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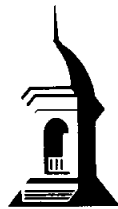
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**Food Retailing:
Mergers, Leveraged Buyouts,
and Performance**

by
Ronald W. Cotterill

Food Marketing Policy Center
Research Report No. 14
September, 1991



The University of Connecticut
Department of Agricultural and Resource Economics

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Abstract

This research report provides a comprehensive description of the organization and performance of the food retailing industry. During the 1980s, the industry's operations and financial structure were dramatically altered by mergers and leveraged buyouts. Thus, it provides an excellent case for the study of "market for corporate control" theories that expect "good" management to take over "bad" management, thereby increasing the economic efficiency of an industry.

The merger and leveraged buyout (LBO) wave in food retailing undoubtedly did benefit stock holders; however, a more efficient allocation of resources was not the primary source of these gains. Mergers and LBOs contributed to the trend towards fewer, larger supermarkets owned by large chains. The industry has split into strategic groups based upon store formats. The superstore and warehouse supermarket groups are most prominent, and have offered consumers a wide array of price service mixes. Entry barriers have, if anything, become more substantial as sunk costs in very large retail complexes and start up promotional expenses have increased. Also, as market concentration and segmentation have increased, the ability of leading firms to engage in strategic games that deter entry has increased.

Given the industry's immediate need for cash flow to service the large amounts of debt that came with the mergers and LBOs, this industry has accelerated its adoption of cost reducing technology, most notably in store computers and check out scanners. The industry has also used its bargaining power against input suppliers to obtain lower prices and it has exercised market power in retail markets to increase revenues and net cash flow. Although 15 of the top 20 supermarket chains merged or underwent a buyout and, subsequently, were highly leveraged with debt, unlike highly leveraged firms in other industries, none of these firms has failed. The industry leaders have survived due to their ability to reduce costs and raise prices to generate higher cash flows to service debt.

1. Introduction

Food retailers assemble thousands of food and other products from national, regional, or local suppliers and distribute them through retail outlets to consumers in their home communities. A wide array of business practices and economic conditions determine the performance of local food stores. This report analyzes the structure, conduct, and performance of the food retailing industry. During the 1980s, the food retailing industry was a cauldron of change. New technologies, including the now familiar scanner at the checkout counter, revolutionized supermarket management. New store formats, such as the warehouse store, have increased the array of food purchasing options. Finally, a change that is not so obvious to the consumer has transformed the organization of the industry and has had large consequences for the performance of the industry. That change is the wave of mergers and leveraged buyouts spawned by the go-go years of the Reagan era. No other industry experienced more of these than the food retailing industry.

2. An Overview of the Industry

The average household spends \$74 per week on groceries and the typical shopper visits a supermarket 2.2 times a week. In 1989 grocery stores generated sales of \$351 billion dollars through 147,000 outlets. This level of sales represents 10.1% of personal consumption expenditures.¹

Retail food stores can be classified into three general categories:

- food stores - outlets that sell food, including fish markets, bakeries, candy stores, and ice cream parlors.
- grocery store - the subset of food stores that sell meat, dairy, produce, and packaged grocery products.
- supermarkets - the subset of grocery stores with current annual sales of more than 2 million dollars per year.

Grocery stores and supermarkets are also described as chain

¹These statistics are from Levin (1990), and the 1990 Economic Report of the President.

stores—companies with 11 or more retail outlets or as independent stores—companies with less than 11 retail outlets.

The number of food and grocery stores has decreased over the past four decades (see Figure 1). Within the grocery store category, the number of chain store outlets has actually increased indicating a gradual shift away from the locally owned and operated neighborhood store as the primary source of food for most consumers. Figure 2 gives the corresponding patterns for food store sales. Total sales has increased over time with population growth and inflation. Consequently, sales per store has increased dramatically over time. Figure 2 also indicates small food stores account for less than 5 percent of all food sales; and, the proportion of sales made by chain stores has increased over time. Clearly the trend is toward fewer, larger supermarket companies. Figure 3 confirms this. By 1987 supermarkets had increased to slightly more than 20 percent of grocery store outlets and approximately 80 percent of grocery store sales.

The significance of these trends for our analysis of the industry is the following:

- * supermarkets are the primary retail outlet for food.
- * chain stores are the preferred type of supermarket for most consumers.

Since supermarkets are the primary distribution outlet type in the food retailing industry, it is useful to take a closer look at what they sell and the proportion of the retail price that is retained by the retailer to cover in-store expenses and return on investment. This coverage ratio is called the percent gross margin. Table 1 gives the percent sales and the average percent gross margin for each department of the average supermarket. Grocery products, for example, represent 43.5 percent of sales and have a 17 percent gross margin. Seventeen cents of each dollar of grocery product sales is retained by the retailer; eighty three cents is paid to the suppliers. Note that gross margins vary across departments with the Deli having the highest primarily because of the additional in store labor and equipment needed to serve customers fresh deli products. General merchandise has the next highest gross margin. This is usually attributed to the relatively slow turnover of these products, and this department's status as a profit center in the typical supermarket. The grocery products category has the lower percent gross margin. Generally in food retailing, products that turn over rapidly, or are subject

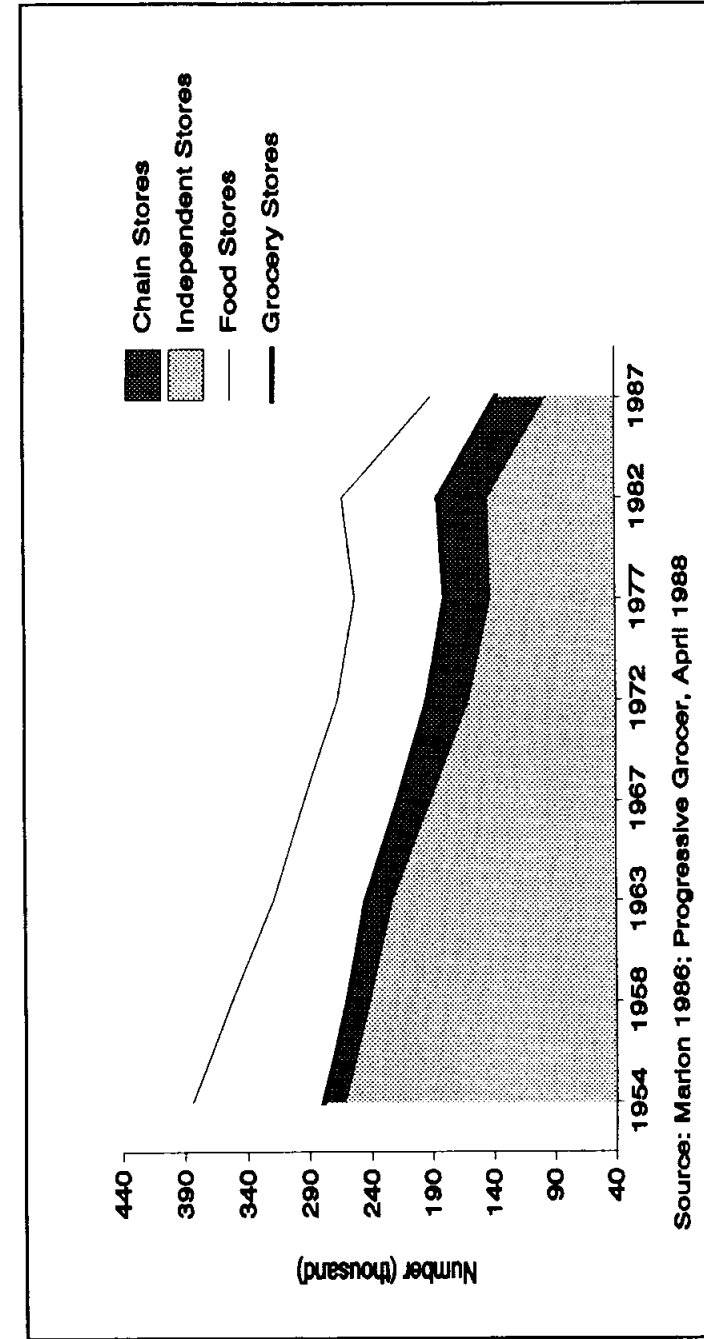


Figure 1. NUMBER OF FOOD, GROCERY, INDEPENDENT AND CHAIN STORES

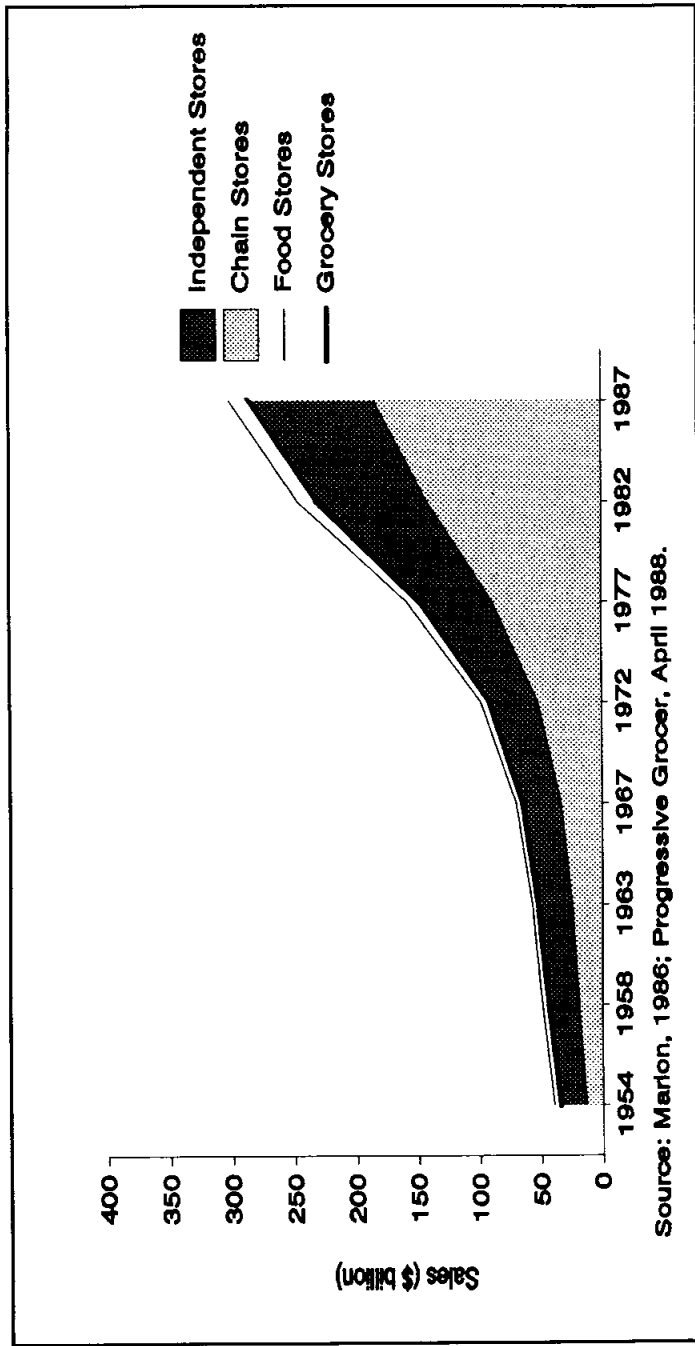


Figure 2. TOTAL FOOD, GROCERY, CHAIN, AND INDEPENDENT STORE SALES

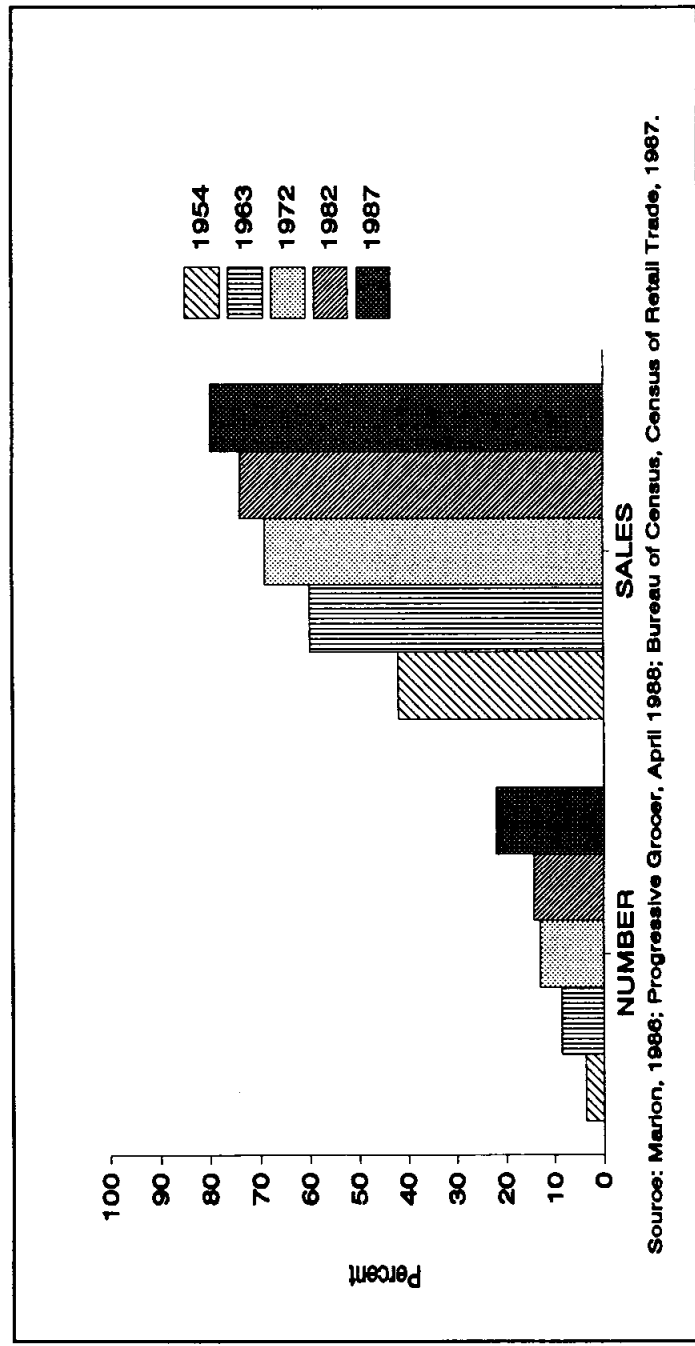


Figure 3. SUPERMARKETS AS A PERCENTAGE OF GROCERY STORE NUMBERS AND SALES

Table 1 GROSS MARGIN CATEGORY BREAKDOWN FOR SUPERMARKETS IN 1989

Department	Percentage of Sales	Average Gross Margin (%)
Grocery	43.5	17
Frozens	5.5	22
Dairy	11.0	19
Produce	8.5	31
Meat	20.0	25
Deli	3.0	40
Health & Beauty Aids	3.2	26
General Merchandise	5.3	35
TOTAL STORE	100.0	20.5

Source: Progressive Grocer Executive Report, 1989, and Levin, 1990

to frequent price comparisons by consumers, have lower percent gross margins. Those that require more in-store labor, electricity and equipment or spoil easily (frozen or chilled products, fresh produce, speciality departments) have higher percent gross margins.

3. Market Structure of the Food Retailing Industry

The number and sales of different types of food stores give only a general indication of the economic organization of the retail food industry. Firms that are chain stores range from small local chains to American Stores Inc. with 1989 sales in excess of 22 billion dollars nationwide. The market conduct and performance of all food retailers, large or small, is influenced by the structure of the markets in which they operate. The first step in the analysis of market structure is to define product and geographic markets for the industry.

The most frequently proffered product market definitions are: all food sales, grocery store sales, and supermarket sales. The choice of preference for strategic market analysis by industry analysts and for antitrust analysis by public authorities has evolved over time. As the share of sales of supermarkets has increased, the primary product market definition has narrowed from food to grocery to supermarket sales. The shift to supermarket sales recognizes that today very few consumers regard grocery stores with sales below 2 million dollars annually as a viable alternative for their primary food shopping trips. These stores are much smaller than the average supermarket and carry a narrower assortment of products. They tend to operate in market niches to meet the specialized needs of particular consumers. Specialized needs include: convenience, the quick trip for bread, milk, cigarettes or beer; and, specialty products such as high quality custom cut meats, or health foods. On the supply side, supermarket managers look almost exclusively at the marketing moves of other supermarkets when determining their own price and merchandising strategies. Small stores do not have the capacity to respond to marketing moves by supermarkets.

Although supermarkets now are the most appropriate product market, earlier, they were not. This shift in product market definition presents a dilemma for analyzing time trends in market structure. It would be misleading to analyze changes in the structure of the supermarket sales market over the post

World War II period. Also, more information is available from government and industry sources on grocery stores. Thus, we are often constrained to analysis of the grocery product market recognizing that supermarkets account for a major and increasing share of grocery store activity.²

Although supermarkets may draw some customers from long distances, most supermarkets have a primary trading area that is only a few square miles. In densely populated suburban or urban areas, few consumers drive more than 3 miles from their home to purchase groceries. Since the trading areas of individual supermarkets in a densely populated area tend to overlap each other in an extensive fashion, an individual trading area does not constitute a relevant geographic market. Price or promotion moves initiated by one supermarket tend to ripple through an urban area. Also, newspaper and media advertising tend to integrate an urban area into one market. These points have long been cited to justify using standard metropolitan areas (SMA), as defined by the Bureau of Census, to delineate local geographic market areas. Use of SMAs is also convenient because the Census publishes comprehensive economic and demographic data by SMA. Over time, the Bureau of Census has expanded the geographic size of individual SMA's as they have grown. This helps to ensure that SMAs remain relevant geographic markets for economic analysis. Some of the nation's SMAs, however, are now so large that they probably contain several distinct geographic markets for the sale of food. The New York and Los Angeles SMAs, the nation's largest, are good examples. Geographical barriers such as rivers and mountains, economic barriers such as freeways and industrial areas, and social barriers such as race and class tend to decompose New York and Los Angeles into smaller market areas. Media advertising often cannot integrate these smaller areas into an SMA market because each tends to have its own newspaper, and the metropolitan papers may put different advertising sections in papers going to different areas. As a result, supermarkets in different parts of the SMA can pursue different price and promotion strategies. This point holds even for a chain store

²The U.S. Census did do a special tabulation for the 1972, 1977, and 1982 retail census years, to provide supermarket data. A special tabulation, commissioned by the Food Marketing Policy Center, University of Connecticut provides 1987 information.

that has supermarkets throughout the SMA. Having recognized this shortcoming, SMAs, nonetheless, continue to provide a workable geographic market definition for the analysis of competition on the retail level.

At the product procurement level, the most appropriate geographic market is the national market. All supermarket operators tend to purchase products, such as canned peas, ketchup, or meat from the same set of food manufacturers and processors. There are some exceptions to this. Milk and other fresh dairy products are purchased in regional markets. Nonetheless, total sales by a company in all local markets is the most useful indicator of a particular firm's or group of firms bargaining power vis-à-vis food manufacturers and processors.

Our discussion of the product and geographic markets yields the following summary points:

- * over the past 40 years the relevant product market for the analysis of retail food purchases has shifted from food stores to grocery stores to supermarkets. Today, consumer preferences and industry marketing practices both support supermarket sales as the relevant product market.
- * the standard metropolitan area (SMA) as defined by the Bureau of Census, with changes over time to reflect city growth, is the most workable geographic market definition for analyzing competition at the retail level among supermarket firms. The largest SMAs probably represent the aggregation of two or more geographic markets.
- * aggregate sales in all local (SMA) markets is an appropriate measure of a chain store firm's bargaining power vis-à-vis food manufacturers and processors.

3.1 Aggregate Concentration

Supermarket chains have gained a larger share of the grocery sales market over time. How, one might ask, have leading chains fared relative to smaller supermarket operators? Table 2 indicates that the share of total U.S. Grocery sales made by the four largest supermarket chains (aggregate four firm concentration - ACR4) has actually decreased from 20.1 percent in 1948 to 17.7 percent in 1987, the most recent Census year.

Table 2 SHARE OF U.S. GROCERY STORE SALES HELD BY THE TWENTY LARGEST GROCERY CHAINS, CENSUS YEARS 1948—1987

Firm Size	1948	1954	1958	1963	1967	1972	1977	1982	1987
Four largest	20.1	20.9	21.7	20.0	19.0	17.5	17.4	17.8	17.7
Fifth to Eight	3.6	4.5	5.8	6.6	6.7	6.9	7.0	7.3	9.3
Eighth largest	23.7	25.4	27.5	26.6	25.7	24.4	24.4	25.1	27.0
Ninth to twentieth	3.2	4.5	6.6	7.4	8.7	10.4	10.1	10.4	11.5
Twenty largest	26.9	29.9	34.1	34.0	34.4	34.8	34.5	35.6	37.9

Source: Marion, 1986; Census of Retail Trade, 1982, 1987. Because in 1987 the census reported only establishments with payroll, the 1987 figures are adjusted upward based on the ratio of total sales to payroll sales for the 1982 Census.

The shares of the fifth to eighth firms and the ninth to twentieth firms have steadily increased over the period. As a result, aggregate twenty firm concentration (ACR_{20}) has increased from 26.9 percent of grocery sales in 1948 to 37.9 percent in 1987.³

This fact seems to suggest that the top four firms have enjoyed economies of scale at the aggregate level and that the other firms in the top 20 have caught up to them during the 1948-1987 period. As we shall see, other explanations seem to explain this shift more accurately. The reason grocery ACR_4 decreased during this period was the decline in A&P's market position and share from number one and 10.7 percent in 1948 to number 4 and 3.3 percent in 1987. A&P's lethargic management and repeated failures during this period are well documented, as are the striking managerial successes of some of the fifth to twentieth firms during the 1948-1987 period (Walsh 1986, Forbes 1977, Baldwin 1981). An alternative explanation may be that the largest firms have gotten too large for "effective" management and, subsequently, have been forced by market forces to downsize, or at least not grow faster than the market.

This later hypothesis was first introduced by Henry Manne (1965) in his classic article on the market for corporate control. Manne argued that the stock voting system in theory enables diverse and numerous relatively small shareholders to control a corporation's management to ensure that management maximizes profit, but this control system may break down in large corporations. Individual shareholders have little incentive or ability to police large corporations. Even institutional investors with relatively large blocks of stock are passive investors and may not be able to force hard decisions by management to maximize profits. Management and labor, according to this theory of control failure, prefer the quiet life of business as usual rather than cost-cutting and risk-taking to maximize profits.

Michael Jensen expanded this reasoning with his "free cash flow" theory (Jensen, 1986). Jensen argues that one way to force managers to manage for stockholders is to eliminate free

³As explained in the prior section, the relevant product market definition has shifted over time to supermarket sales. This shift suggests that the supermarket share figures should be reported for more recent years in Table 2. Using the 1987 supermarket grocery stores ratio to adjust 1987 shares gives a 22.1 percent ACR_4 for supermarket sales and a 47.4 percent ACR_{20} . Even after adjustment, the primary source for the increase in ACR_{20} is the increase in shares by the fifth to twentieth firms.

cash flow by leveraging the firm to very high levels. A firm, for example, that is 95 percent financed by debt is forced to pay out cash flow as interest payments on debt.

Enter the junk bonds of the 1980's. These debt securities with their high risk and high interest rates enabled firms to become highly leveraged. In essence, they resembled stock certificates with very high dividend rates but with the attractive feature of being tax deductible at the corporate level as an interest expense.

According to these theories, the deregulation of securities market in the 1980s enabled the growth of junk bonds, and the relaxation of antitrust policy, especially merger policy, removed fetters from the market for corporate control. As a result, "good" management could drive out "bad" management. Efficiency gains would be passed on to shareholders via higher share values and to consumers through lower prices due to unfettered competition and the threat of potential competition.

Other possibly more accurate theories to explain the trends in aggregate concentration will surface in this chapter. However, the market for corporate control hypothesis provides a particularly good vehicle for the analysis of recent changes in ownership and control of the top 20 supermarket chains. After all, many executives, entrepreneurs, and investment bankers regarded it as the single most important strategic dictum during the 1980s; and, for better or worse, under its aegis this industry was completely reorganized.

Table 3 lists the top 20 chains for 1972, 1979 and 1989. Note that the list remains essentially the same for 1972 and 1979. A&P's chronic management failure resulted in severe retrenchment. It closed over a thousand stores during this period, barely increased sales in nominal terms and dropped to number three position. By comparison, Safeway Stores Inc. more than doubled its nominal sales during this period and moved into the number one position.

In 1979 major changes began to affect the industry. A&P was acquired by Tengelmann, the largest supermarket chain in Europe which is owned and controlled by a West German businessman, Erivan Haub. Also in 1979, American Stores, Inc. (Alpha Beta stores in the west, Acme stores on the east coast) was acquired by Carl Skaggs who until then primarily operated drug stores. Under new leadership, these two old line companies embarked on aggressive merger campaigns.

A&P's strategy, as explained by its Chairman and CEO

James M. Woods to the New York Times, is to acquire and "operate as many dominant regional chains as we can". He further stated "that large volume sales are not the total answer. High market share (in local markets) and good profit return on a local level are..." (Delchamps, Inc., 1988). Since 1979, A&P has made good on this strategy. It acquired Kohls the leading firm in Milwaukee and number two firm in Madison, Wisconsin in 1983. In 1984 it also acquired the leading firm in Madison. A&P then made major acquisitions in other markets including Shopwell (New York, 1986), Waldbaums (the leading firm in New York, and in Connecticut SMAs, 1986), Bormans (the leading firm in Detroit, 1989), and Steinbergs (a major chain in Ontario, 1990). A&P tried unsuccessfully three times to take over Delchamps, a leading regional chain in the South (1986, 1987, 1988). It also tried unsuccessfully to acquire Chatham's Supermarkets, Inc. in 1984 (then the second largest chain in Detroit). Since A&P was already in most of these SMA markets, the mergers were horizontal resulting in increased market share for A&P and the number one market share position in Milwaukee, Madison, New York, and Detroit.

Under Carl Skaggs' aggressive leadership, American Stores also launched on an acquisition campaign. American preferred, however, to go for big companies. In 1984 they acquired Jewel Tea Companies (Jewel in Chicago area, Star Markets in Boston, Buttreys in the upper Great Plains, and Eisners in Indiana). This was a pure market extension merger; American operated no supermarkets in the SMAs where Jewel operated. As Table 3 indicates, American was the fourth largest chain in 1980 and Jewel was the eighth largest. In 1988, American acquired Lucky Stores, Inc., but agreed to spin off its Eagle supermarket division located in Illinois. This \$22 billion in sales mega-merger was a horizontal merger in several California SMAs. The Federal Trade Commission required American to divest between 30-40 stores in order to obtain 362 Lucky Stores in California. However, the California Attorney General launched a more vigorous challenge, carried it successfully to the Supreme Court and in early 1990 forced American to agree to divest either all of its Alpha Beta or Lucky Stores in California before 1994. American divested the Alpha Beta chain (145 supermarkets) to Food 4 Less in April 1991.

The other major type of strategic move that dominated the supermarket industry during the 1980s was the hostile takeover attempt and subsequent leveraged buyout ((LBO) by the

TABLE 3 TOP TWENTY RETAIL CHAINS OF (1972, 1979, AND 1989) AND OWNERSHIP/FINANCE CHANGES BETWEEN 1979 AND 1989.

Rank	Name Sales (\$ million)/ Share (%) 1972 ¹	Name Sales (\$ million)/ Share (%) 1979 ²	Changes 1979-1989	Name Sales (\$ million)/ Share (%) 1989 ³
1	A&P (6,369) 7.21	Safeway (13,718) 7.52	(LBO-KKR 1986)	American (25,004) 6.27
2	Safeway (6,057) 6.86	Kroger (9,029) 4.95	(RECAP-G.Sachs 1988) ⁵	Kroger (18,832) 5.37
3	Kroger (3,791) 4.29	A&P (6,684) 3.66	(acquired by Tengelmann 1979)	Safeway (14,325) 4.08
4	ACME (American) (2,025) 2.29	American (6,121) 3.36	(acquired by Skaggs 1979)	A&P (11,100) 3.16
5	Jewel (2,009) 2.28	Lucky Stores (5,816) 3.19	(acquired by American 1988)	Winn-Dixie (9,151) 2.61
6	Lucky (1,988) 2.25	Winn-Dixie (4,931) 2.70		Albertson's (7,420) 2.11
7	Food Fair (1,980) 2.24	Grand Union (3,138) 1.72	(LBO-Mgmt, 1988, acquired by Müller, Tabak, Hirsch 1989)	SGC (6,299) 1.79
8	Winn-Dixie (1,894) 2.08	Jewel Cos. (2,818) 1.54	(acquired by American 1984)	Publix (5,386) 1.53
9	Grand Union (1,380) 1.56	Albertson's (2,674) 1.47		Vons (5,200) 1.48
10	Supermarkets GC (SGC) (1,194) 1.35	SGC (2,370) 1.30	(LBO-Mgmt, 1987)	Food Lion (4,717) 1.34
11	National Tea (1,090) 1.23	Stop & Shop (1,879) 1.03	(LBO-KKR, 1988)	Stop & Shop (4,636) 1.32
12	First National (849) .96	Publix (1,800) .99		AHOLD ⁴ (3,630) 1.03

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13	Stop & Shop (774) .88	Dillon (1,792) .98	(acquired by Kroger, 1983)	Giant Food (3,250) .93
14	Albertson's (682) .77	Von's (1,500) .82	(LBO-Mgmt, 1985 from Household Int.)	Grand Union (2,717) .77
15	Publix (676) .77	Food Fair (1,492) .82	(bankrupt, exited 1986)	H.E. Butt (2,586) .74
16	Fisher Foods (650) .74	First National (1,365) .75	(LBO, acquired by AHOLD 1985)	Ralphs (2,555) .73
17	Giant Food (496) .56	Fisher Foods (1,356) .73	(merged with Riser Foods, 1988, divested main division Dominick's)	Fred Meyer (2,285) .65
18	Dillon (406) .46	Giant Food (1,243) .68		Bruno's (2,134) .61
19	Waldbaum (394) .45	Waldbaum (1,103) .60	(acquired by A&P, 1986)	Dominick's (2,000) .57
20	Fred Meyer (349) .40	Fred Meyer (1,060) .58		Hv-Vec (1,800) .51
Top Twenty Sales	34,993	71,869		132,028
Total Grocery Sales	93,328	187,242 ³		351,000

¹ 1979, and 1989 sales reported by Progressive Grocer Marketing Guidebook 1981,

² 1991; Bureau of Census, Statistical Abstract, 1981.

³ Cotterill and Haller, 1987; Bureau of Census, Statistical Abstract, 1977.

⁴ After 1977, Census reports establishments with payroll, the 1979 figure is adjusted upward based on the ratio of total sales to payroll sales for the 1977 census.

⁵ Includes Giant Food Stores, Carlisle, PA., Bi-Lo, and First National.

In response to hostile takeover by Haf family, Kroger with Goldman-Sachs did a leveraged recapitalization. Operationally it is equivalent to a LBO.

successful raider or by the attacked management with assistance from a cooperating investment bank. The first and largest was the 1986 hostile takeover attempt on Safeway by the Haft family. Safeway management countered with a LBO financed by Kohlberg, Kravis and Roberts (KKR). In 1987, Supermarkets General (Pathmark, Purity Supreme, Heartland Supermarkets) went LBO under pressure of a hostile takeover. In 1988 the management of Stop and Shop Supermarkets, Inc. and Kroger, in response to hostile takeover attempts by the ubiquitous Haft family, took their firms private with the assistance of KKR. In 1989, 24 percent ownership and effective control of Grand Union (New York, Connecticut, Pennsylvania, New Jersey and Vermont) was acquired by the investment firm Miller, Tabak, and Hirsch to complement their prior acquisitions of Weiss Markets (Pennsylvania), P&C (New York and Vermont), and Big Bear (Ohio). This is the last major LBO in the industry and is an LBO on top of a prior LBO by Grand Union management.

Mergers and hostile takeover induced leveraged buyouts during the 1979-1989 period affected 81.6 percent of top 20 chain sales. As a result of consolidation, new firms moved into the top 20. The extent of these changes and the context in which they occurred seem to support Manne and Jensen's corporate control theories; yet, it is hard to accept the fact that virtually all of the nations' top 20 supermarket chains, except Publix which is privately owned, Giant, and Winn Dixie, which are tightly held companies, and Food Fair which went bankrupt, were led by "bad" managers who needed to be replaced or placed in a financial straight jacket otherwise known as a leveraged buyout. Only Albertson's, commonly recognized as an excellently managed firm, seems to measure up to the Manne-Jensen criteria for "good" management; i.e. avoided takeover or LBO.

Although mergers were the primary vehicle for expansion by many of the top 20 chains, most also entered one or more new markets by building new stores (de novo entry). Fighting one's way into a new market with new stores, however, was clearly not the preferred expansion strategy. Table 4 reports the number of markets entered by each chain by de novo entry, entry by merger, and the number of markets where it expanded by acquiring a direct competitor (horizontal merger). Note that Albertsons expanded almost exclusively by de novo entry. Rather than acquiring regional firms with leading market positions, as A&P did, or acquire top 10 national chains as American did, Albertsons built stores and expanded its own management cadre.

Table 4 EXPANSION STRATEGIES OF THE TOP TWENTY RETAIL CHAINS OF 1972, 1981 THROUGH 1990

Chain	Denovo Entry	Entry Merger	Horizontal Merger
A&P	8	6	11
Safeway	7	0	4
Kroger	10	12	5
American	8	30	12*
Jewel Co.	4	0	0
Lucky	4	0	6
Food Fair	0	0	0
Winn Dixie	1	0	3
Grand Union	6	0	0
SGC	1	4	2
National Tea	0	0	0
First National	2	0	1
Stop & Shop	1	0	0
Albertson's	16	2	2
Publix's	0	0	1
Fisher	2	0	1
Giant	1	0	0
Dillon	2	0	0
Waldbaum	0	0	0
Meyer	1	0	0
Total	74	54	48

* To be divested by 1994 due to successful challenge of American's acquisition of Lucky by the State of California.

Source: Metro Market Studies, Grocery Distribution Guide and Analysis 1979-1991; The Food Institute Report, various issues; Supermarket News, various issues.

This fact, by itself, casts doubt upon the theory that well managed firms succeed by taking over poorly managed ones.

In summary, this investigation of aggregate concentration in the food retailing industry yields the following basic points:

- * aggregate four-firm concentration of grocery sales has declined over the 1948-1987 period but aggregate twenty firm concentration of grocery sales has increased over the same period.
- * the lackluster performance of the top 4 firms relative to others over this period is due primarily to the managerial inefficiencies of A&P rather than share related gains by the fifth to twentieth firms.
- * during the 1980s, mergers, hostile takeovers, and LBOs transformed the financial ownership and control structure of the entire industry.
- * corporate level strategy differs significantly among the top 20 supermarket chains. Some prefer to expand their portfolio of positions in local (SMA) markets by de novo entry. Others prefer entry by merger or horizontal mergers.
- * In the market for corporate control game, it is not clear that mergers and takeovers insure that "good" management always wins over "bad" management. A more detailed examination of conduct and performance is needed to evaluate the impacts of changes in control.

3.2 Local Market Structure

The corporate level strategy game involves the management of a portfolio of strategic business unit (SBUs). Shifts in financial structure at the corporate level may improve performance if it minimizes tax liabilities, lowers the cost of capital, or eliminates inefficiency at headquarters; however, the profitability of a corporation is primarily determined by the performance of its strategic business units. In food retailing, the operation of a supermarket chain in each local (SMA) market constitutes an SBU. Key features of local market structure that affect SBU performance are: market concentration, strategic groups, and barriers to entry. As we shall see, mergers and LBOs have forced large chains to reshuffle their portfolio of

SBUs and have had significant impacts on local market structure. Consequently, the performance of the industry has shifted.

3.2.1 Local Market Concentration

For a particular supermarket chain, the most important feature of the number and size distribution of firms in a local market is its market share. Market share can, in turn, be decomposed into position relative to the top four firms and the position of the top four firms (Cotterill and Iton, 1991). This first component is relative market share, the second is the market's four-firm concentration ratio. As oligopoly theory suggests, relative market share and seller concentration influence performance. Although relative market share data are not readily available, the share of supermarket sales by the top four firms in local SMAs (CR_4) is available for 1977 and 1987 for a set of identical SMAs. Note in figure 4 that average concentration increased from 71 to 77 percent over this 10 year period. The data are also classified by initial (1977) level of concentration. Concentration level increases most in the smaller size classes, and increases in all size classes except the largest classification (1977 $CR_4 > 90$ percent). Forty-five of the 164 markets in this sample are highly concentrated with CR_4 above 80 percent. In addition, many of the nation's other 168 SMAs are now highly concentrated.

This major increase in seller concentration during the 1980s mirrors the trend towards fewer larger supermarkets. Undoubtedly, the increase in store size has increased concentration. However, it is not clear that this is due to economies of size. The studies of economies of size indicate that over the past 20 years new stores have regularly been built at sizes above those necessary to obtain known economies. In the 1960s, the National Commission on Food Marketing (NCFM) found that economies of size were exhausted at 10,000 square feet of selling space. In the 1970s, Marion et al. detected no cost swings related to store size for a study of 68 stores from one chain that ranged from 13,000 to 31,000 square feet (Marion et al. p. 136). At the time of its study, the NCFM reached a conclusion that still holds today.

"no particularly strong incentive for building very large stores grows out of cost behavior alone...the mix of merchandise is normally different in a large store than in a smaller store.

The large store typically adds departments which frequently require service (e.g., delicatessen) and stocks many high margin, low turnover items not carried in the smaller store. These factors cause costs per dollar of sales to be somewhat higher for the large store than would be expected without the added items or departments. Of course, the added costs in such larger stores may be fully compensated by increased sales and a higher gross profit" (NCFM p. 149-150).

Although today's new supermarkets more often than not have in excess of 35,000 square feet of selling space, one of the most successful and rapidly growing chains during the 1980s, Food Lion, has demonstrated that much smaller stores can be highly profitable.

"Food Lion's stores aren't big or fancy, but they're clean and well organized, offering just as many food products as the competition but eliminating profitable but slow-moving nonfood items like prescription drugs, pots and pans and hardware. The stores, requiring little space for nonfood items, average 25,000 square feet, about 20% to 35% smaller than competitors like Winn-Dixie or Kroger, and thus are a lot cheaper to build about \$650,000 versus \$1.5 million for the average supermarket" (Poole, 1991).

Other significant causes for the rising secular trend in seller concentration include horizontal mergers among leading firms, economies of size in local promotion activities, and entry barriers. The impact of horizontal mergers has been well documented (Cotterill and Mueller, 1980). However, there is little quantitative analysis of the impact of market share related savings on promotion and distribution expenses. Advertising savings materialize because a large share chain can spread the cost of a newspaper, radio or local T.V. ad over more sales, and because larger volume advertisers tend to receive lower advertising rates. Entry barriers, to the extent that they exist as explained later in this chapter, also contribute to increased concentration.

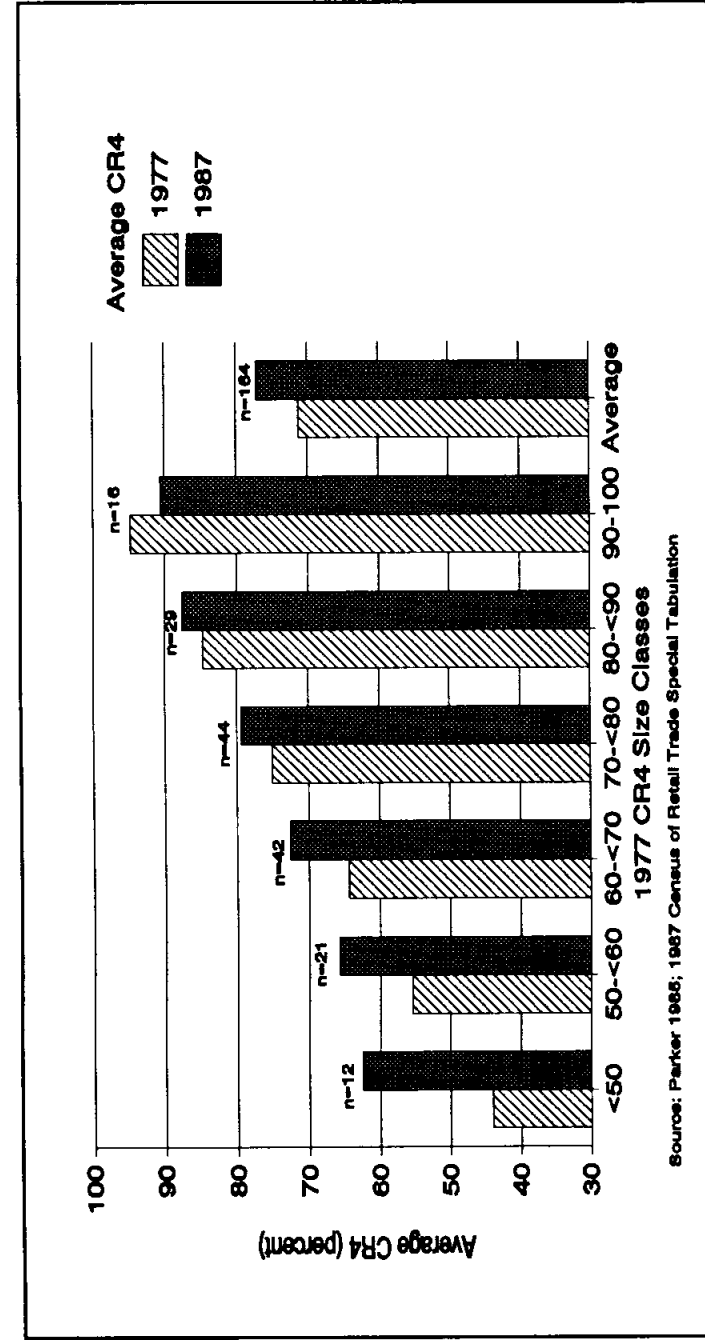


Figure 4 SUPERMARKET CONCENTRATION RATIOS FOR 164 SMAs, 1977 AND 1987

Summarizing the discussion of local market concentration, the following points are particularly relevant for analysis of the food retailing industry:

- * seller concentration has persistently increased during the past 10 years in all except the most concentrated local markets.
- * the secular increase in concentration is not due to economies of size at the store level, but may be in part due to the trend towards larger stores to offer a wider assortment of products.
- * at the market level, horizontal mergers that involve one or more of the top four firms, market share related economies of size in promotion and entry barriers contribute to increased seller concentration.

3.2.2 Strategic Groups

Not all supermarkets have the same store format. Different formats provide particular consumers with the mix of products and services that they prefer. The various store formats in the supermarket industry can be classified into four strategic groups. Information on this element of market structure can improve our understanding of market conduct and ultimately market performance. Strategic group structure, for example, influences the strategies that incumbent firms use to raise entry barriers and those that new entrants employ to overcome or avoid entry barriers. The most common decomposition of supermarkets into strategic groups is as follows:

- * **Conventional Supermarkets.** These stores comprise roughly 65% of the supermarket population, average between 20,000-30,000 square feet and offer basic grocery needs.
- * **Superstores and Combination Stores.** These units are larger than conventional supermarkets. Superstores average 43,000 square feet and combination stores average 58,000 feet. These store formats accommodate a far larger selection of merchandise, and emphasize the more profitable specialty and perimeter departments (such as expanded produce, deli, bakery, fresh seafood, prepared foods, floral, salad bars, and expanded

health and beauty aids departments). Combination stores offer a pharmacy as well. Although pharmacies are difficult to justify as a department on a stand-alone basis, they have been accepted widely by the industry because they have proven to be an excellent vehicle to build customer traffic throughout the store and increase sales in the Health and Beauty Aids category. In 1989, the supermarket industry dispenses 16% of all prescriptions, and this amount should rise to 25% by 1992 (Levin p.6).

- * **Warehouse and Superwarehouse Stores.** These are low-price, low frills operations, where dry groceries are placed on warehouse racks and displayed in cut cases to save on labor costs. Customers bag and carry their own merchandise. Warehouse stores are often converted conventional supermarkets and carry a narrower assortment of products than all other formats. Superwarehouse have specialty service departments such as bakery and deli.
- * **Hypermarkets.** Generally 200,000 square feet or larger, combine a warehouse, combination or superstore format with discount store's general merchandise offering. There also are smaller versions of this store type (100,000 - 200,000 square feet), which combine grocery with significant general merchandise selections, such as Fred Meyer, Inc. and Walmart's Supercenters.

Figure 5 displays the six store formats and resulting four strategic groups, on a grid that indicates the general level of in-store services and product assortment. Conventional supermarkets are the benchmark format located at the intersection of the service and assortment axis. Warehouse stores have lower levels of service than conventional supermarkets. Superstores and combination stores have more services and more products than conventional supermarkets, and hypermarkets have even more products than these large supermarkets.

3.2.3 Barriers to Entry

Local (SMA) markets often experience changes in the identity of supermarket firms, but not all such changes indicate

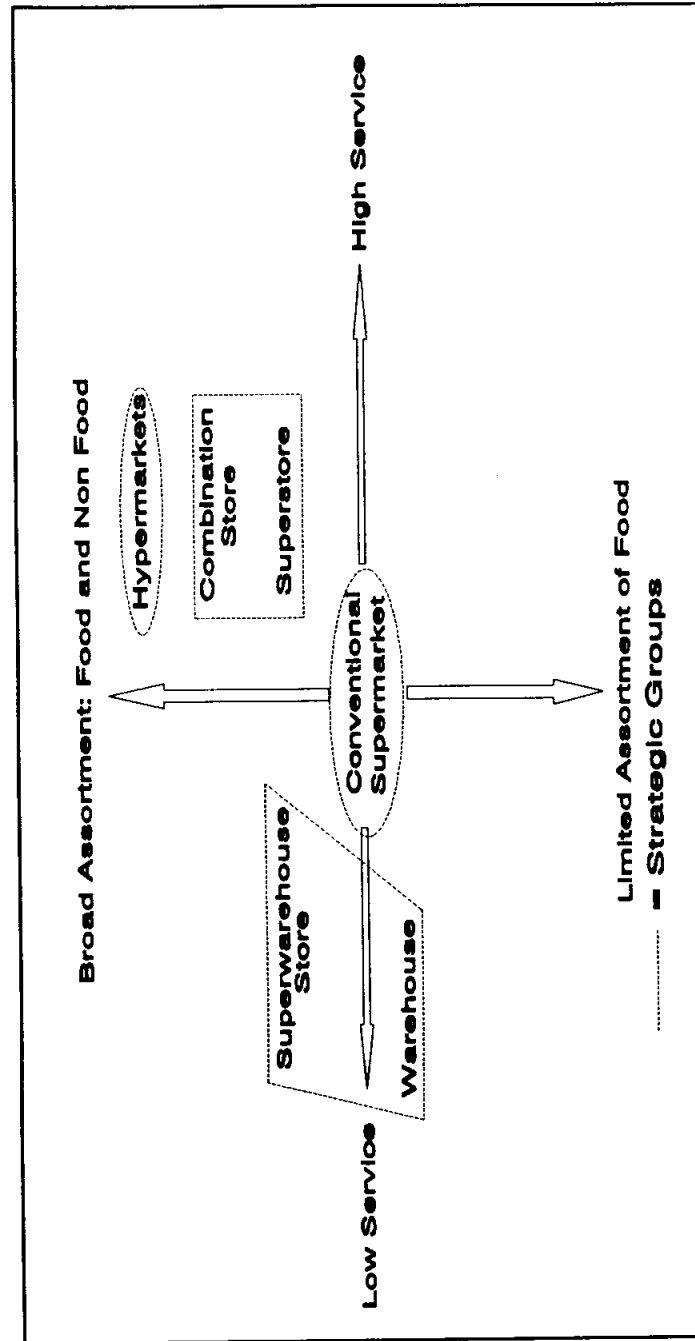


Figure 5. SUPERMARKET FORMATS/STRATEGIC GROUPS

that entry, as defined by industrial organization economists, has occurred. Entry is the addition of new capacity to the market. Acquiring store sites and building new stores is entry. A market extension merger such as American's acquisition of Jewel Tea Companies with its leading positions in Chicago, Boston, and other local markets, or a horizontal merger such as A&P's acquisition of Waldbaums in New York City is not entry. A toe-hold merger, i.e., where the purchaser acquires a small fringe position in a new market with the intent to make substantial additional investment, however, is entry.

A barrier to entry is defined as any factor that decreases the likelihood, scope, or speed of entry when firms in the market are exercising market power, i.e., pricing above cost. (Shepherd, 1979).⁴ In local food retailing markets, entry barriers may arise from:

1. The broad assortment and service levels associated with very large store formats,
2. market level economies of size related to promotion efforts,
3. costs that are sunk (nonrecoverable) if entry fails (especially capital and promotion costs),
4. the relative advantage of a recognized incumbent in obtaining desirable store sites, and
5. strategic behavior by incumbent chains such as predatory pricing, and geographic preemption (opening new stores to meet growth in market demand).

Are these barriers high or low for potential supermarket entrants? As Marion concludes: "the available evidence suggests that barriers to effective entry...range from moderate to substantial" (Marion 1987, p. 200). There is considerable indirect

⁴There was substantial disagreement on the definition of BTE during the 1980s. Some economists and antitrust enforcement agencies preferred Stigler's definition: "A barrier to entry may be defined as a cost of producing (at some or every rate of output) which must be borne by a firm which seeks to enter an industry, but is not borne by firms already in the industry" (Stigler, 1968, p. 67). See Marion (1987) for a critique of this definition. In 1989 the Department of Justice explicitly rejected this definition in favor of the definition given in the text (Rill, 1990).

as well as direct evidence to support his conclusion.⁵

If entry barriers were low, there would be few, if any, opportunities for sustained prices or profits above the competitive level. We would expect to find no relationship between market concentration and prices or profits. We would expect to see few instances of strategic behavior to forestall entry because the main incentive for entry forestalling behavior is the expectation of future super competitive prices and profits. Such profits are only possible where significant barriers exist. Finally, if entry barriers are due only to store-size related product assortment and service factors, we would expect to see no medium or large SMAs with persistently high levels of concentration and profits. New entrants would be expected to erode high concentration and profits in these markets.

The facts do not support this low entry barrier scenario. Over the past 15 years, at least six different studies have found a significant positive relationship between retail food prices and supermarket or grocery store concentration (Marion et al. 1979; Lamm 1981; Hall, Schmitz and Cothorn, 1977; Cotterill 1983; Cotterill 1986).⁶

There also is ample evidence of strategic behavior by incumbents to forestall entry. Zone pricing can be employed very selectively against a firm entering with one, two, or three stores, or an incumbent may lower prices throughout the market in response to multiple store entry by a large entrant. There are numerous examples of this behavior in the industry. An early and classic example is the use of zone pricing by Giant and Safeway to force Shoprite to withdraw from the highly concentrated Washington, D.C. market (FTC, 1969). A more recent example is Food Lion's entry into Jacksonville, Florida.

Months before its August 1987 invasion of Jacksonville, Florida, hometown to primary rival Winn-Dixie, Food Lion blanketed the market with ads that warned shoppers "Food Lion is coming to town, and prices will be going down." Sure enough, even before a single store opened,

⁵The remainder of this section relies heavily upon Marion (1987, p. 197-201).

⁶One study (Kaufman and Handy) failed to find a relationship between concentration and prices, however, that study has serious limitations. See Geithman and Marion (1991) for details.

Winn-Dixie chopped prices by 5% across the board. By the time Food Lion's stores were open, prices in the market were down almost 15% (Poole, 1991).

Given that a typical gross margin in a supermarket is 20 percent, a 15 percent reduction, or for that matter, even a 5 percent reduction in price is not a profit maximizing move in the short run. Winn Dixie's strategy clearly was to forgo short run profits in an attempt to discourage and limit Food Lion's entry to maintain its market share and benefit from share related profits in the future. Since Winn Dixie is a chain store with operation in dozens of local markets throughout the Old South, it may also be establishing a reputation for toughness so that Food Lion will refrain from entering other markets.⁷

As documented earlier, possibly except for the most concentrated class of markets ($CR_4 > 90\%$), market concentration is not decreasing. This is in spite of the fact that warehouse and super warehouse stores have entered a number of markets, including highly concentrated markets, such as, Cincinnati, Washington, and Denver. Warehouse and superwarehouse stores represent a strategic group that is far short of its market potential in many SMAs. As such, they represent a "gateway" to entry. Yet, not all consumers prefer the product-service-price bundle offered by warehouse-type stores. When these stores have attracted the segment of consumers that want warehouse terms, they will have achieved their potential share of local markets. At that point the warehouse format will no longer represent a gateway to overcome entry barriers. The evidence of entry by these stores in the 1980s when they still represented a new strategic group, therefore, cannot be used as a reliable indicator of entry conditions into other strategic groups or entry conditions for warehouse supermarkets in the future.

⁷This problem has been analyzed by game theorists. Selten shows in a repeated game with a fixed (finite) number of turns a chain store cannot establish a reputation for toughness. In a game with an infinite number of turns, however, strategies such as Winn Dixie's do work, i.e., they are credible threats. See Cotterill and Haller for a readable explanation and application to the supermarket industry.

4. Market Conduct

The previous analysis of market structure indicates that the feedback effects of market conduct clearly are important in food retailing. Corporate level strategies (entry by merger, horizontal mergers, entry by building new stores, and divestitures) affect aggregate and local market concentration. Business unit level strategies affect barriers to entry. Market conduct, however, has broader implications for performance, and structure is a primary determinant of both conduct and performance. Major conduct options that influenced performance during the 1980s and will continue to do so in the 1990s include: positioning of firms among strategic groups/store formats, cost control within a particular format, procurement/merchandising, and retail pricing.

4.1 Strategic Group/Store Formats

When supermarket operators decide what kind of new store to open, the superstore, combination store, and warehouse store formats are the most popular. Table 5 reports that the number of stores, sales, and share of total supermarket sales increased for these categories during the 1980s. The number, sales, and share of supermarket sales for conventional supermarkets declined. Superwarehouse and hypermarket formats increased their numbers, sales, and share of sales, however, to date they remain a marginal factor in the industry with a 6.1 percent share of supermarket sales in 1988.

The shift to the large superstore and combination store formats has clearly influenced the size of new supermarkets (Figure 6). In 1975, for example, the typical new supermarket was approximately 25,000 square feet; by the late 1980s the typical new store was somewhat above 40,000 square feet. The larger stores of recent years also carry a wider assortment of products (Figure 7). In 1983 the average number of items stocked in a supermarket was 10,833. By 1987 it had increased 75 percent to 18,967 items. Some consumers have clearly spoken in favor of the larger, fancier formats (superstores and combination stores). Yet these trends mask an important countercurrent. Other consumers have shifted their custom to conventional sized, limited assortment, and low service warehouse stores. Their share of supermarket sales increased from 4.2 percent in 1980 to 12.5 percent in 1988.

Table 5 NUMBER AND SALES, BY TYPE OF FORMAT: 1980 AND 1988

Supermarket Format	Number		Sales (bil.dol.)		Percent Distribution	
	1980	1988	1980	1988	Number	Sales
					1980	1988
Supermarket totals	26,321	26,300	157.0	230.9	100.0	100.0
Conventional	21,009	15,590	114.7	98.8	79.8	78.1
Superstore	3,150	5,600	27.8	69.5	12.0	17.7
Warehouse	1,670	3,375	6.6	28.8	6.3	4.2
Combination food & drug	475	1,250	6.3	19.9	1.8	4.0
Superwarehouse	7	375	1.6	8.9	(2)	1.0
Hypermarket	10	110	(NA)	5.0	(2)	(NA)
					4	2.2

Source: Statistical Abstract of the United States, 1990, p. 774.

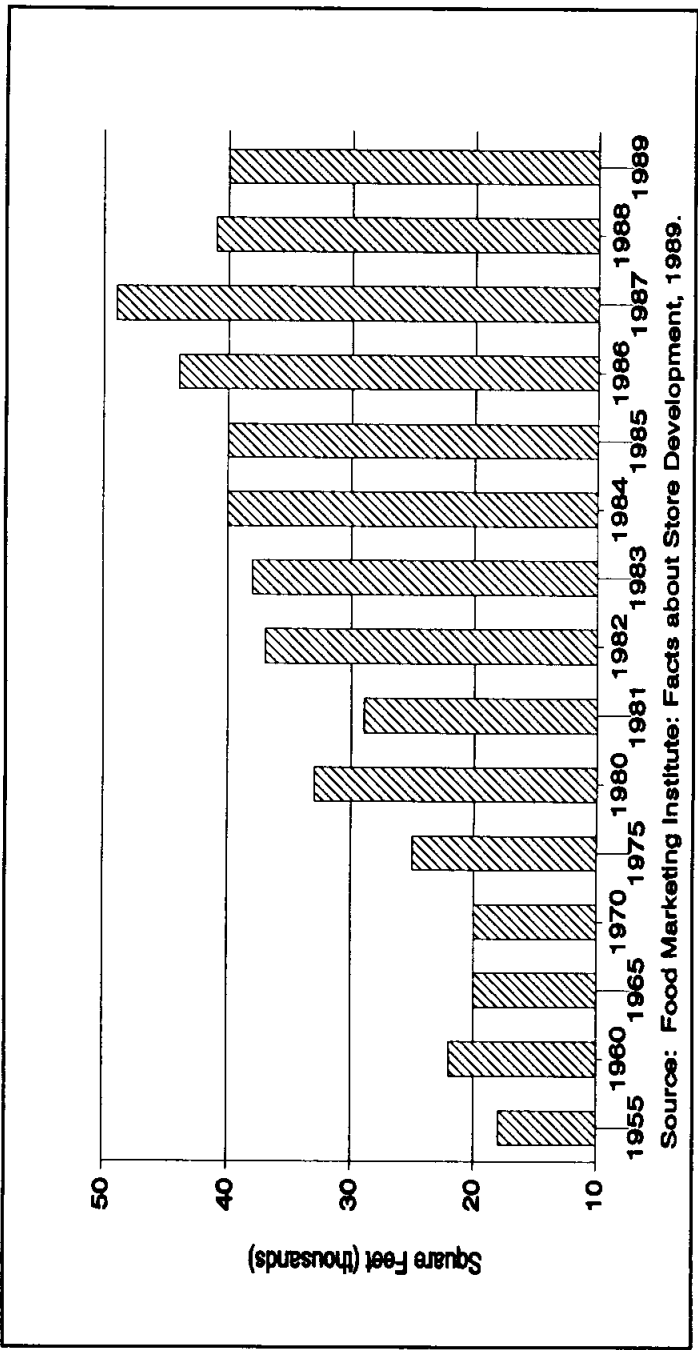


Figure 6. MEDIAN NEW SUPERMARKET SIZE

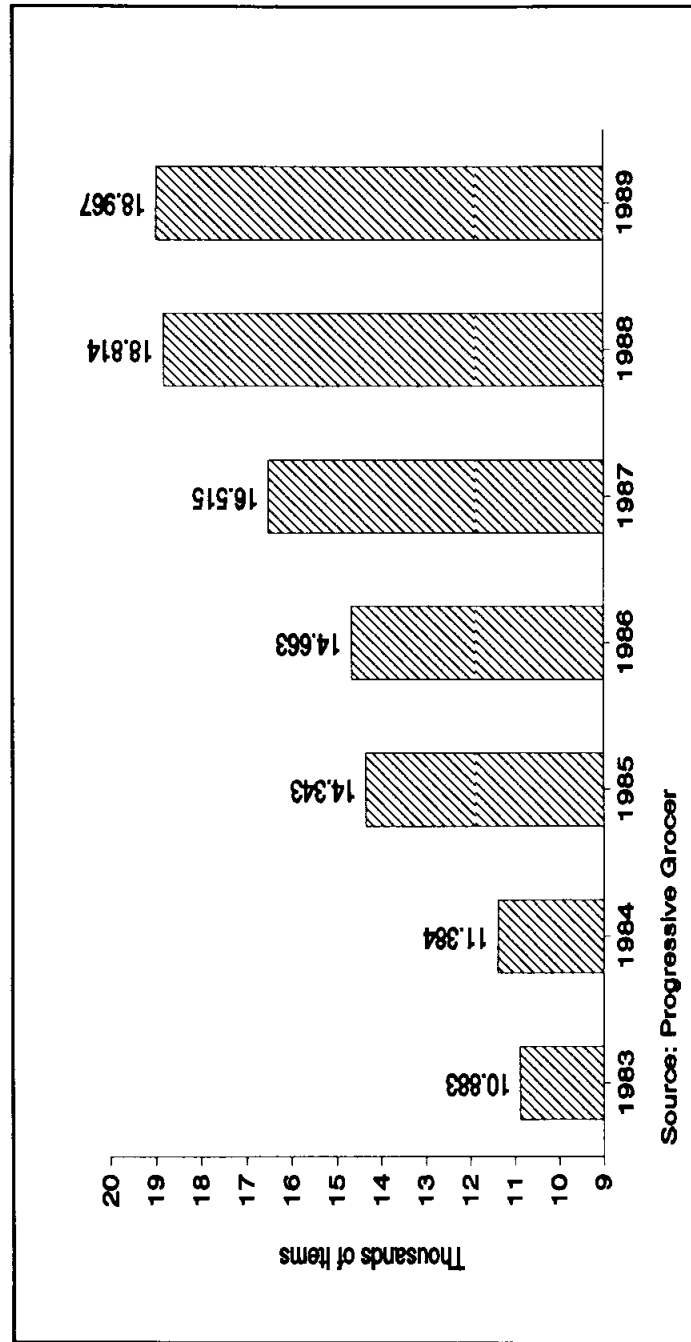


Figure 7. AVERAGE NUMBER OF ITEMS STOCKED IN SUPERMARKETS

4.2 Cost Control

In-store operating costs vary by store format because of the different levels of service and product assortment offered. Capital costs and aggregate labor requirements vary closely with the store format choice. An important element of market conduct is variation in costs for other reasons.

Wage rates in the supermarket industry increased during the 1980s with the rise in the general level of wages and inflation. There were, however, two significant developments that enabled supermarket chains to slow the growth of in-store labor costs: increased labor productivity, and wage rate concessions by unions faced with LBO induced demands for contract renegotiations.

Retail labor productivity increased with the advent of in-store computer technology related to laser scanners located at the back door as well as checkout-counters of supermarkets. These systems allow more efficient delivery and sales of products. They also allow managers to track product flow more accurately, thereby improving the scheduling of labor. The new systems have other far reaching impacts. Checkout is more rapid, inventory and shrink due to theft or spoilage is precisely counted by item. Sales promotions can be evaluated and fine-tuned to maximize profits, shelf space can be reallocated. This list is far from exhaustive.⁸

The other countervailing force to rising retail costs during the 1980s is the tough bargaining stance forced upon the supermarket chains by hostile takeover or the threat of such takeovers. Safeway is a typical example. Before its leveraged buyout in 1986, Safeway's unions were intransigent. After the buyout, it quickly became obvious that survival restricted Safeway's choices. In the parlance of game theory, Safeway's threat to liquidate now became credible because the LBO had committed it to an irrevocable quest for cash. It had to receive wage concessions, close stores, or sell them. Faced with this narrow set of options, unions often negotiated concessions. Thus, LBOs themselves created the increase in bargaining power vis-à-vis labor and other input supplies necessary to generate part of the cash necessary to make LBOs work.

⁸See Cotterill (1985) for a complete explanation of the impact of scanners on the food industries.

4.3 Procurement and Merchandising

Procurement and merchandising practices of supermarket chains are interrelated because food manufacturers that supply branded grocery products use merchandising incentives to make procurement of their products attractive. Food Manufacturers have two basic promotion strategies. The first is to "pull" the product through the retail distribution system by increasing consumer demand via media advertising and the distribution of coupons to consumers. The second is to "push" the product through the retail distribution system by negotiating trade promotion deals with supermarket chains that tie procurement price reductions with performance clauses that require the retailer to perform certain merchandising activities. These include lowering retail price (price specials), aisle-end displays and featuring the product in local newspaper advertisements.

Total marketing expenditures have outpaced the growth in food store sales during the 1980s. Sales increased approximately 90 percent and marketing spending nearly tripled (Neilson, 1990). Figure 8 indicates how the balance of push and pull advertising and promotion by food manufacturers has shifted overtime. During the 1980s, there was a marked reduction in share of marketing expenditures allocated to advertising. In 1980-81, advertising accounted for 43 percent of expenditures; it declined to 34 percent in 1989. Consumer promotion activities, most notably coupons, increased their share from 23 percent in 1980-1981 to 27 percent in 1989. Trade promotion bottomed out at 34 percent in 1980-81 from an earlier high of 39 percent in 1976, and increased during the 1980's to a high of 42 percent in 1988.

As documented by Blatberg (1986), and Hannon and Grinnell (1985), trade promotions often do not increase manufacturers profits and nearly always result in lower procurement prices for retailers. Thus, they are to a certain extent, an indicator of the relative bargaining power of retailers and manufacturers. Note that the increase in trade promotion expenditures to all time high levels occurs in 1987 and 1988 when many of the top supermarket chains were acquired or forced into LBOs. This suggests that affected chains gained concessions from suppliers as well as labor.

Figure 9 reveals the explosive growth in coupons as a consumer "pull" marketing strategy. A mind boggling 267.6 billion coupons were distributed in 1989, up 329.6 percent from

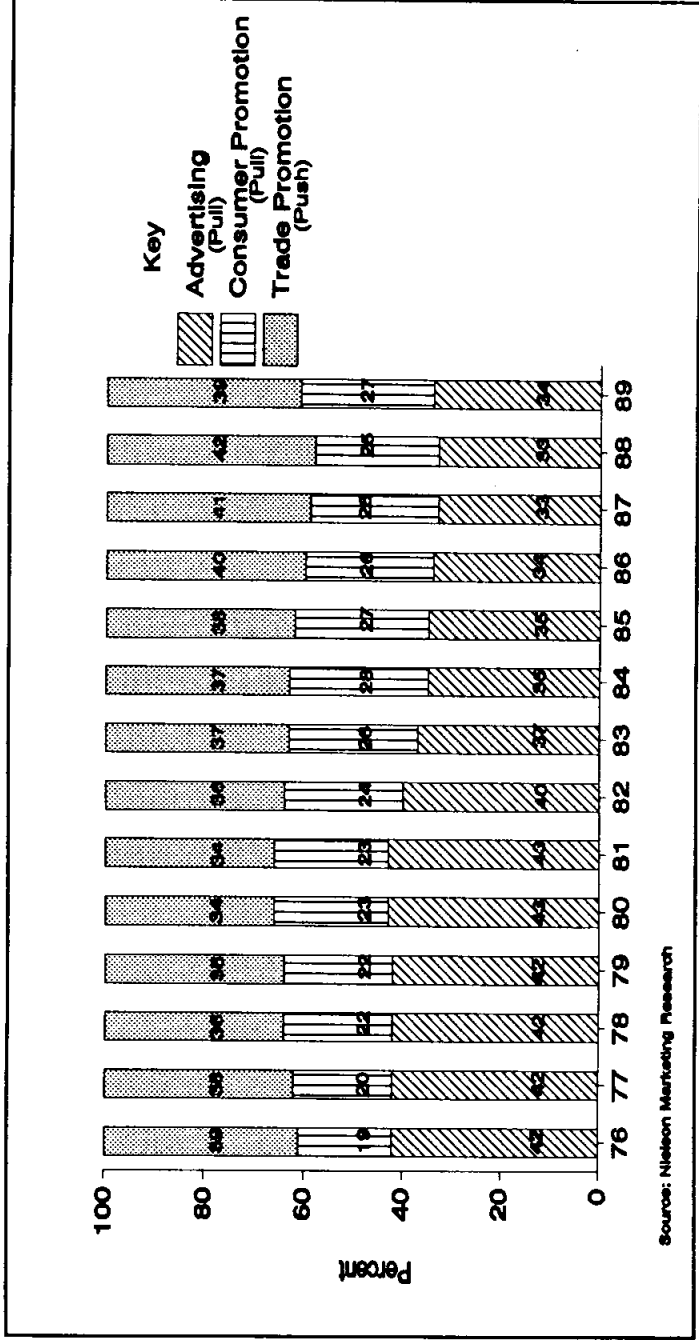


Figure 8. SHARE OF ADVERTISING AND PROMOTION EXPEDITURES: FOOD MANUFACTURERS

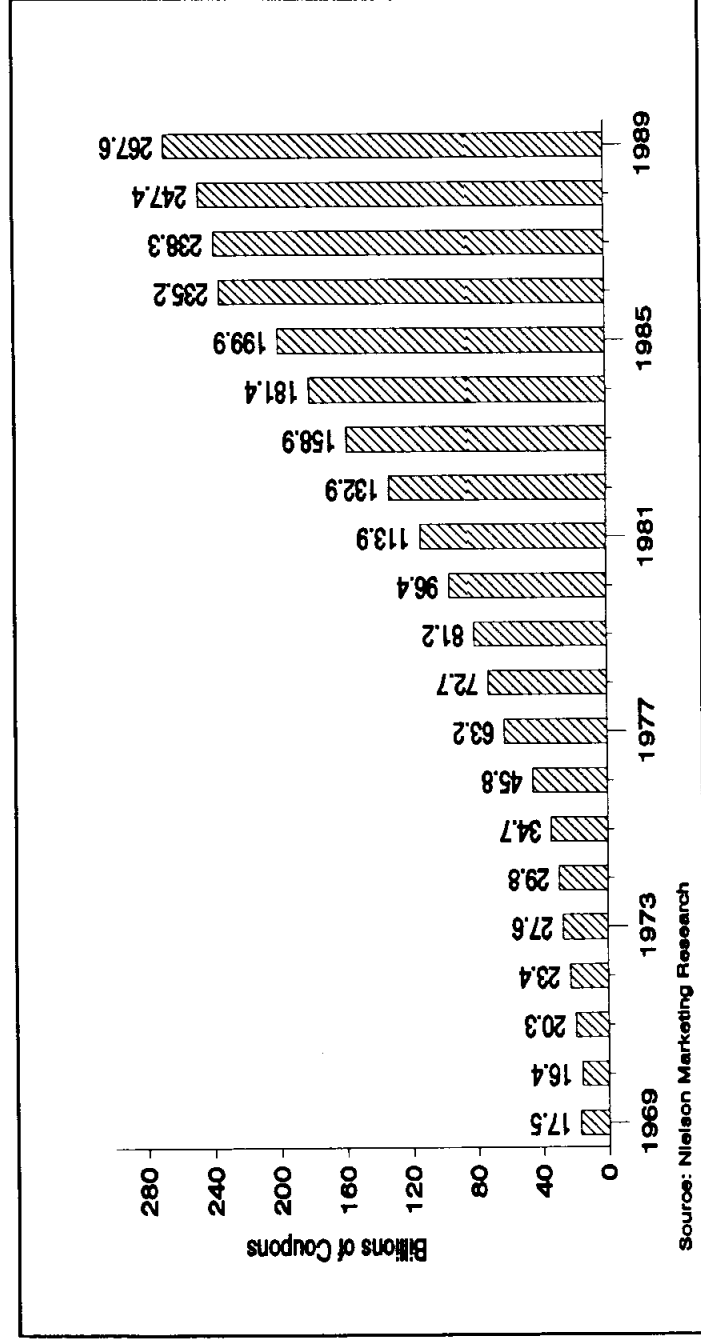


Figure 9. 20 YEAR COUPON DISTRIBUTION TREND

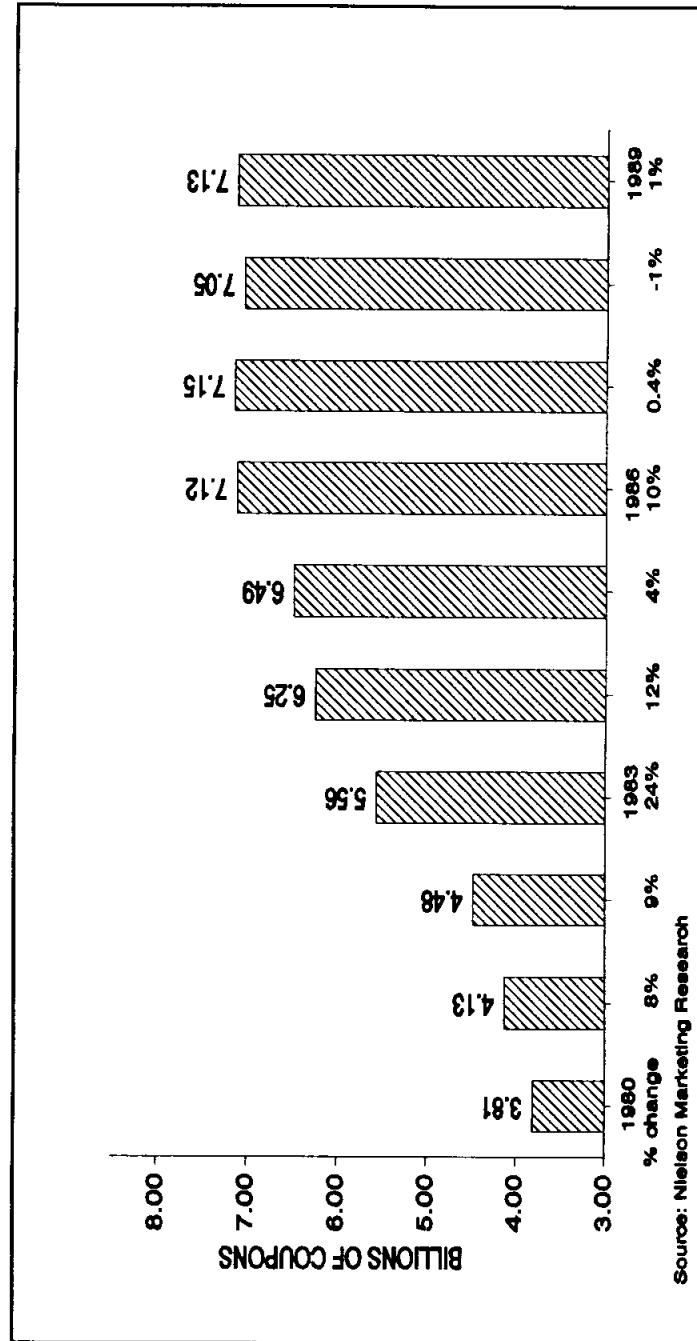


Figure 10. COUPON REDEMPTION TRENDS: (TOTAL COUPONS)

81.2 billion in 1980 and 1529.1 percent from 17.5 billion in 1969. Figure 10 tracks coupon redemptions. Of the 267.6 billion coupons printed in 1989 only 7.13 billion were redeemed by consumers. In fact, redemption levels have remained constant at this level since 1986. The average value of coupons redeemed in 1989 was 49.2 cents (Nielsen, 1990).

It is difficult to evaluate costs and benefits of these pronounced shifts in procurement costs and merchandising upon manufacturers, retailers and consumers. Several issues in this area are currently unresolved. One is slotting allowances. To what extent are retailers justified in charging these set up fees to manufacturers who want to place new products in their stores? Most new products fail and retailers incur one time costs related to their introduction and withdrawal. Should retailers be allowed to charge different slotting allowances to different manufacturers, e.g., a lower fee to a larger national food manufacturer with a wide array of accepted products than to a small local or regional firm with its first branded grocery item? To what extent should the Robinson Patman prohibition against price concessions to large buyers that are not justified by deal related cost savings be enforced? Recent enforcement has been non-existent allowing for a wide range of transaction prices between retailers and manufacturers, (Mandel and Heinbockel, 1989). It is not always clear that distribution channel efficiency is enhanced by a laissez faire attitude towards vertical restraints such as slotting allowances and trade deals. Efficiency is not enhanced if they are a vehicle for price discrimination that is not justified by cost differences.

4.4 Retail Pricing

The general level of prices in a supermarket is a critical element of conduct because of its direct influence on consumer welfare. Over 10.1 percent of disposable income is spent on food, and the primary point of purchase is a supermarket. The general or average level of prices for items in a supermarket, as opposed to the price level for a specific item is a function of store format and a related factor (store size), in-store operating costs most notably labor costs, market growth, and the status of competition as measured by a firm's market share, seller concentration, and competitive pressure exerted by the entry of new store formats.

Regarding store formats, warehouse stores are generally priced 5-10 lower percent than conventional supermarkets

because they have fewer services and limited assortments. Superstores and combination stores tend to have higher prices than conventional supermarkets because they offer more products and more services in a fancier shopping environment. Store size is an alternative measure of different formats since conventional and warehouse stores tend to be below 30,000 square feet whereas superstores and combination stores are well above this cutoff. One study of supermarket price levels, in fact, found that the price level for an identical basket of grocery items falls as store size increases to 30-35,000 square feet and thereafter rises (Cotterill, 1983).

Warehouse supermarkets not only have lower prices, they also have a competitive impact on other supermarkets in other format categories forcing them to lower their prices. In a study of supermarkets in six southwestern states in 1981, the presence of a warehouse store lowered prices of competing supermarkets approximately 1.7 percent (Cotterill, 1983). This competitive impact probably is not permanent. As warehouse stores fill their market niche other stores will lose fewer customers to them. A recent study reports that there is a limit to the impact of warehouse market share on market price levels. When warehouse penetration moves above 30 percent, market price levels no longer decrease (Marion, 1991).

The level of in-store costs, most notably labor costs also influence the prices that retailers must charge. To a large extent the cost levels are influenced by store format choices. Unionization also influences labor costs, and the general level of wages in a particular area e.g., (New York City versus Des Moines) may influence labor costs and price levels.

Finally, market structure influences retail price levels. Nearly all research on this point concurs.⁹ Firms in more rapidly growing markets charge higher prices. Firms that have large market shares, charge higher prices and markets that are more concentrated also tend to have higher prices. These relationships hold even when the other factors that determine price level discussed above are included.

⁹For a general report on studies of concentration-price relationships and for a review of such studies in food retailing see Weiss (1989). For a critical debate of the validity of those studies see Anderson (1991) and Cotterill (1991).

5. Market Performance

Having analyzed the structure and conduct of the food retailing industry, the pieces are now in place to assess performance. Performance assessments are multi-faceted and normative. In other words, whether a particular set of performance results is "good" or "bad" depends to a certain extent upon one's point of view. In the supermarket industry, as in any industry, workers, executives, consumers, bond holders and stockholders have different preferences. Ideally, real gains in productivity or efficiency can benefit all stakeholders in proportion to their marginal contribution to the productive effort and the remainder can be passed on to consumers as lower prices. Pecuniary economies, on the other hand, arise from lower prices for inputs, and as such do not benefit suppliers of that input.

The major dimensions of performance commonly covered in the study of an industry's organization are allocative efficiency (price-service mixes based upon costs rather than market power), x-efficiency (lack of organizational slack, strict cost control), dynamic efficiency (productivity gains and shifts to new formats in response to changing consumer preferences), and equity (income distribution effects).

With regard to dynamic efficiency, the supermarket industry has performed extremely well during the 1980s. Supermarket chains have rapidly adopted the new scanner computer based management systems. The industry also has moved judiciously in response to consumer preferences and expanded the warehouse superstore and combination formats. It has experimented with other new formats, but they do not appear to have sufficient consumer support.

Rather than examine performance in each of the other categories sequentially, different pieces of evidence on performance will be introduced. Performance in the allocative efficiency, x-efficiency, and equity dimensions are interrelated, and emanate from the extensive mergers and LBOs that have occurred in this industry.

An appropriate starting point is the aggregate income and balance sheets of supermarket retailers for the years 1985-1989. Table 6 reports the annual income statements as a percent of sales. The impacts of financial restructuring due to LBO's and mergers throughout the industry is unmistakable. Interest expenses in the last two years are more than double their level

Table 6 INCOME STATEMENT

Income Statement for Supermarket Companies (In Percentages; Sales = 100%)

	1985-86	1986-87*	1987-88*	1988-89*	1989-90*
Sales	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of Sales and Operating Expenses	97.84	97.86	98.01	98.01	97.55
Operating Income	2.16	2.14	1.99	1.99	2.45
Interest Expenses	0.55	0.61	0.87	1.13	1.33
Other Income	0.23	0.20	0.38	0.25	0.31
Income Before Taxes and Extraordinary Items	1.84	1.73	1.50	1.11	1.43
Total Taxes on Income	0.68	0.74	0.59	0.43	0.54
Extraordinary Items (Net)	0.03	0.13	(0.14)	0.03	(0.09)
Net Income	1.19%	1.12%	0.77%	0.71%	0.86%

* The financial restructuring of certain large retailers had a significant impact on the financial data in these years.

Source: FMI 1989-90 Annual Financial Review

in the first two years. Net income drops from over 1.1 percent of sales in the 1985-1987 period to approximately .8 percent of sales in the 1987-1990 period. Clearly, there is a shift in cash flow from stockholders to holders of debt.

Table 7 gives the corresponding balance sheets for the industry. Total term debt comprised primarily of bank loans, bonds and debentures, increased from 24.9 percent of total liabilities and equity in 1985-86 to 42.6 percent in 1989-90. Over the same period, total equity declined from 36.6 percent to 19.6 percent of total liabilities and equity. Mandel and Heinbockel, analysts at Goldman Sachs a leading investment banking firm, moreover indicates that the total dollar amount of debt, as well as the debt equity ratio, increased dramatically during the late 1980s:

"the aggregate amount of debt assumed by supermarket chains as a result of leveraged buyouts or recapitalizations over the 1986-1989 period alone exceeds \$20 billion, which is greater than the aggregate market value of all publicly traded supermarkets today" (Mandel and Heinbockel p.1).

This historically unprecedented increase in financial leverage and total value of the industry was concentrated primarily in the operations of large retailers (firms with sales of more than 500 million dollars annually). Large retail chain's return on assets declined from 5.72% of sales in 1985 to 2.78% of sales in 1989; as the value of their assets jumped dramatically. Due to increased leverage, their return on equity increased from 15.8 percent of sales in 1985 to 20.7 percent in 1989 (FMI).

It is very important to realize that these rates of return capture only a small portion of the shift in income to equity holders. When firms go LBO or are acquired in a merger, the stockholders that sell receive substantial premiums. The average premiums for 10 of the mergers and LBOs identified among the top 20 supermarket retailers which accounted for 81.6 percent of grocery sales in 1980 was 85 percent over the benchmark stock price two months prior to the event's announcement. These premiums represent the capitalization of projected future income and are built into the capital base of the new firm through increased debt. As such, they depress post LBO return on assets. In fact, the general conclusion from research on mergers and

Table 7 THE CHANGING FINANCIAL STRUCTURE OF THE U.S. SUPERMARKET INDUSTRY

Current Liabilities	1985-86	1986-87*	1987-88*	1988-89*	1989-90*
TOTAL CURRENT LIABILITIES	35.60	38.81	36.62	34.19	34.51
Long-Term Debt					
Mortgages	6.11	10.07	6.69	7.49	7.07
Bank Loans	6.95	5.18	7.45	18.32	15.96
Bonds and Debentures	3.37	4.37	8.18	10.54	10.89
Capitalized Lease Obligations	5.90	5.36	5.39	5.01	5.37
Other Non-Current Liabilities	2.61	2.41	2.33	2.95	3.28
Total Long-Term Debt	24.94	27.39	30.04	44.31	42.57
Deferred Liabilities	2.83	3.19	4.22	3.45	3.22
TOTAL LIABILITIES	63.37	69.38	70.88	81.95	80.40
Equity					
Common Stock Outstanding of Proprietorship	3.95	3.74	3.44	2.48	2.48
Preferred Stock Outstanding	0.77	1.77	1.25	1.34	0.68
Paid-in Surplus	4.87	4.27	4.65	4.45	4.65
Retained	28.87	24.39	22.59	11.81	13.47
Treasury Stock	(1.83)	(2.95)	(2.81)	(2.03)	(1.67)
TOTAL EQUITY	36.63	30.62	29.12	18.05	19.60
TOTAL LIABILITIES AND EQUITY	100.00%	100.00%	100.00%	100.00%	100.00%

* The financial restructuring of certain large retailers had a significant impact on the financial data in these years.

Source: FMI 1989-90 Annual Financial Review

LBOs for the entire economy is that the bidding game for control of the targeted corporation insures that most, if not all, of the perceived benefits from a change in control go to the stockholders who relinquish control of the target (Jensen and Ruback, 1983). The future increases in profits due to the LBO are capitalized in the deal and are the primary reason why the debt load of the industry has increased so dramatically.

The fundamental question remains. Where is the increased cash flow necessary to cover the massive debt load of the industry and to generate an increase in return on equity for large retail chains coming from? It has come from several sources. Real economies related to technology based increases in productivity, pecuniary economies related to wage rate concessions and tougher trade relations with vendors, higher gross margins in larger new superstores and combination stores with their extensive nonfood departments, and increased market power due to larger market shares and higher seller concentration. On this latter point, Mandel and Heinbockel write:

The LBO phenomenon has accelerated the process of market consolidation...weak markets are sold off. Instead of Safeway deluding itself into thinking that one day it would become number one in southern California, management sold to Vons and chose to be a stockholder (30 percent ownership), hopefully benefitting from the improved economics of the combined company...Kroger sold its northern California Fry's stores to Savemart, and so on...The market share changes that have occurred in the country's two largest markets—New York and Los Angeles—over the last five years illustrate the impact of increasing concentration. Five years ago, five chains split 55% of the Los Angeles market. Now, three chains, Ralph's, Vons, and Lucky control 65%. Not surprisingly, the current returns of Ralph's, Vons, and Lucky are far superior to their returns of five years ago. The Los Angeles and New York markets have had a reputation for being two of the most ruthlessly competitive markets in the country, but the reality has been record operating margins for most of the chains in both markets (e.g., Ralph's

EBITD (earnings before interest, taxes and depreciation) margin is 7%, and A&P's profitability is now close to that in the Metro New York region) (Mandel and Heinbockel p. 6-7).

The only comprehensive econometric analysis of the relationship between a supermarket firm's relative share, market concentration and its profitability in local SMA markets corroborates this sanguine view of the importance of market consolidation for profitability (Marion et al., 1979).

Erivan Haub, who owns a controlling interest in A&P via the West German firm, Tengemann, explained in a 1988 interview in *Forbes* magazine how firms such as A&P benefit from LBOs in the supermarket industry when they are competitors of the affected firms:

"Through leveraged buyouts and takeovers, A&P's competitors are becoming loaded with debt....They will pass along the cost of serving this debt by raising prices" (Fuhrman, 1988).

Unleveraged competitors tend to follow the lead of leveraged national chains with large market shares to increase their own profits. As an example, Table 8 shows how Safeway's cash flow (earnings before interest and taxes - EBIT) has increased since its LBO in 1986. It also shows cash flow for two chains that compete directly with Safeway for all of their sales (Quality Foods in Seattle, and Giant in Washington and Baltimore). Note that the cash flow of all three chains increases dramatically from 1985 through 1990. Safeway goes from 2.18 and estimated 3.65 percent. Giants moves from 4.73 to an estimated 5.92 percent, and Quality Foods moves from 3.26 to an estimated 6.55 percent.

If expansion by the competitive fringe in these markets or entry by firms from outside the market was timely and sufficient to restrain the exercise of market power, one would see declines in the market shares of all these firms and more competitive conditions might ultimately prevail. This has not occurred.¹⁰

¹⁰Data on the Seattle and Washington markets are from the 1986 and 1991 issue of Metro Market Studies, Inc. *Grocery Distribution Analysis and Guide*.

Table 8 EARNINGS BEFORE INTEREST, AND TAXES 1985-1990

Year	Safeway*	Giant Food	Quality Food Centers
1985	2.18	4.73	3.26
1986	2.03	4.05	3.50
1987	2.28	5.24	4.62
1988	2.39	5.70	4.98
1989	3.23	5.75	6.48
1990E	3.65	5.92	6.55

E-Estimated

* Include results of Canadian and Australian retail food centers.

Source: Goldman Sachs, Corporate 10-K's.

In Seattle there was no entry during the 1989-1990 period. Quality Foods' share of grocery sales in Seattle actually increased from 6.1 in 1985 to 9.8 percent in 1991. Safeway's share in Seattle increased slightly from 24.8 to 25.4 percent between 1985 and 1990.

In Washington, D.C., Shoppers Food warehouse entered and captured an 8.5 percent market share by 1990. This move into a strategic group where Giant and Safeway do not have operations did not affect their market shares. Safeway's grocery market share in Washington remained roughly constant. It was 24.6 percent in 1985 and 23.1 percent in 1990. Giant's share, however, exploded, increasing from 33.2 percent in 1985 to 43.4 percent in 1990.

Thus, there is little evidence that competitive pressures are eroding the positions of the high profit firms listed in Table 8. In fact, one of the primary goals of Safeway's restructuring program—one that they have achieved—is to maintain a number one or two position in every local market in which it operates (Morgenson, 1988).

Who has gained and who has lost in the merger and LBO game as played in the food retailing industry? The primary gainers are stock holders who realized a substantial premium on the stock that they tendered. Owners of stock in firms competing with the merged or LBO firms also seem to benefit through rising margins. The corporate raiders and investment bankers involved in the change of control have also gained.

The Safeway LBO illustrates the parameters of the social calculus.¹¹ The raiders who attacked Safeway earned 140 million dollars in three months. The investment bankers and other professionals received 200 million. The top 35 executives of Safeway were offered stock options to purchase up to 10 percent of the companies equity at \$2/share. In 1987, the Chairman, for example, bought 2 million shares at that price. In 1990 Safeway reentered the stock market and its shares were trading at \$12/share—a six fold gain in three years for Safeway executives who exercised stock options. Investors assembled by Kolberg, Kravis and Roberts to purchase 65 million shares of stock for 137 million dollars at the time of the LBO are now nearly a billion dollars wealthier.

¹¹The numerical facts on the Safeway LBO in this section come from Morgenson and Greenberg.

The losers in the merger LBO game as played in the supermarket industry are labor, junk bond holders, and consumers. The United Food and Commercial Workers International Union which represented 90 percent of Safeways 110,000 workers in the U.S. at the time of LBO, estimated that roughly 37,000 workers have lower paying jobs or no jobs at all as a result of this one buyout. The subsequent collapse of the junk bond market has visited losses on all bond holders, including those who hold bonds issued by food retailers.

Consumers have lost in markets where prices have been elevated to generate increased cash flow. The relaxation of federal merger policy during the 1980s clearly facilitated this. Cash strapped firms have been permitted to divest units to horizontal competitors and to acquire horizontal competitors. In several instances, these combinations have been between the leading firms in the market. Potential entrants, most notably A&P and American, have been permitted to acquire leading firms rather than entering by building new units or by acquiring and expanding a fringe firm (toehold mergers). The result has been more concentrated local markets and the exercise of market power. Yet because of the high sales turn over (sales/asset ratio) in the industry, an increase in price by a relatively small amount—less than five percent—generates the cash flow needed for a successful LBO in supermarket retailing.

The general conclusion that stems from this analysis of performance is that mergers and leveraged buyouts in the food retailing industry may have accelerated forces already in motion to improve real economic efficiency, however, their main impact was of a pecuniary nature. Prices of inputs and retail food prices have changed resulting in the transfer of wealth from input suppliers, most notably labor, and consumers to equity holders.

At this juncture the merger/LBO wave in food retailing is over. All of the top 20 chains that could be put in play have been played and many regional chains have been similarly recapitalized. Moreover, the collapse of the junk bond market and the 1990-1991 recession have wiped out corporate raiders access to cash. Merger policy, however, remains lax by historical standards. For the moment the industry seems most content on regaining its equilibrium. In spite of the success of leading chains in surviving the wave of mergers and LBOs in the 1980s, there seems to be little interest in hosting another bonfire of the vanities.

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