of patronage than specifically or solely on market shares and other marketwide characteristics.

I think it would have been desirable if the authors had been able to treat such characteristics in a more explicit way in their analysis.

The final limitation of the profit analysis I wish to discuss is the authors' conclusion that higher profits of firms with higher market shares were the result of both higher prices and reduced efficiency with the price effect being stronger.

This conclusion in my judgment is not fully supported by the analysis. Indeed, if I looked at the analysis correctly, the price and profit analyses used—seemed to use independent nonrepresentative samples.

With respect to the so-called monopoly overcharges estimated in the report, you have read the report and have seen their estimate of a monopoly overcharge of 1.6 percent of sales or $161 million in the sample that they worked with in 1974. They then use those estimates to estimate monopoly overcharges to U.S. consumers of $662 million in 1974.

I question these estimates on several grounds: first, as already indicated, it seems likely or at least possible that their estimates of the relationship between food prices and relative market shares have been to some degree overstated.

Second, the authors by their own estimates show that some of the leading firms in the market had price levels below the competitive norm. I would point out that use of a concentration ratio of 40 and a relative market share of 25 as a competitive norm selected in their study for purposes of comparisons, are not really adequately supportable, although I think Mr. Marion's elaboration this morning has helped in that respect.

By using the methods we believe were employed in the study, "monopoly" overcharges would be reduced by about 25 percent if the competitive norm used as a concentration ratio for purposes of comparison, was 50 rather than 40.

Finally, I believe that in the strict technical statistical sense, they do not have a valid sample of firms or markets from which to generate statistically reliable estimates of monopoly overcharges for the United States as a whole. Now, that is not to say that their data are incorrect or that their conclusions are necessarily incorrect. It is to state in my judgment at least that on purely technical statistical grounds, one cannot argue that the estimate for the United States as a whole is statistically valid.

With respect to consistency of their analysis with other reports, which you asked me to address, I think that in several respects there is consistency between their report and those of the National Commission on Food Marketing. There is general consensus that between the two studies that net margins to use the Food Commission's terms, and profits to use the Marion-Mueller term, increase as market share increases. However, I think it important to point out that the Commission also found that higher market shares were associated with higher sales per square foot, a measure of productivity and lower expenses. In contrast, if I read Marion and Mueller correctly, they suggest that the expenses, or costs, of leading firms are inflated where high market shares exist.

The finding that firms with high market shares charged higher prices is not fully consistent, but I would say not either fully inconsistent with the findings of the National Food Commission which stated that—and I quote—"in 30 comparisons between market share and price, results were random in nature." The Commission analyzed prices in all major food categories and some nonfood categories also.

THE USDA REPORT DOES NOT REFUTE THE MUELLER-MARION STUDY

Now, mention has been made several times today of a paper prepared in my agency, the Economic Research Service, but not published

by it, by Grinnell, Crawford, and Feaster; and the fact that it addressed the relationships between market concentration and retail grocery prices using data for 19 large cities for the years 1954, 1958, 1963, and 1967. At this time I will not elaborate on that study except to say that the two studies are not really comparable. They were conducted using different types of data, with different kinds of variables, over different periods of time and for somewhat different purposes. I think that it is impossible to either confirm or deny the results of the Mueller-Marion report from the Economic Research Service report. They simply are two different kinds of reports.

POLICY IMPLICATIONS

Turning briefly to policy implications, I have emphasized some of the technical limitations that are in the study at least as I see them. I must admit that one has to read this report many times to be really sure of what the authors are concluding and the methodologies which they have employed. As I stated at the outset, it seems to me the authors themselves have acknowledged most of these limitations, and it is, of course, easy for me or for others to dwell on those limitations to the detriment of what is in my judgment an important and analytically innovative study. But bearing in mind the limitations that I have mentioned, and that such studies sometimes become a basis for policy and administrative actions by public bodies, it seems to me that caution in interpretation and application of the results of their study to public policy is very much in order.

However, I do believe that the study has produced sufficient evidence, albeit qualified, limited evidence, open in several respects to technical challenge, to warrant continued efforts, if not increased efforts, by public agencies and by researchers to monitor and to further analyze the performance of the food industry, including but not limited to the retail sector.

Congressman Long, I want to end my statement on a positive note by again commending the Joint Economic Committee for focusing attention on this vital area of market performance. I hope that the information obtained for the study will be made available as a basis for further work in this area.

Industrial organization theory, as broadly defined, which was the basis of orienting this study, does provide a useful framework, if applied pragmatically, for an analysis of some aspects of market performance. The Marion-Mueller study is a constructive application of that theory in the evaluation of performance of the food sector.

Despite the apparent limitations which I and others have suggested, the report in my judgment makes a substantial contribution to a clearer identification of the role and potential impact of an industry's structural characteristic on its performance. Of major importance is the recognition given in the study to the arena in which competition occurs and where decisions are made that are reflected in profits and prices of the firm.

I might add parenthetically that the absence of such data in the past has been a major handicap on the part of my agency and others in addressing the questions of the relationship of structure to performance.

The study by its inclusion as well as its lack of firm and individual market data points up the critical need for access to this type of data if implications of concentration, market share, and other structural characteristics are to be fully addressed.

I am confident that if the research community were given access to adequate data on the food retailing industry, it could produce research findings which could be used with considerable confidence in identifying the implications of specific policy decisions or alternatives.

Finally, I believe that the implications of the findings of this study to consumers, to the retail food industry, and to the broad public interest of this Nation will spark greater interest and activity in research directed toward structure performance relationships in our food distribution analysis.

I would heartily recommend an increase in the effort of such research.

Thank you.

[The comments on Mr. Farrell's testimony by Messrs. Mueller and Marion follow:]

COMMENTS ON TESTIMONY OF KENNETH R. FARRELL BY WILLARD F. MUELLER AND BRUCE W. MARION

It is important that Mr. Farrell's testimony be read in its proper context. Unlike Mr. Hammonds' strident and unconstructive attack on the Report, Mr. Farrell's comments were made in the spirit of constructive criticism. In this spirit he began his testimony by observing: "First, I would like to indicate that in my judgment the Marion-Mueller study is an important contribution in the agricultural economics literature to a better analysis and understanding of the performance of the food industry." (Farrell, tr. 94). Moreover, after his review of the report, Farrell concluded: "The Marion-Mueller study is a constructive application of [industrial organization] theory in the evaluation of performance of the food sector." He further added that, "Despite the apparent limitations which I and others have suggested, the report in my judgment makes a substantial contribution to a clearer identification of the role and potential impact of an industry's structural characteristics on its performance. Of major importance is the recognition given in the study to the arena in which competition occurs and where decisions are made that are reflected in profits and prices of the firm." (Farrell, tr. 103, emphasis added).

Farrell testified to what he perceived as "several limitations to the data and to the methodologies used in the analysis." (Farrell, tr. 95). Farrell emphasized that the authors noted the various points he raised. However, the casual reader may infer that we merely made these observations without examining whether or not they biased our results. A careful reading of our report indicates that not only did we discuss practically all of the matters raised, but we explained that insofar as the factors mentioned presented problems of statistical measurement, they tended to bias our results toward zero; i.e., they were not responsible for our results, but may have tended to weaken the statistical relationships tested.

Since many of the points raised by Mr. Farrell and his staff are similar to those of Mr. Hammonds, we shall cross reference our comments where appropriate to those we made in response to Mr. Hammonds' criticisms.

1. The study allegedly did not "control for all of the differences in factors that are potentially important determinants in prices in each city." (Farrell, tr. p. 96).

Farrell cited as examples transportation, wage, and occupancy differentials among cities. We discussed these matters in our response to Hammonds, C.2.

2. ". . . Prices were obtained only for competitively sensitive, as opposed to randomly selected, items representing grocery products which account for about 49 percent of total consumer expenditures in grocery stores . . . and excluded, significantly, meat and produce items which grocery chain stores often directly use for price specials. . . ." (Farrell, p. 95–96).

The sample of products included in our market basket was not randomly selected. It was limited to those products that were frequently price checked by the chains in the study—and hence were apparently considered "competitively sensitive". While we have acknowledged this possible limitation, we would expect that these are the products on which retailers have the least pricing discretion. In anything, the bias in our sample would be expected to understate the price differences between monopolistic and competitive markets.

Farrell states that the exclusion of meats from the market basket created the most serious problem. (tr. 138). As we testified, meat was excluded because of the lack of comparable data. But as we also testified, chains often use meat to differentiate their service offerings, some emphasizing expensive cuts and others more economical cuts. Because of qualitiative differences in their meat products, it is very difficult to construct a meaningful index of grocery store prices including meat products. (The problem that service differentiation creates in making price comparisons is discussed in the Report, pp. 71–72.) We therefore believe that our index may be superior to one including meat products.

3. "The study compared prices only among leading firms in various urban areas. Because they did not have price data for nonleading firms, they could not statistically determine whether the leading firm had high or low prices in relation to the average for all grocery retailers in the market." (Farrell, tr. p. 97).

This is an incorrect characterization of the data used in the study. Although the study dealt with large chains, these chains were not leading chains in each market included in the analysis. Their individual shares varied widely among different cities.

Farrell's statement concerning the "average (price) for all grocery retailers in the market" reflects a misunderstanding of the relevant market. As we have repeatedly stressed, we believe all supermarkets in a market are the relevant market within which chains operate. They compete only indirectly with convenience stores and small grocery stores. The average price for all grocery retailers in a market would be expected to be above the average price for all supermarkets. While a comparison of a leading firm's prices with the latter would have been meaningful, had data allowed, comparison to the average price for all grocery retailers is irrelevant, in our judgment.

4. U.S.D.A. economists criticize the Report's structure-profit analysis because it allegedly (1) uses aggregated divisional profit data; (2) uses structural data for 1972 and profit data for 1970–74; (3) covers an atypical time period; and (4) fails to take account of differences in firm productivity, etc. (Farrell, tr. p. 97–98).

Farrell says that "it would have been desirable" if the authors had been able to somehow include in their analysis all of these factors. He gives no rationale as to how these factors may have influenced the results of the study. The U.S.D.A. economists apparently are not aware that the problems cited are common to all studies of this sort, and that it is generally recognized among researchers in the field of industrial organization that insofar as the omission of such variables influences the analysis, they tend to result in very weak or no statistically significant relationships. Indeed, were all of these matters as important as U.S.D.A. economists imply, our findings are all the more significant because they find highly statistically significant relationships despite the omission of these various factors.

For our detailed comments on these points see our response to the testimony of Mr. Hammonds: Introduction; B.1; B.2.

5. Farrell states that the Report's "monopoly overcharge" estimate may "have been to some degree overstated" and that the "concentration ratio of 40 and a relative market share of 25 as a competitive norm . . . are not really very adequately supported . . ." (Farrell, tr. p. 99).

We explicitly recognized that there is a degree of error in our estimates, but the U.S.D.A. economists provide no explanation for their belief that any errors in our estimates are more likely to be biases toward overstatement rather than understatement.

The reason for criticizing the competitive norm used in our computations are not made explicit. However, we have answered a similar criticism made by Mr. Hammonds. See our comments on Hammonds, A.1; A.2; A.3; A.4.

6. Farrell states, "I believe that in the strict technical statistical sense, they do not have a valid sample of firms or markets from which to generate statistically reliable estimates of monopoly overcharges for the U.S. as a whole." (Farrell, tr. p. 100).

We answered a similar criticism made by Mr. Hammonds. See our response to Hammonds, A.4.

7. Farrell noted a number of differences in the findings of the Report and other studies.

We commented on these reports in our comments on Mr. Hammonds' testimony. See Comment E.

Representative LONG. Thank you very much, Mr. Farrell. We appreciate your views on this matter.

Our last witness is Mr. Timothy Hammonds, who represents the Food Marketing Institute. He is that group's vice president for research. Mr. Hammonds, we are pleased to have you and would be pleased to have your views at this time.

STATEMENT OF TIMOTHY M. HAMMONDS, VICE PRESIDENT FOR RESEARCH, FOOD MARKETING INSTITUTE, ACCOMPANIED BY THOMAS L. SPORLEDER, PROFESSOR OF AGRICULTURAL ECONOMICS, TEXAS A. & M. UNIVERSITY

Mr. HAMMONDS. Thank you. I am certainly pleased to be able to appear here today. I have with me Prof. Tom Sporleder of Texas A. & M. University. Professor Sporleder is a participant in the NC–117 project and was asked by the American Agricultural Economics Association to coauthor a paper with Professor Marion, presented at last summer's annual meeting, assessing the state of the art of industrial organization analysis as a basis for antitrust actions. He therefore seemed the natural scholar to turn to help us render a judgment as to whether the authors of this report have lived up to the high standards set in their collectively authored document last summer.

Mr. SPORLEDER. I have been asked by Mr. Hammonds to review both studies and his comments before this committee. I would generally agree with the comments from Mr. Hammonds' statement.

Mr. HAMMONDS. Thank you.

We are going to deliver an admittedly strong statement today. We feel compelled to do this because the authors of the report before us have made strong charges; and we feel charges that far overreach the bounds of the sample data available to them.

We feel they are inconsistent with the cautions so well pointed out by the other economists before you today. We will demonstrate that the competitive standards set by this report would produce a rate of return capable of bankrupting any industry within the United States. The most obvious flaws in the analysis appear in the monopoly overcharge section. In table 1 of his statement Mr. Mueller selects his competitive market standard as 40 percent of sales held by the largest four firms in a standard metropolitan statistical area. Before commenting on this choice, it must be made clear that concentration ratios are but one measure of competitive vitality and not a substitute for more complete analysis. With this qualification in mind, 40 percent is the most restrictive standard ever set in industrial organization analysis.

May I point out, it is usual in cases of this sort to set forth a standard. In this case the authors have examined a set of data and used that to generate the standard which they apply back to that set of data. There was no independent assessment of whether this was a reasonable assessment or not.

To help in assessing just how restrictive this standard is, let us look at a cross section of American industries. A 1975 University of Michigan Graduate School of Business publication entitled "Industrial Market Structure and Performance," by D. N. Winn, lists over 130 domestic industries and their national 4-firm concentration ratios. Keep in mind that the authors of this report use an even more restrictive local market ratio. Of Winn's cross section of industries, over 65 percent had four-firm ratios in excess of 40 percent. The consequences of accepting the Mueller standard would be to find the majority of all American industry in violation.

Let us set this same standard in a different light. In table 1, the authors accept a pretax return on sales of 1.15 percent as their competitive norm. We can easily translate this to return on equity and return on assets for food retailing. Mr. Mueller himself makes a similar conversion in the paragraph following this table. Using his own conversion ratio and applying the well-known formula for such a conversion, we find a 6.3-percent return on equity and a 3.2-percent return on assets.

These returns are less than that available on certificates of deposit from a savings and loan institution. In 1976 the all-industry median return as reported by Forbes magazine was double this at 12.7 percent. Even the Hart bill suggested monopoly power for returns only in excess of 15 percent.

As we stated earlier, the competitive standard set by this report would produce a rate of return capable of bankrupting any major industry in the United States if continued over time.

You must ask yourselves whether you are prepared to accept the consequences of adopting these standards as the norms of industry analysis. If you are not, you must reject this report.

We turn now to one of the most glaring omissions of the analysis. The failure to adequately consider, or even to acknowledge, the substantial churning of market shares so well documented by other economists. The authors would have you believe that the grocery industry is characterized by steadily increasing large firm market power which in turn leads to steadily increasing prices and profits.

As a check on the author's objectivity, we used the same grocery distribution guide cited in the report to determine whether the largest firms were in fact able to maintain their market shares over time. We are, therefore using the authors' own source to test the internal consistency of their major hypothesis.

Since we do not know which cities were included in the analysis, we examined the top 20 metropolitan areas. Of the largest 20, 17 had a different set of top 4 firms in the census year 1972 than in the census year 1967. That is, in 85 percent of the markets, at least one of the original top four firms fell from that group and was replaced by a different firm. Of these same 20 cities, 70 percent experienced another turnover of at least 1 firm among the top 4 between 1972 and 1975.

The authors totally ignore this churning and would instead lead the committee to believe large firms so dominate the market that competition is ineffective. It is precisely the presence of active and intense competition which leads to the very high turnover rates actually experienced.

In fact, the authors studiously avoid an explicit statistical test of their hypothesis of steadily increasing market power over time. We have constructed such a test and have attached it to this testimony. The conclusion from this test is that there has been no statistically significant upward shift in the distribution of top 4-firm concentration ratios in the largest 200 metropolitan areas since 1958.

A marketplace with no significant upward concentration shifts since 1958 coupled with a high rate of change in identity of the top four firms in each metropolitan area certainly sets an entirely different tone than established by the authors.

Let us turn now to the models and analytic techniques. Our attachment will be primarily on the price model that forms the basis of the monopoly overcharge. I might say that the profit model is also seriously flawed with two factors standing out. The choice of corporate divisions and the average corporate data as the key variable. Moving to the price analysis, this is both the most critical and the weakest section of the report. As a vivid illustration of the authors' unusual techniques, consider their inclusion of the market rivalry variable. The authors refer to prices which they contend may be up to 14 percent higher than an arbitrarily selected competitive norm. Yet the inclusion of this single market rivalry variable nearly doubles the explanatory power of the equation—table 3.3 of their full study—and increases the coefficient of the concentration ratio by over 30 percent.

The construction of this market rivalry variable is unusual to say the least. Even the authors seem somewhat embarrassed to explain its implication that the impact on market prices is identical regardless of whether the top four firms gained by 20 percent in their market share, or declined by 20 percent in their market share. A variable so obviously inconsistent with the rest of their analysis, yet so important to the strength of their results, can only be viewed with suspicion. While the justification of this arbitrary step is highly questionable, the impact of making the equation fit the authors' preconceived hypothesis is nothing short of dramatic.

A similar manipulation can be observed in the profit equations, tables 2.6 and 2.7 of the full study. In neither of these tables is the concentration variable statistically significant until it is introduced as an extremely unconventional concentration ratio transformation; and I have noted their formula which is a cubic divided by a graphic.

No *a priori* justification for such a transformation appears in the report. Apparently, the authors feel lack of correlation between profit and concentration simply means that the analyst has not been sufficiently inventive in applying a series of complex mathematical manipulations.

The most serious omission in the price model is the absolute failure to consider either consumer income or operating cost variables. Consumer income does vary considerably across metropolitan areas and is a fundamental tenet of market price theory. Its omission is incomprehensible to a trained economist. Cost differences are well established in the literature as significant determinants of grocery prices. Their exclusion is likewise incomprehensible.

I might add there are cost variables other than the wage rate cited by the authors in the study. Mr. Mueller argues that costs are under the control of management and, therefore, need not be included separately. He reasons that high concentration leads to lax management leads to high costs. Yet the most recent study of the impact of market characteristics on city food prices found transportation cost to the city to be the strongest and most consistent correlate with price. This is certainly not a variable under management control.

May I add we are not using that study to compare its conclusions with the conclusions of this study. We are using it merely to draw upon the form of the model that they used and suggest that a similar model in this analysis would have produced a different conclusion.

The authors agree with other industry analysts that prices and costs are related. They insist, however, in turning the cause and effect nature of that relationship up side down. Where other analysts find prices commensurate with costs, Mr. Mueller finds only sloppy management. It is difficult to reconcile the authors' view of a management consummately skilled at controlling competitors, yet totally inept at controlling cost. Their view of the market is simply unrealistic.

If the appropriate variables, including consumer income, transportation cost, and operating cost were included in the price equation, there is substantial reason to believe these would account for most, if not all, of the variation in city prices. The result would be a substantial lessening of the significance of the concentration variable and of the magnitude of its coefficient. Since the monopoly overcharge is a direct product of this coefficient, it, too, would be substantially reduced if not eliminated.

Finally we come once again to the overcharge estimate itself. We do not believe that an unbiased industry analyst, not intent on proving market abuse, would be willing to produce a national overcharge starting from such a shallow base as the prices of three firms, for 1 month, for products comprising less than half of store sales.

I might add the test is not the number of cities represented, but the base in the foregoing line.

This is a gross overextension of the analysis even without the extensive problems with the equations themselves discussed earlier.

One measure of objectivity in a scientific document is the fairness with which the authors report the sensitivity of their conclusion to alternative model formulations. This report contains no sensitivity analysis. We can, however, provide a step in this direction by using their footnote No. 39. The authors do report, although not in the body of the text, that their choices of excluding the years 1972–73 from the profit equation inflated the competitive norm return on sales by over 45 percent. With this level of sensitivity, it is not difficult to understand why other information of a similar nature was not presented.

Another measure of objectivity is the tolerance of evidence contrary to the authors' basic hypothesis. Mr. Mueller handles such evidence by simply discarding it. He has, for example, included special variables to net out the impact of A. & P. in this analysis. He has,

in fact, been excluding this company as a special case—a short-run aberration for over 10 years. His report explicitly states:

> This (A. & P.) variable was also included to reflect the fact that for over a decade A. & P. had profit rates well below the industry average.

If the authors' theory of large firm dominance were correct, one could never observe a market aberration such as A. & P. Certainly one cannot dismiss performance for over a decade as an unusual case.

Not only were the data available to the authors of the Mueller report woefully inadequate to support their principal conclusion that price is a strong positive correlate with market concentration, but responsible analyses during the past decade have reached a directly contrary conclusion. The reliability of these other studies is in no way diminished by their use of data categories different from that underlying the Mueller report, particularly in view of the patent shortcomings of the Mueller analysis.

Foremost among the studies finding an absence of any correlation between market concentration and price in food retailing is that conducted by the staff of the National Commission on Food Marketing.

Recognizing the inadequacy of such an analysis, the Food Commission staff conducted a study designed to show whether there was a relationship between a firm's actual selling prices—the same type of data used by Mr. Mueller—and its market share in different areas. Prices concerning all major food product categories and some nonfood categories were collected and 30 intermarket comparisons were made. The NCFM study directly contradicts the Mueller allegation and discloses no correlation between price level and market share.

By every reliable measure, food retailing is a highly competitive industry and consumers receive the benefit of that competition.

Although market share calculations are not sufficient by themselves for even a structural appraisal of competition in a market and a structural analysis is itself incomplete, the market share levels and trends relative to food retailing do not support the conclusion that the industry is noncompetitive. On a national level, all food chains operating 11 or more stores continue to be the slowest growing segment of the industry representing less than 50 percent of total foodstore sales. Independents affiliated with cooperatives and voluntary groups continue to be the fastest growing firms, other than convenience stores, in food retailing.

It is interesting in this regard that a conclusion by the principal author of the Mueller study to the effect that a strong market position can be maintained "for years" without loss of market share or profitability has been totally disproven. In 1966, Mr. Mueller cited the National Tea market position in Denver, Detroit, and Chicago as proof of his market rigidity hypothesis. National Tea is now not even present in any of those metropolitan areas.

In conclusion, we have presented a detailed but not exhaustive documentation of the glaring flaws of this report. We believe the Mueller argument represents an unwarranted attack on a responsible sector of the American economy which does not merit the dignity of your further consideration.

[The comments on Mr. Hammonds' testimony by Messrs. Mueller and Marion and the prepared statement of Mr. Hammonds follow:]

Comments on Testimony of Timothy M. Hammonds*
by Willard F. Mueller and Bruce W. Marion

INTRODUCTION

Before responding to many of the specific points in Mr. Hammonds' testimony, a few comments are in order to place our study in perspective. In particular how do our findings and the data on which they are based compare to studies by industrial organization economists of other industries?

Hammonds and some other industry witnesses seem to imply that there is something unique about food retailing that makes it immune from the laws of economics. Numerous studies examining the source and consequences of market power have been made of other industries. The great weight of the evidence clearly supports the expectations of industrial organization theory that firms enjoy market power where they hold dominant positions and/or operate in highly concentrated markets. Professor Leonard W. Weiss, the leading scholar in this area recently reviewed researchers' "massive effort" to test the economic prediction that concentrated industries will have higher margins. He concluded, "by and large the relationship holds up for Britain, Canada and Japan, as well as in the United States. In general the data have confirmed the relationship predicted by theory, even though the data are very imperfect and almost certainly biased toward a zero relationship." [1]

As Weiss emphasizes, data used in these sorts of studies usually have been of poor quality. Because of this, the statistically observed relationships often are quite weak. The data used in our report were of a much higher quality than have been available in most other studies, especially in food retailing. But while the deficiencies in the data we used very probably lead to less robust levels of statistical significance (though less so than other authoritative studies) they do not invalidate our findings. Indeed the contrary inference is warranted, i.e., our results are especially signifcant because certain data deficiencies tended to bias our results toward zero. Among the most serious data problems are: (1) the necessity to rely on metropolitan market definitions used by the Bureau of the Census (see Report, p. 30); (2) differences in the procedures used by various chains in calculating their profit-to-sales ratio (Report, p. 45, footnote 28); (3) the availability of price information for only one month (Report, p. 65); (4) the use of a market basket consisting of a sample of grocery products that did not include some important items, particularly meat (Report, p. 65); and (5) a price analysis based on 32 metropolitan areas for which data were available rather than the use of a randomly selected sample of metropolitan markets (Report, p. 65–66). All of these matters were discussed in the report and, where possible. analyzed to determine whether they introduced a bias. It is our judgment that these characteristics of the data are no responsible for our findings. To the contrary, there are statistical reasons for believing that had the data been more perfect our basic findings would have been essentially the same, although statistically more robust.

A. CRITICISMS OF COMPETITIVE NORM

1. Hammond's assertion that the authors selected an arbitrary standard of competition (Hammonds, pp. 1–3)

For purposes of estimating potential "monopoly overcharges" by food chains, competitively structured metropolitan areas were defined as those in which the largest four firms held equal market shares and together made 40 percent of all grocery store sales in the market. This standard was not arbitrarily selected. As we state in our report, "The CR_4 level (where four firms hold 40 percent of sales) was selected because the empirical analyses show that both profits and prices are continuing to rise in the range around CR_4 is 40. This suggests that competitive prices . . . occur when CR_4 is 40 or less." (Report, p. 80) We might

*Mr. Hammonds testified with reference to a study prepared for the Joint Economic Committee by Bruce W. Marion, Willard F. Mueller, Ronald W. Cotterill, Frederick E. Geithman, and John R. Schmelzer, entitled, "The Profit and Price Performance of Leading Food Chains, 1970–1974."

[1] Leonard W. Weiss, "The Concentration Profit Relationship and Antitrust" Industrial Concentration: The New Learning, H. J. Goldschmidt (ed.), 1974, p. 131.

have selected an even lower concentration level on the assumption that sufficient market power existed in the CR_4 30 to 40 range to raise prices here as well. However, we did not do so because the increases were very slight. As Figure 1 indicates, prices tended to level off at CR_4 levels below 40.

In his testimony Hammonds attacked the standard we used to define a competitive market as "*the most restrictive standard ever set* in industrial organization analysis." (Hammonds Testimony, p. 2, emphasis in original). He cites as authority for this charge the Neal Task Force Report which he says used 70 percent in identifying an "oligopolistic industry", and the Hart Deconcentration Bill, S. 1167, 1973, which stated that "monopoly power" is possessed by firms with an average return on net worth after taxes exceeding 15 percent for five consecutive years, or in those markets where four or fewer corporations account for 50 percent or more of sales.

Hammonds obviously misunderstands the difference between our standard of a competitive market and those of the Neal Report and the Hart Industrial Reorganization bill, both of which set standards for shared monopoly markets. Whereas we applied an empirically derived standard of what appeared to constitute a competitive level of concentration, the Neal and Hart proposals selected their standards to identify markets where concentration is so high that there exists a presumption of excess market power. We clearly never implied, nor can any fair reader so infer, that all markets with four firm concentration levels above 40 percent were monopolistic markets in need of restructuring. On the contrary, we stated explicitly in our prepared testimony,

"We emphasize, however, that whereas our study strongly suggests there is a market concentration problem in food retailing, many markets are still quite competitively structured. Moreover, many independents and small chains, as well as large chains in many of their markets, do not have significant market power. We emphasize this point lest our findings are misinterpreted as implying all retailers have market power. Our chief concern is with the troublesome fact that the number of highly concentrated markets has increased substantially in recent years and is likely to increase further unless public policy intervenes." (p. 12)

Hammonds misrepresents the Neal Report. In its evaluation of the available empirical evidence it states that "studies have found a close association between high levels of concentration and persistently high rates of return on capital, particularly in those industries in which the largest four firms account for more than 60 percent of sales."

Hammonds' own statement shows that the number of markets where four firms control over 65 percent of sales increased from eight in 1958 to 29 in 1972 (Hammonds statement, attached table). Figure 1.7 in our report indicates that the proportion of SMSAs where four firm concentration exceeds 60 percent has increased sharply from 5.1 percent in 1954 to 24.7 in 1972. Thus, a substantial number and increasing proportion of retail grocery markets surpass the Hart and Neal standards of presumed monopoly power.

The concentration ratios used in our report measure the four firm share of grocery store sales in a market. However, supermarket sales are a more relevant definition of the market in which chains compete. The large chains studied compete only indirectly with convenience stores and "mom and pop" type stores. When the four firm supermarket concentration is used instead of grocery store concentration ratios, the competitive norm is shifted from CR_4 of 40 to CR_4 of about 50.

2. *Hammonds' statement that competitive standard would bankrupt industry (Hammonds, p. 3)*

Hammonds states that "the competitive standard set by this report would produce a rate of return *capable of bankrupting any major industry* if continued over time." (Hammonds, p. 3, emphasis in original) He bases this assertion on his estimate that large chains would earn only 6.3 percent on equity in competitive markets, i.e., where four firms make 40 percent of sales. This is not an inordinately low rate of return for 1974, which was a year of abnormally low profits. For example, in 1974, 24 chains with sales exceeding $500 million had average net profits on equity of 9.2 percent and 24 publicly owned chains under $500 million had average net profits on equity of only 4.7 percent (Report, p. 85). But as we point out, profit rates in the years covered in the report are "significantly lower" than the long-term average in food retailing (Report, p. 81). There is good reason to expect that average profit rates will rebound to earlier

levels. Indeed, the latest information shows that whereas the net income of 52 of the largest chains was 7.0 percent on net worth in 1975, this percentage rose to 12.9 percent in 1976. (Citibank, Monthly Economic Letter, "Net Income of Leading Manufacturing Corporations for 1975 and 1976," p. 8).

In addition, it is important to remember that many of the competitors of large chains operate in only one market. The fact that independent supermarkets and small chains are able to survive in markets with low levels of concentration indicates that price levels are not at the "bankrupting' level for well-run firms. If chains can only survive in unconcentrated markets by cross subsidizing from more concentrated markets (which is what Hammonds' statement suggests), one might conclude that chains are basically inferior retailers who only survive because of market power in certain markets.

3. Hammonds' statement that the monopoly overcharge estimate exceeds the total annual profits of all supermarkets and is therefore inconsistent with the profit performance of retailers (Hammonds, p. 18)

Hammonds and other industry witnesses attempted to discredit the overcharge estimate of $662 million by claiming it exceeds total chain profits of $600 million in 1974. This argument is faulty in two respects. First, the figure used by industry spokesmen is post-tax rather than pre-tax profits. But more importantly, the overcharge estimate is not an estimate of excess profits but of excess prices. As pointed out in the report, both economic theory and empirical evidence supports the expectation that the costs to consumers of monopoly power are only partially reflected in higher profits. Our profit and price analysis suggests that in concentrated markets with one or more dominant firms, increased profits account for only about one-third of the increase in prices. Thus, only part of our monopoly overcharge estimate is made up of excess profits; inflated and excessive costs constitute the remainder.

Recent events in Phoenix, Arizona, illustrate that prices can be reduced under competitive circumstances by much larger amounts than profit margins. According to Chain Store Age, "in December 1975 grocery department gross margins averaged 15 percent. In December, 1976, they were down to 10 percent-12 percent. Two or three years ago net-to-sales averaged 1¼ to 1½ percent. Today it is one-half to four-fifths of 1 percent" (Phoenix, First Crack in the Sunbelt," p. 31, Chain Store Age, February 1977). Thus, whereas grocery gross margins (and therefore average grocery prices) declined by 3 to 5 pecent (and possibly by as much as 7 percent because margins probably were near 17 percent in earlier years) net profits-to-sales declined by a much smaller amount. This illustrates that when chains are under keen competitive pressure, they find ways to reduce costs as well as prices.

This phenomenon is not unique to food retailing. Prof. F. M. Scherer's "conservative best estimate" is that efficiency losses from excessive market power were 6.2 percent of gross national product (GNP) in 1966. He further estimated that monopoly profits represented another 3 percent of GNP (F. M. Scherer, "Industrial Market Structure and Economic Performance," 1971, pp. 408–409). Thus Scherer estimated that in 1966, market power cost about 9.2 percent of GNP or $68.8 billion. In contrast, total after tax corporate profits for all industries (competitive and noncompetitive alike) was $51.0 billion in 1966. (Economic Report for the President, January, 1969, p. 308). Thus our overcharge is not out of line with other estimates. Indeed, our estimate (which is only 0.6 percent of total grocery store sales) is modest compared to those for other industries.

4. Hammonds' contention that the sample used in the price analysis is inappropriate for estimating monopoly overcharges and affects the competitive norm selected (Hammonds, pp. 9–10)

Hammonds criticizes the overcharge estimates on three grounds: the price equations are based on only "three firms, for one month, for products comprising less than half of store sales." We acknowledged and discussed all of these limitations (Report, p. 65–66)). Although the firms and metropolitan areas included in the analysis were selected because of data availability, not through random sampling procedures, this does not necessarily lead to biased results. The growth, average market share and profitability of the three chains selected were similar to the 17 chains included in other parts of the study. For example, the distribution of market shares for the 3 firms in the price analysis compares as follows to the distribution of market share for all 17 chains:

	All chains		3 sample firms	
	Number of SMSA's	Percent	Number of SMSA's	Percent
Percent market share:				
0 to 4.9	102	24.3	37	27.4
5 to 9.9	123	29.4	29	21.5
10 to 14.9	91	21.7	21	15.5
15 to 19.9	53	12.6	21	15.5
20 to 24.9	25	6.0	14	10.4
25 and over	25	6.0	13	9.6
Total	412	100.0	135	99.9

The three chains used operated in 32 metropolitan areas. This is a sufficient number of markets on which to perform valid statistical tests of price differences. Our results are statistically robust. Appropriate statistical techniques were used to test for company differences in prices attributable to factors other than those specified in the models. No statistically significant differences were found. (Report, p. 71, fn. 21). All in all, there is good reason to believe that the 32 market analysis is statistically valid.

Hammonds criticizes the use of October 1974 prices and the omission of produce and meat items on the basis that these lead to a "substantial upward bias" of the price data. He states that "price levels significantly lower than those used" in the analysis "would affect the norm chosen." (Hammonds, p. 10). The study measures the differences in profits and prices across markets. Irrespective of the level of prices, prices were found to rise rather sharply at four-firm concentration levels of 40 and above, indicating that some market power exists at these concentration levels (Figure 1). These were the reasons a CR_4 of 40 was used as the competitive norm, not because a target level of profits was achieved. Thus Hammonds argument about the critical nature of absolute price levels is absolutely irrelevant.

5. Hammonds' allegation concerning the omission of the years 1972–73 from the profit analysis (Hammonds, p. 11)

This is another clear misrepresentation of the Report. Except when comparing the price and profit regression results, all five years are included in the profit analysis. Profit models using 1970, 1971 and 1974 data were selected for comparison with the price model since the latter used price data for the fall of 1974—a relatively normal period compared to 1972–73. It would be difficult to justify comparing profits during the severely depressed years, 1972–73, with prices in 1974.

The undue emphasis during the hearings on our deletion of the two years may stem from a misinterpretation of how the competitive norm was established. If we had selected the structural combination that provided some target rate of profit, the absolute level of profits (and hence the exclusion of two low profits years) would have an important effect on the combination chosen as the competitive norm. In fact, the level of profits was not the primary consideration in selecting a competitive norm. As already discussed this was based largely on the fact that prices continued to rise, albeit at a slow rate, at four-firm concentration levels of 40 and below.

6. Hammonds' criticism that no sensitivity analysis was provided in the report (Hammonds, p. 11)

Once again, this is an inaccurate criticism. Throughout the report, we have indicated the influence on our results of using alternative variables, data sets, etc. (See, for example, p. 56, footnote 39 : p. 60, fn 5, 6, 7 ; p. 62, fn 11 : p. 64, fn 12 ; p. 71, fn 21 : App. Table B.9 and Append. Table B.16) We have described the methodology, data and procedures used in much greater detail than is common.

We did not calculate and include in the report monopoly overcharge estimates using alternative competitive norms. While we are confident that the combination CR_4 of 40 and RFMS of 25 is the most appropriate competitive norm based upon our analysis, we have since computed the monopoly overcharge using the norm CR_4 is 50 and RFMS is 25. The monopoly overcharge estimate using this norm is 1.2 percent of sales instead of 1.6. The national monopoly overcharge estimate for the top four chains in each SMSA would be reduced from $662 to $496 million

As these calculations suggest, the major portion of the monopoly overcharge occurs in highly concentrated markets.

7. Hammonds' assertion that table 1 is meaningless without statistical confidence intervals (Hammonds, p. 11)

Table 1 was included in the report to illustrate the results of our profit and price regression equations. The values included in this table are the average prices and profits that would be expected under various structural conditions. Confidence intervals provide important additional information about the estimated values. We have calculated the 95 percent confidence intervals for the price estimates at three levels of four-firm concentration, holding all other variables (including RFMS) at their means. The confidence limits indicate the range which has a 95 percent chance of containing the true mean price. The index values comparable to those in Table 1 in our remarks to the committee are as follows:

CR_4	Index of mean price	95-percent confidence interval	
		Lower limit	Upper limit
40	100.99	100.06	101.92
50	101.95	101.29	102.62
60	103.89	102.98	104.81

The above values indicate that the estimated average price in markets with CR_4 of 40 is not significantly different from the estimated average price in markets with CR_4 of 50. However, the estimated average prices for CR_4 of 50 and 60 are significantly different. It follows that a significant difference exists between the estimated prices for CR_4 of 40 and 60.

These findings indicate the obvious, i.e., that the predicted price difference between where CR_4 is 40 and CR_4 is 50 are quite modest and that the markets posing particular public policy problems are those in which four-firm concentration approaches or exceeds 60 percent.

B. CRITICISM OF PROFIT ANALYSIS

1. Hammonds' assertion that analysis of division profits is inappropriate (Hammonds, p. 6)

This criticism demonstrates Hammonds' woeful ignorance of accepted and appropriate research techniques used by industrial organization scholars. He says:

"Although the authors talk about the need for assessing concentration on a local market basis, they choose to analyze divisions instead of metropolitan areas. Corporate divisions are very large areas structured to correspond with warehouse distribution systems. These often are so large as to include more than one standard metropolitan area and certainly would not meet the relevant market definition of any economists. S.M.S.A. profit equations are cited by the authors but discarded in their final analysis." (p. 6).

Because food retailing is a local market industry, the ideal profit data would be for chains operating in individual markets. Unfortunately, most chains did not supply data on this basis. However, usable data were supplied for 96 divisions of 12 chains. These data are much more disaggregated and superior in quality to those used in other authoritative empirical studies of this type. Other studies are forced to use total firm, industry, or even aggregations of industries in their analyses (Weiss, op.cit.).

These data were used in conjunction with the weighted average market characteristics of the metropolitan areas within each division. This is comparable to procedures used in other studies (Weiss, op.cit.). Metropolitan areas within a division serve as good approximations of the competitive and other characteristics of the divisions within which they are located. We emphasize, however, that insofar as our aggregation procedures may introduce some error in the analysis, the effect almost certainly would be to bias our results to zero, i.e., they would result in our not finding statistically significant relationships.

Hammonds also states "S.M.S.A. profit equations are cited by the authors but are discarded in the final analysis." (Hammonds, p. 6). This is yet another totally false statement. SMSA (metropolitan area) data were provided for 50 SMSAs

by six chains. These data were analyzed using essentially the same models as the divisional equations. The results were very similar to those of the divisional models and are fully reported. (Report, pp. 53–56).

2. Hammonds' criticism of the use of average profits (Hammonds, p. 6, 7)

Hammonds states, "the authors elected to average the profits of each firm over the years under study." (Hammonds, p. 6) False! Every profit model was tested both for individual years as well as for several year (Report, pp. 28, 48, 52, 102).

He goes on, "The technique commonly used in the profession is to enter individual yearly observations rather than a single average." (Hammonds, p. 6) Hammonds again displays his complete lack of familiarity with industrial organization literature. The great majority of empirical studies have used averages of several years (Weiss, op.cit., pp. 204–15). The use of pooled time series—cross section analysis, as Hammonds proposes, would be expected to encounter serious autoregression problems.

Hammonds then selects firm L to demonstrate that average profits for 1970, 1971 and 1974 may be positive when two of the three years have negative profits. He ignores the fact that our profit analysis comes up with significant relationships between profits and the two structure variables for individual years as well as for averages across years.

3. Hammonds' objection to the use of a nonlinear functional form for 4-firm concentration (Hammonds, p. 8)

Hammonds asserts that our use of a nonlinear functional form involves "manipulation" that has "no a priori justification" (Hammonds, p. 8). Although we may not have explained clearly enough for Hammonds the reasons for using the particular functional form used, there is nothing inappropriate about using nonlinear forms. On the contrary, on a priori grounds economic theory suggests that prices and profits would not be linearly related to concentration over the entire range of concentration. Rather, a priori reasoning suggests that some critical level of concentration must be reached before firms would have sufficient market power to raise prices above competitive levels. Thereafter, prices would be expected to rise until perfect collusion is reached, after which prices would level off. The functional form we used is a signoid function, which has a lazy S shape. The estimated prices using this form are shown in Figure 1. One of the chief purposes of industrial organization research is to identify critical levels of concentration, not merely to identify whether or not a positive relationship exists. We believe our analysis makes a significant contribution to knowledge by helping to identify the critical level in food retailing.

Given the above reasoning, which is based on industrial organization theory, it is not surprising that our nonlinear measure of CR_4 is more significant than the linear form.

4. Hammonds' criticism of the special treatment accorded A. & P. (Hammonds, p. 12)

Hammonds accuses the authors of "discarding" A. & P. and of "excluding" it as a special case. Nothing could be further from the truth. A. & P. was neither discarded nor excluded. It was subjected to special analysis in an attempt to identify the impact of its WEO program both on its own profits and on its competitors' (Report, pp. 43–44 and elsewhere). One of many very significant findings ignored by Hammonds was that the profits of A. & P.'s divisions were significantly correlated with A. & P.'s relative market share and the level of concentration of its various markets, except (in the case of concentration) for the post-WEO period (Report, p. 102).

C. Criticisms of Price Analysis

1. Hammonds' criticism of market rivalry variable (Hammonds, p. 7)

Hammonds finds our market rivalry variable "unusual to say the least." Because it has important explanatory power, he admonishes the reader that the results "can only be viewed with suspicion." Hammonds obviously does not understand this variable since it attempts to capture the price depressing effects of the "churning" of markets—a phenomenon which Hammonds earlier identified as an important indication of competitive rivalry. The reader should first note that the model is highly significant even without this variable. Each of the market structure variables is significant at the 1 percent level, i.e., there is less than one chance in 100 that the observed relationships are due to chance.

The Report spells out clearly the reasons for including the market rivalry (MR) variable in the equation (Report, p. 61). It says, in part:

"In many industries, including grocery retailing, firms engage in temporary competitive strategies to improve their position vis-a-vis their rivals. In these circumstances, rivalry among chains is more intense than would be expected based upon a given configuration of structural and control variables. When such rivalry is intense it usually is accompanied by lower prices and often leads to changes in market shares of firms in the market. We therefore have used the 1972–74 changes in the market shares of the four leading firms of 1974 as a proxy of short-run market rivalry (MR)." (Report, p. 61).

Hammonds further misinterprets the effect of the inclusion of MR in the equation by focusing on its influence on the coefficient for CR_4. Whereas the introduction of MR increases the coefficient for CR_4 it decreases the coefficient for the other competitive variable, relative firm market share (RFMS). Hence, the difference in the predicted prices for the structural combination used as the competitive norm and where CR_4 is 70 and RFMS is 55 is about the same using the two equations. However, for reasons explained in the Report, we believe the model including MR is superior in the price analysis.

2. *Hammonds' criticism of the omission of consumer income and operating costs as variables.* (*Hammonds, p. 8–9*)

"The most serious omission in the price model," says Hammonds, "is the absolute failure to consider either consumer income or operating cost variable". The possible influence on prices of operating costs is one of the few germane points raised by Hammonds. We were not unmindful of the problem, and included in our analysis the transportation cost variable used in a U.S.D.A. paper, but it did not effect our results (Report, p. 66, fn. 15). Subsequent to the completion of the Report, union wage rates for meat cutters, grocery clerks and checkers were obtained for 31 of the 32 metropolitan areas included in the price analysis.[2] The following regression results suggest differences in wage rates do not explain the observed differences in grocery prices, or are already captured by other independent variables. Since store labor expense typically accounts for nearly 60 percent of the total operating expenses of supermarkets (Report, Appendix Table A.2), this is a particularly significant finding.

Without wage rate (36 observations):

$$NPC = 90.67 + 6.58\ RFMS + 15.64\ CR_4 - .006SS - .08\ MG - .48\ MR$$
$$(2.88)^{**} \quad (4.86)^{**} \quad (-3.15)^{**} \quad (-4.07)^{**} \quad (-5.25)^{**}$$
$$R^2 = .66 \qquad F = 14.87$$

With wage rate (35 observations):

$$NPC = 86.66 + 6.43\ RFMS + 16.54 CR_4 - .006SS - .08\ MG - .50\ MR + .67 WG$$
$$(2.93)^{**} \quad (5.26)^{**} \quad (-3.07)^{**} \quad (-4.17)^{**} \quad (-5.15)^{**} \quad (0.67)$$
$$R^2 = .70 \qquad F = 14.29$$

Admittedly, we have not been able to exhaust the operating cost question. However, the omission of costs could only explain the observed relationships between prices and the competitive environment if operating costs are closely correlated with our two measures of the competitive environment, CR_4 and RFMS. There is no a priori basis for expecting wage rates, transportation costs, or occupancy expense to be related to market concentration or the market position of chains. These costs would be expected to be influenced by size of city and geographic region. However, size of city was found to be negatively related to prices. If costs are higher in large cities, a positive relationship would be expected.

We tested for possible regional differences in prices. Some apparent regional differences (southern SMSAs high in prices and western SMSAs low relative to the rest of the country) proved not to be significant when the average store size variable was included in the model. As explained in the Report (p. 41), this variable is used to measure the relative importance of supermarkets in various SMSAs and hence the extent to which grocery store CR_4 understates supermarket

[2] Bureau of Labor Statistics, "Union Wages and Hours: Grocery Stores, July 1, 1975", Bulletin 1925, 1976. These data were compared to and supplemented with union wage rate data obtained from Retail Clerks International Association and Amalgamated Meat Cutters and Butcher Workmen of North America.

CR_4 (the more relevant measure of concentration). Average store size had the expected significant negative relationship to prices in all equations.

Thus, our analysis to this point indicates no significant relationship between grocery prices and wage rates, transportation costs and other cost factors. Our results suggest that retail operating costs are higher in concentrated markets, but not because of higher wage rates, etc. Rather, the evidence suggests that firms with market power have higher costs because their power permits them to lead the quiet life and/or engage in cost-increasing competitive tactis (Report, p. 77–79).

Hammonds indicates that our omission of consumer income from our price models is "incomprehensible to a trained economist". Once again Hammonds demonstrates his naivete and muddled thinking. Consumer income is a relevant variable in commodity price analysis. However, commodity prices are largely determined by national and international supply and demand forces. The price of beef or pork in the U.S. is not what we have examined.

Across SMSAs, differences in consumer income may influence the total quantity of food consumed but are most likely to affect the mix of products purchased. Wealthy individuals will purchase a higher percentage of expensive items, expensive cuts of meat, etc. However, the wholesale price of nearly all products sold through grocery stores is established in a national market—not in local markets. For example, consumer incomes in different SMSAs is expected to have no influence on the wholesale price of Maxwell House coffee or Del Monte peaches. Since the cost of products to retailers is not affected by consumer income, there is no a priori reason to expect that retail prices will be affected under similar competitive conditions.

3. Hammonds' claim that other price data show contradictory results (attachment to Hammonds' testimony)

In an effort to provide evidence that contradicts the price-market concentration relationship in our Report, Hammonds at the last minute introduced an exhibit showing the "Urban Intermediate Food Budget" for 22 SMSAs. He finds a negative correlation between these figures and the market concentration ratios he has calculated.

As in his citations of other studies, Hammonds shows little concern for the validity of the data or research methodology as long as the results can be interpreted to serve his cause. First, Hammonds has selected total food budget data which include expenditures for food away from home as well as food at home even though data for food at home are in the adjacent column of BLS food budget publications.

The more important point, however, is that this data set is completely inappropriate for studying the effects of competition because of the methods of calculation. The budgets are based upon the expenditure data from the U.S.D.A. Household Food Consumption Study, 1965–66. Adjustments are made for the changes in food price levels by multiplying 1965–66 regional expenditure figures by CPI inflators. The regional food budgets are then adjusted for the SMSAs within the region by using the differences in the CPI for food at home for the various SMSAs.

The quantity of food products included in the budgets is allowed to vary from region to region to reflect differences in consumption patterns. (E.g., pork receives greater weight in the south whereas beef receives greater weight in the northeast). The method of calculation is plagued by similar brand and outlet biases as BLS food price data (See Appendix C in Report. All in all, the food budget data are as objectionable for use in market structure-price analysis as the currently published BLS estimated food prices.

D. CRITICISMS CONCERNING STRUCTURAL TRENDS IN FOOD RETAILING AND COMPETITIVE FACTORS THAT ALLEGEDLY WERE IGNORED

1. Hammonds' assertion that concentration is not increasing in food retailing (Hammonds, p. 4–6)

Hammonds first attempts to discount the concentration trend by asserting that there exists such great "turnover" among leading firms that there need be no public policy concern with rising concentration (Hammonds, p. 4). To support this claim, he indicates that in 85 percent of the 20 largest metropolitan areas, at least one of the firms among the top four in 1967 were not in the group in 1972. This comparison is meaningless. First, it does not identify the reason for the

"turnover" e.g., turnover may occur because of mergers. Second, market shares of individual chains change from year to year as they open new stores, etc. This especially results in "displacement" of firms at the margin of CR_4, where a slight change in share will move a firm from fourth to fifth place. Third, and most important, even though market shares of individual chains may change over time, competitive analysis is primarily concerned with the changes in the level of concentration; Hammonds' "churning" phenomenon may have short run effects (which our market rivalry variable picks up), but would only be relevant in the long run if it reduced concentration.

Hammonds further asserts that based on his examination of 200 metropolitan areas there has been no "statistically significant" increase in concentration since 1958 (p. 5). Hammonds errs again because our analysis of changes in concentration includes all comparable metropolitan areas, not a sample, and therefore no statistical test is necessary to measure changes in average concentration. He does not explain his statistical test, but it evidently examines shifts among arbitrary classes of markets. Moreover, the table attached to his statement belies Hammonds' assertion. It shows dramatic increases in the number of highly concentrated markets: the number of markets with CR_4 of 70+ rose from one in 1958 to nine in 1972 and the number of markets with CR_4 of 65+ rose from eight to 29. As noted in our prepared statement, these are precisely the markets that public policy should be most concerned with.

A final flaw in this part part of Hammonds' presentation in his use of all metropolitan areas irrespective of definitional changes. As we note. definitional changes mask the true extent of rising concentration in food retailing (Report, fn. 21, p. 16).

Based upon the best and most recent available data, the concentration trends reported in our study have continued since 1972. As shown in Table 1, 4-firm concentration increased an average of 3.4 percentage points between 1972–73 and 1975–76 in the 135 metropolitan areas for which comparable data are available. This is a larger increase than reported by the Census Bureau for 1967–72, suggesting an acceleration in market concentration since 1972.

2. Hammonds' assertion that affiliated independents are growing more rapidly than chains (Hammonds, p. 5)

Hammonds declares that "the authors completely mask the most dramatically growing segments of the industry." (Hammonds, p. 5) He is referring to the independents affiliated with cooperative and voluntary organizations, whose members he claims consist largely of four to nine store firms which are "the industry's fastest growing firms." (p. 5)

TABLE 1.—AVERAGE 4-FIRM CONCENTRATION RATIOS IN 135 METROPOLITAN AREAS, 1972-73 AND 1975-76

	Number of metropolitan areas	Average 4-firm concentration	
		1972–73 [1]	1975–76 [1]
Level of 4-firm concentration in 1972–73 (percent):			
30 to 39.9	14	35.5	38.5
40 to 49.9	51	45.4	49.4
50 to 59.9	42	53.9	59.3
60 to 69.9	22	64.8	63.1
70 and over	6	73.4	77.4
Total	135	51.4	54.8

[1] The data developed by this source does not cover a calendar year. Thus, the 1977 Metro Market Reports provides estimates for chains during 1975–76.

Source: 1974 Grocery Distribution Guide, Metro Market Studies, Inc., Wellesley Hills, Mass., 1974; 1977 Grocery Distribution Guide, Metro Market Studies, Inc., Wellesley Hills, Mass., 1977.

Wrong. First, most members of cooperatives and voluntaries must be single store independents, since these comprised 75 percent of all independents' retail sales in 1972; in contrast, firms with four to 10 stores comprised only 13 percent of independent sales (Report, p. 10 and 83). The truth is that while some individual voluntary and cooperative groups are growing rapidly (as noted in the Report, p. 12–15), these groups are growing within a steadily shrinking universe. Total sales of independents (defined as firms with fewer than 11 stores), declined from 66 percent of all grocery stores sales in 1948 to 56 percent in 1958 and to 43 percent in 1972 (Report, p. 83).

These Census figures also refute the assertion by Hammonds—namely that food chains are the slowest growing segment of the retail food industry and represent less than 50 percent of total food store sales (p. 16). Figure 1.4 in our report shows the trends in the distribution of grocery store sales and indicates the opposite of what Hammonds would have us believe. Chains have experienced a steadily increasing share of U.S. grocery store sales from 34 percent in 1948 to 57 percent in 1972.

3. Hammonds' allegation that A. & P.'s poor performance disproves the market dominance theory (Hammonds, p. 12)

A & P's poor profit performance does not disprove the finding that firms with dominant market positions enjoy larger profits and charge higher prices. The regression result for A & P itself supports this generalization (Report, p. 102). All A & P's chronic poor performance proves is that sometimes even large firms with substantial economic power are run so inefficiently that they perform less well than smaller, less powerful firms. Had it not been for its profitable positions in some markets, A & P long ago would have been unable to sustain its numerous inefficient operations through cross subsidization. This is not unique to food retailing. U.S. Steel's market power enabled it to operate for decades as one of the least efficient steel companies (see George W. Stocking, "Basing Point Price in the South," 1954, p. 140 and W. Adams and J. Dirlam, "Big Steel Invention and Innovation", Quarterly Journal of Economics, May 1966, p. 169).

In addition, while A & P is the second largest firm—it is not dominant in most of its markets. Table 2.4 indicates that in only 4 SMSAs out of 113 where A & P operated in 1972 did A & P hold over 20 percent of the market; in an additional 14 markets, A & P held 15 to 19.9 percent of the market. Thus, large size and market dominance are not always synonymous.

4. Hammonds' assertion that affiliated independents were ignored as an important competitive force (Hammonds, p. 5)

We did not attempt to measure the market share held by affiliated independents. However, their importance in various SMSAs tends to be inversely related to the four-firm concentration ratio. Where the largest four chains have 70 percent of all grocery store sales, independent retailers are likely to be less important than where the largest four chains have only 40 percent of the market.

We disagree with Hammond's contention that affiliated groups of independents should be treated the same as chains. Although these groups generally participate in common purchasing and advertising programs, the individual store owners are free to determine their prices (except on advertised items), the quality of products handled, and the services offered. Thus, the really critical competitive decisions are not made in common. In addition, cross subsidization from a successful independent to a less successful operator does not occur. This is an important advantage of corporate chains.

5. Hammonds' claim that ease of entry is an important competitive characteristic of food retailing and was largely ignored (Hammonds, p. 17–18)

As indicated in our *Report* (p. 24), entry at the local level is relatively unrestricted for independent entrepreneurs satisfied with operating one or a few stores. Such "entry" often occurs by leasing a store previously operated by a chain. Hammonds suggests that this has led to rapid growth in the number of firms with 4 or more stores. Appendix Table A.1 in our Report indicates that firms with 4 to 10 stores have gone from 4.8 percent of U.S. grocery store sales in 1963 to 5.7 percent in 1972; during this period the 2 to 3 store firms' share remained virtually unchanged, 5.0 percent and 5.1 percent respectively. On the other hand, the share of market held by single store independents dropped from 43.1 percent to 32.2 percent. Thus, independents as a group saw their share drop from 52.9 percent in 1963 to 43.0 percent in 1972. Quite clearly, independents do not represent as strong a competitive force as Hammonds claims.

Entry into metropolitan areas on a larger scale is much more difficult. The difficulty of entry would be approximately proportional to four-firm concentration level. This is discussed in the Report (p. 44–45).

6. Hammonds' contention that National Tea's past record disproves the relationship between market share and market power (Hammonds, p. 17)

Hammonds testified that an FTC study conducted for the NCFM stated that "a strong market position can be maintained 'for years' without loss of market share or profitability." He then says the FTC Report cited National Tea's market

position in Denver, Detroit, and Chicago as evidence of this statement. Events have disproved this conclusion, Hammonds adds, because "National Tea is now not even present in any of those metropolitan areas" (Hammonds, p. 17, emphasis in original). Once again, Hammonds misrepresents the facts in an attempt to make a point. He incorrectly states that one of the cities cited by the FTC was Detroit. Actually, those cited were Indianapolis, Denver and Chicago (NCFM Technical Study 7, p. 368). His substitution of Detroit for Indianapolis is important to his case since National Tea still operates in Indianapolis, although it recently withdrew from Denver and Chicago. In the latter city it was permitted by the FTC to sell 62 stores to A&P.

National Tea has performed poorly for a decade. It is generally recognized, however, that National's problems originated in its heavy reliance during the 1950s on mergers rather than sound internal growth for expansion. This became manifestly apparent after the FTC found National in violation of Section 7 in 1966 and prevented it from growing by merger. Indeed, National has been cited as a classic example of a firm that had attempted to rely on mergers to achieve strong market positions, only to have its plans frustrated when its illegal merger activity was stopped by the FTC (William F. Fruhan, Jr., "Pyrrhic Victories in Fights for Market Share," Harvard Business Review, September–October, 1972. pp. 102–104. 107).

E. ASSERTION THAT REPORT HAS BEEN REPUDIATED BY OTHER STUDIES (HAMMONDS, PP. 13–16, 19)

Hammonds contends that other studies provide evidence contrary to the major findings of our report. We will review each of the studies mentioned by Hammonds as well as other studies cited in the course of the hearings. The studies cited were:

1. G. Grinnell, T. Crawford and G. Feaster, "Analysis of the Impact of Market Characteristics on City Food Prices," unpublished paper, U.S. Department of Agriculture, 1976.
2. National Commission on Food Marketing, Technical Study No. 7, "Organization and Competition in Food Retailing", 1966.
3. Bruce Mallen, "A Preliminary Paper on the Levels, Causes and Effects of Economic Concentration in the Canadian Retail Trade: A Study of Supermarket Market Power", Food Price Review Board, February 1976.
4. H. Mori and W. D. Gorman, "An Empirical Investigation into the Relationship Between Market Structure and Performance as Measured by Prices," Journal of Farm Economics, December 1966, pp. 1496–1502.
5. R. Buzzell and W. Salmon, "The Consumer and the Supermarket—1980."
6. FTC Staff Report, "Food Chain Profits," July 1975, and Council on Wage and Price Stability, "The Responsiveness of Wholesale and Retail Food Prices to Changes in the Costs of Food Production and Distribution," November 1976.

Grinnell, et al. Study

The unpublished paper by Grinnell, et al. has received the most attention and hence warrants particular comment. This paper examines BLS price data for a market basket of food products across 19 metropolitan areas for four census years. The analysis summarized in this paper has such serious conceptual, methodological and data problems that it can yield no valid conclusions.

The most important problem is the use of BLS data for a purpose for which it is not intended—comparison of prices across cities. The Bureau of Labor Statistics warns that its data are inappropriate for cross-section analysis. Although the reasons why these data should not be used are discussed in Appendix C of our report, we will summarize two key points here.

1. BLS food price data are estimates of the average cost of food products in all the food stores in a metropolitan area. Thus, the prices of meat markets, convenience stores and independent stores of all sizes are included along with chain store prices and weighted according to the market share of each type store. Since small independent and convenience stores have prices that are considerably higher than supermarkets, BLS average market prices would tend to be relatively high in SMSAs where small stores are important and relatively low in SMSAs in which nearly all food is sold through supermarkets. Since it is likely that the percentage of food sold through supermarkets is positively related to the level of four-firm concentration, BLS price estimates would be expected to

be negatively related to market concentration, all else remaining the same (e.g., assuming prices are the same for each size and type store across markets).

2. Although the basic market basket of food products priced by BLS is the same across SMSA's, the brands priced are allowed to vary from store to store and from city to city. In general, BLS selects the fastest selling brand of a product in each store. Since private label products are sold more heavily in the stores of large grocery chains than in the stores of small chains and independent retailers, the lower priced private label products likely are more frequently priced by BLS in large chains than in small chains or independents. Our study found that national brands were 12 percent higher in price than comparable private label products, on average. The more frequent inclusion of private labels among the items priced at large chains would therefore be expected to yield lower BLS prices for large chains than for independents and small chains. Since large chains are expected to represent a larger total share of the market in concentrated markets than in unconcentrated markets, the variation in the brands priced also tends to lead to a negative relationship between BLS average market prices and four-firm concentration, other things remaining the same.

Given the procedures followed by BLS, a negative relationship would be expected between BLS prices and market concentration. However, industrial organization theory suggests that market power in concentrated markets will result in higher prices. Thus, market power and BLS methodology biases are expected to influence market prices in opposite directions. No clear hypothesis concerning the relationship between market concentration and BLS prices is possible. If these two influences are offsetting, then *no* relationship between BLS prices and market concentration would be expected.

The defects discussed above are related to a fatal flaw in the Grinnell, et al. study, i.e., the implicit assumption that there exists a relevant economic market in grocery retailing consisting of all sellers of retail food products (supermarkets, corner grocers, specialty meat and vegetable markets, convenience stores, etc.). As discussed in our Report (p. 41–2), supermarkets are the appropriate submarket in which to evaluate the impact of competition on the price and profit performance of large chains. After completion of the study, we obtained concentration ratios for supermarket sales. The substitution of these values for grocery store concentration ratios supported our hypothesis that supermarkets are the relevant market within which large chains compete. (Appendix Table B.15 and B.16).

In addition to the above defects of the Grinnell et al. study, it also has numerous conceptual and analytical flaws. For example, while per capita income and other factors affecting demand have an obvious place in commodity price analysis, there is no theoretical basis for including these factors in industrial organization models. Differences in income may affect the mix of products or the total quantity of products sold in a market. However, if competition is effective, prices for individual products will be driven down to average costs—which are not expected to vary by per capita income of consumers.

Cross section data for four time periods were pooled "to gain degrees of freedom" in the Grinnell study. This procedure likely leads to serious autoregression problems in which the error terms for different time periods are not independent. Although a statistical procedure exists for handling this problem, the authors apparently did not use it.

The study also appears to have serious multicollinearity problems among many of the independent variables. Real income, for example, is only significant when it is included in equations with store density, real per capita grocery store sales, and real wage rate. The simple correlation coefficients for real income and these variable are –.74, .61 and .68 respectively. When these three variables are removed from the model, real income becomes very insignificant.

The distance of the SMSA from Manhattan, Kansas, a proxy for transportation costs, was highly significant in most of the equations. Given the other problems with this study, this could be a spurious relationship. Manhattan, Kansas is not the geographic locus for many products shipped to retail stores (fresh produce, canned and frozen products, beverages, etc.). It would be a reasonable focal point for fresh meat, however. When included in our models for grocery products this variable was not statistically significant. This variable in the Grinnell model could be explaining some of the variation in the prices of meat, which are included in the BLS market basket. With the present data and analytical limitations, the distance variable is difficult to evaluate.

We regret having to so thoroughly discredit this study, since Dr. Kenneth Farrell acknowledges that "the results of the study do not really address the hypotheses tested in the Marion-Mueller study." Unfortunately, its authors and those relying on it are either unaware of its shortcomings or are not discriminating in the type of studies used to support their arguments.

The Mallen Study

Mallen's study of food retailing in Canada provided results that were similar to ours in most respects. Mallen summarizes:

"The fundamental findings of this study are that the Canadian Retail Food Trades does have very high levels of economic concentration in urban areas; that these levels are rapidly growing; that the four national giants play the major role in this phenomenon; that barriers to shopping centre sites and economies of local advertising appear to be the basic determinants of concentration; that the negative impacts of high concentration include a) "overstoring', and extra profits which lead to higher price levels; and b) less product variety and less free service." (p. 1959).

Unfortunately, Mallen reveals very little of his data—relying largely on histograms and cross tabulations—and employs rather weak statistical procedures. Because of our reservations about his data and the rigor of his analysis, we have not drawn on this study for supporting evidence.

Buzzell-Salmon Report

The Buzzell-Salmon study is an attempt to forecast the future characteristics of food retailing. Little empirical data are provided. The authors state that increased price competition occurred during 1968-72 due to an increase in excess capacity. However, they provide no evidence that either prices or profits were reduced. They also indicate that they expect chains to level off in market share and independents to gain increased control over "selling points". This appears to be conjecture which simply does not match up with the facts (see Figure 1.4 in report).

National Commission on Food Marketing Study

Hammonds cites an NCFM study that involves a simple pairing of the prices of 30 high and low market share firms (Hammonds, p. 14). The study found no significant differences between prices of the paired firms (Technical Study No. 7, p. 210). Since no other variables were used in the analysis, it is impossible to identify the net effects of market share as we did in our multiple regression analyses. Hammonds quotes Professor Dan Padberg as verifying the findings of the Food Commission staff (Hammonds, p. 15). This is an obvious attempt to mislead those that are unaware that Padberg was the author of the Food Commission study cited.

The NCFM study made other analyses purportedly designed to examine the effects of "market conditions" on food retailing. "The primary effort [was] directed [at] obtaining an understanding of the causes of variations in gross margins and net margins at the *store* level" (Technical Study No. 7, p. 180, emphasis added).

This study had numerous shortcomings. Most important was its complete lack of a conceptual model. Step-wise linear regression analysis was used to identify which of some 15 variables were correlated with the gross margins of individual stores. Students of industrial organization will recognize the inappropriateness of this approach in testing the significance of market structure variables. Industrial organization theory attempts to identify the relationship between market structure variables and a firm or industry's margins, profits or prices. It does not attempt, say in the case of food retailing, to explain the margins of each individual store of a chain within a market. Many factors unique to the store, especially its surrounding environment, are likely to influence its gross and net margins. The most important factor determining an individual store's net margin is the rate of capacity utilization. It is not surprising therefore that factors such as inventory shrinkage, sales per square foot and sales per store, had the greatest statistical significance in the step-wise regression.

The study was flawed because no model was used that recognized the likelihood that these variables were actually intermediate explanatory variables reflecting the underlying competitive environment of individual stores. For example, if a store holds a local geographic monopoly within a city because of its isolated location in a preferred store site, it will have very high sales per square foot,

sales per store and little inventory shrinkage. When the margins of individual stores are examined, the competitive structure of its immediate market area is the relevant factor—not the market structure for the metropolitan area. It is therefore inappropriate to attempt to explain the performance of each store within a city with a common set of marketwide structural variables.

The NCFM study also made one marketwide analysis. Again, this analysis developed no set of hypotheses to be tested, simply using step-wise regression to identify variables that were most closely related statistically to gross margins. (It did not report any tests using net margins.) Moreover, rather than pool the data for the nine chains that reportedly provided data, a separate "test" was made for each individual chain. The analysis also implicitly defined the market as including all types of grocery stores, rather than the supermarket submarket and included no variable to adjust for this bias. As explained previously, supermarkets are the relevant market when examining chain store performance. Finally, the study tested only linear relationships between concentration and margins, although, as shown by our analysis, it is more appropriate to assume curvilinear relationships between supermarket concentration ratios and performance. All in all, the study involved a very crude, unsophisticated testing of industrial organization hypotheses of the relationship between structural variables and margins. Whereas it promised much because it was based on a large data base, it contributed no reliable knowledge about structure-performance relationships.

Studies by FTC and Council on Wage and Price Stability (Hammonds, p. 19)

Hammonds inappropriately cites two recent studies by the FTC and the Council on Price and Wage Stability to support his case. These studies are irrelevant to the subect of the impact of monopoly power across markets. They examine the overall level of prices and profits in the industry with particular emphasis on the inflationary role of the industry during 1972–1974. These studies do not disagree with our general conclusion that industry-wide profit data "provide no evidence of widespread 'profiteering' by grocery chains during 1970–1974." (Report, p. 2).

As we have repeatedly stated, our principal concern is with the increasing but still minority number of metropolitan areas that are so highly concentrated that competitive forces do not protect consumers from excessive prices and profits. These are the markets that present a public policy problem.

Mori-Gorman Study

This study collected prices on a 151 item market basket from supermarkets representing at least 90 percent of the supermarket sales in each of 22 cities from three midwestern states. The cities were selected so that the basic cost factors were similar. In most cities, the range between highest and lowest priced stores was about 5 percent. Average market prices for the 22 cities were found to be significantly different with a range of 4.5 percent.

The model employed by Mori and Gorman to explain average market price was extremely simple—employing only one independent variable, market concentration. Other variables that may either affect price levels or the accurancy of concentration measures were not included in their model. Not surprisingly, no relationship was found between average market price and the market share of the top four firms.

This study also examined the prices of four national or regional chains, each of which operated in from 7 to 18 of the cities studied, and related each chain's prices to the market share held by the chain and the market share held by all other chains. Once again no relationship was found from this very simple model. The authors acknowledge that other factors may have clouded the underlying price-market structure relationship. For example, they show that in markets where a strong grocery discounter operated (holding at least 10 percent of the market), one of the chains studied had prices that were more than 2 percent less than in markets without discounters. Mori and Gorman conclude: "It appears very evident that Chain A makes substantial adjustments in its pricing policy subject to local competition."

The extremely simplistic models employed in this study is a strong weakness. In addition, the authors used all food store sales as the relevant market for computing concentration and market share figures. As we have argued previously, all supermarket sales are the appropriate relevant market for this type of study.

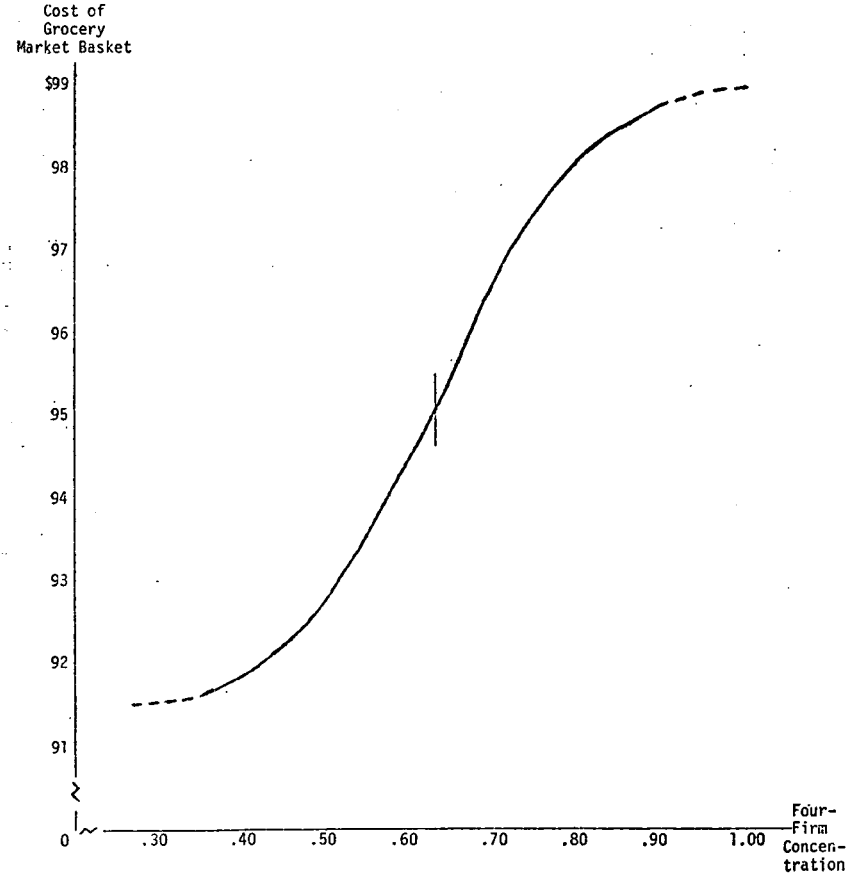
When supermarket concentration ratios are not available, control variables should be used to adjust for the bias.

Finally, the sample of cities studied by Mori and Gorman was heavily biased toward small cities that were highly concentrated. Twelve of the 22 cities had estimated populations of 25,000 or less; only three cities had populations over 100,000. In the least concentrated market, the four largest firms made 56.4 percent of food store sales and in the smallest and most concentrated market, the top four made 99.0 percent of sales. In all but three markets, the top four firms made over 65 percent of sales; in all but nine, they exceeded 70 percent. Had these concentration figures been computed as a percent of grocery store sales, they would have been even higher.

In 1967, the average four-firm grocery store concentration in all metropolitan areas was 51.1 percent (Report, p. 132). Thus, Mori and Gorman studied markets whose concentration was far above the average of all markets and had no markets that were even close to being competitively structured as defined by our report. Considering the market concentration-price relationship found in our study (Figure 1), the majority of the cities studied by Mori and Gorman would have fallen on the upper horizontal portion of our S curve. In this portion of the curve, prices do not change with changes in concentration since they are already at the shared monopoly level.

Because of the strong bias in the cities studied and the crude and inappropriate analytical models employed, the results of this study are meaningless.

FIGURE 1.—Empirical relationship found between grocery prices and SMSA grocery store concentration.



Source: Equation 1G, table 3.3 of the study.

PREPARED STATEMENT OF TIMOTHY M. HAMMONDS

My name is Mr. Timothy M. Hammonds, Vice President Research of the Food Marketing Institute. FMI, a non-profit organization, conducts programs in research, education and public affairs on behalf of its more than 850 member companies and the customers they serve. FMI members are food retailers ranging from food chains to one-store operators, voluntary wholesalers and cooperative wholesalers.

The Mueller report before us today is a technical and complex document unfortunately flawed by a multitude of incorrect assumptions and inappropriate manipulations. Even the noneconomist can readily appreciate the flaws by looking at the absurdity of its conclusions. We will demonstrate that the competitive standard set by this report would produce a rate of return capable of bankrupting any major industry in the United States.

The report:

1. Establishes arbitrary competitive standards leading to equally arbitrary conclusions;
2. Ignores major competitive forces at work in food retailing;
3. Constructs price and profit models using woefully inadequate data; and
4. Ignores a wide variety of studies by other economists which establish the basic competiveness of the industry.

The most obvious flaws in the analysis appear in the "monopoly overcharge" section. In Table 1.1 Mr. Mueller selects his competitive market standard as 40 percent of sales held by the largest four firms in a standard metropolitan statistical area. Before commenting on this choice, it must be made clear that concentration ratios are but one measure of competitive vitality and not a substitute for more complete analysis. With this qualification in mind, 40 percent is the most restrictive standard ever set in industrial organization analysis. The Neal Report prepared by the White House Task Force on Antitrust Policy in 1968 stated:

"The term 'oligopoly industry' shall mean a market in which (i) any four or fewer firms had an aggregate market share of 70 percent or more during at least seven of the ten and four of the most recent five base years . . ."

Even the overly restrictive Hart Deconcentration Bill, S. 1167, of 1973, which was not favorably reported by the Judiciary Committee, set a more lenient norm than the authors of this report:

". . . monopoly power is possessed by any corporation if the average rate of return on net worth after taxes is in excess of 15 percentum over a period of five consecutive years . . . or . . . if any four or fewer corporations account for 50 percentum or more of sales . . . in any year out of the most recent three years preceding the filing of the complaint."

To help in assessing just how restrictive this standard is, let us look at a cross section of American industries. A 1975 University of Michigan Graduate School of Business publication entitled *Industrial Market Structure and Performance* by D. N. Winn lists over 130 domestic industries and their national four-firm concentration ratios. Keep in mind that the authors of this report use an even more restrictive local market ratio. Of Winn's cross section of industries, over 65 percent had four-firm ratios in excess of 40 percent. The consequence of accepting the Mueller standard would be to find the majority of all American industry in violation.

Let us set this same standard in a different light. In Table 1.1, the authors accept a pre-tax return on sales of 1.15 percent as their competitive norm. We can easily translate this to return on equity and return on assets for food retailing. Mr. Mueller himself makes a similar conversion in the paragraph following this table. Using his own conversion ratio and applying the well-known formula[1] for such a conversion, we find a 6.3 percent return on equity and a 3.2 percent return on assets.

These returns are less than that available on certificates of deposit from a savings and loan institution. In 1976 the all industry median return as reported by Forbes Magazine was double this at 12.7 percent. Even the Hart Bill suggested monopoly power for returns only in excess of 15 percent.

As we stated earlier, the competitive standard set by this report would produce a rate of return capable of bankrupting any major industry in the United States if continued over time.

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[1] (Return on sales minus taxes) times (asset turnover) equals (return on assets) times (leverage factor) equals return on equity.

You must ask yourselves whether you are prepared to accept the consequences of adopting these standards as the norms of industry analysis. If you are not, you must reject the Mueller report.

The selection of arbitrary and highly restrictive competitve norms is only symptomatic of the shortcomings of the analysis. This and the additional questionable techniques which we discuss suggest an effort by the authors to tailor the analysis to fit their bias.

I. THE REPORT'S ANALYSIS OF MARKET SHARES AND TRENDS IS SUPERFICIAL AND ERRONEOUS

We now turn to one of the most glaring omissions of the analysis. The failure to adequately consider, or even to acknowledge, the substantial churning of market shares so well documented by other economists. The authors would have you believe that the grocery industry is characteried by steadily increasing large firm market power which in turn leads to steadily increasing prices and profits.

As a check on the author's objectivity, we used the same Grocery Distribution Guide cited in the report to determine whether the largest firms were in fact able to maintain their market shares over time. We are, therefore, using the author's own source to test the internal consistency of their major hypothesis without endorsing the accuracy of the Grocery Distribution Guide.[2]

Since we do not know which cities were included in the analysis, we examined the top 20 metropolitan areas. Of the largest 20, 17 had a different set of top four firms in the census year 1972 than in the census year 1967. That is, in 85 percent of the markets, at least one of the original top four firms fell from that group and was replaced by a different firm. Of these same 20 cities, 14 (70 percent) experienced another turnover of at least one firm among the top four between 1972 and 1975, the last year for which data are now available.

The authors totally ignore this churning and would instead lead the Committee to believe large firms so dominate the market that competition is ineffective. It is precisely the presence of active and intense competition which leads to the very high turnover rates actually observed.

In fact, the authors studiously avoid an explicit statistical test of their hypothesis of steadily increasing market power over time. We have constructed such a test and have attached it to this testimony. The conclusion from this test is that there has been no statistically significant upward shift in the distribution of top four-firm concentration ratios in the largest 200 metropolitan areas since 1958.

The authors have also ignored other significant facts prevalent in food retailing which are essential to even a truncated market share analysis. The data as presented by the authors completely mask the most dramatically growing segments of the industry. Independent retailers affiliated with cooperative and voluntary organizations are not included or evaluated as a group. Nevertheless, these organizations do function with common purchasing and merchandising programs, including joint advertising, and most often operate under a common name. Cooperatives and voluntaries contribute substantially to the competitive vitality of the industry and represent nearly 50 percent of retail food store sales. Their members consist in large part of the 4–9 store firms which represent the industry's fastest growing firms. They are, however, totally ignored as competitive market area factors in the Mueller report.

A market place with no significant upward concentration shifts since 1958 coupled with a high rate of change in identity of the top four firms in each metropolitan area certainly sets an entirely different tone than established by the authors.

II. THE MODELS IN THE MUELLER REPORT, PARTICULARLY THE PRICE MODEL, ARE THE RESULT OF THE IMPROPER USE OF INADEQUATE DATA

Let us now turn to the models and analytic techniques. Our attention will be primarily on the price model for that forms the basis for the "monopoly overcharges" produced by Mr. Mueller. I might say, however, that the profit model

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[2] The reliability of the Grocery Distribution Guide as a source of market share is at best uncertain. This publication does not use census data and the methodology is unspecified.

is also seriously flawed with two factors standing out: The choice of corporate divisions as a tool of analysis and the use of averaged profit data as the key equation variable.

Although the authors talk about the need for assessing concentration on a local market basis, they choose to analyze divisions instead of metropolitan areas. Corporate divisions are very large areas structured to correspond with warehouse distribtuion systems. These often are so large as to include more than one standard metropolitan statistical area and certainly would not meet the relevant market definition of any economist. S.M.S.A. profit equations are cited by the authors but discarded in their final analysis.

As to their choice of profit variables, the authors have elected to average the profits of each firm over the years under study. The technique commonly used in the profession is to enter individual yearly observations rather than a single average. Pooled time series-cross section analysis is well established in agricultural economics. It is the task of regression analysis to explain variation. Since averaging reduces variation, it makes the dependent variable less difficult to explain and, therefore, increases the significance level of the equation. This effect can be seen through firm L in Table 2.3, The "average" profit for 1970, 1971, and 1974 (the three years included in the author's analysis) is positive even though two of the three years are losses. This technique is consistent with the authors tendency to avoid any facts which might weaken their results.

Now to the price analysis. This is both the most critical and the analytically weakest section of the report. As a vivid illustration of the author's unusual techniques, consider their inclusion of the market rivalry variable. The authors refer to prices which they contend may be up to 14 percent higher than an arbitrarily selected competitive norm. Yet the inclusion of this single market rivalry variable nearly doubles the explanatory power of the equation (Table 3.3) and increases the coefficient of the concentration ratio by over 30 percent.

The construction of this market rivalry variable is unusual to say the least. Even the authors seem somewhat embarrassed to explain its implication that the impact on market prices is identical regardless of whether the top four firms grained by 20 percent in their market share, or declined by 20 percent in their market share. A variable so obviously inconsistent with the rest of their analysis yet so important to the strength of their results can only be viewed with suspicion. While the justification of this arbitrary step is highly questionable, the impact of making the equation fit the author's preconceived hypothesis is nothing short of dramatic.

A similar manipulation can be observed in the profit equations, Tables 2.6 and 2.7. In neither of these tables is the concentration variable statistically significant until it is introduced as an extremely unconventional concentration ratio transformation as follows:

$$(CR_4+.20)^3/1-3(CR_4+.20)+3(CR_4+.20)^2$$

No a priori priori justification for such a transformation appears in the report. Apparently, the authors feel lack of correlation between profit and concentration simply means that the analyst has not been sufficiently inventive in applying a series of complex mathematical manipulations.

The most serious omission in the price model is the absolute failure to consider either consumer income or operating cost variables. Consumer income does vary considerably across metropolitan areas and is a fundamental tenet of market price theory. Its omission is incomprehensible to a trained economist. Cost differences are well established in the literature as significant determinants of grocey prices. Their exclusion is likewise incomprehensible.

Simple (linear) four-firm concentration ratios are significant in the price equations but not in the profit equations. This strongly suggests that prices are higher in some markets because costs are high. This observation is consistent with the work of other indutry analysts.

Mr. Mueller argues that costs are under control of management and, therefore, need not be included separately. He reasons that high concentration leads to lax management leads to high costs. Yet the most recent study of the impact of market characteristics on city food prices, by Grinnell, Crawford, and Feaster of the U.S.D.A., found transportation cost to the city to be the strongest and most consistent correlate with price. This is certainly not a variable under management control.

Mr. Mueller agrees with other industry analysts that prices and costs are related. He insists, however, in turning the cause and effect nature of that relationship upside down. Where other analysts find prices commensurate with costs, Mr. Mueller finds only sloppy management. It is difficult to reconcile the authors view of a management consummately skilled at controlling competitors yet totally inept at controlling cost. Their view of the market is simply unrealistic.

If the appropriate variables, including consumer income, transportation cost, and operating cost were included in the price equation, there is substantial reason to believe these would account for most, if not all, of the variation in city prices. The result would be a substantial lessening of the significance of the concentration variable and of the magnitude of its coefficient. Since the "monopoly overcharge" is a direct product of this coefficient, it too would be substantially reduced if not eliminated.

Finally we come once again to the "overcharge" estimate itself. We do not believe that an unbiased industry analyst, not intent on proving market abuse, would be willing to produce a national "overcharge" starting from such a shallow base as the prices of three firms, for one month, for products comprising less than half of store sales. This is a gross overextension of the analysis even without the extensive problems with the equations themselves discussed earlier.

In overreaching the bounds of their analysis the authors base their "monopoly overcharge" on a cross-sectional multiple regression model. They do not indicate that this estimate of monopoly overcharge is sensitive to the absolute level of prices prevailing in October, 1974 in addition to the relative intermarket prices used in the estimate. Further, there is reason to believe that the price data used by the authors contains substantial upward bias with regard to level since only dry grocery prices are included in the estimating equation. This is true because other items within a store, especially produce and meat, are frequently price specialed while dry groceries are specialed (both frequency and depth) less often. Inclusion of price observations from a representative mix of items within a store would lead to a lower absolute price level across markets than the author's used.

The potential variation in estimates of monopoly overcharge due to absolute price level is not an obvious relationship but is a direct one. Price levels significantly lower than used for estimating the parameters of the price equation upon which Table 3.4 is based would affect the norm chosen. That is, the norm chosen to represent the same 6.3 percent return on equity would be at a higher CR_4 than 40. With a higher CR_4 than 40, the estimate of monopoly overcharge would be substantially reduced from the estimate contained in the report.

In summary, absolute price level is a factor impacting on any estimates of monopoly overcharge which the authors either chose to ignore or did not realize.

In addition, we must point out in the strongest terms possible that Table 1.1, the heart of the "monopoly overcharge" argument is meaningless without statistical confidence intervals. We have no way of knowing whether the differences in price levels depicted in Table 1.1 are significantly different. In fact, we were able to construct a partial confidence interval from the information provided in the report which indicates the price levels for four-firm ratios of 40 percent are not significantly different from the levels of four-firm ratios of 50 percent. We can only wonder how many other serious omissions of this nature cloud the objectivity of the analysis.

One measure of objectivity in a scientific document is the fairness with which the authors report the sensitivity of their conclusion to alternative model formulations. This report contains no sensitivity analysis. We can, however, provide a step in this direction by using their footnote number 39. The authors do report, although not in the body of the text, that their choice of excluding the years 1972–73 from the profit equation inflated the competitive norm return on sales by over 45 percent. With this level of sensitivity, it is not difficult to understand why other information of a similar nature was not presented.

Another measure of objectivity is the tolerance of evidence contrary to the author's basic hypothesis. Mr. Mueller handles such evidence by simply discarding it. He has, for example, included special variables to net out the impact of A&P in this analysis. He has, in fact, been excluding this company as a "special case"—a short-run aberration—for over ten years. His report states explicitly: "This (A&P) variable was also included to reflect the fact that for *over a decade* A&P had profit rates well below the industry average". [Emphasis supplied].

If the authors' theory of large firm dominance were correct, one could never observe a market aberration such as A&P. Certainly one cannot dismiss performance for over a decade as an "unusual case."

III. THE BASIC CONCLUSION OF THE MUELLER REPORT HAS BEEN REJECTED BY RESPONSIBLE STUDIES

Not only were the data available to the authors of the Mueller report woefully inadequate to support their principal conclusion that price is a strong positive correlate with market concentration, but responsible analyses during the past decade have reached a directly contrary conclusion. The reliability of these other studies is in no way diminished by their use of data categories different from that underlying the Mueller report, particularly in view of the patent shortcomings of the Mueller analysis.

Foremost among the studies finding an absence of any correlation between market concentration and price in food retailing is that conducted by the staff of the National Commission on Food Marketing and reported by that agency.[3] The National Commission was a bi-partisan governmental body appointed by President Johnson, the then Speaker of the House and the then President pro tempore of the Senate to study all aspects of food marketing which might have public policy implications. One of the most important issues as respects food retailing faced by the agency was the allegation first raised by Dr. Mueller and his colleagues in FTC's Bureau of Economics that food retailers charge higher prices in markets with high concentration. The FTC staff had attempted to "prove" this correlation through a gross margin—market share comparison.[4]

Recognizing the inadequacy of such an analysis, the Food Commission staff conducted a study designed to show whether there was a relationship between a firm's actual selling prices (the same type of data used by Mr. Mueller) and its market share in different areas. Prices concerning all major food product categories and some nonfood categories were collected and 30 inter-market comparisons were made. The NCFM study directly contradicts the Mueller allegation and discloses no correlation between price level and market share. The conclusion was:

"In these 30 companies between market share and price, results were random in nature. By one measure of prices, the firm with the higher market share had the higher price in 16 of 30 comparisons. By the other measure, the firm with the higher market share had higher prices in 14 of the 30 comparisons. These findings tend to confirm the earlier indications that variations observed in gross margin results more from variation in the sales mix, waste and pilferage than variations in price level." [National Commission on Food Marketing, "Organization and Competition in Food Retailing," at 210 (1966).]

Thus, any profit performance which might be associated with market position derives from customer acceptance and efficiency not with higher than competitive price levels. These observations are enlarged and sharpened by Professor Daniel I. Padberg in "Economics of Food Retailing," Cornell University (1968). Professor Padberg concludes from the same data used by the Food Commission:

Prices are not systematically related to the market shares of competing firms. Prices are related to the intensity of competitive challenge, which may be high in a concentrated market or low in a market of low concentration." [Id. at 170.]

In another analysis of price data in the food retail industry, collected with respect to 22 cities, an analysis at Purdue University found that there was no support for the hypothesis that higher concentration ratios result in higher overall price levels or permit a firm to charge higher prices than in markets where concentration is lower. The authors explain:

"Present public policy which places heavy emphasis on concentration ratios has a very weak empirical foundation. [Mori and Gorman, "An Empirical Inves-

[3] The Mueller report creates some confusion as to the origins and sources of the Food Marketing Commission's staff report on food retailing, National Commission on Food Marketing, "Organization and Competition in Food Retailing," (1966). Thus, the Mueller report cites the NCFM report on retailing to support the proposition that there is a strong correlation between market share and pre-tax profits. In fact, the citation is to a study performed by the FTC Bureau of Economics whose principal author was Mr. Mueller. In this statement references to the NCFM staff study will be to the report actually prepared by the staff of the National Commission.

[4] Interestingly, Mr. Mueller has now apparently abandoned his earlier belief that gross margins could serve as a surrogate for price levels. The Mueller report itself, page 50, indicates some of the shortcomings of such a hypothesis.

tigation into the Relationship Between Market Structure and Performance as Measured by Prices," Journal of Farm Economics (1969).]

Most recently, an analysis of inter-city grocery market basket information in conjunction with a number of variables, including market concentration ratios, was undertaken by U.S. Department of Agriculture economists.[5] It was the hypothesis that high market concentration is associated with high food price levels. To the contrary, according to the Grinnell study, distance from production area, a variable not even considered in the Mueller report, is the major contributor to inter-city price variations.

In sum, every other empirical evaluation of the issue has concluded there is no support for a correlation between concentration and price levels. The basic conclusions of the Mueller analysis are, thus, further undermined by the contrary results of these responsible evaluations.

IV. CONTRARY TO THE IMPLICATION OF THE MUELLER REPORT THE RETAIL FOOD INDUSTRY IS HIGHLY COMPETITIVE

By every reliable measure, food retailing is a highly competitive industry and consumers receive the benefit of that competition.

Although market share calculations are not sufficient by themselves for even a structural appraisal of competition in a market and a structural analysis is itself incomplete, the market share levels and trends relative to food retailing do not support the conclusion that the industry is non-competitive. On a national level, all food chains operating eleven or more stores continue to be the slowest growing segment of the industry representing less than 50 percent of total food store sales. Independents affiliated with cooperatives and voluntary groups continue to be the fastest growing firms, other than convenience stores, in food retailing.

At the local level, where competition in food retailing is most significant, average concentration levels remained relatively stable during the period 1967–1972. The concentration ratio data reported by Census, moreover, do not include as a competitive unit voluntary or cooperative affiliated retailers although these firms operate as a unit for purposes of procurement and merchandising including, most often, common advertising. Further, the Census data do not reflect the very important factor of market turbulence—the inability of market leaders to retain their position. Previously in this statement, we have provided information concerning the substantial churning of market position which has marked food retailing in recent years. These data are significant in light of the observations of the National Commission on Food Marketing staff that:

1. Smaller firms tend to retain their market position more tenaciously than larger firms;
2. Firms with "market shares" in excess of 20 percent exhibit substantial instability, and their market position is subject to considerable erosion; and
3. Increases in local concentrations result mainly from growth of local and regional firms.[6]

It is interesting in this regard that a conclusion by the principal author of the Mueller study to the effect that a strong market position can be maintained "for years" without loss of market share or profitability has been totally disproven. In 1966, Mr. Mueller cited the National Tea market position in Denver, Detroit, and Chicago as proof of his market rigidity hypothesis.[7] National Tea is now not even present in any of those metropolitan areas.

A dimension of market structure largely ignored in the Mueller report, ease of entry into the food retailing industry is widely recognized. For example, the Federal Trade Commission itself, in the only contested food distribution merger case decided by the agency, relied on the facility of entry in the industry in declining to attempt to require divestiture.[8] The steady increase in 2–3 and 4–9 store operators and the expansion of firms operating 11 or more stores—demonstrates the free movement of smaller firms into larger size classifications.

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[5] Grinnell, Crawford, and Feaster, "Analysis of the Impact of Market Characteristics on City Food Prices." Paper presented at the annual meeting of the American Agricultural Economics Association (Aug. 15–18, 1976).

[6] National Commission on Food Marketing, "Organization and Competition in Food Retailing," supra, 57.

[7] Id., 368.

[8] National Tea Co., 69 FTC 226 (1966).

Perhaps the most striking illustration of ease of entry in food retailing is a tabulation, published by Chain Store Age, which lists more than 300 firms which it describes as "unknown 10 years ago" which are currently operating four or more stores.[9] Even in the unlikely event that the 300 figure represents a complete inventory, it would mean than nearly 25 percent of all firms operating four or more stores in 1972 were either not in existence or did not operate two or more stores in 1963. The success of new competitive factors underscores the competitive nature of food retailing. In addition, the number of convenience stores more than trebled during the period 1965–1972. Competition from discount department stores operating food departments has also increased markedly.

Finally, the profit performance of food retailers is wholly inconsistent with a monopoly or oligopoly hypothesis. The "monopoly overcharge" alleged by the authors of the Mueller report exceeds the total annual profits of all supermarkets. Two government agencies which have recently examined food retail prices have concluded that whatever price variances have occurred are not the result of so-called profiteering. According to a 1975 report by the FTC Bureau of Economics, food price increases occurring since 1972 were the result of increases in raw food prices.[10] The Council on Wage and Price Stability concluded in late 1976 that food chain prices respond directly and accurately to upward and downward movements in farm prices.[11]

CONCLUSION

In conclusion, we have presented a detailed but not exhaustive documentation of the glaring flaws of this report. We believe the Mueller argument represents an unwarranted attack on a responsible sector of the American economy which does not merit the dignity of your further consideration.

CHI SQUARE HOMOGENEITY TABLE, 206 IDENTICAL CITIES

	Number of cities				
	1958	1963	1967	1972	Row totals
4-firm concentration ratios (percent):					
70-plus	1	4	5	9	19
65 to 70	7	11	11	20	49
60 to 65	27	22	24	23	96
55 to 60	24	25	33	30	112
50 to 55	31	44	40	30	145
45 to 50	53	34	35	36	158
40 to 45	29	33	27	36	125
35 to 40	18	17	17	9	61
30 to 35	12	11	11	9	43
20 to 30	4	5	3	4	16
Column total	206	206	206	206	824

Note: Calculated chi square equals 32.86; table chi square value equals 36.7; alpha equals 10 percent, degrees of freedom equals 27.

Representative LONG. Mr. Hammonds, you said your testimony was going to be forceful, and it was. Some of the things you pointed out, I am sure, will lead to comments from Mr. Marion and Mr. Mueller—which one of you would like to speak first?

Mr. MARION. Many of the comments that we made earlier today in response to the questions raised by the committee about the nature of the sample, the representativeness of the market basket for example, have been dealt with.

I think one of the points that he raises that is germane and that I could respond to again is the question of the inclusion of other expense

[9] Chain Store Age, 1972 (Sales Manual) 64.66 (July, 1972).
[10] FTC Staff Report, "Food Chain Profits," Summary (July, 1975).
[11] Council on Wage and Price Stability, "The Responsiveness of Wholesale and Retail Food Prices to Changes in the Costs of Food Production and Distribution," (November 1976).

factors that might explain the difference in prices in the various markets; I would simply reiterate the earlier comment that when we plugged in wages—which is the most important expense category in retailing—when you put this in our models, it does not come out as significant; it has no effect on the relationship which we have established between price levels and the concentration of markets and the relative market share. I believe the committee now understands this point; it remains only to convince the food chain spokesmen, Mr. Goldberg and Mr. Hammonds.

Similarly, the transportation variable was tested, albeit in a rather limited fashion. But I think that for this to have a particular significance on our findings, one has to say there are some other expenses that are positively related to concentration, for example, that occupancy is higher for some reason in concentrated markets than in low concentrated markets. We discussed this when doing our research but really could not come out with any plausible reason why that should be true. We have certainly heard no such reasons so far today either.

Representative LONG. What you are saying is that the labor cost differential would have no affect upon your findings when it is fed into the equations and the formulas that you used, and that the cost of getting the product to the particular stores, in each of the localities, again, would have a negligible affect upon your findings; is that correct?

Mr. MARION. That is right, to the extent we were able to test transportation costs. We did not attempt to extensively test that particular cost.

Representative LONG. You are saying that there are some other factors inherent in concentration that do perhaps have some affect on this, but that you were not able to measure; is that correct?

Mr. MARION. I am saying there are other expenses certainly in retail stores, such as occupancy expense. There is no reason, however, to expect those expenses to be higher in concentrated markets. In fact, we tend to find store occupancy expense is higher in the larger cities, where property is expensive. Our larger cities tend to be less concentrated than our smaller cities; so the main thing we would expect with this variable is an inverse relationship between occupancy expense and concentration.

Representative LONG. Would you like to comment on this, Mr. Mueller?

Mr. MUELLER. First, Mr. Hammonds commented that in using concentration ratios of 40 we were using a completely unprecedented standard. He cited the Hart bill which used 50 percent as a standard and the Neal report which used 70. Well, those weren't standards of the level of competition but rather the level at which they said firms had such monopoly power that drastic action should be taken to restructure the industry. They were presumed in Senator Hart's bill to have market power if they had concentration that high.

Likewise in the Neal report. Neal talks about lower levels of concentration in another part of it; and certainly the 40-percent level which we use was derived empirically. We found that at below that level in food retailing, prices and profits were still declining somewhat; and we could have picked a lower level and said until prices and profits

level out, we don't have competition. Admittedly, there is something arbitrary about picking that particular level; but it certainly does have a basis. Saying that we would bankrupt an entire industry if we used this kind of a standard, because at this level during this period of depressed profits, the industry was only earning 6.3 percent in those kind of situations, again seems unwarranted. We would not expect that and we do not expect the food retailing industry is going to continue in the low levels of profitability that it was at that particular time.

I could comment on every one of his points. If any of them had any particular appeal to you, I would be glad to do so.

Representative LONG. What about the aberration of A. & P. as he described it?

Mr. MUELLER. Certainly it——

Representative LONG. It is historically known by many of us that it has not been these last few years a very successful operation; consequently, are you justified in just casting it aside?

Mr. MUELLER. We are not casting it aside. In fact, we examined it extensively. What we are doing is showing, in fact, how much lower its profits are than profits of other chains. We introduce it in two ways. One, we see what the impact of A. & P. is when it is in a market of firms that compete with it; and based on this, we find that generally firms have higher profits in markets when they compete with A. & P., with the exception of 1972. The other thing we look at is what happened to A. & P.'s own profits during the time it was practicing its WEO program. It shows that they went down substantially. The only time we, in effect, cast aside A. & P. is where we say, well, we have included it in these ways in these other models. Now let's take out A. & P. and see what kind of results we get. Then we look at A. & P. separately to see—just looking across its divisions—whether its profits vary among divisions depending upon concentration. Let me emphasize that our study's conclusions were obtained both with and without using A. & P. data.

I would hardly say we are casting it aside. We are just examining it and saying there is something unique about A. & P. in terms of its profits, its size, and its WEO program and the way in which it may impact on other firms.

Representative LONG. What about the point that I think Mr. Goldberg or Mr. Hammonds made regarding the years 1972 and 1973, and the carryover of those years. What impact would you expect on your study's results if the profit data from those years are included in your study? What would be the relationship of profits to market concentration with the inclusion of those years?

Mr. MUELLER. We show the same result both including those years and excluding them. This thing has been bandied about by those guys to mislead the committee. We have been cautious—and I think scholarly—in saying there was something unique about those years. We want to treat them separately from the others and see what would happen when they are both excluded and included.

Sure, profits were higher when those two historically low-profit years are excluded. We do not make any more of this than the fact that it did occur, and then we attempt to measure how much dif-

ference it makes. And, as I said earlier, our results would have been even stronger, had we included those years. Mr. Hammonds' comments are foolish and naive.

Representative LONG. What happens in your study if you put them back in?

Mr. MUELLER. The basic relationship exists.

Representative LONG. It does not change the basic relationship?

Mr. MUELLER. No. Not one bit. It makes it stronger.

Representative LONG. Mr. Farrell, you emphasized the need for better data. I think if one thing is evidenced here it is certainly that. Would you endorse the efforts by the Joint Economic Committee to gather additional data from the food retailing industry and go into this matter further?

Mr. FARRELL. Yes, sir. I believe that the Marion-Mueller study is an important step in the right direction. I do not think that it provides incontrovertible, absolutely conclusive evidence with respect to the issues they are addressing. I would like to see more data and more analyses of these particular issues.

Representative LONG. Mr. Goldberg.

Mr. GOLDBERG. I agree with Mr. Farrell. In fact, it seems to me that every one of us on this panel agrees, Congressman Long, only we have stated it differently. The authors cautioned within their total study about the slim data and so forth. Then when they get to the end of the study, they came out pretty hard and pretty strong with their conclusion. We really don't know whether there are higher costs or lower costs. We really don't know for sure whether there are higher costs or lower costs when they have concentration. We do not know how comparable those particular examples are for the rest of the food industry. We do not know whether concentrated markets or nonconcentrated markets impact on different cost matters. We don't know any of it. I think what concerns me as a researcher and one that tries to work closely with the Government and private sectors is that when you have a study like this, which is very useful—and Mr. Farrell is right, and I certainly agree with him on that—but when you have a study that is so needed by both the practitioners in the system and by those who need to protect the consumers against faults in that system, when you stress conclusions with partial evidence and stress those conclusions so strongly, you build up future barriers between the committee and the industry.

I guess that's what concerns me the most. Frankly, I would like to get my hands on that data. I asked Mr. Tyler of the committee staff for it. He said it is not available for public release. I would like to see how it fits into the total food system, not just that one small segment of it. I am sure that Mr. Mueller and Mr. Marion are not pleased to have to say the kinds of things they say about the conclusions, that it's hazardous to make this assumption, and then go ahead and make it. Nexertheless, that's what they had to do.

Representative LONG. You have made a misleading statement. For the record, let me correct a comment you just made, Mr. Goldberg. Mr. Tyler of the committee staff informed you on September 24, 1976—over 6 months ago—that all the data used in the study was available to you. He even gave you the phone number where Messrs. Mueller

and Marion held the raw data. I understand you never solicited even one item of that data. In this same letter, incidentally, you were informed that your participation here was requested by the NAFC—the National Association of Food Chains—initials very well known to you.

We might go into this thing rather extensively to get a great deal more information and see if we cannot make it available across the board. That might be one of our recommendations. We might very well be able to oblige you in that respect.

Mr. GOLDBERG. I would appreciate it. On the other hand, an industry that is, I think, going through a competitive stage because of the excess capacity in it, and obviously quite reluctant to give you the original data——

Representative LONG. Mr. Goldberg, now you sound like the man who said, "The Lord giveth and the Lord taketh away."

Mr. GOLDBERG. I guess all I am concerned about, Congressman Long, is that when you come up with a study that is so strongly stated, you put the defenses up on an industry that we need to get cooperation from in order to get the data.

Representative LONG. That is not the case here. The industry refused to share that data with us long before the study even began. But I think that is true. Certainly I think that the lack of available information over the many years—and I gather that there has been an absolute paucity of information—has caused many people who have attempted to study this a great deal of difficulty in arriving at any reasonable conclusions that are supportable by evidence. That is certainly one of the problems Mr. Mueller and Mr. Marion had in trying to get their study together. Further complicating the matter is that in trying to be fair and avoid hurting anyone, we felt the data should be kept relatively confidential, without identifying particular firms or markets involved. But, it then becomes difficult to make a specific case on a specific point when you cannot identify the city involved and the chains that are involved.

Mr. MUELLER. I would like to make a general statement. There have been all these comments about the qualifications we made and the qualifications that if others were doing the study they would make and so on. And there have been other studies presented before this committee on this subject, the implication being that they were somehow of a higher quality.

I think I probably read just about the entire output of this committee, and particularly the material in this area. No study occurs to me where witnesses had data as detailed as we did or used as sophisticated research techniques and models as we did.

Certainly we made statements like "There's a problem here with this sample." We are cognizant of it. Then we looked at it to see if it is biased or just how biased it might be.

The data were not randomly selected as you know. But that does not mean that it is not representative.

In looking at our observation against those of the entire industry, in fact it looked quite representative.

Representative LONG. Thank you, Mr. Mueller.

Congresswoman Heckler.

Representative HECKLER. Obviously it is easier to be critical of a study than to produce a study. One can say that this is an investigation of food pricing, a subject that has been discussed extensively but not studied exhaustively. The question remains: Why is it that we may not have been able to draw supportable conclusions; and the answer obviously is that the information, the original data, has not been forthcoming in more quantity.

The limitations in part on this study are attributable to the fact that original data was not submitted willingly by the industry; and, in fact, it took over a year of negotiations, using the subpena power of this committee, to have the food chains provide the information that is the basis of this study.

So if we still have inadequate facts, and if the academic world needs them as Professor Goldberg has said, we in Government need them too. If we cannot develop supportable conclusions without them, then the question is this: Is the supermarket industry, or the food industry, willing to provide the information that the consumer and public policymakers have a right to know?

We are caught in a catch-22 in which we can constantly study this segment or that yet, ultimately, industry spokesmen find this weakness or that and speak of restrictions and limitations and the need to discard the results. Each time we are reliant upon the original data that is forthcoming and receive criticism from those not supplying this data because it is insufficient.

FOOD CHAINS ASKED FOR MORE DATA

It seems to me there is never going to be an answer to this until we have a more open attitude on the part of the supermarket chains.

If it is not true as the professors in this study concluded that the degree of concentration has produced a 14-percent price spread of 110 selected food items, if that is not a fair conclusion, then how can we find out exactly what conclusions can be drawn from market share and from the other factors that are discussed?

So I question Mr. Hammonds on this subject. This committee has tried to honor the commitments for confidentiality as meticulously as possible. We are searching for the facts and an equitable solution. We are caught in a situation where no more answers will be forthcoming without the cooperation of the food market industry. They have come to criticize and I think they have an absolute right to do so. But when are they going to provide us with the kinds of original data that will give us a study that is comprehensive and effective so that the good comments made by Mr. Farrell on this study can be carried a step further and really answer the problem?

Mr. HAMMONDS. Let me respond as best I can as an economist and not being able to speak as a lawyer for the industry.

Our companies make individual decisions in this regard. The Food Marketing Institute and its predecessor, the NAFC has no data of its own on prices or profit levels in the individual firms. So I am therefore speaking for the institute and not for the individual members.

I think our prime concern here today was that the study before you not be considered the definitive piece of work from which to generate public policy. It seems to me we are moving very rapidly in that direction. Beyond that question, I feel the institute has no objection to legitimate research. It then becomes simply a question of the cost of supplying the data versus the application.

I think that is an excellent area for consideration of your committee. I think that we would need time to put together a panel either from the institute or perhaps a group of food retail executives to sit down and talk that over with you.

I think we are ready to be responsive to the committee, but it is a matter of how the data are obtained, the cost of assembling that data; and I think that our industry would be happy to discuss that with you.

Representative HECKLER. You mean your industry is going to oblige the legitimate public policy questions raised by this hearing and by the panelists from various points of view and provide us with the original data to study the whole subject of the retailer's role in food policy and food pricing?

Mr. HAMMONDS. You are asking me a question which I cannot respond to now. That is an individual company decision. We do not have data at the Food Marketing Institute ourselves. Our individual companies would have to make their own decisions on that.

Representative HECKLER. As I understand it, the president of your organization is present in this committee room. Would it be possible for him to respond to this question?

Mr. HAMMONDS. I cannot answer that one either.

Representative HECKLER. Is the president of the Food Marketing Institute in this room? Either the executive director or the president?

Mr. HAMMONDS. Mr. Aders is going to appear on April 15.

Representative HECKLER. Mr. Aders, would you like to make a comment now?

Mr. ADERS. I would prefer to wait until April 5 when I have a chance to think about the particular testimony. If you have a question now, I would be glad to deal with it.

Representative LONG. Why don't you restate your question, Congresswoman Heckler?

Representative HECKLER. My question, Mr. Aders, is this: Is your membership willing to provide us with the original data under the same conditions that we requested earlier to conduct the limited Joint Economic Committee study that is the subject of today's hearings?

The limitation of the study is attributable, according to one of the authors of the study, Mr. Marion, to the limited number of items they could consider because they did not have original data on a sufficient number of items. And second, they only had price data from 3 of the 17 chains from whom we requested this very vital information.

Now what I ask is this: Are you willing to oblige the committee and provide that kind of data so that we can conduct a comprehensive investigation of this whole question of food pricing?

COMMITTEE REFUSED MORE DATA AND URGED TO "GO SLOW" BY FOOD CHAINS

Mr. ADERS. Well, let me deal first with the implication of the question. As I recall the background of this matter, the study was based upon data submitted to the Joint Economic Committee back in 1974 and it was submitted by the companies in response to a request from the committee. I do not know whether the companies were able to submit more at the time and did not, or whether they fully satisfied the requirements of the committee at that time.

I assumed until I heard your question that all that was asked for was provided. Therefore, I would have to conclude that in any subsequent investigations, the companies would most likely comply with whatever request was made by the committee.

I would, however, urge that the committee go pretty slow on that because it seems to me this is an industry that has been studied quite a bit; and perhaps the best thing that could be done is to compile all of that previous study, try to evaluate that and see where we are before we go out for more data.

Representative BROWN of Ohio. Would the gentlelady yield?

Representative HECKLER. I would like to say it is my understanding that negotiations preceded the use of the subpena process by the Joint Economic Committee. The committee was forced to use subpenas in order to assemble the data, as limited as it was of the three chains that are the basis for the price portion of this particular study. In addition, while there have been other studies, none of them contradict the JEC study.

That seems to be the consensus of all the panelists coming from different backgrounds and perspectives. It would seem to me that further support and a different attitude on the part of the industry in being more open in terms of providing this data could resolve the questions that industry spokesmen raised and that we wish to have answered in a forthright and equitable way on this committee.

I will yield.

Representative BROWN of Ohio. I wanted to ask if there was any understanding with reference to the submission of data regarding the confidentiality of that data for individual companies?

In other words, I don't think the committee has any intention of trying to violate the confidentiality of company data to alter their competitive relationship, one with another; and I wondered if there was such understanding at the time?

Representative LONG. If I may comment, Congressman Brown.

As I understand it, there was no agreement at the time that the information would be held confidential. What happened is that under rule 17 of the rules of the committee, it would remain confidential until such time as the committee voted to make it public.

One of the things that we might give consideration to is going back to the committee members, and asking them, under rule 17, if they desire to vote to make that information public—to reveal the names of the individual companies involved.

As I understand it, the subpenas that were issued, particularly with respect to pricing, were really complied with by only 3 of the 17

companies, and that was only after they were subpenated. Finally, everybody's patience gave out and we went ahead and decided to initiate the report based upon the information that was available, rather than spending another year negotiating with Wall Street lawyers on the matter.

I think that we can take that up in an executive meeting of the committee at the proper time.

Congresman Brown.

Representative BROWN of Ohio. Thank you, Congressman Long.

I would like to address one thing that was mentioned by a couple of people. That is the question of market concentration as a test for monopoly. Some reference was made to the late Senator Hart's proposal.

Senator Hart's legislation never got out of the committee of the Senate, with all due respect to all of you, so it has no real impact in law. The only test I know of with reference to monopoly is a test the Federal Trade Commission now applies; and that has four areas to it: First, retail and marketing practices; second, high profits over an extended period of time; third, barriers to entry of competition in the field; and, fourth, the combination of companies in terms of joint ventures that would tend to squeeze other competitors out of the picture.

Now there is no test in there with reference to concentration ratios within a field that I am aware of. Do any of you have any information about specific law or Federal practice that is at variance with that?

Mr. MUELLER. Well, it depends on which law you are speaking of. Under section 7 of the Clayton Act, the Department of Justice has guidelines as to which mergers they will challenge and which they will not in the horizontal area.

The only Supreme Court case——

Representative BROWN of Ohio. Are those in this range that you have been discussing in your testimony?

Mr. MUELLER. I would say in the *Von's* case where the Supreme Court held two mergers to be in violation, the market had a concentration ratio of 25 percent; but I won't use this as a standard.

The purpose of that law is——

Representative BROWN of Ohio. Is that an average throughout industry?

Mr. MUELLER. That was the rule in that case.

Representative BROWN of Ohio. Oh, in one case?

Mr. MUELLER. Right.

Representative BROWN of Ohio. I am trying to figure out what the standard is they are applying generally.

Mr. MUELLER. I don't think there is a standard as such. It is an empirical question.

Representative BROWN of Ohio. If we look at the automobile industry, and if everybody in the automobile industry had the same share of the market, you have the Big 4—the Big 3 and American Motors—I suppose 25 percent is an area of concentration there. The only thing is we have all the foreign products now coming in.

I am not sure that concentration is the test that is generally applied by the Federal Government.

Let me move on, if I might, to look at the figures. I took the October figures out of the Economic Report of 1976 that show food price changes on a seasonally adjusted basis from month to month.

In October of 1974, that ratio was 1.3. It changed by 1.3 from the previous month. In October of 1975, it was up 1.3 from the previous month; however, in 1974, the total change was 14.4; and in 1975, the total change for that year was 8.5.

So the ratio of October change to the full year change is peculiar. Then if you take 1976, the October change was the greatest change in the whole year with a much less, much smaller change in that one year. So I am having a little trouble again with the problem of that one month.

Mr. Farrell, let me ask you about the question of what areas have the greatest competition in supermarket prices? Is it the areas studied by the Mueller-Marion report? Or is it, as was suggested by Mr. Hammonds the areas of meat prices, vegetable prices, and things that are not apparently embraced in that report?

Mr. FARRELL. Well, prices among stores and among markets vary for a wide variety of reasons, including the degree of concentration that these people have attempted to substantiate.

They may vary for other reasons associated with cost. They vary for reasons associated with seasonality; that is, prices in markets vary over seasons, although generally in all markets at the same time.

There is a host of factors that causes prices to vary among markets. I think you are alluding or asking with respect to the question of the market basket which they constructed which did not include meat and produce and I guess fluid milk.

Representative BROWN of Ohio. Let me try the question again. What makes up most of the market basket cost and what is the area at which most supermarkets compete with reference to their prices?

Mr. FARRELL. I cannot recall exactly the weights that appeared in the CPI. I believe red meat is around 20 to 25 percent of the total weight of that market basket; fruits and vegetables, again I can be incorrect on these numbers, but I judge that they probably weigh in on the order of 8 to 10 percent, seasonally, particularly during the summer months.

Representative BROWN of Ohio. Were either of these items included in the Mueller-Marion study?

Mr. FARRELL. No; as they pointed out they were not able to treat those explicitly in their price comparisons.

Representative BROWN of Ohio. How about bread and milk?

Mr. FARRELL. Bread and milk are included. I cannot cite for you the precise weights they have in the CPI. I would be glad to supply them for the record.

Representative BROWN of Ohio. I wish you would. I think it would be helpful. I think you said 35 percent of the market basket was not included in the Mueller-Marion report.

[The following information was subsequently supplied for the record:]

The relative importance of food categories reported in "Consumer Price Index—February 1977" (Bureau of Labor Statistics, USDL 77-248, March 18, 1977), and supplemented with additional detail obtained from BLS are as follows:

	Percent
Meat, fish and poultry	30.88
Meat	24.84
Fish	2.45
Poultry	3.59
Cereal and bakery	13.75
Dairy	15.39
Fruits and vegetables	16.36
Fresh fruits and vegetables	9.80
Processed fruits and vegetables	6.56
Other foods	23.62
Total, foods at home	100.00

All foods at home account for 18.456 percent of the CPI.

Representative BROWN of Ohio. I would assume—at least at our house—milk is a whale of a factor there. I don't know whether it is a competitive factor or not. Now my question also is. What is the area in which supermarkets tend to compete in terms of the various prices?

Mr. FARRELL. I think milk is not one of those.

I think the critical case would be the matter of red meats and poultry. It is my judgment that there is very substantial competition among stores on the basis of those prices and that in fact they are used frequently, I cannot say quantitatively how frequently, but frequently, as special items.

I pointed this out in my testimony, I emphasize that.

They compete on a wide variety of products. But certainly, as I pointed out in my testimony, I believe that the exclusion of meats in particular raises the question as to whether or not the results would have been the same had they been included. What I am suggesting is that it may be that firms compete differently on different items depending upon the degree of concentration in the market.

Representative BROWN of Ohio. Just a quick question if I may. We have a vote on on the rule on the Assassinations Committee in the House. I must leave. I would like to be able to pursue this further. Perhaps if we are still in session I can come back and do it.

In terms of red meat, 25 percent of the market basket, I am under the impression that the small—three-, four-, five-store chain—sometimes. at least in the Midwest, buy meat from the local community if there is a packer in the area.

They buy meat from that packer, rather than go to Chicago. I would assume that a national chain would buy it out of a larger community, Chicago, Cincinnati, or some other area and have transportation costs and that their ability to make a profit or a loss on that would vary.

Is that right?

Mr. FARRELL. Your assumption or presumption seems reasonable to me. I do not have the facts with me.

Representative BROWN of Ohio. If you can, please provide me the facts for the record.

[The following information was subsequently supplied for the record:]

The Department of Agriculture does not have the facts to determine the meat procurement practices of large versus small chains. However, it is believed that a chain would select its supplier on its quoted price and ability to supply the volume needed. If this is so, large chains would more likely buy from larger packers who can supply the volume required. Chicago is primarily a broker's market, with prices set FOB Chicago, and adjustments to this price made for the location of the packer from which the meat is supplied. Local chains may have higher, lower or the same prices as large chains.

Representative BROWN of Ohio. Let me go on and ask one other point then. If, in fact, that is the case, if you wind up with a hog market in an area and don't have the opportunity to buy—and we have had that in our area—pork in the local marketplace, or if you don't have the opportunity to buy in Chicago at a good competitive price because you have some other weather problem or something else that affects it, then it seems to me that that has some impact upon the ability to compete over a brief period of time; is that not true?

Mr. FARRELL. I would think so, yes.

Representative LONG. Before we adjourn, Mr. Aders and Mr. Hammonds: I wish that you would take up with your executive board or whatever is required in this matter, to make a substantial amount of information available to the committee and be prepared to talk on that point when you are here at our meeting to be held on April 5 at 10 a.m. in room 6202 of the Dirksen Senate Office Building.

I would like to make as a part of the appendix to the hearing record an unpublished study by three USDA employees entitled "Analysis of the Impact of Market Characteristics of City Food Prices." The employees are Gerald Grinnell, Terry Crawford, and Gerald Feaster.

[Whereupon, at 1:36 p.m., the committee recessed, to reconvene at 10 a.m., Tuesday, April 5, 1977.]

PRICES AND PROFITS OF LEADING RETAIL FOOD CHAINS, 1970–74

TUESDAY, APRIL 5, 1977

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The committee met, pursuant to recess, at 10:05 a.m., in room 6202, Dirksen Senate Office Building, Hon. Gillis W. Long and Hon. Margaret M. Heckler, cochairpersons (members of the committee), presiding.

Present: Representatives Long, Brown of Ohio, and Heckler; and Senators Javits and Hatch.

Also present: George R. Tyler and Steve Watkins, professional staff members; Mark Borchelt, administrative assistant; and M. Catherine Miller and Mark R. Policinski, minority professional staff members.

OPENING STATEMENT OF REPRESENTATIVE LONG

Representative LONG. This meeting of the Joint Economic Committee will come to order. At the request of Hon. Richard Bolling, chairman of the Joint Economic Committee, I call to order this second day of hearings on the food retailing industry.

Last Wednesday, March 30, the committee heard from Messrs. Bruce Marion and Willard Mueller, who presented a study conducted at the University of Wisconsin. This study, entitled "The Profit and Price Performance of Leading Food Chains, 1970–74," was 2 years in preparation and draw heavily on confidential food chain data subpenaed by the Joint Economic Committee.

The study's conclusions have been widely noted by the media, so I will just briefly review them now.

First, the study revealed a close connection between high food chain profits and market concentration. The fewer the grocery chains in competition with one another, the higher will be their profits in a given local market.

This conclusion was not contested at last week's hearing by food chain representatives.

The study also revealed that prices for nationally branded and so-called store brand items vary by up to 12 percent in another uncontested conclusion.

The Wisconsin study also revealed that food chains in concentrated markets generally charge higher prices than chains in more competitive markets—a conclusion bitterly contested by both a representative of the food chains and by an economist whose appearance was requested

by the food chains. They contended that the Wisconsin study was contradicted by a similar research effort by three economists at the USDA.

In fact, testimony by the USDA representative here made clear that this agency's study did not contradict the results of the Wisconsin study. In addition, the USDA study favored by the food chain representatives used data from only 19 cities. The Wisconsin study—attacked by them as containing too little data on food prices—actually contained data from 13 more cities than the USDA effort, for a total of 32 cities. That is the largest number of cities ever used in comparing food price data.

Another finding of the food chain study was that prices for a representative market basket of food varied by up to 14 percent from one market to another. This remarkably high price variation—due in large part to weak competition in some markets—was also disputed by spokesmen for the food chains. It was argued that the sample market basket used, which covered 52 percent of all store items, was inadequate.

Interestingly, an ABC network news poll aired immediately following last week's hearing found that the same precise 14 percent variation existed between food prices in Los Angeles and Washington, D.C. Not only was the sample accurate in 1974, but it is accurate even today despite the erroneous claims of the food chains.

Finally, the authors of the Wisconsin study projected that excess prices for groceries sold by food chains in 1974 totaled at least $662 million. This was refuted by representatives of the food chains who claimed that total industry profits for 1974 were not that high. As a point of clarification here, the study figure refers to price overcharges said to exist by the authors. Only a portion of these overcharges will show up as profits. The figure refers to excess prices, and not to excess profits.

Today's hearing is devoted to an examination of the policy issues raised by the food chain study's conclusions—conclusions that food chain profits and prices are higher where few firms compete than where many compete.

The Federal Trade Commission is given the principal role in monitoring the competitive status of our private enterprise economy. It is its general responsibility to be on the lookout for evidence of uncompetitive behavior or mergers which may restrict competition. It is the FTC's obligation to promote competition and low retail food and other prices.

In carrying out that responsibility, the FTC has been investigating food chains in six cities since 1974, with seemingly little progress. Mr. Owen Johnson, Director of the FTC's Bureau of Competition, will be with us today to brief us on that study and to comment on the policy implications of the Wisconsin study.

He will be followed by Mr. Mueller, who will comment on the current FTC policies regarding food retailing—an area of great interest to him since his days as Chief Economist at the FTC from 1961 to 1968.

Before they appear, however, the committee will hear from Mr. Paul Scanlon, associate editor of the professional journal, the Antitrust

Law and Economics Review. Mr. Scanlon has been editor of that widely respected and independent academic publication since 1967. Before that, he served with the Federal Trade Commission for a number of years.

The committee has scheduled his appearance in place of Mr. Eugene Boyle, who was ill last week. Mr. Scanlon is in a unique position to make two positive contributions to today's hearing.

First, as editor of the leading professional and academic journal exclusively focused on the legal and economic theory of antitrust matters, he is in an excellent position to compare and to place the Wisconsin food chain study in perspective with other legal and academic studies of the food retailing industry. In addition, Mr. Scanlon is uniquely qualified to comment on the implications of this study for antitrust enforcement.

Concluding the hearing will be a panel with Mr. Mark Silbergeld from Consumers Union and Mr. Robert Aders, president of the Food Marketing Institute.

The committee, and particularly Congresswoman Heckler, is interested in hearing whether Mr. Aders will assist us in gathering additional confidential price data from his institute's members. A letter expanding and expounding upon their views in this regard was just given to me, and I have not had an opportunity to read it, but I am sure Mr. Aders will comment on that during the course of his testimony.

The committee has had a difficult time collecting data from the industry. In the few days since our last hearing, I reviewed with some of the staff members the efforts the committee made to gather that information. I was not on the committee at the time and was not active in that effort, but the committee staff did make extensive efforts in that regard; that is something we will explore with Mr. Aders when he testifies.

The fact is, after reviewing the files, I could find only four or five firms which supplied any price data at all. Of course, 17 firms were requested to supply that data. It is our hope that Mr. Aders will strongly endorse our request for additional price comparison cost data from his organization. Let me remind everyone here that the JEC subpenas were issued as a last resort only after extensive efforts to gather data voluntarily from the food chains failed.

Mr. Scanlon, as you come up, I would like to ask Representative Heckler and Senator Hatch if they would care to make introductory statements.

Opening Statement of Representative Heckler

Representative Heckler. The cost of living has skyrocketed over the past several years, and the public has every right to expect government to protect it against corporate practices which build artificial charges into the food pricing system.

This is the second day of hearings called to assess a study which has found that consumers are paying a price for corporate growth in the supermarket industry.

Fortunately we have a representative of the Federal Trade Commission with us today, because the obvious questions which need answering now have to do with that agency's perceptions of growth in the industry.

We have a study—several years in preparation—which states that consumers are paying a penalty for market domination by a few grocery firms in certain metropolitan areas.

According to the economists who prepared the report, the monopoly overcharged amounted to at least $662 million in 1974 alone. That is a lot of money.

If this report is on target, then it appears the government hasn't been.

It is my understanding that the FTC has embarked on several investigations of competition in the retail food industry, but it has yet to follow up with any complaints in recent years.

I fully understand that corporate growth is not restricted to food chains. Nor is corporate growth bad per se. But when the growth itself means increased costs for consumers, then federal agencies have broad responsibilities to protect the public.

I am hopeful that today's hearing will provide us an assessment of the supermarket study from the FTC's perspective, as well as a report on the FTC's activities in this specific area.

Opening Statement of Senator Hatch

Senator Hatch. The claim has been made in these hearings that the food chains did not fully cooperate in submitting materials to the Joint Economic Committee to aid in this study. It seems, however, that the food chains may have been "set-up" to look uncooperative. Apparently, the first contact the industry had with the JEC staff regarding this inquiry was the October 1974 subpena from JEC and there was no prior attempt by JEC staff to obtain information voluntarily from the chains. This scenario, of course, makes it look like the information had to be forced out of the food chains, and that makes it look like the food chains had something to hide. This procedure is a good way to set up an attack on yet another part of private industry in order to further extend the scope of Government involvement.

I believe there is some indication that the charge of noncooperation is intended to put the industry in a bad light and set the stage for a study that further accentuates such an attitude, all in order to justify more Government intervention in the food industry. In October 1975, a year after service of the JEC subpena, Senator Hubert Humphrey, then serving as chairman of the JEC, commented on this very subject when he told the National Association of Food Chains:

"... we've had your cooperation. I want to put it on the record here. I appreciate that cooperation." Such a statement by our distinguished colleague surely does not support the charges of noncooperation now being leveled against the food chains, but instead suggests that such charges may not be well founded.

I believe that enough questions have been raised about this study by leading experts, including Professor Goldberg of Harvard, to mini-

mize the value of this study as either the basis for policy recommendations or as the basis for further investigation. It is questionable whether the public even benefits from studies such as this, though the studies do indeed provide headlines for politicians and substance for academics and bureaucrats who benefit from bigger government, more regulations, and more studies. This study is another example of the Federal Government engorging itself on more of the same diet it has had for the past 25 years—a diet of paper, paper, and more paper, leading nowhere but to a hand-in-glove relationship between bureaucrats and academics and benefiting only those same bureaucrats and academics. Such a relationship and a study resulting therefrom must be considered suspect.

I am very concerned because I see millions and billions of dollars spent unnecessarily by the Federal Government to arrive at nothing. Basically I feel from having sat in the last hearings and having heard some of the testimony that we have had an overwhelming amount of efforts to discredit and an underwhelming amount of effort to really determine the true facts.

Now, if the food industry itself has not cooperated, I would like to see more evidence of that. I have not seen enough. Frankly, the investigation and analysis may have been conducted to prove a theory.

I think it is just another attempt by the bureaucracy to dominate another industry and to bring the Federal Government into a position where it should not really be. I am really concerned about this, and I am going to be interested in listening to as much of the testimony this morning as I can.

Representative LONG. Thank you very much, Senator Hatch. To avoid any misunderstandings, let me reiterate my earlier statement. Extensive efforts were made by the JEC before October 1974, and before Senator Hatch joined the Committee to acquire data from the food chains. These efforts failed in large part because individual chains did not want to appear to violate the industry position against data disclosure. In fact, several firms asked the JEC to issue subpenas so that their data revelations could occur without fear of retaliation by other chains. And even with subpenas, the JEC staff did not receive anywhere near all the data requested—even though they actively sought that data for 18 months.

Finally, committee members who were not in the Congress during that period should note that Senator Humphrey's comments were made immediately after the 17 food chains agreed to comply with JEC subpenas, but before we discovered how little information the chains were willing to give up.

Mr. Scanlon, if you wish to summarize your testimony, of course, you may do so, and your prepared statement will be made a part of the record and be printed in full in the record of today's hearing.

The committee appreciates particularly your efforts and the fact that you went out of your way to pull all of this together on relatively short notice. I would appreciate if all the witnesses would try to keep their oral testimony to about 10 minutes so that we will have ample time for discussion. I am going to ask our staff, if they will, to notify each of the principal witnesses when their 10 minutes is up.

Mr. Scanlon, would you proceed, please.

STATEMENT OF PAUL D. SCANLON, ASSOCIATE EDITOR, ANTITRUST LAW AND ECONOMICS REVIEW

Mr. SCANLON. Thank you, Congressman Long, for the opportunity to appear before you and this committee today to (1) express my evaluation as a legal antitrust authority of the Mueller-Marion study based on an observation of economic and legal literature particularly in the area of industrial organization over the past 11 years and the various studies incorporated in that literature and (2) express my legal views regarding the policy implications of the food chain study. Most of what I have to say is influenced by over 16 years of observation of the Federal Trade Commission and the Department of Justice enforcement of the laws they attempt to administer.

The most important factor in evaluating this study is that it is the first study that has been done which did not rely at least in part on Bureau of Labor Statistics data. Almost all previous studies have rested on this data as a base for study. The BLS data suffers from the impediment of being too aggregated to give anyone a basis for any answers on any particular firm's pricing patterns. Consequently, no definitive picture of market structure can be drawn or supported using BLS data.

USDA STUDY BASED ON POOR DATA

Mr. Farrell of the U.S. Department of Agriculture confirmed this conclusion in his testimony by stating that the base data of the unpublished study by the three USDA researchers was inadequate. He also added the USDA study was not inconsistent with the Wisconsin study.

With the Wisconsin study, we can now see the structure of the industry in particular markets and the effect of concentration on pricing patterns. The approach to the subject by Mueller and his associates is both scholarly and done according to the universally accepted methods of economic analysis used by industrial organization economists.

FOOD CHAIN REPRESENTATIVES BIASED

Other studies have been mentioned before this committee as casting doubt on a portion of Wisconsin study's findings. It should be noted of the previous witnesses who criticized the study that Mr. Hammonds is a food chain economist and Mr. Goldberg's appearance was specifically requested by the food chains. Even so, they did not refute the Wisconsin study findings on profits nor dispute the price difference of 12 percent between the higher selling national brands and the store brands, nor dispute the crucial findings that prices varied as high as 14 percent between the highly concentrated and the competitive market areas.

All other studies suffer from, among other things, the use of far fewer cities of observation. The study by the Department of Agriculture employees previously relied on by industry representatives, in addition to the impediment of relying on BLS data, used only 19 cities. The FTC study, I understand, has selected only 6 cities for observation while the Wisconsin study used 32 cities.

Another criticism appears to rest on an analysis of the Wisconsin market basket of items selected for survey. The Wisconsin study used 110 items generally leaving out produce and meat. The USDA "farm basket" utilizes 65 items and the Department of Commerce Consumer Price Index utilizes 105 items.

The Wisconsin study "market basket" obviously was significantly better than the USDA "market basket" in sheer number and scope.

The elimination of produce and meat from the market basket was, in my opinion, an intelligent choice. The producer segment of these markets is highly competitive, generally responding healthily to the factors of supply and demand in the usual cyclical fashion. The extent of the influence of these items would probably be in a zero direction simply because the prices go up and down everywhere subject to the variables constant with geographical area, weather, and so forth.

FOOD CHAIN REPRESENTATIVES UNFAMILIAR WITH TRADITIONAL ECONOMIC METHODOLOGY USED IN STUDY

Anyone who contends that this study is substantially flawed as did Mr. Hammonds and Mr. Goldberg is simply unfamiliar with the professional literature in the field, and the methodology of economic analysis.

In light of the failure to point out (*a*) the unchallenged findings regarding higher profits, price differentials, and higher prices in highly concentrated markets and (*b*) the misuse of studies having little validity for challenging the Wisconsin study, I believe serious questions have been raised about the intent of the industry representatives who have previously appeared. In fact, given the striking conclusions of the study, I am somewhat surprised by the conspicuous lack of credible technical or substantial critique by the food chain representatives.

I am disturbed by the position of the Federal Trade Commission regarding their six-city study. It has been somewhat of a dilatory effort spanning a number of years without any conclusion. My understanding is that the study had its beginnings in a framework similar to the Wisconsin study with a large number of cities to be observed and the principal thrust being the collection of data and information after which the Commission staff would conduct an analysis of the data. At no time did anyone in the Commission seriously believe that the major purpose was to seek evidence of collusive and conspiratorial behavior on the part of the food chains. If this is the assertion of the Commission, then let them produce the supporting internal memorandums contemporaneous with the initiation of the study.

The Commission's suggestions regarding access to the underlying data and their suggestion to return to the companies to collect data on variables is suspect.

JEC SHOULD RELEASE DATA TO THE FTC

I encourage the committee to make the underlying data of the Wisconsin study available to the Commission, and the committee should demand that the Commission expand the study while simultaneously verifying the data in the Wisconsin study. We cannot ignore the fact that the Joint Economic Committee had to commission this study when

one of the statutory functions of the FTC is to conduct such studies. This should not be done without appropriate direction of the Commission to take immediate effective action in preventing further encroachments on the remaining competitive markets.

Based on my own intensive observations of the economic literature and studies over the past 11 years, the Wisconsin study is without a doubt the most definitive and accurate study made thus far by anyone. Armed with such a definitive study, Congress and the regulators now have the opportunity to finally act with confidence to begin again to prevent the continuing erosion of competitive market conditions and the monopoly prices brought on by the increasing concentration of power in food retailing markets in the United States.

Two broad questions have been posed by two of the study's authors in testimony before this committee last week. I wish to reverse the questions and ask: "What can be done to increase competition in markets that are very concentrated?" And then ask: "What can be done to preserve competition where it still exists?"

HOW TO PROMOTE COMPETITION IN FOOD RETAILING

In response to what can be done to increase competition in markets that are very concentrated, in other words "to lower prices," the answer until now is, "Nothing very effective."

Specifically, the two methods for dealing with shared monopoly markets; namely, the fostering of new market entrants and restructuring/divestiture, cannot be expected to be utilized effectively in the present climate.

Regarding restructuring/divestiture, public sentiment does not presently exist to utilize this remedy.

Regarding the entry of new marketers into shared monopoly markets, a program of prenotification administered by the Federal Trade Commission could be made available to the industry with new enabling legislation. Under such a program a proposed new entrant would notify the Commission of its intent to enter a market. The Commission could then monitor the entry, prepared to immediately go to court to seek a restraining order if the entrant begins to encounter predatory pricing and saturation advertising practices.

The experience of the Foodarama chain is illustrative. Mr. Charles Mueller, a former FTC attorney, had occasion to explain his view before the Senate Select Committee on Nutrition and Human Needs on October 1, 1975, on events in the District of Columbia when the New Jersey chain Foodarama attempted entry into the D.C. market.

I have reproduced the excerpts from his statement which appears in the text of my prepared statement, and I make reference to that for details. Foodarama, which is a discount New Jersey operation, thought that Washington would be a very lucrative market, and so began operations here. They saw that the D.C. market was not competitive and that extraordinary profits and high prices prevailed. They wanted to share in these profits. They were able to open three stores and began to make inroads into the market. Giant and Safeway, having no desire to see the Washington price structure competed downward to the New Jersey discount level, zeroed in on the three Foodarama stores with

price cuts at nearby stores so severe that those three stores lost several hundred thousand dollars in a matter of several months.

Eventually the invader, Foodarama, pulled out. The Federal Trade Commission could do nothing to effectuate any results that would have been beneficial to the consumers in the District of Columbia markets because Foodarama was driven out of the market and, since that time, no one, of course, has made any new entry.

Even if it were amply demonstrated that my suggested procedure could be undertaken under existing law, I doubt, in light of the Commission's recent past performance, that the political will to effectively carry it out exists within the Commission. Only a clear congressional mandate can now provide the impetus.

HOW TO PRESERVE COMPETITION

In response to the question of, "What can be done to preserve competition where it still exists?", the three possibilities mentioned by the authors can have some effect. I shall address only two of them.

The Federal Trade Commission merger policy of the sixties and seventies has collapsed. The members of the Commission have misperceived their function in our society and apparently misperceived the law. The purpose of antimerger enforcement as mandated by section 7 of the Clayton Act, was the prevention of increases in market power and the corresponding diminution of the vitality present in competitive markets.

In pursuit of that end, the Justice Department and Federal Trade Commission vigorously and successfully monitored the merger movement in the food retailing industry in the sixties. From that effort came the *Von's Grocery* case and a number of cases which codified the limits of appropriate market behavior in this industry. A number of effective consent orders were obtained from other grocery chains and the merger movement cooled substantially. Some of those consent decrees are now expiring.

Now we find that the members of the Federal Trade Commission have taken it upon themselves to ignore the lessons of the sixties, the intent of Congress in passing section 7 of the Clayton Act, the Supreme Court's codification of appropriate behavior, and the interests of consumers by allowing mergers to occur which are in clear contravention to the norms established less than a decade ago to preserve competitive markets in food retailing.

The justification for allowing these mergers apparently rests on some offshoot of the familiar failing company defense stated in these terms: "Unless the Commission approves the merger, one or both of the companies will fail by withdrawing from the particular market area." Such assertions have no validity in enforcement of section 7 of the Clayton Act and have been rejected long ago.

It should be noted that the Commission's power to approve mergers is not truly subject to review. In fact, approval probably creates a negative barrier to private litigation challenging a merger in the Federal courts. Perhaps new legislation could be enacted to provide a remedy to those firms and persons who feel threatened by these approved mergers so that they may seek court review of the approval.

On the plus side, the Federal Trade Commission staff possesses all of the expertise necessary to carry forward a vigorous program of antimerger, predatory pricing, false advertising and collusive arrangement enforcement. It has, by and large, a much more sophisticated staff than 11 years ago when I left. Given the opportunity to perform, the Commission staff can move effectively to preserve competition in those markets exhibiting the characteristics of shared monopoly power.

In the area of dissemination of consumer price information, no marketplace can remain free without an informed consumer. Information allows choice and choice is the bone of market control. If the consumer knows what his choices are, he has the control in a freely competitive market. Although a remote possibility and as yet not effectively tested, I wonder if the dissemination of consumer price information could not also disrupt these shared monopoly food retailing markets under certain circumstances.

Legislation may be necessary to direct the various Government agencies to collect and disseminate current pricing information.

The problem with such economic data collection plans, in addition to those pointed out by the authors of the study, is that the industry usually is successful in having information regarding the identity of the parties and their location either removed or masked with numbers, making the information essentially useless to the consuming public.

Finally, the Wisconsin study only serves to confirm the basic concerns of the economic profession and of Congress underlying the passage of section 7 of the Clayton Act and its enforcement. The results come as no surprise to anyone and is contested only by industry listings or by industry representatives when the findings are raised in their presence.

I am not optimistic about the future in this industry unless Congress (1) sends a clear mandate to the Federal Trade Commission and Department of Justice to vigorously enforce the existing law as it applies to retail food marketing and (2) enacts legislation aimed at the shared monopoly problems generally in the United States.

The fact that the study was conducted and hearings are being held with wide dissemination in the media amply demonstrates the serious concern of Congress and is a step forward toward effective fostering of our great system of competitive private enterprise.

Thank you.

[The prepared statement of Mr. Scanlon follows:]

PREPARED STATEMENT OF PAUL D. SCANLON

Thank you for the opportunity to appear before you and this Committee today to (1) express my evaluation as a legal antitrust expert of the Mueller Study based on an observation of economic and legal literature particularly in the area of Industrial Organization over the past 11 years and the various studies incorporated in that literature and (2) express my legal views regarding the policy implications of the Food Chain Study. Most of what I have to say is influenced by over 16 years of observation of the Federal Trade Commission and the Department of Justice enforcement of the laws they attempt to administer.

The most important factor in evaluating this study is that it is the first study that has been done which did not rely at least in part on B.L.S. (Bureau of Labor Satistics) data. Almost all previous studies have rested on this data as a base for study. The B.L.S. data suffers from the impediment of being too aggregated to give anyone a basis for any answers on any particular firm's pricing patterns.

Consequently no definitive picture of market structure can be drawn or supported using B.S.L. data.

Mr. Farrell of the U.S. Department of Agriculture confirmed this conclusion in his testimony by stating that the base data of the U.S.D.A. Study was inadequate. He also added the U.S.D.A. Study was not inconsistent with the Wisconsin Study.

With the Wisconsin Study, we can now see the structure of the industry in particular markets and the effect of concentration on pricing patterns. The approach to the subject by Mueller and his associates in both scholarly and done according to the universally accepted methods of economic analysis used by industrial organization economies.

Other studies have been mentioned before this Committee as casting doubt on a portion of Wisconsin Study's findings. It should be noted of the previous witnesses who criticized the study that Mr. Hammonds is a Food Chain economist and Mr. Goldberg's appearance was specifically requested by the Food Chains. Even so, they did not refute the Wisconsin Study findings on profits nor dispute the price difference of 12 percent between the higher selling National Brands and the store brands, nor dispute the crucial findings that prices varied as high as 14 percent between the highly concentrated and the competitive market areas.

All other studies suffer from, among other things, the use of far fewer cities of observation. The Department of Agriculture study previously relied on by industry representatives, in addition to the impediment of relying on B.L.S. data used only 19 cities. The F.T.C. study, I understand has selected only six cities for observation while the Wisconsin Study used 32 cities.

Another criticism appears to rest on an analysis of the Wisconsin market basket of items selected for survey. The Wisconsin Study used 110 items generally leaving out produce and meat. The U.S.D.A. "farm basket" utilizes 65 items and the Department of Commerce Consumer price index utilizes 105 items.

The Wisconsin Study "market basket" obviously was significantly better than the U.S.D.A. "market basket" in sheer number and scope.

The elimination of produce and meat from the market basket was, in my opinion, intelligent. The producer segment of these markets is highly competitive responding healthily to the factors of supply and demand is the usual cyclical fashion. The extent of the influence of these items would probably be in a zero direction simply because the prices go up and down everywhere subject to the variables constant with geographical area, weather etc.

Anyone who contends that this study is substantially flawed is simply unfamiliar with the professional literature in the field, and the methodology of economic analysis.

In light of the failure to point out (a) the unchallenged findings regarding higher profits, price differentials, and higher prices in highly concentrated markets and (b) the misuse of studies having little validity for challenging the Wisconsin Study, I believe serious questions have been raised about the validity of any of the objections of the industry representatives who have previously appeared.

I am disturbed by the position of the Federal Trade Commission regarding their six-city study. It has been somewhat of a dilatory effort spanning a number of years without any conclusion. My understanding is that the study had its beginnings in a framework similar to the Wisconsin Study with a larger number of cities to be observed and the principle thrust being the collection of data and information after which the Commission Staff would conduct an analysis of the data. At no time did anyone in the Commission seriously believe that the original purpose was to seek evidence of collusive and conspiratorial behavior on the part of the food chains. If this is the assertion of the Commission, then let them produce the supporting internal memoranda contemporaneous with the initiation of the study.

The Commission's suggestions regarding access to the underlying data and their suggestion to return to the companies to collect data on variables, is suspect.

I encourage the Committee to make the underlying data of the Wisconsin Study available to the Commission and the Committee should demand that the Commission expand the study while simultaneously verifying the data in the Wisconsin Study. We cannot ignore the fact the Joint Committee had to commission this study when one of the statutory functions of the F.T.C. is to conduct such studies. This should not be done without appropriate direction to the Com-

mission to take immediate effective action in preventing further encroachments on the remaining competitive markets.

Based on my own somewhat intensive observations of the economic literature and studies over the past 11 years, the Wisconsin Study is without a doubt the most definitive, and accurate study made thus far by anyone. Armed with such a definitive study, Congress and the Regulators now have the opportunity to finally act with confidence to begin again to prevent the continuing erosion of competitive market conditions and the monopoly prices brought on by the increasing concentration of power in food retailing markets in the United States.

Among the conclusions of the Wisconsin Study is that the relatively competitive food retailing industry of 1954 has been beset by increasing concentration of market control in about 25 percent of its market areas resulting in monopoly over charges to the consuming public as high as 14 percent in the most vital area of their existence.

Two broad questions have been posed by two of the Study's authors. I wish to reverse the questions and ask "What can be done to increase competition in markets that are very concentrated?" And then ask "What can be done to preserve competition where it still exists?"

In response to what can be done to increase competition in markets that are very concentrated (in other words "to lower prices") the answer until now is "nothing very effective."

One solution advocated by some is the break up of excess market power by the requirement that they divest themselves of a sufficient number of stores to create a more competitive market.

However, the public sentiment to employ that specific effective remedy in this industry (or any other industry for that matter) does not presently exist either in the Congress, in the Federal Trade Commission, or in the Department of Justice.

It has been said that central to the theme of antitrust philosophy is the notion that the structure and conduct of an industry should be controlled and maintained only to the extent necessary to insure that the industry performs in a socially acceptable manner. Underlying our Antitrust laws is the assumption that the preservation of meaningful competition is essential to the socially acceptable market performance of an industry. By monitoring and, where necessary, altering structure and performance, we not only promote this end but avoid the necessity of government regulation. . . . the alternative to the failure of marketplace competition. Thus the rule of antitrust is one of limited intervention: it is designed to reform rather than regulate.

The Federal Trade Commission was created 62 years ago in 1915. Over six decades having gone by and the agency having yet to restructure its first concentrated industry, Congress knows that the Commission is not pursuing a policy of vigorous market or firm restructuring. However, the reason for the failure to pursue vigorous enforcement may never have been sufficiently articulated to Congess by either the Commission or the Justice Department. The need for definitive works such as the Wisconsin Study is well known (and one of the reasons for the initiation of the Antitrust Law and Economics Review 11 years ago.) Congress has repeatedly, in the past, acted appropriately when the facts were placed sharply before it. The generation of the Wisconsin study is an outgrowth of the desire of Congress to know the facts. The Commission, on the other hand, has sometimes acted as though it interprets these 62 years as Congressional acquiescence, and an affirmative directive to continue its present type of policy. The same can be said of the Department of Justice, at times, as well.

In the face of the variable, but general trend toward growth of market power in American industry, the past approach to antitrust enforcement has resulted in little more than a rear-guard action, in my opinion against undue market power. The major factor standing apart in this picture has been the relatively effective but sporadic anti-merger program of the F.T.C. and Department of Justice without which the market situation would be a great deal worse than it is now.

The oft noted correlation between high concentration and price overcharges has once again been amply demonstrated by the Wisconsin study. This study points out that the evils of shared monopoly have finally made their way to a point of direct confrontation with the American Consumer in the most volatile area of consumer concern, the cost of feeding the family.

Our antitrust enforcement agencies cannot effectively deal with the impact of high prices due to market concentration (unemployment, inflation and perhaps,

stagnation), and the cure such as price controls or regulation may be worse than the disease.

Specifically the two methods for dealing with shared monopoly markets namely, the fostering of new market entrants and restructuring/divestiture, cannot be expected to be utilized effectively in the present climate.

Regarding, restructuring/divestiture, public sentiment does not presently exist to utilize this remedy, except perhaps selectively in the energy field.

Regarding the entry of new marketers into shared monopoly markets, a program of prenotification administered by the Federal Trade Commission could be made available to the industry perhaps with new enabling legislation. Under such a program a proposed new entrant would notify the Commission of its intent to enter a market and the Commission would monitor the entry, prepared to immediately go to Court to seek a restraining order the instant existing firms began predatory pricing and saturation advertising practices. This would provide the new entrant with that critical initially short period to start up and maintain operations while gaining sufficient market share to become self sustaining.

The experience of the Foodarama chain is illustrative. Mr. Charles Mueller, a former F.T.C. attorney had occasion to explain his view before the Senate Select Committee on Nutrition and Human Needs on October 1, 1975, on what happened in the D.C. Market when the New Jersey chain attempted to enter:

THE "D.C. SUPERMARKET CASE"

I will come to my general analysis of the reasons for this interesting situation in a moment, Mr. Chairman, but I think it would be helpful to you if I first gave you an especially clear example of what I'm trying to describe. This example involves a recent FTC case, one I was personally associated with for a brief period of time. Various Congressional subcommittees have reviewed the matter in great detail already so my describing it to you now involves no disclosure of any confidential or non-public information. And while I will have to give you the basic facts of the case from memory—I have no files or documents on it, of course—the publicity that surrounded the matter toward the end was sufficient to make it an easily recallable case.

This is the so-called "D.C. Supermarket Case" in which the major food retailers in Washington, D.C.—Safeway, Giant, and the others—were investigated by the FTC for alleged monopolization of the retail food market in the local area. It all started back in 1967, as I recall. A relatively small food chain up in New Jersey called Foodarama, one with some 25 or so king-sized supermarkets that specialized in discounting, got the idea that it would like to invade the Washington area. Its motives were pure: It saw an opportunity to make some grand profits. Marketing experts were sent down to do a bit of what is called "comparison shopping" and they reported back to the Foodarama management in New Jersey that the *price level* in Washington supermarkets was some 3 percent to 5 percent higher than in their own New Jersey market area.

"TRANSPLANTING" A LOWER PRICE STRUCTURE

Now I'm sure you've heard, Mr. Chairman, of the significance that the supermarket industry attaches to a single percentage point in its profit structure. Since total food sales in the United States exceed $100 billion, a 1 percent price difference nationally would translate into a gain or loss of *$1 billion* for the industry as a whole. And even in a relatively modest-size market like the Washington metropolitan area with its yearly food sales of about $1 billion, a 1 percent difference means a gain or loss to the industry of $10 million. To the New Jersey firm, the opportunity to sell in a high-price market like this one meant that, *at its regular New Jersey prices*, it would be offering such bargains to the Washington consumer that any new stores it might open here would quickly reach the volume needed to become highly profitable. The plan, then, was to transplant its low New Jersey prices to the Washington area for the purpose of gaining a foothold in the market, eventually growing to a perhaps 20-store operation in this metropolitan area.

"FIGHTING TANKS WITH BOWS-AND-ARROWS"

The problem with Foodarama's plan, Mr. Chairman, was that its management knew too much about food retailing and too little about how the monopoly game is played in Washington, D.C. By the time they got 3 stores in operation,

the boom had been lowered on them. Giant and Safeway, having no desire to see the Washington price structure competed down to the New Jersey discount level, zeroed in on the 3 Foodarama stores with price cuts so severe that those 3 stores had *lost* several hundred thousand dollars in a matter of a couple of months. Eventually this invader gave up and pulled back to New Jersey, licking its financial wounds and reflecting on the folly of trying to fight tanks with bows-and-arrows.

$18 MILLION MONOPOLY OVERCHARGE?

Now of course this was also an expensive affair for Giant and Safeway. Since they cut prices at their own established stores around the 3 new Foodarama stores and apparently cut them much deeper than Foodarama, their individual losses were presumably greater as well, probably totalling at least $1 million between them. But it was obviously a sound investment. Had this invading discounter stayed in the Washington area and opened the 20 discount food stores it was planning to open, food prices throughout the metropolitan area would have been forced down to the New Jersey discount level, a cut of, as noted, some 3 percent to 5 percent across the board. How much would that have cost Giant and Safeway? Well, between them, they account for over 60 percent of the supermarket sales in the area. With total sales of $1 billion for all the area's supermarkets, and their combined share of sales standing at over 60 percent, each 1 percent decline in prices would cost them roughly $6 million. So even a 3 percent drop in prices in Washington area supermarkets would have cost Giant and Safeway something on the order of $18 million a year in lost profits—money taken from them and given to the local consumers. Spending $1 million to "save" $18 million per year for an indeterminate number of years in the future is, to repeat, a fairly sound investment.

"CEASE-AND-DESIST ORDER" INADEQUATE

As I say, Mr. Chairman, the Federal Trade Commission investigated this matter rather thoroughly. And there was never any doubt in anyone's mind at the agency, at least so far as I know, that the law had indeed been violated. The only issue to be debated with any degree of seriousness, as I recall it, was the question of what to do about it. One does not have to be a legal or economic expert to see that the FTC's traditional remedy, a "cease-and-desist" order telling Giant and Safeway to "stop selling at too-low prices," would not bring back Foodarama and thus restore the prospect of competitive food prices for the Washington consumer. That was gone forever. Giant and Safeway had made it abundantly clear to the industry that they wouldn't tolerate serious discounting on a large scale on their private reservation. There would be no more Foodaramas in Washington. And of course there hasn't been.

MONOPOLY PRICING NOT ILLEGAL?

So what could the FTC do? Should it have "busted up" Giant and Safeway, either as "punishment" for their apparently illegal behavior or to re-create the competitive market structure that would probably have emerged if they hadn't caused it to abort? The FTC has no statutory authority to "punish" anyone for anything, so that aspect was never considered. What about carving them up for the purpose of creating effective price competition then? That, Mr. Chairman, would have been unthinkable. There is no precedent in American antitrust laws for breaking up an industry just because it is non-competitively structured and is, for that reason, charging the consumer higher-than-competitive prices.

(See Charles E. Mueller, FTC and the Monopoly Problem: Trustbusting a "Revolutionary" Concept in America? Antitrust Law and Economic Review, vol. 7 No. 2, pp. 12–15 (1975).

Even if it were amply demonstrated that the suggested procedure could be undertaken under existing law, I doubt that, in light of the Commission's recent past performance, the political will to effectively carry forward exists within the present Commission membership without a clear congressional mandate to provide the impetus.

In response to the question of "What can be done to preserve competition where it still exists?", the three possibilities mentioned by the authors can have some effectiveness. I shall address only two of them.

The Federal Trade Commission merger policy of the sixties and seventies has collapsed as is indicated by the authors of the Study. The members of the Commission have misperceived their function in our society and apparently misperceived the law. The purpose of antimerger enforcement as mandated by Section 7 of the Clayton Act, was the prevention of an increase in market power and the corresponding diminution of the vitality present in competitive markets.

In pursuit of that end, the Justice Department and Federal Trade Commission vigorously and successfully pursued the merger movement in the food retailing industry in the 60's. From that effort came the *Von's Grocery* case and a number of cases which codified the limits of appropriate market behavior in this industry. A number of effective consent orders were obtained from other grocery chains and the merger movement cooled substantially. Some of those consent decrees are now expiring.

Now we find that the members of the Federal Trade Commission have taken it upon themselves to ignore the lessons of the 60's, the intent of Congress in passing Section 7 of the Clayton Act, the Supreme Court's codification of appropriate behavior, and the interests of consumers by allowing mergers to occur which are in clear contravention to the norms established to preserve competitive markets in food retailing.

The justification for allowing these mergers apparently rests on some offshoot of a failing company defense stated in terms of unless the Commission approves the merger one or both of the companies will "fail" by withdrawing from the particular market area or that one of the companies is "in trouble" apparently meaning that it is receiving less than its anticipated level of profits. Such assertions have no validity in enforcement of Section 7 of the Clayton Act and have been rejected long ago.

It should be noted that the Commission's power to approve mergers is not truly subject to review. In fact, approval probably creates a negative barrier to private litigation challenging a merger in the Federal Courts. Perhaps new legislation could be enacted to provide a remedy to those firms and persons who feel threatened by these approved mergers so that they may seek Court review of the approval.

On the plus side, The Federal Trade Commission Staff possesses all of the expertise necessary to carry forward a vigorous program of antimerger, predatory pricing, false advertising and collusive arrangement enforcement. It has, by and large, a much more sophisticated staff than 11 years ago when I left. Given the opportunity to perform, the Commission staff can move effectively to preserve competition in those markets not yet infected with shared monopoly power.

In the area of dissemination consumer price information, no marketplace can remain free without an informed Consumer. Information allows choice and choice is the bone of market control. If the Consumer knows what his choices are, he has the control in a freely competitive market. Although a remote possibility and as yet not effectively tested, I wonder if the dissemination of consumer price information couldn't also disrupt these shared monopoly food retailing markets under certain circumstances.

Legislation may be necessary to direct the various government agencies to collect and disseminate current pricing information.

The problem with such economic data collection plans, in addition to those pointed out by the authors of the study, is that the industry usually is successful in having information regarding the identity of the parties and their location either removed or masked with numbers, making the information essentially useless to the consuming public.

Finally, the Wisconsin study only serves to confirm the basic tenets underlying the passage of Section 7 of the Clayton Act and its enforcement. The results come as no surpise to anyone except perhaps to industry representatives when the findings are raised in their presence.

I am not optimistic about the future in this industry unless Congress (1) sends a clear mandate to the Federal Trade Commission and Department of Justice to vigorously enforce the existing law as it applies to retail food marketing and (2) enacts legislation aimed at breaking up shared monopoly in the United States.

The fact that the Study was conducted and hearings are being held with wide dissemination in the media amply demonstrates the serious concern of Congress and is a step forward toward effective fostering of our great system of competitive private enterprise.

Thank you.

Representative LONG. Thank you, Mr. Scanlon.

I must say, from listening to your testimony, that you have certainly put this report in a different light than did representatives of the food chains last week.

I am not familiar with your background or with your publication, so let's get that on the record.

Mr. SCANLON. I graduated from Villanova University in 1957. Boston College Law School in 1960, and worked with the Federal Trade Commission in 1960 through 1965 as an attorney.

From 1963 to 1965, I was a trial attorney in their general trade restraints division. I left in mid-1965 to enter private practice in Northern Virginia. In 1967, I began the "Antitrust Law and Economics Review" which is a publication devoted to a consolidation of antitrust theory and data involving lawyers and economists.

They have a very difficult time in communicating with one another sometimes as you well know, Congressman Long.

The Review is a self-sustaining publication. It makes a small profit. Most of the universities and law schools in the United States are subscribers. We have subscribers in 15 foreign countries, and as you indicated, we have gained the respect through the years not only of the academic community but also of the business community as well.

Representative LONG. Thank you, very much.

Your charges concerning the Federal Trade Commission's policy toward mergers are about as serious as the charges that were made by the food industry representatives against this report last week.

Basically, what you are saying is that, insofar as the Federal Trade Commission is concerned, for the last few years it has been one of practically no action at all in this particular field. Is that correct?

Mr. SCANLON. Yes, Congressman. The record speaks for itself. Out of five mergers that were mentioned by Mr. Mueller, only one was challenged.

As to the four other mergers, at least three of them would be in violation of the parameters set forth in the *Von Grocery* case that was decided by the Supreme Court of the United States, and in the *National Tea* case as well.

These parameters were established back in the sixties. They were obviously parameters which were acceptable to the industry because the industry signed consent orders. They were not excessive incursions into private enterprise.

Of course, they are expiring now and the industry can go forward in the absence of any new policy, go forward on an expansive program of acquisition.

Representative LONG. Mr. Scanlon, on some of the details with respect to the Wisconsin study: It's my understanding that the authors relied on a larger sample of prices—and this goes to the crux of the matter—than did either the U.S. Department of Agriculture study, or than the USDA currently does in determining inflation data for its market basket. In addition, the Wisconsin study used more price data than does the Department of Commerce in determining the food components of the CPI.

Is this your understanding?

Mr. SCANLON. That is my understanding, yes, sir.

Representative LONG. And in both instances the Wisconsin study sample exceeds the number of products used by those Departments of the Government?

Mr. SCANLON. That is correct, sir. They are the common things found in all the cupboards in all our homes.

Representative LONG. Let me ask you another question. Going to the validity of the study made by the University of Wisconsin people, Mr. Mueller and his group and the associated institutions: How does the quality of the data in the Wisconsin study stack up against the other data that you have seen in other studies that have been made, such as the Bureau of Labor Statistics data and the data used in other studies that you have had an opportunity to review?

Mr. SCANLON. I believe that the underlying data is the best that has ever been made available. I think it should be made clear for the record that the data was collected by this committee, that data was presented for evaluation to the best analysts this committee could find, Mr. Mueller and Mr. Marion and their associates.

The one who should take credit for collecting this data in its remarkable degree of specificity should be the members of this committee.

Representative LONG. The related question arises as to the degree of cooperation that this committee had or did not have from the food chains in gathering this information. The question is still a little up in the air.

Senator Humphrey has been quoted by Senator Roth in that regard, "And we shall pursue this further and get additional evidence in that regard of the documentation of really what did occur and the degree of participation that we had in this line." He later thanked the food chains in a speech for their cooperation, but I know that he and the committee staff were never satisfied with the spotty data submitted subsequent to that speech.

I will ask you one specific question. You raised the real problem of entry prevention actions of the type practiced here in Washington, D.C., as pointed out by, I think, Mr. Mueller.

Mr. SCANLON. Charles Mueller. Not the Mr. Mueller who worked on the food chain study.

Representative LONG. There are a number of other instances, in addition to the incident here in Washington, D.C., where entry prevention actions occured. What effective remedies, if any, do you see for the practice of chains implementing sharp price cuts to keep new competition out of established markets?

Mr. SCANLON. Other than the remedy which would, I think, require new legislation, there is no effective remedy realistically available. The most effective remedy, which is to resturcture the local market into more competitors, just is not available as a practical matter; the political will does not exist to go forward and do it.

Representative LONG. And you are of the opinion that sufficient legal basis exists for the Federal Trade Commission to do that at the present time?

Mr. SCANLON. The *Foodarama* case in Washington was a clear violation of law, there is no question about that.

Representative LONG. Explain that, if you would.

PREDATORY PRICE CUTTING BY GIANT AND SAFEWAY KEPT COMPETITION OUT

Mr. SCANLON. It was a predatory pricing case, Congressman. The price cuts which Giant and Safeway engaged in were below the prevailing prices that even Foodarama was charging in New Jersey. These were very sharp price cuts because Foodarama came in with a 3 to 5 percent discount position.

Giant and Safeway went even below that and lost approximately $1 million in the fight. However, they saved about $18 million in profits per year shared between them. So it was a very good investment from their point of view. It was a very effective remedy from their point of view and without, frankly, a limitation facing them or without the risk of them having to pay any kind of a penalty in court or before any Government agency. In our system of free enterprise, it certainly was behavior that could be expected for them to engage in—protecting their markets. But it is certainly behavior which stifles innovation and directly causes consumers to pay unnecessarily high prices.

Representative LONG. As I understand it, Mr. Scanlon, the four large mergers that have occurred in the last 10 or 12 years are the Lucky Stores merger, the Winn-Dixie merger, the Allied merger, and the A. & P. acquisition merger?

Mr. SCANLON. Yes.

Representative LONG. As a man who worked at the Federal Trade Commission and who also studies this field and has become an expert in it, tell me this: If the Federal Trade Commission was following today the merger policy that it had back in the 1960's when the consent orders were entered into with a number of chains, would any or all, and if so, which of these four large food chain mergers would have been allowed by the Federal Trade Commission?

Mr. SCANLON. Certainly the Winn-Dixie merger would not have been allowed. Certainly, the Lucky merger would not have been allowed. Perhaps the A. & P. acquisition in Chicago might have been allowed because that involved a number of store acquisitions and the increase in market share may not have been substantial.

Of course, the Allied merger involving the Detroit market would not have been allowed. The acquisition market share was far too great when you aggregate them after the merger. The *Von's Grocery* case took place in the most competitive market in the United States, in the Los Angeles market. The increase in market share held by the merged entity was somewhere between 8 and 9 percent. The Supreme Court of the United States agreed that this was illegal because it created a tendency toward monopoly which was enough to violate section VII of the Clayton Act. So on the basis of Von Grocery, National Tea, and the other cases, those three mergers would usually have been found to be clearly violative of section VII of the Clayton Act. They weren't, however, so ruled by the FTC during the last administration.

Representative LONG. Are you familiar, Mr. Scanlon, with the study conducted by the three U.S. Department of Agriculture economists which has been cited by the food chains witnesses as drawing conclusions counter to those drawn by the Mueller study?

Mr. SCANLON. I have read over it. I have a substantial familiarity with BLS data. I have worked with it myself in cases which I have litigated.

I know of its dubious value, certainly, in trying to reach any specific conclusions with regard to specific market share of various specific companies. Based on that, such a study would automatically and was at the time and still is suspect as being of little or no value in seeking to find out the answers to these questions. The data used was of no value in reaching conclusions regarding the relationship of market concentration and price levels. The BLS has said that, the USDA economists have said that. In fact, the only people who don't say that are people unfamiliar with the data itself or unfamiliar with statistics.

It just wasn't there.

Representative LONG. Thank you, very much, Mr. Scanlon.

Senator Hatch.

Senator HATCH. At Boston College, were you on the Law Review?

Mr. SCANTON. I was a contributing editor to the Law Review.

Senator HATCH. Did you study antitrust law there?

Mr. SCANLON. Yes, I did.

Senator HATCH. Have you had private experience in the field of antitrust or just Government experience?

Mr. SCANLON. I have had private experience both on the private side and the defense side. On the plaintiff's side, I was involved heavily in the large plumbing fixtures antitrust litigation representing consumers in which executives were jailed, and in the antibiotics tetracycline case, both of which were ultimately settled. I represented the interests of hospital patients and consumers in six Western States at the request of Judge Miles Lord in Minnesota.

Senator HATCH. While you were at the FTC, were you a colleague of Mr. Mueller?

Mr. SCANLON. No, I was not. I worked for Rufus C. Wilson, who was then head of the General Trade Restraints Division. I did not personally know Mr. Mueller.

Senator HATCH. Have you had any formal training as an economist?

Mr. SCANLON. In college only.

Senator HATCH. You don't consider yourself an economist?

Mr. SCANLON. No, I am an attorney by training and profession.

Senator HATCH. Or are you an expert in the field of economics?

Mr. SCANLON. Oh, no, I am not an expert in the field of economics.

Senator HATCH. I notice you criticized Mr. Timothy Hammonds because he was a food chain economist and Mr. Goldberg because his evaluation of the study was requested by the food chains.

Mr. SCANLON. I point out the association. I am not so sure I would characterize it as criticism. I think anyone who is associated with the chains, but seeking to pass their opinions off as so-called professional judgment would call it criticism. Certainly they have a right to present their views before this committee.

Senator HATCH. You are protesting the veracity of their conclusions, are you, or just the conclusions themselves?

Mr. SCANLON. I am pointing out the association between these two witnesses and the food chains.

Senator HATCH. Are you making this on an economic assertions basis, or a legal basis?

Mr. SCANLON. On a legal basis, strictly on the basis of the facts as they were contained in the study and previous FTC actions.

Senator HATCH. But you have admitted here you are not an economist nor an expert in any way in economics. So my question is, Are you making a conclusion based upon your analysis of economic facts, or mainly on what you think the application of the antitrust laws by the FTC should be?

Mr. SCANLON. Every economic objection raised by the food chain witnesses is contained in the Wisconsin study as a question raised by the authors of that study.

Senator HATCH. And there are people who are brilliant people who are experts in this field who refute that study because it excluded certain materials and certain food products and because of many other reasons that seemed to have a great deal of validity to me, again admittedly as a nonexpert economist.

Mr. SCANLON. That is incorrect. The only people to refute that study are people whose presence has been requested or demanded by the food chains.

Senator HATCH. I note that you took pains to point out that Mr. Hammonds was a food chain economist and that Mr. Goldberg's report was specifically requested by the food chains, but you did not take time to point out that Mr. Mueller, one of the authors of this study, directed the FTC's Bureau of Economics and in 1967 was a significant contributor to the enforcement policies with respect to mergers in the food distribution industry of the FTC.

Don't you think that should be in question, too?

Mr. SCANLON. Why? Mr. Mueller is not here on behalf of the FTC. In addition, everybody here last week knew that Mr. Mueller was at the FTC in the 1960's. I know his résumé was presented last week to each committee member.

Senator HATCH. I disagree with you. I don't think everybody does know that and I want to be sure they do.

I am not disagreeing with your legal conclusions, although I think we might disagree on some aspects there. But I think for you to come in and say that this report is a wonderful analysis without any basis in economics, without any background in economics, without an expertise in economics, just shows that maybe you are biased in this particular field and that is the thing I am concerned about.

What I want is truth. I don't want bias in this thing. I can show you 50 economists and they will disagree on everything. Even Mr. Ray Marshall in his confirmation proceedings said, "If you are trained in the mystery of economics, you can arrive at any conclusion."

What I would like to do when we have outside researchers do reports, for the Federal Government, is to get people without preconceived conclusions to do them. When we have people with preconceived conclusions doing reports, I think it is to the discredit of the Government, and I think that it is for the purpose of enforcing governmental views of a select few here. And, I think that it ultimately does a very great disservice to finding out what is the truth. It may be that Mr. Mueller and his companions are right, but because of their background and because of their particular expertise and because of their particular persuasions in this area, they may be wrong.

They may have effectuated conclusions and worked backward. That is what worries me.

I will admire you for your ability in the field of antitrust. I will admire you as an attorney, and perhaps for your publication. But the thing I don't admire is you coming in and backing up one whole report on an economic basis.

That is what worries me. That is what is bothering me about these hearings.

Mr. SCANLON. Senator, you are the one building the straw man here in preparation for breaking. I have represented myself as a legal authority with only selected but very deep economic knowledge, including the BLS data Government statistics on food pricing. The food chain witnesses chose to refute the Wisconsin study using this same BLS data. You are the one seeking to paint me as an economics expert. I have not done so. I was quite clear on that in my statement. In addition, as an economic expert, there is none better than Mr. Mueller. Willard Meuller was selected by this committee. He is your boy.

Senator HATCH. He is not my boy.

Mr. SCANLON. Well, he is the committee's boy.

Senator HATCH. I am a minority member of this committee who wants to achieve the truth.

Mr. SCANLON. He needs no defense from me, certainly.

Senator HATCH. Why are you offering it?

Mr. SCANLON. You were the one who started this.

Senator HATCH. I think everything you said has been covered in prior testimony. I do respect you in your area of expertise. I don't feel that you have really added very much today other than a sterling defense of people in an area about which you have to admit you don't have much experience or expertise.

Mr. SCANLON. We differ, Senator, although you have convinced me that preconceived notions exist as much in the Senate as anywhere else.

Representative LONG. Thank you very much, Senator.

The fact remains that you have had 14 years now as the associate editor of the Antitrust Law and Economic Review. You have over that period familiarized yourself with economics and how it relates to antitrust laws; is that correct?

Mr. SCANLON. That is correct.

Representative LONG. Do you write for that magazine also?

Mr. SCANLON. An occasional article but it is very light. It is not competitive with the articles created by the economists and others. I don't feel I can put myself in that position.

Representative LONG. Thank you, very much.

Senator HATCH. Could I ask one other question?

I have to admit as a practicing attorney, that even law is an inexact science and sometimes great lawyers disagree on the applications of antitrust and the applications that should be applied by the FTC.

So I appreciate your comments, but I think we have to acknowledge there may be another viewpoint as well.

Mr. SCANLON. We had better acknowledge that.

Representative LONG. Congresswoman Heckler.

Representative HECKLER. Thank you, Congressman Long.

I would not like to get caught in the crossfire between the lawyers and the economists today because I think they are both out on the periphery.

The real question is: How does the consumer fare as a result of data and facts which have been acquired by the committee under its commissioned study? Certainly we can line up economists on both sides of the question and, of course, lawyers as well.

Senator HATCH. I agree with you, this is the question. That is what I was trying to raise, very openly.

Representative HECKLER. Really the central issue is: How do the facts, if the facts are validated, affect the consumer? That is the public policy question before this committee.

Now we do have perhaps a question of methodology in terms of the selection of the facts, how are they collected, are they representative, what is the significance of the data? You have said in your statements that you feel you have complimented the authors of the study and you have said that this study relied on a much larger sampling of prices than the USDA does in determining its market basket, or the Department of Commerce does in determining the food components of the CPI; is that correct?

Mr. SCANLON. Yes, the largest number.

Representative HECKLER. And it is your feeling that the data acquired by the committee and thereby transmitted to the authors of the study is the best available thus far for a study of this kind; is that correct?

Mr. SCANLON. That is correct; yes.

Representative HECKLER. You are aware of the criticism of the study itself, that the 110 items do not represent all of the purchasable items in a supermarket.

How do you respond to that criticism?

Mr. SCANLON. Mr. Mueller responds to that in the study texts that he presented to this committee. He did a much more articulate job than I can do.

You see, this and other criticisms were raised by both Messrs. Muller and Marion in the study itself. They have reached the stature where they can engage in analysis and criticisms and this is precisely what they did throughout the study.

In the later pages of the text of the report presented to this committee, you will find their self-analysis. They go into the greatest detail about the criticism you mentioned.

I think is a little disingenuous for food industry representatives to present criticisms that are not original—that are in fact lifted directly from the study but out of context—that are criticisms which the authors themselves presented.

Representative HECKLER. Is it true that the FCC is still continuing its six-city study of the food prices?

Mr. SCANLON. Apparently so. The Review published in late 1974 or early 1975 a statement which we got through the customer's committee by Mayo Thompson with regard to the six-city study.

By that time the study had been around the FTC for 2 or 3 years and it was said that it's still going on. It was wallowing there.

Representative HECKLER. As you know, some of the critics from the industry have said that the selection of 32 markets is an inadequate sampling.

Now, if 32 are inadequate, how can 6 cities be adequate in the eyes of the experts at the FTC?

Mr. SCANLON. I have never been able to figure that out. This study did, in fact, start out with a much larger number of cities in the original proposal.

Representative HECKLER. How many were there in the original?

Mr. SCANLON. I understand that it was in excess of 20. Then there was a lot of infighting and it got chopped back to six because it was said the budget costs were too high. Six is an inadequate number. I don't know what six can prove. I don't think it can prove anything.

Representative HECKLER. If the FTC began with a study of 20 and reduced that to 6 and our study covers 32 cities, this has to be a broader sampling of pricing from which to draw, hopefully, reliable conclusions: is that correct?

Mr. SCANLON. Yes. It is an excellent base, 32 cities, and the selection of those 32 cities was relatively unbiased.

It was an excellent selection, I think.

Representative HECKLER. In your statements you seem to be conversant with the methodology used in compiling the other studies and you claimed that this study has been put together on a better basis and represents a higher quality in terms of the collection of data and conclusions.

Now, what is the difference between the methodology? Will you state for the record what the differences in methodology would be between the methodology used in this study and the methodology used in the FTC early studies or in other studies that you are familiar with?

Mr. SCANLON. It isn't the methodology that distinguishes this study from other studies. It is the data base used and that data base in this study was very specific. It had the kind of data necessary, absolutely required, to draw the kind of conclusions that were drawn by the authors of this study. And it is the only study to even have data of this quality and detail available for use—the only one.

The other studies used that good old BLS data which is too aggregated, too masked, and useless as far as trying to reach the types of conclusions reached by this study. It is very difficult and professionally insulting or inept to leap from the aggregated data of BLS to the kind of conclusions that were claimed for it by the food chain champions. It is impossible, being intellectually honest, to leap from that kind of BLS data to the kind of conclusions here. The USDA economists know that and are more embarrassed by the erroneous claims for their study by the food chain witnesses than anyone else.

Representative HECKLER. In your statement you have referred to the problem of entry into the supermarket industry and cited a specific situation in Washington, D.C., when Foodarama sought to establish a beachhead here.

Now what effective remedies do you suggest for the apparently common practice of supermarket chains to implement sharp price cuts in order to keep new competition out of established markets?

Mr. SCANLON. I really think that as a practical matter in today's world some new legislation should be passed that would provide for a monitoring operation undertaken by the Federal Trade Commission or some other agency. This agency would be notified of new entrants, prior to their entry, and monitor what happens during the period of entry. If saturation advertising and predatory pricing are

engaged in by their entrenched competitors, then they can come in and seek restraining orders in the local Federal court.

I think that would provide the protection necessary for new entrants to gain a foothold in these markets. I don't think it's the kind of remedy that is really totally effective because you have to find new entrants who are willing to take the risk and that may be very difficult after the Foodarama and other similar ventures throughout the United States.

Representative HECKLER. What is the best existing method of keeping a competitive situation alive in the food industry?

Mr. SCANLON. Vigorous enforcement of antitrust laws and the break up of undue market power in any particular marketplace are the only effective remedies. Divestiture of various stores might even be necessary to divide the power in those entrenched situations such as in Washington, D.C.

Representative HECKLER. Do you see the FTC reacting to maintain a healthy competitive situation in the food industry?

Mr. SCANLON. In recent times——

Representative HECKLER. Ideally, as well as in recent times.

Mr. SCANLON. Ideally they have the power. Congress has granted them broad-ranging power under section 5 of the FTC Act, section 7 of the Clayton Act, and the Robinson-Patman Act. I think they have all the tools to keep competition alive in the United States.

Representative HECKLER. Do you suggest the FTC do this? That is, perform the monitoring function you have described?

Mr. SCANLON. Not without congressional oversight and very close congressional oversight. I think it would dissipate over time and would not be very effective. Without such oversight, it would not serve the needs of the consumers in this country or in those particular markets.

Representative Heckler. Thank you.

Representative LONG. Our witness here today is Mr. Paul Scanlon, who is the associate editor of the Antitrust Law and Economic Review. The five witnesses that we had on March 30 were Mr. Willard Mueller and Mr. Bruce Marion of the University of Wisconsin, the individuals who were primarily responsible for the reports that we are reviewing here, Mr. Kenneth Farrell with the U.S. Department of Agriculture, Mr. Timothy Hammonds, with the Food Marketing Institute, and Mr. Ray Goldberg, of Harvard University, who was requested to be invited here by the officials of the Food Marketing Institute, formerly the National Association of Food Chains.

I think that shows us one of the reasons that we are getting the conflicts we are getting with respect to the report.

Mr. Scanlon, we appreciate your coming here. I don't know what we contributed toward what you set forth as one of the purposes of your magazine; and, that is for better communication between economists and lawyers, but you have made a good contribution and we are appreciative.

Mr. SCANLON. Thank you very much.

Representative LONG. Our next witnesses are Mr. Owen Johnson, Director of the Bureau of Competition, Federal Trade Commission, and Mr. Willard Mueller of the University of Wisconsin, and former FTC Chief Economist for 8 years.

Mr. Johnson, if you would proceed.

STATEMENT OF HON. OWEN M. JOHNSON, JR., DIRECTOR, BUREAU OF COMPETITION, FEDERAL TRADE COMMISSION, ACCOMPANIED BY MACK FOLSOM, DEPUTY DIRECTOR, BUREAU OF ECONOMICS

Mr. JOHNSON. First, I should note that I have with me at the table Mr. Mack Folsom, the Deputy Director of our Bureau of Economics. Thank you, Mr. Chairman, for this opportunity to testify before the committee on the important subject of the prices and profits of retail food chains. My remarks today represent my views as Director of the FTC's Bureau of Competition, but should not be considered to reflect the views of the Commission, or any of its Commissioners.

We in the Federal Trade Commission are always interested in the assessment of competition and antitrust policy provided by members of the academic community. Such studies can materially assist us in our policy planning and resource commitments. We are particularly interested in the north-central regional project on the "Organization and Control of the U.S. Food System," which provided support for the study we will be discussing today. We look forward to publication of other works concerning the food industries that the north-central project has planned.

You have asked me to address three subjects in particular. First, you have asked me to evaluate the Mueller-Marion study of food chain concentration, prices and profits issued by the committee last Tuesday, March 30. Second, you have asked for my remarks on the implications for FTC policy from the results of the study. Finally, you have asked for a report on the status of the FTC's six-city study of the retail food industry.

1. THE MUELLER-MARION STUDY

At the outset, I should note that the committee's letter of March 24, 1977, inviting this testimony, addresses me as "Dr." Johnson. As anyone at our Bureau of Economics will readily confirm, I am not an economist, but a lawyer. Because I am not an economist, my remarks on the Mueller-Marion study are necessarily a layman's views. I hope that the members of this committee share my feeling of inadequacy in fathoming the world of regression analysis and endogenous relationships. If so, you will appreciate my position, which is to take at face value the conclusions of the Muller-Marion study, as qualified by those same economic experts when they testified before this committee.

The major conclusions of the study, as I understand them, are:

First, retail food prices in concentrated markets with few major sellers were significantly higher than in less concentrated markets. That is, there was a positive correlation between food prices and market concentration.

Second, chain store profits are significantly higher in markets where a few firms control most grocery store sales. There is also, therefore, a positive correlation between retail chain profits and market concentration.

Third, increased profits do not account for the major portion of the increased prices observed in concentrated markets, and accordingly the study hypothesizes that the large firms in these markets are less efficient or cost conscious.

Fourth, in analyzing food chain price data, the study estimated that, due to high market concentration, consumers paid a minimum national "monopoly overcharge" in terms of excessive food prices of $662 million in 1974.

Fifth, the study found a distinct possibility—perhaps probability—that the large chains subsidize losses in less concentrated markets with profits earned in more concentrated markets.

Sixth, a significant, though not the only vehicle for increasing market concentration was merger and acquisition activity.

We acknowledge that some questions about the validity of a portion of the Mueller-Marion study were raised in last week's testimony before the committee. While the study concludes that much of the retail food industry is structured anticompetitively, the food chains' witness, Mr. Goldberg, concludes that "food retailing is one segment of the food system that should remain extremely competitive over the next several years."

Mr. Hammonds of the food chains similarly concludes. "By every reliable measure, food retailing is a highly competitive industry and consumers receive the benefit of that competition." I will not attempt to recount these specific industry criticisms of the study. The authors of the study, to their credit, have recognized and offered explanations for most of the factors identified by these critics. If it is ultimately proved correct, the Mueller-Marion study should have tremendous significance. At the very least, the report is an important contribution to the ongoing debate on the retail food industry.

Because of the FTC's obvious interest in the validity of the study's conclusions, we would like, to the extent that we are able, to assist the committee in assessing the significance of the criticisms which the report has received. Based on discussions with our Bureau of Economics, we believe that the public interest would be served if the FTC's professional economists were to undertake an analysis of the Mueller-Marion study and the industry criticisms it has provoked.

The Bureau of Economics has asked me to state that this suggestion is made with two caveats. First, the Bureau would need access, on a confidential basis, to the underlying data obtained by the committee and utilized in preparation of the study. Based upon an earlier request, we understand that such access would require the approval of this committee. Second, we may find it necessary to return to the companies that submitted data and collect information on some of the variables allegedly not considered in preparation of the study.

Our economists have also raised some additional questions about the study that might be resolved through their independent analysis of the work.

We refer to a study that the FTC itself has been making since the first quarter of 1974, calculating the profits of the food chains both as a percent of sales and as a relationship to their invested equity. What we found was that the income was 1 percent of sales in 1974, and 11.8 percent of equity. In 1975, the ratio of profit to sales had declined in half, in effect, to 0.5 percent, and the return on equity had declined to 6.6 percent. In the first three quarters of 1966, both figures rose but did not rise to the 1974 level. Thus in our view the Mueller-Marion study's data on profitability may conceal considerable fluctuation in profits from year to year.

We believe that the profit data on food chains does not indicate high profits from the year our investigation began, 1974. From the first quarter of 1974 through the second quarter of 1976, for example, food manufacturers realized a return on stockholders' equity that was 54 percent higher than the return earned by the large food chains. By comparison, in the 5-year period from 1969 through 1973, the food manufacturers' rate of profit exceeded the large chain rate by only 25 percent. Therefore, these data do not appear to support the hypothesis that food chains, in general, have raised prices in recent years in order to earn monopoly profits.

2. IMPLICATIONS OF THE MUELLER-MARION STUDY FOR FTC POLICY

For the purposes of considering FTC policies in light of the Mueller-Marion study, I shall assume that the factual findings of the study are correct. The major conclusion of the study, in a nutshell, was that as retail food markets become more highly concentrated, prices and profits increase and economic efficiency declines. I would not find that conclusion surprising, since it is a basic tenet, an underlying principle of antitrust law in general and of section 7 of the Clayton Act in particular that increased concentration leads to precisely these results. In that sense, Congress has already drawn the major conclusion of the study, and the Commission is already obligated to prevent increased concentration that is achieved by means that the Congress has declared unlawful.

A major factor that Mueller and Marion isolate as responsible for increasing concentration in food retailing is mergers and acquisitions between existing retail chains. The trend toward higher concentration in food retailing was recognized by the Federal Trade Commission in the 1960's, when several of the largest chains in the country were charged with illegal acquisitions. The result of the FTC suits was a number of consent orders which, among other things, imposed 10-year moratoriums on future acquisitions of stores without advance FTC approval. As to other firms, the Commission staff negotiated assurances of voluntary compliance, AVC's, that similarly contained merger moratorium provisions.

In 1967, due in large part to Mr. Mueller, then Director of the FTC's Bureau of Economics, the Commission promulgated an "Enforcement Policy With Respect to Mergers in the Food Distribution Industries." This statement had the effect of announcing that food chains with sales in excess of $500 million could expect an FTC antitrust investigation of any but the very smallest acquisitions.

Acquisitions by voluntary and cooperative groups of food retailers creating a wholesale volume of sales in excess of $500 million were also subject to scrutiny. Smaller mergers and acquisitions, resulting in combined annual sales of between $100 and $500 million, were reviewed, but investigations in such instances are not automatic. The enforcement statement included a Commission resolution requiring reporting to the FTC of all mergers of acquisitions by wholesalers or retailers with sales above $100 million, such reporting to take place 60 days prior to consummation of any transaction.

The effect of the reporting requirement, the enforcement statement, and the various consent orders and AVC's has been to place the FTC

in a position to review, and to investigate where necessary, all significant mergers in food retailing and wholesaling from 1967 to the present. Mueller and Marion report that merger activity by the top 10 chains was sharply lower in the period 1967–75 than in the previous decade. The study further observes: "Although the change has been less dramatic, the tempo of mergers by the 11th through 20th largest chains has also slowed since 1964. The result very probably has been to slow the trend toward national sales concentration among the largest chains."

In their testimony before the committee, Messrs. Mueller and Marion noted some recent mergers that the FTC has declined to prosecute. They questioned whether the FTC had abandoned its enforcement policy. I am here to tell this committee that what the Mueller-Marion study called "strict merger policy" is still alive and well at the Commission. When suspect mergers are reported to us, we investigate them thoroughly. If we do not recommend prosecution, it is for good reasons. If we persuade the Commission that prosecution is in the public interest, we pursue that litigation vigorously. Increasingly, we are attempting to enjoin the mergers we challenge before they can be consummated.

With specific reference to the five matters discussed by Mr. Mueller, and with the caveat that I cannot reveal data submitted to the Commission for which confidentiality has been afforded, I will inform the committee as to our disposition of each matter.

First, Allied Supermarkets acquired Great Scott Super Markets in Detroit. It was our conclusion that the "failing company" defense applied to this transaction.

Second, A. & P. purchased 62 National Tea Stores in Chicago, and several other retailers purchased other National Tea Stores since National had determined to withdraw from that market. Again, we concluded that the circumstances warranted a "failing company" defense.

Third, we investigated a geographic market extension in Winn-Dixie's acquisition of Kimbell, Inc., in the Southwest. Neither firm prior to the acquisition was in competition with the other. Nor did we view Winn-Dixie as a likely potential entrant into Kimbell's area except by acquisition.

Fourth, we investigated Food Town's proposed acquisition of Lowe's Food Stores in North Carolina. We not only recommended to the Commission the issuance of a complaint, but also proposed that an injunction be sought in Federal court to prevent the acquisition. The Commision agreed with these recommendations. Though we were unsuccessful in our initial injunctive efforts in a Federal district court, the U.S. Court of Appeals for the Fourth Circuit stayed the merger pending our appeal. Further action became unnecessary, as in the face of the court of appeals ruling, Food Town abandoned its efforts to consummate the acquisition.

Finally, Messrs. Mueller and Marion particularly criticize Lucky Store's acquisition of 16 Arden-Mayfair stores in Washington State. This acquisition was one requiring prior Commission approval. The Commission allowed the acquisition to occur. The Commission's reasoning was stated in congressional correspondence, which Messrs. Mueller and Marion have noted in their testimony, but still criticized.

I want to emphasize the Bureau of Competition's continued vigor in evaluating merger activity in the retail food industry. In the future, I expect our vigilance to be improved by the broad premerger notification provisions of last year's Hart-Scott-Rodino Act. This expands the premerger notification provisions of the Commission's enforcement policy on food retailing, and should allow us additional time to seek injunctions in Federal court. With the existing enforcement policy on retail food mergers and the provisions of Hart-Scott-Rodino, I am confident that we have effective tools to detect and challenge anticompetitive mergers.

Apart from merger enforcement, Messrs. Mueller and Marion have identified in their testimony some other public policy alternatives. To reduce entry barriers to new competition, they direct attention to restrictive lease arrangements, selective price cutting, and massive advertising. The FTC is already in the forefront in antitrust attack upon restrictive lease arrangements, especially in regional shopping centers.

3. THE FTC "SIX-CITY" STUDY

The committee has requested a report on the status of the so-called six-city study of the retail food industry. This investigation was commenced by the Bureau of Competition and the Bureau of Economics in 1974, focusing on six metropolitan areas: Atlanta, Denver, Detroit, Jersey City, Little Rock, and Washington.

The commencement of the investigation was publicly announced, and various motions and enforcement actions have subsequently been filed, thus placing many aspects of the study on the public record. In addition, staff of this committee and other congressional staff have been afforded access to information collected during the investigation. Nevertheless, the investigation has been, and remains, nonpublic in nature.

This nonpublic character is necessary, because the investigation has had an enforcement objective. At the time it was started in 1974, food prices had been escalating at an alarming rate. There was a prevalent suspicion that these increases were the result of conspiracy or other forms of collusion among the major chains. This committee, in particular, heard testimony suggesting that collusion might explain the behavior of food prices. The heart of the six-city investigation, therefore, was to attempt to confirm the validity of these suspicions.

The principal methods employed in the six-city investigation have been the subpena for documents and the investigational hearing. Several major chains resisted responding to these subpenas, necessitating court enforcement. Ultimately, however, the documents—several dozen file drawers—were obtained and hearings were held to attempt to confirm the thoroughness of the companies' responses.

At this point, quite frankly, the results do not appear promising. The odds of success are obviously reduced when a collusion investigation is commenced without leads from informants and without "hot documents." In fairness to the Commission's staff, they recognized these limitations from the outset and advised the Commission that the likelihood of finding illegal conduct might not be great. The public temper during the price rises of 1973–74 suggested, however, that the effort should be made.

Economic data subsequent to 1974 seems to refute the likelihood of any widespread price collusion in food retailing. As noted earlier, the statistics maintained by our Bureau of Economics since 1974 show that 1974 profit levels of the chains have not been maintained. Food prices themselves have moderated the steep rises of 1973–74; and in 1975 our Bureau of Economics issued a study identifying the many cost factors which would appear to have pushed prices higher in 1973–74.

It has been suggested that, whether or not collusion is found so as to warrant antitrust action, our six-city investigation might be continued as an economic study. The principal benefit of such study would be to consider the correlation between prices and concentration. The six cities in themselves, however, would not be a statistically reliable sample. In any event, the work done in the Mueller-Marion study would appear to preempt any such limited economic study. As suggested earlier, a more constructive activity for economic analysis at this time would be to try to confirm the validity of the Mueller-Marion study's conclusions.

Thank you, Congressman Long, for this opportunity to comment on this study and its implications.

Representative LONG. Thank you, Mr. Johnson.

[The prepared statement of Mr. Johnson follows:]

PREPARED STATEMENT OF HON. OWEN M. JOHNSON, JR.[1]

PRICES AND PROFITS OF RETAIL FOOD CHAINS

Thank you, Mr. Chairman, for this opportunity to testify before the committee on the important subject of the prices and profits of retail food chains. My remarks today represent my views as Director of the FTC's Bureau of Competition, but should not be considered to reflect the views of the Commission, or any of its Commissioners.

We in the Federal Trade Commission are always interested in the assessment of competition and antitrust policy provided by members of the academic community. Such studies can materially assist us in our policy planning and resource commitments. We are particularly interested in the North Central Regional Project on the "Organization and Control of the U.S. Food System," which provided support for the study we will be discussing today. We look forward to publication of other works concerning the food industries that the North Central Project has planned.

You have asked me to address three subjects in particular. First, you have asked me to evaluate the "Mueller-Marion"[2] study of food chain concentration, prices and profits issued by the Committee last Tuesday, March 30. Second, you have asked for my remarks on the implications for FTC policy from the results of the study. Finally, you have asked for a report on the status of the FTC's "six city" study of the retail food industry.

1. The Mueller-Marion Study

At the outset, I should note that the Committee's letter of March 24, 1977, inviting this testimony, addresses me as "Dr." Johnson. As anyone at our Bureau of Economics will readily confirm, I am not an economist, but a lawyer. Because I am not an economist, my remarks on the Mueller-Marion study are necessarily a layman's views. I hope that the members of this Committee share my feeling of inadequacy in fathoming the world of regression analysis and endogenous relationships. If so, you will appreciate my position, which is to take at face value

[1] The remarks in this statement represent only the views of a member of the Federal Trade Commission staff. They are not intended to be, and should not be construed as, representative of any official Commission policy.

[2] "The Profit and Price Performance of Leading Food Chains 1970–74," a study prepared for the use of the Joint Economic Committee, 95th Cong., 1st sess. (1977), hereinafter cited as "Mueller-Marion study."

the conclusions of the Mueller-Marion study, as qualified by the economic experts who have already testified before this Committee.

The major conclusions of the study, as I understand them, are:

First, retail food prices in concentrated markets with few major sellers were significantly higher than in less concentrated markets. That is, there was a positive correlation between food prices and market concentration.

Second, chain store profits are significantly higher in markets where a few firms control most grocery store sales. There is also, therefore, a positive correlation between retail chain profits and market concentration.

Third, increased profits do not account for the major portion of the increased prices observed in concentrated markets, and accordingly the study hypothesizes that the large firms in these markets are less efficient or cost conscious.

Fourth, in analyzing food chain price data, the study estimated that, due to high market concentration, consumers paid a minimum national "monopoly overcharge" in terms of excessive food prices of $662 million in 1974.

Fifth, the study found a distinct possibility—perhaps probability—that the large chains subsidize losses in less concentrated markets with profits earned in more concentrated markets.

Sixth, a significant, though not the only vehicle for increasing market concentration was merger and acquisition activity.

Before making specific resource commitments based on any study, either from within the Commission or from the academic community, it has been our practice to carefully evaluate the data, methodology, and reasoning used to reach the major conclusions. We try to measure each conclusion against our experience in dealing with the industries involved and against our existing information. In this regard, we acknowledge that some questions about the validity of a portion of the Mueller-Marion study were raised in last week's testimony before the Committee.

While the study concludes that much of the retail food industry is structured anticompetitively, the food chains' Mr. Goldberg concludes that "food retailing is one segment of the food system that should remain extremely competitive over the next several years.[3] Mr. Hammonds, of the food chains, similarly concludes, "By every reliable measure, food retailing is a highly competitive industry and consumers receive the benefit of that competition."[4]

I will not attempt to recount these specific industry criticisms of the study. The authors of the study, to their credit, have recognized and offered explanations for most of the facts identified by these critics. If it is ultimately proved correct, the Mueller-Marion study should have tremendous significance. At the very least, the report is an important contribution to the ongoing debate on the retail food industry. Because of the FTC's obvious interest in the validity of the study's conclusions, we would like, to the extent that we are able, to assist the Committee in assessing the significance of the criticisms which the report has received. Based on discussions with our Bureau of Economics, we believe that the public interest would be served if the FTC's professional economists were to undertake an analysis of the Mueller-Marion study and the industry criticisms it has provoked.

The Bureau of Economics has asked me to state that this suggestion is made with two caveats. First, the Bureau would need access, on a confidential basis, to the underlying data obtained by the Committee and utilized in preparation of the study. Based upon an earlier request, we understand that such access would require the approval of this Committee. Second, we may find it necessary to return to the companies that submitted data and collect information on some of the variables allegedly not considered in preparation of the study.[5]

Our economists have also raised some additional questions about the study that might be resolved through their independent analysis of the work.

Of particular concern to us are the conclusions of the study dealing with the chain stores' profitability. Table 2–1 of the study (p. 32) indicates that the average profits of the 17 firms participating in the study were 0.6 percent of sales. That is, however, the simple average of the firms' profitability as a percentage of sales. If that number is multiplied by the total sales of the 17 firms, it results in an overstatement of 50 percent of the actual profits they realized. The average return as a percent of sales, when weighted by the size of sales, is 0.4 percent. The

[3] Testimony of Mr. Ray A. Goldberg, Mar. 30, 1977, p. 4.
[4] Testimony of Mr. Timothy M. Hammonds, Food Marketing Institute, Mar. 30, 1977, p. 16.
[5] A discussion of some of these variables appears in the testimony of Mr. Farrell.

study implies (p. 27) that the profit of the chains was low in 1972 and 1973, rose substantially in 1974, and presumably continued at that level after 1974. Again, as figure 19 of the study indicates, that conclusion is based on a simple average of the firms' profitability. If the profitability of the firms is weighted by their size, the picture is somewhat different. Profits fell from an average of 9.9 percent return on equity in 1971 to 5.8 percent in 1972. Subsequently, they rose to 8 percent in 1973 and fell to 7.8 percent in 1974. (See Appendix A.4, p. 85.)

The FTC began collecting profit data for large food chains in the first quarter of 1974. The data in that series shows after-tax net income to sales at 1 percent in 1974 and to equity at 11.8 percent. In 1975, the return on sales fell to 0.5 percent and on equity to 6.6 percent. The annualized rate of return for the first three quarters of 1976 was 0.7 percent on sales and 9.2 percent on equity. Thus, the study's data on profitability conceal a considerable fluctuation in profits from year to year.

We believe that the profit data on food chains does not indicate high profits from the year our investigation began, 1974. From the first quarter of 1974 through the second quarter of 1976, for example, food manufacturers realized a return on stockholders' equity that was 54 percent higher than the return earned by the large food chains. By comparison, in the 5-year period from 1969 through 1973, the food manufacturers' rate of profit exceeded the large chain rate by only 25 percent. Therefore, these data do not appear to support the hypothesis that food chains, in general, have raised prices in recent years in order to earn monopoly profits.

2. Implications of the Mueller-Marion study for FTC policy

For the purposes of considering FTC policies in light of the Mueller-Marion study, I shall assume that the factual findings of the study are correct. The major conclusion of the study, in a nutshell, was that as retail food markets become more highly concentrated, prices and profits increase and economic efficiency declines. I would not find that conclusion surprising, since it is a basic tenet, an underlying principle of antitrust law in general and of Section 7 of the Clayton Act in particular that increased concentration leads to precisely these results. In that sense, Congress has already drawn the major conclusion of the study, and the Commission is already obligated to prevent increased concentration that is achieved by means that the Congress has declared unlawful.

A major factor that Mueller and Marion isolate as responsible for increasing concentration in food retailing is mergers and acquisitions between existing retail chains. The trend towards higher concentration in food retailing was recognized by the Federal Trade Commission in the 1960's, when several of the largest chains in the country were charged with illegal acquisitions. The result of the FTC suits was a number of consent orders which, among other things, imposed 10-year moratoriums on future acquisitions of stores without advance FTC approval.[6] As to other firms, the Commission staff negotiated Assurances of Voluntary Compliance (AVCs) that similarly contained merger moratorium provisions.[7]

In 1967, due in large part to Dr. Mueller, then Director of the FTC's Bureau of Economics, the Commission promulgated an "Enforcement Policy With Respect to Mergers in the Food Distribution Industries." This statement had the effect of announcing that food chains with sales in excess of $500 million could expect an FTC antitrust investigation of any but they very smallest acquisitions. Acquisitions by voluntary and cooperative groups of food retailers creating a wholesale volume of sales in excess of $500 million were also subject to scrutiny. Smaller mergers and acquisitions, resulting in combined annual sales of between $100 and $500 million were reviewed, but investigations in such instances are not automatic. The enforcement statement included a Commission resolution requiring the reporting to the FTC of all mergers or acquisitions by wholesalers or retailers with sales above $100 million, such reporting to take place 60 days prior to consummation of any transaction.

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[6] *Consolidated Foods Corp.*, Docket C–1024. 68 FTC 1137 (1965); *National Tea Co.*, Docket 7453, 69 FTC 266 (1966); *Winn-Dixie Stores, Inc.*, Docket C–1110. 70 FTC 611 (1966); *Grand Union Co.*, Docket C–1350, 73 FTC 1050 (1968); *The Kroger Co.*, Docket C–2067, 79 FTC 636 (1971). All but the *National Tea* matter, which was litigated, involved consent orders.

[7] *Jewel Companies, Inc.*, AVC No. 740, expires July 1977; *Malone & Hyde, Inc.*, AVC No. 741, expires August 1977; *Lucky Stores, Inc.*, AVC No. 895, expires after November 1977.

The effect of the reporting requirement, the enforcement statement, and the various consent orders and AVCs has been to place the FTC in a position to review, and to investigate where necessary, all significant mergers in food retailing and wholesaling from 1967 to the present. Mueller and Marion report that merger activity by the top ten chains was sharply lower in the period 1967–1975 than in the previous decade. The study further observes: "Although the change has been less dramatic, the tempo of mergers by the 11th through 20th largest chains has also slowed since 1964. The result very probably has been to slow the trend toward national sales concentration among the largest chains." [8]

In their testimony before the Committee, Drs. Mueller and Marion noted some recent mergers that the FTC has declined to prosecute. They questioned whether the FTC had abandoned its enforcement policy. I am here to tell this Committee that what the Mueller-Marion study called "strict merger policy" is still alive and well at the Commission. When suspect mergers are reported to us, we investigate them thoroughly. If we do not recommend prosecution, it is for good reasons. If we persuade the Commission that prosecution is in the public interest, we pursue that litigation vigorously. Increasingly, we are attempting to enjoin the mergers we challenge before they can be consummated.

With specific reference to the five matters discussed by Mr. Mueller, and with the caveat that I cannot reveal data submitted to the Commission for which confidentiality has been afforded, I will inform the Committee as to our disposition of each matter.

First, Allied Supermarkets acquired Great Scott Super Markets in Detroit. It was our conclusion that the "failing company" defense applied to this transaction.

Second, A&P purchased 62 National Tea stores in Chicago (and several other retailers purchased other National Tea stores, since National had determined to withdraw from that market). Again, we concluded that the circumstances warranted a "failing company" defense.

Third, we investigated a geographic market extension in Winn-Dixie's acquisition of Kimbell, Inc. in the Southwest. Neither firm prior to the acquisition was in competition with the other. Nor did we view Winn-Dixie as a likely potential entrant into Kimbell's area except by acquisition.

Fourth, we investigated Food Town's proposed acquisition of Lowe's Food Stores in North Carolina. We not only recommended to the Commission the issuance of a complaint, but also proposed that an injunction be sought in federal court to prevent the acquisition. The Commission agreed with these recommendations. Though we were unsuccessful in our initial injunctive efforts in a federal district court, the U.S. Court of Appeals for the Fourth Circuit stayed the merger pending our appeal. Further action became unnecessary, as in the face of the Court of Appeals ruling, Food Town abandoned its efforts to consummate the acquisition.

Finally, Messrs. Mueller and Marion particularly criticize Lucky Store's acquisition of 16 Arden-Mayfair stores in Washington State. This acquisition was one requiring prior Commission approval under an AVC. The Commission allowed the acquisition to occur. The Commission's reasoning was stated in Congressional correspondence, which Messrs. Mueller and Marion have noted (Testimony, pp. 19–20), but still criticized.

I want to emphasize the Bureau of Competition's continued vigor in evaluating merger activity in the retail food industry. In the future, I expect our vigilance to be improved by the broad premerger notification provisions of last year's Hart-Scott-Rodino Act. This expands the premerger notification provisions of the Commission's enforcement policy on food retailing, and should allow us additional time to seek injunctions in federal court. With the existing enforcement policy on retail food mergers and the provisions of Hart-Scott-Rodino, I am confident that we have effective tools to detect and challenge anticompetitive mergers.

Apart from merger enforcement, Messrs. Mueller and Marion have identified in their testimony some other public policy alternatives. To reduce entry barriers to new competition, they direct attention to restrictive lease arrangements, selective price cutting, and massive advertising. The FTC is already in the forefront in antitrust attack upon restrictive lease arrangements, especially in regional

[8] Mueller-Marion study, p. 23.

shopping centers.[9] This activity will doubtlessly continue. As regards the combination of selective price cutting and massive advertising to ward off new entrants, we certainly would investigate specific allegations of such conduct. Charges of predatory pricing must be carefully examined, however, since there is an obvious consumer interest in encouraging price competition.

Messrs. Mueller and Marion further suggest improving consumer information as to retail food prices. The Canadian studies they cite are promising as regards the lowering of prices which results from objective programs aimed at consumer information. Even though there was some evidence of increased concentration as a result of such programs, I think they are a commendable suggestion. Indeed, the operation of a competitive market economy depends upon informed buying decisions. For this reason, the FTC has strongly acted in the last several years to remove price advertising restraints in other areas of the economy, such as prescription drugs, optical supplies, and professional services. If better price information in food retailing works to the advantage of the larger chains, that may say something about one of the criticisms of the Mueller-Marion study, namely, its failure to compare the price levels of the major chains (even in concentrated markets) with the price levels of their smaller competitors. The consumer casts his ballot when he pays for his groceries. If he makes an informed decision, it is hard to fault the resulting market structure.

In lesser detail, Messrs. Mueller and Marion suggest as policy alternatives the encouragement of consumer cooperatives and industrial restructuring. The former would appear to be outside the province of the FTC, except to the extent that merger enforcement creates opportunities for coops to acquire store sites from retailers who have determined to leave a market. Industrial restructuring, as Messrs. Mueller and Marion indicate, should require a case-by-case approach. Far more information would appear to be needed on the dynamics of food retailing before a legislative determination could be made either to mandate divestiture or to impose general limits on internal growth by the major chains.

Some estimates on future market trends in food retailing have been made in the Harvard Study by Professors Buzzell and Salmon.[10] They forecast "that the chain [stores'] share of market will level out or even decline slightly." They further forecast that, rather than expand geographically, companies will tend to concentrate in territories where they are strong, preferably close to their distribution centers. And finally, they estimate that "away from home" food expenditures will grow at a greater rate than retail store sales.

There is reason to believe that these forecasts are accurate. Last week, *Progressive Grocer* released its statistics for 1976.[11] Interestingly, the chains' market share was unchanged at 46.6 percent, while convenience stores picked up a fraction of the total market at the expense of the independents, whose market share was 48.6 percent. The past year has also seen market withdrawals by several beleaguered chains, and we believe that more such withdrawals will occur. On balance, therefore, the food retailing industry shows sufficient change, responding to market pressures and apparent consumer preferences, that rigidification through forced restructuring or limits on growth seems arbitrary and ill-advised.

3. The FTC "Six-City" Study

The Committee has requested a report on the status of the so-called "six-city" study of the retail food industry. This investigation was commenced by the Bureaus of Competition and of Economics in 1974, focusing on six metropolitan areas: Atlanta, Denver, Detroit, Jersey City, Little Rock, and Washington. The commencement of the investigation was publicly announced, and various motions and enforcement actions have subsequently been filed, thus placing many aspects of the study on the public record. In addition, staff of this Committee and other Congressional staff have been afforded access to information collected during

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[9] One litigated order and ten consent orders resulted from the shopping centers initiative. The litigated order is *City Stores Co.*, Docket 8886 (June 10, 1975). The consent orders are: *Gimbel Brothers*, Docket 8885 (January 30, 1974); *Tyson Corner Regional Shopping Center*, Docket 8886 (May 3, 1974); *Woodward and Lothrop, Inc.*, Docket 8886 (May 3, 1974); *The May Department Stores Company*, Docket 8886 (May 3, 1974); *The Rouse Company*, Docket C–2662 (May 7, 1975); *Food Fair Stores, Inc.*, Docket 8935 (September 30, 1975); *Peoples Drug Stores, Inc.*, Docket C–2773 (January 5, 1976); *Strawbridge & Clothier*, Docket C–2812 (March 22, 1976); *Rich's Inc.*, Docket C–2825 (June 7, 1976); *Sears Roebuck & Co.*, File No. 721 0081 (public comment period expired).

[10] The Harvard Study, "The Consumer and The Supermarket—1980," was attached to the testimony presented to the Committee on Mar. 30, 1977, by Professor Ray A. Goldberg.

[11] Reported in Advertising Age, Mar. 28, 1977, at p. 6.

the investigation. Nevertheless, the investigation has been, and remains, non-public in nature.

This non-public character is necessary, because the investigation has had an enforcement objective. At the time it was started in 1974, food prices had been escalating at an alarming rate. There was a prevalent suspicion that these increases were the result of conspiracy or other forms of collusion among the major chains. This Committee, in particular, heard testimony suggesting that collusion might explain the behavior of food prices.[12] The heart of the "six-city" investigation, therefore, was to attempt to confirm the validity of these suspicions.

The principal methods employed in the "six-city" investigation have been the subpoena for documents and the investigational hearing. Several major chains resisted responding to these subpoenas, necessitating court enforcement. Ultimately, however, the documents—several dozen file drawers—were obtained and hearings were held to attempt to confirm the thoroughness of the companies' responses. At this point, quite frankly, the results do not appear promising. The odds of success are obviously reduced when a collusion investigation is commenced without leads from informants and without "hot documents." In fairness to the Commission's staff, they recognized these limitations from the outset and advised the Commission that the likelihood of finding illegal conduct might not be great. The public temper during the price rises of 1973–74 suggested, however, that the effort should be made.

Economic data subsequent to 1974 seems to refute the likelihood of any widespread price collusion in food retailing. As noted earlier, the statistics maintained by our Bureau of Economics since 1974 show that 1974 profit levels of the chains have not been maintained. Food prices themselves have moderated the steep rises of 1973–74; and in 1975 our Bureau of Economics issued a study identifying the many cost factors which would appear to have pushed prices higher in 1973–74.[13]

To this adverse economic data must now be added the Mueller-Marion study. Despite the criticisms of its price data, the study shows significant price variations within and among selected metropolitan markets. The correlation between price and both concentration and relative market share may be as the authors suggest. In the face of such consistent correlations, however, the likelihood of collusion in pricing seems rather remote—at least in October 1974 when the authors gathered their price information. Because the Mueller-Marion study is much more broadly based than our "six-city" investigation, its implications as to price variability will be particularly useful.

It has been suggested that, whether or not collusion is found so as to warrant antitrust action, our "six-city" investigation might be continued as an economic study. The principal benefit of such study would be to consider the correlation between prices and concentration. The six cities in themselves, however, would not be a statistically reliable sample. In any event, the work done in the Mueller-Marion study would appear to preempt any such limited economic study. As suggested earlier, a more constructive activity for economic analysis at this time would be to try to confirm the validity of the Mueller-Marion study's conclusions.

Thank you, Mr. Chairman, for this opportunity to comment on this study and its implications.

Representative LONG. In order to save time and to get a dialog going, why don't we proceed with you, Mr. Mueller, and then we will ask questions and ask each of you to comment on the remarks.

STATEMENT OF WILLARD F. MUELLER, MEMBER, FOOD SYSTEM RESEARCH SYSTEM, UNIVERSITY OF WISCONSIN, MADISON, WIS.

Mr. MUELLER. Thank you, Congressman Long.

I appreciate Mr. Scanlon's kind remarks, especially since I had never met him personally before these hearings.

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[12] Testimony of Joseph L. Alioto, Dec. 9, 1974, Hearings before the Joint Economic Committee on "Food Chain Pricing Activities," 93d Cong., 2d sess. 7 (1974), p. 7.

[13] Staff Economic Report on Food Chain Profits, July 1975.

I want to make clear, however, that I am nobody's boy, not this committee's nor anyone else's. I am a university research professor in the Department of Agricultural Economics and the Law School of the University of Wisconsin. This does permit me the luxury of being my own boy, although I think I was my own boy when I was at the Federal Trade Commission, as are these gentlemen here from the FTC today.

I have no prepared statement this morning, but I would like to make some observations with regard to the study we prepared for this committee and the reaction to it.

I am neither so naive as to be surprised by the reactions to our report nor am I so cynical as to be indifferent to them. The response to our study is a commonplace scenario in this town. Whenever someone sheds light on the sources and consequences of undue economic power, the holders of this power seek to distort the truth and discredit those attempting to shed that light.

Too often, unhappily, the result is that the public is left bewildered and confused, and the holders of power are permitted to carry on their business as usual.

Obviously, the stakes are large and powerful economic interests will not yield the field without doing battle. No one familiar with the ways of Washington politics should be surprised that these holders of power are not content to let the truth emerge through the free sifting and winnowing process of independent researchers. They are just as suspicious of the use of the free marketplace of ideas as they are of free competition in business affairs.

The Food Marketing Institute and its predecessor, NAFC, have a long record of tampering with the academic marketplace. Back in 1965 when a National Commission on Food Marketing was created by Congress, the NAFC sought in many ways to influence its work. Even before the Commission began its work, the NAFC developed a fund of about $100,000 to neutralize the Commission's forthcoming effort. Some of these funds were used to sponsor academic researchers agreeing to prepare papers on various aspects of competition in the food distribution industries.

The NAFC approached the offices of the American Agricultural Economic Association, as well, and offered to sponsor, but sponsor anonymously, an essay contest on effective competition in agricultural marketing. This contest attracted a number of contributors. Of course, the few leading researchers in this field were too busy working for the Food Commission to enter the contest.

On the other hand, among those entering were individuals financed by the American Association of Food Chains. The American Agricultural Economic Association, unaware that the National Association of Food Chains was involved in this matter, honored the contest winners by publishing their pieces in a special issue of the journal which appeared simultaneously with the Food Commission staff reports.

I am not implying that the research of any of the winners had been sponsored by the NAFC. Only the NAFC knows how well its investment paid off. It clearly managed to dilute, even obfuscate the congressionally mandated effort.

However, James Ridgeway in his book, "The Closed Corporation," charges that at least two winners in the contest had their papers

financed by NAFC. Perhaps Mr. Aders, the food chain lobbyist, will enlighten us on the payoff of this investment.

This is not an isolated example. Documents obtained by this committee in the course of this investigation indicated that the NAFC had allocated either $50,000 or $100,000 to sponsor research by selected academicians to disprove the "Mueller hypothesis" that market power and high concentration in food retailing results in higher margins and profits.

I am curious as to whether Mr. Aders is prepared to tell this committee the payoff of this investment in academic research. I must confess upon learning of this I felt as though someone had let out a contract on me.

As I pondered these events early this morning while I was preparing this statement, I turned to the Good Book at my bed and read from the Book of Jeremiah for enlightenment, because in 1969, Business Week, in an article about me, dubbed me the Jeremiah of the merger movement. I found some consolation that my travails were slight compared to those of the great prophet, but I feel some kinship. For it is written that Jeremiah's enemies said, "Come, let us make a plot against Jeremiah, let us smite him with our tongue and not heed his word."

I am not so presumptuous as to pose as Jeremiah fighting the forces of Babylon led by Mr. Aders, and the other food chain hirelings, but I must say I was startled last weekend when two shopping carts mysteriously converged on me as I walked down the aisle of my friendly neighborhood A. & P. [Laughter.]

I sympathize with those who were left confused with the conflicting testimony of last week, because the sheer enormity and repetitiousness of the negative criticisms and personal innuendo appeared to cast a shadow on our study.

I cannot today in a few minutes remove that shadow or the many distortions and misrepresentations and untruths. Nor shall I attempt to counter each of Mr. Ader's statements today since they are merely a repeat of Mr. Hammonds.

Should you have any specific questions, I will attempt to answer them.

We will give you a full written clarification on all the points raised by our critics.

I do, however, wish to reemphasize one point. Not a single question of substance was raised by our critics that was not taken from the concerns we ourselves first raised in the report. This is true of the nature of the sample, the composition of our market basket, and so on. In a real sense, we made it easy for the food chain hirelings to raise criticisms—they just chose to ignore our discussions of those same issues. Whereas all the witnesses echoed questions first raised by us, they ignored our explanations as to why we believed these matters were not responsible for the basic findings of our study.

They did as Pontius Pilate, who asked the question, "What has this man done?" but did not wait for the answer. Just what is it that we have found? Some economic anomaly, some perverse economic law? Certainly not. Our study simply confirmed what many other studies have found: when firms achieve market dominance, they singly or jointly achieve market power; competitive rivalry gives way to implicit or explicit collusive power resulting in noncompetitve profits and prices.

Mr. Hammonds and the other industry witnesses insist there is something unique about food retailing that makes it immune from the laws of economics. They are wrong.

As I said, there have been numerous studies on this subject. The great weight of the evidence clearly supports the expectations of economic teachings that firms which enjoy market power, and hold dominant positions in highly concentrated markets, are able to exercise that power.

Professor Leonard Weiss, the leading scholar on this particular subject, recently reviewed what he called the massive research effort to test the economic prediction that concentrated industries will have higher profit margins. He concluded, "By and large, that relationship holds up for Britain, Canada, and Japan, as well as in the United States. In general, the data have confirmed the relationship predicted by theory."

As Weiss emphasizes, data used in these sorts of studies usually have been of poor quality. Because of this, the statistical observed relationships are often quite weak. I want to emphasize, as someone who has worked in this area for a long time, that again the data used in our report were of a much higher quality than have been available in other studies. And while there admittedly are some deficiencies in these data, the main effect in my opinion is that they tend to result in less robust statistical relationships. They did not invalidate the findings, just as Weiss has said of these other studies which found similar relationships in other industries.

Let me emphasize that it would have been an economic anomaly had we not confirmed the relations we found between market power and higher prices/profits.

Now to Mr. Johnson of the FTC. I, of course, have a great affection for the FTC as an institution and the people who labor in its vineyards.

As Mr. Johnson knows, I was their economic expert for the one recent merger case they brought. However, I feel compelled today to take issue with some of Mr. Johnson's remarks.

First, he seemingly accepts without reservations the conclusion of the industry witnesses that food retailing is highly competitive and will remain so. He is apparently impressed with the fact that average levels of profits are not exorbitant.

Of course, the point of our study is to determine how profits and prices varied from city to city and firm to firm depending on competition. We are not saying that all markets are monopolized and that they have excess prices and profits.

On the contrary, we emphasized that most markets, fortunately, remain quite competitive. But what we are troubled with is the fact that there are a growing number of highly concentrated markets. All one has to do is look at the table in the back of Mr. Hammonds' prepared statement to observe what's happening in the markets where concentration has a four-firm level of 65 percent and above.

So Mr. Johnson's complacency puzzles me. He also said he was here to tell you that the strict merger policy Marion and Mueller called for is still alive and well at the Commission.

Again, I am somewhat surprised to hear this as I observed the Commission's recent behavior. I have seen too many of their patients head-

ing for the morgue to be able to agree that this policy is keeping competition well and alive.

First, as I spelled out in my prepared statement, the Lucky-Mayfair acquisition which was objected to by many small independent supermarket chains in Seattle, was thought to be in violation by Mr. Johnson's predecessor and the FTC's economic staff.

I wonder whether Mr. Johnson agrees with his predecessor's position on that.

He then defends the Allied-Great Scott merger in Detroit on the grounds of a failing company defense. This is a novel and I daresay an even perverse application of this doctrine. Allied Supermarkets, the acquiring firm, is a large $900 million chain operating in many markets. According to Supermarket News, Allied, the acquiring company, was having financial difficulties in its Detroit branch. Thus it was permitted by the FTC to acquire a healthy company, thereby making it the largest factor in its Detroit market with an over-20-percent market share.

Apparently the FTC felt that Allied must not be treated as are small companies in such circumstances; namely, when they have financial difficulties, they shape up or lose the competitive battle.

Mr. Johnson gave a similar rationalization for the A. & P.-National Tea merger. Neither company was failing. Evidently, when large firms get into financial difficulties in some part of their operations, they should be permitted to bail themselves out by acquiring competitors, even though it lessen competition.

As to the Winn-Dixie-Kimbell merger, Johnson says the staff did not challenge it because Winn-Dixie and Kimbell allegedly were not potential competitors. This, it seems to me, is the clearest departure from past FTC merger policy. In the 1960's the FTC found National Tea to have violated section 7 for making a number of similar acquisitions totaling about $250 million. The largest acquisition was $50 million.

On the contrary, Kimbell was a $500 million acquisition, the largest I believe in the history of mergers in food retailing. Obviously the Commission is not enforcing the standards used in National Tea, which was concerned with the cumulative effect of such mergers on national concentration.

Finally, Johnson suggests that the FTC be given access to the Joint Economic Committee data on a confidential basis so that the Bureau of Economics can make an independent investigation. I am pleased he made such a request because I was going to make a somewhat similar suggestion.

I certainly agree with the idea of making these data available to others for independent analysis, but why on a confidential basis and why only to the FTC?

First, the FTC has shown a noted lack of interest in research in this area. But, more importantly, why not make these data available to all researchers?

There is a growing fetish in this town about corporate secrecy. Whereas the Congress has done much in recent years through the Freedom of Information Act to open up Government, there has been a trend in the private sector toward less and less public knowledge about corporations as they become larger and more conglomerated.

The profits data in our study are now over 3 years old. Moreover, most chains know how well their competition is doing in an area. These data are private for these chains only because they happen to be large chains operating in many cities. Were these small companies, as large as one of the divisions of these chains, the data could be derived from the public annual report of the company.

We thus have a double standard in dealing with so-called confidentiality in this country when it comes to corporations. Large corporations, simply because they are large, are permitted to scream confidentiality when any aspect of their operations is made public; whereas this is a normal day occurrence on the part of small companies and apparently without any harm to them.

So, I do not think any harm would be done to chains if these data were made publicly available to other researchers. The price data should, of course, be made public. It never should have been considered confidential in the first place. The data consists of the price checks the chains make of their competitors. Certainly there should be nothing confidential about such information.

Thank you.

Representative LONG. Thank you, Mr. Mueller.

Mr. Johnson, in your critique of the Wisconsin study, you indicate some uncertainty about it because you say other studies apparently reached contrary conclusions.

What other studies are you speaking of? Are you speaking of the study by three men from the Department of Agriculture?

Mr. JOHNSON. There are other studies that have identified with other factors, such as the Department of Agriculture study indicating the importance of such factors as transportation. I know you will hear testimony today, and would agree with it, that transportation alone cannot explain some of these observed relationships either, because Baltimore and Washington have about the same transportation factors and yet their price levels differ.

So, it is clear that transportation cost differences cannot be used to explain away the price/profit-market dominance relationship found by the Wisconsin study.

I had in mind also some of the conclusions of the National Food Marketing Commission in the 1960's. Again, I know you will hear testimony today that just because this study differs from that study conducted 10 years ago doesn't necessarily mean that the new study is wrong. Indeed, economic trends may have changed in the 10-year period.

I will agree that these earlier studies are based on far less comprehensive and discreet data. I think that the whole subject should be thoroughly explored.

Representative LONG. You conclude, then, as most of the other witnesses have—and no one has countered this—that insofar as any studies of which you have knowledge or of the people who have experience in this business, no one and no other study has approached the Wisconsin study in terms of either the data coverage or the scope?

Mr. JOHNSON. Yes; that is correct.

Representative LONG. On the FTC six-city study that you have been undertaking, I gather from reading your prepared statement [1] and from listening to you, Mr. Johnson, that the study was established to test a suspicion that food chains are conspiring to set prices collusively.

Then you go on and say that no such evidence was found. I conclude from that comment that you are about to give up the six-city study in its entirety for lack of that sort of evidence; is that correct?

Mr. JOHNSON. We have reviewed the documentary returns to the subpenas and in terms of evidence of collusion, and by this I mean not necessarily price but various ways in which competitors can collude, the evidence is not promising.

I would not say categorically that we are going to recommend closing of that aspect of the investigation, but I will stand by my statement; it is not promising.

Representative LONG. I went back and looked at the Federal Trade Commission press release that was put out at the time the study was commenced. Your statement here directly contradicts the public position of your agency. The press statement says essentially nothing about conspiracy or collusive setting of prices. Are you incorrect or has the FTC misled us for 3 years?

The FTC investigation was intended, as I read the press release, as a study similar to the Mueller-Marion study. I want that release from 1974 inserted here in the hearing record.

[The press release follows:]

FEDERAL TRADE COMMISSION NEWS, JULY 1, 1974

FTC ANNOUNCES INVESTIGATION OF RETAIL FOOD PRICES

The Federal Trade Commission today announced that it is conducting an industrywide investigation into retail food prices. The investigation will examine the relationships between market structure and concentration levels, on one hand, and the amount of price competition and level of retail food prices, on the other.

This investigation is part of the Commission's broad program involving competition in the food industry. It will focus initially on a limited number of cities: Atlanta, Denver, Detroit, Jersey City, Little Rock and Washington, D.C.

In its resolution directing the investigation and authorizing use of compulsory process, the Commission said its purpose is "To investigate the status and condition throughout the United States and in the various parts thereof of competition in the retail food store industry, including the degree of concentration in ownership or operation of grocery stores; the relationship between the levels of concentration and retail food prices; and the existence of any and all anticompetitive pricing practices, which may involve any violation of Section 5 of the Federal Trade Commission Act . . ., Section 7 of the Clayton Act . . ., or any other statute administered by the Commission."

Pursuant to Commission policy the investigation will be nonpublic.

The Commission is making this announcement pursuant to the recent decision to make the existence of industrywide investigations public. The Commission takes no position as to whether violations of law exist.

Representative LONG. Now, I gather from you, if the press release was correct, that the FTC has changed the purpose of the study?

Mr. JOHNSON. No; I don't think that is true. I listened to Mr. Scanlon's statement in that regard with interest. I think it might be inter-

[1] Mr. Johnson requested that his prepared statement not appear in the committee hearing record.

esting indeed if the committee did have access to the underlying memorandums at the time the study was conceived.

Representative LONG. I believe the days are long gone when Congress will accept that sort of statement, Mr. Johnson.

Mr. JOHNSON. It is perfectly obvious from the authorizing resolution that the intent was to investigate for violations of the antitrust laws of any kind. The staff clearly understood from the outset that they would be looking for illegal conduct, which to an antitrust lawyer translates into collusion and other such forms of anticompetitive conduct.

I will admit that in many respects the investigation has had a schizophrenic form, because at the same time there was the economic ingredient. There definitely was interest in exploring, as the Mueller-Marion study has done, the possible correlation between price and concentration.

So that was an aspect, but it was a limited aspect by virtue of the fact that the study would concentrate on only six cities.

Representative LONG. First, you said today that the study has "an enforcement objective." Now, you say it had both that and an "economic ingredient." Let's pursue this further. I direct your attention to the first sentence of the official statement of the Federal Trade Commission announcement. Your emphasis here is directly—I say directly—contradicted by this official FTC document. I suspect the wording of the letter written by the Joint Economic Committee to Messrs. Marion and Mueller is nearly the same as this release.

The statement says, "The FTC today announces it is conducting an industrywide investigation into retail food prices. The investigation will examine the relationship between market structure and concentration levels."

Mr. JOHNSON. That is correct. I would say that the investigation was conducted, really, in two parts and that the two parts got separated.

The first part was the documentary subpena and the investigatory hearings by the food chains. This was definitely a collusion investigation. At the same time, we anticipated the issuance of a questionnaire, what we call a 6(b) report, that would have been directed to the obtaining of a tremendous amount of statistical data on prices, concentration data, of course, would also be collected, but that is not that difficult to gather.

The 6(b) report issued in 1975, but was immediately the subject of motions to quash by 15 of the 25 recipient companies. In the end that 6(b) report has not been issued, and one reason that it has not been issued is that while that effort was frustrated by the food chains—which would have involved the gathering of the price and profit information you need to make the correlations that you refer to—at the same time the other part of the investigation, the subpena returns and the investigational hearings of the company officials, was occurring.

Quite frankly, as I have indicated, the enforcement aspect that we were concentrating on and the subpena returns and hearings has not been promising. Therefore, to some extent, at least from an enforcement point of view, this mooted the necessity of going out and collecting the price and profit data.

Now, it could be done. It could be done if you were going to conduct a Mueller-Marion type study.

Representative LONG. But, your agency's press release said that was exactly what it was going to do—in 1974. Now, you tell us because the food chains refused to honor the subpenas that the FTC reoriented this study, and then shut it down. The staff has given me a copy of the hearings at which your predecessor was speaking of this exact same thing. I have not gone back to review the wording of the instructions, or agreement, by which the committee requested Mr. Marion and Mr. Mueller to conduct the study. Your predecessor said the principal focus of the six-city study was to determine the degree of concentration in grocery store ownership, and the relationship between levels of concentration and retail food prices in various areas of the Nation.

Again, it seems that you have gone off on a tangent and really not looked at what, basically your agency said you were going to do.

Mr. JOHNSON. Congressman Long, I just simply cannot agree, and I do invite the committee to look at the underlying memorandums. I don't know how else anticompetitive conduct, illegal conduct, translates to an antitrust lawyer other than the subjects inquired into during those hearings.

Representative LONG. You have indicated, as I think nearly everyone has, that you would really like to see more statistics on this whole thing. That raises a question in my mind as to why you just decided on six cities, but we will let that go.

It seems to me that in your six-city study you have a vehicle by which you could have pursued this—and you still can. If you expand your six-city study to include, perhaps, 50 cities, and subpena all the price and profit data that you need to conduct a detailed, thorough, and complete industry investigation in this matter.

Mr. JOHNSON. Congressman Long, at that point, you are out of my province. That would be a task for our bureau of economics, and, of course, the Commission's concurrence in such a resource commitment.

What they would like to do is what I have indicated in my testimony; namely, obtain access to the data that Mueller and Marion had and critique it.

Representative LONG. We will take that matter up and go directly to the Commission.

Mr. Mueller, during the period in which you were conducting this study, the United States was undergoing some of the highest inflation that it has undergone in the lifetime of most of us in this room.

I think that retail food prices played a very major part in that inflation.

Do you think that the noncompetitive prices found in your study were a significant factor in the inflation that occurred at that time? And, is that really a classic example, or is it an example of cost-push inflation which we hear so much talk about today?

Mr. MUELLER. I believe them to be separate factors. That was not the purpose of our study and we have not said nor do I believe that the reason for the general increase in prices in the food industry during that period was caused by the possession of market power, because the inflation occurred in both competitive and noncompetitive markets.

As far as our study was concerned, it was mainly a disrupting influence. Most studies that have been done in other industries have found that during such periods the statistical relationships become confused or clouded by this sort of extraneous factor.

Representative LONG. Thank you.

Congresswoman Heckler.

Representative HECKLER. Mr. Johnson, in your prepared statement you talk about the competence of some of the witnesses. You quote the statement by Mr. Hammonds who concluded, "By every able measure food retailing is a highly competitive industry and the consumers receive the benefits of the competition."

Does that mean you are accepting the judgment of the spokesman for the Food Marketing Institute?

Mr. JOHNSON. It certainly does not mean that. I am delighted you asked that question because I want to take up the similar question Congressman Long raised earlier which indicated that I subscribed to the criticism of the study.

I don't mean that at all. All I wanted to indicate here is that we do seem to have a difference of opinion. We have two witnesses whose credentials I can't criticize—their statements seem very expert—and they say it's very competitive, and we have other witnesses who say it is not.

I am merely pointing out that we have a dispute here.

Representative HECKLER. It seems strange to me that you would extrapolate that particular statement—that food retailing is very competitive—which is in fact, the question that the study addresses. That statement at the very least is somewhat in doubt as a result of the study. For you to validate the statement made by the industry while in your position strikes me as strange.

It seems on your part that you are prejudging the study.

Mr. JOHNSON. No; I did not intend that at all. I am merely pointing out that we do have these industry criticisms and totally opposing conclusions. I don't subscribe to those views any more than I would subscribe to Mr. Mueller's conclusions at this time until we have had a thorough look of the underlying data.

Representative HECKLER. May I ask why is it that the bureau of economics did not evaluate this study?

Mr. JOHNSON. We, in fact, did send a letter to this committee several months ago asking to have an advance copy of the report and access to the data. Only recently have we received the report, and we understand that the committee will by a full vote have to determine whether or not we can have access to the data.

That is exactly my point in making that offer; we would like to be able to evaluate the study.

Representative HECKLER. It is your request of the committee from the FTC that this data be made available to you for further evaluation?

Mr. JOHNSON. Yes.

Representative HECKLER. In your prepared statement you refer to the principal method employed in the six-city investigation which have been the subpena for documents.

Several major chains resisted responding to these subpenas, necessitating court enforcement.

Could you elaborate on that? How many chains resisted responding to the subpenas? How many times did the FTC have to go to court for subpenas enforcement in order to acquire the information needed?

Mr. JOHNSON. That has been the subject of testimony at the hearings that Congressman Long referred to earlier, the Select Committee on Nutrition and Human Needs. The statistics are set out there in the testimony of my immediate predecessor on pages 169 and 170.

The subpenas were issued against 25 firms, 19 of the firms indicated that they would cooperate as a consequence. After the Commission denied the industry motions to quash these subpenas, two other firms indicated they would provide the requested information.

That left four remaining recalcitrants who are, incidentally, very large firms, Giant, Safeway, Lucky Stores, and Winn-Dixie.

So we brought enforcement actions against them in September of 1975. We did succeed in the district court in December of 1975, and shortly thereafter the four companies did comply.

Representative HECKLER. What court was this, the district court in Washington, D.C.?

Mr. JOHNSON. Yes.

Representative HECKLER. The study suggests that corporate growth, which, of course, is not confined to the foods retailing industry, and I don't consider corporate growth per se to be bad by any means, nonetheless, it has appeared on the American market scene and I wondered—in terms of your Bureau of Competition monitoring of corporate growth—what is your assessment of corporate growth in terms of grocery stores or the financial impact of corporate growth on consumers?

What is the FTC analysis of this, if any?

Mr. JOHNSON. In my prepared statement I noted the projection by the food chain study that chain store growth, in terms of overall concentration, will level off or decline, but that at the same time the chains will tend to concentrate into the geographic areas that are closest to their distribution points.

I haven't any statistical data on this, but it is my observation, just looking at the transactions that we are seeing now in the food retailing area, that those predictions are coming true. Many of these transactions in fact that have been the subject of criticism here today, where you get a National Tea pulling out of Chicago or a Great Scott, or a Kroger; these do seem to represent market retrenchment by some of the chains. They are pulling back into the cities where they are strongest. So, concentration nationwide by the chains may not be going up any more. Indeed, as I indicated. last year it was constant and the study predicts it will go down. That may be the national trend; but I think in particular urban markets the trend may still be toward increased concentration.

Representative HECKLER. What do you think has been the consequence of the consent decree? What effects have they had?

Mr. JOHNSON. I would imagine they have had a very strong deterrent effect on market concentration. Chains have been obligated

to come to the Federal Trade Commission in advance and seek our expressed approval before they can make acquisitions. I have no doubt about this deterrent effect from looking at the downward trend in merger activity of the 20 largest chains; there is a casual relationship there. Of course, these consent decrees are now expiring.

Representative HECKLER. Nonetheless the share of the market has increased over the last——

Mr. JOHNSON. Up until last year, overall.

Representative HECKLER. Right. Do you feel at this point then that the six-city study would have no validity unless it is expanded to cover at a minimum the scope of this particular committee report?

Mr. JOHNSON. I do feel, because of its obviously broader data base, that as an economic study, the Wisconsin study would be much more reliable. I am confident our Bureau of Economics would concur in that assessment. Six cities alone would never have been a statistically reliable basis for drawing legislative conclusions as to the concentration in food retailing.

Representative HECKLER. What assurance is there that the FTC will pursue the issues raised by this study with any more vigor than they have the six-city study, which seems to have been submerged from public view after its very promising start in terms of its press release?

Mr. JOHNSON. The major policy implication that I find in Mr. Mueller's testimony, certainly, and in the testimony here this morning, has been the criticism of our merger enforcement, and I frankly am very irritated by that.

I think if there is one thing that the Federal Trade Commission has been preeminent in, one field in antitrust, it has been merger enforcement.

We were outstanding in that area in the 1960's, and I think we are doing an equally good job in the 1970's. I am prepared to defend every one of those transactions.

Representative HECKLER. It seems to me our committee report did not use the word "collusion." As I recall, very little time, if any, was spent on the question of parallel pricing. What is your judgment on the effect of parallel pricing, how it comes about, how it is that such a high percentage of items in a supermarket can be identically priced with the items in the neighboring supermarket across the street?

Mr. JOHNSON. We look at this, not just in the six cities study, but periodically we examine a market, whether concentrated or unconcentrated, to check out these pricing trends. For one thing, you can check them out through the food ads in the daily newspapers, and you see periods where prices do seem to be the same.

I don't know that you could draw the conclusion, just looking at that data, that there is necessarily collusion. It might be an indication of very healthy competition; the chain that would be inclined to charge more is dropping its price to meet its competitor.

Let me say this: Congressman Long asked earlier about the views of my predecessor and what was in our minds when we started the six-city survey. He referred to the McGovern committee testimony,

and, having answered your earlier question, I see exactly what I wanted to note here. This was at page 170 of that transcript, where my predecessor indicated that the companies had been advised that the Bureau of Competition was concerned with, among other things, possible conspiracies and combinations in the procuring and selling of food products to the consumer, predatory pricing directed against small retailers and food discounters, market divisions and allocations, mergers, and other possible illegal integration and implementation of barriers to new competition.

This is exactly the type of illegal conduct which I indicated we had in mind from the outset of that investigation.

Representative HECKLER. Mr. Johnson, if the committee voted to supply the data to the Economics Bureau at the FTC, what would be a reasonable time in which to expect them to respond or to comment on the information they have received?

Mr. JOHNSON. I really should defer to Mr. Folsom from our Bureau of Economics.

Mr. FOLSOM. The major factor would be the amount of additional information which we had to request from the chains and the extent to which they cooperated with us in this endeavor.

If the chains chose to fight any 6(b) request or subpena that requested additional information, as this committee is aware from its own experience, it could be a substantial period of time before we could obtain the information.

I would suggest that within 8 months or so after obtaining the information, we could complete the study. I am assuming that we would assign a couple of people to it in order to do that.

I am also assuming that Mr. Mueller would be willing to furnish us his voluminous computer tapes, if he has material on tape to expedite the work. I think it took roughly 2 years for Mr. Mueller to complete their study.

Representative HECKLER. Mr. Johnson, as you heard earlier, has requested that the JEC supply the FTC with the data we have and allow the FTC and especially the Bureau of Economics to do its own independent evaluation, thereby expanding the six-city study.

What would your opinion be? Would you endorse an effort by the JEC to call on the FTC to do this evaluation and expand the six-city study?

Mr. FOLSOM. I really look upon those as two different things. I urge this committee, as Mr. Johnson does, to obtain the underlying memorandums which recommended to the Commission the six-city investigation. I believe the Bureau of Economics stands tainted as long as there is the implication that we believe that the six cities were adequate to perform an economic study and reach general statistical conclusions of any validity about the relationship between concentration, entry barriers, et cetera, and market performance.

So, I really am not thinking of the analysis of the data as an expansion of the six-city investigation. I do not believe that the data we were able to acquire for the six-city investigation would add much, if anything, to the data which has already been collected by this committee, particularly since several of the larger chains still

have not responded to our 6(b) request and we would basically go through the same routine that the committee has gone through in collecting that data.

I must admit as an economist my mouth waters somewhat at the idea of having access to the type of data to which Mr. Mueller and his team had access in performing their analysis.

Representative HECKLER. Thank you.

Representative LONG. Thank you.

Congressman Brown.

Representative BROWN of Ohio. Thank you.

Mr. Johnson, I may have to leave you abruptly because of legislation on the floor of the House, which I will have to handle.

First, I would like to make an observation. Obviously, food along with clothing and shelter are the major items of expenditure for everybody in our society, particularly those people with lower incomes. There is a need for us to be concerned about it as a political matter as well as an economic matter.

I have the feeling that it's because it's a major portion of the average budget and because it has experienced rather sharp inflation over the last few years—in particular, the period of time covered by data used in the Mueller-Marion study—that we are looking for somebody that we can pillory with reference to the whole problem of that rather significant increase in food prices after years and years of food costs to the average citizen going down as a portion of their total budget.

Now, I would like to ask some direct questions with reference in your judgment as a member of the Federal Trade Commission about the food marketing industry. If you were looking at the degree of current concentration in the food retailing area—nationally, regionally, locally—as compared to other industries in our society, would you say that it is a highly concentrated industry, highly monopolistic industry?

There is no industry that is directly analogous to food marketing, but let's say steel, autos, communications, soft goods retailing, lumber, and oil. Do you have any list at the Federal Trade Commission to indicate the monopoly tests of the food marketing industry?

Mr. JOHNSON. Congressman Brown, let me say preliminarily that I concur in your assessment of our targeted areas. In our enforcement programs right now, we definitely look for consumer impact industries, industries whose products constitute a large share of the consumers' budget and which do seem to be exhibiting inflationary tendencies.

It is not coincidental that we have major programs in energy and food and health care. When you take a look at the food area in particular, I think your comment is again well taken—we do have to look there for logical targets for enforcement, though not companies to pillorize.

Some interesting correlations can be made. I refer in my prepared statement here this morning to the fact that profits in food manufacturing are considerably higher at the present time than profits in food retailing.

So I think many of these economic factors have to be weighed.

Representative BROWN of Ohio. But profits in manufacturing are generally higher than those in retailing, whether it's foods, soft goods, or anything else; isn't that true?

Mr. JOHNSON. That is probably true; yes.

Representative BROWN of Ohio. So my question is, considering just retailing areas, is food marketing a highly concentrated industry or is it not a highly concentrated industry?

Mr. JOHNSON. It is difficult to make a comparison with, say, steel or autos, because on a nationwide basis the answer is fairly apparent—food wouldn't be as concentrated. But, as all the witnesses here have indicated, the correct frame of reference is the local market, the metropolitan market, and there, as Mr. Mueller has indicated, the concentration figures are all over the map.

They range from some metropolitan areas where there clearly is not a high degree of concentration, to Washington, D.C., where food retailing is one of the most highly concentrated markets for any product anywhere.

So, if you recognize that the local market is the relevant market for food retailing. I guess the answer is yes and no, some food markets like Washington, D.C., are more concentrated than the industries you have listed, and some are less.

Representative BROWN of Ohio. There is a wide variety of patterns, compared to some other industries, some more concentrated, and some other industries less concentrated?

Mr. JOHNSON. Yes.

Representative BROWN of Ohio. I am trying to get at your target for study. You have already indicated the total proportion of the consumer's bill, the cost-price index are a part of your consideration.

Let's look at a couple of other things. What about barriers to entry? Do you have any studies that indicate the existence of barriers to entry in the food market industry being higher, or more difficult to overcome than the barriers to entry in other industries?

Mr. JOHNSON. We study barriers to entry whenever we analyze a merger for possible enforcement. I know this committee has received testimony from industry witnesses that barriers are not high in food retailing. That is rebutted and contested in the Mueller-Marion study.

I think it is an area open to debate, but we do look at that.

Representative BROWN of Ohio. Are they higher or lower than in the food processing industries, the manufacturing industry?

Mr. JOHNSON. Generally speaking, in most area markets I would think the barriers would be lower in food retailing than in food manufacturing.

Representative BROWN of Ohio. Let me ask you about a couple of other areas, about kinds of concentration and the kinds of things I would think the FTC should look at.

What about profits?

Mr. JOHNSON. Certainly.

Representative BROWN of Ohio. What do you mean, certainly? How do profits relate to other industries?

Mr. JOHNSON. The only comparison I have made in my prepared statement was to food manufacturers. We do periodically make studies.

Our Bureau of Economics comes out with quarterly statistics in many industries. Perhaps I could defer to Mr. Folsom on that.

Mr. FOLSOM. Food retailing has been less profitable than food manufacturing, which has been less profitable than all manufacturing for the last several years. I am not certain that one should draw generalizations from those isolated statistics because food retailing is a quite different activity from food manufacturing.

Representative BROWN of Ohio. What about other areas of retailing?

Mr. FOLSOM. I am not really familiar with other areas of retailing. We do put out statistics on retailing in general.

Representative BROWN of Ohio. Could you look at the statistical information available from the FTC and give use some answers in the areas I have asked questions about?

One is the nature of competition in the industry. Is it less static or more static that in other industries?

Mr. JOHNSON. There has been a fair amount of dynamism. I have read the testimony of the Food Marketing Institute on the first day of hearings where they have what they refer to as churning.

Certain of the major chains have been withdrawing or changing their relative positions in particular markets, so there is that indication of competition in food retailing.

Representative BROWN of Ohio. My time is going rapidly and I want you to include whatever information you can send us with reference to this industry and its relationship to other industries, anything else which you consider to be typical of evidence of either monopoly, concentration, or the other things that are considered no no's by the Federal Trade Commission in the industrial picture.

Is the cooperation with the Federal Trade Commission providing data from the food marketing industry better or worse than the cooperation you have received in other areas of the private sector where you try to get information?

I gather nobody cooperates too much.

Mr. JOHNSON. That is what I was going to say.

Representative BROWN of Ohio. Nobody rushes in and says, here is some evidence you might want to use against us?

Mr. JOHNSON. We have very few instances of that. It is hard to generalize. The petroleum industry fights Commission requests for documents about as automatically as do food chains.

Representative BROWN of Ohio. Have the food companies been cooperative?

Mr. JOHNSON. Not particularly. Regarding subpenas in this particular industry I gave the statistics earlier. Six out of twenty-five resisted the original subpenas. We ultimately had to go to court against four.

Representative BROWN of Ohio. What would be the average in other industries when you use subpenas? I wonder if you could look that up and tell us how many subpenas you have used in the various industries over the last few years?

Does anybody keep a record of that in the Federal Trade Commission?

Mr. JOHNSON. We would have data on the number of motions to quash subpenas that are filed with the Commission. Such a study could be done.

Representative BROWN of Ohio. If you don't have the information I don't want to put you to the additional test of making a separate study. But if you have the information readily available, it might be helpful to this committee.

Finally, an economic question: What kind of companies would normally handle a very high rate of inflation with the most ease?

Would you assume that large companies or market leaders would handle a high rate of inflation most easily or would it be the small competitors in a field?

Mr. JOHNSON. Congressman Brown, you are really outside my area of expertise. I am simply conjecturing, it really depends upon the market forces.

Representative BROWN of Ohio. What concerns me about this study by Mueller and Marion is that it was made at a peculiar time in the history of food retail prices, and that was when those prices were going up very rapidly. It occurred to me that, as a small businessman in the newspaper field, when prices in my industry go up, it's the major operators, the big people, who handle inflation most easily. They can absorb the expansion in inventory costs, for instance, which a little company frequently cannot. They can handle changes in market practices such as increased credit requirements or changing sales patterns, for instance. I am a little concerned about a study—and I am really not sure what it means, or what it infers about the Wisconsin study—made during a time of the sharpest inflation we have ever had historically, with the possible exception of 1921, I suppose. And when you use that period as the base for your study, you may be getting some very peculiar movements within a market situation. I gather you feel that you are not prepared to comment on that?

Mr. JOHNSON. That is not within my competence.

Representative BROWN of Ohio. Thank you, very much.

Representative HECKLER. Senator Javits.

Senator JAVITS. Thank you, very much, Congresswoman Heckler.

I have read with great interest about the study and the controversy with respect to the study. I believe controversy is healthy, but I prefer to be oriented with it before I ask any questions.

Representative HECKLER. Thank you very much, gentlemen.

I would like to call now Mr. Robert Aders, president of the Food Marketing Institute, and Mr. Mark Silbergeld, acting director of the Consumers Union.

Since it seems apparent that the members of the committee will have to go to the floor for a vote, I will request of the two witnesses that you summarize your prepared statements, if you can, in 10 minutes. We invite you to submit your prepared statements for the record.

Mr. Aders, would you please proceed.

STATEMENT OF ROBERT O. ADERS, PRESIDENT, FOOD MARKETING INSTITUTE

Mr. ADERS. Thank you, Congresswoman Heckler.

I am pleased with the opportunity to appear before you and this committee today as a representative of American food retailers and wholesalers.

I concur with Mr. Hammonds' statement last week that the report is without merit. It represents an unwarranted attack on a responsible sector of the American economy and does not deserve your further consideration.

I have spent most of my adult life working in the grocery business, and from my experience I can say that the conclusions reached in this report are specious and misleading. I say that it is irresponsible to suggest that grocers could overcharge their customers by more than total industry profits, and to say there is no competition in the grocery business is like saying there is no politics in Washington.

In my experience in the grocery business, I can assure you that economic theories have absolutely nothing to do with the price a grocer puts on his merchandise. I am not a professional economist. You have heard from a group of them, and I would not dare to extend what they have said.

I am concerned about the implications of earlier testimony that for some reason the testimony of some economists may be tainted because it is paid for. I admit that Tim Hammonds is paid and well paid, but I do not admit that affects his professional competency or his honesty in any way. I also think we should comment about Mr. Goldberg. There has been much confusion about who he is here on behalf of. My research indicates that he was hired or asked to serve by the committee in 1974 or 1975, and I was surprised by the assertion that he was a food industry witness.

Representative LONG. If the gentleman will yield, regarding the status of Mr. Goldberg: Representatives of your industry requested, in the presence of six members of the committee and staff, that Mr. Goldberg, a noneconomist, testify here before this committee. As I said in the course of my remarks, "At the request of the industry, Mr. Goldberg was invited." I think if you will check the record, Mr. Aders, you will find that is the case.

Mr. ADERS. Thank you. I did not want the record to show the implication that he was on our staff, which was not the case.

I would like to speak to some of the subjects treated by the report.

My observation from living with the industry, from being in it for years, is that it is one of the most competitive industries that I am aware of. The dynamics of the industry are illustrated by the ability of new forms of competition and growth. Convenience stores. for example, increased their share of sales by 16.5 percent in 1975. The independents continue to grow faster than the chains, and the larger firms tend to remain stable or to reduce in market share.

A study by the USDA over a period of 10 years from 1963 to 1972 shows that the market share of independents was up about 8.5 percent, local or regional chains by only 3 percent, and top 20 chains down 20 percent.

Now it has been argued before this committee that much of the data is distorted by the so-called abnormal profit results of A. & P. I submit to you that there is always some sort of change going on in this business. There are always competitors growing and receding, becoming successful and failing, and the typical competitive problems that come

into this industry should not be thrown out as if they were aberrations. They are not.

The report implies that food retailers enjoy some kind of a shared monopoly. I might say that the test that the economists tend to use seems to have a way of fitting the data you have been listening to.

The four classic tests of competitiveness that I have been told are applied, and we have heard some of them today: First, ease of entry; second, the upward mobility of competitors, the ability of competitors to grow within a competitive framework; third, whether or not the industry has normal or abnormal profits; and fourth, the products and services are essentially similar and the consumers have a freedom of choice. These are tests that can be put to the industry, and I think the industry shows its competitiveness by these tests.

For example, there is a striking illustration on the ease of entry point contained in Chain Store Age in 1972 which listed 300 firms that were unknown in 1962, 10 years earlier. This means that nearly 25 percent of all firms operating four or more stores in 1972 were newcomers.

Second, upward mobility. The No. 10 chain in this country wasn't even among the top 50 chains 20 years ago. There are several growth stories in this industry that are just fantastic. There is also what you have all heard referred to as the churning of market shares. I guess the ultimate demonstration of this is that in 17 of the 20 largest markets, different firms held the top four positions in 1972 than they did in 1967, only 5 years.

A good example of market turbulence is that National Tea Co. None of us takes pleasure in the failure or lack of success of individual companies, but I feel it is necessary for me to point that out here for the record. That firm, National Tea was used by Professor Mueller when he was director of the Bureau of Economics at the Federal Trade Commission in 1965 as proof as to how a company with an entrenched market position can maintain a high profit level.

He pointed to National Tea's position in Chicago, Detroit, and Denver as supporting this contention. Today, a little more than 10 years later, National Tea is not even present in any of these markets, except as a merged partner.

Third, let's test the profits of the industry. Historically they are less than 1 percent of sales, the return on equity according to the latest Forbes magazine ranks us 27 out of a class of 30. Certainly numbers like this show no evidence of profiteering and, in fact, the profitability of the industry is relatively low.

The fourth characteristic of competition, the ability of consumers to change loyalty on the basis of price and service, is easily demonstrated by this business. We are fully aware of how the customers watch prices. I understand that economists cite price advertising as one of the most useful sources of information to consumers and a major characteristic of a competitive industry.

All of us who read the newspapers don't need to be told the nature of price competition in those weekly newspaper ads. Food shoppers can see that competition very clearly.

The competitive climate is so intense that food retailers fear the loss of customers if there are even minor variations from the lowest price charged for key items in a market area.

Further on competition, the press gets into this, too, I quote from the Wall Street Journal July 1976, under a headline, "Consumers Get a Break. The article stated:

> Some of the tougest but most reluctant lawyers around these days are doing battle in the Nation's supermarkets. Dozens of price-cutting wars have broken out in the past year or so.

The article goes on to say:

> Price wars have ravaged the industry just when it seemed to be emerging from an era of depressed profit margins.

That is just one of many press reports of that kind. The public sees it in the press every day. The Wall Street bankers and security analysts are worried about it. They tell our retailers who have difficulty securing capital for new technology, for improvements, that they are too competitive.

Bankruptcies, price wars, the opinions of security analysts, all evidence to me that food retailing is, indeed, intensely competitive.

Now with your permission, I would like to insert into the record a number of items which I think will be of interest to you, some comparative performance data comparing this industry and the national economy.

The first item is that the percentage of disposable income Americans spend for food, especially food purchased in retail stores for use at home, has declined steadily since 1930. It is now resting at about 13 percent of disposable income.

The second goes to a question often raised in this business: What about the farmers' share of the retail dollar? It is about 40 percent, and it has remained at about that level for the last 50 years.

The third item compares food expenditures per person with government expenditures per person. This is an interesting statistic because it shows on a relative basis what has happened to this Nation's allocation of resources. In 1950 we spent $4 for government for every $3 for food. Today, it is triple.

In your request for me to appear before this committee, you asked that I comment on the implications which this report might hold for public policy, especially the policy of the Federal Trade Commission. We reject the conclusions of the report. We expect it will have no implications for public policy or no public policy based on the documents which could serve the public interest.

I would like to take the remainder of the time allocated to me to turn to a positive setting and address what I think may be one of the key issues that this committee was getting at when the hearings were convened, what the consumers, the food industry and you must be very interested in and that is what can we do to improve the efficiency of food production and distribution?

The consumers of this country have every right to be concerned and so do we in the business and so do you. As the purchasing agent for the consumer, we work daily to stay in business. As business managers we only survive by serving the customer in a competitive and efficient manner. They feel, the consumers, as you must feel, that any artificial or extra costs in the food system should be eliminated, whatever the source.

We in the food business are always concerned about waste. If we are going to continue to pay our employees, remain competitive, and

even stay in business, there is no room for waste. We are concerned about everything done in this country that increases the cost of the food we sell and the efficiency with which we are able to perform.

We all know the cost of food is a function of supply and demand. On the supply side, agricultural policy, weather, shortages, worldwide demand, import-export policy, and many other factors come to bear. Demand is affected by disposable income, import-export policy, Government purchasing patterns, consumer attitudes, and many other factors.

We feel that Government activities that bear upon any of these components need the input of consumers and they need the input of food retailers.

Let me cite two examples of productivity opportunities that now are available to us: One is in the area of backhauls where empty trucks go along the highway returning from a store delivery, hauling nothing but air. This is the result of regulations or interpretations of regulations of the ICC and the FTC.

Second, technological improvements; an example, the automated cash register system. It is threatened by various legislative proposals that would substantially reduce cost savings or even add costs.

We need a national policy to encourage interindustry approaches to solving these and other kinds of total systems productivity problems. We have the work of the Productivity Commission Council on Wage and the Price Stability Commission. We think they should have additional congressional support.

We support any research designed to improve total systems productivity. We are concerned about energy availability. We think it is of vital interest to the consumer that the food system be kept open and enough energy be provided to the farmer and distributor to assure a continuing supply of food at reasonable prices.

I hope these comments have been of assistance to the committee. I am proud of the industry that I have just come to serve. I am proud of its desire to improve.

We are anxious to work with you or any other group that shares our concern for improving the system, a food system that I think is the finest in the world, because it is governed from start to finish by stiff competition.

Congresswoman Heckler. I had asked Congressman Long whether we could extend the remarks of Mr. Hammonds. And I now submit those remarks for the appendix to the hearing record and describe briefly what Mr. Hammonds has said.

With your permission I would like to do that.

Representative HECKLER. So granted.

Mr. ADERS. Mr. Hammonds, in response to a question last week, did more homework in one respect. You said it was obviously easier to criticize Mueller-Marion than to produce one and he said, yes, that is correct, and he attempted to find some data that might be of use to the committee on a comparative basis. He has prepared a table which shows the concentration ratios taken from the grocery distribution guide, and then a Bureau of Labor Statistics publication, "Urban Family Budgets and Comparative Indexes." Based upon those budgets he tried to compare concentration ratios and family expenditures for food.

The table shows that New York, the highest food cost city, and Dallas as the lowest cost city, had a 74 concentration ratio, almost double that of the highest cost, and so on through the report.

Consider, if you will, Boston and Washington, both of them roughly comparable in food costs, food costs in Washington no higher than Boston, even though the concentration ratio here is almost double.

The conclusion he reaches is: There is no relationship or negative relationship with this group of data.

Representative HECKLER. Of course, it was precisely because of the marked inadequacy of this sort of data used by Mr. Hammonds that necessitated the Wisconsin analysis. You can hardly expect the committee to give any credence to a paper pieced together in the fashion you've described. You are seeking to make conclusions which are completely without foundation in the data you used.

Mr. ADERS. Mr. Hammonds, in conclusion, has submitted to you a report which I would like to be made a part of the appendix to the hearing record as well. It is a critique of the Wisconsin study by Daniel I. Padberg of the Economics Department at the University of Illinois.

Mr. Padberg was retained by us to do this critique after last week's session. We retained him, because he was author of the Food Marketing Commission study on prices and concentration for which he won the 1975 American Agricultural Economic Association Annual Quality of Research Award. He is extremely familiar with the literature and his comments are very brief:

> Despite the importance of the questions and the presentation of interesting data and some clever methodology, I judge the study to have some fundamental errors in analysis as well as a brash and premature rush to conclusions and recommendations. The study has a tendency to assume market structure alone determines profits and prices. Models of analysis which exclude important determining variables produce biased results and invite erroneous inferences and conclusions.

Finally he said:

> I think that monopoly overcharge is a complete hoax. I noticed it was reported in my local newspaper and that is its main purpose. I can't imagine an economist taking it very seriously.

Representative HECKLER. I would like to have that whole statement inserted in the appendix to the hearing record.

Mr. ADERS. Thank you. That concludes my prepared remarks.

Representative HECKLER. Thank you.

[The prepared statement of Mr. Aders follows:]

PREPARED STATEMENT OF ROBERT O. ADERS

Thank you, Mr. Chairman. I am pleased at this opportunity to appear before you and this Committee today as a representative of America's food retailers and wholesalers, and to speak also for the two million people we employ and on behalf of the over 200 million consumers we serve.

You have asked that I comment on the study prepared for the use of this Committee by the Food Systems Research Group—a part of the North Central Regional Research Project on the Organizations and Control of the U.S. Food System. Mr. Chairman, Committee members, I concur with Mr. Hammonds' statement made during his testimony last week—that the Research Group Report is without merit, represents an unwarranted attack on a responsible sector of the American economy, and does not deserve your further consideration.

I have spent most of my adult life working in the grocery business. From my experience, I say that the conclusions reached in this report are specious and

misleading. It's irresponsible to suggest that grocers could overcharge their customers by more than total industry profits. And to say there's no competition in the grocery business is like saying there's no politics in Washington.

From my experience in the grocery business, I understand the competitive pressure cooker retailers face every working day. I can assure you that four firm concentration ratios or relative firm-market share, whatever they are, have absolutely nothing to do with the price a grocer puts on his merchandise.

I am not a professional economist. The study under consideration by this Committee is an economists' report. Last week, this Committee heard from a group of distinguished economists as to their opinions on that report. Mr. Timothy Hammonds of our staff, Mr. Ray Goldberg of Harvard, Mr. Thomas Sporleder of Texas A & M and Mr. Kenneth Farrell of the U.S. Department of Agriculture, are all economists with the expertise necessary to help this Committee evaluate the usefulness of this report.

I can add little to the criticism of these respected economists:

Mr. Goldberg raised serious questions about the report. His charge that the authors have jumped to conclusions with insufficient and/or unrelated data is a serious indictment.

Likewise, Mr. Farrell's testimony revealed that the conclusions reached can not be supported by the data analyzed by the authors.

The report's numerous and glaring flaws and omissions of available, relevant material were pointed out in detail by Mr. Hammonds, and he was supported by Mr. Sporleder.

Contrary to what this report attempts to portray, food retailing is widely recognized as one of the most competitive industries in the nation.

From the national standpoint, food chains (classified by government as firms operating eleven or more stores) represent less than 50 percent of total U.S. food store sales; independent retailers including those affiliated with cooperative and voluntary groups account for more than half of food retail industry volume. Independents, particularly those affiliated with voluntaries and co-ops, are the fastest growing segment of food retailing, reflecting largely the dramatic and constant growth of small 4–10 store operators. The dynamics of the industry are further illustrated by the success of new forms of competitive rivalry such as convenience stores, whose sales increased more than 16.5 percent in 1975. For independent stores, the increase was 9.4 percent and for chains, 9.0 percent. The national share of food store sales of the largest firms in the industry has remained relatively stable during the period 1967–1972.

In another study, the U.S. Department of Agriculture traced trends in market shares by type of business for the period of 1963 to 1972. The USDA found the share of market held by independents up 8.5 percent, the share held by local or regional chains up 3 percent, and the market share held by the top 20 chains down 20 percent.

I might add that the argument that this lack of growth of the larger chains has been attributable to the problems faced by A&P is irrelevant. In fact, A&P's performance problems, rather than being an aberration, are characteristic of the turbulence always present in the food retailing business. The problems of A&P during the recent past were similar to problems borne by other chains in other periods—for example, Safeway in the mid-50's. To eliminate the typical competitive problems of particular food retailers as atypical—which the Research Group Report does—is to ignore the basic characteristics of the industry. And to discount the years 1970–1974 as a period of "unusual" circumstances producing abnormally low profits is equally inappropriate.

The impact of food retail competition is even more direct at the local market level. We do not accept the theory that a mere counting of firms active in a market is any indication of the competitive nature of local markets. Even if we accepted the notion that local market concentration is somehow relevant, as Mr. Hammonds pointed out earlier there has been no significant increase in concentration in the 200 largest metropolitan areas since 1958.

The report claims food retailers enjoy some kind of "shared monopoly." I believe that is sheer fantasy. My personal experience tells me it's wrong and the facts do not support it.

Mr. Chairman, by every accepted measure, food retailing in this country meets the criteria for an extremely competitive business. Basically, those criteria are that:

1. Entry into the market is relatively easy.

2. Upward mobility is possible for the small seller. The relative market positions of sellers will change over time.

3. Industry earns normal profits over a long run—that is, no more profit than is necessary to cover the opportunity costs of capital and the entrepreneur's time and to offset business risks.

4. Products and services offered by competitors are essentially similar so consumers can and do change their loyalties on the basis of price and how their needs are serviced.

I ask that these tests be put to the food retailing industry.

First, ease of entry into food retailing is widely understood; this condition has been noted by the Federal Trade Commission in its only contested merger decision involving the industry. Moreover, even the Research Group Report is cognizant of the ability of small firms to enter and thrive through association with cooperative and voluntary groups. A striking illustration of this aspect of industry competition appears in a 1972 tabulation prepared by Chain Store Age, which lists more than 300 firms then operating four or more stores which were "unknown" as of 1962. Even in the unlikely event that the 300 figure represents a complete inventory, it would mean that nearly 25 percent of all firms operating four or more stores in 1972 were either not in existence or did not operate as many as two stores 10 years earlier.

Second, upward mobility is common in this business. Consider this fact: The 10th largest food retailing company in the nation today wasn't even among the top 50 companies 20 years ago. One of the more serious omissions of the study before you, as Mr. Hammonds pointed out last week, is the failure to consider what economists call churning of market shares. In other words, the top companies today often aren't the same companies that held the largest market shares even five years earlier. In 17 of the 20 largest markets, different firms held the top four positions in 1972 than in 1967.

One of the most interesting examples of market turbulence is that presented by National Tea Company. That firm was used by Professor Mueller, a principal author of the Research Group Report, then Director of the Bureau of Economics at FTC, in 1965 as laboratory proof of how an "entrenched" market position can be maintained with a high profit level. Professor Mueller then pointed to National Tea's position in Chicago, Detroit, and Denver as supporting his contention. Today, a little more than a decade later, National Tea is not even present in any of these markets.

Third, profits historically have averaged less than a penny on a dollar after taxes as a percentage of sales. As return on a shareowner's equity, according to the latest Forbes Magazine study, food retailing profits rank 27th out of 30 major industries. Surely, numbers like these show no evidence of more than normal profitability. On the contrary, the profitability of our industry has been relatively low.

A fourth characteristic of competition—the ability of consumers to change loyalties on the basis of price and service—is easily demonstrated by the food retailing business. We are fully aware of how carefully our customers watch prices.

Economists, I understand, usually cite price advertising as one of the most useful sources of information to consumers and a major characteristic of a competitive industry. I don't think any business uses more price specific advertising than the food retailing business. Food shoppers see the competitiveness of the food retailing business every week in the advertisements that competing firms place in local newspapers. The competitive climate is so intensive that food retailers fear loss of customers if there are even minor variations from the lowest price charged for key items in a market area.

And we are fully aware of the consumers desire to shop where the service meets their specific needs. Food retailers continually strive to improve service, not only for the customer, but also to gain that fine competitive edge.

As a grocer, I know this business is as competitive as any could be. Evidence of competition is everywhere and often reported in the press.

I'd like to quote from the Wall Street Journal of July 19, 1976. Under a headline entitled "Consumers Get a Break," it said "Some of the toughest but most reluctant warriors around these days are doing battle in the nation's supermarkets. Dozens of price-cutting wars have broken out in the past year or so." And the article goes on to say ". . . and price wars have ravaged the industry just when it seemed to be emerging from an ear of depressed profit margins."

That's just one of hundreds of press reports that have appeared over the years about price competition in food retailing. The intensive struggle for the consumer's food dollar continues throughout the country today. The public sees that struggle and the food retailers know it as a way of life.

I might also relate what a panel of Wall Street bankers and securities analysts said last year about competition in the food retailing business.

A group of food editors, in a briefing on The Capital Crisis, was told by the analysts that food retailers find difficulty in securing capital for new technology and improvements largely because they were "too competitive." Competing firms sell at prices so low they do not earn consistent returns high enough to attract investors, according to the analysts.

Bankruptcies, price wars, the opinion of security analysts . . . All evidence that food retailing is indeed intensely competitive.

At this time, Mr. Chairman, with your permission, I would like to insert into the record several attachments to my testimony that summarize some important data on the performance of the food business in the national economy.

We are proud of the performance of our industry. The first table shows that the percentage of disposable income that Americans spend for food—especially food purchased in retail stores for use at home—has declined steadily since 1930. This is evidence of outstanding performance of our industry.

The second table shows the stability in the farmer's share of the retail food dollar from 1960 on. In fact, the farmer's share of the food dollar has not changed appreciably since the 1920's showing consistent efficiency throughout the food system.

The third table compares food expenditures per person with expenditures for government services per person. Our citizens now spend three times as much for government as they do for food.

Table 4 shows the same in a slightly different perspective.

The final table gives an indication of how much of disposable income Americans spend for food compared with citizens of some other nations. Clearly Americans are the most efficiently fed in the world. We realize that these figures give little solace to the shopper trying to make ends meet on a tight budget. Still, they say something about the performance of this important sector of the American economy.

In your request for me to appear before this Committee, Mr. Chairman, you asked me to comment on implications which the results of this report might hold for public policy—especially the policy of the Federal Trade Commission.

The By-Laws of Food Marketing Institute—composed of small and large food retailers and wholesalers—states: "Food Marketing Institute is dedicated to the principles of free enterprise, vigorous competition, and the economic health of the entire food industry." I emphasize "free enterprise" and "vigorous competition." The food distributors in this country believe wholeheartedly that the free marketplace is the best regulator. And, we also believe in the vigorous enforcement of the antitrust laws.

But most importantly, we reject the conclusions of the Research Group report. We expect that it will have no implications for public policy, for no policy based on that document could serve the public interest.

Now, Mr. Chairman, I would like to take the remainder of the time allotted me to address what seems to me to be a key issue before the Committee, the consumers of this country and the food industry.

What can we do to improve the efficiency of food production and distribution in this country.

The consumers of this country have every right to be concerned and so do those in the food retail business. As buying agents for the consumers, food retailers work continually to stay in business. As business managers, they can survive only by serving the customer in a competitive and efficient manner.

Mr. Chairman, through our role as interface between the entire food system and the consumer, we in the food retailing business have found that we are a kind of lightning rod for the entire food system. Our customers express their needs to us because they count on us. Like practically everyone in the food business, sometimes we get blamed for conditions over which we have no influence. But overall, our consumer surveys generally demonstrate that people don't put the major blame on us for high prices. Nearly three out of four shoppers, however, are inclined to blame somebody for increased food prices. Some blame government, others blame food wholesalers or food manufacturers or labor unions. But everyone, I am sure, would like to improve the system and agrees that any artificial or extra costs in the food system should be eliminated whatever their source.

Those of us in the food business are always concerned about waste. If a food retailer is to continue paying employees and serving customers, to remain competitive, to stay in business—then there is little room for waste.

We are concerned about everything that is done in this country that unnecessarily increases the cost of food products we sell and the efficiency with which we are able to perform our function. The cost of food is a function of supply and demand. On the supply side agricultural policy, weather, shortages, world wide demand and import-export policy, and many other factors come to bear. Demand is affected by disposable income, import-export policy, government purchasing patterns, consumer attitudes (hoarding and scare buying) and many other factors. Government activities that bear on any of these supply-demand components should have input from consumers and food retailers.

The efficiency of food distribution systems is radically affected by various barriers to productivity. Let me give one or two specifics.

Backhaul—trucks returning from store deliveries empty because of restrictions imposed by Interstate Commerce Commission and Federal Trade Commission rulings. Our estimate is that these restrictions cost American consumers $300 million a year and 100 million gallons of wasted fuel. Last week one food retailer told me their trucks ran empty 29 million miles last year hauling nothing but air.

A second specific technological improvement—use of the automated cash register system is threatened by various legislative proposals which would substantially reduce cost savings or even add costs to the present system.

More generally, in the productivity area we think something needs to be done to encourage inter-industry approaches to total systems producivity improvement, to eliminate waste from the whole system. The work of the Council on Wage and Price Stability and of the National Center for Productivity and the Quality of Working Life have been most constructive. I would encourage substantial additional Congressional support of these activities as well as research expeditures designed to improve total systems productivty.

And, finally, we are concerned with energy availability and cost. Agricultural production and the distribution of food must not be interrupted by energy shortages or crippled by excessive energy costs. It is vital to the interest of American consumers that the complex yet constantly improving system that makes them the best fed in the world continue to serve them well.

Mr. Chairman, I appreciate the opportunity to make these remarks. I hope they will be helpful to the deliberations of this Committee. While I am proud of this industry's performance to date, I am also proud of it's desire always to improve. We know we are not perfect. In fact I might paraphrase Winston Churchill's critique of democracy by saying the American food distribution system is the worst in the world, *except for all the others.* We are anxious to work with you or any other government or private group that shares our concern for improving that system—A food distribution system that is the finest in the world because it is governed from start to finish by stiff competition.

Thank you.

Attachments.

FOOD RETAILING AND THE NATIONAL ECONOMY

TABLE I.—*Food expenditure as percentage of disposable income, 1930–75*

	Percent
All food:	
1930	24.2
1935	23.2
1940	21.9
1945	22.1
1950	22.2
1955	21.1
1960	20.2
1965	18.2
1970	17.3
1975	17.1
Food at home:	
1960	16.1
1965	14.2
1970	13.4
1975	13.0

Source: U.S. Department of Commerce.

TABLE II.—*Farmer's share of retail food dollar, 1960–76*

	Percent
1960	39
1965	39
1970	39
1976	40

Source: U.S. Department of Agriculture.

TABLE III.—*Per capita expenditures for food and all Government, 1950–1974*

	Percent
Expenditures for food:	
1950	$302
1960	390
1970	579
1974	788
Expenditures for Government:	
1950	460
1960	836
1970	1,625
1974	2,265

Source: U.S. Census Bureau, U.S. Department of Agriculture.

TABLE IV.—FEDERAL BUDGET OUTLAYS

[Food sales in billions of dollars, percent of GNP, 1960–75]

	Federal budget outlays		Food sales	
	Amount	Percent	Amount	Percent
1960	$92.2	18.5	$56.3	11.1
1965	118.4	18.0	66.8	9.7
1970	196.6	20.5	91.8	9.3
1975	324.6	22.5	141.0	9.3

Source: U.S. Office of Management and Budget, U.S. Bureau of Economic Analysis, U.S. Department of Agriculture.

TABLE V.—*Share of after-tax income spent on food, United States and selected foreign nations, 1971*

	Percent
United States	15.8
Denmark	18.5
Canada	20.6
West Germany	22.5
France	23.2
United Kingdom	25.0
Japan	26.6
Finland	33.7

Source: U.S. Department of Agriculture.

Representative HECKLER. Mr. Silbergeld, please proceed.

STATEMENT OF MARK SILBERGELD, ACTING DIRECTOR, CONSUMERS UNION, WASHINGTON, D.C., OFFICE

Mr. SILBERGELD. Thank you very much. I am the last witness this morning. As the consumer advocate witness, I am used to that.

I am sorry Senator Hatch is not here, because I would like to assure him that we share his concern about Government paperwork, including economic reports. I am fascinated to know, and he might be heartened to know, that the Sherman Act and section 5 of the Federal Trade Commission Act can be printed on the two sides of a single piece of

paper. I think that it what these hearings and the Mueller-Marion study are about.

Competition is to be protected under the provisions of those statutes presumably because consumers benefit from competition. It is a function of the Congress, including in part this committee, to assure that the Federal Trade Commission and the Justice Department administer those statutes properly and effectively in order to promote the public policy put forth in those acts and to determine whether additional statutes at any given time are necessary to effect a more general policy of competition as a means of controlling prices and costs.

Now what about the Marion-Mueller study and what about the criticisms of it? Senator Hatch and the food chain witnesses suggested that there may be some bias, some predisposed bias, on the part of the authors. I will say two things about that.

First of all, I have yet to see a person experienced enough to do a study in any field of expertise who does not have some so-called predisposed biases, which means that based upon their familiarity with a great deal of evidence and experience they have some opinions about how the world or their field works.

If that is all he is suggesting, then I don't think there is anything out of the ordinary. But I would also suggest that we take a look at the predisposed biases of the critics of the report. I refer to the first page of Mr. Hammonds' testimony from last week:

"Even the noneconomist can readily appreciate the flaws"—in the study—"by looking at the absurdity of its conclusions."

If that isn't a predisposed bias, then I don't know what one is. It is highly predictable that any industry will not accept any study which does not come up with the conclusions it hopes to find. It is also predictable that such an industry is going to find some things to criticize about it. So we get these pseudoscientific, pseudoeconomic criticisms.

I won't even turn to Mr. Hammonds' criticisms. They are discussed in my prepared statement. Let me instead turn to something Mr. Aders talked about this morning.

Where is the data on churning?

It has not been produced for this hearing. The kinds of results he described could be produced by an intense struggle between two corner groceries, between Nos. 4 and 5 in the market, for the fourth position. And that position may, in turn, depend upon the annual turnover of just 2 percent of customers from one store to the other.

I am not saying that is the cause of churning, but that could be the cause of the churning.

We certainly don't have any evidence to show that something else is the cause, and yet that sort of thing is offered to this committee as evidence that the industry in all markets or most markets is competitive.

We get other kinds of pseudo-economic analysis such as, "We know the industry is competitive because of price advertising that we can see in the newspapers."

Anybody who knows anything about the industry knows that the firms are advertising their loss leaders in the newspaper. As a matter of fact, when we talk about the FTC six-city study, you should know that it replaced a previously abandoned food study at the FTC of a

proposed retail market basket. One of the two reasons that study was abandoned is that the FTC was concerned about finding a market basket or a set of alternate market baskets which the chains could not anticipate and use as their loss leaders. The concern was that if chains knew what was in the basket, they would raise the prices on items not included in the study, so to make the proposed market basket results misleading to the consumer.

The point: Price advertising in newspapers is not in and of itself representative of the prices of the 5,000 items which I understand a full-line supermarket would carry.

It is no evidence at all of competition.

It is not a scientifically adequate approach to prove that the Marion-Mueller study is not deserving of this committee's attention.

I won't go on about these sorts of criticisms, but I think you understand what I am getting at.

Now, let's talk about public policy. I think Mr. Mueller has said pretty much about what we would say about antitrust enforcement. I think that is one of the two most important aspects of a public policy which would be appropriate to deal with the findings of this study. The other aspect and the one I would like to talk about is consumer information.

The FTC supermarket basket study was abandoned in favor of the so-called six-city study for two reasons after some serious consideration by people at the FTC in both the Bureau of Economics and the Bureau of Consumer Protection. First, they said it was too expensive. And second, it would be difficult to generate a sample market basket which cannot be anticipated by the sellers in the marketplace and used as loss leaders while those same chains would raise the prices on items not included in the sample market basket.

I have two recommendations.

Although I do not consider—and I assume Mr. Mueller does not consider—the monopoly overcharge figure as an absolute figure, if it is anywhere in the ballpark by even a factor of 2 or 3 or 4 or 5, then the FTC now has a better basis than it ever did for doing a costs-effectiveness analysis. They should determine whether it is worth $1 million, or $2 million, or $3 million a year of their resources to actually do a supermarket basket study in those cities in which food retailing is unduly dominated by just a few firms—to see how market dominance relates to much-higher-than-average food prices. That is No. 1.

No. 2, I think the FTC ought to be asked to look again at whether it is possible to develop a strategy for designing a supermarket basket to do such a study—to design a basket that cannot be predicted by the sellers. It seems to me with all of the random generation schemes which scientists can come up with, this could be done. Mr. Mueller's and Mr. Marion's testimony on the Canadian surveys of this kind certainly provide some basis for such an investigation.

There is a new Chairman coming to the Federal Trade Commission. I think, at the very least, the committee ought to approach Mr. Pertchuk and see if he is willing to take on this whole question. I know he is very favorable to consumer information. He may be willing to act on my suggestions as a means of helping consumers to com-

parison shop and to do so in a manner which at least promotes the maintenance of competition.

Maybe it is time for the FTC to be asked to take another look at whether some consumer information strategy, perhaps with a consumer market basket survey and publication of those results, is within the means of the Federal Trade Commission, so that we can begin to deal with these problems.

Thank you.

[The prepared statement of Mr. Silbergeld follows:]

PREPARED STATEMENT OF MARK SILBERGELD

Mr. Chairman and members of the Committee, Consumers Union[1] appreciates your invitation to testify at these hearings, which deal with a subject very important to the American consumer—the price effects of competition in the distribution of food. For the last several years, Committees and Subcommittees of the Congress have held seemingly endless hearings into the causes of inflation of food prices, frequently raising significant questions about the role which competition—or the lack of it—might play in controlling the rate of food price inflation. However, a few hearings took steps to obtain answers, rather than merely to ask questions. This committee does the public a great service by seeking answers to the familiar but unanswered questions which have been raised.

The Marion-Mueller study, based on data obtained by the Committee, points toward some of the answers to the question about the interrelationship between competition in food distribution and food price inflation. The study is based on data obtained from the records of three large supermarket chains. It includes more Standard Metropolitan Statistical Areas (SMSAs) in its data base than any study of similar purpose performed to date, and more than the ongoing Federal Trade Commission six city study. It provides startling new data tending to confirm that as four firm concentration and single-firm domination rise in an urban area, consumers pay higher prices for food.

An expected barrage of criticism of the study comes from an expected source, the food distribution industry itself, which has obviously self-serving interests in making the criticisms and which is itself a cause of such data deficiencies in the study as the industry chooses to criticize. The remedy to the data deficiencies lies with the participating firms and other chains. We will today propose an opportunity for the industry to correct the deficiencies on which they so eagerly seize.

While the U.S. Department of Agriculture Economic Research Service's (ERS) criticisms of the study are primarily directed to those cautions which the authors themselves raise in the introduction to the study, with all due respect, we suggest that in its testimony of last week, ERS suggested a number of hypothetically significant faults of the study without any showing of reasons to believe that the hypothetical shortcomings have a significant probability of disproving the trends demonstrated by the study. At the same time, ERS, unlike the industry, does acknowledge the importance of the study in understanding the economics of food distribution.

We will address three issues: (1) the importance of the study, (2) a number of the criticisms of the study, and (3) public policy recommendations based on the study.

FINDINGS OF THE STUDY

The single most important finding of the study is the indication of a direct and statistically significant relationship between market concentration and

[1] Consumers Union is a nonprofit membership organization chartered in 1936 under the laws of the State of New York to provide information, education, and counsel about consumer goods and services and the management of the family income. Consumers Union's income is derived solely from the sale of Consumer Reports, other publications and films. Expenses of occasional public service efforts may be met, in part, by nonrestrictive, noncommercial grants and fees. In addition to reports on Consumers Union's own product testing, Consumer Reports, with its almost 1.8 million circulation, regularly carries articles on health, product safety, marketplace economics, and legislative, judicial and regulatory actions which affect consumer welfare. Consumers Union's publications carry no advertising and receive no commercial support.

single-firm dominance, on the one hand, and higher profit margins and prices on the other. This indication tends to bear out the contentions of numerous industrial economists and consumer advocates that market concentration translates into a lack of vigorous price competition. This finding justifies the investigation of particular markets where four-firm concentration and firm dominance and high consideration of appropriate antitrust remedies to restructure those markets, as well as a need for strict enforcement of the merger laws to assure that additional markets do not become similarly structured.

The study also finds that as four-firm concentration ratios and single-firm dominance increase, so do the price differentials between nationally advertised and private, or "house," brands of food products. Private labeling is a form of price competition. Thus, this finding would tend to buttress the primary structure/price finding, as well as to indicate that a diminution consumer opportunity to select the private label product at a significant cost saving accompanies high concentration and single-firm dominance.

Also of great importance is the finding of the study that, at very high levels of four-firm concentration/single firm dominance, prices rise at an even higher rate than profits, compared with markets having lower levels of concentration/dominance. This would tend to disprove the thesis that efficiencies related to economies of scale explain higher profits in concentrated markets—a favorite thesis of those who profess to believe that price competition is as likely to be as vigorous between two firms as among twenty, whenever asked to explain a relationship in a given situation between high profits and high concentration.

Economies of scale, of course, are the affected industry's burden to prove as a defense to any proposed public policy implementation of a restructuring remedy. However, it is important for policy makers to note this indication that economies of scale probably will not be a satisfactory explanation for the basic situation described by the Marion-Mueller report.

Finally, the study hypothesizes substantial "monopoly over charges" based on its results. The specific amount hypothesized, more than half a billion dollars, is not the most important feature of this finding. It is based upon data for only the three leading firms in the markets studies and is based upon a number of necessarily arbitrary assumptions. As we understand it, the purpose for this calculation is to demonstrate that the consequences of the findings regarding structure and price competition are of a serious magnitude for consumers who live in less competitive market areas. The calculation effectively makes this clear. The argument that the amount calculated is preposterous because it exceeds total supermarket profits is erroneous. Monopoly overcharges to lack of cost control-inducing competition.

CRITICISMS OF THE STUDY

We do not propose to answer all of the criticisms which have been offered. Mr. Mueller is undoubtedly best qualified to answer those relating to selection of statistical methods and assumptions underlying them. However, there are a number of criticisms regarding which our comments may be useful to the Committee.

The major criticism which has been directed at the Marion-Mueller study is that it is not based upon data statisticaly representative of all markets. This argument is totally irrelevant. It makes no difference to consumers in those markets, included in the study, where serious competitive problems are indicated. The government's function is to formulate and implement procompetitive policies on behalf of all consumers, not only where the relevant market is national. And, as we have noted, the Marion-Mueller study includes more markets than either USDA or FTC has undertaken to study.

The argument that the data, given a thirty-two SMSA study, are even within that scope inadequate for such a study is not one which the retail food industry is qualified to make. The industry has resisted providing the government with even that data which it now argues is inadequate. The Committee, according to the best information we have been able to obtain, did not find ready cooperation when it sought this information. And FTC has found varying degrees of resistance, including motions to quash carried to the Federal District courts, from virtually every firm in it own six-city study. Indeed, it was an is predictable that the industry will find no study data or methodology adequate unless it provides results favorable to the industry. Mr. Hammonds told this Committee as much

last Wednesday when he said of the Marion-Mueller study in his prepared testimony.

"Even the noneconomist can readily appreciate the flaws by looking at the absurdity of its conclusions."

We appreciate Mr. Hammonds' candor. At the same time, this makes clear to all that his criticisms deserve to be discounted heavily.

Such of the specific data availability shortcomings of the study as the industry chooses to seize upon can be rectified by the industry. It can promptly offer to cooperate with the Committee by providing such additional data as it claims are needed to make additional calculations. Any data so provided should be subject to a GAO audit to determine accuracy and completeness, and the industry should also assure the Committee of its cooperation in this respect.

One final general comment on the criticism which have been directed at the study. We are puzzled by the industry's reliance on the USDA study. That study concedes that the data on which it is based are inadequate to permit a test of the hypotheses which the Marion-Mueller study addresses. And, the USDA study is based on BLS market basket data, which, the Marion-Mueller study explains, are inadequate for making inter-city comparisons.

Some of the specific criticisms of the study merit attention. One of these is the failure to include meat in the market basket of 110 grocery items used for the food study. In fact, it was included in the price study for City B, and proved to have no significant effect on the trends demonstrated by the study. Indeed, there is no reason why it should be expected to do so. A firm which can administer the prices of the items in the grocery basket of 110 items would also be in a position to do so regarding meat or any other item not included in the study market basket.

The "abnormality" of the time period studied, especially that it took place during a period of markedly lower profits, is argued to be a weakness in the study. However, the authors point out that experience would lead to the expectation that the relationships investigated prove weak during such a period while, in fact, these relationships proved to be quite strong during the period studied.

The study did not include a transportation cost differential factor. USDA, which in a previous study used distance from basic food production areas (i.e., distance from Manhattan, Kansas) as a proxy of transportation cost differentials, argues that the Marion-Mueller study should have done so. However, there are no readily apparent reasons why transportation costs could account for a significant portion of the well-known food price variations which are shown in BLS data between such proximate cities as Washington, D.C., and Baltimore, Maryland.

It is suggested that non-price features which consumers desire, rather than market share/single-form dominance, might account for some of the price differences. This factor was not considered in the study. Perhaps this factor should have been and could be controlled for by including disposable income data as a variable in the study. However, until such a calculation is performed, we have no reason to believe that it would significantly change the conclusions of this study.

A number of criticisms of the study are implied, although not explicitly stated, by comparing the results with those of the Report of the National Commission on Food Marketing (NCFM). However, there is no reason why new evidence should be rejected simply because it is not four-square with results of another study which was based on data generated over the two previous decades, especially since the NCFM studies did not seek to measure the same correlations of the same data as does the Marion-Mueller study.

The changeover in "membership" among the four top firms in the top twenty SMSAs is argued to disprove the study's conclusion that there is the lack of competition which the study finds. However, consumers who pay the prices charged take little consolation when a new oligopolist collects the cash. It is difficult to see how this evidence disproves the specific finding of the study regarding structure/price relationships. The argument is, in effect a non sequitur.

These considerations demonstrate, we believe, that many criticisms of the Marion-Mueller study, other than those cautions presented by the authors themselves, have been raised without due consideration as to either their importance or, in some instances, their very validity. We urge the committee to receive those criticisms in that vein.

PUBLIC POLICY IMPLICATIONS

The public policy implications of the findings of the Marion-Mueller study are very great for consumers, but—fortunately—they are not unduly complicated. Three primary steps are required.

First, recent relaxation of Federal Trade Commission grocery chain merger guidelines must be teminated and previous, more strict guideline enforcement policy must be returned to. Messrs. Marion and Mueller in their testimony have documented FTC's failure to enforce the guidelines adequately in recent cases. The Committee should convey to the incoming Chairman of the Federal Trade Commission on the need to review this policy problem.

Second, it is clear that mere strict enforcement of the guidelines will not undo the problems which already exist as described by the study. Some form of restructuring of problem markets is needed. Since the economics of individual SMSA food markets are not unduly complicated compared with, for instance, the economics of the world petroleum industry, it is entirely possible that the FTC could be an appropriate mechanism for achieving restructuring of markets which have gone beyond the pale of competition. However, it is possible that a full scale investigation of the nationwide scope of the problem would demonstrate the need to consider restructuring more markets than the FTC could deal with in a reasonable period of time in litigative type proceedings. If this proves to be the case, then FTC should determine whether recommendations to the Congress for a legislative solution are needed, or whether FTC can undertake a very few representative cases and then deal with the remaining markets through some form of antitrust rulemaking process.

Third, consumer information plans a very important role in keeping markets competitive. Consumer reaction to accurate price information would permit at least that portion of the public which is mobile in its shopping habits to shift seller preferences where significant price differentials exist. This opportunity would have an obviously beneficial effect on price competition, at least in markets which are not already so structured that no opportunity for such shifting of seller preferences would occur, even in the face of available information.

A few years ago, before it shifted supermarket price problem strategies to the current six-city study, FTC considered undertaking a "supermarket basket price survey" and publication on a continuing basis. This proposal was abondoned in favor of the six-city study for two reasons. First, it was felt that this survey would be too expensive. Second, there was concern as to whether a representative set of alternative supermarket baskets could be selected which would be secure with repeated use from seller anticipation, so as to avoid sellers' use of the included items as loss leaders while increasing prices on grocery and non-grocery items not included in the test period market baskets. In view of the Marion-Mueller study findings, however, it may be time to reassess the cost-effectiveness of such a project, as well as the feasibility of using random methods for generating supermarket baskets consisting in each test period of items which sellers cannot confidently anticipate. Study of the Canadian experience described in the testimony of Messrs. Marion and Mueller to determine the feasibility of designing and performing such a survey should be understaken. FTC could use market structure/single firm dominance data as an index to cities which should be selected for such surveys.

Finally, two additional means of inducing additional competition should be pursued. One is the concept of a consumer cooperative bank, legislation regarding which was introduced but not passed in the last Congress. The other is the direct farm-to-market approach to food marketing, enabling legislation but not appropriations legislation for which was enacted last Congress. While neither of these mechanisms will restructure an uncompetitive market, and while neither is a substitute for merger guideline enforcement, they are additional means of assuring that markets remain competitive by making food available to consumers at low costs and low prices.

Mr. Chairman, we express our appreciation for the opportunity to testify at these hearings. We believe that the report sponsored by this Committee provides the basis for prompt reimplementation of the long-standing public policy of competition, in retail food markets where structural considerations now mean higher prices to consumers. And we believe that the time to start is now. We urge this Committee to insist that the Federal Trade Commission announce and undertake appropriate steps to assure that this comes about as promptly as possible. We

also urge this Committee and other Committees of appropriate jurisdiction to exercise continuing oversight of the FTC to assure that FTC takes appropriate steps to provide the American consumer with the needed remedies for food price inflation caused by a lack of competition in certain retail food markets.

Representative HECKLER. Thank you, Mr. Silbergeld.

I have only two brief questions.

Mr. Aders has referred to the loss-leader advertising strategy. Is this a practice commonly used by the large supermarket chains?

Mr. ADERS. The technique called loss leader is a merchandising practice in which all retailers sell below the normal purchase price plus the cost of doing business.

Let's assume the cost of doing business is 20 percent over purchase price. Anything sold below that is at a loss. Selling 10,000 items in a grocery store, you find that any merchant will tend to have some higher and some lower so he comes out on the average with enough profit to pay the bills.

It is not limited to the large nor is it the exclusive province of small retailers. It is a custom in the food business and retailing in general, and has been as long as I can recall.

Representative HECKLER. Would you comment on parallel pricing? It seems there is a very strange coincidence in the pricing of a number of items on the supermarket shelves in which hundreds of items or more happen to be identically priced on any given day. How is this strange coincidence achieved?

Mr. ADERS. Well, from my experience in the business as a food operator, I was very concerned that I not be undersold. We watched the competitors' prices like a hawk and if we felt we were out of line, we sensed that it wouldn't be long until the customer saw that, too, and we moved to stay competitive.

Representative HECKLER. One final question that relates to the issue we discussed last week, which was the subject of the cooperation of the supermarkets with this committee in terms of gathering the data upon which the Mueller-Marion study could be based. As I understand it, the committee requested information from 17 supermarket chains and then used the subpena power to gather this data.

As a matter of fact, the agreement of confidentiality was protected during these deliberations. Today, you have heard both from spokesmen for the Bureau of Economics and for the Bureau of Competition at the FTC. Both requested that the committee transmit to them the data upon which the Mueller-Marion study was based in order to facilitate a further evaluation by the FTC.

What would be the opinion of your food chain institute on that subject?

Mr. ADERS. Thank you for making reference to my reply to your request for cooperation. I trust that you will make a matter of record my letter to Congressman Long in which I point out that our industry has cooperated.

Representative HECKLER. Certainly. It will be placed in the appendix to the hearing record.

Mr. ADERS. Despite your request last week, the question of turning over data to the Federal Trade Commission is one I have not discussed with association members. I am not in a position to say what

their individual positions would be. I have no personal reason to think that the Federal Trade Commission is not a good place to conduct investigations of the food industry.

It has been doing it for many years. When I was in the business, I was a part of those investigations. However, I think the question is, in this particular case, the data itself, as I understand it, which was turned over to this committee with some understanding as to confidentiality.

I am in no position to release that data from the pledge of confidentiality. I think it must be taken up with the individual companies.

Representative HECKLER. In view of the possibilities of extending the data to cover more cities and more products, one of the analysts and one of the critics of the study complained the base was too restrictive, that you only had 110 food price items. As I understand, 95 items are all that is included in the Consumer Price Index. Nonetheless, the study was accused of being too restrictive because it included 110 items in the market basket.

Would the supermarkets who are members of your institute be willing to provide further data in order to have an even more comprehensive study?

Mr. ADERS. I think my observation of 20 years' experience with the industry is that it will be cooperative. I think they will have to respond specifically to any data requests in terms of several concerns, but that they will be inclined to cooperate. They will probably want to look at the form in which the FTC needs it and whether it exists in that form.

As I understand it, one of the problems is the reconstruction of data from different kinds of accounting systems and different kinds of records. I think there will be concern about proprietary data, as there always are, about competitive information, and I think they will be sensitive to antitrust issues. I think they will be needing assurances as to normal safeguards.

Most of all, I think they will be asking for even-handed treatment. I think that if any organization is to be examined, it should be looked at all the way across the spectrum. I think you gain a limited evaluation ability by the selective use of data.

If a market is to be looked at, then I would suggest that every component of that market that is in this business be looked at at the same time, from the smallest corner grocery to convenience stores, right through the warehouse stores, and traditional supermarkets, discounters, food departments and discount stores and the like.

You cannot look at one segment and draw conclusions about the whole. I do add that it may sound negative to say I think we have been studied to death, but I do feel that way. Whatever future studies are made, I hope they are broad spectrum.

Representative HECKLER. Since the supermarkets possess the data, a broader spectrum of inquiry would be impossible without further basic raw material—without the data upon which the broader study could be based.

The question is: Would your institute endorse a broad-based study of market prices?

Mr. ADERS. Looking back at the purposes of this committee, let me make one comment before I answer your question. I think often overlooked is the value of the consumer price surveys and the findings of the Bureau of Labor Statistics, which are published monthly. These are pretty good indicators.

I know the data have weaknesses, but they are pretty good indicators as to what people pay for what they consume in this country. This is a broad market survey on a number of items. It is used by Government to determine policies; it is used by labor unions and managements to adjust labor rates. So I don't think the data can be thrown away, although it does have defects.

As to whether our institute would endorse a request for their members' cooperation, I can't endorse a blank check; I need to see what it is.

Certainly after I see what the nature of the request is, I can take a position. I would be inclined to be cooperative.

Representative HECKLER. Thank you.

Senator JAVITS. I have a question, Mr. Silbergeld, about an item that interested me in your testimony.

In your prepared statement when you speak of the concept of a consumer cooperative bank, you say that legislation was introduced during the last Congress, but didn't pass. Can you tell us what that is about specifically?

Mr. SILBERGELD. I have discovered that similar legislation is offered again this year in both the House and Senate.

It would set up a consumer cooperative bank similar to the agriculture banks that were set up in the 1930's to provide some initial, but not continuing capital for farmers. It would provide initial capital for the economic development of consumer cooperatives on a meaningful economic scale.

Senator JAVITS. Another more substantive question is—and I quote from Mr. Scanlon's testimony regarding very concentrated markets:

> One solution advocated by some is the breakup of excess market power by the requirement that they divest themselves of a sufficient number of stores to create a more competitive market. However, the public sentiment to employ that specific effective remedy in this industry, or any other industry for that matter, does not presently exist either in the Congress, the FTC, or the Department of Justice.

Do you agree with that statement?

Mr. SILBERGELD. I hope not. I understand Mr. Scanlon's point. He has been for a number of years taking a look at the size of the problem and comparing that against the size of the effort to cure the problem. I believe Congress is still very concerned with improving competition.

When you do that, it is very easy to become discouraged. In the short run we are in a cycle of increased antitrust activity and I hope it will have an effect.

Representative HECKLER. I thank the witnesses for their testimony today.

The committee stands adjourned, subject to the call of the Chair.

[Whereupon, at 1:05 p.m., the committee adjourned subject to the call of the Chair.]

APPENDIX

U.S. SENATE,
SELECT COMMITTEE ON NUTRITION AND HUMAN NEEDS,
Washington, D.C. April 28, 1977.

Hon. RICHARD BOLLING,
Chairman, Joint Economic Committee
U.S. Congress,
Washington, D.C.

DEAR MR. CHAIRMAN: I would like to commend the Joint Economic Committee for its hearings of March 30 and April 5 into the impact on the consumer of economic concentration in food retailing and for the publication of the report around which the hearings centered. "The Profit and Price Performance of Leading Food Chains, 1970–74." The report provides important new information that deserves careful scrutiny and attention. I would also like to commend the Committee for engaging researchers of the caliber of Messrs. Willard Mueller and Bruce Marion, and their associates of the University of Wisconsin, to prepare the report.

The Select Committee on Nutrition and Human Needs has had a long and continuing interest in food pricing, and I feel that it is essential to encourage inquiry in this extremely difficult area, difficult not only because of the complexity of the subject but because of the pressures on the researchers from the interests affected.

Therefore I hope that the Joint Economic Committee will continue to support research in this area at the University of Wisconsin and other institutions so that centers of expertise can be developed to make independent appraisals of the extremely important questions concerning competition in food production, processing and marketing.

I would appreciate it if this letter could be entered into the hearing record.

Sincerely,

GEORGE MCGOVERN, *Chairman.*

COMMENTS ON "THE PROFIT AND PRICE PERFORMANCE OF LEADING FOOD CHAINS, 1970–74" *

(By Lee E. Preston, School of Management, State University of New York at Buffalo)

Analyses of retail market competition, although numerous have typically been limited to one or a few "case study" situations with corresponding limits on both their substantive quality and their possible policy implications. This new study is an original and valuable contribution to the literature because it utilizes a unique collection of data covering multiple geographic market areas, multiple firms, and a multi-year time frame. The data are handled in an imaginative and technically competent manner: and the statistical conclusions are, correspondingly, unarguable. The policy conclusions to be drawn, of course, depend upon both the broad validity of the statistical findings and also upon additional considerations not specifically covered in the statistical study itself. Many of these issues were discussed by Messrs. Marion and Mueller in their testimony of March 30, 1977.

Technical questions can be raised about any piece of economic and statistical analysis; and particularly in the case of a complex and ambitious project such as this one. Several different types of data were made available to the authors, with different types of firms, different geographic areas, etc., involved. Also, the years covered by the data happened, for entirely unrelated reasons, to be years of considerable turbulence in the national economy. Fortunately, the authors have taken great pains to clarify their data sources and to point out exactly where discrepancies or inadvertent impacts may arise. In addition, they have tried to predict

* Prepared at the invitation of the Joint Economic Committee.

the direction and magnitude of the effects of extraneous events (the price-control experience, for example), and then to determine whether their particular statistical results have arisen because of or in spite of these factors. As it happens, their major result—the association between retail market concentration and profitability—remains strong in spite of extraneous factors that might have been expected to weaken it. Moreover, the more important extraneous factors—price controls and volatile agricultural prices—would have uniform effects throughout the country. Hence, inter-market differences—upon which the study is primarily based—would not necessarily be affected by these nationwide phenomena.

Perhaps the most controversial aspects of the study—indeed, one of the few controversial aspects, since the statistical results for the most part simply are what the are—is the estimation of the "monopoly overcharge" due to high local market concentration in food retailing. Any such estimate, of course, is a dollar figure that depends heavily on the particular total sales base from which it is computed, the concept of "monopoly" employed, and the estimated relationship between "monopoly levels and actual price or profit levels. The authors chose a market structure of four equal-sized firms with an aggregate market share of 40 percent as their "competitive" market structure standard, and used their statistical results for the impact of concentration on prices to estimate the effect of concentration increases above this level, aggregating the figures for individual markets to produce a national total. This is a typical procedure in studies of this type; and, of course, estimates computed from a different "competitive" base, using a different value for the price-impact of concentration, etc., would yield different results. With respect to their choice of a 4-firm/40 percent concentration level as the "competitive" market standard, it should be noted that almost one-third of the market covered (61 out of 194) had lower concentration levels in 1954 (Table 1.3, p. 16). Hence, this figure cannot be criticized as outside the relevant range of values in the data. However, in Bain's original study (Quarterly Journal of Economics, 1951) he noted "a rather distinct break" in the concentration-profitability-relationship at the 8-firm/70 percent level. For equal sized firms. Bain's results would, of course, imply a 4-firm concentration level of 35 percent. Although I have never been convinced of the "distinct break" hypothesis, few people would argue that a 4-firm concentration of 40 percent was an inappropriate competitive standard. And if the author's statistical results show price increases associated with concentration increases above this level, then that fact may be used to estimate "overcharges" in the manner that they have done.

Of course, there is no connection at all between this analytical procedure and the policy recommendations of the Neal Committee (of which I was a member) or the proposed Industrial Re-Organization Act (in favor of which I testified). These latter proposals were designed to identify only those industries in which structural barriers to effective competition were so great, and of such serious and widespread economic impact, as to *require* the restructuring of existing firms as a matter of public policy. No such implication is contained, so far as I can see, either in this study or the testimony of its authors before the Committee insofar as the use of the 4-firm/40 percent concentration standard is concerned.

Comments on the Joint Economic Committee's Food Chain Study *

(By Joel B. Dirlam, Professor of Economics, University of Rhode Island, Kingston, R.I.)

1. This memorandum evaluates "The Profit and Price Performance of Leading Food Chains, 1970–74" (henceforth, Study) prepared for the Joint Economic Committee by Messrs. Marion, Mueller, Cotterill, Geithman, and Schmelzer. Although I have attempted to read the report and criticisms of certain of its critics [1] with care, it has not been possible to delve into every aspect of the study. It is obviously the product of a great deal of work. It is only rarely that economists have access to divisional profits and prices, in any form. The authors have used ingenuity in putting the data into forms which would enable them to test important hypothesis; and they have explained why particular procedures were chosen, and how reliable the results are, given the inevitable deficiencies of the material.

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* Prepared at the invitation of the Joint Economic Committee.

[1] A statement by Mr. Hammonds, a letter by Professor Goldberg, and statements by Food Marketing Institute officials.

In the course of my review of the Study I will endeavor to summarize the facts about market structure in food retailing, and to indicate what hypotheses of behavior seem most probable, given this structure. Taking up the more controversial areas, I will appraise the merits of the major criticisms of the Study's attempts to test its hypotheses, together with any reservations I have with regard to the assumptions underlying the equations and the econometric techniques employed.

2. It seems necessary to say something about the nature of the structure of food retailing because the initial response to the Study by representatives of the industry has been one of outrage. The grocery business, they insist, is "widely recognized as one of the most competitive industries in the nation." [2] Concentration ratios have nothing to do with pricing, nor, presumably, with profits. One can understand the failure of the economists' views to coincide with those of the national food chains. Every businessman who is aware of the identity of his competitors, and their competitive strategies and their prices, probably views himself as in a "competitive pressure cooker."

Nevertheless, competition in a market dominated by four, or even eight firms, is very different from that in a market where the number of buyers and sellers is so large that most firms cannot be said to have a competitive strategy and are indifferent to the activities of specific rivals. In such markets there would be no price discrimination in the retailing service, among either markets, or different products. Mr. Hammonds, the economist for the Food Marketing Institute, does not challenge the propriety of the Study's testing the hypothesis that concentration may eventuate in performance different from that of a competitive market, although he questions the relevance of the Study's measures of market concentration.

There is no question that local food markets, however delimited, have been highly concentrated for a number of years. Supermarkets [3] compete in conditions of oligopoly.[4]

When one comes to measure the exact degree of concentration in specific local markets, he finds very little precise information. The Census has compiled four-firm concentration ratios for Standard Metropolitan Statistical Areas, and private services make similar calculations for years not covered by the Census. The Study includes a tabulation of such ratios for supermarket sales for 1972. This computation is helpful in view of the small likelihood that neighborhood stores compete for the same customers and types of purchase as the larger units. Nevertheless ratios for most SMSAs, even if properly computed, are not equivalent to the ratios that prevail in the actual local markets where dollars compete. The authors of the Study are well aware of this important gap in their data. They minimize it by arguing that any concentration ratio, or firm market share based on a concentration ratio, derived from SMSA figures must understate the real concentration in the constituent markets included in each SMSA.[5] Only if, in the more densely populated sections of an SMSA, shoppers must choose among fewer outlets than in those areas usually favored by supermarket chains for store sites would the SMSA ratio possibly overstate the concentration affecting the supermarkets. Although in the absence of an empirical study of markets in SMSAs it is impossible to be certain whether the ratios used by the Study overstate the actual ratio, it is much more likely that the Census ratios understate the concentration.

In any event, the Study tests the effect of differences in ratios among markets on profit and prices, so that it might be argued that unless there were a bias that was systematically associated with the SMSA concentration levels, it could be ignored.[6]

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[2] Statement of Robert O. Aders, President, Food Marketing Institute, before the Joint Economic Committee, April 5, 1977, p. 2.

[3] Now defined as grocery stores with more than $1 million in annual sales.

[4] It is probable that smaller stores also enjoy a fair degree of insulation from completion in their markets. Their location, and the circumstances in which they are shopped by their customers prevent other than fringe competition between them and the larger stores, which tend to be located in suburban shopping centers. See Rirlam, "The Food Distribution Industry," in Adams, "The Structure of American Industry" (5th ed., 1977), pp. 44–45.

[5] Study, p. 40.

[6] If the SMSA's with high concentration ratios tend to embrace local markets where the chains are selling in low concentration markets, and smaller stores in high markets, while in the SMSAs with low concentration ratios the reverse tends to be true, then there would be ground for questioning at least the coefficients associated with CR_4 and RFMS. But there is no reason to believe that this is the case.

By confirming its analysis to the 17 leading chains, the Study perforce ignored the regional or local chains that often have the leading share of supermarket sales in important markets.[7] Yet it is not clear that this omission would have an effect on the results; the relative market share, defined as the ratio of the firm's share in the local market to the CR_4 would still be related to its market power, and the potential power of the four largest firms would still be associated with the CR_4 for the SMSA.

3. When markets are concentrated, competitive behavior, and therefore performance, is not easy to predict. It can take the form of nonprice competition with wasteful expenditure on promotional activities, including food stamps, stretching the hours of operation, proliferation of products and items stocked, and provision of a wide spectrum of store services. Investment and operating expenses are inevitably increased by this strategy. Competition among the few can also take the form of cutthroat competition, sporadic price wars, and exploitation of buying power. Because of the importance of differences in strategies among the firms confronting each other in the concentrated markets, specific price and profits performance must be linked to the peculiarities of managements.[8] There seems to be a longrun tendency in most oligopolized markets, however, to avoid price competition, unless an important firm is seized with the desire to increase its market share. The small group will adopt a common standard for cost and profit margins, and confine its competitive aggressions to tactics that raise costs.

In food retailing, we have a classic example of competition among a few firms. Supermarket managers are typically aware of the presence of no more than three other important competitors. The downward trends in sales per employee and per square foot, and the higher level of gross margins characteristic of recent years cannot be disassociated from the oligopolistic structure of food chain retailing.[9] At the same time, and recognizing that generalizations about profits are subject to question, the largest chains do not appear to have earned extraordinarily high returns.[10] Until the Joint Economic Committee obtained information on divisional profits, and prices by SMSA, the published data could not be disaggregated to determine whether in the more concentrated markets, profits or prices were tended to be significantly higher. Nor could a similar comparison be made for prices.

4. In testing the hypothesis that profits and prices were closely associated with market structure, the Study gave special treatment to the A&P Company. In the set of equations in Table 2.6, one variable was used to represent the impact of A&P on other firm's profits, and a second for A&P's own profits. The profits equation used to illustrate the consequences of changes in CR_4 and relative firm market shares (RFMS), omitted A&P's profits and determinants. The same equation also omitted profits for two years, 1972 and 1973 from the averages of the remaining 11 chains.[11] A&P pursued "unique sales and profit strategies" during the years 1970–74, and during 1972 and 1973 the A&P WEO program and price controls produce "abnormal results."[12] Mr. Hammonds and Professor Goldberg have objected to these omissions. Professors Marion and Mueller reply that their purpose is to compare determinants of prices in October 1974 and the profit regression analysis and that 1974 was a "normal" year. Hence the year 1972–73 should have been left out for their inclusions could not have substantially changed results. A regression analysis run on A&P using most of the variables employed in the analyses of the other 11 companies disclosed that its RFMS was significant in explaining the profit to sales ratio.[13]

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[7] In 2 of the 10 largest SMSAs a local or regional chain was in first place in 1973. Local chains led in Atlanta, Cleveland, Detroit, Houston, Los Angeles. See Dirlam, op. cit, pp. 49–50.

[8] For a discussion of the short-run and long-run goals that managements can adopt, see Kaplan, Dirlam and Lanzillotti, "Pricing in Big Business: A Case Approach" (1958), Chap. 2.

[9] Dirlam, op. cit., pp. 58–63. Of 188 SMSA's for which the Bureau of Census computed supermarket concentration ratios in 1972, 146 had ratios of 60 percent or over for the first 4 firms. Study, table F.1.

[10] Dirlam, op. cit., p. 70 and table 6, p. 55; Study, table 2.1. Winn-Dixie and Lucky seem to be consistently more profitable than other chains, while National Tea and First National bring up the rear. Size of chain does not seem to be related to profitability.

[11] See table 2.7, equation 1d.

[12] Study, pp. 51–52.

[13] Study, Table B.13, p. 102. The curvelinear CR_4 ratio, however, was not significant in 1973 and 1974.

I have some difficulty with both the alternatives adopted to deal with the A&P Co. In oligopolized markets, all firms are unique, and as pointed out earlier, each may behave in ways that may seem to be "abnormal". Having removed A&P, would the authors of the Study not also be obligated to make special provisions for every chain in every market in which it might have been operated inefficiently or adopted a tactic of sharp price cutting?

As Marion and Mueller point out, National Tea appears to have been mismanaged for a number of years, and other chains than A&P have used costly competitive strategies in certain markets. For similar reasons it seems that the years 1972 and 1973 should not be ignored.

5. The estimate of "monopoly overcharged" has drawn fire on several grounds, apart from reservations about the omission of A&P from the profits equation. First it has been urged that the 40 percent CR_4 selected as a cut-off was too low. As Marion and Mueller insist, and as mentioned earlier, the CR_4 ratio for supermarket sales in most SMSAs is much higher than 40 percent. Raising the CR_4 level at which concentration begins to influence prices and profits to 50 and the RFMS to 25 reduces the estimated monopoly overcharge to $496 million from $662 million. To compare this figure with total food chain profits is to misunderstand the nature of the estimate; in effect, the study uses the points at which its equations show that SMSA prices and divisional profits begin to increase, and then assumes that since the chains have been able to exist with the profits and prices realized at these levels, there is no reason why the return should not be taken as compensatory. The critics have overlooked final pages of the Study, emphasizing that single-market and small chains presumably relying on superior ingenuity and efficiency manage to compete with the multi-market chains in these relatively low-price and profits markets.[14]

In fact, a persuasive estimate of overcharge could have been made without a multiple regression analysis. It should have sufficed to array the SMSAs by estimated average profit rate and price, and use the profit rate and market basket cost for the lowest 25 percent (or 50 percent) as a guideline.

In any event, while somewhat apart from the goal of the Study, which was to try to explain differences among market areas, an overcharge estimate could also be drawn from the difference between gross margins now realized by typical large chains, and those prevailing at earlier periods.[15] Undoubtedly, the higher costs alluded to earlier, must be partly responsible for the wider margins.

6. Some critics have suggested that the Study's equations were misspecified and did not include all or the proper variables. Professor Goldberg would have included excess capacity, wage rates and real estate costs in both the profits and the price equations. He would have used return on equity instead of net earnings to sales as a measure of profitability. In addition, he found the price equation unsatisfactory because it excluded transportation costs and the prices of meat, produce, dairy products and frozen foods.[16]

The authors of the Study were well aware of the limitations of their data in constructing both the profits and price equations. Only a before-tax profits to sales figure was available. Since all firms were food chains, the profit margin should be a good proxy for return on investment. If "prices for items in this group [grocery products] were closely correlated with prices for a market basket including additional product groupings"[17] then the use of grocery products to represent all prices seems justified. The authors checked the influences of wages on the cost of grocery products, and it was insignificant.[18] Transportation cost likewise had no effect on the results.[19]

There remains the possibility that, although these various cost elements did not show up as significant in the results as calculated, they were significantly associated with other variables. The authors state, "There is no *a priori* basis for expecting wage rates, transportation costs or occupancy expense to be related to market concentration or the market position of chains."[20]

The Study rejects the view of Professor Goldberg that excess capacity—one of the inevitable consequences of competition among the few—should foster price

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[14] Study, pp. 81–82; see also Dirlam, op. cit., pp. 53–56.
[15] See Dirlam, op. cit., pp. 57–66 and 70–74.
[16] Goldberg, letter.
[17] Study, p. 65.
[18] Comments on Testimony of Mr. Timothy M. Hammonds.
[19] Study, p. 66, fn. 15.
[20] "Comments . . . ," p. 18.

cutting, expanded volume and lower unit costs. The authors believe rather, that excess capacity "serves as a barrier to entry and as a depressant to competition." [21] If the data were available it would have been interesting to check the amount of excess capacity by SMSA—if it can be measured—against relative profits and prices. The obstacles to putting all data on a comparable basis are formidable. That excess capacity exists, however, seems beyond doubt, if one uses as a standard the floor space, personnel, and inventories required to serve consumers at minimum cost.[22] There is good indication that the number of potential customers per supermarket has dropped.[23] If anything, excess capacity is merely an accompaniment and consequence of oligopoly. Because of unutilized capacity, operators may initiate price wars or try to convince customers by advertising that they are discounting [24] in order to raise volume. On the other hand, food chains may engage in other forms of non-price competition to increase the number of customers, or adopt a live-and-let-live policy.

Mr. Hammonds questions whether the Study should have averaged instead of pooling the information on yearly profits. Marion and Mueller rely that empirical studies in industrial economics have always used average profits when relating structure to performance and that the single year equations produce significant coefficients for the structure variables. Moreover, to use yearly data would introduce serious problems of autoregression.[25] Mr. Hammonds found the use of a curvelinear transformation of CR_4 somehow grounds for suspicion. But there are good reasons for supposing that market power is not linearly related to performance.

7. In some respects the Study failed to carry its statistical analysis as far as one would have hoped. To begin with, an analysis of variance would have given an indication of whether the profits and price differences among markets were significant enought to warrant carrying out a multiple regression analysis using RFMS and CR_4 as independent variables. Then, as a check on possible multicolinearity the authors could have presented, instead of the simple pair correlation matrix, an inverse correlation martix, a standard procedure when several independent "variables" are employed.[26] It would, also, have been interesting to see the results of pooled profits, in addition to the averages and single year equations. The number of observations would have been increased. And, while autoregression is typically supposed to be found in time-series regressions, it can be present also in cross-sectional analysis; it would have been enlightening had the authors performed the usual tests for its presence.

An entry variable in the profits equation is supposed to allow for the lower profits that might be realized by those firms moving into new markets in the years 1967–1970.[27] In the market basket cost equation, however, the JEC Study uses a market rivalry variable; there was no explanation of the failure to use it in the profits equation. Would it not be likely that movement into a market would affect also the established firms, and tend to diminish their earnings?

In most oligopolized markets, there is jockeying for position, and new entry from time to time. Price wars take place, and conventional stores are changed to "discount" supermarkets, etc. Both Kroger and National Tea withdrew from Chicago because of prevaling low prices resulting from the activities of a local chain.[28] In fact, it would have been interesting to see the effect of introducing a variable into the profits equation that could indicate the presence of price wars. Perhaps the dependent variables in the price equation could have been used in a profits equation for the 3 firms making price data available.

CONCLUSION

The Study's most important findings are that multimarket chains profits and prices tend to differ from market to market with levels of concentration, and with

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[21] Study, p. 78, note 6.
[22] See Dirlam, op. cit., pp. 71–74.
[23] Dirlam, "The Food Distribution Industry," in Adams, ed., "The Structure of American Industry" (4th ed.), 1971, p. 57.
[24] On the elusive character of discount food stores, see Dirlam, op. cit. (5th ed), p. 42.
[25] Marion and Mueller, "Comments . . . ," p. 13.
[26] See D. E. Farrar and R. R. Glauber, "Multicollinearity in Regression Analysis: The Problem Re-visited." Review of Economics and Statistics, Vol. 49, pp. 92–107 (1967), and J. Johnston, Econometric Methods (2d Ed., 1972), pp. 159–164. I am indebted to Dr. D. H. Wang for this reference.
[27] Study, pp. 44–45. The variable equals the SMSA concentration ratio, but only for new entrants.
[28] Dirlam, op. cit., p. 79, and National Tea Annual Report, 1976.

the relative market share of the firm. It should not be surprising that this is so. Nor is it startling, in view of the increasing emphasis in food retailing on forms of non-price competition, that price differences should be unresponsive to variations in unit labor cost, or transportation cost. When unavoidable, marketing strategy has changed so as to compress margins, while still realizing a satisfactory profit margin. The example of Phoenix, Arizona, is particular relevant in illustrating the flexibility still latent in food distribution costs.[29]

The JEC Study underlines the importance of maintaining a market environment where the arrival of new entrants and the attempts of existing small firms to increase market share by internal growth will not be impeded by discriminatory cross-subsidization by giant firms.

Beneficial effects of competition should not be eroded by the temptations and wastes of tacit collusion, as long as the market is kept flexible and free. Multimarket power is a continuing problem that requires surveillance by antitrust authorities.

STATEMENT ON "THE PROFIT AND PRICE PERFORMANCE OF LEADING FOOD CHAINS, 1970–74," AND COMMENTS ON SOME TESTIMONY CONCERNING THAT STUDY*

(By David Dale Martin, Professor of Business Economics and Public Policy, School of Business, Indiana University)

On the basis of very careful and scholarly analysis of some unusually good data Professors Marion and Mueller and their colleagues have reached the conclusion that substantial market power exists in grocery retailing in many markets. Their analysis is very persuasive to me.

That the market power inherent in concentrated market structures raises both prices and profits as well as costs is also very persuasively argued and demonstrated—albeit, not for all markets. The important point, in my view, is that the data are found to be not at all inconsistent with the conclusions one is led to by the economic theory of the firm and the theory of markets.

The statistical methods used in the study are widely used by industrial organization specialists within the economics profession. These methods have inherent weaknesses and should never be used to draw "cause and effect" conclusions without their combination with closely reasoned theoretical models based on plausible assumptions. In my view, this study constitutes an example par excellance of appropriate use of theory, data, and statistical methods to make informed judgments about the true nature of the structure of control of a sector of the economy and its implications for important issues of public policy. The study deserves very careful consideration by the Congress in its consideration of ways to cope with the problem of inflation.

In addition to reviewing the study itself, I have read the March 30, 1977, testimony of Mr. Timothy M. Hammonds and comments on that testimony by Professors Marion and Mueller. Mr. Hammonds says that the study "constructs price and profit models using woefully inadequate data." As an economist who has often criticized the use of inadequate data to draw unjustified conclusions, I do not take their criticism lightly. As Marion and Mueller point out in their comment, however, in much of the industrial organization literature the inadequacies of the data tend to bias the statistical measures in the direction of zero relationships. It is for that reason that I, for one, have long discounted the economic literature that purports to show that empirical evidence fails to support the conclusions of economic theory about the ill effects of concentration of economic power. If poor data is used and as a result zero relationships are found, then economic science appears to come down on the side of defending the status quo. The Marion-Mueller study is not, however, an attempt to "muddy the waters." The inadequacies of the data are made explicit and discussed in great detail. They have argued quite persuasively, I think, that better data would give even more statistical support to the conclusions they reach. Their conclusions are just what one would expect from economic theory's deductions of propositions from plausible assumptions about any markets.

Mr. Hammonds, aside from the data question, alleges that the study "establishes arbitrary competitive standards leading to equally arbitrary conclusions." He particularly rejects the study's standard of what constitutes a competitive structure. Marion and Mueller use a 40 percent four firm concentration ratio in an SMSA with the largest four firms each having a 10 percent share as a stand-

* Prepared at the invitation of the Joint Economic Committee.

ard of competition. Hammonds argues against this standard in two ways: First, by citing other instances in which such standards appear to have been set with higher ratios, and second, by arguing that adoption of such a standard would condemn most of American industry to the less than adequately competitive category. With respect to the second point, why blink it? Most of American industry is less than adequately competitive and that is a major cause of the Nation's inability to achieve full employment without inflation.

Hammonds' first point misconstrues the nature of the statements he cites as examples of other industrial organizational analysis that set standards. He cites the 1968 Neal Report prepared by the White House Task Force on Antitrust Policy and Senator Hart's Industrial Reorganization Bill. Neither of these were statements about what degree of concentration constitutes adequate competition. Both were proposals that, if adopted, would have declared a specified degree of concentration to be presumptively not adequately competitive. The Neal Report quotation by Hammonds is from a legislative proposal to have the government take action against oligopoly industries sufficiently concentrated to afford justification for change without the government having to bear the burden of proof that has stymied effective enforcement of the Sherman Act since the 1920 U.S. Steel case. The 70 percent figure used in that proposal would not accomplish adequate competition. It would simply lessen somewhat the evils incident to industrial concentration.

The Hart proposal used a 50 percent figure it is true. But that was used very specifically in a statement in Title I of the bill of a condition in a market that would constitute a rebuttable presumption of possession of illegal monopoly power. Title I allowed for a defendant firm to prove if it could that even with such concentration it did not have monopoly power. Title I also allowed for the Industrial Reorganization Commission (the prosecutor) to prove that the defendant has monopoly power even if the concentration ratio is less than 50 per cent. The purpose of the 50 per cent concentration ratio was to serve along with, and as an alternative to other easily ascertainable facts as a rebuttable presumption that monopoly was present in order to shift the burden of proof back to the corporation where it used to be before the liberalization of state incorporation laws removed the traditional constraints on corporate size.

Incidentally, Senator Hart first announced his intention of introducing his bill in an appearance as a witness before the Joint Economic Committee in September 1971 during the Committee's hearings on the New Economic Policy enunciated by President Nixon in August of 1971. Senator Hart's statement on that occasion is relevant to the issues before the Committee at this time. It was an expression of his concern lest the Nation cope with the unemployment-inflation dilemma by moving toward increased government control of the economy without ever really trying to create a truly competitive, decentralized, market system.

That issue is still with us. This very fine study by Marion and Mueller and their colleagues at the University of Wisconsin is in the tradition of Richard T. Ely and John R. Commons who made that university such an important contributor to the advancement of knowledge of the economic institutions of the Nation and laid the basis for so much progressive legislation not only in that state but in the Nation. They should be commended by the Committee for providing such sound theoretical and statistical foundations for very important policy recommendations.

THE UNIVERSITY OF MICHIGAN,
DEPARTMENT OF ECONOMICS,
Ann Arbor, Mich., May 13, 1977.

Mr. GEORGE R. TYLER,
Economist, Joint Economic Committee,
U.S. Congress, Washington, D.C.

DEAR MR. TYLER: At your request, I have read carefully the study by Bruce W. Marion and Willard F. Mueller on "The Profit and Price Performance of Leading Food Chains, 1970–74," to review it for the Joint Economic Committee. I was happy to do this because the authors are established experts on the subject, and I hoped for a thorough and fair study.

They were testing whether the food industry follows the patterns that have been found in the general run of industries. Ons asks whether their data are good, their methods are sound, and their interpretation is reasonable. Though I have read the study thoroughly, I will confine myself here to only a brief review.

The study is in fact excellent, by all three criteria. First, the data are fresh and timely. They go beyond other information in their precision and completeness.

The study has been able to test the structure-price relationship more completely than most previous studies in any sector.

Second, the methods are quite sound and clearly explained. I have seen many large-scale studies in this subject and done several myself. This study is well above average in its logic, care, and avoidance of dubious methods. After critical scrutiny, I could find no significant issue on which to fault it.

Third, its interpretations are equally reliable. The authors show their experience and conservatisms by their balanced evaluation. The relationship they find is utterly predictable to anyone with skill in the subject.

In short, this is a first-class study with important findings. Thank you for giving me this chance for a close look at it. I hope the Committee will continue to concern itself with such high-quality research.

Sincerely,

WILLIAM G. SHEPHERD, *Professor of Economics.*

THE UNIVERSITY OF MICHIGAN,
DEPARTMENT OF ECONOMICS,
Ann Arbor, Mich., June 8, 1977.

Hon. RICHARD BOLLING,
Chairman, Joint Economic Committee, U.S. Congress, Washington, D.C.

DEAR CONGRESSMAN BOLLING: I have recently had the pleasure of reading a study prepared for your use, and I want to share my enthusiasm for it with you. The study, authored by Willard F. Mueller and associates, concerns the profitability and price performance of leading food chains during the period 1970–1974. It demonstrates convincingly that prices and profits vary among grocery stores as a function of seller concentration in and company shares of relevant markets. Consumers were overcharged to the tune of $617 million in a single year as a result of market power.

The Mueller study is first rate. It applies modern quantitative techniques and traditional economic theory to splendid data. Rarely has such a combination been achieved in the traditionally "messy" field of industrial organization. The study is truly scientific in the sense that it quickly points out gaps and weaknesses in data employed as well as controversy in theories adopted. I know of few academic studies published in academic journals which have the courage to publish all supporting data and methodology for all critics to see. The greatest tribute I can pay to a report is to use it in my teaching materials. I plan to do just that with this piece in the Fall.

I share these observations with you for two reasons. First, the study has been attacked by representatives of the food retailers. Their arguments are petty and unconvincing. I admire the integrity as well as the cogency of Mueller and associates in responding to such criticism. Second, studies such as these could not be undertaken without high quality data unattainable from public sources. It is essential that the committee continue to compel disclosure of information vital to public policy concerns for analysis by eminent and responsible academicians like Mueller.

I would be happy to expand upon these views would it be of service to the committee.

Respectfully,

WILLIAM JAMES ADAMS,
Professor of Economics.

UNIVERSITY OF MINNESOTA,
DEPARTMENT OF AGRICULTURAL AND APPLIED ECONOMICS,
St. Paul, Minn., August 18, 1977.

Hon. RICHARD BOLLING,
Chairman, Joint Economic Committee, U.S. Congress, Washington, D.C.

DEAR CONGRESSMAN BOLLING: I have recently had the opportunity to read the report by Marion and Mueller delivered at hearings conducted by the Joint Economic Committee on March 30, 1977, entitled "The Structure and Performance of Food Retailing." I have also reviewed the Joint Committee Print of April 12, 1977 (revised May 6, 1977) entitled "The Profit and Price Performance of Leading Food Chains, 1970–74." These are excellent reports.

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[29] "Comments . . . ," p. 7.

They do two important things. First, they describe the continuing trend toward increased concentration in grocery retailing. Second, they demonstrate that concentration does influence food product prices and grocery firm profits (i.e., the greater the concentration, the higher grocery product prices are to consumers and the higher profits are to the grocery firms involved).

The data are new and timely. And as far as I can judge, these new data are imaginatively and competently employed to test the hypothesis, namely, that a relationship exists between market structure and product prices. I was much impressed with the statistical measures and conclusions presented in the reports.

The Joint Economic Committee is to be commended for commissioning the Marion-Mueller studies, and for publishing the results. The results can and do bear importantly on the public policy issue of business concentration.

Sincerely yours,

W. W. COCHRANE, *Professor.*

UNIVERSITY OF MINNESOTA,
DEPARTMENT OF AGRICULTURAL AND APPLIED ECONOMICS,
St. Paul, Minn., June 9, 1977.

Hon. RICHARD BOLLING,
Chairman, Joint Economic Committee,
U.S. Congress,
Washington, D.C.

DEAR CONGRESSMAN BOLLING: I read the April 12, 1977 Joint Committee Print on "The Profit and Price Performance of Leading Food Chains, 1970–74" soon after its release. I found it to be generally well-written and indicative of substantial, well-reasoned and well-conducted research. I since learned of several industry-commissioned defensive critiques of the study.

I wish to offer some of my own observations as a professor of agricultural and applied economics and adjunct professor of law at the University of Minnesota. My major teaching and research efforts over the past two decades have been devoted to the economics of the marketing of food products.

First, I find the results of the Marion-Mueller study consistent with both economic theory and numerous empirical studies of concentration and profits in food and non-food industries over a period of several decades. In fact, if the study had come to different conclusions, I would have been suspicious of the methodology or data used.

Second, a pseudo-controversy has arisen over the selection of a "standard of competition" at the 40 percent concentration level. This is a false analytical issue because the relationship of concentration to profits is what is important. Whether the relationship becomes clear in one industry at 30 percent and in another at 85 percent is immaterial to the fact of the relationship itself. The important questions are: Was there excess (or monopoly) profits and were they systematically related to concentration in food retailing? The answers to both questions are "yes." I do not see any statements in the study that the 40 percent level is a "standard" to be applied to all industries.

I have studied the methods used in the analysis closely and believe that the most sophisticated and appropriate analytical techniques were employed. I regard the criticisms on technique of analysis as without foundation.

I was pleased to see this study come forward. There is *no* study, including several USDA efforts, that is as comprehensive or which deals with such specific aspects of the industry.

I hope my thoughts will be of value to you and your Committee. If I can be of assistance, please contact me.

Sincerely yours,

DALE C. DAHL,
Professor and Adjunct Professor of Law.

LEWES, DEL., *July 26, 1977.*

Hon. RICHARD BOLLING,
Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.

DEAR MR. BOLLING: I have just finished reading the report about the profit and price performance of leading food chains from 1970 to 1974, prepared for your committee by Bruce Marion, Willard Mueller, and others; also the state-

ments presented to the committee on March 30 by these two authors and by Timothy M. Hammonds and the subsequent comments on the Hammonds testimony by the two authors.

The report that resulted in the subsequent statements is, in my opinion, admirable. It is exceptionally good in four respects: (a) The data upon which it rests are unusually good and unusually detailed. (b) The analysis was made with skill and sophistication. (c) The authors noted with care and candor the limitations of the data and the bearing of these limitations upon their analysis. (d) The conclusons were limited to those that followed almost inevitably from the analysis. Thus the whole report provides an unusually good basis for consideration of appropriate public policy.

The detailed criticisms of the study that were made by Dr. Hammonds in his statement of March 30 showed no similar care and restraint. The comments about them by the authors of the study seem to me to have disposed of them adequately.

Your committee has contributed significantly to public understanding of the complex problems that are arising from concentration in food distribution. I hope that it will continue to support similar studies in a similar way.

In their March statement to the committee, the authors of the study expressed their opinions about policies appropriate to the study's conclusions. These are, in different degrees, controversial; but they deserve and I hope will receive the committee's careful consideration.

Certain broad characteristics of the problem of identifying and analyzing the effects of economic power seem to me to be well illustrated by the study and the subsequent controversy over it. The rest of this letter pertains to these.

1. Though in parts of the economy economic power is growing in concentration and presumably affects performance by the powerful, proof of that growth and of the nature of that effect is becoming more difficult.

Horizontal diversification and vertical integration that differ in pattern and scope for different powerful enterprises make figures about the activities of these enterprises more difficult to compare and more difficult to summarize meaningfully. The enterprises interest in numerous encounters in which the number of enterprises involved and the respective roles of the enterprises that encounter one another vary from instance to instance.

Moreover, concepts of economic power that were adequate for single markets are ceasing to be adequate to express the nature and scope of the power of large diversified and vertically integrated enterprises. As the activities of such enterprises spread and overlap one another, there is increased difficulty in applying to them the traditional concepts of monopoly and oligopoly, because definition of the markets in which these activities appear becomes increasingly difficult. Moreover, such enterprises may attain considerable power, derived not from their shares of particular markets but from their access to resources disproportionately larger than the resources of their suppliers, customers, and competitors, and from consequent possession of options in their business conduct that are more numerous and diverse than the options available to firms with which they deal and compete.

2. The growing importance of diversification and vertical integration by large enterprises impairs in two ways the adequacy of the government's figures about concentration: (a) More of the total activity of such enterprises fits badly into official statistical categories such as industry and even product group. (b) The definitions of many industries have been changed in an effort to make them more appropriate to the changing industrial structures, and thus the comparability of figures for successive time periods has been seriously impaired.

3. Powerful enterprises do not willfully disclose in their own published statistics anything that identifies and differentiates their activities in their various fields of activity.

4. To have meaning, studies of economic power need to be based upon figures that contain, so far as possible, detail appropriate to the structure and interaction of the powerful firms being studied. Such figures can be obtained only if subpoena power is used to obtain them.

5. What can be obtained by subpoena involves so many problems as to relevance, comparability, and adequacy that use of it requires complex analysis that necessarily results in a long and complex report. Such a report is necessarily difficult to read and understand, and easy to misrepresent. People adversely affected have incentives to misrepresent it.

6. At best, such reports can cast light only upon particular problems chosen for study. Until more adequate information is available about the activities of the more powerful enterprises, we shall lack a sound basis for judgment as to

what problems are most important. The most ambitious and well-supported effort to provide such information—FTC's line-of-business program—is being vehemently attacked in the courts and elsewhere. Adequate information will become available only if efforts to get it are well enough supported to overcome major opposition.

Sincerely,

CORWIN D. EDWARDS.

PURDUE UNIVERSITY,
DEPARTMENT OF AGRICULTURAL ECONOMICS,
West Lafayette, Ind., July 11, 1977.

HON. RICHARD BOLLING,
Joint Economic Committee, Congress of the United States,
Washington, D.C.

DEAR CONGRESSMAN BOLLING: The purpose of this letter is to comment on a study prepared for the Joint Economic Committee of the U.S. Congress, "The Profit and Price Performance of Leading Food Chains, 1970–74," April 12, 1977.

I have read the report and am impressed by the extent of relevant data made available for the study and by the quality and rigor of the analysis. The findings essentially bear out for food retailing what economic theory hypothesizes and what are shown in studies of other industries and markets.

The report contributes substantially to the descriptive information available about market organization in food retailing and to the delineation of relationships between market organization characteristics and market behavior, prices, earnings and performance patterns. I think the report is a significant contribution and can be useful in terms of guidelines both for further research and for public policy.

For example, an important question suggested by the findings is why market shares of leading firms in City B, a highly concentrated eastern city, are not eroded by entry from outside competitors. Based on a long history of educational work with the food retailing industry at Purdue University, experience indicates that many local and regional independent food retailing organizations, some with relatively few stores, are highly efficient and effective competitors. A fruitful area for research would be to determine what possible barriers, if any, might exist which inhibit the penetration of concentrated markets by intermediate size organizations. Such barriers might include, for example, selective price competition by established firms mainly in areas where new firms would be endeavoring to gain a foothold. Policies which would broaden price competition generally and which would encourage the vigor and opportunities for intermediate size businesses would enhance and strengthen a competitive enterprise system in food retailing.

Your committee is to be commended for developing relevant information in the important area of food marketing and distribution, and I would like to encourage your continued cooperation and support in undertaking studies of this kind. Public policies relating to the structure and competitive behavior of our private enterprise system can have a major influence on the strength and vigor of our national economy. Such policies should be based on the best information and analytical work which can be obtained. University scholars are often hampered in their research on issues relating to market organization and performance because of the lack of adequate and relevant data. The cooperation of your committee in acquiring such data can make a valuable contribution to new research findings and, in turn, to the formulation public policies which will serve and strengthen private competitive enterprise in the United States.

Sincerely,

PAUL L. FARRIS,
Head of Department of Agricultural Economics.

UNIVERSITY OF NOTRE DAME,
DEPARTMENT OF ECONOMICS.
Notre Dame, Ind., June 24, 1977.

HON. RICHARD BOLLING,
Chairman, Joint Economic Committee, Congress of the United States,
Washington, D.C.

DEAR CONGRESSMAN BOLLING: Upon careful examination of the Report, *The Profit and Price Performance of Leading Food Chains, 1970–74* by Mr. Bruce W. Marion, Mr. Willard F. Mueller and others, for the use of the Joint Economic

Committee of the Congress, I am impressed by its scholarly character and significance for public policy. It is my belief that the *Report* convincingly supports the thesis that prices in retail food chains are notably higher in areas where competition is weaker because of the presence of few firms in the structure of local markets.

Special note must be taken of the point that the cost and price data used in the *Report*, namely, data subpoenaed from 17 of the largest national food retail chains, was superior in scope to any available from other public or private sources. In effect the *Report* bears out the position that in the national food retail chains as concentration intensifies, market power increases, which results in lessened competition and higher prices.

With respect to the authors of the *Report*, I am personally acquainted with Mr. Willard F. Mueller who is a recognized authority in the area of monopoly and competition. In addition to his outstanding academic qualifications, his years of public service as Chief Economist for the Federal Trade Commission qualified him to take part as co-author of this precedent breaking study. It is indeed fortunate that the Joint Economic Committee was able to avail itself of the services of such an outstanding academician for the purpose of this research.

In regard to the attack made against the *Report* by Mr. Timothy M. Hammonds, in his *Statement* before the Joint Economic Committee on March 30, 1977, I find the thoroughly documented *Comments* by Mr. Bruce W. Marion and Mr. Willard F. Mueller to be an overwhelming refutation of Mr. Hammonds' evaluation. Attention will be called here to only a few of the numerous instances in the Marion-Mueller *Comments* which point out the weaknesses and inaccuracies in the *Statement* by Mr. Hammonds.

Concerning Hammonds' contention that the *Report* contained an arbitrary statement of competition namely CR_4 at 40 percent of sales or less, Marion-Mueller note in *Comments*, p.3 that at the CR_4 level the empirical analyses showed that both profits and prices continued to rise around the CR_4 at 40 level and therefore competitive prices were present when CR_4 is 40 or lower. (*Comments*, p.3) Marion-Mueller also note that Hammonds' reference to the Neal Report and the Hart Industrial Reorganization Bill which used a much higher concentration figure than 40 is not relevant since those documents referred to shared monopoly markets while the *Report* refers to a standard for competitive markets. (*Comments*, p.4)

In regard to the claim in the Hammonds' *Statement* that the estimated monopoly overcharge in the *Report* exceeds the total income profits of all supermarkets Marion-Mueller point out that the figure used by industry spokesmen was post tax rather than pre-tax. Moreover, the *Comments* note that the estimated overcharge was not an estimate of excess profits, but of excess prices, of which increased profits are only a fraction. (*Comments*, p. 6)

With respect to Hammonds' contention that the price equations in the *Report* are based on only three companies, Marion-Mueller point out that the growth, profitability and average market share of these three chain store firms were similar to the 17 chains included in other parts of the *Report*. In addition, it was noted that the three chains operated in 32 metropolitan areas, a selection of markets considered sufficient to determine valid statistical evaluation of price differences. (*Comments*, p.8)

Further, in regard to Hammonds' objection to the use of October, 1974 prices for his particular price study on the grounds that it led to a notable upward bias of the price data, Marion-Mueller point out that regardless of the level of prices, it was found that prices rose sharply at CR_4 levels of 40 and above, thus pointing to the existence of some market power at such levels of concentration. Marion-Mueller note here that the study measured the differences in prices and profits across markets. (*Comments*, p.9)

Concerning Hammonds' objection that the analysis of division profits is inappropriate, the Marion-Mueller *Comments* (p.12) point out that usable data was available for 96 divisions of 12 chains and they were used together with the weighted average market characteristics of the metropolitan areas within these divisions. Marion-Mueller note that this conjunction provides good approximations of the competitive character of the divisions continuing such metropolitan areas.

Moreover, Marion-Mueller point out, contrary to the claim of Hammonds, that rather than the SMSA profit equations being discarded in the final analysis, such data, made available for 50 SMSAs by six chains, were duly analyzed by using basically the same models as for the divisional equations. Further,

Marion-Mueller noted that the results were very close to those of the divisional models and were fully set forth in the *Report*. (*Comments*, p.13)

Again, as opposed to the claim of Hammonds, Marion-Mueller noted in their *Comments* that each profit model was tested for separate years as well as for several years. Hammonds indicated in his *Statement* that the authors of the *Report* only averaged the profits of each company over the several years of the study. (*Comments*, p.13)

With respect to the assertion of Hammonds in his *Statement* that the authors of the *Report* discarded the A & P chain and excluded it as a special case, Marion-Mueller stress that just the opposite occurred. Here they point out that the A & P chain in the *Report* was placed under special analysis in an effort to determine the impact of A & P's WEO program with regard to its own profits and as related to its competitors, as stated on page 43 of this *Report*. (*Comments*, p.15)

Again, Hammonds in his *Statement* charges that a grave omission in the *Report's* price model was the failure to consider operating costs variables. Marion-Mueller note that their analysis included transportation cost variables as used in a U.S.D.A. document, but with no affect on their results. This finding was duly recorded in footnote 15 on page 66 of the *Report*. (*Comments*, p.17)

Another claim made by Hammonds in his *Statement* was to the effect that, contrary to the finding of the *Report* concentration is not increasing in food retailing. Marion-Mueller note, however, that their analysis of all comparable metropolitan areas shows notable increases in the number of highly concentrated markets. In particular they observe that the number of markets with CR_4 of 70 or more increased from one in 1958 to nine in 1972. Further, the number of markets with CR_4 of 65 or more increased from eight to 29 in the same period. (*Comments*, p.23)

As to Hammonds' claim that affiliated independents are growing more rapidly than chains, Marion-Mueller observe in their Comments, p.25 that while some individual voluntary and cooperative groups are growing rapidly (as the *Report* noted, pp. 12–15) they are growing within a steadily shrinking area. Here Marion-Mueller recall their *Report* statement (p.83) that total sale of independents (designated as companies with fewer than 11 stores) declined from 65.5 percent of all grocery store sales in 1948 to 43 percent in 1972. In contrast, Marion-Mueller in *Comments* p. 25 point out that according to census figures, chain store firms have enjoyed a steadily increasing share of U.S. grocery store sales, going from 34 percent in 1948 to 47 percent in 1972.

The *Comments* by Marion-Mueller merit serious consideration by members of the Joint Economic Committee. This document serves well to underscore the importance of the *Report* for the purpose of public policy considerations.

Sincerely yours,

MARK J. FITZGERALD, PH.D.
Professor Emeritus-Economics.

SAN JOSÉ STATE UNIVERSITY,
DEPARTMENT OF ECONOMICS,
San José, Calif., June 4, 1977.

HON. RICHARD BOLLING,
Chairman, Joint Economic Committee, Congress of the United States, Washington, D.C.

DEAR MR. CHAIRMAN: I am writing with reference to a study recently published by the Joint Economic Committee entitled *The Profit and Price Performance of Leading Food Chains, 1970–74*. I have learned that at recent hearings a number of people beholden to the grocery retailing industry attacked the study. In itself this is neither surprising nor reprehensible. However, it is also my understanding that the Committee did not at the same time hear from any qualified independent economists. Thus the purpose of this letter is to give you my independent appraisal of the study and of the criticisms of Timothy Hammonds, an industry spokesman. The enclosed vita gives you some indication of my qualifications for doing so. I have completed several studies of the type at issue (which were funded and published by the National Commission on Consumer Finance). Moreover, I have been an active industrial organization economist for more than 10 years.

With respect to the JEC study, my summary assessment is that it is undoubtedly the best piece of research ever done on the topic. Indeed, it is one of the best studies I have seen of this general type (cross-section, intra-industry, multivariate regression analysis of market structure and performance). Certainly its

greatest strength lies in the data used. The profit data are exceptionally solid with respect to their broad time span, narrowness of market definition, consistency across observational entities, and comparability with complementary variables. Most studies of this type cannot claim this degree of refinement. The price data are certainly inferior to the profit data, as the authors themselves carefully point out. Nevertheless, even those data are the best thus far available for such a study. They are standardized across observations for product composition, time period, and method of collection. They are not the best possible; they are merely the best available. With the expenditure of a substantial amount of money they could be improved upon to include a longer time period, more cities, more products, and more chains. In light of the results obtained with the Joint Committee's data, it might be worth the while of the FTC or Census Bureau to gather even better data.

As regards the results themselves, they fit quite snugly into the general pattern revealed by structure-performance research. Marion, Mueller, *et al.* refer to the general industrial organization literature on this point. Unfortunately, one unfamiliar with the details of the literature might tend to discount this comparison on grounds that prior studies concerned manufacturing, not retailing, and that they were *inter*industry studies, not *intra*-industry studies. Thus, I would like to take this opportunity to point out that the JEC study corroborates a pattern revealed in other cross-section, intra-industry multivariate analyses of prices and profits. Since most of the controversy seems to concern the findings on prices, I shall confine my reference list to comparable price studies (many of which are inferior to the JEC study) :

1. For a review of studies of drug, gasoline, and hard goods retailing see Louis P. Bucklin, *Competition and Evolution in the Distributive Trades* (Englewood Cliffs, N.J. : Prentice-Hall, 1972) pp. 126–30.

2. *Prescription Drug Price Disclosures*, Staff Report to the Federal Trade Commission (processed, 1975) pp. 41–44, part III.

3. J. David Cummins, Herbert S. Denenberg and William C. Scheel, "Concentration in the U.S. Life Insurance Industry," *Journal of Risk and Insurance* (June 1972) pp. 177–99.

4. John H. Landon, "The Relation of Market Concentration to Advertising Rates: The Newspaper Industry" *Antitrust Bulletin* (Spring 1971) pp. 53–100.

5. Bruce M. Owen, "Newspaper and Television Station Joint Ownership," *Antitrust Bulletin* (Winter 1973) pp. 787–807.

6. F. R. Edwards, "Concentrations in Banking and its Effect on Business Loan Rates," *Review of Economics and Statistics* (August 1964) pp. 294–300.

7. Paul A. Meyer, "Price Discrimination, Regional Loan Rates and the Structure of the Banking Industry," *Journal of Finance* (March 1967) pp. 37–48.

8. Donald Jacobs, *Business Loan Costs and Bank Market Structure*, (New York : Columbia University Press, 1971).

9. F. W. Bell and N. B. Murphy, "Impact of Market Structure on the Price of a Commercial Bank Service," *Review of Economics and Statistics* (May 1969) pp. 210–13.

10. George Kaufman, "Bank Market Structure and Performance : the Evidence from Iowa," *Southern Economic Journal* (April 1966) pp. 429–39.

11. A. A. Heggestad and J. J. Mingo, "Prices, Nonprices, and Concentration in Selected Banking Markets," *Bank Structure and Competition*, Conference Papers, March 28–29, 1974 (Federal Reserve Bank of Chicago) pp. 69–95.

12. Franklin Edwards, "The Banking Competition Controversy," *National Banking Review* (Sept. 1965) pp. 1–34.

13. Douglas F. Freer and Robert Shay, *An Econometric Analysis of Consumer Credit Markets in the United States*, Technical Study Vol. IV, National Commission on Consumer Finance (Washington, D.C., 1973) especially chapters 2 and 4.

14. Walter J. Mead, *Competition and Oligopsony in the Douglas Fir Lumber Industry* (Berkeley: University of California Press, 1966) chapters 11 and 12.

15. H. W. de Jong, "Industrial Structure and the Price Problem: Experience Withing the European Economic Communtiy," in *The Roots of Inflation*, G. C. Means, *et al.*, eds. (New York: Burt Franklin & Co., 1975) pp. 199–209.

In sum, I believe that any economist who claims to be surprised by the JEC results is either lying, misinformed, or incompetent.

This is not to say the JEC study is perfect. I think there are several minor flaws. First, greater justification and explanation should have been given for the nonlinear specification or concentration in the profit regressions. How did the authors settle on the particular form they used? What other options were tried? Elaboration would have been helpful. Second, some measure of labor cost should

have been included in the price analysis. From past experience I think the authors could have used data on retail clerks' annual wages from a Census publication called *County Business Patterns*, which reports such data on a fairly refined basis for all workers covered by the Social Security System, by county.

Both of these problems were addressed by Marion and Mueller in their written response to the criticisms of Timothy Hammonds. And I am satisfied that they have largely corrected for these flaws. My remaining misgivings have not been mentioned by anyone, but they do not relate to the central body of the study and therefore may be considered inconsequential. They all relate to Appendix D, entitled "A Generalized Model of Structure, Conduct, and Performance in Food Retailing." Indeed, that appendix is the weakest part of the entire paper. The fact that this material is relegated to an appendix indicates that the authors may have had some misgivings about it too. In any event, I will only give brief mention to a few of the problems. First, the justification given for expecting an inverse relation between profits and advertising (on page 108) is unclear and I think wrong. They talk as if they were dealing with a partial adjustment disequilibrium time-series model, but they are not. Grounds for an "inverse" expectation are available, but they are not mentioned. The authors ought to consult two recent papers on this point, both of which appeared in the November 1974 issue of *The Review of Economics and Statistics:* M. E. Porter "Consumer Behavior, Retailer Power and Market Performance in Consumer Goods Industries," and K. D. Boyer, "Informative and Goodwill Advertising." A second problem arises in their justification of RFMS as a determinant of advertising intensity. I fail to see how that variable could be a measure of economies of scale. The least that can be said is that there are many better measures of such. Third, there are much better justifications for expecting a negative relation between concentration and advertising than those provided. I recommend to the authors my own paper, "Advertising and Market Concentration," *SEJ*, 1971, on this point. Another would be a recent paper by Strickland and Weiss in the *Journal of Political Economy* (October 1976). Finally, their measure of entry barriers (E) is quite weak for the purposes they have in mind on page 111.

Regarding the comments and criticisms of Mr. Timothy Hammonds and the Marion-Mueller reply to those comments, I must say that I side with the latter on virtually every point. Marion and Mueller deftly demonstrate that Mr. Hammond's views generally fall into one of three categories—irrelevant, misleading, or invalid. Hammonds gets to first base only two times, both of which I mentioned above and both of which were satisfactorily answered by Marion and Mueller—(1) the nonlinear specification and (2) the addition of labor costs.

In conclusion, I would like to congratulate the Committee for its funding of this study and for exercising its subpoena power to obtain the necessary data. Several sectors of Congress have taken a lead in this respect (e.g., the Committee on Interior and Insular Affairs in the Senate, for its study of petroleum companies). And I think it is extremely important that such steps be taken in the future. It seems that many government agencies are too timid, or too unimaginative, or too heavily reliant on voluntary compliance to succeed in gathering the best data that can be made available. If the *JEC* doubts the validity of the price portion of the grocery study, it could certainly fund further data gathering on the issue. Design of the collection effort should follow the criteria laid down by Marion and Mueller (in their reply to Hammonds).

If you would like me to elaborate on any of my views, I would happily try to comply.

Sincerely,

DOUGLAS F. GREER,
Associate Professor of Economics.

THE UNIVERSITY OF ALBERTA,
DEPARTMENT OF AGRICULTURAL ECONOMICS,
Edmonton, Alberta, June 15, 1977.

Hon. RICHARD BOLLING,
Chairman of the Joint Economic Committee,
U.S. Congress, Washington, D.C.

DEAR CONGRESSMAN BOLLING: I recently reviewed the report, prepared by Bruce Marion et al, members of the Food System Research Group, to the Joint Economic Committee.

I find the report refreshingly complete in its analysis. Research in the area of food retailing is very difficult and complex. It is because of this nature that there will always be many detractors and critics. The difficulty lies not in criticism but

in the construction of a more complete analytic base. The researchers have succeeded in enlarging our basis for comparison and coming to grips with a situation that is in fact outpacing conventional economic theory.

Horizontal concentration is a way of life in Western Canada. We pay for it as consumers through (a) excessive store footage, (b) very large advertising expenses at the retail level (c) the elimination of potentially viable competitors and (d) the serfdom of suppliers. In our case vertical integration by the largest conglomerate retailer has slowly placed our agricultural producers and processors in very confined lines.

Confounding us is the fact that the retailers (Canada Safeway) seems to be performing its services very well during the process of eliminating its competition, denying agricultural producers and consumers market alternatives and using its revenues from Western Canada to force market entry into Eastern Canada and Australia.

During this excursion our food processors and transportation services are forced into fewer and narrower marketing and service opportunities. Our pricing efficiency continues to decline while operational efficiency proceeds to call the tune. The retailers that are left tell us that everything is happening in a natural order of events, that private labels, price discrimination, formula pricing, meat and vegetable programs, yearly volume kickbacks etc. are the normal way of doing business in an age which stresses continuing affluence and size.

Needless to say I disagree! We must continue to probe and explore events so that we can be master of our own course. Why the "hell" should we be on a ship which goes where the large integrated retailer takes us and where he feels happy and calm?

There are things that can be done to promote free enterprise and we have done a few of them here in Alberta.

1. Restrict advertising—volume and discounts allowed.
2. Metropolitan area pricing uniformity by any chain—one price all products all locations.
3. Restrict number of stores in metro area (store footage) for any one chain.
4. Make tying arrangements with shopping centres illegal
5. Limit private labels (shelf space) and price shenanigans with private label and processor branded items.
6. Limit vertical integration by retailers-packers are restricted from retail entry—so should retailers be restricted from milk, meat, eggs, cheese, vegetables (canning, frozen and fresh).

These solutions are relatively easy to enforce and can be tied to market share.

Well once again my compliments to your committee and the Wisconsin research group for their interest in the area. It will take considerable courage to continue efforts in this area, but it will be worth while. I would not like the events in the U.S. to proceed to where we are in Western Canada.

Best regards in your work.

Sincerely.

M. H. HAWKINS, *Professor.*

BULL SHOALS, ARK., *June 7, 1977.*

HON. RICHARD BOLLING,
Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.

DEAR CONGRESSMAN BOLLING: I've recently had occasion to read the JEC study—The Profit and Price Performance of Leading Food Chains, by Marion and Mueller. Your committee is to be commended for sponsoring research of this kind, and I hope you will continue your efforts along this line.

It is possible to quibble endlessly in studies of this kind about the adequacy of the data, analytical methods, and the precise extent to which concentration of control enhances prices and profits, as Mr. Hammonds and others did before your committee and in the press. But the Marion-Mueller study was a good one, and its main thrust is altogether in accord with most of the other economic research in this field.

Over a long lifetime, I've become more and more concerned about the increasing concentration of control in the American economy. The effect of this on prices and profits is well known, but this is only part of the consequence. As of course you are aware but many people seem not to be, monopoly power makes it possible simultaneously to raise prices and reduce output in the face of *falling* demand, which is the root cause of cost-push inflation and greater unemployment. For a time, most economists thought our economy could be controlled thru fiscal and

monetary policy, but events themselves have proved this wrong. Somehow America must face up to its basic economic problems and tackle them in a more realistic way. Your Committee is among the few agencies, either in or out of government, which is trying to do this.

A vigorous anti-trust policy is of course the first requisite, but this can do virtually nothing with established monopoly and internal corporate growth among the larger companies. For this reason, I was much in favor of the late Senator Hart's bill for re-structuring industry where necessary to preserve workable competition, and I offered testimony in its behalf before several Senate Committees. Hopefully this type of legislation can eventually be passed.

Meanwhile, we have the immediate problems of rising inflation, high unemployment, and the crushing burden of Welfare which results. I doubts that we can for very much longer avoid wage, price, and profit controls at least in some sectors of the economy. And there is a rising ground swell of public support, not yet adequately reflected in present or proposed legislation, for public service employment.

I hope your Committee will go forward with its research and investigation into the basic economic problems which confront us.

Sincerely yours,

A. C. HOFFMAN.

(By way of self-introduction, I am a retired vice-president of the Kraft Foods Co.; in 1941–43 I was Director of Food Price Control in the CPA in Washington; and in the late 1930's made a study of the food industries for the Temporary National Economic Committee, TNEC monograph 35).

UNIVERSITY OF MISSOURI—COLUMBIA,
COLLEGE OF ARTS AND SCIENCE,
DEPARTMENT OF ECONOMICS,
Columbia, Mo., June 3, 1977.

Hon. RICHARD BOLLING,
Chairman, Joint Economic Committee,
U.S. Congress,
Washington, D.C.

DEAR SIR: I have recently received copies of the testimony presented by Professor Willard Mueller and his colleagues regarding the economic performance of the grocery chain stores. I have also had a chance to read the testimony offered by Mr. Hammonds. I would like to make a few very brief comments.

First of all, Mr. Mueller is a very distinguished economist and has made major contributions in both the economics and policy of industrial organization. To my own knowledge, he is a very careful, indeed one might saw meticulous. worker. His standing in the field is such that all of us listen with great care and respect.

Rather than comment on the Mueller study, I would like to make some observations on situations that I have found and know about first hand. Shortly after World War II, the Adams Dairy in Kansas City instituted the use of paper containers and the distribution of milk through the super markets. In the late 1950's, the area experienced a price war in milk and after all was said and done, each of the chain stores was paired off with a national dairy and Adams ended up with holding much of the excess capacity in the market. The use of "dancing partners" is, I think, a frequent arrangement with grocery chains and their suppliers. The effect is to establish vertical compartments within the market so that the grocery chains do not compete against one another *vis a vis* their suppliers. This will have the effect of raising the prices to the consumer.

In a related example arising from a case that I worked on in Chicago, A. & P. purchased milk from Borden. Borden built a new plant with an estimated annual cost saving of $800,000. A. &. P demanded and received discounts equivalent to that on the dairy products they purchased from Borden. The consumer, on the other hand, received no benefit whatsover for Borden and A. & P. both maintained the established price and eliminated the differential between the name brand and the private label brand. In this market also "dancing partners" were found which did much to ensure that the consumer would not benefit from either technological changes or competition.

Now I would like to say a few words about data problems. Mr. Hammonds criticized the Mueller study for its use of the SIC numbers and concentration ratios. I have never been greatly enamored with the use concentration ratios based on SIC industry classifications—but they are the best numbers that we have. Any

attempt to get better numbers, such as the Line of Business Reporting, is met with stiff opposition from business interests. It is very often those same interests that object to the ongoing studies because of inadequacies in the data. If we are to adequately understand and thus be in a position to make policy regarding our economy, there must be a never ending process of acquiring adequate data. In my opinion, the Joint Economic Committee made an invaluable contribution to our knowledge of the economic system when it made it possible to acquire the data necessary for the Mueller study. I hope that you'll continue this policy.

In sum, let me say this. Based on my own personal experience in the field of industrial organization, the performance and the conduct of the grocery store chains should be examined. I think the JEC went about this in an entirely appropriate way and Professor Mueller and his colleagues produced an insightful report.

Yours very truly,

JOHN M. KUHLMAN,
Professor of Economics.

UNIVERSITY OF CALIFORNIA, DAVIS,
DEPARTMENT OF AGRICULTURAL ECONOMICS,
Davis, Calif., June 9, 1977.

Hon. RICHARD BOLLING,
Chairman of the Joint Economic Committee,
Congress of the United States, Washington, D.C.

DEAR CONGRESSMAN BOLLING: I have just read the comments prepared by Messrs. Bruce W. Marion and Willard F. Mueller on the testimony of Mr. Timothy M. Hammonds of the Food Marketing Institute before the Joint Economic Committee, March 30, 1977. Professor Mueller, as you probably well know, is highly competent. As he and Mr. Marion point out, the Hammond arguments, with the exception of the points on the confidence intervals (page 11 of the comments) and the influence of operating costs (page 17 of the comments), are not valid. In reply to Hammonds' valid criticism, confidence intervals were calculated and now appear on page 11. The question of operating costs has been addressed (pages 17 and 18). The Marion, Mueller, *et al.* study, which I have also read, uses appropriate techniques, is valuable, and its conclusion is substantiated.

I hope the Joint Economic Committee will sponsor more studies of this caliber in the public interest.

Sincerely,

SYLVIA LANE, *Professor.*

AUSTIN, TEX., *June 28, 1977.*

Hon. RICHARD BOLLING,
Chairman, Joint Economic Committee,
Congress of the United States,
Washington, D.C.

DEAR CONGRESSMAN BOLLING: Although I have been a Professor of Economics at a major state university for more than 20 years, I am not writing you on letterhead paper and I am paying the postage on this myself to emphasize that I am expressing my personal views and not those of the institution with which I am associated.

Thanks very much for sending me a copy of the study prepared for your committee by the members of the University of Wisconsin Food Research Group of NC 117, entitled "The Profit and Price Performance of Leading Food Chains, 1970–1974". It is not my practice to write letters such as this but I have been so pleased to receive such an extremely competently done and technically sound study of an important real world problem by such outstanding men as the coauthors of this work that I have decided to do so. I intend to make substantial use of this study in my antitrust and competition seminar next year, less for the conclusions produced by the authors (which deal with a particular problem) than for an illustration of the application of econometric techniques to economic problems in this area. It is clearly conceivable to me that this study may become the model for a large number of doctoral dissertations at many major universities in the future.

If anything, in my judgment, the researchers have taken an extremely conservative approach in adopting as their "competitive standard" a 4-firm market share in which the firms are assumed to be of equal market power. This test is much more lenient than one which would be employed in any purely theoretical

analysis. In such an analysis, the existence of any discretionary power over prices is considered to be evidence of market power, since by definition in a situation of pure price competition, no such discretionary pricing power can exist.

But these authors have undertaken to make a real world study of a real world problem and have thus rejected the much stricter, purely analytical, standard an economic theorist would employ. It is precisely this realism, this unwillingness to produce extreme results based on extreme assumptions, which makes this study so valuable. The authors have chosen to let the facts speak for themselves rather than to foist their own particular preconceptions off upon the readers, many of whom will presumably be untutored in the complexities of refined economic theorizing. There have been other studies sponsored by your committee in the past in which the authors have taken the latter approach and I will be glad to provide you with a few citations upon request.

I have never personally met Mr. Willard Mueller or any of the other co-authors of this work. But I have long been familiar with and respected Mr. Mueller's work; indeed, I have cited with approval many of his publications in one of my own books published in 1971 by John Wiley & Sons.

I have also had an opportunity by now to read the statement of Mr. Timothy Hammonds before your committee commenting on the study you sent me. I have noted with interest that he is a vice president of the Food Marketing Institute described in his opening paragraph as an organization which "conducts programs in research, education and public affairs on behalf of its more than 850 companies and the customers they serve". I take it that the quoted language is a euphemistic way of saying that he is a lobbyist for the large food chains, but his statement is the first explicit confession I have ever seen that the costs of lobbying are passed along to customers. (I am reminded of the fact that the author of Temporary National Economic Committee Monograph No. 18, Trade Association Survey, found in 1941 that of the 1,311 associations he studied, "nearly 48 percent of the associations [reported that they] received 40 percent or more of their income, and 30 percent received 60 percent or more of their income from their four largest contributors" (pp. 339–41). In view of Mr. Hammonds' opening statement, it would be interesting to know whether the 850 companies finance the Food Marketing Institute on a pro rata basis or whether it is largely financed by the large food chains. The answer to this question, not investigated in the study you sent me, might also throw some light on the relationship between market structure and performance of firms in a democratic society.

What I have found most surprising in Mr. Hammonds' statement is the absence of that detachment from the issue at hand which usually characterizes such statements. I was not prepared for the personal, almost emotional, nature of some of the attacks on the researchers. This lack of detachment seems to have produced a few contradictions in the statement also. Mr. Hammonds seems to have a completely confused conception of what the researchers were trying to do. They were undertaking to examine the relationship between market structure and performance by testing it against a "competitive standard" defined by them, as I have noted, to be the performance found in a market in which the leading four firms possessed 40 percent of the market. But Mr. Hammonds has apparently multiplied their concept by minus 1 and interpreted it to mean that any situation in which 4 firms possessed 40 percent of the market was treated as monopolistic rather than "competitive". Apparently he read only casually or without comprehension their definition of the "competitive norm" stated on their p. 3.

His misconception of the standard of evaluation employed in the study infects many of his later comments and makes them largely irrelevant. Curiously, however, although on p. 2 he has attacked the standard of 4 firms possessing 40 percent of the market as too low, on p. 11 he has asserted that "the price levels for four firm ratios of 40 percent *are not significantly different* from the four firm levels of 50 percent". Since he has on p. 2 cited the Hart De-Concentration Bill standard of 50 percent as constituting "a more lenient norm" than that employed by the authors of the report and asserted that his own study shows no significant difference between the "more lenient" norm and the one they used, he seems to have contradicted on p. 11 his assertion on p. 2 that the authors used a stricter norm than appeared in the Hart bill.

His argument that the authors should have taken consumer income into account is also revealing. In economic theory, income operates as a constraint upon a consumer's ability to purchase but does not affect a firm's costs. His argument on p. 8 on this point contains this second sentence: "*Consumer income does vary considerably across metropolitan areas and is a fundamental tenet of market price*

theory" (italics mine). Precisely what substance is contained in the italicized words above? To say that "consumer income is a fundamental tenet [principle] of price theory" is to make a meaningless statement. Is consumer income a principle? More importantly, if the substance of his argument here is that grocery chains charge higher prices in high income areas than they do in low income areas, that argument would constitute an argument based on an assumption that they possess market power. I am not aware that the costs of a firm are a function of the incomes of its consumers; I have never heard of any economic theory which postulates such a functional relationship. In effect, his argument reduces to the proposition that grocery chains price as medical doctors are often alleged to price their services.

I first embarked upon the study of Economics 40 years ago. In the time since then I have lived through a lot of economic history and outlived a few economic theories! It has thus been a matter of great interest to me to see that the Wisconsin study done for your committee has produced conclusions nearly fifty years later like the findings made by the Federal Trade Commission in its 1934 Final Report on the Chain-Store Investigation (Senate Document No. 4, 84th Cong., 1st Sess., 1934). Although the earlier FTC study was concerned with chain-stores in general, grocery chains were included in that category. In particular, the Wisconsin study has confirmed (esp., Chapter 4) the FTC's finding that the profit averaging process "provides the large chains with an opportunity" to derive profits from one group of stores which may be used either offensively or defensively for price cutting warfare on other chain or independent retailers (p. 38), an ability which must rest on market power in the high profit markets. This example is but one of many such confirmations in the Wisconsin study of the conclusions of the earlier FTC study. Apparently "the more things change the more they stay the same."

Again, thanks for sending me the copy of the study. I hope your committee will sponsor more empirical studies of real world problems like this one.

Yours sincerely,

H. H. LIEBHAFSKY,
Professor of Economics.

TULANE UNIVERSITY,
SCHOOL OF LAW,
New Orleans, La., August 8, 1977.

Hon. RICHARD BOLLING,
Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.

DEAR CONGRESSMAN BOLLING: This past week I reviewed the study by Bruce Marion, Willard Mueller and associates, Profit and Price Performance of Leading Food Chains, 1970–74, prepared for the Joint Economic Committee this spring, together with criticism by Timothy Hammonds for the food chains (through its trade associations, the Food Marketing Institute). The Marion-Mueller analysis is the kind of careful, high quality research that should be supported by the Committee. I would hope more industry studies of this type will be forthcoming.

Many industries show the effects (at least in part) of relatively high concentration, and it is important that we develop more comprehensive data along these lines. Their evidence fits an overall pattern showing a tendency for competition to be less effective, with higher cost-price margins, when industries become significantly concentrated. These findings bear on antitrust and regulatory policy, and reveal areas for concern with respect to inflationary momentum. Structural remedies may be necessary to deal with these problems, and more evidence of this nature should be gathered and developed by the Joint Economic Committee.

Although the industry response (in this instance) was not persuasive, to me at least, it is desirable to offer a broad opportunity for commentary by trade representatives and independent scholars. This strengthens the yield of analysis, and such dialogue is helpful to scholars who have followed issues of industrial concentration closely over the years.

The fact that data for the Marion-Mueller study was obtained, in part, through Joint Economic Committee auspices, is very much to the credit of those responsible. Good information about industrial structure and performance is often hard to obtain, and the Committee's sponsorship can be extremely helpful.

I would be happy to enlarge upon these remarks, or to participate as an independent law scholar and economist in reviewing comparable studies for the Committee.

Sincerely,

WILLIAM A. LOVETT,
Professor of Law (and Economist).

THE UNIVERSITY OF NEBRASKA—LINCOLN,
COLLEGE OF BUSINESS ADMINISTRATION,
Lincoln, Nebr., July 8, 1977.

Hon. RICHARD BOLLING,
Chairman, Joint Economic Committee, Congress of the United States, Washington, D.C.

DEAR MR. BOLLING: I recently had an opportunity to review the Joint Economic Committee Study on "The Profit and Price Performance of Leading Food Chains," 1970–74. This study was prepared by economists associated with the Food Research System Group at the University of Wisconsin-Madison. I also have had an opportunity to look at critical comments on this study by Mr. Timothy M. Hammonds, Vice President, Research Food Marketing Institute, and a response to these comments by Bruce W. Marion and Willard F. Mueller, two of the persons responsible for the original study. I should like to make some brief comments on these documents.

Mr. Hammonds criticizes the Study severely, stating that it is fundamentally flawed in a number of respects. Its conclusions are, in effect, absurd. I find it difficult to agree with so sweeping a criticism. Admittedly, there may be some problems of data adequacy, particularly in the matter of the analysis in Chapter 3 of the Study of the relationship between market structure and prices. The authors of the Study are aware of this and devote several paragraphs (pp. 65–66) to a discussion of the limitations and errors which could result from this particular aspect of the study. On the whole, however, it seems to me, that the Study is skillfully organized, the data base for the research is extensive, and the authors are careful and circumspect in the conclusions they reach. The findings are obviously controversial, but this is to be expected. The issue of concentration, market power, and its social an deconomic impact has long been—and will continue to be—one of the most important problems which the nation confronts. I am pleased that the Joint Economic Committee is willing to support research of this type. I hope your committee will continue to do so. As Mr. John R. Stark, Executive Director of the Joint Economic Committee, said in his transmittal letter, "This study is pathbreaking in that no government or private study of food chains exists which approaches the breadth of data or the depth of sophisticated computer regression analysis utilized in this study." This comment, I think, says a great deal about the importance and significance of a study of this type. It seems to me that ever since the classic TNEC investigation in the late 1930s into market structure and economic power, we have been struggling to find out what is really happening in this nation in our major industries. Research into these questions is simply not possible without strong support from the Congress. It is my hope that the Congress would undertake a thorough study into effective monopoly power on the scale of the TNEC investigation, but until that happens support by the Joint Economic Committee for studies like the one under discussion is the next best step.

The three main conclusions of the Study are (1) market concentration in food retailing is on the increase; (2) concentration not only leads to higher prices, but also results in inflated costs and other inefficiencies; and (3) the consequence of this is a "monopoly overcharge," which means that consumers who trade in concentrated markets pay higher prices than they do in more competitive market situations. These findings have an immense public policy significance, as they raise some fundamental philosophic issues with respect to the rationale and performance of our economic system. In a nutshell, the economic rationale for competition in the marketplace is simply that the consumer—not the producer—will get a better deal in terms of price and quality. Monopoly works in exactly the opposite fashion—it tilts the economic scales in favor of the producer. Historically, our approach to the problem of monopoly in this country has been legalistic

in the sense that through the antitrust laws we seek to prevent the emergence of monopoly in the strict sense of the term. What studies of concentration show, however, is that much of the time we get in concentrated industries—industries in which there isn't any monopoly in a textbook sense—performance results which have more of the flavor of monopoly than of competition. This, I think, is what the Study is saying about the retail food industry. And this, perhaps, is why findings of the sort contained in the study arouse such ferocious opposition. Ultimately they may force us to rethink our entire approach in this country to the use and abuse of economic power. Textbook style monopoly is relatively rare, but industries in which a handful (four to eight) firms dominate is not. But this type of power cannot be dealt with under existing "antitrust" statutes. It probably calls for laws which will force a restructuring of industry, or else passive acceptance of the status quo, a choice which will in time lead to permanent wage and price controls.

Mr. Hammonds argues that the concentration ratio used in the Study (four firms account for 40 percent of the sales) is faulty, being the "most restrictive standard ever set in industrial organization analysis." However, as Marion and Mueller point out in their response, this misses the point. What is important in any industry is the concentration ratio at which there appears to be a link between concentration and price behavior. This is what is critical. Perhaps economists spend too much time in argument over concentration ratios, seeking some "objective" statistical measure for the existence or nonexistence of market power. In his comment Mr. Hammonds (citing a University of Michigan study) says that nearly two thirds of domestic industries had four firm concentration ratios in excess of 40 percent, a finding which would on the basis of the food retailing study mean that a majority of American industries were "concentrated." This is perhaps true, and it is the basic social and economic issue we should confront. Mr. Hammonds is also critical of the *Study's* finding that monopoly "overcharges" estimated to be in excess of $600 million resulted from concentration in food retailing. As I understand the *Study* this represents nationally the amount by which prices were higher than they would have been if there had been more competition in food retailing. I do not see the revelance of trying to relate this figure to profits of the food chains, as Mr. Hammonds suggests. These are two different matters. I should also like to point out that a recently released study by the Council on Wage and Price Stability (A Study of Bread Prices, April, 1977) reached conclusions similar to those found in the food industry Study. The Council study found that concentration increased in the national bread market between 1963 and 1964, and that both prices and costs rose more rapidly in the sectors of the baking industry than they did in the more competitive areas.

Sincerely,

WALLACE C. PETERSON,
George Holmes Professor of Economics.

TEXAS A&M UNIVERSITY,
COLLEGE OF BUSINESS ADMINISTRATION,
College Station, Tex., July 12, 1977.

Mr. JOHN R. STARK,
Executive Director, Joint Economic Committee, Dirksen Senate Office Building, Washington, D.C.

DEAR MR. STARK: Recently I received the study prepared for the Joint Economic Committee entitled "The Profit and Price Performance of Leading Food Chains, 1970–74." I was impressed by the thoroughness of the analysis and the care with which the authors Bruce Marion, Willard F. Mueller, et al. handled the available data. As I would expect from researchers of their professional stature they were particularly careful to point out deficiencies in their data and to emphasize limitations. The result was, in my judgment, a very fine piece of analysis leading to well reasoned concusions.

Accordingly, I was surprised and considerably irritated by the character of the attack made by Timothy Hammonds in his testimony before the J.E.C. last March. Virtually all of his criticism is unfounded which, I am sure, your staff economists have pointed out. One can only conclude that Mr. Hammonds was assigned the task of doing a hatchet job by his employer, Food Marketing Institute, and he

did whatever he could to carry out the assignment. I can certainly understand that the FMI would not be pleased with the Marion-Mueller study but I do believe a calm, dispassionate, and fair analysis from their point of view would have served their interest better.

I might add that Messrs. Marion and Mueller together with their associates are to be commended for an excellent report.

Sincerely,

CLINTON A. PHILLIPS,
Professor.

THE UNIVERSITY OF WYOMING,
COLLEGE OF COMMERCE AND INDUSTRY.
Laramie, Wyo., July 11, 1977.

Hon. RICHARD BOLLING,
Chairman, Joint Economic Committee, Dirksen Senate Office Building, Washington, D.C.

DEAR CHAIRMAN BOLLING: I have read with great interest the materials presented by the Food System Research Group (FSRG) at the March 30, 1977 hearings of your committee; also the statement made by Mr. Timothy Hammonds of the Research Food Marketing Committee (RFMC), and finally, the rejoinder made by Messrs. Marion and Mueller in commenting on Mr. Hammond's criticisms. My concern stems from about two decades of work as an economist in the areas of industry studies and industrial organization analysis, and teaching in both areas, as well as from my personal observations concerning food prices, chain "brand" names, the disappearance of family food wholesalers and retailers, and especially, the growth of chains which have come to dominate food distribution even in small communities. Quite frankly, I find that the FSRG findings are somewhat more conservatively stated than I would have put them. For one thing, it was not pointed out that the demand for foodstuffs is highly inelastic and does not vary widely over the course of the business cycle. Thus, the food industry is not subject to "boom and bust" market conditions, and cannot argue (as iron and steel have done) that high profit margins are required in "boom" times to compensate for low margin in times of "bust." Monopoly in this industry, then, is apt to be especially heinous. Furthermore, the food industry operates not on the basis of regional or multistate monopolies, but rather, on the basis of local monopolies from which local residents have little or no relief. Thus, it might be possible for a high degree of concentration to occur in the New England States, for example, but prices might yet be competitive if large numbers of small independents existed at the retail level. Unfortunately, the tendency has been in the opposite direction; i.e., concentration in regional or multi-state areas has occurred at the same time that small competitors have declined seriously in number. This may be the reason for the difference in viewpoints between FSRG and RFMC in regard to the concept of the "relevant market." It most certainly has played a role in Supreme Court decisions which have espoused different "relevant market" definitions in dissimilar conditions and cases.

Thus, in the Bethlehem-Youngstown merger decision, the Court divided the country into three major market areas (West, Mid-West, East) and in the Brown Shoe Co.-Kinney decision, the court referred to suburban shopping centers as constituting the "relevant market" and lamented the disappearance of the small family shoe store from the American scene. I should point out, also, that neither Brown nor Kinney accounted for as much as 5 percent of national production and sales of shoes. If continued, the merging of large food chains will have a similar effect on local markets, at great detriment to consumers in general. Selective price cutting to eliminate small competitors continues unabated despite the Robinson-Patman Act sanctions, which do not appear to be worth the paper upon which they are written. Large chains are able to price "private" (i.e., their own) poor-quality brands at significantly lower price levels than are available to small stores that must rely upon the more expensive and better-quality standard brands. True, the chains may also offer the "standard" brands, but these are likely to be placed on the bottom shelves or other equally remote locations where the ordinary customer's attention is not likely to be drawn. The use of "loss leaders" also tends to attract customers to the large chain outlets at prices which cannot be matched by small independents. This is particularly true in meats, produce, and baked goods.

Another factor which tends to be ignored is the extent to which concentration by a few firms in local markets tends to breeed uniformity of pricing through

membership in, and dominance of, local retail merchants associations. I offer as a prime example of this the small city (Laramie, WY) in which I live. The Laramie Retail Merchant's Association has literally throttled competition to the extent that it is possible to travel to Fort Collins, Colorado (75 miles distant) for a week's staples, and to return to Laramie with a net gain even after paying round-trip automobile expenses. The large food chains in Laramie are prominent (perhaps dominant) members of the LRMA, and their prices differ little except for loss-leaders.

To return to the disagreement between FSRG and Mr. Hammonds, I must confess that my backing lies entirely on the side of FSRG. Mr. Hammonds, it appears to me, has attempted to raise something of a smoke-screen to confuse issues. I have already noted that the rate of return in food industries can be expected to be very low because of their stability over the business cycle, which negates the arguments presented on pp. 1–3 of his testimony. The food industry is nowise can be compared to iron and steel, autos, aluminum, etc.

As regards the arguments *in re* the turnover in the 20 top metropolitan centers (using, in Hammonds' own words, the "uncertain . . . reliability" and unspecified . . . methodology" of the Grocery Distribution Guide), one could argue that if the FSRG conclusions are unwarranted, Mr. Hammonds' are equally so, at best. To be sure, the decline of A&P may have affected the results appreciably, and it may well be that one could expect one of the top four firms would have dropped from the top four in even more than 70 percent of the cases. But it may be equally true that if A&P was the firm which dropped out in most instances, then the remaining three may very well have remained solidly within the top four. Not having access to the data, I can only hypothesize; however, this does not mean that the analysis presented by FSRG is incorrect.

I do agree with Mr. Hammonds that in some parts of the country, cooperatives and "voluntaries" have arisen to present countervailing power and competition to the great chains. This movement, however, may well be the only path left to members in opposition to the increased concentration within the few chains; i.e., if they had not cooperated, they would have disappeared. Certainly they are not something for which the chains worked!

Finally, as regards the criticisms directed by Mr. Hammonds to the concentration ratio-profit conclusions presented by FSRG, I can only conclude that Mr. Hammonds again is seeking to muddy the waters by implying that the inclusion of other variables might reduce the degree of relationship between the two variables. This is, of course, possible—though it is equally possible (and probable) that the link would be more tightly drawn. As noted in the original report prepared for the Joint Economic Committee (pp. 64–66), limitations of data and regression analysis were taken into account, and in most cases, the inclusion of other variables would strengthen the conclusions drawn. In short, the original document is extremely conservative in its findings. One could wish for better data, but in the absence of such, one can only conclude that an increase in concentration will increase costs and prices, and detract from the well-being of consumers.

I would hope that this viewpoint of mine has not served merely to confuse the issues. I firmly believe that additional study may be required, with a much greater degree of refinement made in the variables. In the meantime, however, Congress would do well to pay attention to the public policy alternatives outlined by Marion and Mueller in the statement delivered at the hearings of JEC on March 30, and the FTC also would do well to return to the guidelines set forth in the Grand Union, National Tea, etc. consent orders during the years 1965–1968. Failure to do so may result in the complete disappearance of competition in an industry which has a vital, direct, and most important impact upon the consumer's pocketbook. Should that happen, then government may be forced to nationalize the industry, and we will then lose our grasp on free enterprise and move irrevocably down the primrose path to socialism. I would hope that this can be avoided.

Sincerely,

I. JAMES PIKL, Jr.,
Professor of Economics.

P.S.—My comments should not be construed as representing the viewpoints of either U.W. or O.D.E. I cite my position within these organizations merely to indicate that I am a responsible professional economist and not merely an untutored observer of the antitrust scene.

UNIVERSITY OF MINNESOTA,
LAW SCHOOL,
Minneapolis, Minn., June 31, 1977.

Hon. RICHARD BOLLING,
Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.

DEAR CONGRESSMAN BOLLING: I have learned of the controversy in testimony arising from recent hearings before the Joint Economic Committee last March on the Structure and Performance in Food Retailing.

As an Antitrust law teacher, I am interested in this area and I have had occasion to study the statement of Marion and Mueller and have found it to be analytically valid and sound in its conclusions. In my judgment, the critical comments of Mr. Timothy Hammonds are not well taken.

The Marion-Mueller study addresses itself to a significant and central problem in the enforcement of the Antitrust laws. To the extent that the criteria they develop would be used by the Federal Trade Commission, the problem of increased market concentration accomplished by mergers would be dealt with more effectively. In my view, the recent practice of the Commission has been too permissive in allowing substantial mergers in food retailing, and from this perspective the Commission has placed itself in an awkward position to limit further increases in concentration by new mergers in food retailing. Accordingly the hearings before the Joint Economic Committee are most significant and timely. It is to be hoped that the Federal Trade Commission and the Antitrust Division will turn to the analysis suggested by Marion and Mueller as a basis for enforcement policy.

Sincerely,

LEO J. RASKIND,
Professor of Law.

MICHIGAN STATE UNIVERSITY,
DEPARTMENT OF AGRICULTURAL ECONOMICS,
East Lansing, Mich., July 13, 1977.

Hon. RICHARD BOLLING,
Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.

DEAR CONGRESSMAN BOLLING: I have followed with great interest the press and professional discussion of the study, "The Profit and Price Performance of Leading Food Chains, 1970–1974," prepared for the Joint Economic Committee. I am writing out of concern that some negative comments made about the report might discourage support for future studies of this type or divert attention from the significant findings of the study.

It is easy to find fault with studies of industrial organization. It can be said that the data could have been better and that additional analysis could have been made. The Marion-Mueller study used the best data available and the analysis was done with exceptional thoroughness. The critical comments point to the need for additional data obtained under very carefully prescribed reporting rules for longer periods of time. Such data will apparently be made available only to an agency with authority to require its submission.

Finding evidence of price differentials associated with local market concentration is very significant, of course, in assessing the adequacy of current antitrust policy. Even more important to me is the evidence of the capacity of large food retailers to practice inter-market cross-subsidization. This will surely contribute to increase concentration in local retail food markets in the future unless counter measures are taken.

The combination of significant findings from this study and the critical comments implies the need for increased support for studies of the relationship of industrial organization and performance, not only in food distribution, but in many areas of the U.S. economy.

Sincerely,

JAMES D. SHAFFER, *Professor.*

COLORADO STATE UNIVERSITY,
DEPARTMENT OF ECONOMICS,
Fort Collins, Colo., June 15, 1977.

Hon. RICHARD BOLLING,
Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.

DEAR SIR: I have reviewed the Joint Economic Committee Report entitled, "The Profit and Price Performance of Leading Food Chains, 1970–74" and wish to commend the committee for the excellent quality of the work. I find the basic methodology and data sound, and the treatment of the competitive problems in grocery retailing an enormous contribution to the economics of antitrust enforcement. The findings are consistent with my own research on the retailing of bread products. A National Commission on Food Marketing report on grocery retailing which I helped prepare in 1965–66 also contains findings which tend to verify those of your study. Just this year I completed a study of ground beef retailing for the National Science Foundation, the results of which also tend to support the findings of your study.

Much of the data contained in the report has not been available in the past. The Joint Economic Committee is to be commended for its decision to allocate scarce committee resources to the collection of such valuable data, even though it is bound to generate a heated policy debate. A few strategic facts are worth thousands of words spoken in the heat of controversy. We economists who labor in the field of antitrust economics owe you a considerable debt of gratitude. The public interest in competitive and efficient food markets has been well served by the preparation of this excellent report.

Sincerely yours,

RICHARD G. WALSH,
Professor of Economics.

UNIVERSITY OF NOTRE DAME,
DEPARTMENT OF ECONOMICS,
Notre Dame, Ind. July 14, 1977.

Mr. JOHN R. STARK,
Executive Director, Joint Economic Committee,
Congress of the United States, Washington, D.C.

DEAR MR. STARK: It has come to my attention that a report, "The Profit and Price Performance of Leading Food Chains, 1970–74" issued by the Joint Economic Committee, on April 12, 1977 has been the subject of attack by lobbyists of the food industry. I first became aware of the report by reading an editorial in the Wall Street Journal. That editorial accuses the authors of the report of totally misinterpreting the significance of their findings. Knowing one of the authors, Professor Willard Mueller of Wisconsin, to be the leading scholar of industrial organization in the country, I obtained a copy of the report and read it. The first thing I found was that the Wall Street Journal was totally incorrect. They had said that while prices varied between cities on the basis of the degree of competition, profits did not. That is not true. The report indicates that profits also vary within the degree of competition.

In carefully reviewing the report I find it a model of scholarship. It is just the kind of study that we use in our public policy workshop to teach our students how to approach important public problems. In my opinion, the report is a first-rate study using a very reliable methodology to investigate a problem of public policy that is major significance. The importance of policy to achieve competition in the retail food industry is clearly indicated from this study.

I have heard that the authors of the report have been accused of all types of unscholarly behavior. The only author that I know is Professor Mueller. I have read many of his works. I have heard him lecture and I have spent some hours discussing issues with him. I have never met an economist who is more careful with the facts and who is more cautious in drawing conclusions. Mr. Mueller's reputation in the scholarly community should be sufficient to squelch rumors

about prejudice against the food industry. My own knowledge of him indicates that he goes where the facts lead him.

I have been told that the unhappiness of the food industry is such that they are even mounting an attack upon the desirability of the JEC supporting research studies by academicians. I hope there is no truth to these allegations. This type of study is absolutely essential for intelligent public policy. Academicians could never gain access to information nor be able to finance such studies without the help of organizations such as the JEC. The essential ingredient for intelligent public policy is knowledge and knowledge must be worked for. Through the years the JEC and other congressional committees have been one of the major sources for generating such knowledge.

I was mailed a copy of the statement by Mr. Timothy Hammonds, Vice President of the Research Food Marketing Institute. This is the statement delivered before the Joint Economic Committee on March 30, 1977. I have read through his statement which is a critique of the report on food firms. I do not find the arguments persuasive. Some of his statement are incorrect; others are misleading and still others, irrelevant. All in all, I find Mr. Hammonds' report to be a "lawyer's brief."

I thank you for reading this far in my letter. I have to offer you my thanks for your work. I believe the Joint Economic Committee does extremely valuable work and its usefulness, while not immediately apparent sometimes, in the long run is invaluable for the creation and implementation of public policy.

Sincerely yours,

CHARLES K. WILBER, *Chairman.*

UNIVERSITY OF TENNESSEE,
DEPARTMENT OF ECONOMICS,
Knoxville, Tenn., June 14, 1977.

Hon. RICHARD BOLLING,
Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.

DEAR REPRESENTATIVE BOLLING: I have just finished reading "The Profit and Price Performance of Leading Food Chains, 1970–74," a study prepared for the use of the Joint Economic Committee by Bruce W. Marion, Willard F. Mueller, Ronald W. Cotterill, Frederick E. Geithman, and John R. Schmelzer. It is an impressive and convincing piece of work.

I am disturbed to see that Mr. Timothy M. Hammonds of the Food Marketing Institute, other spokespersons of the large chain stores, and the editor of The Wall Street Journal have seen fit to malign and misrepresent the study and the people who conducted it. Because I believe the critics have been unfair and unsound in their criticism, I wish to say a good word for the study and the research team.

First, the research is carefully done, possible variables are analyzed for their relevance and inclusion, and appropriate statistical techniques are employed. Due in large part to the data which your committee was able to obtain, data not generally available to earlier researchers, the study emerges as the definitive work to date on the relationship between concentration and market position, on the one hand, and prices and profitability, on the other.

The findings, although apparently startling to the industry, are not suprising to economists. The results are in line with what has been found in similar careful studies dealing with other industries. Price competition, as theory suggests, is found to be more effective when concentration and market power are lower. The public policy suggestions made in the report flow logically from the findings. If we are going to rely on competition, including price competition, to assure good economic performance in the consumer interest, we must see to it that we have some.

Second, as to the professional qualifications and integrity of the researchers, I have known one of them, Mr. Willard Mueller, for over twenty years. In my opinion he ranks number one in the field of industrial organization and public policy. An indefatigable researcher and a knowledgeable economist, he has numerous studies and publications to his credit. In all of them he has been careful and cautious, and yet courageous, in reaching his conclusions. Committed to seeking the truth in serving the public interest, Mr. Mueller has a reputation for consistent integrity among academic economists.

Third, I think the joint Economic Committee is to be commended for its efforts in supporting studies of this type and I hope you will continue to do so, even if the results turn out to be controversial. Because economics touches billfolds and pocketbooks, it touches a sensitive human nerve. Consequently, economic studies, though necessary, often evoke controversy. In the final analysis, particular economic interests must be recognized, but they must be subjected to the public interest.

In conclusion, I turn to the validity of Mr. Hammonds' criticisms of the study. Their general tone is emotional and *ad hominem*, rather than sound and constructive. For example, he speaks of "the absurdity of [the study's] conclusions" (p. 2) and calls it "an unwarranted attack on a responsible sector of the American economy which does not merit the dignity of your further consideration" (p. 19). Clearly these expressions represent emotional outbursts, not informed judgments based upon sound reasoning.

In the first place, Mr. Hammonds has an incomplete view of competition. In his opinion "food retailing is a highly competitive industry" (p. 16). Apparently Hammonds believes that if nonprice forms of competition are employed that is sufficient to make an industry "highly competitive." But no industry is really competitive, in an economic sense, unless price competition is playing an effective role in it. The Mueller study makes crystal clear that price competition is not generally as effective as it might be where high levels of concentration in grocery retailing exist.

In the second place, Mr. Hammonds makes much of the turnover that takes place among the members of the top four as evidencing "active and intense competition" (p. 5). The Mueller findings suggest, however, that the turnover is not the result of effective price competition but due to the varied uses of other forms of competition, like advertising and salesmanship. Turnover which is not accompanied by deconcentration does not improve the performance of the market. There is still oligopoly, with its reluctance to use price competition, even though the membership of the oligopoly core changes.

In the third place, Mr. Hammonds finds it difficult to understand why oligopoly firms will let their costs rise rather than taking their extra revenues in the form of higher profits (p. 9). However, this is not difficult to understand. It is the necessary result when nonprice forms of competition replace price competition, such as advertising and salesmanship, is generally cost raising in its effect.

I hope you will find these comments helpful in setting the record straight in regard to the soundness of the methodology used and the results found in the food chain study.

Very truly yours,

RONALD H. WOLF,
Professor of Economics.

THE COMMONWEALTH OF MASSACHUSETTS,
UNIVERSITY OF MASSACHUSETTS—BOSTON,
Boston, Mass., June 29, 1977.

Hon. MARGARET M. HECKLER,
House of Representatives,
Washington, D.C.

DEAR MS. HECKLER: It has come to my attention that a newspiece in a recent edition of the Boston Herald American was highly critical of the Joint Economic Committee Study "the Profit and Price Performance of the Leading Food Chains, 1970–1974", and of you for your active support of this activity of the committee. Let me go on record as commending both this report and your deep concern over monopolistic practices in the food delivery industry. I deplore and reject this criticism of you and the JEC for what is a much needed and incisive study. The criticism is neither well done nor valid. The rejoinder by Bruce Marion and Willard Mueller to testimony attacking the report by Mr. Timothy M. Hammonds, spokesman for the Food Marketing Institute before the Joint Committee on March 30, eloquently and completely refutes the distorted attack on the study by them and their colleagues.

In addition Mr. Hammonds in condemning the report for "a multitude of incorrect assumptions and inappropriate manipulations", singles out one of the authors for an unwarranted, unprofessional and vitriolic attack. I feel it important to put on record my complete rejection of this attack. All of the authors are

highly qualified and of unquestionable integrity. The J.E.C. Study is in my opinion not flawed by a "multitude of incorrect assumptions and inappropriate manipulations", as alleged by Mr. Hammonds. Rather I question the validity of his analysis and concur with the Marion-Mueller refutation. My impression of the behavior of the leading food chains, even before I read the J.E.C. Study, was that they have traditionally engaged in highly monopolistic practices.

By way of background, I might mention that, although I have not done recent research in this field, I was chief of Price Research of the U.S. Bureau of Labor Statistics and responsible for the study of "Price Flexibility" done for the J.E.C. in the 1950's. I was also, at one point, the corporate economist for a mid-size chain of department stores; therefore, I speak from more than academic experience.

Let me close by addressing myself to a critical issue raised by the Hammonds attack on the validity and integrity of the J.E.C. Study of the Food chains. The issue is whether the J.E.C. should support (with its records and subpoena powers) such studies by academicians. My answer is an emphatic yes! The J.E.C. and government as a whole should avail itself of all expertise, wherever it is, for research on and the formulation of public policy. In conclusion, I urge that the policy recommendations stemming from the J.E.C. study, and enunciated in testimony by Marion and Mueller before the J.E.C. on March 30, 1977, be seriously considered.

Sincerely yours,

HAROLD WOLOZIN,
Professor of Economics.

ANALYSIS OF "THE PROFIT AND PRICE PERFORMANCE OF LEADING FOOD CHAINS, 1970–74", BY BRUCE MARION, W. F. MUELLER, R. W. COTTERILL, FREDERICK GEITHMAN, AND JOHN R. SCHMELZER

(By D. I. Padberg, University of Illinois*)

The topic of this study is of considerable importance to America. The basic structure of American industry is in transition. I think the primary force causing this transition is the adoption of more complicated and scientific machines, methods, and management. But the quest for monopoly power may be a cause as well. Regardless of causes, it is of considerable importance that we understand the consequences of these changes in industry structure. Important questions should include: How are prices of goods and the quality of goods and services affected? Are the changes (in products particularly) compatible with our economic and social goals? Are they safe and, in the case of food, wholesome? Is the new structure accountable and accessible to consumers?

Despite the importance of the questions and the presentation of interesting data and some clever methodology, I judge the study to have some fundamental errors in analysis as well as a brash and premature rush to conclusion and recommendation. In this paper I plan to point out errors of analysis, comment on a few minor parts of the report which I think constitute misunderstandings of the data, and assess the nature of empirical findings.

The constant assertions in the report concerning relationships between variables of local market structure, particularly market share and four-firm concentration, are a matter of considerable interest. Very little analysis has identified regular dependable relationships between market concentration in distribution industries and profit, costs, or anything else. There is no question that this is an important hypothesis. If market share has effects on matters important to consumers, we need to know about it. Obviously, profits and prices are affected by sales volume, labor costs, fuel costs, and many other influences. The task, then, is to design an analysis to assess the nature and strength of market structure influences among the several other determinants. This study, however, has a tendency to assume market structure alone determines profits and prices. Models of analysis which exclude important determining variables get biased results and invite erroneous inferences and conclusions. Perhaps the best example is one of the earliest efforts in this direction, as illustrated in the accompanying table.

This table represents an association between market share and average contributions to overhead and profit. It shows that for low market shares the gross

*Prepared at the request of and supported by the Food Chain Marketing Institute.

profit ratio is lower and for higher market shares the gross profit is higher. The average contribution ratio shows an even stronger association. The low market share cases showed losses, whereas the high market share cities showed high average contribution ratios. The table was published and extensively used to identify a relationship between market structure and operating results (without the column pertaining to costs which we will discuss later).

The implications drawn from these data were that the theoretical relationship between market structure and operating results in the textbooks was confirmed. This meant that the cost of retailing, as indicated by the gross profit ratio, increased in high market share areas. Therefore, the consumer had to pay more for her groceries where firms had a large market share than in areas where the market share was small. It also suggested that firms with large market shares were much more profitable than in cases where the market share was small.

TABLE 1.—BISTRIBUTION OF THE MARKET SHARE RATIOS FOR NATIONAL TEA CO.'S OPERATION IN 399 CITIES: 1958

Market share (percent)	Number of cities	Average gross profit ratio	Store costs, percent of sales	Average contribution ratio [1]
Under 5	48	14.9	17.2	[2] 2.3
5 to 9.9	93	16.4	15.0	1.0
10 to 14.9	83	17.0	13.3	3.7
15 to 19.9	55	17.0	13.0	4.0
20 to 24.9	47	17.5	11.8	5.7
25 to 34.9	44	17.5	12.0	5.5
35 and over	29	17.3	10.8	6.5
Total	399			

[1] Ratios in percentages. Simple average of the arithmetic means of the cities.
[2] Negative ratio.

Source: Federal Trade Commission, in the matter of National Tea, docket No. 7457.

Taken from Russell C. Parker, "The Status of Competition in the Food Manufacturing and Food Retailing Industries." N.C. project No. 117, working paper No. 6, August 1976, University of Wisconsin.

The conception of and possible implications flowing from these data changed somewhat when the column on costs is added. This column, incidentally, is obtained by subtracting the average contribution ratio from gross margin. This shows a rather remarkable change in level of store costs in high versus low market share areas. High market shares have very little cost, whereas the cost of store operations in the lower market share is higher by almost 60 percent. What is the meaning of this? The textbook hypothesis would say, as this current report says, that one would expect costs to be higher where market share is higher. In this example, the inverse is true and very strongly so. This leaves several questions unanswered. What is the level of sales of stores in these different groups? Are they assumed to be similar, or are they quite different? The very pronounced influence on costs suggests that the low market shares are stores with very low volumes of sales, where as high market shares are stores with high sales volumes. Independent studies as well as industry experience indicate the very strong relationship between sales volume and costs.[1]

The study designed to respond to these questions and conducted by the National Commission on Food Marketing included several variables, some of which pertained to the store and its immediate environs and operating data, whereas others pertained to the market environment. The result of this analysis was that market share had extremely remote effects and in eight of the nine firms analyzed was not statistically significant at all. The Food Commission study found that inventory shrinkage (perishable losses and pilferage, primarily), sales per square foot, sales per store, clerk wages, and trading stamps, as well as a half dozen other variables, had more effect on gross margins than did market share. In the case of net margin, market share had somewhat of a greater effect. It was seventh in a list which included several variables pertaining to the specific store, its environs and operations.

After conducting this study which had the benefit of a vast amount of data from nine different firms and operating the statistical tests independently nine

[1] See National Commission on Food Marketing, Technical Study No. 7 (NCFM No. 7), chapter 7, for careful analysis of volume-cost relationship.

different times, I would interpret the meaning of the numbers and the associations in this table as follows.[2] Market share tends to be associated with sales per store and sales per square foot. Strong associations were obtained in each of the nine tests between market share and these measures of sales.[3] How can that be surprising? Where a firm has trouble getting volume of business it's likely to have a small market share. It also follows that where sales are very low costs will be high, and gross margin will suffer from inventory shrinkage due to difficulties in handling perishables well. The difference in gross margins across this entire range of different market shares is only 2.4 percent. Some of the low levels in the low market shares are probably caused by perishable losses and other inventory losses in low-volume stores. On the other hand, the slight increase in the gross margins in higher market share areas probably pertain to stores of very high volume (showing very low store operating costs), and this slight increase in gross margin may be due to the wider variety of merchandise. In very high-volume stores, the merchandise mix is likely to change to include some high margin items like potted plants, etc., that would not be feasible in low-volume stores. Such change in the mix will tend to increase gross margins.[4] The relationship between market share and net profits or contribution to overhead and profits used in this table has some validity. The linkage of events goes as follows. Since low market shares tend to be correlated with low volume, costs will be high and profits low. On the other hand, since high volumes and low costs are associated with high market shares, profitability is likely to be greatest under those circumstances.

At the end of this analysis, I had a somewhat different view of the social implications of this set of interrelated data. I think the theoretical hypothesis that high market shares may cost consumers more money is as important as it ever was. On the other hand, I see no indications that these data give any evidence that consumers pay more in high market share areas. In this illustration, the association between market shares and other performance measures was not indicative of the monopolistic pattern of the assertions and discussion. It was indicative of some fundamental relationships among these variables. The most powerful casual influence here was the relationship between volume and costs. It affected many things, and it was not a market phenomenon pertaining to all of the stores in a certain market share or market area. It was different pertaining to whichever store had the volume. I am convinced that it was inappropriate to assume the casual influence associated to market variables, even though they showed a statistical correlation. The more important casual variables were left out, and market variables had some, albeit weak, correlation with them.

As I look at the analysis reported in this study, I judge it has very much the same characteristics as the illustration above.[5] It is asserted and assumed that market influences govern the events at the store. I simply think that is wrong. Efforts of other researchers to confirm this tantalizing and exciting relationship between market factors and operating results have not confirmed this assertion.[6] I think a type of analysis that would have the option for some of these variables affecting the individual store to have their influence recorded would be a much more valid analysis. Without that, I think there is a very great likelihood of imputing efforts to market phenomena which show a statistical association only because of a chance correlation with the real determinants.

The Food Commission study identified a half dozen variables more important than market position in determining net margins or profits. Since none of these are included in the analysis of profits, whatever effects they may have are forced to be reflected through the curious set of numbers exhibited in this study. My appraisal of what's happening here is that, as in the other example, firms with higher market shares tend to have more sales and lower costs and therefore more profits. It doesn't at all surprise me that there is a correlation between market

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[2] NCFM No. 7, Chapter 10.

[3] NCFM No. 7, Supplement No. 2, "Miscellaneous Statistical Data on Food Retailing," table 7.

[4] The implication of this is that consumers pay no more for a particular thing but tend to buy a different mix of items.

[5] Aside from the market variables, CR_4 and RFMS, most of the variables look like they won a starring role because of data availability and a significant coefficient. They are certainly not usual—either in theory or practice. I liked the variable for entry but was particularly troubled by having a firm growth variable in a profit equation. One would expect the causal influence to be there but to be going the other way.

[6] See, for example, NCFM No. 7, H. Mori and W. D. Gorman, "An Empirical Investigation into the Relationship Between Market Structure and Performance as Measured by Prices," Journal of Farm Economics, August 1966, p. 162.

position and net profits. What I think is wrong is the inference that it is a part of a plan of monopolistic behavior. Their analysis doesn't really get at costs, either their measurement or linkages or correlations with other factors. They make a few observations or assertions that costs may be or must be higher in high market share areas. I find these frail assertions absolutely unconvincing.

The analysis of relationships between market structure variables and price is an interesting episode. What is assumed about cost of goods in different cities? What is assumed about labor costs and other costs of doing business in different regions? Many of these factors making up price are fixed by events beyond the policy or choices of the food retailer. To assume that market structure of food retailers is really a determinant of price variations of 15 percent is absolutely amazing. If the monopolist retailer had enough power to raise price by one-tenth of that, 1.5 percent, that would be incredible power. It would give him a pool of earnings which would make profit figures enormous.

The fundamental design problem observed in the profit analysis is again observed in the analysis of prices. There must be several important variables that determine food price variation through this incredibly wide range. The nature of competition in markets will likely have an effect, but it certainly must share the stage with other powerful influences.

Stores in towns distant from trade centers have higher costs because of transportation. Different areas have different labor organizations and rates. (This is very important, involving about 10 percent of food prices, compared to 1–3 percent for retailing profits.) Taxes and the value of real estate vary regionally. A careful analysis of all of the casual factors might have the same result we found in the illustration. There might be real, but perhaps more conventional, explanations of variations in prices, and the residual influence of market structure might be small, if statistically detectable at all.

In summary, I think both of these analyses assert relationships on the basis of theory and then design a model to impute effects to structural variables that in fact have other causes. Their models of analysis give no opportunity for these other causes to be identified. This is a fundamentally weak analytical design, for this reason.

There is one other comment I would like to make about the strident and frequent assertions of theoretical relationships. The work of Professor Bain is drawn on extensively as the basis for these theories. Professor Bain did a great deal of work and pioneered an analytical model relating the structure and behavior and performance of manufacturing industries. He made no efforts to identify similar relationships for distribution firms or to comment on whether or not they were similar or different. There is considerable evidence, it seems to me, that hypothetical relationships might be quite different in manufacturing firms as compared to distribution firms. Manufacturing firms relate to the public through some sort of products. As they apply science to these products, they are quickly movinng into non-price competition. The bigger the firm, the more concentrated the industry, the more likely non-price competition will prevail, as compared to price competition.

This sequence—quite logical for manufacturing firms—works quite differently for distribution firms. Distribution firms have some products with their labels on them, but they're not very differentiated. They are certainly not a leader in product quality dynamics. They are always a follower in terms of product characteristics and product quality. When they apply science and compete in this way, as large firms can, the focus of this evolution is on handling methods, organization and management methods, and other kinds of improved methods. The effect of these methods is cost reduction. These cost reductions, as well as their private label products which are lower cost, tend to give the largest firms a much greater tendency toward price competition than is the case of "largeness" in manufacturing.[7] I would conclude, therefore, that not only do we have trouble verifying these asserted relationships in manipulations with data, they are not so clear and straightforward even in the theory.

Considerable attention is given to a "persistent" tendency toward increased concentration in local markets. The data given in table 1.3 show an increase of four-firm concentration from 45.1 percent in 1954 to 52.1 percent in 1972. Most of the supermarket adoption occurred between the end of World War II and 1958.

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[7] A more complete discussion is presented in C. R. Handy and D. I. Padberg, "A Model of Competitive Behavior in Food Industries," American Journal of Agricultural Economics, May 1971, pp. 182–190. The observation that larger firms have lower prices than smaller firms is consistent with this proposition. Data confirming this are presented in NCFM No. 7, Chapter 16.

By 1948, only 25 percent of our grocery business went to supermarkets. By 1958, this had reached very close to its present level of about 70 percent. The period between 1954 and 1958 caught the last of this supermarket adoption period and contained well over half of the total increase in concentration in the 1954 to 1972 period. The explanation for that rise in concentration has little to do with the pattern of monopoly structure and behavior.

The period from 1958 onward is marked by rather amazing stability of four-firm concentration in local markets on average. However, the period 1963–72 has some interesting changes not apparent in the averages. The frequency of markets with four-firm concentration over 60 percent considerably increased during this period, from 38 to 52 (see Table 2). While changes in other parts of the distribution led to little effect in the averages, this suggests a different pattern of change in concentration than that found in other studies. Earlier observations indicated that high market shares were very instable.[8] This pattern suggests markets move into these higher levels from some great distance, in some cases, then have a fairly high likelihood of remaining there. If there is a special or a typical pattern of pricing or completition in these markets, it is of considerable importance to understand it.

TABLE 2.—4-FIRM CONCENTRATION IN SMSA'S AND CHANGES BETWEEN 1963 AND 1972

1963 level of concentration	1963–73 change in concentration									1963 totals
	Less than 30	30 to 34.9	35 to 39.9	40 to 44.9	45 to 49.9	50 to 54.9	55 to 59.9	60 to 64.9	65 and over	
Less than 30	1	2	1	1						5
30 to 34.9		1	3	3	2			1	1	11
35 to 39.9	2	3	2	5	3	1	1		2	19
40 to 44.9	1	2	1	12	9	1	2	2	3	33
45 to 49.9			1	6	11	8	4	1		31
50 to 54.9		1		8	7	10	12	5	3	46
55 to 59.9				2	5	3	6	7	2	26
60 to 64.9					1	6	3	3	9	22
65 and over						1	2	5	8	16
Total, 1972	4	9	8	37	38	31	30	24	28	209

Source: Appendix table F-1.

A pattern in this analysis which seems mostly inappropriate to me is the handling of A&P. I can appreciate that a very large, in fact, formerly the largest firm having trouble making profits or even sustaining market position is an uncomfortable thing in an analysis of monopoly. However, I very much resent the tendency to take A&P out, whether it is market share data or the behavioral analysis. It seems very clear to me that if market position were as important as implied in the analysis, A&P would have had the benefit of it. In such a circumstance they would not have been forced to the desperate practices described. It simply seems inappropriate to give special recognition or treatment to examples of firms that blatantly do not fit your hypothesis.

ASSESSMENT OF EMPIRICAL FINDINGS

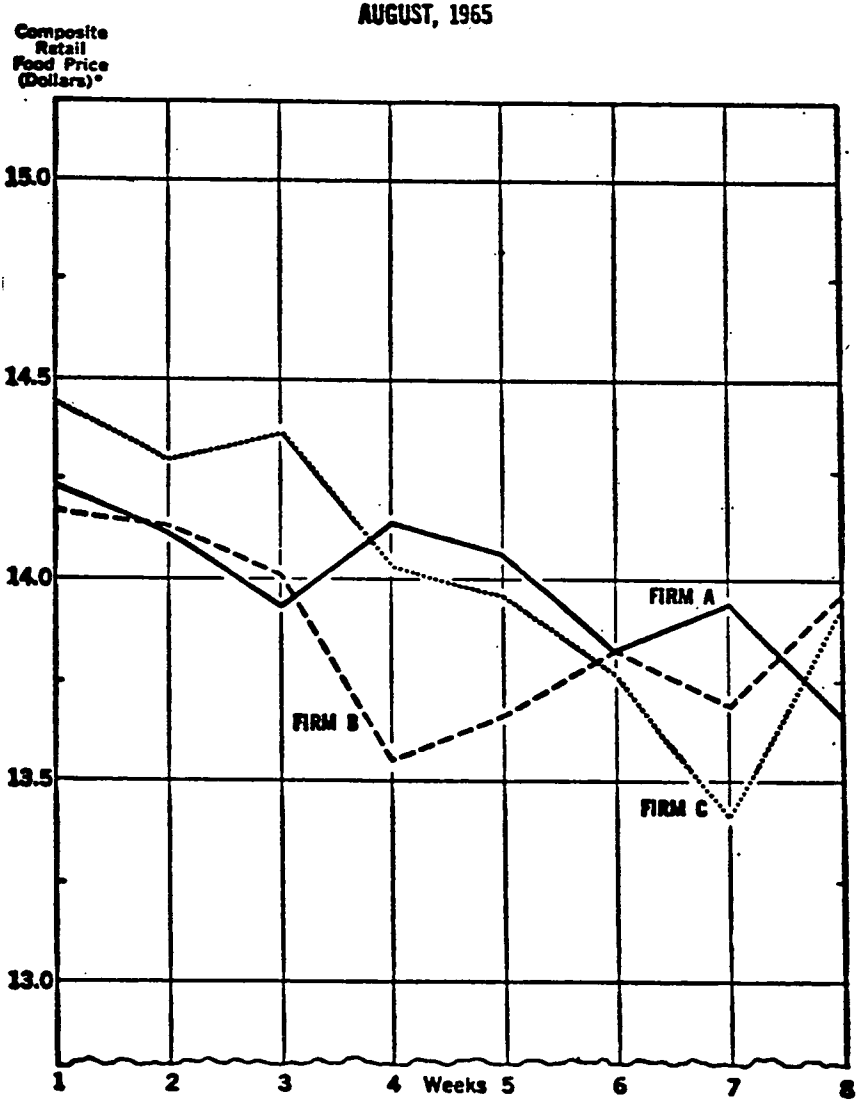
The relationship between profits and market shares and concentration are probably a valid relationship, although the causal connection is certainly a matter of some debate. I would expect higher store volumes and lower costs to be significant in that correlation between market share and profits. In terms of imputing magnitudes to variations in market shares. I don't think the quality of the analysis supports that with any accuracy at all. The real causes are primarily other things that happen to be reflected slightly and probably inaccurately in market share data. In that situation the meaning of the coefficients is very difficult to assess. Another thing which should be pointed out is that the high-profit circumstance and the low-profit circumstance often occurs simultaneously in the same firm. Some regions do well, others do poorly. If you made an effort to recover the profits on behalf of the consumer, there would be nothing to recover because the same people making profits are also making losses.

[8] See NCFM No. 7, chap. 2, tables 2–8 to 2–11.

The analysis of relationships between market structure and price are even more precarious, although the data and tables presented are quite interesting. Tables 3.5, 3.6, and 3.7 are rather exciting. I don't know how typical they are. In Food Commission studies, it was observed that prices for a 121-item market basket could change relationships from week to week (see fig. 1). In addition, a particular group of products may have a different emphasis in one firm's pricing pattern than in another firm's. However, if this indicated pattern is typical, it certainly has considerable social significance.

FIGURE 1.—Figure 9–2 is from NCFM No. 7, p. 171.

Figure 9–2. COMPOSITE RETAIL PRICE, BY WEEKS, 3 FOOD CHAINS, CITY 2, JULY AND AUGUST, 1965



*Total price of average family purchases of 121 items per week.

Source: National Commission on Food Marketing study No. 7, p. 171.

The use of these estimated coefficients at face value seems absolutely inappropriate. The variations in prices which were related to market structure are caused by many things, and the coefficients produced in this ill-designed model are so massively large as not to be believed at all. Certainly if market position gave any such prerogatives, firms would be under great pressure to forego entry to new markets. They would dominate where they are and let the other guy dominate where he is. That's not the tendency at all. In fact, they continue to enter more markets and increase the contacts they have with each other. This results in market shares lower than they would otherwise be. If market share gave them advantages, they would take strategies to increase them.

I think the monopoly overcharge is a complete hoax. I noticed it was reported in my local newspaper, and that's its main purpose. I can't imagine an economist taking it very seriously.

CONCLUSIONS

Monopoly questions are important. The most significant evidence given in this report is that in the price comparison tables. The rest is, in my judgment, contrived. The parts of this monograph indicating magnitudes of effects of structural conditions on consumers are, in the light of my experience, grossly exaggerated. If the data in tables 3–5–7 are representative of behavior (which is hardly established), they would apply to only a very few and extreme markets. Aggregate effects of these unusual circumstances would be very small.

In view of the tendency for food retailing to display several characteristics of competitive industries, such as:

(1) Aggregate profits at levels one would expect from competitive industries,

(2) Tendencies among very large firms to engage in price competition (strong emphasis on private label and A&P's behavior are examples),

(3) Sufficiently free entry to put abundant capacity all over the land, I have wondered why we give so little attention to the costs of competition. The price special is an interesting case. While it may be very "competitive," it may also be costly to the consumer. Trading stamps, not so important as in the past, adds considerable to costs of food. Questions of unnecessary costs are addressed only to the extent they relate to monopoly—which is an unusual and extreme case. Public policy might reduce consumer prices more by reducing competitive costs than any potential from dealing with monopoly. This argument is made at greater length in a report before the Committee on Agriculture and Forestry.[9]

COMMENTS ON CRITIQUE BY D. I. PADBERG, UNIVERSITY OF ILLINOIS

(By Bruce W. Marion and Willard F. Mueller)

Mr. Padberg's critique of the Report was entered into the record on the second day of the Joint Economic Committee hearings. Robert Aders, President of Food Marketing Institute, stated that Padberg had been retained by FMI to develop the critique.

Although Mr. Padberg criticizes some particularly parts of the report, he concentrates on providing alternative "views of the world" that might explain our findings. Like Schumpeter, Padberg's arguments are often interesting and appealing since they suggest an economic world where monopoly power is either absent or beneficial in its social consequences. However, also like Schumpeter, Padberg provides little evidence to support his view of the world. In large part, his rationale is based on speculation and an apparent commitment to the notion that monopoly power is either non-existent, benign or impotent—particularly in food distribution.

Different perspectives of the economic world can be useful in providing alternative hypotheses to be tested in the ongoing search for truth. Alternative hypotheses can only be tested by empirical evidence, however, Thus, in responding to Mr. Padberg's comments, we will be particularly sensitive to the empirical evidence that either supports or refutes his hypotheses.

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[9] D. I. Padberg, "Food Marketing Policy," The Marketing Functions and Costs for Food Between America's Fields and Tables. Committee Print. Subcommittee on Agr. Production, Marketing, and Stabilization of Prices, Committee on Agriculture and Forestry, U.S. Senate, March 25, 1975, pp. 89–96.

1. Padberg's assertion that "little analysis has identified regular dependable relationships between market concentration in distribution industries and profit, costs, or anything else". (Padberg, p. 1)

There have been fewer industrial organization studies of distribution industries than of manufacturing industries. However, a rather large number of recent studies have examined market structure-performance relationships in retailing and finance industries. The findings of these studies, several of which are listed in Exhibit A (attached), generally reveal similar relationships to those found in our report. Thus, while the accumulated evidence linking market structure to performance in distribution industries is not as massive or compelling as in manufacturing industries, those familiar with industrial organization literature would hardly agree with Padberg's assertion.

2. Padberg's contention that the positive relationship between relative firm market share and profits is due to the lower costs of high market share firms, not higher prices (Padberg, p. 2-7)

Padberg goes to considerable length to develop his rationale that high market share firms enjoy higher profits because of lower costs. This is the traditional litany of industry personnel when confronted with profit relationships similar to those found in our study.

The evidence presented by Padberg to support his thesis is mixed. The National Tea data (for 1958) are valid, as far as we can tell, and indicate that its direct store expenses per dollar of sales declined as market share increased and largely accounted for the increase in "store contribution". Although advertising, headquarters and warehousing expenses were not included in these figures and may have been greater in high market share markets if non-price competition was emphasized, these expense categories would not have been of sufficient magnitude to offset declining store expenses. Since these data are for one chain only and for a time 15 years before the period we studied, the results of the two studies are not necessarily in conflict. They may indicate that performance deteriorated over this period. The higher margins found in high market share cities may also have stemmed from increased prices and certainly give no indication that prices are reduced in high market share cities in response to lower costs.

Padberg then turns to the results of the National Commission on Food Marketing for additional evidence that firm market share is not a primary causal force affecting retail margins and profits. As in the Food Commission study for which he was largely responsible, Padberg appears to be enamored with explaining the variability of profits of individual stores. Explaining the profitability of individual stores in a market or individual firms in an industry is clearly not the mission of industrial organization research and would be of limited value for formulating public policies concerning competition in various segments of the economy. The methodology and results of the Food Commission study reflect the folly of this type analysis. (See our Comments on Hammonds, E., National Commission on Food Marketing Study).

The results of our price analysis provide strong evidence that is counter to Padberg's conjectures. Both firm grocery prices and profits were positively related to firm market share and market concentration. Our results suggest that the nature of competition experiences some fundamental changes as markets become less competitive and emphasis shifts from price competition to cost increasing forms of non-price competition.

One of the difficulties of store level analysis is that it may lead to a myopic view of the competitive forces that operates in different markets. For example, intra-market cost relationships may very well mask intermarket cost differences when individual store data are used. We suspect that store operating expenses per dollar of sales do decline across a chain's stores in the same market as store utilization increases. This is consistent with the Food Commission findings on the operating expenses of individual stores. However, whether a chain experiences higher store utilization in markets where it has a high market share versus those markets where it has a low market share is an unanswered question, and may vary among markets.

Finally, in developing an alternative rationale for the variation in firm margins and profits, it is interesting that Padberg focuses his entire attention on refuting firm market share as a primary causal factor. Since he did not challenge the relationships found for market concentration (CR_4), we assume that he agrees that concentrated markets tend to lead to noncompetitive prices and profits.

3. Padberg's reservations about the variables employed in the profit and price models (Padberg, p. 6, fn. 5)

Padberg indicates that except for CR_4 and RFMS, "most of the variables look like they won a starring role because of data availability and a significant coefficient". This comment hardly deserves the dignity of a response. Our models and the variables included were almost entirely specified before any analysis was conducted. For those familiar with industrial organization research, the methodology and variables used are neither particularly "clever" nor novel.

Padberg is "particularly troubled" by the firm growth variable in our profit models. As we explain in the report, this variable was used as a proxy for the caliber of management of different companies. Industrial organization economists have long recognized that competitive forces are not alone in affecting profits. Factors specific to individual firms influence firm profitability and should be considered in analyses where the individual firm is the unit of observation.

4. Padberg's criticism of the analytical design and variables included in the price model (Padberg, p. 7–8)

Padberg contends that the price model is misspecified since it does not include variables on cost of goods sold, labor costs, transportation costs, and occupancy expense. He suggests that these are the "real" causal factors that account for differences in price levels across cities.

This criticism is largely covered in our comments on Hammonds, C.2. As discussed there, the inclusion of transportation and labor cost variables did not alter our results.

Differences in retailers' cost of merchandise in different cities may occur for locally produced products (e.g., milk, fresh produce, etc.), or be caused by difference in the transportation costs of nationally and regionally produced products. No locally produced products were included in our market basket. Differences in transportation costs are discussed in our comments to Hammonds, C.2. Thus, there is no logical basis for expecting intermarket differences in cost of goods sold to account for the price differences found in our study.

5. Padberg's contention that industrial organization theory applies primarily to manufacturing industries and has limited application to distribution industries (Padberg, p. 9)

We strongly disagree. Although Joe Bain, the modern father of industrial organization theory, did much of his early empirical work on manufacturing industries, it is clear from his writings that he believes the theory applies to all types of industries.[1] Padberg is just plain wrong when he states: "Professor Bain did a great deal of work and pioneered an analytical model relating the structure and behavior and performance of manufacturing industries. He made no efforts to identify similar relationships for distribution firms or to comment on whether or not they were similar or different."

Early empirical work focused on manufacturing industries, at least in part, because of data availability. However, empirical testing of the industrial organization paradigm in nonmanufacturing industries has increased rapidly in recent years. Several of these studies were referred to in our response to 1 above and lend little support to Padberg's contention.

The differences perceived by Padberg in the competitive characteristics of food retailing and food manufacturing firms are overdrawn and largely based on conjecture. The "products" of food retailing firms are much more than the food products they handle and include the entire bundle of goods and services provided. Although grocery chains may tend to emphasize their private label products—which are relatively undifferentiated—they are still free to emphasize nonprice competitive factors such as attractive stores, prime locations, in-store services, TV and newspaper advertising and games and other promotional efforts. In some cases, the advertising of private label products may be done to create the illusion of price competition in a market withot head-on-head price competition on comparable items.

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[1] For example, Bain's first major book on the subject (Industrial Organization 1959) includes extensive discussion of the structure, conduct and performance of agriculture and mining, construction, finance, wholesale and retail trade, service trades and public utilities and transportation industries as well as manufacturing industries.

Thus, even though the competitive characteristics in food manufacturing and food retailing do vary some, this mainly leads to differences in the importance of various structure, conduct and performance dimensions. In both industries, when market dominance or a high degree of market interdependence occurs, there is a strong tendency for firms to avoid price competition and to emphasize non-price competitive factors.

6. Padberg's contention that the increase in retail concentration was largely the result of supermarket adoption and was largely completed by 1958 (*Padberg, p. 10*)

Once again, Padberg is just plain wrong. The figures he cites to illustrate that the share of all grocery store sales held by supermarkets levelled off after 1958 are misleading in that they are based on different definitions of "a supermarket". Table 1 indicates the market share growth of supermarkets, using three different definitions. Changes in food prices require some adjustments for accurate comparisons over time. For example, stores that had $300,000 in sales per year in 1948 would have had annual sales of $456,000 in 1972 with the same physical volume. Similarly, a $500,000 per year store in 1948 was equivalent to a $750,000 store in 1972. For all definitions, even after adjusting for changes in food prices, a steadily increasing share for supermarkets is apparent.

TABLE 1.—SHARE OF U.S. GROCERY STORE SALES HELD BY VARIOUS SIZE STORES, 1948–72

Store size in annual sales	Percent of grocery store sales					
	1948	1954	1958	1963	1967	1972
$1,000,000 or more	11.9	32.6	45.5	52.7	61.3	72.2
$500,000 or more	27.7	48.7	61.2	68.8	74.9	80.9
$300,000 or more	38.1	57.7	69.0	75.8	80.9	85.9
Index of food at home prices	79.8	85.8	91.0	92.2	100.0	121.6

Source: U.S. Bureau of Census, Census of Retail Trade, 1972, Subject Series, Establishment and Firm Size (including legal forms of organization) RC 72–S–1, U.S. Government Printing Office, Washington, D.C., 1975; U.S. Bureau of Census, Census of Retail Trade, 1967, Subject Reports, U.S. Summary, U.S. Government Printing Office, Washington, D.C., 1970; U.S. Bureau of Census, Census of Retail Trade, 1963, Subject Reports, U.S. Summary, U.S. Government Printing Office, Washington, D.C., 1966.

In addition, the figures presented in table 2 of Padberg's critique belie his statement that, "The period from 1958 onward is marked by rather amazing stability of four-firm concentration in local markets on average." This table reveals a definite pattern of markets with relatively low concentration in 1963 becoming more concentrated by 1972. While there were 64 markets in 1963 with CR_4 of 55 or above, this had increased to 82 markets by 1972. (Also see our comments on Hammonds, D.1).

7. Padberg's criticism of the handling of A&P (*Padberg, p. 10 & 12*)

A&P was not removed from our analysis, as Padberg infers. In fact, similar structure-profit relationships were found for 28 divisions of A&P as in our analysis of all companies. (Appendix table B.13, Report). For further discussion of this topic, see our comments on Hammonds, B.4.

8. Padberg's contention that the relative prices of chains vary greatly from week to week (*Padberg, p. 13*)

If this assertion of Padberg's is correct, the price index used for individual chains would be extremely unstable. Padberg supported his contention with a figure showing the prices of three chains operating in one city in August 1965, as reported by the National Commission on Food Marketing. What he does not report is that his source included figures showing price comparisons in three other cities as well, and that he reproduced the one with the greatest variation. The price patterns in two of the other cities were very nearly identical: in each, one chain had higher prices than the other two in each of eight weeks and one had lower prices than the other two chains in all but one week. The pricing pattern for one of these cities is shown in Figure 1, which is reproduced from the Food Commission Study.

In addition to not reporting all of the Food Commission's relevant findings on this subject, Padberg also failed to explain that the chief reason for the high observed price variation among chains in the Food Commission study was the composition of the items sampled. The Report states that, "The incidence of specials is the cause of most of the instability observed in these data." [2] It then examines this phenomenon in City 1, where it finds that "more than half of the food items were specialed . . ." [3] This high incidence of specials in the sample indicates its biased nature, since, since the same Food Commission document found that "only 200 to 300 items out of a store's total offerings of several thousand are normally used in specials." [4] Obviously, the sample used to conduct the price indexes included a disproportionate number of items commonly used as specials.

Finally, Padberg misinterprets the implications of price variability among chains for our analysis. In-so-far as it does occur—and it certainly must to some degree—it would be expected to bias our results toward zero. That is to say, if our sample includes observations that do not reflect the "typical" price relationship among chains, this would weaken our statistical findings, not strengthen them.

9. Padberg's summary comments about the interpretation of the price and profit results (Padberg, p. 12–15)

Padberg discounts the usefulness of the price and profit regression results based upon his earlier criticisms. Ironically, he seems to find Tables 3.5–3.8 "rather exciting". However, these tables were presented as illustrative case studies only. The more rigorous and comprehensive analyses summarized in Tables 2.6, 2.7, 2.8 and 3.3 are "contrived" according to Padberg.

Although Padberg has argued that our models are "ill designed" and do not capture the "true" casual relationships, the evidence he presents to substantiate his view of the world is open to serious question. This is particularly true of his criticisms of our price models. After including some of the cost variables suggested by Padberg and Hammonds, the results of our price models still indicate that prices are higher in concentrated markets and where a firm holds a dominant position. If the results of our price models are approximately correct, and we are confident they are, then Padberg's rationale of how retail firms behave is completely perforated.

Padberg's criticism of the price analysis may stem partly from his misunderstanding of it. For example, he says, "to assume that market structure of food retailers is really a determinant of price variations of 15 percent is absolutely amazing." (Padberg, p. 7–8). Apparently his reference to 15 percent is to the difference in prices between the lowest and highest priced cities in our sample. We did not assert as Padberg implies, that the entire 15 percent difference was attributable to differences in market structure in these cities. On the contrary, in our summary we explain in laymen's language that a chain's prices are 8.9 percent lower in cities where it has 4 percent of the market and the largest four firms have 40 percent (RFMS=10, CR_4=40) than in cities where its relative firm market share is 55 percent and 4-firm concentration is 70 percent (Report, p. 3). This is the largest price difference we attribute to market structure and is based on the extreme values of table 1.1.

Although most of his summary comments are unsubstantiated rhetoric, we agree with his concern for the "costs of competition", but we interpret cost increasing competitive factors somewhat differently. We suggest the the "unnecessary costs" which Padberg refers to are largely the result of non-price competition and the absence of keen price competition. Our results indicate that inflated and unnecessary costs are the largest element in our monopoly overcharge estimate. Further, that these costs are directly related to the degree of monopoly power in markets. Thus, we conclude that both excessive profits and unnecessary costs can be reduced through policy actions that encourage more competitive structures in local markets.

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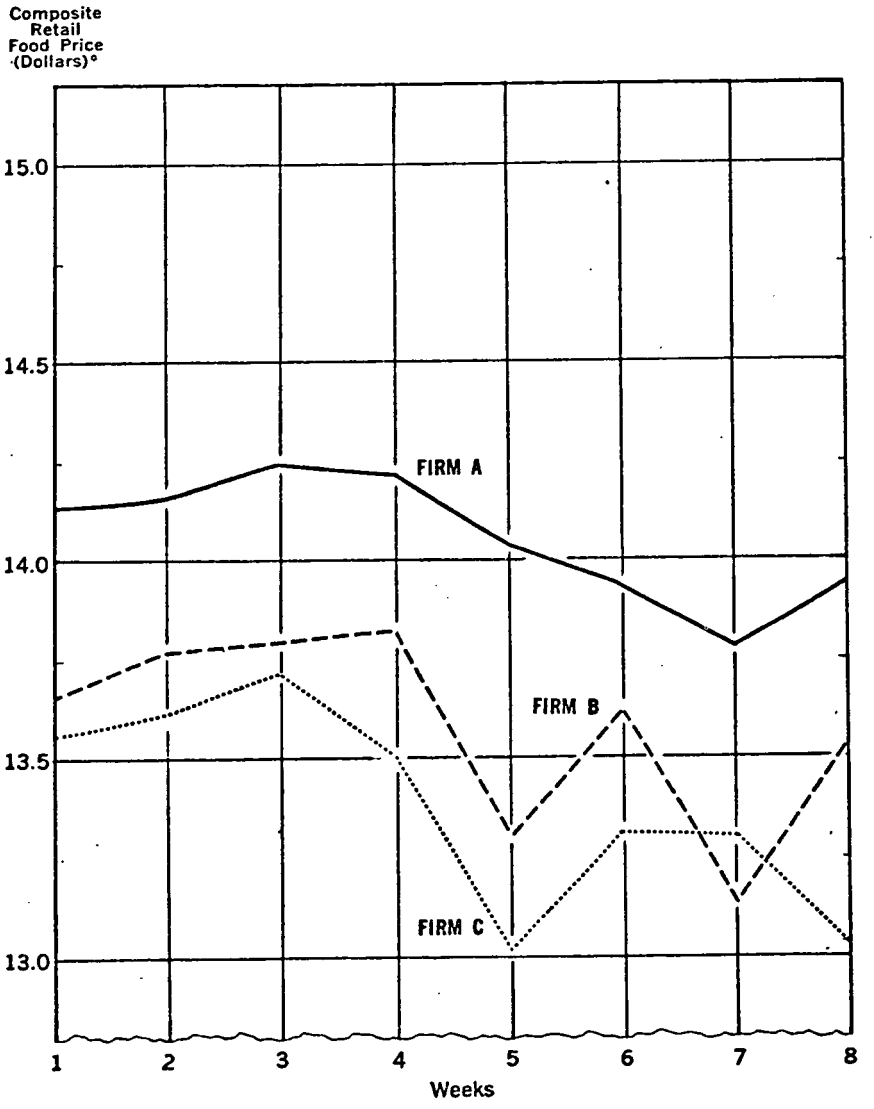
[2] *Organization and Competition in Food Retailing*, Technical Study No. 7, National Commission on Food Marketing, June 1966, p. 174.
[3] *Ibid.*
[4] *Ibid*, p. 175.

FIGURE 1.—Composite retail price, by weeks, three food chains, city 3, July and August 1965.



*Total price of average family purchases of 121 items per week.
**Fig. 1 from NCFM No. 7, p. 172.

Source: National Commission on Food Marketing study No. 7, p. 172.

Exhibit A

A PARTIAL LIST OF INDUSTRIAL ORGANIZATION STUDIES OF FINANCE AND DISTRIBUTION INDUSTRIES

1. For a review of studies of drug, gasoline, and hard goods retailing see Louis P. Bucklin, "Competition on Evolution in the Distributive Trades" (Englewood Cliffs, N.J.: Prentice-Hall, 1972) pp. 126–130.

2. "Prescription Drug Price Disclosures," Staff Report to the Federal Trade Commission (processed, 1975) pp. 41–44, part III.

3. J. David Cummins, Herbert S. Benenberg and William G. Scheel, "Concentration in the U.S. Life Insurance Industry," Journal of Risk and Insurance (June 1972) pp. 177–99.

4. John H. Landon, "The Relation of Market Concentration to Advertising Rates: The Newspaper Industry" Antitrust Bulletin (Spring 1971) pp. 53–100.

5. Bruce M. Owen, "Newspaper and Television Station Joint Ownership," Antitrust Bulletin (Winter 1973) pp. 787–807.

6. F. R. Edwards, "Concentration in Banking and Its Effect on Business Loan Rates," Review of Economics and Statistics (August 1964) pp. 294–300.

7. Paul A. Meyer, "Price Discrimination, Regional Loan Rates and the Structure of the Banking Industry," Journal of Finance (March 1967) pp. 37–48.

8. "Donald Jacobs, Business Loan Costs and Bank Market Structure," (New York: Columbia University Press, 1971).

9. F. W. Bell and N. B. Murphy, "Impact of Market Structure on the Price of a Commercial Bank Service," Review of Economics and Statistics (May 1969) pp. 210–13.

10. George Kaufman, "Bank Market Structure and Performance: the Evidence from Iowa," Southern Economic Journal (April 1966) pp. 429–39.

11. A. A. Heggestad and J. J. Mingo, "Prices, Nonprices, and Concentration in Selected Banking Markets," Bank Structure and Competition, Conference Papers, March 28–29, 1974 (Federal Reserve Bank of Chicago) pp. 69–95.

12. Franklin Edwards, "The Banking Competition Controversy," National Banking Review (Sept. 1965) pp. 1–34.

13. Douglas F. Greer and Robert Shay, "An Econometric Analysis of Consumer Credit Markets in the United States," Technical Study Vol. IV, National Commission on Consumer Finance (Washington, D.C., 1973) especially chapters 2 and 4.

14. Willard F. Mueller and Leon Garoyan, "Changes in the Market Structure of Grocery Retailing," Univ. of Wisconsin Press, 1961.

15. Paul E. Nelson and Lee E. Preston, "Price Merchandising in Food Retailing: A Case Study," Institute of Business and Economic Research, Univ. of California, Berkeley, 1966.

16. Federal Trade Commission, "Economic Report on the Structure and Competitive Behavior of Food Retailing," January 1966.

17. Federal Trade Commission, "Economic Report on Food Chain Selling Practices in the District of Columbia and San Francisco," July 1969.

FOOD MARKETING INSTITUTE,
Washington, D.C., April 5, 1977.

HON. GILLIS W. LONG,
U.S. House of Representatives,
Washington, D.C.

DEAR MR. LONG: At the hearings of this Committee on March 30 questions were raised as to the past and future cooperation of the food retailing industry with respect to requests for information from this Committee.

My staff has contacted all 17 companies that submitted data to this Committee in this matter. We have found no basis for any allegation that food retailers did not fully cooperate in submitting materials to the Joint Economic Committee. We were informed that the first contract the industry had with the JEC staff regarding this inquiry was the October 1974 subpoena and that there was no prior attempt to obtain information voluntarily from the companies.

The companies fulfilled the requirement of the 1974 subpoena. Senator Humphrey commended the chains for their cooperation in a speech in October 1975 when he said:

"I mentioned to you that I'm chairman of the Joint Economic Committee, and that committee has looked into food prices, and we've had your cooperation. I want to put it on the record here: I appreciate that cooperation. We're going to make a frank and objective analysis and we're doing it because you're helping us. I want to assure you that it will not be a witchhunt. I also want to assure you that it'll not be a whitewash. We have your help, your cooperation and you're going to get a factual, honest analysis and not something to stick it to you just to make a headline. What this country needs is not confrontation, what it desperately needs today more than ever is cooperation and coordination."

Since that time none of the companies have been asked for any further information by the Committee staff.

The industry has a good record of cooperation in the past and I have no reason to think that they will not continue to do so.

Sincerely,

ROBERT O. ADERS, *President.*

SUPPLEMENTAL STATEMENT TO THE TESTIMONY OF TIMOTHY M. HAMMONDS, VICE PRESIDENT FOR RESEARCH, FOOD MARKETING INSTITUTE

Congresswoman Heckler stated on March 30 that it was obviously easier to criticize the Mueller-Marion study than to produce one. She is, of course, correct. I thought it might be useful, however, to attempt within this short time period to demonstrate that data are available which meet many of the objections raised by the economists appearing before this committee on that day.

Among our many substantive criticisms of the concentration study, we pointed out the extremely limited and nonrepresentative nature of the data base: prices from three food chains, for one month, for far less than half of total store sales.

A more representative data set is available from the Bureau of Labor Statistics, the Urban Intermediate Budget estimates, which can be used to compare food costs between areas. These data avoid the Mueller-Marion objections to using Consumer Price Index data from the B.L.S. In fact, the C.P.I. Detailed Report for December 1974 states:

"Note: The Consumer Price Index cannot be used for measuring differences in living costs among areas; it indicates price change within areas. Estimates of *differences in living costs among areas are found in the family budgets.*" (Emphasis added.)

We have attached a table showing the 1974 four-firm concentration ratios taken from the Grocery Distribution Guide (given the limitations of this data source noted in our testimony) and the 1974 Urban Intermediate Budget for a 4-Person Family. The latter data were taken from the U.S. Bureau of Labor Statistics" Autumn 1974 Urban Family Budgets and Geographical Comparative Indices" (supplement to Bulletin 1570–5).

Look with us at that table. Consider New York, the highest food-cost city, and Dallas, the lowest food-cost city. The lowest cost city has a 1974 concentration ratio almost double that of the highest cost city. The 1972 Census ratios show the lowest cost city to be a full 15.7 percentage points higher in concentration level than the highest cost city. This is hardly in keeping with the Mueller-Marion hypothesis which would suggest precisely the opposite.

Consider Boston and Washington, D.C., both roughly comparable in food cost. We find food costs in Washington no higher than in Boston even though Washington's 1974 four-firm concentration ratio is almost double that of Boston. The 1972 Census ratios show Washington to be a full 27.3 percentage points higher in concentration than Boston.

The simple correlation coefficient between 1974 concentration and food cost is —.40. This is, a negative relationship significant at the 5 percent level. While we do not pretend this is a well-specified model, it does show an entirely different picture than developed by Mueller and Marion.

It would appear that when a representative group of firms is sampled, when a longer time period of analysis is used, and when a broader group of products is studied, the Mueller-Marion hypothesis does not hold up.

Metropolitan area	1974 4-firm concentration ratio (percent)	1974 urban intermediate food budget for a 4-person family
Atlanta	51.6	$3,444
Baltimore	41.3	3,471
Boston	36.4	3,829
Buffalo	79.9	3,667
Chicago	58.0	3,563
Cincinnati	47.5	3,525
Cleveland	62.9	3,463
Dallas	53.9	3,200
Detroit	51.4	3,594
Houston	55.5	3,403
Kansas City	65.3	3,531
Los Angeles	48.7	3,387
Milwaukee	58.7	3,301
Minneapolis	63.0	3,429
New York	28.7	4,099
Philadelphia	42.2	3,896
Pittsburgh	44.8	3,669
St. Louis	56.4	3,570
San Diego	61.4	3,323
San Francisco	61.1	3,528
Seattle	77.8	3,587
Washington D.C.	70.4	3,671

Analysis of the Impact of Market Characteristics on City Food Prices

(By Gerald E. Grinell, Terry L. Crawford, and Gerald Feaster) *

Public policy makers, consumers and other market participants have long been interested in understanding, explaining, and forecasting food prices. Efforts generally have centered at the national level, usually on a commodity basis, and at an intermediate level of production and distribution although considerable interest has been focused on average level of food prices in the U.S. as measured by the Consumer Price Index. Interest also has been expressed regarding the impact of market structure on food prices and other causes of food price changes.

The objective of the research reported in this paper was to develop a model that explains food price variation among urban markets. The principal hypothesis was that specific elements of market structure as well as basic supply and demand variables are causually linked to food prices in grocery stores and that inclusion of only concentration measures could produce specification bias.

Retail food price analyses are hampered by a lack of usable price information. A food price index can be constructed to measure the average level of prices paid by consumers for a market basket item they generally buy or an index can be constructed to reflect the average level of prices for a market basket of identical products. Although either index will show the effects of competitive market influences, the latter generally is preferred by economists wanting to show the effects of market structure and conduct on firm and market prices. Such a price index is not available for food products for urban areas. The former index (Consumer Price Index or CPI), however, has been constructed for selected large urban areas for several years by the Bureau of Labor Statistics.

The Consumer Price Index for food at home measures the average month to month price change of a market basket of food products purchased in grocery stores. The volume mover in each selected food category is priced in each sample store. Weights are assigned, according to sales volume, to chain supermarkets, large independents, and small independent stores. Over time the same items are price-checked in sample stores but different items may be price-checked among different stores and different urban areas. As a result CPI prices may not be strictly comparable among cities. For further discussion of CPI food prices, see "Estimated Retail Food Prices by City." [1]

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*The authors are agricultural economists, Economic Research Service, USDA. The views expressed here are those of the authors and do not necessarily represent those of USDA. Contributed Paper presented at the American Agricultural Economics Association's annual meetings, Aug. 15–18, 1976 at the Pennsylvania State University, State College, Pa.

[1] U.S. Department of Labor, Bureau of Labor Statistics, "Estimated Retail Food Prices by City," monthly, Washington, D.C. Also see, for example, National Commission on Food Marketing, "Organization and Competition in Food Retailing," Technical Study No. 7, June 1966, pp. 310–311.

DEFINITION OF VARIABLES

Annual data for census years 1954, 1958, 1963, and 1967 were available for 19 large urban areas or standard metropolitan statistical areas (SMSA's).[2] Although most information was directly available in usable form, some variables required data generation or use of proxies. Each hypothesized structural variable will be discussed in turn.

Average city price for food expressed in dollars for a market basket of food items was calculated as follows: Using 1967 CPI data for each selected city, the city price of each food item in the market basket was multiplied by the item's average U.S. quantity weight and summed over all items in the basket to obtain 1967 city price in total dollars. Each city's price in dollar terms for 1954, 1958, and 1963 was obtained by adjusting the 1967 city market basket price by the CPI price index for food at home in each city. This variable was labeled CPRIC, and a second variable, RCPRI, with general time trends removed, was obtained by deflating each city price by total CPI for food at home in the United States. Four firm (4FIRM), 8 firm (8FIRM), and 20 firm (20FIRM) concentration ratios were available from special tabulations of Bureau of Census data commissioned by the National Commission on Food Marketing and the Federal Trade Commission (FTC). Marginal 5–8 firm (5–8FM) and 9–20 firm (920FM) concentration ratios also were used. Comparable market concentration data are not available for years later than 1967. However, USDA and FTC have a contract with the Bureau of Census to obtain concentration data from the 1972 Census of Business.

Consumer income was available for SMSA's from the Bureau of Census for 1950, 1960, and 1970.[3] These data were adjusted by State income data to obtain estimates for 1954, 1958, 1963, and 1967. Two variables were used; per capita disposable income in the city (YCITY); and real per capita disposable income in the city (RYCITY).[4] Population in the city (C-POP) was obtained by interpolating city population using data obtained by the Bureau of Census for the years 1950, 1960, and 1970. Similarly, population of cities within 100 miles of each selected city (SSPOP) was obtained. This measure of population density around a city indicates proximity of other metropolitan areas which would facilitate market enetry.[5] Real per capital grocery store sales (RSPOP) was used as a demand factor.[6] It is also an interaction term for EFFIC and DENSI, explained below. The Consumer Price Index for food at home was obtained from reports of the Bureau of Labor Statistics for the census years.

Wage rates, sales per store, and number of stores per person were used to introduce the influence of operating costs of retail food stores. Average wage rate of manufacturing workers in the selected cities (CWAGE for money wage and RCWAG for real wage) was used because retail wage rates were not available for all cities all years. Larger store sales were expected to (1) result in lower unit costs while at the same time, (2) pressuring firms to maintain a low price to attract an efficient volume. Sales per store in the city (STORS) and real sales per store in the city (EFFIC)[7] measure elements of both with the limitation that large store size (which may or may not decrease unit costs and prices), and high sales per square foot (which generally reduces unit operating expenses) both contribute to larger values of STORS and EFFIC. Number of grocery stores per person in the city (DENSI) is a measure of efficiency to the extent that increases in store density (DENSI), decrease average store size.

Distance from basic areas of food production was estimated using a proxy variable generated by estimating the weighted center of U.S. food production based on sales by State using a geographic grid to measure latitudinal and longitudinal distance. With the center of the value of production (near Manhattan, Kansas) being zero, the mileage distance to each selected city, labeled ADIST, was obtained. Although ADIST is not a direct measure of transportation costs, it does reflect an areal pricing pattern existing in geographical markets. Grocery store sales in the selected cities were obtained from published reports of the Bureau of Census.

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[2] Complete 1972 data are not available.
[3] U.S. Department of Commerce, Statistical Abstract, various years.
[4] U.S. CPI, all commodities was used to deflate YCITY.
[5] SSPOP was found not significant and is not included in models reported in this paper.
[6] Although recognized as an equilibrium quantity, RSPOP was considered to primarily reflect demand.
[7] To obtain EFFIC, STORS was deflated by U.S. CPI, food at home, 1967 base.

MODEL FORMULATION AND ANALYSIS

Linear regression analysis (OLS) was used to test hypothesized functional relationships. Models were formulated to statistically test hypothesized relationships, determine sensitivity of estimates to alternative concenration measures, and to determine potential specification bias in models that only include market concentration as exogenous variables.

The data used in this analysis possess some inconvenient characteristics. First, because food prices were available for only 19 cities during the years studied and because market concentration data were available only for census years, the time series of cross section data were pooled to gain degrees of freedom. Second, the analysis was restricted to large urban areas. Third, limited variability of intercity prices increased the difficulty of measuring the influence of hypothesized structural variables.[8] Fourth, because most of the variables were correlated with time, intercorrelation made it difficult to measure structural relationships among the economic variables. Fifth, as reported above, some proxy measures were required to more fully specify the hypothesized models.

To use pooled time series cross section data to analyze intercity price variation at a point in time requires that effects associated with time be controlled to reveal net relationships among hypothesized economic variables.[9] Time effects can be accounted for explicity by including a time or trend variable in the model or by removing time effects from each affected variable. Both options were employed although the latter was preferred because: (1) the dependent variable (CPRIC) was highly correlated with time (simple correlation was 0.91); (2) time was not uniformly related to each variable; and (3) time effects were not linear over the period studies, i.e. rates of change varied among the years. Problems associated with time trends will increase when 1972 data can be included in the analysis.

The hypothesized cross section model included RCPRI, ADIST, RCWAG, DENSI, RSPOP, RYCTY, and concentration ratios. Five equations were run for model I using different combinations of concentration ratios. Model I (results are summarized in equations 1–5 in table 1), using RCPRI as the dependent variable, produced consistent results among the five equations. R-squared was 0.56, total F (ranging from 10 to 14) was significant at the 1 percent level. In each equation the constant term and distance were significant at the 1 percent level while real per capita income was significant at the 5 percent level. No other variable was significant at the 10 percent level. Real wage, which did not have the hypothesized sign probably does not accurately reflect operating costs of food retailers. Distance was the single most important variable (R-squared generally fell below 0.20 when ADIST was deleted) and had a positive effect on the average level of city prices, as hypothesized. Real per capita grocery store sales (RSPOP) had the hypothesized sign but was not significant. Although concentration ratios were not significant, the appearance of inverse relationships to RSPRI merits recognition because positive relationships were hypothesized.

Model I was modified by deleting RCWAG, DENSI, and RSPOP to obtain model II (results are summarized in equations 6–10 in table 1). The constant term and distance were highly significant as in model I but real per capita income was not significant. When DENSI was added to model II, (results not shown) real per capita income was significant at the 10 percent level while number of stores per capita (DENSI) was significant at the 5 percent level in three equations and at the 10 percent level in the other two equations. When DENSI was substituted for RYCTY in model II, DENSI was not significant while the influence of ADIST and concentration measures were not appreciably affected. Similarly, C–POP did not make a significant contribution toward explaining variation in RCPRI. These respecifications of model II show the effects of intercorrelation and indicate the sensitivity of the models to alternative speculation.

Models I and II show that when price changes due to time are removed, distance is very important in explaining intercity price variation while 4, 8, and 20 firm concentration ratios are not significant and may be inversely related to price. Other factors, such as income and operating costs, likely contribute to intercity price variation but their influence could not be measured accurately because mod-

[8] Standard deviation as a percentage of mean using the 1954–67 pooled data was 7.2 percent and 2.4 percent respectively for CPRIC and RCPRI.

[9] This procedure specifically excluded analysis of structural relationships that are embodied in time.

erate intercorrelation was encountered, and the proxy variables used were not fully satisfactory.

Models III and IV show effects of not deflating the dependent variable (SPRIC). In these models the exogenous variables should explain both spacial (intercity) and temporal variations in city prices of a market basket of food items. Although the results from models III and IV were different from models I and II, they were not inconsistent. ADIST was significant at the 5 percent level in all equations while concentration variables either were not significant or were marginally significant (10 percent level). Concentration ratios generally were positively related to CPRIC in Model III (see table 2). DENSI was not significant, and did not have the hypothesized sign, while RYCTY and RCWAG were significant at the 1 percent level with the latter showing a sign change from model I. R-squared in model III increased to about 0.67 from 0.49 to 0.56 in models I and II. The differences between the first two models and model III are largely attributed to time effects. The dependent variable CPRIC along with RYCTY, RCWAG, and concentration ratios all increased over time on average. Model II was rerun as model IV substituting CPRIC for RCPRI as the dependent variable and including dummy variables for 1958, 1963, and 1967. Results (summarized in table 2) were very similar to those of model II. R-squared was about 0.94, ADIST was significant at the 1 percent level, RYCTY was not significant (but its sign was positive as hypothesized), and concentration ratios were not significant and generally had negative signs as in model II. Result of model IV were not appreciably affected when undeflated city income (YCITY) was used rather than RYCTY.

To show the effects of excluding all explanatory variables other than concentration ratios, model V was run. As shown in table 3, when included alone, 8 and 20 firm concentration ratios were positively and significantly (5 percent level) related to CPRIC while 4 firm concentration was positive but not significant. When all 3 levels of concentration were included together, (either 4FIRM, 8FIRM and 20 FRM or 4FIRM, 5–8FM and 920FM), 4FIRM, 20FRM, 5–8FM, and 920FM were significant at the 1 percent level while 8FIRM was not significant (see table 3). The importance of the concentration ratios are overstated because of time effects. When model V was rerun with dummy variables for years or with RCPRI substituted for CPRIC, none of the concentration ratios were significant even at the 10 percent level. Model V had very low values of R-squared, indicating that concentration ratios alone explained only a small portion of total variation in CPRIC.

SUMMARY AND CONCLUSION

A model that would explain intercity price variation would be of considerable interest to persons who analyze food prices, or who study market structure-performance relationships, and/or to regulatory bodies responsible for antitrust enforcement. The question of whether higher market concentration of grocery retailers is positively related to prices in the city is of social importance.

This analysis does not support or reject the hypothesis that within a given year high market concentration is associated with high levels of food prices in different cities for items consumers typically purchase. The question of whether individual firms with high market shares charge higher prices was not adddressed in this study and data are not available to determine whether market concentration is positively related to identical items among cities. From the analysis it also could not be determined whether food prices incerased over time due to rising levels of concentration in a given market.

Distance from production areas was positively and significantly related to intercity variation in food prices. In some models, real per capita income, real wages, and per capita number of grocery stores (DENSI) were significantly related to prices but the use of proxy variables and intercorrelation associated largely with time effects did not permit complete model specification and accurate measurement of the variables' effects.

Another important finding of the study was that when intercity food prices were related only to market concentration, specification bias occurred. The nature and importance of concentration-price relationships were also misstated when time-related effects were not explicitly controlled. This study shows the difficulty inherent in attempting to fully specify a model that explains intercity price variation, and illustrates that intercorrelation is a problem in attempting to isolate effects among important structural variables.

Because of data limitations and model sensitivity, the findings of this study should not be considered conclusive. Additional price data are needed for more cities. Also additional price measures are needed to more adequately make price comparisons among cities and over time. Finally, more work is needed to quantify hypothesized explanatory variables including further development of proxy variables.

Further work on this project will be warranted when 1972 Census of Business data on market concentration and other characteristics of grocery stores become available in the latter part of 1976. It is hoped this paper will make a contribution to the efforts of other economists who are attempting to develop intercity price models.

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TABLE 1.—STATISTICAL SUMMARY OF CITY FOOD PRICE VARIATION, MODELS I AND II FOR 1954, 1958, 1963, AND 1967

Item	Expected sign	Model I: Real city food prices and selected structural variables for hypothesized model, equation—					Model II: Real city food proces and selected structural variables, equation—				
		1	2	3	4	5	6	7	8	9	10
R^2 squared		0.56	0.56	0.55	0.56	0.56	0.49	0.49	0.49	0.51	0.51
F ratio		[1] 14.36	[1] 14.39	[1] 14.32	[1] 10.54	[1] 10.54	[1] 22.98	[1] 23.22	[1] 23.45	[1] 14.37	[1] 14.37
Degrees of freedom		6.69	6.69	6.69	8.67	8.67	3.72	3.72	3.72	5.70	5.70
Standard error of estimate		86.1	86.0	86.1	87.2	87.2	90.3	90.1	89.9	90.0	90.0
Dependent variable		RCPRI	RCPRI	RCPRI	RCPRI	RCPRI	RCPRI	RCPRI	RCPRI	RCPRI	RCPRI
Mean of dependent variable		5,068	5,068	5,068	5,068	5,068	5,068	5,068	5,068	5,068	5,068
Independent variables:											
Constant	Not predicted	5,006.6	5,014.2	5,025.4	4,954.5	4,954.5	4,882.8	4,902.8	4,923.9	4,913.8	4,913.8
T-ratios		[1] 27.10	[1] 26.80	[1] 24.73	[1] 20.73	[1] 20.73	[1] 69.70	[1] 69.11	[1] 62.10	[1] 57.73	[1] 57.73
ADIST	Positive	0.226	0.227	0.228	0.224	0.224	0.233	0.233	0.234	0.240	0.240
T-ratios		[1] 7.76	[1] 7.79	[1] 7.76	[1] 7.02	[1] 7.02	[1] 8.21	[1] 8.25	[1] 8.31	[1] 8.34	[1] 8.34
RYCTY	Positive	0.596	0.601	0.595	0.612	0.612	−0.030	−0.009	0.025	0.185	0.185
T-ratios		[2] 2.24	[2] 2.26	[2] 2.24	[2] 2.26	[2] 2.26	−0.18	−0.05	0.14	0.84	0.84
RCWAG	Positive	−74.0	−73.8	−75.7	−68.6	−68.6					
T-ratios		−1.86	−1.86	−1.90	−1.63	−1.63					
DENSI	Positive	51.5	47.6	41.6	63.9	63.9					
T-ratios		0.88	0.80	0.67	0.82	0.82					
RSPOP	Negative	−366.8	−353.9	−328.4	−383.3	−383.3					
T-ratios		−0.96	−0.94	−0.88	−0.94	−0.94					
4FIRM	Positive	−71.6			75.8	−30.6	−31.4			533.2	−104.9
T-ratios		−0.71			0.16	−0.19	−0.30			1.22	−0.75
8FIRM	Positive		−79.6		−333.0			−74.3		−527.9	
T-ratios			−0.76		−0.51			−0.69		−0.81	
20FRM	Positive			−81.9	226.7				−116.8	−110.2	
T-ratios				−0.63	0.43				−0.90	−0.26	
5–8FM	Positive					−106.3					−638.1
T-ratios						−0.22					−1.48
920FM	Positive					226.7					−110.25
T-ratios						0.43					−0.26

[1] 1 percent level.
[2] 5 percent level.

Note.—See text for explanation of models and definition of terms.

TABLE 2.—STATISTICAL SUMMARY OF CITY FOOD PRICE VARIATION, MODELS III AND IV FOR 1954, 1963, AND 1967

Item	Expected sign	Model III: Current city food prices and selected structural variables for hypothesized model, equation—					Model IV: Current city food prices and selected structural variables, equation—				
		11	12	13	14	15	16	17	18	19	20
R squared		0.67	0.67	0.67	0.68	.068	0.94	0.94	0.94	0.94	0.94
F ratio		[1] 22.91	[1] 22.89	[1] 23.41	[1] 17.50	[1] 17.50	[1] 179.88	[1] 180.47	[1] 180.92	[1] 135.47	[1] 135.47
Degrees of freedom		.669	6.69	6.69	8.67	8.67	6.69	6.69	6.69	8.67	8.67
Standard error of estimate		199.6	199.7	198.2	199.3	199.3	84.6	84.5	84.4	84.6	84.6
Dependent variable		CPRIC	CPRIC	CPRIC	CPRIC	CPRIC	CPRIC	CPRIC	CPRIC	CPRIC	CPRIC
Mean of dependent variable		4,592	4,592	4,592	4,592	4,592	4,592	4,592	4,592	4,592	4,592
Independent variables:											
Constant	Not predicted	2,987.4	2,970.4	2,776.4	2,490.4	2,490.4	3,989.9	4,010.8	4,027.5	4,019.4	4,019.4
T-ratios		[1] 6.96	[1] 6.84	[1] 5.94	[1] 4.56	[1] 4.56	[1] 51.94	[1] 50.46	[1] 45.01	[1] 42.18	[1] 42.18
ADIST	Positive	0.157	0.152	0.140	0.121	0.121	0.210	0.210	0.211	0.217	0.217
T-ratios		[2] 2.32	[2] 2.25	[1] 2.07	[2] 1.67	[2] 1.67	[1] 7.77	[1] 7.80	[1] 7.82	[1] 7.82	[1] 7.82
RYCTY	Positive	2.51	2.49	2.50	2.56	2.56	0.172	0.167	0.176	0.299	0.299
T-ratios		[1] 4.07	[1] 4.03	[1] 4.08	[1] 4.14	[1] 4.14	0.65	0.64	0.67	1.07	1.07
RCWAG	Positive	275.6	274.7	286.4	315.3	315.3					
T-ratios		[1] 3.00	[1] 2.98	[1] 3.12	3.29	[1] 3.29					
DENSI	Positive	−93.1	−76.2	−23.9	64.9	64.9					
T-ratios		−0.68	−0.55	−0.17	0.36	0.36					
RSPOP	Negative	−77.6	−154.4	−231.3	−445.5	−445.5					
T-ratios		−0.09	−0.18	−0.27	−0.48	−0.48					
4FIRM	Positive	344.6			343.2	745.2	−9.9			533.6	−63.2
T-ratios		[3] 1.47			0.32	[3] 2.07	−0.10			1.29	−0.46
8FIRM	Positive		355.3		−1,385.9			−49.1		−582.1	
T-ratios			[3] 1.46		−0.92			−0.47		−0.94	
20FM	Positive			537.6	1,787.8				−78.5	−14.7	
T-ratios				[2] 1.79	[2] 1.48				−0.62	−0.04	
5-8FM	Positive					401.96					−596.8
T-ratios						0.36					−1.45
920FM	Positive					1,787.8					−14.7
T-ratios						[3] 1.48					−0.04
DUMM2	Positive						272.6	274.1	275.3	276.5	276.5
T-ratios							[1] 9.48	[1] 9.52	[1] 9.52	[1] 9.52	[1] 9.52
DUMM3	Positive						390.4	393.2	395.2	394.5	394.5
T-ratios							[1] 10.99	[1] 11.06	[1] 11.03	[1] 10.95	[1] 10.95
DUMM4	Positive						834.4	838.3	481.4	847.6	487.6
T-ratios							[1] 19.13	[1] 19.07	[1] 18.87	[1] 18.76	18.76

[1] 1 percent level.
[2] 5 percent level.
[3] 10 percent level.

Note.—See text for explanation of models and definitions of terms.

TABLE 3.—STATISTICAL SUMMARY OF CITY FOOD PRICE VARIATION, MODEL V FOR 1954, 1958, 1963, AND 1967

	Expected sign	Model V: Current city food prices and selected measures of market concentration, equation—				
		21	22	23	24	25
R squared		0.003	0.05	0.16	0.37	0.37
F ratio		.26	[1] 4.26	[1] 13.89	[1] 14.05	[1] 14.05
Degrees of freedom		1.74	1.74	1.74	3.72	3.72
Standard error of estimate		332.8	324.2	305.9	268.4	268.4
Dependent variable		CPRIC	CPRIC	CPRIC	CPRIC	CPRIC
Mean of dependent variable		4,592	4,592	4,592	4,592	4,592
Independent variables:						
Constant	Not predicted	4,503.8	4,164.6	3,647.0	3,365.0	3,365.0
T=ratios		[1] 25.30	[1] 19.80	[1] 14.25	[1] 13.57	[1] 13.57
ADIST	Positive					
T=ratios						
RYCTY	Positive					
T=ratios						
RCWAG	Positive					
T=ratios						
DENSI	Positive					
T=ratios						
RSPOP	Negative					
T=ratios						
4FIRM	Positive	192.98			−3,324.0	1315.6
T=ratios		0.51			−2.85	[1] 3.32
8FIRM	Positive		791.0		1,414.5	
T=ratios			[2] 2.06		0.74	
20FRM	Positive			1,537.0	3,225.0	
T=ratios				[1] 3.73	[1] 2.65	
5–8FM	Positive					4,639.6
T=ratios						[1] 4.30
920FM	Positive					3,225.0
T=ratios						[1] 2.65

[1] 1 percent level.
[2] 5 percent leves.

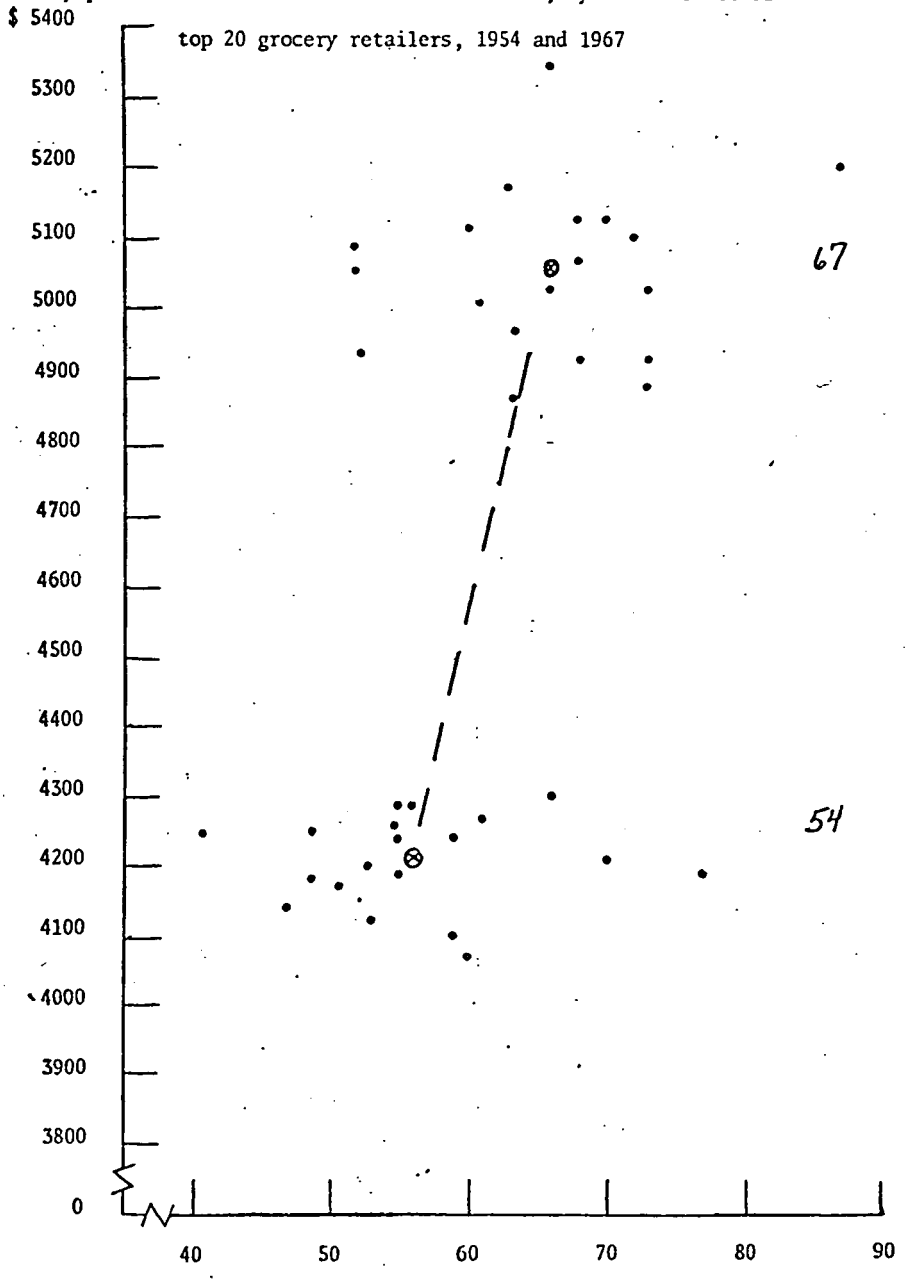
Note.—See text for explanation of models and definitions of terms.

TABLE 4.—CORRELATION COEFFICIENTS FOR SELECTED MARKET VARIABLES, 19 SMSA'S, CENSUS YEARS 1954–67 [1]

	CPRIC	RCPRI	4 FIRM	8 FIRM	20 FRM	5–8 FM	920 FM	CWAGE	YCITY	RCWAG	RYCTY	ADIST	DENSI	RSPOP	YEAR	C-POP	EFFIC	STORS
CPRIC	1.000																	
RCPRI	295	1.000																
4FIRM	.059	.065	1.000															
8FIRM	.233	.051	.947	1.000														
20FRM	.398	.011	.813	.931	1.000													
5–8FM	.517	.046	.263	.062	.268	1.000												
920FM	.312	.112	.633	.498	.147	.470	1.000											
CWAGE	.813	.125	.020	.172	.320	576	.294	1.000										
YCITY	.839	.061	.004	.201	.380	.613	.360	.812	1.000									
RCWAG	.682	.150	.068	.112	.242	.545	.272	.972	.722	1.000								
RYCTY	.760	.084	.030	.170	.346	.603	.361	.747	.987	.678	1.000							
ADIST	.240	.699	.057	.011	.092	.208	.188	.024	.115	.033	.141	1.000						
DENSI	.617	.163	.032	.186	.427	.656	.511	.716	.755	.667	.736	.064	1.000					
RSPOP	.547	.015	.190	.018	.233	.644	.506	.642	.625	.631	.612	.226	.617	1.000				
YEAR	.907	.061	.102	.275	.430	.508	.278	.915	.858	.818	.782	0	.729	.576	1.000			
C-POP	.159	.231	.200	093	.034	.340	.170	.038	.201	.015	.225	.304	.077	1.09	.083	1.000		
EFFIC	.635	.066	.081	.153	.418	.710	.579	.710	.770	.661	.749	.040	.929	.753	.698	.111	1.000	
STORS	.708	.061	.059	.175	.434	.707	.555	.762	.813	.695	.779	.034	.922	.743	.762	.109	.992	1.000

[1] See text for explanation of terms.

City prices for a market basket of food items, by market share of top 20 grocery retailers, 1954 and 1967



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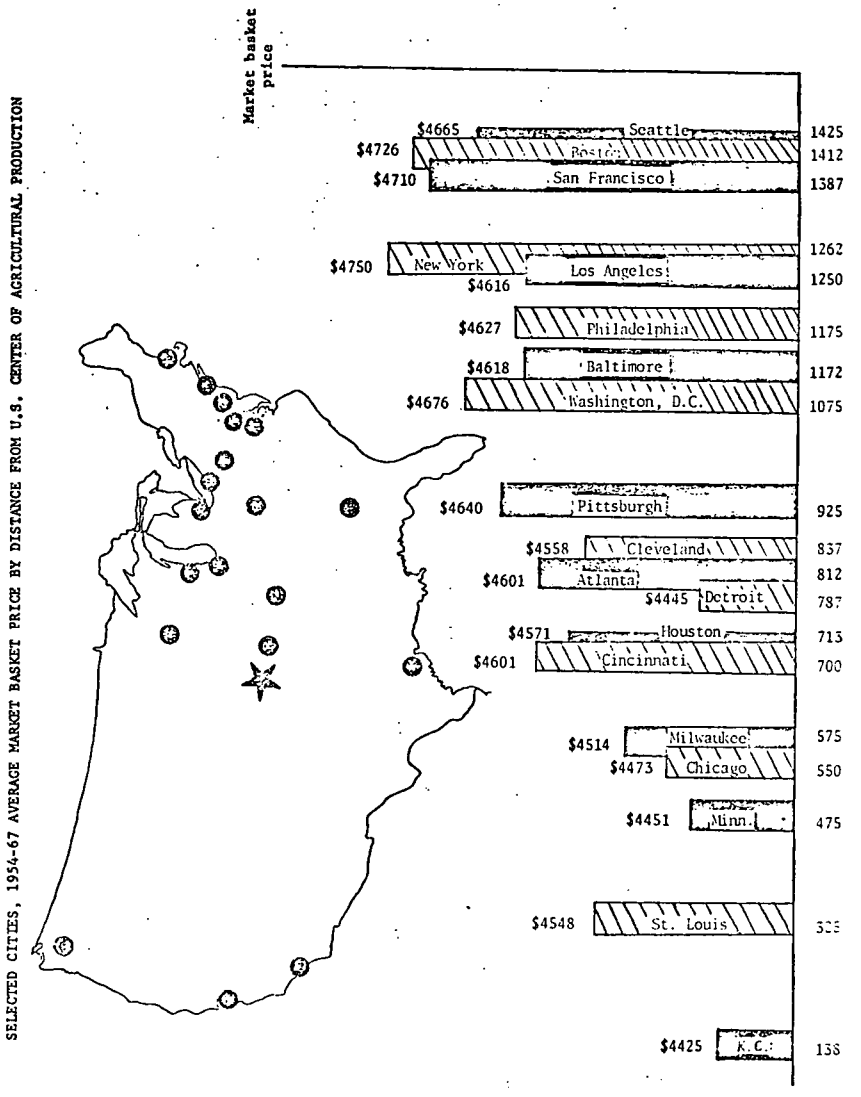

SELECTED CITIES, 1954-67 AVERAGE MARKET BASKET PRICE BY DISTANCE FROM U.S. CENTER OF AGRICULTURAL PRODUCTION
Market basket price
$4665 Seattle 1425
$4726 Boston 1412
$4710 San Francisco 1387
$4750 New York 1262
$4616 Los Angeles 1250
$4627 Philadelphia 1175
$4618 Baltimore 1172
$4676 Washington, D.C. 1075
$4640 Pittsburgh 925
$4558 Cleveland 837
$4601 Atlanta 812
$4445 Detroit 787
$4571 Houston 713
$4601 Cincinnati 700
$4514 Milwaukee 575
$4473 Chicago 550
$4451 Minn. 475
$4548 St. Louis
$4425 K.C. 138

THE CONSUMER AND THE SUPERMARKET-1980

A Study Sponsored by
Family Circle and
The National Association
of Food Chains

By Robert D. Buzzell
and Walter J. Salmon
with the Assistance of
Claudine B. Malone
and Linda E. Elmer

All of the Harvard
Business School

INTRODUCTION

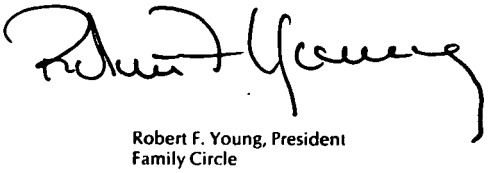
The past three years have been a time of extraordinary crisis for the nation's food distribution system. Since 1972, the industry's historic stability has been disrupted by a series of shock waves: rapid inflation; economic recession; product shortages; consumer discontent. The effect has been a discontinuity in long-run trends affecting the industry.

As a result, economic planning has become much more problematical. But when lease commitments must be made for periods of 15 and 20 years, it becomes increasingly obvious that food distribution companies must have assistance in making assumptions about the future.

Early in 1975, Family Circle entered into discussions of the problem with Clarence G. Adamy, President of the National Association of Food Chains, and with John O. Whitney, NAFC's Program Chairman and President of Pathmark. As a result of these discussions, Family Circle commissioned Professor Robert D. Buzzell and Professor Walter J. Salmon, both of the Harvard Business School, to conduct an investigation into the state of the industry, and to provide forecasts upon which food distribution companies could base their economic planning. The following report, "The Consumer and the Supermarket—1980", is the product of their study.

Professors Buzzell and Salmon began their investigation by, first, analyzing financial information from government sources, from NAFC's own annual studies, from the Super Market Institute and from other trade sources. In addition, they interviewed chief executives of a score of leading food chains and food manufacturers in order to learn how they have coped with the events of the past three years and what changes they are anticipating for the future.

Armed with this information, Professors Buzzell and Salmon developed a series of projections about probable trends in sales, consumer buying patterns, new store construction and capital requirements for the last half of the 1970s. It is our hope that this report may provide you with pertinent and useful input for your strategic planning, and for keeping abreast of the changing needs of your customers.



Robert F. Young, President
Family Circle

PREFACE

Traditionally, food distribution has been regarded as an extremely stable sector of the American economy. Changes in prices, operating costs, total sales, and even sales of specific product categories have generally been modest from year to year. As long as this stability persisted, food distributors found it relatively easy to plan for the future. Sales, capital requirements, and even organizational requirements could in most instances be predicted simply by extrapolating the regular trends of the past. Strategic change was seldom ever considered—tomorrow's strategy was envisioned as "doing more of the same."

Since 1972, the food distribution industry has experienced a series of sudden and unprecedented changes. Rapid inflation in food prices, the energy crisis, unemployment, and recession have disrupted the American economy—and food distribution has had no insulation from the impact of these events. Changes in sales, gross margins, operating costs, and capital needs have become much more difficult to predict. At the same time, pressure from consumerist groups and ever-increasing governmental regulation have also contributed to uncertainty and narrowed distributors' flexibility in adapting to change.

In this atmosphere of instability, it is essential for food distribution companies—chains and wholesalers alike—to give greater attention to strategic planning. The costs of strategic errors have become too great to permit a continuation of a "rolling with the punches" approach. This study was undertaken, therefore, in order to provide a perspective for planning in the food distribution industry for the period 1976-1980. The authors had earlier conducted a study of the evolving "super-store" type of retail outlet and its implications for the industry.[1] One purpose of this study was to re-examine our estimates of the future development of super-stores in light of the changes that have occurred since that study was made. More broadly, the present study deals with the basic economic dimensions of food retailing: consumer expenditures, prices, changing forms of competition, types of retail facilities, capital requirements, and industry structure. These factors are investigated, first, by reviewing the recent past and then in terms of possible future "scenarios."

The report is organized in two main sections. Section I deals with the Consumer Market, while Section II reviews the Evolution and Future of Food Distribution. In each of these sections, the discussion covers developments in what we have termed "The Good Old Days," between 1967 and 1972; then, it summarizes the impact of the "crisis" which has emerged since 1972. Finally, we attempt to envision possible future trends and their effects on food distributors, consumers, and manufacturers.

The study is based on a wide variety of published data from industry and government sources; on proprietary data supplied by food distribution firms and marketing research agencies; and on interviews with executives of 20 leading food distributors and manufacturers. The authors wish to express their appreciation to all those who provided information and insights to us. We remain solely responsible, however, for any errors or flaws in judgment which we may have committed.

[1]Walter J. Salmon, Robert D. Buzzell, and Stanton G. Cort, "The Super-Store—Strategic Implications for the Seventies," New York, The Family Circle, Inc., 1972.

I. THE CONSUMER MARKET

The dimensions of the market served by food stores are shaped by underlying trends in population, spending patterns, prices, and consumer attitudes. In this section, we review briefly how each of these consumer market factors changed—first, during the "Good Old Days" from the mid-1960s to 1972, and then during the crisis period which began in 1972. Against the background of these recent trends, we shall suggest possible "scenarios" for the future which might be used as premises for strategic planning by food distributors and manufacturers.

The Good Old Days: 1967-72

We have designated the period from the mid-1960s to the early 1970s as the "Good Old Days," because these years were characterized by regular growth in consumer spending in food stores. Key indicators of the underlying economic trends during this period are shown in Exhibit 1. As shown there—

- Population grew at a steady, if unspectacular rate of about 1% annually.
- Demographic shifts were favorable to the food industry, with the biggest population increases coming among the heavy-eating and snack oriented teenagers and young adults.
- Disposable income per capita, adjusted for price changes, increased almost 3% per year.
- Unemployment rates were low, averaging 4½% and reaching 5% only toward the end of the period.
- Retail food prices rose gradually, with year-to-year increases averaging 4%.
- Expenditures for food away from home increased somewhat more rapidly than spending for food at home, but the proportion of total food outlays spent away from home rose only modestly from 21% to 22%.

Exhibit 1

THE GROWTH OF THE CONSUMER MARKET, 1967-1972

	1967	1972	Average Change per Year
Total Population	198.7 Million	208.8 Million	+1.0%
Age 15-19	17.9 Million	20.1 Million	+2.4%
Age 20-24	15.2 Million	18.2 Million	+3.7%
Disposable Income Per Capita (1972 Dollars)	$3,302	$3,807	+2.9%
Unemployment—Per Cent of Labor Force	3.8%	5.6%	—
Price Index—Food At Home	100.0	121.6	+4.0%
Consumer Food Expenditures (at 1967 Prices)			
At Home	$74.5 Billion	$79.2 Billion	+1.2%
Away From Home	19.4 Billion	20.7 Billion	+1.8%
Grocery Store Sales (at 1967 Prices)*			
Total	$65.1 Billion	$77.0 Billion	+3.4%
Food	49.4 Billion	56.0 Billion	+2.5%
Non-Foods	15.6 Billion	20.9 Billion	+6.4%

*See Appendix A for explanation of estimates of grocery store sales by product lines.

Sources: Population and income data, U.S. Department of Commerce, unemployment and price data, U.S. Department of Labor, food expenditures data, U.S. Department of Agriculture, grocery store sales data, Bureau of the Census, *Census of Business, Retail Trade* and annual *Retail Trade* surveys.

- Grocery store sales of non-foods rose at a rate more than twice as great as the growth rate for foods. ("Non-foods," as defined here, includes the kinds of products traditionally sold in food stores, such as laundry detergents, tobacco, and household cleaning supplies as well as HBA and other lines ordinarily designated as "non-foods.")

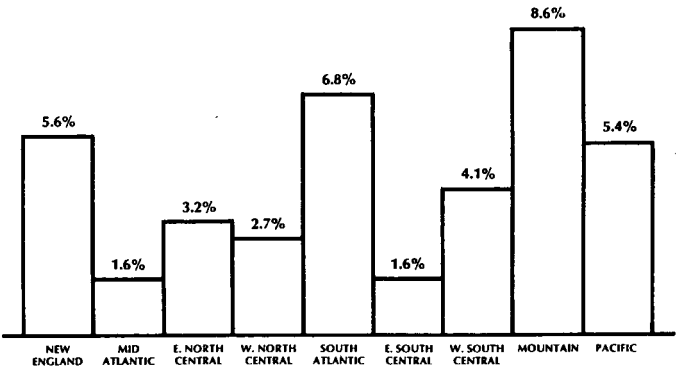
As a result of these favorable underlying trends, the food distribution industry as a whole enjoyed satisfactory growth. The average real gain in grocery store sales was almost 3½%, which compares quite favorably with the growth rate for GNP during this period (3.3%).

Some regions and areas within the United States had growth rates much higher than the national average. Estimated real growth rates for the nine Census Bureau regions are compared in Exhibit 2. As might be expected, food distribution companies operating in the faster-growing areas—such as the Mountain and South Atlantic states—were generally able to attain greater sales increases than those located elsewhere.

Consumers' food shopping patterns during the "Good Old Days" reflected the prosperity that most households enjoyed. Purchases of higher-priced foods -including higher-quality grades of meat, snack foods, soft drinks, and others- rose in proportion to total food spending. Consumers were also generally receptive to the steady influx of new products that manufacturers introduced during this period. At the same time, however, the shopper displayed considerable price consciousness. According to Super Market Institute reports, the fraction of supermarkets offering trading stamps declined from 55% in 1967 to 31% in 1972. The movement away from trading stamps was closely related to the growth of "discounting." In 1967, only 10% of stores designated themselves as discounters, compared with 42% in 1972.

Exhibit 2

ESTIMATED REAL ANNUAL GROWTH RATES IN GROCERY STORES SALES, BY REGION, 1967-1972



Source: Authors' estimates.

The Crisis: 1972-1975

Beginning in 1972, a series of "shock waves" disrupted the American economy and brought to a halt the stable prosperity of the preceding years. As summarized in Exhibit 3:

- Population growth slowed appreciably, reflecting changes in attitudes toward family size, the spreading use of birth control pills, and other factors. (The falling birth rate and its implications have been described in Ben J. Wattenberg's study of "The Birth Dearth," sponsored by Family Circle and presented to the NAFC meeting in October, 1971.)
- Real per-capita income actually declined in 1974, for the first time since 1958.
- Unemployment, at 9.2% in mid-1975, reached its highest level since 1941.
- Food prices rose sharply, with year-to-year increases averaging over 15% in 1973 and 1974. The inflationary trend continued into 1975, with mid-year prices for food at home 8% higher than in 1974.
- Consumer food spending for at-home consumption increased, in real terms, only to the degree that population expanded; thus, per-capita consumption was constant.
- Expenditures on food consumed away from home continued to climb at about the same rate as in the "Good Old Days."
- Purchases of non-food products in grocery stores rose, although at a slower pace than in the previous period.

Exhibit 3

DIMENSIONS OF THE CRISIS, 1972-1975

	1972	1973	1974	Average Change Per Year
Total Population	208.8 Million	210.4 Million	211.9 Million	+0.7%
Disposable Income Per Capita (1972 Dollars)	$3,807	$3,949	$3,922	+1.5%
Unemployment—Per Cent of Labor Force	5.6%	4.9%	5.6%	—
Price Index—Food at Home (1967=100)	121.6	141.4	162.4	+15.6%
Consumer Food Expenditures (at 1967 Prices)				
At Home	$79.2 Billion	$79.8 Billion	$80.3 Billion	+0.7%
Away From Home	20.7 Billion	21.8 Billion	21.4 Billion	+1.7%
Grocery Store Sales (at 1967 Prices)				
Total	$77.0 Billion	$76.5 Billion	$76.7 Billion	—0.1%
Food	56.0 Billion	54.8 Billion	54.3 Billion	—1.5%
Non-Foods	20.9 Billion	21.7 Billion	22.4 Billion	+3.4%

See notes following Exhibit 1 for sources.

- Reflecting the combination of static incomes, sharply higher prices, and loss of sales to institutional food operators, total sales of grocery stores were virtually unchanged in real terms over the period 1972-1975.[1] The implication is that, on a national level, any real growth achieved by individual companies could come only at the expense of other distributors.

Responding to the economic crisis, consumers became much more selective in their food shopping. For one thing, they showed a strong tendency to "cherry pick" stores' offerings for bargains. Estimates by A. C. Nielsen indicate that the total number of manufacturers' coupons redeemed doubled between 1970 and 1974.[2] All of the chains and wholesalers interviewed in the course of this study confirmed the rise in bargain-hunting in their market areas.

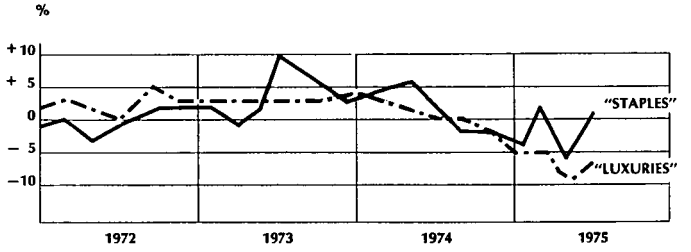
[1]Some published estimates indicate that grocery store sales declined in real terms during 1973 and/or 1974. These estimates appear to be based on adjustments of reported total dollar sales data by the Consumer Price Index for "Food At Home." As explained in Appendix A to this report, this procedure is inappropriate because grocery store sales consist of both foods and non-food products.
[2]J. K. McCurry, "Shifts in Supermarket Buying Patterns: 1975," April 1975.

Consumer efforts to save money also took the form of substituting lower-cost foods for "luxuries," especially snacks and highly-processed convenience foods. Exhibit 4 shows the results of a special analysis, carried out for the authors by A. C. Nielsen, of tonnage trends for two groups of grocery product categories selected to represent "luxuries" and "staples." Throughout 1972 and most of 1973, tonnage gains for luxuries were well above the increases achieved by staple products. Then, beginning in early 1974, both groups of products started to exhibit smaller and smaller year-to-year improvements; by the middle of the year, both were suffering declines, with luxury items suffering more. From the late fall of 1974 until mid-1975, combined sales of the 10 luxury product classes were from 3% to 10% below the levels of the corresponding year-ago periods.

The shift toward lower-priced foods was also reflected in higher sales of products that have traditionally been used to enhance flavor. For example, according to SAMI data, sales of catsup, barbecue sauces, and other meat sauces were all substantially higher in 1974 than in 1973 despite significant boosts in their prices.

Exhibit 4

PER CENT CHANGES IN TONNAGE, COMPARED WITH 12 MONTHS AGO
"LUXURY" FOODS VERSUS "STAPLE" FOODS



SOURCE: A. C. NIELSEN

Note: "Luxury" categories include toaster pastries, instant breakfasts, carbonated beverages, maple syrup, frozen entrees, salad dressings, toppings, oriental foods, corn chips, tortilla chips, brownie & frosting mixes, packaged crackers (rye), Salines), potato chips and instant teas. "Staple" categories include canned fruits & vegs., coffee, family flour, tea bags, non-fat dry milk, peanut butter, tomato sauce, canned pork & beans, ready-to-eat cereals, shortening, mustard, canned tuna fish and ceremony packaged dinners.

Up to early 1975, interestingly, not much of the shifting in consumer buying was toward private labels and other lower-priced brands of grocery products. Nielsen data on composite market share trends for "lower-priced entries" in 30 food store categories show that these brands accounted for between 27.5% and 28.2% of total sales throughout 1974, compared with 29.5% in mid-1971. Lower-priced brands' share did, however, rise in each 2-month reporting period in 1975, reaching 29.4% by mid-year. Some industry executives have expressed the belief that switching to private labels might have been more pronounced had it not been for shortages of commodities and packaging which, apparently, affected producers of these brands more than they did the larger national brand marketers. There is also some evidence to suggest that price spreads between national and private brands narrowed in some product categories.

Price-conscious food shoppers have displayed lower receptivity to *new products* since 1973. This, coupled with greater concern on the part of manufacturers about the costs and risks of new-product activities in an era of high interest rates, led to a fall-off in the number of new items introduced. The total number of new items listed, as reported by Nielsen, fell by almost one-fourth in 1973 and continued to decline gradually through 1974 and the first half of 1975. (The Nielsen data include changed or special packages as well as new items in the narrower sense of the term, but we believe they are valid indicators of the trend in new-product introductions.)

Although systematic evidence on the subject is lacking, there are indications that consumers' *store loyalties have weakened* as a result of the economic pressures of the "crisis" period. For example, in Family Circle's study of "Today's Supermarket Shopper," conducted in August 1974, over three-fourths of the housewives participating reported that they were comparing food advertisements more than formerly. Similarly, continuing surveys of "Supermarket Trends" sponsored by the Super Market Institute revealed an increase from 22% to 33%, between July and November 1974, in the proportion of food shoppers who "went to more than one store" on their last buying occasion. Another survey, Ogilvy and Mather's "Operation Listening Post," reported that, in June 1975, 62% of the women interviewed—and 54% of the men—"do more comparison shopping" than they did a year earlier.

All of the available information about consumer attitudes and buying patterns, then, indicates that shoppers have become more conscious of prices and values—that they devote more time and effort to getting nutrition and quality at minimum cost; and that they can and will change brands, stores, and menus in response to shifting prices. In short, as one industry executive stated to us, "shopping in the supermarket used to be fun, at least part of the time . . . now it's just hard, serious work."

The Future: 1975-80

In order to plan for the future, food distributors must make some assumptions about likely trends in consumer demand. These trends cannot, of course, be predicted with certainty; but the analysis of changes in the recent past gives us some basis for narrowing the range of uncertainty about developments in the last half of the 1970s.

In Exhibit 5, we present estimates of population growth, changes in income, and other key determinants of grocery store sales for the period 1975-1980. For most of the key economic factors, we have suggested two possible "scenarios"—an optimistic one and a pessimistic one. In this way we are trying to recognize the high inherent uncertainty of planning in the 1970s. Since all of these figures are *national averages*, we recommend that management in each food distribution firm prepare similar estimates for the market area in which the company operates or is planning to operate.

Population. One planning factor about which there is relatively little uncertainty is population. There is widespread agreement that, because of lower birth rates, total population will grow more slowly than it did in the 1960s. In Exhibit 5 we show the "Series F" projections prepared by the Census Bureau for 1980. These projections indicate an annual growth rate of 0.75%, slightly higher than the growth rate of the 1972-74 period. Because of changing birth rates, there is no question that there will be important changes in the age distribution of the population over the period 1975-80. Unless there is an unexpected revision in attitudes toward family size, the number of children and teenagers (under 18) will decline by more than 1% per year. The most rapidly growing segment of the population, as shown in the Exhibit, will be the 25-34 age group.

Another reflection of the lower birth rate of the late 1970's, and of shifting "lifestyles," will be a sharp in-

crease in the proportion of small (1-person and 2-person) households.

As in the past, some regions within the United States will experience relatively rapid population growth, while others will remain virtually static. The areas that are expected to grow most are the Mountain states, with an annual increase of nearly 3%, and the South Atlantic, with a growth rate of 1½%. The Mid-Atlantic, East North Central, and West North Central regions are, conversely, expected to grow very little, if at all.

Consumer Income. During the period 1975-80, the long run upward trend in real disposable income per capita is expected to resume. Forecasting the rate of growth is difficult, because so many factors are involved:

- *Productivity*, measured in terms of output per man-hour, will undoubtedly rise as the economy recovers from the 1974-75 recession. This will be offset to some extent, however, by the rising proportion of total employment in the service industries including government. The productivity of service workers has generally been lower, and has grown less rapidly, than that of either manufacturing or agriculture.

- *Unemployment* is expected to return to historically normal levels, say between 5% and 6%, by *optimistic* analysts. One argument for this is that unemployment higher than this is "politically intolerable." Because of turnover among the unemployed, it is pointed out, the fraction of labor force members who are out of work at *some time* during a year is typically about 3 times as great as the average rate of unemployment. *Pessimists*, however, envision continued unemployment rates well above

Exhibit 5

THE CONSUMER MARKET, 1975-1980: ALTERNATIVE SCENARIOS

	Optimistic Scenario		Pessimistic Scenario	
	Annual Per Cent Change	1980 Est.	Annual Per Cent Change	1980 Est.
Total Population	+0.75%	221.8 Million	+0.75%	221.8 Million
Under 18	–1.2	62.6 Million	–1.2	62.6 Million
18-24	+1.8	29.8 Million	+1.8	29.8 Million
25-34	+4.0	37.0 Million	+4.0	37.0 Million
35 and over	+0.9	92.9 Million	+0.9	92.9 Million
Disposable Income per Capita (1974 Dollars)	+3%	$5,520	+2%	$5,206
Consumer Prices				
All Items	+6%	–	+7%	–
Food	+5	–	+8	–
Grocery Store Sales (1974 Dollars)				
Total	+1.9%	$134.8 Billion	+1.5%	$131.4 Billion
Food	+0.85	–	+0.75	–
Non-Foods	+5.1	–	+3.8	–

the historic norm, averaging perhaps 7-8% between 1975 and 1980. The reasoning behind this pessimistic scenario is that efforts to control persistent inflation will require continuing "tight money" policies. Also, pessimists point to the difficulty of absorbing into the labor force all of the men and women who will complete their education during this period.

- *Taxation* will also affect the rate of growth in real disposable income. Disposable income has declined as a proportion of pre-tax income, from 88% in 1965 to 85% in 1973—and there is little reason to believe that it will not decline further.

Depending on one's assumptions about each of the above factors, projections of future trends in real per-capita income can vary over a wide range. As shown in Exhibit 5, we suggest that a reasonable range would be from 2% (pessimistic) to 3% (optimistic) per annum. These projections compare with the average growth rate of 2.9% from 1967 to 1972.

Inflation. The general level of inflation in the U.S. economy appears likely to subside from the double-digit rates of 1972-75, but will very probably continue at a higher rate than in the 1960s. An average annual increase in the Consumer Price Index (CPI) of between 6% and 7% is, in our judgment, a reasonable range.

Whether the rate of inflation in *food* prices will continue to outpace the overall CPI, or return to its historic pattern of trailing other prices, is a question of considerable importance—and one about which there is a lot of controversy. *Optimists* point out that the combination of events which led to the shortages and rapid inflation of 1972-75 was unique in 20th century history. They argue, therefore, that the odds are in favor of increased world supplies of major commodities and relatively stable prices. *Pessimists* anticipate food price increases greater than those in the overall CPI because of continuing high population growth in the less-developed countries; rising fertilizer costs; diminishing crop yields on new, marginal land; and upward pressure on world prices arising from the expanded use of food exports as an instrument of U.S. foreign policy.

Weather and foreign policy are even more difficult to predict than birth rates and productivity trends. Nevertheless, we believe that projections ranging from 5% (optimistic) to 8% (pessimistic) adequately "bracket" the likely annual rate of change in retail food prices between 1976 and 1980.

Consumer Attitudes. Consumers' attitudes toward food spending will probably remain cautious and value-conscious during the late 1970s, in spite of the anticipated improvement in the economic climate. As suggested earlier, unemployment and inflation are likely to remain above historic norms. Equally important, consumers will almost certainly retain psychological "scars" from the recent recession because of its length and severity.

For these reasons, we anticipate that food shoppers will continue to respond to price fluctuations by substituting one type of food for another, by switching brands and stores, and by taking advantage of bargains wherever possible. It is almost inconceivable that competition will revert to an emphasis on trading stamps, promotional games, or other forms of non-price rivalry.

Despite the consumer's value consciousness, we believe that she will expect and demand *convenience* in shopping—as she did even in the bleakest days of 1974 and 1975. For the food shopper, convenience means large assortments of food products, combined with appropriate non-food offerings. As discussed in a later section of this report, we anticipate that customer desires for convenience will be satisfied primarily by continued growth in the number and sales importance of "superstores."

Food Consumption Away From Home. Of special importance to food distributors is the growing share of food expenditures devoted to "eating out." It seems virtually certain that spending for food away from home will increase at a faster rate than food store sales in the period 1975-80. The principal reasons for this are summarized in Exhibit 6. The data in this exhibit are drawn from the study of consumer expenditures conducted by the Bureau of Labor Statistics of the U.S. Department of Labor. What the figures show is that the proportion of total food consumed away from home is higher than average among (1) higher-income households, (2) young households, and (3) small households. Since all of these categories are expected to increase relative to total population, it seems inevitable that restaurants and institutional feeding organizations will obtain an increasing share of the consumer's food dollar.[1]

[1]Note that the figures in Exhibit 6 cannot be compared directly with those cited earlier in the report. Figure 6 indicates that U.S. families spent 26.9% of their food dollars, on average, away from home while the USDA estimate for 1972 was 22%. The USDA figure is based on an estimate of total food consumption which includes an "imputed" dollar value for home-grown food and food consumed on farms. The BLS data refer only to actual out-of-pocket expenditures

There are other factors operating in favor of higher spending on food away from home. For one thing, restaurant employees are generally not unionized and their wages are both significantly lower and are rising less rapidly than those of grocery store and warehouse workers. For this reason, and also because fuller utilization of recently-built restaurant facilities will provide increased operating efficiencies, the cost differential between prepared meals and home-prepared equivalents will probably narrow in the years ahead.

Finally, food consumption away from home will be stimulated by the aggressive and highly professional promotional activities of the larger companies in the industry, such as McDonalds, Burger King, and Pizza Hut.

Grocery Store Sales: 1975-1980

Given these scenarios of the consumer market during the period 1975-1980, what rate of growth is likely for grocery sales?

Food Sales. Food sales by grocery stores will depend on growth in (1) population and (2) per-capita food consumption. As shown in Exhibits 1 and 3, per-capita spending for food in grocery stores grew only 0.2% annually in real terms during the "Good Old Days" and then declined slightly in 1973-74. Given the increased diversion of food consumption to restaurants and institutional feeding, we believe that an *optimistic* projection for 1975-80 would call for a real annual growth rate of 0.1%, while a *pessimistic* forecast would be based on *constant* per-capita spending. When these figures are combined with the anticipated population growth of 0.75% per year, food sales by grocery stores are projected to increase by from 0.75% (pessimistic) to 0.85% (optimistic) annually during the late 1970s.

Non-Foods. As explained in the Appendix to this report, grocery stores' non-food lines include three distinct categories: the "traditional" grocery store categories such as detergents, floor waxes, and paper goods; health and beauty aids; and "other" non-foods (housewares, stationery, etc.). Sales of *traditional* non-food products have grown more rapidly than food sales in the past and

Exhibit 6

FOOD EXPENDITURES AT HOME AND AWAY FOR HOUSEHOLDS OF DIFFERENT TYPES, 1972-1973

Household Characteristics	Per Cent of Total Food Spending	
	At Home	Away
All Households	73.1%	26.9%
Age of Household Head:		
25-34	70.4	29.6
35-44	72.7	27.3
Household Income:		
$10,000-15,000	72.5	27.5
$15,000-20,000	68.4	31.6
Over $20,000	64.6	35.4
Size of Household:		
1 Person	60.4	39.6
2 Persons	73.2	26.8

Source: Based on consumer expenditures data collected by the Bureau of Labor Statistics, covering the period July 1972 to June 1973 (BLS News Release, May 13, 1975).

will no doubt continue to do so in the 1975-80 period. We believe a range of real growth rates between 3% and 4% is reasonable for these products.

Health and beauty aids have been increasingly important to grocery stores during the 1960s and early 1970s, with an estimated real growth rate of 9½% annually between 1967 and 1972. During the next 5 years, supermarket sales of these lines will continue to benefit from increased consumer demand, but we doubt that they can expand their market share in view of the rapid recent growth of chain drug stores, which offer much greater selections and, often, lower prices. Thus, we anticipate a real increase per annum of between 7% and 9% for HBA sales.

Other Non-Foods. Future growth in sales of other product lines will depend on *what* is carried and how effectively it is merchandised. Those operators who develop coherent strategies for such categories as housewares and children's non-fashion apparel can achieve high growth rates. For the industry as a whole, we think a realistic projection is for real annual growth between 3% and 5%.

Combining the figures for traditional non-foods, HBA, and other non-foods, our optimistic scenario calls for real annual sales growth for all non-foods of +5.1%, while our pessimistic estimate is +3.8%. *Total* grocery store sales (food plus all non-foods), as shown in Exhibit 5, are estimated to increase, in real terms, between 1.5% and 1.9% annually during the 1975-80 period. Although the optimistic and pessimistic 1980 forecasts are based on quite different assumptions, it is interesting to note that the net difference between the two total sales figures is less than 3%. Apart from the impact of future inflation, then, we believe that the future growth of total grocery store sales on a national level can be estimated quite reliably within a rather narrow range.

Regional or local area projections will, of course, differ considerably from the national average. Based on a variety of forecasts of population shifts, we have prepared estimates of regional growth rates in total grocery store sales as shown in Exhibit 7. Even these estimates are for rather large areas; consequently, individual food distributors who wish to apply this approach to strategic planning should consider developing their own forecasts for the areas in which they operate.

Exhibit 7

REGIONAL PROJECTIONS FOR REAL ANNUAL GROWTH RATES IN GROCERY STORE SALES, 1975-1980

Region	Real Annual Growth Rate	
	Optimistic	Pessimistic
New England	1.8%	1.4%
Mid Atlantic	0.3	0.2
E. N. Central W. N. Central	0.6	0.5
So. Atlantic	4.0	3.2
E. S. Central W. S. Central	3.0	2.4
Mountain	7.4	5.8
Pacific	2.3	1.8
TOTAL U.S.	1.9%	1.5%

II. EVOLUTION AND FUTURE OF FOOD DISTRIBUTION

The magnitude and nature of consumer desires which will affect food distribution have been discussed in the preceding section of this report. In this section, the implications of those consumer desires are combined with an analysis of recent industry changes and an understanding of some basic economic and environmental conditions likely to affect the industry. This combination of considerations gives rise to a series of forecasts concerning the nature of food distribution in the last half of the seventies.

Changes in Food Distribution: 1967-72

There were five significant developments in the distribution of food for consumption at home during this time period. First, the so-called super-store was supplanting smaller supermarkets as the dominant form of self-service food distribution. Second, although only modest in importance compared to super-stores or supermarkets, convenience stores enjoyed enormous growth. Third, price competition increased in intensity. Fourth, store hours expanded significantly. Fifth and finally, despite reasonably strenuous efforts, experiments with other forms of food distribution such as warehouse stores or telephone selling were only limited successes or outright failures.

Why each of these developments has occurred is the subject that will be discussed next.

Several factors account for the success of super-stores. Foremost is that they satisfy the consumer's desire for *greater variety* in:

- Convenience foods.
- Perishable items such as delicatessen, fresh fish, bakery, and cut flowers.
- Non-foods.

Moreover, the super-store, for a number of reasons, also satisfies the consumer's current definition of *convenience*. It offers one-stop shopping for routine needs. It tends to be open longer hours than conventional supermarkets. Although it is typically farther from the consumer than the conventional supermarket it is supplanting, geographic proximity is of declining importance in the consumer's definition of convenience because of:

- Greater automobile ownership per family.
- Completion of the urban interstate highway network and other comparable urban highway improvements.
- The increasing proportion of housewives who work. Their desire for "total convenience" is better satisfied by the availability of all routine needs on one trip than by mere proximity of store facilities.

In comparison with its conventional rivals the super-store is also more capable of satisfying the consumer's desire for low prices and extended hours for a variety of economic reasons. Its size and potential volume

- Make the use of labor-saving equipment, such as scanners, more economically justifiable.
- Help justify economically the presence of wanted labor-intensive departments which, although they may not be too profitable in themselves, contribute to the store's overall consumer appeal.
- Help justify frequent, full truckload deliveries, thus enhancing the freshness of perishables and the turnover of staples.
- Both justify the use of more specialized labor and make the most effective and economic use of the limited supply of capable store managers.
- Justify extended hours for a smaller percentage increase in volume than conventional supermarkets, since essentially it takes hardly any more people to operate a super-store than a conventional supermarket during periods of light volume.

While super-stores were growing in importance, so were food outlets at the other end of the size spectrum; namely, convenience stores. From 1969 to 1972, the number and share of market of convenience stores increased as follows:

	1969	1972
Number of Stores[1]	11,620	17,600
Share of Market[1]	2.5%	3.5%

There were several reasons for the growth of convenience stores. They were open longer hours than supermarkets. Also they generally provided more accessible parking and reduced waiting time in the checkout lanes than supermarkets. Finally, they were often situated closer to where consumers resided than larger stores.

[1] Source: Estimates by Progressive Grocer.

Concurrent with the growth of super-stores and convenience stores, price competition intensified. This situation reflected growing idle capacity in food distribution. From 1968 to 1972, sales per square foot adjusted for inflation actually declined by 1.9%.[1] It also reflected growing recognition that additional volume could be achieved at only modest additional expense. This situation encouraged selected food store operators to initiate price wars in the hope of capturing and retaining additional share of market. It quickly became apparent that, even in a period of prosperity with food stores' prices rising more slowly than the overall cost of living index, additional patronage was attracted by strong price appeals.

Also commencing during the 1967-1972 period was the extension of store hours. This development recognized the desirability of longer store hours for individuals who worked night hours and wanted to shop after work. It also took cognizance of the increasing proportion of the female population who worked and who, therefore, found night and Sunday shopping more convenient than conventional shopping times.

The extension of store hours was additionally a manifestation of the changing economics of the supermarket business. With fixed costs representing an increasing proportion of total operating costs, hours could be extended at only nominal additional cost. Thus, only a limited increase in volume was necessary to justify the extended hours.

Finally, extended hours particularly appealed to retailers who found themselves in either or both of two situations. If their store was operating at capacity during conventional hours, they hoped some of their current customers would switch to the extended hours. Thus, there would be capacity for more volume during conventional hours. Secondly, if retailers considered their operation superior to competitors, they thought extended hours would provide an opportunity for competitors' customers to sample their operation. The hope was that a positive experience would convert the new customer of the sampled store to a loyal client during both extended and conventional hours.

The fifth and final significant event for food distribution in the 1967-1972 era was the failure of any new form of food distribution to emerge to challenge seriously the dominance of the supermarket. A highly-touted innovation in food distribution in the 1967-1972 period was telephone shopping combined with home delivery. Despite its alleged appeal to affluent consumers, the fraction of consumers who were willing to pay the necessary premium for telephone shopping and home delivery was too small and too geographically dispersed to sustain such operations. Thus, tests of such operations in San Diego and later in Louisville failed miserably.

In summary, food distributors ended the 1967-1972 period with larger stores likely to be open longer hours. Moreover, the frequency and probability of price wars had increased. Fundamentally, however, these changes were gradual. Evolution rather than revolution characterized the business during this time period.

1973-1974

Although numerous factors impacted on food distribution during 1973-1974, four events were most notable. First, there were the merchandising problems stimulated initially by WEO, A & P's effort to reestablish its price image, and, secondly, by consumers' reactions to the combination of rapidly escalating food prices and the recession-induced contraction of their real incomes. Second, there was the sharp recovery in food distributors' profits which, because of the widespread shift to LIFO (Last In, First Out), was even stronger than it appeared.

The 1973-1974 period also witnessed a reduction in number of new store openings and acceleration of store closings. Indeed, in both 1973 and 1974, the number of supermarkets in operation noticeably declined. Nevertheless, the increase in supermarket selling space continued to exceed the growth in supermarket sales in real terms.

The final event of note in 1973-1974 was the failure once again of any formidable competitor to the supermarket to arise for leadership in food distribution. Trade reports suggested that the initial performance of the first "hypermarché" in North America was hardly inspiring. Indeed, there were signs that even convenience stores were beginning to "top out." Innovation in food distribution in 1973-1974 seemed confined to improving the efficiency of the supermarket.

From a merchandising point of view, 1973 may be perceived as the end of an era in which relatively stable relationships among comparative prices of particular items led to acceptable predictability in consumer behavior. Consumer reaction, in terms of quantities pur-

[1] Source: Derived from, "Detailed Tabulations, The Super Market Industry Speaks," 1975, The Super Market Institute.

chased, to both shelf and advertised prices, was foreseeable. In 1973, however, A & P, which had lagged in taking on stamps, finally followed in joining the trend to discounting. Their adoption of the WEO program put pressure on industry profits, particularly in the eastern part of the United States where their stores were concentrated. As a result, the supermarket industry was unable to raise its gross profit percentages to offset rising labor and fringe benefit costs. The result, as shown below, was serious deterioration in supermarket profits.[1]

	1969	1973
Gross Profit	21.1%	21.1%
Labor & Fringe Benefit Costs	9.1%	9.6%
Net Profit Before Taxes	1.5%	1.3%

In 1974, despite the gyrations in purchase patterns and the well-known propensity of consumers to purchase larger quantities of "sale" merchandise, retailers were almost able to maintain percentage margins. Reported gross margin was 20.9% compared with 21.1% in 1973.[2] Even the small decline was probably entirely a result of the switch to the LIFO method of accounting by about 20% of chains[3] and a sizable percentage of wholesalers and independents. To compensate for more "cherry picking" on the part of consumers, retailers apparently were able either to adjust the number or severity of their price cuts on advertised items, or their shelf prices on unadvertised items.

Almost constant percentage margins, combined with a rate of inflation in food prices which far outdistanced rising labor costs (consumer prices for food store products, including both food and non-foods, rose at the rate of 13.5% annually,[4] compared with an increase of only 7.3% in hourly labor costs[5]), had a very positive effect on supermarket profits. They rose before taxes from 1.3% to 1.8% of sales,[6] and this figure might have reached 2% had the previously-discussed switch to LIFO not occurred. The rise in return on common equity after taxes was even more dramatic; the increase was from 5.6% to 9.5%.[7] This percentage rose so sharply because the fixed assets supporting the equity were valued on the books at historical costs, whereas profits, despite the widespread adoption of LIFO in 1974, still reflected to a considerable extent the effects of inflation.

[1] *The Super Market Industry Speaks*, 1975
[2] Ibid.
[3] Derived from data in *Progressive Grocer*, April, 1975
[4] See Appendix A.
[5] *The Super Market Industry Speaks*, 1975.
[6] Ibid.
[7] Ibid.

For at least two reasons, however, there was only limited enthusiasm about the 1974 profit recovery. First, even the figure of 9.5% for return on equity may be inadequate to attract new capital to improve industry efficiency if such capital is required. Secondly, the 9.5% figure itself may be susceptible to erosion as the gap between the increase in the prices consumers pay for products in food stores and the rise in average hourly wage costs declines.

Although 1973 and 1974 were very different from each other in terms of profit results, they were quite similar in terms of store construction. An extrapolation of Super Market Institute figures would suggest that in both years between 500 and 800 more supermarkets closed than opened.[1] There were several reasons for this situation:

- Store saturation undoubtedly diminished the number of potentially profitable locations for new stores.
- Poor industry profits in 1972 and 1973 reduced the cash available for expansion in 1973 and 1974.
- Inflation and stockpiling, in response to the fear of product shortages, upped significantly the cash required to finance inventories.
- In 1974 in particular, mortgage money to finance new stores became, at the very best, both scarce and expensive and, for many companies, simply unavailable.
- Construction costs reached record levels.

What is both remarkable and disturbing is that, in spite of the adverse circumstances, and although closings exceeded openings in each of these years, supermarket selling space in operation, including space added through remodelings, increased by about 2% to 3% of space in operation at the beginning of each year. Coupled with the modest "real" sales gains of approximately 5% in each of these years, the result was that sales per square foot, in real terms, continued to decline approximately as shown below:

1972	$4.34
1973	4.15
1974	3.99

The consequence was a decline of approximately 8% in space productivity in two years.

Although these figures may overstate the real decline in sales per square foot, had a consumer price index with "adjusted weights"[2] been used, the trend is never-

[1] *The Super Market Industry Speaks*, 1975
[2] Ibid.

theless discouraging. In view of the expectation that, in the future, most consumers will continue to be quite price conscious, successful operators will have to reverse this downward trend in real sales per square foot in order to achieve the type of cost structure required to cater to consumer interests.

Although there was only limited construction of new supermarkets in 1973-1974, there were efforts to develop alternate means of distributing food and other routine needs. The first hypermarché in North America was opened in 1974. Although it is premature to arrive at a definitive appraisal of its performance, as previously indicated, trade reports suggest the store is not off to a robust start. Perhaps some of the reservations expressed about hypermarchés in North America in "The Super Store—Strategic Implications for the Seventies" are affecting its results. Also, warehouse supermarkets apparently experienced mixed results in the 1973-1974 period. In theory, they should appeal to price-conscious consumers. In reality, they may demand more sacrifice in the way of convenience than they can offset through advantageous prices on their limited line of merchandise. Scanners, by possibly eliminating the supermarket's labor cost for marking individual items, may further erode the advantage at least some warehouse supermarkets enjoy through curtailment or elimination of price marking on individual items. Finally, it is not altogether clear that there is a significant difference between the costs that a warehouse supermarket incurs on the sale of its limited selection of fast-moving items and the comparable costs a traditional supermarket incurs on the sale of the identical items. Consequently, conventional supermarkets and super-stores may be able to come close to matching the prices of warehouse supermarkets on the latters' limited line of merchandise. Therefore, warehouse supermarkets may not perform much better in the next five years than they have in the recent past.

Although aggregate square feet of selling space occupied by convenience stores continued to grow rapidly in 1973 and 1974, trends in sales per store did not keep pace with either comparable data for supermarkets or the consumer price index for food consumed at home as shown below:

	CPI Food Consumed at Home[1]	Average Weekly Sales	
		Convenience Stores	Supermarkets
1973	+16.3%	+2.7%[2]	+23%[3]
1974	+14.9%	+5.1%	+12%

Part of the explanation for the mediocre average store sales increase in convenience stores is related to the buoyant profits convenience stores continued to show. They earned 4.81% before taxes in 1974.[4] Because profits were so good, operators undoubtedly took on marginal locations in the belief that even these could produce adequate profits. The marginal new stores quite probably obtained some of their sales from previously existing convenience stores.

Nevertheless, the limited increase in average store sales suggests that convenience store operators are likely to be under pressure from the impact of inflation on operating expenses. In 1974, they relieved that pressure by increasing gross margins from 25.94% in 1973 to 27.18% in 1974.[5] In an era when consumers are highly price conscious, it is doubtful that this means of relieving pressure on operating expenses can be utilized for a prolonged period of years. The combination, therefore, of mediocre average store sales increases, increasing operating expenses, and the improbability of being able to offset higher operating expenses with higher gross margins suggests that the convenience store boom may be cresting.

Although new and successful types of food distribution outlets failed to surface during 1973-1974, there were vigorous efforts to make supermarket distribution more efficient. The combination of consumer resistance to higher prices, new technology, enhanced industry cooperation, and encouragement from some government officials resulted in experimentation with and, in some instances, adoption of both new technologies and better operating practices. Among the more significant developments were:

- Widespread experimentation with computer-connected cash registers equipped with optical scanners capable of reading the Universal Product Code.
- Adaption by numerous operators of Boxed Beef Programs designed to reduced labor and freight and cut shrinkage in the meat department.
- Initial large-scale investment in central meat packaging facilities designed to fabricate and package consumer cuts which, if accepted ultimately on a wide scale, could remove from the store one of its more labor-intensive operations.

[1] Based on figures in Exhibit 3
[2] *Convenience Store News*, May 30, 1975
[3] *The Supermarket Industry Speaks*, 1974 and 1975
[4] *Progressive Grocer*, April, 1975.
[5] *Convenience Store News*, May 30, 1975

- Growing acceptance of the technical feasibility and economic superiority of more automated warehouses. Moreover, there was recognition that industry acceptance of standardized, modular packaging would materially enhance the advantages of more automated warehouses.
- Government acceptance and, among some officials, advocacy of greater use of backhauls to cut freight costs.

Most, although not all, of the efforts to make supermarket distribution more efficient involved the substitution of capital for labor. Therefore, they reflected the trend of the last few years to greater capital intensity in supermarket distribution. Continuation of this trend, as will be discussed in the ensuing section of this report, is essential to provide price-conscious consumers with the type of food distribution system they will demand in forthcoming years.

Prospects for 1980

To glimpse the food distribution system of the nineteen eighties, consumers, stores, and the types of companies which will own these stores have to be envisioned. Therefore, this section of the study will examine each of these subjects.

The premise on which this study's projection of the food distribution system rests is that in 1980 consumers will want a combination of attractive prices and convenience in the purchase of routine needs approximating what they currently expect. This proposition, in turn, is partly based on the hypothesis that stability in the percentage of personal disposable income consumers spend in grocery stores is likely to lead to stability in the combination of attractive prices and convenience which consumers want from such stores.

In 1973, consumers spent approximately 11.2% of their personal disposable income in grocery stores.[1] Optimistic and pessimistic forecasts for 1980, taken from Exhibit 5 of the study, yield the percentages of personal disposable income to be spent in grocery stores in 1980 shown in Exhibit 8.

Neither forecast results in a significant shift in the percentage of disposable income likely to be spent in food

[1]Source: Derived from Department of Commerce estimates of grocery store sales of $98.4 billion and personal disposable income of $882.5 billion

Exhibit 8

ESTIMATES OF PERCENTAGE OF PERSONAL DISPOSABLE INCOME TO BE SPENT IN GROCERY STORES IN 1980 (1974 DOLLARS)

	Optimistic	Pessimistic
1980 Grocery Store Sales in 1974 Dollars	$134.8 Billion	$131.4 Billion
Anticipated 1980 Population	221.8 Million	221.8 Million
Per Capita Grocery Store Sales in 1974 Dollars	$ 608	$ 592
Per Capita Personal Disposable Income in 1974 Dollars	$5,520	$5,205
Percentage of Disposable Income Spent in Grocery Stores (both in 1980 dollars)	11.0%	11.4%

stores.[1] Therefore, economic circumstances are unlikely to stimulate consumers to consider a change in the combination of attractive prices and convenience they currently prefer.

Stability in consumers' price and convenience desires leads to the conclusion that the consumer's current favorite, the super-store, will continue to gain dominance in food distribution unless, of course, another type store arises which does the job better. The latter, however, is not on the horizon. Traditional supermarkets are hardly likely to experience a resurgence in popularity since they fail to best super-stores in either the price or convenience dimensions. Conversely, warehouse supermarkets, or even the smaller western-European-style supermarkets handling only a limited selection of fast-moving items, force the consumer to sacrifice the convenience of one-stop shopping to gain minor and perhaps even dubious savings in price. The conclusion seems inescapable, therefore, that super-stores will continue to grow in their domination of food distribution. The real question is what will the super-store of the future be like and how many will be in operation.

[1] These forecasts fail to take account of an inflation rate in food prices substantially in excess of the rise in overall prices. As Exhibit 5 shows, however, the authors do not expect such an occurrence.

The Super-store—1980

There are several dimensions to a description of the super-store of the future. These are its:

- Selection of merchandise
- Pricing
- Advertising
- Hours
- Economics
- Management

A point of departure for discussion of the selection of merchandise to be included in super-stores is the list included in the 1972 study, "The Super-Store—Strategic Implications for the Seventies," which is shown in Exhibit 9.[1] The experience of the last several years leads to several modifications of this list.

[1] Walter J. Salmon, Robert D. Buzzell, Stanton G. Cort, *The Super-Store—Strategic Implications for the Seventies*, Family Circle, 1972.

Exhibit 9

SELECTION OF MERCHANDISE FOR SUPER-STORES AS FORECAST IN 1972

- Virtually all *food needs* for home preparation, together with virtually all *laundry and home* cleaning products.
- Prepared *fast foods* for at home and away-from-home consumption.
- Most *personal care products* ("health and beauty aids") including where permitted, *pharmacies*.
- *Alcoholic beverages* and *tobacco* products.
- Some *apparel products*, such as hosiery, underwear, and a variety of children's clothing items.
- Most low-priced *housewares* and *hardware* items.
- A range of *leisure-time* products, including magazines, books, records, and some hobby and craft items.
- Many consumable *lawn* and *garden products*.
- *Gasoline* – dispensed from an adjacent self-service facility – and some *automotive supplies*.
- Many *stationery* and *sewing supply products*.
- Most *household services*, such as laundry, dry cleaning, and shoe repair, as well as check-cashing and bill-payment.*

*From the consumer's viewpoint, checking and savings account deposits and withdrawals also fit into the category of routine needs, and we believe that consumers would welcome the inclusion of facilities for these banking services within the super-store. Where permitted by law, facilities for these services would be operated by local bank branches that specialize in "consumer" banking activities. They would, in effect, be leased departments although they would in all likelihood be identified by the name of the parent bank.

.t :s doubtful that most super-stores can successfully enter the fast-food business because, in a labor-intensive business, they pay much higher wages than fast-food outlets. What limited success is achieved in the fast-food business by super-stores is likely to accrue to independent operators who have avoided unionization, or unionized operators who have succeeded in negotiating wages for their restaurant employees competitive with labor costs in fast-food outlets.

While restaurants may be less prevalent in super-stores than predicted in the 1972 study, service delicatessen and bakery departments probably deserved more emphasis than they received in that study. From a consumer point of view, they are essential to a super-store, although it is doubtful that, in most instances, they pay their own way.

Delicatessens do, compared with many other departments, generate adequate contribution per square foot even after deduction of labor costs. The investment in equipment, however, is so high that return on investment typically for the industry is only a third of the average of other departments.[1] The economics of service bakery departments are even worse if the fragmentary data included in the 1974 and 1975 "Operations Reviews" of the Super Market Institute are typical. Nevertheless, because of their consumer appeal, operators may want to consider the inadequate profits or out-of-pocket losses on service delicatessen and bakery departments as a form of advertising designed to generate store traffic which will result in the sale of other, more profitable, merchandise.

Experience since 1972 also indicates that in suggesting the inclusion of hobby and craft items and children's clothing, our previous study may have gone too far. The limited selections supermarkets carry in certain of these merchandise categories may fail to represent the breadth of assortment consumers prefer. On the other hand, we probably were also in error in 1972 in failing to suggest that selected automotive supplies would have a significant role in super-store merchandising.

Furthermore, some of the service departments, such as laundry, dry cleaning, and shoe repair, may, because of inadequate demand, be unable to generate the sales per square foot current real estate costs demand. Therefore, the incidence of such departments in super-stores is likely to be less than previously predicted.

Indeed, as the previous paragraphs suggest, mediocre sales experience in certain non-food lines, combined with skyrocketing real estate costs, indicates that the super-store of the future may embody a slightly narrower definition of "routine needs" than perceived in 1972. Therefore, rather than occupy 30,000 to 35,000 square feet of selling space as then perceived, the better size for most locations may be in the 25,000 to 30,000 square foot range.

In addition to eliminating certain fringe items, super-stores may want to emphasize the adequacy of their selections in the non-food items retained. This desire may lead to less integration of foods with non-foods than previously thought. Consequently, there may be a greater propensity to recognize in a floor plan a separate general merchandise area containing most, although not all, non-foods.

Besides enhancing the consumer's perception of adequacy of selections, separation of most non-foods from foods may have other advantages. It would facilitate the appointment of an in-store non-foods manager with a physical area of responsibility comparable in clarity of delineation with other department managers. The availability of a non-foods manager may, in turn, allow for more economical merchandising and replenishment arrangements for non-foods. The presence of a non-foods department manager may result in sufficient in-store attention to such merchandise to substitute merchandising and replenishment through a grocery warehouse for the services of a rack jobber. Given the more labor- and transportation-intensive nature of rack jobbers' operations, substituting warehouse support for their services may be essential to maintaining competitive prices and profitability. Otherwise, escalating labor and fuel costs could erode non-foods' profitability.

Experience since 1972 also indicates that there will be additional changes in super-store merchandising. Because high-cost capital will inhibit manufacturers from investing in so many new products, the introduction of these products will play a smaller role in in-store merchandising. Furthermore, high-cost capital will stimulate a desire for higher inventory turnover, with a resulting continuation of the pruning of less-wanted brands and sizes in almost all merchandise categories. In addition, high capital costs, together with skyrocketing construction costs, have partially arrested retailer enthusiasm for expanded selections of private label merchandise. Merchandise which turns more slowly or occupies a disproportionate amount of shelf or warehouse space is now scrutinized more critically. When these factors, together with narrower spreads between retailer and

[1] Estimates derived from A. C. Nielsen Company, *The Deli Case*, May, 1973.

manufacturer prices, are considered, the profitability and the sales appeal of private label merchandise dims.

Finally, it appears that super-store merchandising will have to recognize the enhanced volatility in movement, usually related to sudden shifts in price, of certain fast-moving merchandise. While this development poses no insurmountable problem for super-stores, it does demand more astute and fast-moving reallocation of shelf space.

In addition to the aforementioned changes in merchandising, it is quite likely that super-stores will increasingly modify their advertising strategies. The probability is that they will continue to shift from a program of hot weekly specials to an advertising program built around everyday low prices. There are several factors favoring such a shift. Once the initial investment to convince consumers that everyday prices are indeed low has been expended, then media costs are likely to be lower than with a program of weekly specials. Secondly, an everyday low-price theme may have a favorable effect on labor costs. Less money may have to be spent building end displays to coincide with advertised specials. Also, an everyday low-price theme may tend to smooth the peaks and valleys of weekly volume with resulting favorable effects on both labor costs and in-store service. In addition, a theme of everyday low prices may be more compatible with the consumer movement in that it eliminates the possibility that a store will run out of weekly specials. Finally, there is some reason to think that money-losing or marginally profitable service departments are a consumer attraction that may offset to some extent the absence of the quantity of newspaper advertising associated with the traditional program of hot weekly specials. To the extent that they are, the reduction in media costs associated with an everyday low-price appeal may subsidize the operating results of these departments.

Hours of operation are another facet of super-store activities which will experience some change. There will be increased recognition that hours of operation should vary by store. The variation will depend upon both the characteristics of the neighborhood and the situation confronting a particular store. Obviously, blue-collar areas where employees work night shifts are prime locales for extended store hours. So, however, are areas with a high proportion of "swinging" and employed singles. Another consideration which affects hours of operation is the extent to which a store during current hours is operating at capacity. When operations are already at capacity, extending hours may expand capacity by shifting some existing business to the newly open hours and, therefore, provide additional daytime capacity. Finally, when an operator provides consumers with a better shopping experience than competitors, extended hours may be a good way of inviting trial from competitors' customers. The result can be more business during the extended or traditional hours.

While hours should increasingly vary by store, in general there will be a tendency for them to increase. This propensity will be higher among independent super-store operators. They tend to be uninhibited by union restrictions against longer hours or by excessive wage penalties for coverage during these hours.

In addition to consumer receptivity toward them, longer hours will be stimulated by the increasing capital intensity of super-stores. This super-store characteristic arises from the expected installation of automated front ends and from galloping land, construction and equipment costs for remodeling and new construction. Both these developments and the reduction in checkout labor, as well as the removal of backroom labor from stores through more meat fabrication in remote locations, mean that the fixed cost component of the total expense ratio will rise. The resulting minor amount of incremental expense associated with longer hours will strongly encourage their use as a means of building volume. Indeed, it is likely that store operators will experiment with offering additional incentives to consumers willing to shop during these hours. Such incentives are likely to take the form of price discounts on total transactions over a certain sum. Excluding small transactions from these discounts should avoid rewarding consumers who would make minor, convenience-orientated purchases during these hours anyway. Two percent off all cash register tapes of $20 or more is an example of such an incentive.

Competition–1980

What has been said in the aforementioned discussion of hours is a preview of the economic conditions likely to prevail in the industry in the next several years. The increasingly fixed cost nature of super-store distribution together with sustained consumer interest in low prices limited growth in sales (excluding the effects of inflation), and excess industry capacity[1] strongly suggest that the industry is in for a period of intensive, competitive battles which will frequently manifest themselves in

[1] This excess capacity is signified by the declining sales per square foot of selling space discussed on page 11

price wars. The end result, after much turmoil, will be fewer and more efficient stores and food distributors.

To survive this period, food store operators will require more knowledge of their business than they currently possess. In particular, there is danger that the failure to understand profitability or contribution per dollar of investment by department could lead to inappropriate offensive or defensive pricing behavior. For example, lack of knowledge about the profitability of dry groceries could lead a traditional store operator to provide a pricing umbrella under which a warehouse type operation could be established. Rectifying this weakness means achieving greater sophistication in accounting systems. Industry associations, through their figure exchanges, could make a substantial contribution to greater sophistication in accounting systems. They could define the additional data that are needed, establish procedures for collection of such information, and then publish the data in their periodic reports.

To survive this period, food distributors will also require contemporary and efficient operations and a strong balance sheet. The latter should tide them over periods of decline or collapse in operating profits, and enable them to make the necessary investments in capital-intensive equipment. Finally, survival in the next several years demands a commitment to deliver routine needs to consumers conveniently and at low prices.

The latter suggests that successful operators will endeavor to ascertain how to maintain adequate profits while resisting increases in gross margins. Clearly, a way to achieve this objective is to increase sales per square foot. Such increases reduce occupancy cost as a percentage of sales and certain other costs as well. In addition, an increase in sales per square foot, all other things being equal, means that the industry can sacrifice operating profit as a percentage of sales without experiencing a comparable reduction in return on invested capital. The reason, of course, is that higher sales per square foot almost surely means a higher ratio of sales to fixed assets.

Illustratively, it is useful to think about how much of a gain in sales per square foot is necessary to offset, say, a ½% decline in gross margin. For this purpose, let us assume the operating structure for an operator who owns his own real estate as shown below:[1]

Gross Margin		20.9%
Expenses that vary with sales:		
Warehouse & Delivery	2.3%	
Store Labor & Fringes	6.4[2]	
Store Supplies	.9	
Maintenance & Repairs	.3[3]	
All Other Store Expenses	.5[4]	
Total Variable Expenses	10.4	
Contribution Ratio		10.5%

If an operator earns a contribution of 10.5% on each dollar of sales, it follows that a cut of ½% in gross margin requires an increase of 5% in sales to result in the equivalent dollars of profit (10.5 ÷ 10.0 = 1.05). Thus, with the industry achieving weekly sales per square foot of $5.09 in 1974, an increase in this figure to $5.34 ($5.09 x 1.05) would have offset a decline in gross margin of .5%. Indeed, from these calculations one could construct the following table:

Gross Margins and Sales/Square Foot
Which Produce Equivalent Dollars of Profit

Gross Margin	Cumulative % Decrease in Gross Margin	Sales/ Square Ft.	Cumulative % Increase in Sales Square Ft.
20.9		$5.09	
20.4	2.4	5.34	5.0
19.9	4.8	5.62	10.4
19.4	7.2	5.94	16.7
18.9	9.6	6.29	23.6

Clearly, the sales per square foot figures shown alongside the lower gross margins are achievable. The achievements of many better operators already exceed these sales per square foot figures.

Furthermore, as the industry becomes more capital intensive, variable expenses will decline, and contribution ratios will rise. Thus, it will take a smaller increase in sales per square foot to offset the same decrease in gross margin. For example, with a 12% contribution ratio, it would take only an increase of 4.2% in sales to offset a .5% decline in gross margin. Clearly, the interest of consumers in low prices, excess industry capacity, and the changing nature of the industry's cost structure, will stimulate more food distributors to think this way. The result should be better value for the consumer.

[1] The bases for these estimates is the Super Market Institute 1974 Operating Review combined with the authors' knowledge of supermarket operations.
[2] Estimated at two-thirds of total store labor expense.
[3] Estimated at three quarters of total maintenance and repair expense.
[4] Estimated at one-half of all other store expenses.

The Store Manager—1980

Obviously, the aforementioned outlook for food distribution suggested in this study has important implications for store management. Most, if not all, of these implications indicate a more important role for the store manager. Apart from being responsible for more dollars of investment and more people in a super-store than in a traditional supermarket, there are additional reasons to anticipate that the super-store manager will have more authority than his predecessor, the supermarket manager. The greater volatility in the future of the rate of sale of particular items will demand more rapid shifts in shelf allocations. The shift to everyday low prices will permit the store manager to emphasize to a greater extent in-store merchandising the wants of his particular neighborhood. No longer will he be preoccupied with displaying adequate quantities of advertised specials. Furthermore, as variation in store hours increases, designing a labor schedule suitable for a particular store may be best accomplished at store level.

Given the superior caliber of individual that will be needed to operate a super-store successfully, it is quite possible that there can be some decrease in the density of line supervision such persons require. In other words, the industry may require fewer district managers. This expectation is buttressed by the slow rate of growth anticipated for the industry. With slower growth, the average store manager should have more experience and, therefore, require less everyday supervision.

These comments do not imply that headquarters help for the store manager should wither. There may be an increase in the staff services needed by the store manager. In areas such as merchandising, human relations, and labor scheduling, headquarters staff personnel may have to provide services for store managers not unlike that which a manufacturing staff would provide for individual plant managers. Indeed, the capital-intensive super-store of the future may be thought of as a food distribution factory superimposed on which is the important burden of pleasing the customer.

Having identified the super-store as the vehicle that will account for a higher proportion of food distribution, the next question is the number of such stores which will be built. This number is partly a function of the cash flow available to food distributors for this purpose. Exhibit 10 shows an *optimistic* and *pessimistic* estimate of cash flow available for super-store construction in a typical year between now and 1980. For illustrative purposes, this exhibit indicates that all funds available for new store construction could be utilized for super-store construction, although it is recognized that some funds would have to be reserved for convenience stores, and, at least in non-metropolitan areas, for conventional supermarkets.

Before commenting on what Exhibit 10 shows, there are important assumptions, other than those covered in Appendix B, on which it is based which should be discussed. Since this study anticipates maintenance of intensification of price competition in the next several years, the profit forecast in Exhibit 10 assumes that, at best, the industry will achieve profits after taxes of 1% of sales. At worst, the exhibit assumes the industry will earn .7% of sales after taxes. This assumption may not be pessimistic enough since the Cornell study and Super Market Institute data suggest that in two of the last five or six years industry profits may have slipped below that level.[1] Exhibit 10 also reflects no provision for increasing equity capital through the sale of additional common or preferred stock. The reason is that this source of additional funds hardly seems available to most companies in the industry in the foreseeable future on terms acceptable to most managers and existing stockholders.

Although, as shown in Exhibit 10, the optimistic number of super-stores for which funds might be available, approximately 900, seems small in terms of the number of supermarkets the industry has characteristically opened, two factors should be remembered. Were the industry to open 900 super-stores with 28,000 square feet of selling space, it would have to close more than 2,000 conventional stores in the 13,000 to 14,000 square foot range simply to remain even in selling space. The reason is that although closing 2,000 conventional stores of the above-mentioned size would approximately offset opening 900 super-stores of 28,000 square feet each, the space added by enlarging existing stores would then be net additions to total selling space. In 1974, among independents, selling area was enlarged in 11.7% of all stores.[2] Since many chain stores were presumably enlarged also, the additional selling space coming on stream by this means is undoubtedly in the range of several million square feet. With total industry sales, in real terms, expected to grow only 1.5% to 1.9% annually and with the low prices consumers want de-

[1] Source: *The Supermarket Industry Speaks*, 1975, and Cornell University annual reports on the Operating Results of Food Chains, April, 1975.
[2] *Progressive Grocer*, April, 1975.

Exhibit 10
CASH FLOW AVAILABLE FOR SUPER-STORE CONSTRUCTION IN A TYPICAL YEAR BETWEEN 1975 AND 1980*

Assumptions	Optimistic	Pessimistic
Total Grocery Store Sales in 1974 Dollars[1]	$ 128 Billion	$ 125 Billion
Food Inflation Rate[2]	5%	8%
Profit After Tax as a % of Sales	1%	.7%
Dividend Payout Ratio[3]	35%	45%
Additional Debt Available, Including Capitalized Leases, as a Percentage of Retained Earnings[4]	100%	80%
Cash Flow		
Sales (Including Impact of Inflation)	$ 151 Billion	$ 164 Billion
Profits	1.5 Billion	1.15 Billion
Dividends	(530 Million)	(520 Million)
Retained Earnings	970 Million	630 Million
Additional Debt Available	970 Million	504 Million
Depreciation[5]	1223 Million	1328 Million
Total Cash Available	$ 3163 Million	$ 2462 Million
Cash Needs		
Funds Needed to Cover Impact of Inflation on Inventory[6]	$ 260 Million	$ 340 Million
Funds Needed to Cover Non-Store Fixed Investments (Warehouses, Trucks, etc.)[7]	340 Million	430 Million
Funds Needed for Store Modernization[8]	987 Million	1161 Million
Funds Needed for Installation of Scanners[9]	142 Million	167 Million
Total Outflow of Funds Excluding New Stores	$ 1729 Million	$ 2098 Million
Funds Available for Super-stores	$ 1434 Million	$ 364 Million
Estimated Super-store Cost (28,000 Sq. Ft. of Selling Space)[10]	$ 1.65 Million	$ 2.03 Million
Number of Super-stores for Which Funds Would Be Available	869	179

*See Appendix B for footnotes to Exhibit 10.

mandating higher sales per square foot, it is doubtful, therefore, that the industry could absorb approximately 900 super-stores per year without accelerating the closing rate of existing stores. Store closings now approximate 6.4% of all supermarkets in operation or about 2,000 of the 31,430 supermarkets currently in existence.[1] To accelerate the closing rate would mean shutting stores on which there were substantial leasehold liabilities and unamortized fixed investment.

More realistically, the number of new super-stores likely to be constructed annually may be more in the vicinity of 500. This range, if the column labeled Optimistic Forecast in Exhibit 10 prevails, would leave funds for opening both additional convenience stores and some smaller supermarkets. Although the opportunities for both may be declining, undoubtedly there will be additional stores of these types, particularly convenience stores, constructed.

If 500 super-stores are constructed annually between now and 1980, the resulting 2,500 stores, in addition to approximately 3,600 already in existence, would be expected to account for approximately $60 to $65 billion of volume. These sales would represent about 45% of total expected grocery store sales (in 1974 dollars) at that time.[2]

A factor which tempers our estimate of the number of new super-stores to be constructed is recognition that each needs a substantial market and substantial share of that market to generate the sales per square foot needed for an adequate return on investment. For example, a super-store with 28,000 square feet of selling area doing $7 per square foot per week in 1974 dollars in 1980 would accomplish approximately $10,200,000 in volume. Our estimate of per-capita grocery store sales for 1980 is $608 annually in 1974 dollars.[3] Assume a super-store can capture a 30% share of market in its trading area. Then its trading area would have to account for approximately $34,000,000 in grocery store volume. If per capita sales are $608, then the population of the trading area would be 56,000. There is only a limited number of trading areas for individual super-stores of this size. With capital scarce in the foreseeable future, astute operators are unlikely to ignore this reality in their quest to construct new super-stores.

[1]*Progressive Grocer*, April, 1975 and *The Supermarket Industry Speaks*, 1975.
[2]This estimate is based on total selling area of 28,000 square feet each for 6,100 old and new super-stores combined and sales per square foot in 1980, in 1974 dollars, of $7.00 per week.
[3]Derived from data in Exhibit 5.

Industry Structure—1980

With super-stores likely to account for 45% of grocery store sales by 1980, they will obviously have a major role in industry structure. The phrase "industry structure" encompasses a variety of considerations. Among them are:

- The number of selling points likely to exist.
- Who will own these selling points.
- The degree to which the companies which own the selling points endeavor to cover with them broad geographic areas or concentrate their selling points in more confined areas.
- The extent to which companies in the industry seek opportunities outside food distribution.

As the preceding discussion may have suggested, this study predicts a rather rapid decline in the number of supermarket and super-store selling points. In terms of convenience stores, their numbers will continue to grow, but at a diminishing rate.

In the next five years, the number of new super-stores constructed is likely to be in the vicinity of 500. New conventional supermarkets constructed may approximate 200 annually. Since it is anticipated that closings will continue to approximate 2,000 annually, selling points should decline by about 1,300 per year. Consequently, by the end of 1980, there may only be 23,000 to 24,000 supermarkets and super-stores in operation.

Unfortunately, the decline in selling points will not signify a decline in selling area. Although the selling area of the new stores opened is expected to be less than the comparable area of the shuttered stores, expansion incident to the remodeling of existing stores is likely to result in total super-store and supermarket selling area remaining approximately constant. Even this development, however, would be good news. Since food store sales are expected to advance 1.5% to 1.9% annually in real terms, the outcome should be an increase of a comparable amount in sales per square foot. This would be a welcome reversal of the recent trend.

Turning to convenience stores, it is more difficult to predict their growth rate. Greater customer price consciousness, longer supermarket hours, and faster supermarket checkout through the use of automated front ends should erode their consumer appeal. On the other hand, the return on investment in the convenience store industry remains rather high and so long as this is the

case, new store construction is likely to continue. The most likely outlook, therefore, is for a moderate decline of new stores constructed per year from the present level of approximately 2,600. This decline will parallel their expected decline in return on investment as the aforementioned factors erode their consumer appeal.

A second aspect of industry structure involves who will own the selling points. The most significant issue in this area is whether chains or independents will gain in market share. The thrust of this study is that the chain share of market will level out or even decline slightly. There are several reasons for this conclusion. First, independents through affiliation with cooperative or voluntary wholesalers have gained the staff services and, in many instances, even the financial muscle formerly available only to the chains. Secondly, independents are not as frequently unionized as the chains. This situation may result in somewhat lower wage rates. Such differences are important, particularly in the operation of the consumer desired and labor-intensive service departments. In addition, the lack of union restrictions for independents may result in greater flexibility in hours of operation.

Whether, however, arresting chain growth means that concentration in food distribution is no longer growing is debatable. In many ways, the affiliation between voluntary or cooperative wholesalers and their retailer affiliates is almost as close as the relationship between chain headquarters and their owned retail stores. Secondly, concentration both in number of selling points and in the ownership of selling points, whether by chains or by the affiliated wholesaler route, may be a necessary prerequisite to delivering food to the consumer conveniently and at attractive prices. Therefore, concentration *per se* deserves less attention from critics of the food distribution industry. Instead, they might turn their attention to whether concentration is delivering to consumers what they want at reasonable cost.

Still another aspect of industry structure is whether companies in the industry will geographically diversify or concentrate. The answer to this issue seems clear. Geographic concentration is the trend and there are several reasons for it. The food distribution industry is mature and the super-store, while an important advance, is not enough of an innovation to allow food distributors to invade areas where they are not already represented. Such factors as the advantage of superior, existing operators in an area acquiring any available and desirable locations, and their consumer recognition and advertising umbrella, will generally make invasion by a newcomer unprofitable. Skyrocketing fuel costs in recent years have only intensified the trend toward geographic concentration by effectively curtailing the farthest distance a truck can economically operate from a distribution center. Thus, the pattern in the industry will clearly be for companies to concentrate in territories where they are already strong and preferably close to their distribution centers. Not only will they be reluctant to invade new areas but, in all likelihood, they will vacate market areas where they have limited market share and which are remote from their distribution centers.

The final factor to discuss under industry structure is the extent to which food distributors endeavor to integrate vertically or diversify. Clearly, the cash flow presented in Exhibit 10 makes it clear that, on average, the food distribution industry will not have the resources either to integrate vertically or diversify. The companies within the industry which are likely to have the most funds for new investment are those whose existing businesses are above average in profitability. Evidence from other mature industries suggests that such companies can, typically, profitably employ their cash capturing market share from their weaker competitors. The weak competitors, in turn, usually have neither the financial nor managerial muscle to diversify.

In addition to dismissing vertical integration and diversification, this line of reasoning has other implications. It suggests that although the outlook for food distributors in general may not be excessively rosy, well-managed, financed, and profitable industry operators may continue to enjoy excellent growth and profitability through cannibalization of their less successful competitors. In other words, competition should continue to provide a catharsis which purges the industry of inefficient operators. Although disruptive and difficult on some, this process generally benefits the consumer which is, after all, the major *raison d'être* for private enterprise in food distribution.

Implications for Manufacturers

It would be remiss to conclude this study without discussing its implications for food manufacturers. Clearly, the emphasis on higher sales per square foot discussed herein will mean for manufacturers tough going for their marginal brands and sizes. It may also mean tough going for marginal manufacturers.

Manufacturers' new-item introduction activities will also be affected by the changing nature of the retailing and economic climates. Retailers will be more reluctant than ever to grant shelf space to additional manufacturer offerings which provide only the pretense of newness. Moreover, manufacturers themselves, because of the high cost of capital, are unlikely to invest in research and development and introductory advertising and promotional expenditures for new products which have only a mediocre chance of success. The forecast, therefore, is that the low level of new product introductions in 1974 noted earlier in this report is likely to persist.

In looking forward, manufacturers can be heartened, however, by the greater emphasis among retailers on return on investment considerations. Private label products, which generally look less attractive by that standard than when examined on the basis of percentage gross margin, clearly are losing some of their attractiveness to retailers. The result should be less irrational and uneconomic competition for manufacturers' brands from private label products.

In addition, the emphasis in this study on everyday low prices also has implications for manufacturers' promotional activities. These activities, both because of the decline in new product entries and a shift in consumer preference from psychic satisfaction to greater interest in lower prices, will shift from emphasis on advertising to more money spent on promotional allowances. Indeed, lower everyday prices may even be substituted for some of these promotional allowances. Furthermore, couponing, a grossly inefficient way to provide the consumer with reduced prices, hardly seems compatible with lower everyday prices. If the threat of price controls recedes further, an event closely related to the rate of inflation, then there is a strong likelihood that manufacturers, no longer fearful of being semi-permanently imprisoned with inadequate margins, will substitute permanently lower prices for some of their couponing.

Another implication for manufacturers of this study is its potential impact on their sales organizations. With a shrinkage of the magnitude of 20% anticipated in supermarket and super-store selling points in the next five years, further reductions in the size of manufacturer sales forces will probably be warranted. Indeed, some particularly large food manufacturers which have multiple sales forces may want to examine the possibility of consolidating their sales organizations.

The last matter of significance for manufacturers in the study is the ramifications of the slow rate of growth anticipated in grocery store sales. Alert manufacturers are already becoming more aggressive in their efforts to serve the other more rapidly growing segment of the food business, which is the food-away-from-home component of the industry. These efforts take several forms. One is vertical integration by means of the establishment or acquisition of chains of fast-food outlets or restaurants. Another is intensifying marketing efforts and research and development for new products to sell to companies engaged in the fast-food, restaurant, or institutional feeding businesses. Selling to these markets is really a form of industrial marketing. It will demand of prominent packaged foods manufacturers skills which, in most such organizations, were previously in short supply. The acquisition of these skills, however, may be necessary to maintain a satisfactory rate of growth in the food business.

APPENDIX A

ESTIMATES OF GROCERY STORE SALES AND PRICE INDICES BY PRODUCT LINES, 1967-1974

In the text discussion of trends in grocery store sales and prices, we have referred to estimates of sales by product line and to price indices for specific product groups. The data on which these estimates are based are presented in Exhibit A-1, along with a listing of original sources.

For total grocery store sales, we have relied primarily on the U.S. *Census of Retail Trade*. The Census data differ somewhat from published estimates such as those given in the "Annual Report on the Grocery Industry" prepared by *Progressive Grocer*. For example, while the Census reported grocery store sales of $93,327,525,000 in 1972, *Progressive Grocer*'s estimate was $101.7 billion. We regard the Census figure as more reliable. The annual retail trade surveys published by the Census Bureau, based on sample data, appear to have a systematic downward bias. For this reason, we prepared our own sales estimate for 1974 of $120.1 billion. This is considerably higher than the Census estimate ($111.3 billion) but lower than that published in *Progressive Grocer* ($130.8 billion).

The breakdowns of sales by product line are based on estimates published annually by *Supermarketing* and *Chain Store Age*. These two sources differ significantly in product groupings and in stated coverage of various types of stores. We have relied primarily on *Supermarketing*, and have adjusted their figures somewhat. Our estimates of the percentage distribution of total sales are as follows:

EXHIBIT A-1

GROCERY STORE SALES, BY PRODUCT LINES, 1967, 1972 AND 1974

Product Lines	Grocery Store Sales					Annual Growth Rate—Sales at 1967 Prices	
	1967	1972-Current Dollars	1972-At 1967 Prices	1974-Current Dollars	1974-At 1967 Prices	1967-1972	1972-1974
Food	$49.4 Bil.	$68.1 Bil.	$56.0 Bil.	$ 91.1 Bil.	$56.1 Bil.	2.6%	0.1%
Traditional Non-Foods	9.8 Bil.	14.9 Bil.	12.3 Bil.	17.4 Bil.	12.8 Bil.	4.8	1.8
Health & Beauty Aids	2.3 Bil.	4.2 Bil.	3.6 Bil.	5.0 Bil.	3.8 Bil.	9.5	2.2
Other Non-Foods	3.6 Bil.	6.1 Bil.	5.0 Bil.	6.6 Bil.	5.0 Bil.	6.9	0.3
Total Grocery Store Sales	$65.1 Bil.	$93.3 Bil.	$76.9 Bil.	$120.1 Bil.	$77.7 Bil.	3.4%	0.5%
Price Indices							
Food (At Home)	100	–	121.6	–	162.4		
Traditional Non-Foods	100	–	121.4	–	136.4		
HBA	100	–	116.9	–	133.3		
Other Non-Foods	100	–	120.9	–	130.0		
Total Store	100	–	121.3	–	154.6		

Sources: 1 Grocery Store Sales—1967 and 1972, from U.S. Bureau of the Census, *Census of Retail Trade*. 1974 sales estimated by the authors, based on published estimates by *Progressive Grocer* and year-to-year sales increases reported by SMI Members.

2 Sales breakdown by product lines—based primarily on product category sales estimates published annually in *Supermarketing*. "Traditional Non-Foods" includes alcoholic beverages, tobacco, paper, film, and foil products, soaps and detergents, laundering and ironing aids, cleansers, cleaning implements, light bulbs, waxes and polishes.

3 Price indices used are BLS retail price indices for Food At Home, an average of the indices for tobacco products, alcoholic beverages, and housekeeping supplies fused for "traditional non-foods"; toilet goods (HBA), and all commodities used for "other non-foods" in 1972. The index for other non-foods in 1974 was estimated by the authors.

	1967	1972	1974
Food	76.0%	73.0%	76.5%
Traditional Non-Foods	15.0	16.0	14.5
Health & Beauty Aids	3.5	4.5	4.0
Other Non-Foods	5.5	6.5	5.0

As shown in Exhibit A-1, we have used separate price indices for each of the four components of total grocery store sales. Prices of all three categories of non-foods increased less, in the 1972-74 period, than did food prices. For this reason, our estimate of the price index for total grocery store sales (1967 = 100) in 1974 is 154.6, about 7½ points less than the price index for food alone.

APPENDIX B

Footnotes to Exhibit 10

1. Derived from the figure of $120.1 billion shown in Exhibit A-1 for 1974 total grocery store sales and multiplied by optimistic and pessimistic forecasts of growth in real sales of 1.9% and 1.5% per year, respectively.

2. See Exhibit 5.

3. The 35% figure is estimated from an approximate average of the data shown in a publication of Kidder Peabody & Company, Inc., dated May 22, 1975, and entitled, "Common Stock Comparison of Selected Supermarket Chain Companies." The 45% figure is the authors' estimate of dividend requirements. It emanates from increased interest in dividends on the part of investors in general and the contention that, with slower growth ahead, investors will expect higher dividends from food stocks in particular.

4. Historically, supermarket companies have borrowed two dollars, including capitalized leases, for each one dollar of retained earnings. The more conservatively financed companies, however, have borrowed only one dollar including capitalized leases for each dollar of retained earnings (source for both estimates: Kidder Peabody publication cited in footnote 3). The shortage of capital and both the need and demand for a more conservative financial posture on the part of lending institutions, however, convince the authors that far less borrowed funds will be available in the next five years. Hence, the cash flow shown here is based, optimistically, on the industry being able to borrow only one dollar including capitalized leases for each dollar of future retained earnings and, pessimistically, only $.80 for each dollar of retained earnings. The total cash flow shown in Exhibit 10 is exceptionally sensitive to this estimate of available borrowed funds.

5. Based on a depreciation rate of .81% of sales as shown in the Cornell University "Operating Results of Food Chains" for 1973-74.

6. Assumes industry is on LIFO and is calculated on the basis of net working capital equaling 5% of sales. Additional assumptions are that cost of goods sold equals 80% of sales, and the tax reduction resulting from LIFO offsets 50% of the additional working capital required to finance the impact of inflation on inventories.

7. Based on an industry source, the investment in non-store fixed assets is estimated at 2% of sales. It is assumed that the expenditures for modernization of these facilities equals 5% of their value. Therefore these expenses amount to 1/10 of 1% of existing sales. Expenditures for non-store fixed assets is estimated at 2% of the annual increase in sales.

8. Figures shown are an extrapolation of data provided in *Progressive Grocer*, April 1975, page 116, for remodeling and new equipment purchases for existing independent supermarkets. By the typical year on which the exhibit is based the number of supermarkets is anticipated to have declined to 28,880 from 31,430 estimated to be in existence in 1974 by *Progressive Grocer* (page 60 of the April 1975 issue). Optimistically, remodeling and new equipment purchases per store are estimated to increase 5% annually due to inflation and, pessimistically, 10%.

9. Assume that industry will install scanners in about 1,000 stores annually and that the 1974 cost per store would be about $120,000. Five and ten percent are used as the optimistic and pessimistic assumptions concerning the escalation of these costs due to inflation.

10. The cost of a super-store in the typical year comes from the 1973 cost of $1.325 million for a super-store with a selling area of 28,000 square feet (*The Supermarket Industry Speaks*, 1974). This cost is adjusted for inflation, optimistically, at the rate of 5% annually for 4½ years, and pessimistically at the rate of 10% annually for 4½ years.

SUMMARY

In order to envision some of the dimensions of food distribution in the period between now and 1980, this study has reviewed major developments in the environment and the industry in recent years. This review, combined with an analysis of both external trends relevant to the industry and changes taking place within food distribution, has led us to a number of conclusions.

- Although there will be variations among regions and companies, overall we anticipate that the real growth in grocery store sales between now and 1980 will be in the vicinity of 1½ to 2% annually. This estimate compares adversely with real annual average growth in food store sales of 3½% from 1967-1972, but it represents a recovery from the absence of real growth in grocery store sales in the 1973-1974 period.
- The combination of slow growth and the expectation that consumers will remain acutely price conscious results in the prediction that competition within the industry will intensify. It is doubtful, however, that significantly new types of food outlets—such as "warehouse stores"—will gain prominence between now and 1980. Instead, the trend toward fewer and larger food outlets, most of which will be "super-stores," will continue. By 1980, these stores should represent approximately one-quarter of all supermarkets and account for approximately 45% of all grocery store sales.
- Although super-stores will bear a distinct resemblance to current supermarkets, they will differ in some respects. Their checkout stands will be equipped with scanners. More of them will have service departments such as delicatessens and in-store bakeries, and a distinct area devoted to fast-moving convenience non-foods. More promotional emphasis will be given to everyday low prices than to hot weekly specials. Because of consumer desires, and because a high proportion of store expenses will be fixed, these stores will be open longer hours. Finally, in order to satisfy consumer interest in low prices, these stores will endeavor to hold or decrease gross margins by increasing sales per square foot. On average, super-stores, in 1974 dollars, may be achieving sales per week per square foot of selling space of $7.00 by 1980.
- A combination of factors, however, indicate that caution is warranted, and indeed financially essential in the construction of super-stores. First, they represent only an evolutionary improvement over existing supermarkets. Thus, if they are built promiscuously in proximity to well-run supermarkets, they may not attain the volume necessary for profitability. Essentially, super-stores described in this study need about a one-third market share in a trading area of 50,000 people in order to prosper. Secondly, because of anticipated capital shortages, cash flow in the food industry is likely to be more constrained in the future than in the past. Thus, the limited cash available for investment in new super-stores should be expended with exceptional prudence.
- Super-store growth and the intense competition which will accompany it suggest further modifications in industry structure in forthcoming years. Competition will continue to purge the industry of marginal operators. The remaining companies will tend to concentrate their operations close to existing distribution facilities. Given the maturity of the industry, invasions of new territories, except by mergers or acquisitions, are likely to result in unacceptable returns on investment or no returns at all.
- In this changing milieu, chains are unlikely to make further gains in market share at the expense of affiliated independents. The advantage in labor costs frequently possessed by independents, combined with their strong relationship with efficient wholesalers, should, at the very least, thwart further chain store market share gains.
- Despite the maturity of the industry, food distributors are unlikely to engage in much diversification in forthcoming years. Cash flow will be limited and the increasingly capital intensive nature of the industry will absorb more of their funds.
- The implications of these events for suppliers are numerous. Their strategies for new product introductions, for maintenance of healthy market shares for their existing brands, and for the size and deployment of their sales forces will have to be modified. Moreover, most major suppliers will endeavor to enhance their participation in the more rapidly growing food-away-from-home market.

Although the last half of the seventies will provide the food distribution system with numerous challenges, an outlook of doom and gloom would be unwarranted. The changes in investment patterns, strategies, and attitudes which will be required are well within the capacity of the system. The decade is likely to end with fewer but stronger operators at the retail and manufacturer level. Moreover, the system should serve consumers more efficiently and more effectively.

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