

Food Marketing Review, 1994-95

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EYE ROUND ROAST
 ADVERTISED BONUS SPECIAL
 lb. **369**
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BONELESS
BEEF BOTTOM ROUND ROAST
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BEEF
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 lb. **379**

FRESH
GROUND ROAST
 ANY SIZE PACKAGE
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BONELESS HAMS
279

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Abstract

The value of food marketing merger transactions rose sharply in both 1994 and 1995. U.S. food marketing sales reached an estimated \$860 billion in 1995. Profits from operations for food manufacturers and retailers rose because of continued wage and producer price stability. In 1994 and 1995, aggressive competition for market shares resulted in record new product introductions, advertising, and strong private label sales.

Keywords: Food marketing, manufacturing, retailing, foodservice.

Note: Use of brand or firm names in this publication does not imply endorsement by the U.S. Department of Agriculture.

Acknowledgments

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Summary

Aggressive competition for U.S. food industry market shares in 1994 and 1995 resulted in record high product introductions and advertising, as well as strong private label sales. In 1995, nearly 17,000 new food products were introduced, total U.S. food marketing sales were approximately \$860 billion, and an estimated 240,000 different packaged food products were produced by U.S. food manufacturers.

This report examines many aspects of the U.S. food marketing system, and covers manufacturing, wholesaling, retailing, and foodservice industries. The data come from Federal agencies, trade associations and publications, academic researchers, and consulting firms.

Food manufacturers, retailers, wholesalers, and foodservice firms make up the largest sales marketing system in the United States. U.S. farm products worth \$110 billion were purchased by the food system in 1994.

Average retail food prices in grocery stores rose 2.4 percent in 1994. Americans spent 11.4 percent of their disposable income on food in 1995, the same as in the previous year.

Profits for food manufacturers and retailers increased in 1995 because of continued wage and producer price stability. The value of food marketing merger transactions rose sharply in both 1994 and 1995.

Food manufacturers spent nearly \$10 billion in consumer advertising in 1994. Competition for the limited amount of retail shelf space was intense.

The United States is the world's largest importer and exporter of processed food. In 1994, the U.S. food processing industry showed a positive trade balance for the fourth consecutive year. U.S. food processing industry exports, valued at \$25.8 billion in 1994, exceeded imports by \$2.6 billion. The surplus in food processing was \$8 billion excluding seafood and beverages. Meat products showed a trade surplus of \$3.8 billion, and fats and oils showed a surplus of \$1.7 billion. Grain mill products had a surplus of \$2.9 billion. Beverages and miscellaneous food products showed a \$5.4-billion deficit.

U.S. food processors also have extensive foreign investments, and foreign firms have sizable investments in U.S. processing firms. The foreign food processing affiliates of U.S. firms had estimated sales of \$100 billion in 1994. The U.S. affiliates of foreign firms had estimated sales of \$53 billion in 1994.

Common stock prices of food marketing firms outperformed other sectors of the economy in 1994. Capital spending by U.S. food manufacturers was an estimated \$17.7 billion in 1994 and \$18.6 billion in 1995.

In 1995, sales by the food processing sector rose nearly 4 percent to \$430 billion. Sales by the wholesale food sector were estimated at \$517 billion for 1994, up only slightly from the previous year. Food retailing sales rose 3.6 percent to nearly \$400 billion in 1994. There is some double counting in these sales categories.

Americans spent about \$337 billion on food purchased in retail foodstores in 1994 and about \$303 billion on food purchased in foodservice establishments.

Glossary

Aggregate concentration. The share of output in a sector (food manufacturing, for example) that is produced by the largest firms.

Acquisition. Purchase of a company.

Chain. A food retailer or foodservice operator owning 11 or more stores or outlets.

Disposable personal income (DPI). Income that individuals retain after they have deducted taxes.

Divestiture. The sale of a unit (a factory, a division, or a subsidiary) of a firm, either to another firm, to management of the unit, or to independent investors.

Food manufacturing. Activities that typically use power-driven machines and materials-handling equipment to mechanically or chemically transform raw materials into foods and beverages for human consumption. Certain related industrial products, such as feeds and vegetables and animal fats and oils, are also produced here.

Food service. The dispensing of prepared meals and snacks intended for on premise or immediate consumption. The following products qualify as food service when other foods are not available: candies, popcorn, pretzels, nuts, and drinks. Vended foods qualify as food service only when tables or counters are available in the immediate area and a person with records of food receipts is present at the establishment.

Commercial establishments. Public establishments (freestanding or part of a host establishment) that prepare, serve, and sell meals and snacks for profit to the general public.

- **Drinking places.** Establishments with food service that do not operate as subordinate facilities of different and separately identifiable kinds of businesses and the primary function of which is the sale of alcoholic beverages for onpremise or immediate consumption. These include bars, beer gardens, taverns, nightclubs, and saloons.
- **Eating places.** Establishments that do not operate as subordinate facilities of different and separately identifiable kinds of businesses and the primary function of which is the sale of prepared meals and snacks for onpremise or immediate consumption. These include restaurants, lunchrooms, fast-food outlets, and cafeterias.

- **Lodging places.** Establishments that provide both lodging and food service to the general public. These establishments include hotels, motels, and tourist courts, but exclude rooming and boarding houses and private residences.

- **Recreation/entertainment.** Foodservice operations in theaters; bowling alleys or billiard or pool halls; commercial sports establishments (racetracks and stadiums); membership golf or country clubs; public golf courses; and miscellaneous commercial amusement and recreational establishments (tennis clubs, camps, athletic clubs, and amusement parks).

- **Retail hosts.** Foodservice operations that operate in conjunction with or as part of retail establishments, such as department stores, limited-price variety stores, drugstores, and miscellaneous retailers.

Noncommercial establishments. Establishments where meals and snacks are prepared and served as an adjunct, supportive service to the primary purpose of the establishment. These include schools, colleges, hospitals and extended care facilities, vending areas, plants and offices, correctional facilities, military feeding, and transportation (trains, cruise ships, and airplanes).

Foodstore. A retail outlet with at least 50 percent of sales in food products intended for off-premise consumption.

Grocery store. A foodstore that sells a variety of food products, including fresh meat, produce, packaged and canned foods, frozen foods, other processed foods, and nonfood products.

- **Supermarket.** A grocery store, primarily self-service in operation, providing a full range of departments and having at least \$2.5 million in annual sales (1985 dollars).
 - » Combination food and drugstore--A supermarket containing a pharmacy, a nonprescription drug department, and a greater variety of health and beauty aids than that carried by conventional supermarkets.
 - » Hypermarket--The largest supermarket format, with general merchandise items accounting for up to 40 percent of sales.

» Superstore--A supermarket distinguished by its greater size and variety of products than conventional supermarkets, including specialty and service departments, and a considerable inventory of general merchandise products.

» Warehouse store--A supermarket with limited product variety and fewer services provided, incorporating case-lot stocking and shelving practices. Superwarehouse stores are larger, offer expanded product variety, and often have full-service meat, delicatessen, or fresh seafood departments.

- *Convenience store.* A small grocery store selling a limited variety of food and nonfood products, typically open extended hours.
- *Superette.* A grocery store, primarily self-service in operation, selling a wide variety of food and non-food products with annual sales below \$2.5 million (1985 dollars).

Specialized foodstore. A foodstore primarily engaged in the retail sale of a single food category such as meat and seafood stores, dairy stores, candy and nut stores, and retail bakeries.

Foreign affiliate. A company or firm operating in a foreign country that is ultimately owned or controlled by a U.S. company or firm.

Foreign investment. Ownership of domestic assets by foreign persons or firms.

Gross margin. Retailer markup (over cost) as a percentage of total sales.

Gross domestic product (GDP). Dollar value of all goods and services produced in the U.S. regardless of nationality of producers.

Independent. A food retailer or foodservice operator owning 10 or fewer stores or outlets.

Leveraged buyout (LBO). Purchase of the common stock of a company through debt-financing, while pledging the assets of the new company as collateral.

Merger. The combination of two or more firms into one.

Horizontal merger. The combination of two firms producing or selling the same or similar products in the same market.

Megamerger. A very large merger.

Parent firm. A company or firm that has ultimate ownership or control over another company or firm.

Productivity growth. Measures of the rate of growth of output, relative to the growth of inputs (labor, capital, and materials) used to produce that output.

Subsidiary. Also referred to as an **affiliate**. A company or firm that is ultimately owned or controlled by another company or firm.

U.S. affiliate. A company or firm operating in the United States that is ultimately owned or controlled by a foreign entity.

Wholesaler. Operators of firms engaged in the purchase, assembly, transportation, storage, and distribution of groceries and food products for resale by retailers; institutions; and business, industrial, and commercial users.

Agents and broker. Wholesale operators who buy or sell as representatives of others for a commission and who usually do not store or physically handle products.

Manufacturers' sales branches and offices. Wholesale operations maintained by grocery manufacturers (apart from their manufacturing plants) for sales and distribution

Merchant wholesalers. Operators of firms primarily engaged in buying and selling groceries and grocery products on their own account.

- *General-line wholesale merchants.* Merchants who handle a broad line of dry groceries, health and beauty aids, and household products.
- *Limited-line wholesale merchants.* Merchants who handle a narrow range of dry groceries dominated by canned foods, coffee, spices, bread, and soft drinks.
- *Specialty wholesale merchants.* Merchants who handle perishables, such as frozen foods, dairy products, poultry, meat, fish, fruit, and vegetables.
- *Warehouse club.* A hybrid wholesale-retail establishment selling food, appliances, hardware, office supplies, and similar products to its individual and small-business members at prices slightly above wholesale.

Food Marketing Review, 1994-95

Anthony E. Gallo

Introduction

This report examines developments in the U.S. food marketing system, encompassing the manufacturing, wholesaling, retailing, and foodservice industries (fig. 1). Data used in this report are provided by U.S. Government agencies or derived from publications of consulting firms, trade associations, academic research, and trade publications.

Because availability of information differed, sections of this report treat industry scope, analysis of market levels, and emphasis on relevant variables differently. Some of the analysis is based on 1987-92 census data, the most recent available (44).¹ These data represent the most complete information for measuring the structural and performance characteristics of food marketing industries. Sections on individual

industries contain more recent data from secondary sources, including trade journals and statistics by government regulatory agencies. Where possible, we have made annual estimates from Bureau of the Census data that are available every 5 years.

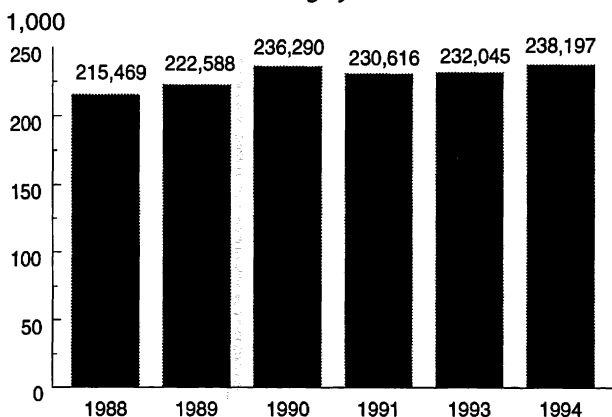
Sales

The improvement in the general economy was reflected in the food system. The food marketing system's direct share of disposable personal income was 11.4 percent in 1994, as in the previous 2 years (fig. 2).

In 1995, sales of the four food marketing sectors—food processing, wholesaling, retailing, and foodservice—all grew. Food processing shipments rose nearly 4 percent to \$430 billion in 1994.

Figure 1
Available U.S. packaged food products

Foodstores could choose from nearly 240,000 products available in the food marketing system in 1994.

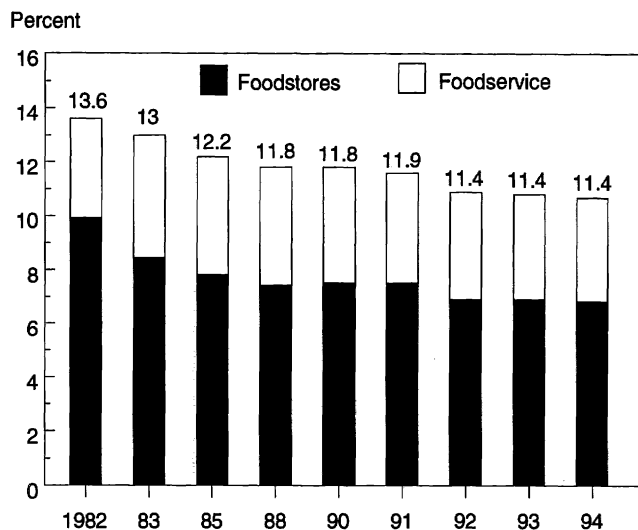


Includes dry grocery, frozen food, and dairy; excludes meats, produce, and many other grocery products.

Source: ERS.

Figure 2
Food marketing system's share of disposable personal income

The food marketing system's share of income was 11.4 percent in 1994.



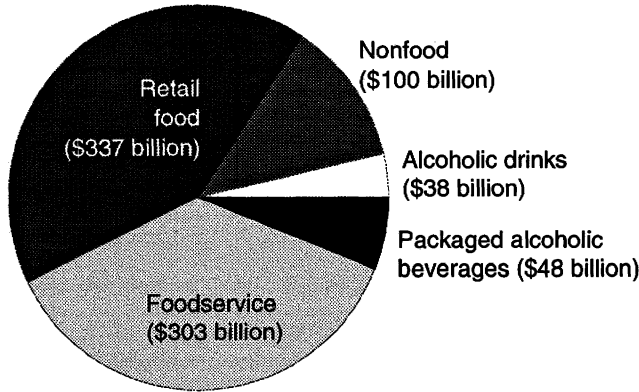
Source: Compiled by ERS from (20).

¹ Underlined numbers in parentheses identify literature cited in the References at the end of this report.

Figure 3

Food marketing sales, 1994

Sales rose to \$826 billion in 1994, with retail foodstore and foodservice sales accounting for more than 75 percent of total sales.



Source: Compiled by ERS from (20).

Wholesale food sales for 1994 (\$517 billion) were up only slightly from 1993, while foodservice sales were up 6 percent. Food retailing sales rose 3.6 percent to nearly \$400 billion. There is some double counting of each sector's total food system sales (app. table 10).

Sales of food in stores and foodservice establishments, packaged alcoholic beverages and drinks purchased at eating and drinking places, and nonfood items purchased in retail foodstores reached \$828 billion in 1994 compared with \$792 billion in 1993. About \$337 billion was spent in retail foodstores and \$303 billion in foodservice establishments (fig. 3). Restaurants are taking a higher portion of the food dollar because consumers eat out more often as their income rises, which it did in 1994. Foodservice accounted for about 47 percent of food sales (excluding alcohol).

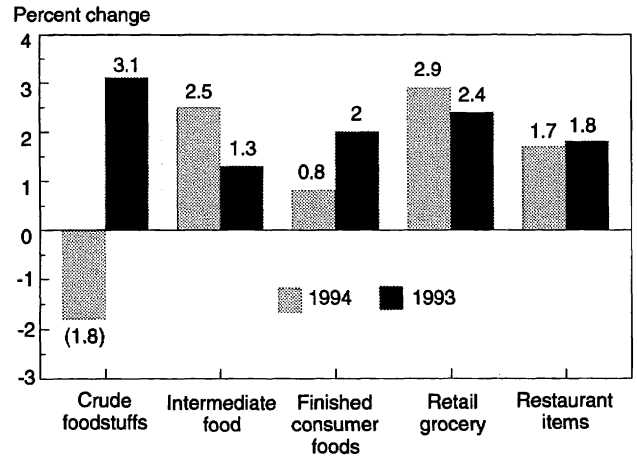
Alcoholic beverages accounted for another \$86 billion of food marketing sales in 1994 (fig. 3). Nearly \$48 billion was spent on packaged alcoholic beverages, while alcoholic drinks served in restaurants and other institutions amounted to nearly \$38 billion. Beer in 1994 accounted for about 58 percent of total alcoholic beverage consumption, while distilled spirits accounted for 31 percent and wine accounted for 12 percent of the total (app. table 6).

The nonfood component of retail sales through the food marketing system amounted to about \$100 billion in 1994. Nonfood groceries include tobacco, health and beauty aids, detergents, paper products,

Figure 4

Producer and retail price index changes for food marketing system, 1993-94

The PPI reflected modestly higher input prices paid by most channels of the food marketing system in 1994.



Source: Compiled by ERS from (56, 61).

and other grocery items sold through retail foodstores. Nonfood items, such as tobacco products, catering supplies, and nonfood supplies sold through vending services, are grouped into the foodservice category.

Economic Climate

The performance of the U.S. economy was strong in 1994 and 1995. Healthy expansion on the demand side and modest inflation on the supply side resulted in sharp sales gains and modest cost increases. Real gross domestic product (GDP) grew 4.1 percent in 1994, compared with 3.1 percent in 1993.

The unemployment rate at the end of 1994 fell to 5.4 percent, compared with 6.4 percent in December 1993. About 4.3 million jobs were added in 1994, compared with an average growth of almost 1 million jobs per year during the 1990's.

The economic climate has been favorable to the food marketing system for the past dozen years in terms of costs. The food system is labor-intensive and sensitive to farm prices. The system is also highly leveraged and global-intensive. Consequently, movements in wages and prices, interest rates, and the value of the U.S. dollar affect the performance of the food sector.

The Producer Price Index (PPI) reflected modest price increases for purchased food and feed inputs for each sector of the food marketing system in 1994. The PPI for finished consumer foods—an indicator of

changes in prices paid by retailers, wholesalers, and restaurateurs to food manufacturers—averaged only 0.8 percent higher in 1994 than in 1993 (fig. 4). The PPI for intermediate foods and feeds, an indicator of changes in prices food processors pay one another, rose 2.5 percent in 1994. The PPI for crude foodstuffs, or prices paid by food manufacturers, fell 1.8 percent in 1994.

Labor costs, which include hourly earnings and fringe benefits, constituted the major expense item for the food marketing system. The food marketing system had about 12.8 million full- and part-time employees in 1994, about 300,000 more than in 1993. More than 7 million workers were employed in food service, and about 3.2 million were employed in food retailing. About 1.6 million workers were employed in food processing, and nearly 870,000 worked in grocery wholesaling.

Average hourly earnings and benefits in food marketing increased 2.5 percent in 1994. Packaging costs were up 3.8 percent. Transportation costs rose 2 percent in 1994, while energy costs fell 1.5 percent.

The food system, the economy's largest advertiser, faced nearly stable advertising prices for both network and spot radio and television in 1994. The overall index of advertising prices rose about 4 percent.

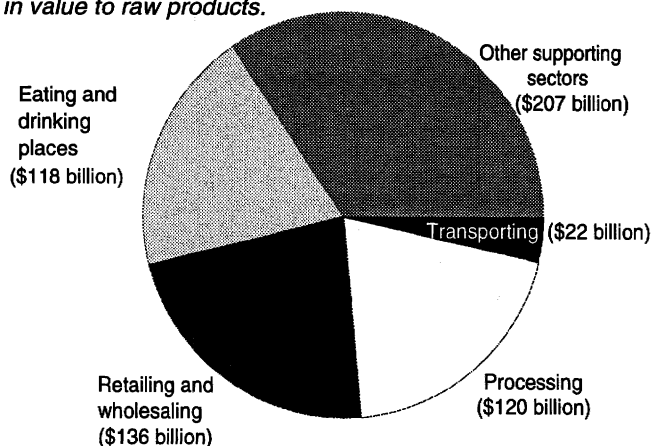
Interest. Interest rates in 1994 rose to their highest level in 3 years. The prime interest rate, which averaged 6 percent in 1993, rose to 7.15 percent in 1994. Short-term rates also rose, as reflected in the increase in 3-month Treasury bills from an average 3.02 percent in 1993 to 4.29 percent in 1994. Long-term corporate bond rates averaged about 7.97 percent in 1994, compared with 7.22 percent in 1993 (app. table 45). By yearend 1994, the prime rate had risen to 8.5 percent, while the rate on 3-month Treasury bills reached 5.64 percent.

U.S. Dollar. The value of the U.S. dollar fell in 1994. The trade-weighted value of the U.S. dollar averaged 91.6, compared with 93.2 in 1993. This decline raised the value of remittances of overseas profits of American food companies. The lower valued U.S. dollar also made U.S. exports of processed foods more attractive to foreign buyers and imports less attractive to U.S. buyers.

Value Added. The food system purchased about \$110 billion in animal and crop products from the U.S. farm sector, about two-thirds of domestic

Figure 5
Estimated value added in food marketing system, 1994

The U.S. food marketing system added about \$603 billion in value to raw products.



Source: Compiled by ERS from (11).

production in 1994. An additional \$27.5 billion was spent on imported agricultural products, and \$ 9.5 billion was spent on seafood. To this base of \$147 billion in raw agricultural and fishery products, the food system added an estimated \$603 billion in value in 1994 (fig. 5), compared with \$587 billion in 1993. Food processors added about \$120 billion in 1994, while wholesalers, retailers, and transportation firms added another \$158 billion. The contribution of 400,000 separate eating and drinking places to value-added was nearly \$118 billion in 1994.

Structure and Organization

Merger and leveraged buyout transactions in the food marketing system rose in 1994 for the third consecutive year. The number of acquisitions (purchase of a company or subsidiary) rose from 485 in 1993 to 522 in 1994, according to the Food Institute (table 1). These data include merger activity in such related industries as packaging and supplies, which rose sharply. Excluding that activity among nonfood marketing firms, the number of mergers, acquisitions, and divestitures within the food marketing system stayed about the same as in 1993 (fig. 6). An increase in the number of mergers in food retailing, wholesaling, and foodservice offset a decline in food processing mergers.

The value of these transactions, however, rose from \$3 billion in 1993 to \$11 billion in 1994, the highest level since 1989 (fig. 7). Food processing ranked seventh among all manufacturing industries in the value of mergers. Leveraged buyout activity was

Table 1—Food business mergers and acquisitions

Category	1994	1993	1992	1991	1990	1989
	<i>Number</i>					
Agricultural cooperatives	6	5	9	4	2	4
Bakers	16	6	9	4	12	19
Brewers	1	3	1	1	1	3
Brokers	9	8	14	8	9	14
Confectioners	2	9	6	7	2	10
Dairy processors	17	15	14	12	16	14
Diversified firms with interests in the food industry	7	9	6	5	10	4
Food processing firms	106	114	84	73	66	107
Foodservice vendors	14	12	19	31	22	29
Hotel and lodging companies	2	2	2	2	3	6
Meatpackers	14	14	12	8	11	11
Nonfood marketers selling through supermarkets	1	2	6	4	5	7
Packaging suppliers	14	8	21	15	26	25
Poultry processors	7	3	9	3	10	5
Primary products companies	21	21	36	47	24	47
Restaurant and foodservice establishments	71	72	57	33	42	57
Retailers:						
Convenience stores	10	5	4	9	15	16
Supermarkets	42	19	15	16	15	26
Others	17	18	15	9	9	9
Seafood processors	3	2	6	6	4	4
Snack food processors	9	7	11	1	5	6
Soft drink bottlers	10	18	9	3	12	12
Sugar refiners	1	4	0	1	0	1
Suppliers to the food industry	0	0	0	0	5	3
Unclassified and private investors	39	50	52	24	23	21
Wholesalers	29	25	24	10	13	21
Foreign acquisitions:						
Of U.S. firms/subsidiaries	44	31	18	20	48	55
By Canadian firms	10	3	9	9	5	10
Total	522	485	468	365	415	556

Compiled by ERS/USDA from (2).

minimal in 1994. Food wholesalers ranked second among all wholesalers in the number of mergers, while food retailers ranked fourth.

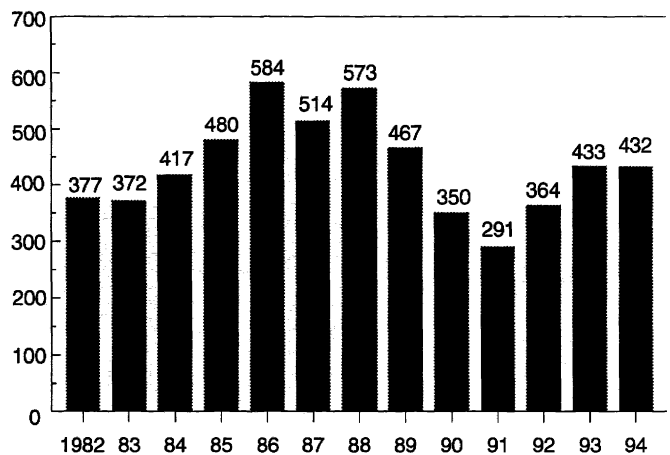
Despite the merger activity and consolidation, the number of food processing plants appears to be increasing. According to the 1992 Census of Manufactures, the number of processing plants rose from 20,583 in 1987 to 20,805 in 1992. A sharp increase in prepared food, sugar, fruit and vegetable,

Figure 6

Food marketing mergers and acquisitions

The number of mergers remained about the same as in 1993.

Number



Excludes some acquisitions by nonfood marketing firms.

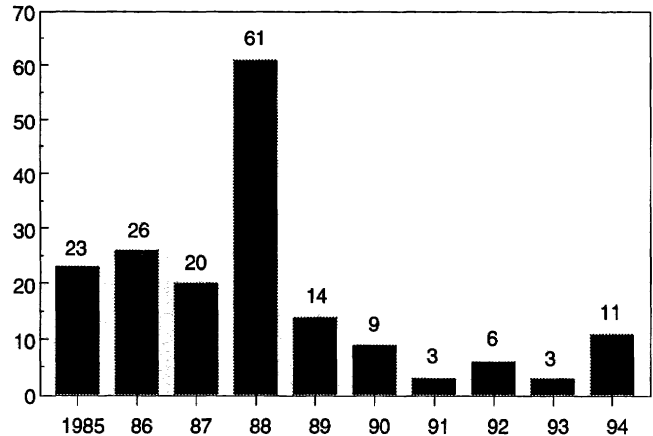
Source: Compiled by ERS from (2).

Figure 7

Value of food marketing mergers and leveraged buyouts costing more than \$100 million

Merger value was halved from \$6 billion in 1992 to \$3 billion in 1993, but rose to \$11 billion in 1994.

Billion dollars



Source: Compiled by ERS from (23).

and bakery product establishments more than offset declines in dairy, soft drinks, and fats and oils (table 5, p. 14).

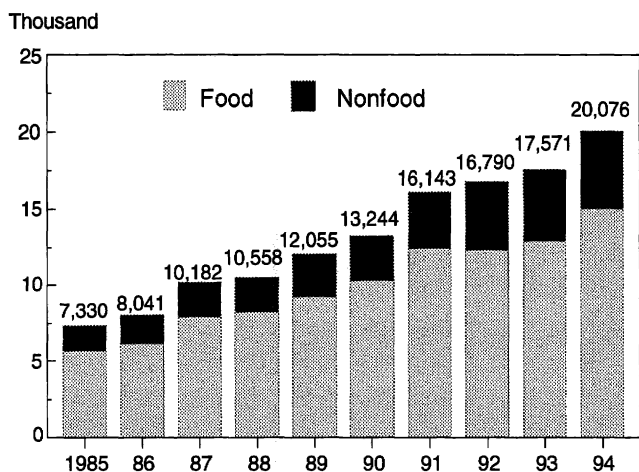
Conduct

Manufacturers, wholesalers, retailers, and foodservice firms engage in vigorous competition for the consumer dollar, while manufacturers fight for scarce shelf space in the Nation's grocery stores. The food industries' slow growth affected conduct, or how firms compete. Less than 9.5 percent of the Nation's

Figure 8

New grocery product introductions

Over 15,000 new food products were introduced in 1994; most were extensions of already existing products.



Source: Compiled by ERS from (41).

gross national product (GNP) was generated by the food marketing system in 1994, compared with 15.5 percent in 1972. And, while the value added by the food system has increased in dollar terms, a much greater portion of this output is supplied by fewer and larger firms. Although food marketing is thus more concentrated, firms in each market sector sought to acquire or maintain market shares through both price and nonprice competition.

Consumer prices for food increased 2.4 percent in 1994, compared with 2.2 percent in 1993. Food prices in grocery stores rose 2.9 percent in 1994, while foodservice prices were up 1.7 percent. Food prices in grocery stores rose 3.2 percent in 1995, while foodservice prices were up 2.3 percent. All food prices rose 2.9 percent in 1995.

Price competition to gain market shares was apparent in both the retail food and fast-food sector of the foodservice industry in 1994. The retail food and fast-food sectors gave major discounts to consumers for the third consecutive year. Private labels' share of total grocery sales rose again in 1994, accounting for about 15 percent of all sales (app. table 4). Consumer coupon redemptions in 1994 amounted to about \$3 billion.

Nonprice competition to differentiate the product in the eyes of the consumer continued strong by the two routes in which the food system has always been the forerunner: new product introduction and advertising.

The Nation's grocery suppliers introduced over 20,076 new grocery products in 1994, an increase of nearly 14 percent over 1993 (fig. 8). Condiments, at 3,271, comprised over a fifth of the 15,006 new food products introduced in 1994. Candy, gum, and snacks accounted for nearly 2,500 new food products, followed by beverages at 2,250. Over 1,600 new bakery items and nearly 1,300 dairy products, mostly cheese and ice cream, also found their way to the Nation's grocery shelves in 1994. Together, these five product categories accounted for nearly 60 percent of all new food products in 1994. For the decade ending in 1994, over 140,000 grocery products were introduced on U.S. supermarkets shelves.

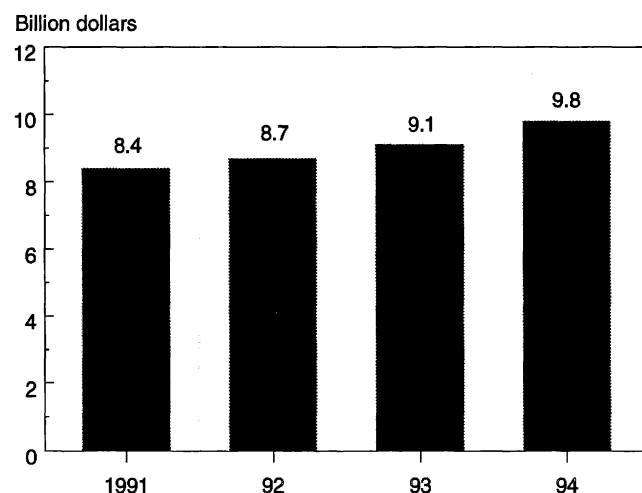
Food marketing firms spent an estimated \$9.8 billion in direct consumer advertising in 1994, such as electronic and printed media, compared with \$9.1 billion in 1993 (fig. 9). Food processors spent over \$6.5 billion on mass media advertising, while food retailers spent over \$900 million (excluding local newspapers). Restaurants, mostly fast-food chains, spent almost \$2.3 billion. Coupon redemptions likely accounted for another \$2.8 billion.

Competition was also keen in getting products on the shelves of the Nation's grocery stores in 1994. By most industry estimates, food processors spent about \$2 on retail promotion for every \$1 in direct consumer advertising through trade shows,

Figure 9

Food-related advertising

Food marketing firms spent nearly \$10 billion on direct consumer advertising in 1994.



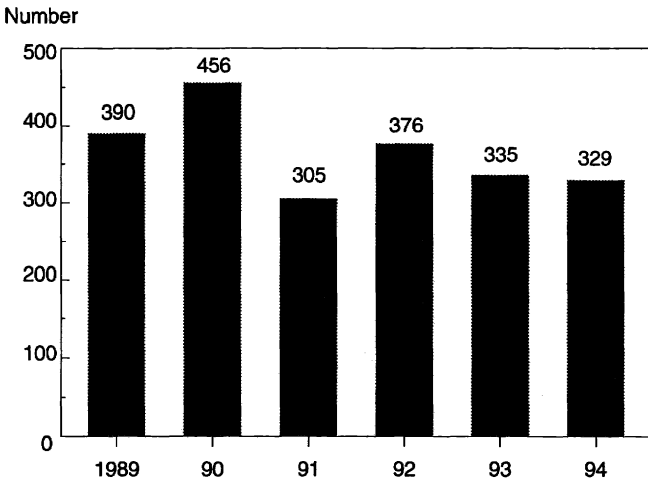
Excludes coupons.

Source: Compiled by ERS from (3).

Figure 10

New plant projects in food processing

The number of new plant projects fell from 376 in 1992 to 335 in 1993 and 329 in 1994.



Source: Compiled by ERS from (13).

promotions, discounts and allowances, and other incentives.

Performance

Food processors undertook 329 new plant projects in 1994, compared with 335 in 1993 (fig. 10). Plant and equipment expenditures continued to increase. Total new plant and equipment expenditures for food processing firms, including nonfood operations, rose from \$11.4 billion in 1993 to \$13.6 billion in 1994. Food manufacturers spent an estimated \$17.7 billion on plant and equipment in 1995 (fig. 11).

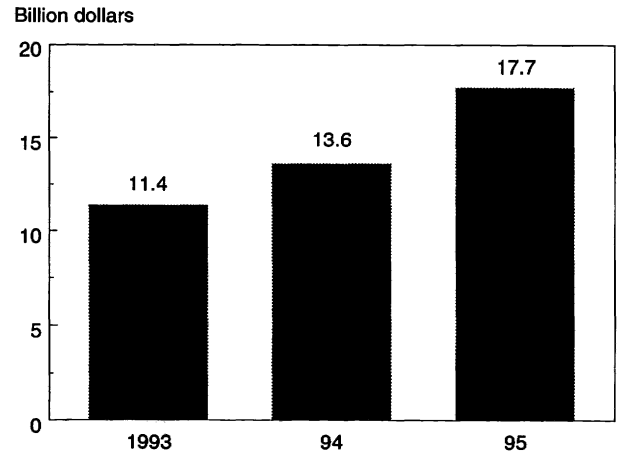
The retail food system continued modernizing and upgrading existing stores, while closing smaller retail outlets. The number of retail grocery stores, which has been falling steadily over the past 50 years, dropped by an estimated 1,000 stores in 1994. New supermarkets are averaging about 50,000 square feet per store, with shelf space for about 30,000 items.

Research and development (R&D) within the food marketing sector is largely conducted in the food and tobacco processing industries. Like most other nondurable manufacturing industries, food is not R&D intensive. Food and tobacco processors likely spent about \$1.5 billion, or about 0.4 percent of sales, on R&D in 1994 (app. table 55). Only about 6 percent of this amount went to basic research. More than 60 percent of all R&D funds goes to processing and new products. However, most R&D in food and tobacco processing is purchased from other sectors, such as food packaging and computer and machinery

Figure 11

Plant and equipment expenditures in food processing

Expenditures rose from \$11.4 billion in 1993 to \$13.6 billion in 1994.



1995 projected.

Source: Compiled by ERS from (42).

firms. In fact, much of the technological innovation for food processing comes from these sources.

Output per employee in 1993, the most recent data available on productivity, fell in both food retailing and food service. This index of labor productivity increased in some food processing industries, such as milk, processed fruits and vegetables, beer, and soft drinks (app. table 56).

In 1994, common stockholders in the food and beverage processing industry saw their shares outperform other sectors of the economy (fig. 12). The indexes for food rose from 844 in 1993 to 900 in 1994, while the index for beverages rose from 991 to 1,047. The index for restaurants, mostly fast-food chains, fell from 791 in 1993 to 746 in 1994. The index for retailing and wholesaling dropped slightly.

U.S. food firms have had a consistent dividend payout ratio. U.S. food processors paid out an estimated \$9.5 billion in dividends in 1994. Nearly 40 percent of aftertax income went to retained earnings, which are used for new product development, capital expansion, and acquisitions. Food retailers paid nearly \$700 million in dividends in 1994.

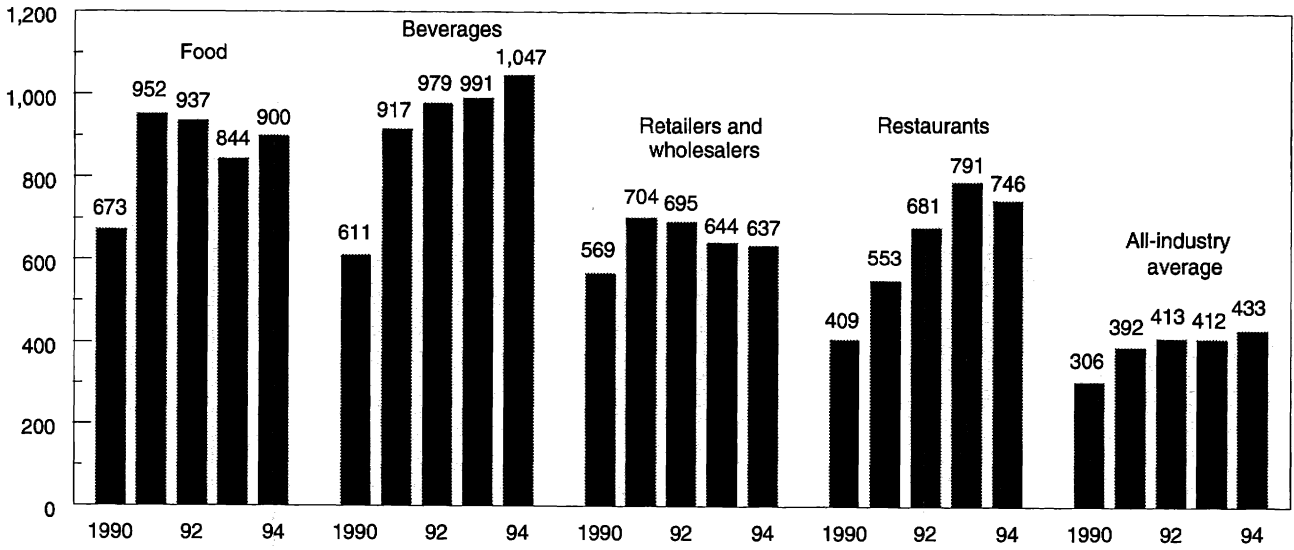
Food and tobacco processors' profits from operations rose from nearly \$33 billion in 1993 to \$37 billion in 1994 (fig. 13). Food retailers' operational profits rose from \$6.7 billion in 1993 to \$7.2 billion in 1994. Modest labor and ingredient cost increases contributed to the gain. The lower value of the U.S.

Figure 12

Dow Jones equity market indexes for the food marketing system

Food processing companies' indices rose sharply in 1994, while restaurants' declined.

Index (June 30, 1982 = 100)



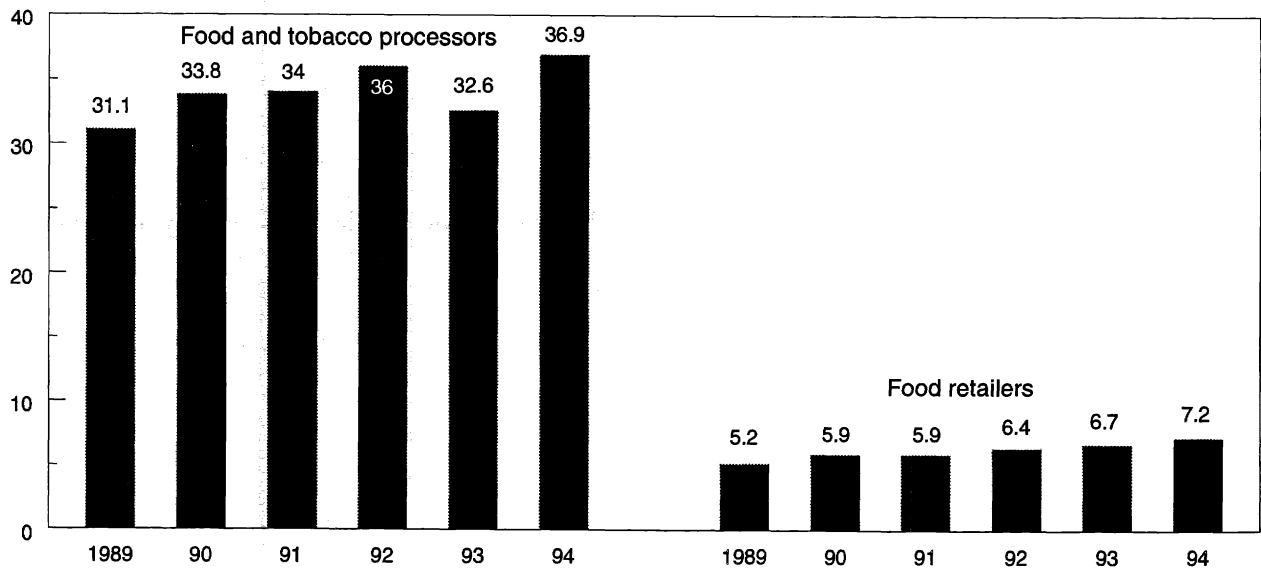
Source: Compiled by ERS from (10).

Figure 13

Profits from domestic operations, food processor and retailers

Profits from operations rose for both processors and retailers.

Billion dollars



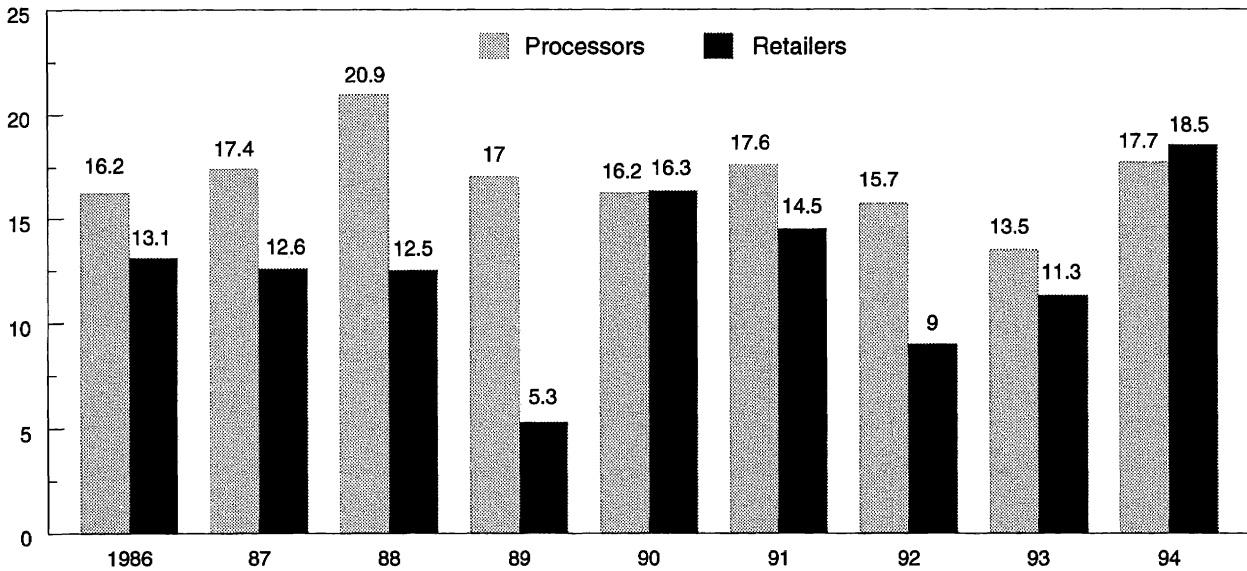
Source: Compiled by ERS from (52).

Figure 14

After-tax profits as a percentage of stockholders' equity

After-tax profit/equity ratio rose for both processors and retailers in 1994.

Percent



Source: Compiled by ERS from (52).

dollar further boosted income from foreign operations; also, many food marketing corporations reduced staffs and other operating costs.

Aftertax profits as a portion of stockholders' equity for food and tobacco processors rose from 13.5 percent to 17.7 percent between 1993 and 1994 (fig. 14). Retailers' aftertax profits amounted to 1.2

percent of sales and 18.5 percent of stockholders' equity in 1994, both up significantly from 1993.

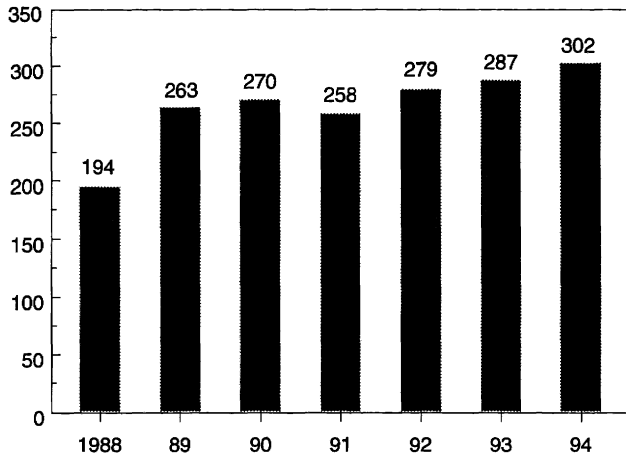
Debt for food manufacturers and retailers rose from \$287 billion in the fourth quarter of 1993 to \$302 billion in 1994 (fig. 15). Food remained one of the most leveraged industries in the American economy. The equity-to-debt ratio of food manufacturers averaged 0.92 in the fourth quarter of 1994, compared with 1.40 for all manufacturing corporations. The equity-to-debt ratio for food retailing, at 0.53, was considerably below the ratio for all retailers, at 0.97, during the fourth quarter of 1994 (fig. 16).

Figure 15

Total liabilities of food and tobacco processors and retailers

Debt levels increased again in 1994.

Billion dollars



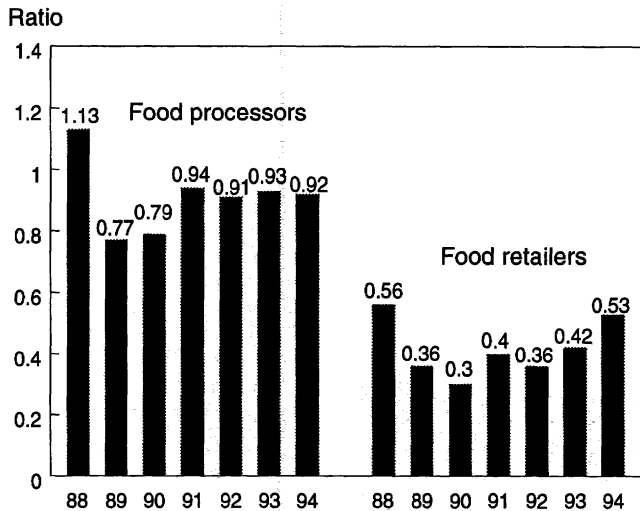
Source: Compiled by ERS from (52).

Global Participation

The U.S. food marketing system continued to expand as the world's most global food system. This expansion is measured by the system's foreign trade, foreign investments, and the sales of its foreign subsidiaries. The United States is one of the world's leading importers and exporters of processed foods. The U.S. surplus in processed food trade rose to \$2.5 billion, with about \$25.8 billion in exports more than offsetting \$23.3 billion in imports (fig. 17).

However, trade data do not adequately reflect the global presence of U.S. food marketing firms. Many of the world's largest food processing firms have aggressively expanded in foreign markets by increasing their investments in foreign plants or

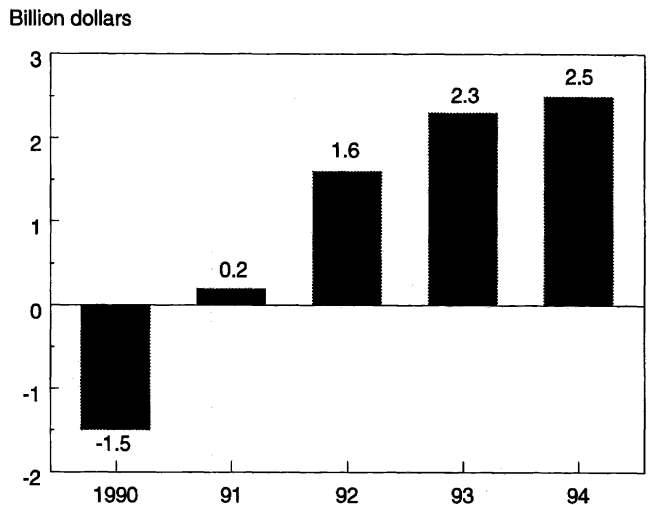
Figure 16
Food system's equity-to-debt ratio
Debt levels increased again in 1994.



Third quarter for 1988. Fourth quarter all other years.
 Source: Compiled by ERS from (52).

expanding licensing arrangements with foreign firms to produce and distribute their branded products. While large U.S. food processors exported on average only 6 percent of their sales, they received 27 percent of their total sales from the plants located in foreign countries. Sales from foreign food processing subsidiaries of U.S. firms were about \$100 billion (estimated) in 1994 (fig. 18), about twice the sales of U.S. food processing subsidiaries of foreign firms.

Figure 17
Trade balance in food processing
U.S. exports exceeded imports by \$2.5 billion in 1994.



Source: Compiled by ERS from (17).

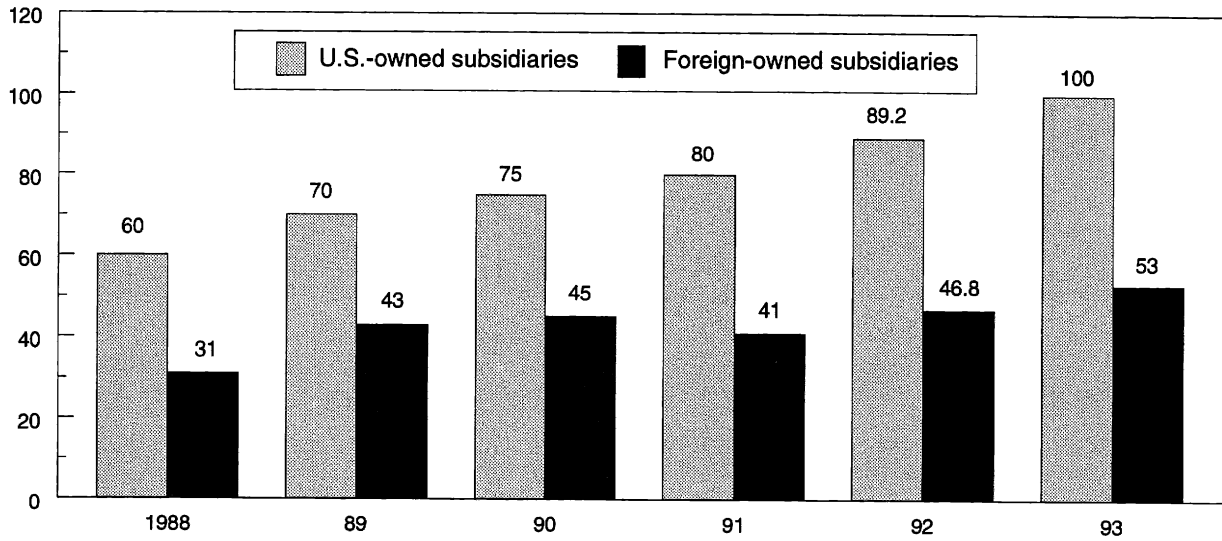
Sales of U.S. affiliates of foreign food (including retailers and wholesalers as well as processors) marketing firms reached an estimated \$133 billion in 1994, with retailing and manufacturing each accounting for about 40 percent (fig. 19). Sales of foreign affiliates of U.S. food marketing firms were a little higher, reaching \$140 billion in 1994, with the largest portion (71 percent) coming from food processing (fig. 20).

Figure 18

International market in food processing

Sales of U.S. subsidiaries of foreign firms are about half the sales of foreign subsidiaries of U.S. firms.

Billion dollars

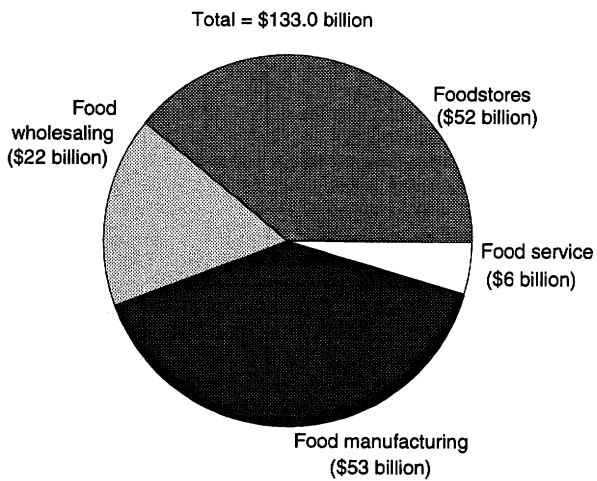


Source: Compiled by ERS from (42).

Figure 19

Estimated sales of U.S. affiliates of foreign food marketing firms, 1994

Largest share of sales came from foodstores and restaurants.

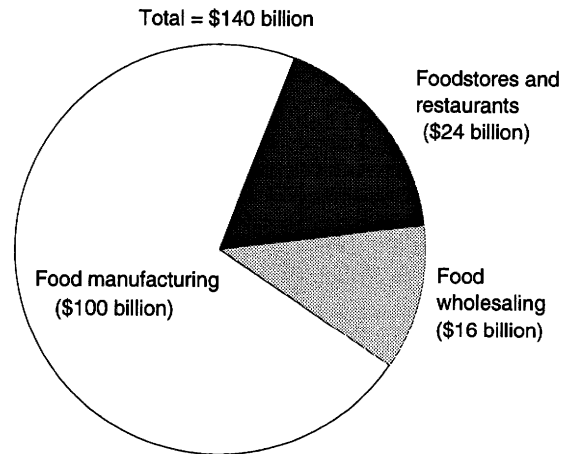


Source: Compiled by ERS from (42).

Figure 20

Estimated sales of foreign affiliates of U.S. food marketing firms, 1994

Largest share of sales came from food processing.



Source: Compiled by ERS from (42).

Food Manufacturing

The number of food processing plants appears to be increasing. Food processing shipments totaled \$430 billion in 1994 and likely reached \$450 billion in 1995. Wage and price stability held down costs for the 12th consecutive year in 1994. Food advertising rose to \$9.8 billion and \$3 billion in coupons were redeemed. Capital expenditures rose 19 percent to \$13.6 billion. Merger and leveraged buyout activity rose for the third consecutive year in 1994. Common stock prices for processed food companies outperformed all other industries in 1994. The U.S. balance of trade in processed food showed a surplus for the fourth consecutive year.

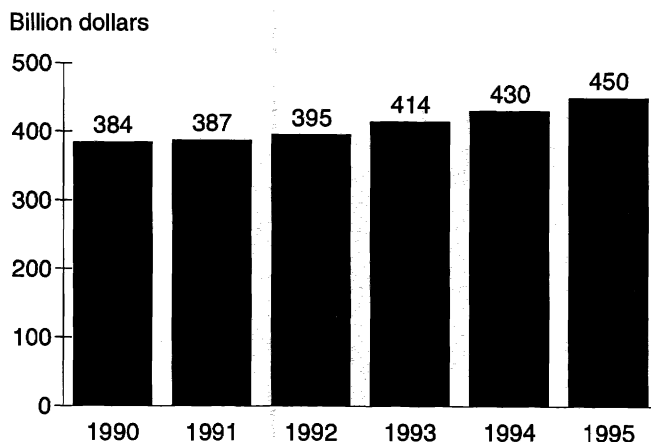
Size

Food processing shipments reached a projected \$450 billion in 1995 (fig. 21). In 1994, sales were at \$430 billion, 4 percent above 1993. Food processing sales account for about 14 percent of all U.S. manufacturing activity and represent the largest manufacturing sector in the economy. Because producer prices rose 1 percent in 1994, real growth was about 3 percent. Meat-product shipments accounted for about \$97 billion, dairy about \$56 billion, and beverages about \$62 billion.

Figure 21

Processed food shipments

Value of shipments steadily increased over the past 5 years.



Source: Compiled by ERS from (43).

Economic Climate

In 1994, the food processing industry enjoyed strong economic growth on the demand side and price stability on the supply side. Food manufacturers paid 1.8 percent less for crude foodstuffs than in 1993. The 49 food processing industries purchased about \$110 billion of animal and crop products from the U.S. farm sector, an additional \$27 billion in imported agricultural products, and \$9.5 billion in seafood in 1994. About 11 percent of all farm output was purchased through production contracts before production began, and another 8 percent came from farms owned by food processing firms (table 2). In addition, another 22 percent of farm output was purchased through marketing contracts, an agreement to market output that is already under production (table 3). Thus, the U.S. food marketing system contracted or owned nearly 40 percent of U.S. agricultural output, or roughly \$45 billion.

Labor is the second most important cost (behind agricultural inputs) for food manufacturers, totaling about \$45 billion in 1994. The 49 food processing industries employed nearly 1.67 million workers in 1994, virtually unchanged from 1993. Average hourly earnings rose 2.1 percent to \$10.67 per hour in 1994. Continuing a 13-year trend, this increase lagged behind the inflation rate as the cost of living measured by the CPI rose 2.7 percent. However, employee benefits, especially health benefit costs, have been rising sharply in recent years.

More than a fourth of all food processing employees worked in meatpacking plants in 1994, while about a quarter of a million were employed in preserved fruit and vegetable industries (table 4). Average hourly earnings varied sharply, ranging from \$8.71 per hour for meatpacking plants to \$15.05 per hour for beverage plants.

The food processing industries are now among the Nation's most highly leveraged, with \$240 billion in liabilities in 1994. Food processors are very sensitive to interest rates, as interest costs amounted to an estimated \$15 billion in 1994. The prime interest rate in 1994 averaged 7.15 percent, up from 6.0 percent in 1993 (app. table 45). Three-month Treasury bills rose from 3.02 percent in 1993 to 4.29 percent in 1994. Processors' short-term debt of less than 1 year averaged about \$84 billion for 1994. Long-term debt averaged about \$146 billion for the year. As the

Table 2—Production contracts and ownership integration

Year	Production contracts ¹			Ownership integration ²		
	1960	1980	1993-94	1960	1980	1994-94
	<i>Percent</i>					
Crops:						
Feed grains	0.1	1.2	1.2	0.4	0.5	0.5
Hay	.3	.5	.5	0	0	0
Food grains	1.0	1.0	.1	.3	.5	.5
Vegetables for fresh market	20.0	18.0	25.0	25.0	35.0	40.0
Vegetables for processing	67.0	88.1	87.9	8.0	10.0	6.0
Dry beans and peas	1.5	2.0	2.0	1.0	1.0	1.0
Potatoes	40.0	60.0	55.0	30.0	35.0	40.0
Citrus fruits	0	0	0	8.9	11.2	6.9
Other fruits and nuts	0	0	0	15.0	25.0	25.0
Sugar beets	99.0	99.0	99.0	1.0	1.0	1.0
Sugar cane	24.4	29.3	27.3	75.6	70.7	72.7
Cotton	5.0	1.0	.1	3.0	1.0	1.0
Tobacco	2.0	1.4	9.3	2.0	2.0	1.5
Soybeans	1.0	1.0	0	.4	.5	.4
Seed crops	80.0	80.0	80.0	.3	10.0	10.0
Livestock:						
Fed cattle ³	---	---	---	6.7	3.6	4.5
Calves, slaughter ³	---	---	---	1.5	1.8	10.0
Other cattle and calves	1.0	2.8	1.7	---	---	---
Sheep and lambs ³	---	---	---	5.1	9.2	29.0
Market hogs	.7	1.5	10.8	.7	1.5	8.0
Fluid grade milk	.1	.3	.1	0	0	0
Manufacturing grade milk	0	0	0	2.0	1.0	1.0
Market eggs	7.0	43.0	25.0	5.5	45.0	70.0
Hatching eggs	65.0	70.0	70.0	30.0	30.0	30.0
Broilers	90.0	91.0	92.0	5.4	8.0	8.0
Markets turkeys	30.0	52.0	60.0	4.0	28.0	28.0
Total farm output⁴	8.3	11.5	10.7	4.4	6.2	7.6

¹ Production contracts. Contracts entered into before production begins, excludes marketing contracts.

² Ownership integration. The same firm owns farms and other vertically related operations such as a hatchery, feed mill, processing plant or packer-shipper. Excludes direct marketing to consumers such as producer-dealers of milk, roadside stands, or pick-your-own operations.

³ Feeding of livestock by the meatpacker, some of which is under contract in feedlots owned by others.

⁴ The percent of total farm output under production contracts and ownership integration includes only the products listed in the tables and calculated using the same weights in each year so that changes in the share of, say, broilers do not affect the figure. The weights are the average share of cash receipts of each product in 1960, 1970, 1980, and 1990.

Sources: Compiled by ERS/USDA.

Table 3—Marketing contracts, including forward contractors¹

	1960	1980	1993-94
	<i>Percent</i>		
Crops			
Feed grains	0	6.0	12.0
Hay	0	0	0
Food grains	0	7.0	8.0
Vegetables for fresh market	0	0	0
Vegetables for processing	0	0	0
Dry beans and peas	24.0	22.8	36.0
Potatoes	0	0	0
Citrus fruits	78.6	84.1	87.8
Other fruits and nuts	20.0	35.0	35.0
Sugar beets	0	0	0
Sugarcane	0	0	0
Cotton	0	16.0	20.0
Tobacco	0	0.6	0.6
Soybeans	0	9.0	12.2
Livestock			
Fed cattle	10.0	10.0	11.4
Sheep and lambs	2.0	7.0	7.0
Market hogs	0	2.0	2.0
Fluid grade milk	95.0	95.0	95.0
Manufacturing grade milk	25.0	25.0	25.0
Market eggs	13.5	5.0	2.0
Hatching eggs	0	0	0
Broilers	1.0	0.1	0
Market turkeys	16.0	10.0	5.0
Total output²	17.3	20.7	21.8

¹ Marketing contract—A contract to market output which is already committed, such as an annual crop already planted, output from perennials (as trees), or continuously-produced products such as milk and eggs. Includes most contracts with marketing cooperatives (for milk and eggs), but not those for broilers and hogs which are resource-providing production contracts. Forward contract—Contracts entered after production has begun (for example, the corn has been planted) specifying where the product is to be marketed and the price or the method of determining price.

² The percent of total farm output under production contracts and ownership integration includes only the products listed in the table and is calculated using the same weights in each year so that changes in the share of, say, broilers do not affect the figure. The weights are the share of cash receipts of each product in 1960, 1970, 1980, and 1990.

Source: Compiled by ERS.

Nation's largest advertiser and user of packaging, food processing industries are sensitive to changes in advertising and packaging prices, which both rose 3 percent in 1994.

U.S. food processing was a truly global industry in 1994. Although exchange rates wavered sharply, the

real multilateral trade-weighted index averaged 88.6 in 1994, compared with 90.0 in 1993. Income from foreign operations amounted to nearly \$6 billion, while U.S. exports were \$27 billion.

Increase in Establishments

Final data from the 1992 Census of Manufactures indicated that the number of food processing establishments (mostly plants) rose from 20,583 in 1987 to 20,805 in 1992 (table 5). This is the first increase since the 1970's. By contrast, between 1982 and 1987, the total number of food processing establishments fell from 22,130 to 20,583.

In 1992, declines occurred in dairy products, most fats and oils, and beverages. Industries with more establishments included fruits and vegetables, prepared foods, and sugar products.

Structure and Organization

Merger, divestiture, and leveraged buyout activity in the 49 food processing industries dropped in number, but dollar value of transactions in 1994 rose sharply to the highest level since 1988. There were 232 mergers, divestitures, and leveraged buyout transactions recorded in 1994 (185 by food companies and 47 by nonfood companies), compared with 266 in 1993. There were 103 divestitures in 1994 (table 6).

The total value of those mergers over \$100 million rose from \$3.5 billion in 1993 to \$11.1 billion in 1994. Food processing, which ranked 11th in the value of transactions in 1993, rose to seventh in 1994. Foreign purchases of U.S. food processing companies amounted to \$4.3 billion, compared with \$930 million in 1993. U.S. purchases of foreign food firms fell from \$1.7 billion in 1993 to \$380 million in 1994 (app. table 39). Borden was the most active divestor in 1994, while Procter and Gamble was the most aggressive buyer. Leveraged buyout activity fell slightly.

The 1994 increase in higher valued mergers reflected both continued strong cash positions of some food manufacturers and an improved economy. Foreign interest in the U.S. market also played a role.

Market Competition

American consumers had an estimated 240,000 food products to choose from in 1994 and the nearly 16,000 food processing firms competed vigorously for a greater share of the food dollar. Food processors used price and nonprice competition to gain both consumer acceptance and retail shelf space both in the

Table 4—Employment and earnings in food processing, 1994

Industry	Number of employees	Number of workers	Average hourly earnings	Average weekly earnings	Average weekly hours
	<i>1,000</i>		<i>Dollars</i>		<i>Hours</i>
Meat	445.7	379.2	8.71	357.98	41.1
Dairy	151.6	96.3	12.01	505.62	42.1
Preserved fruits/vegetables	245.8	204.9	10.20	417.18	40.9
Grain mill products	125.5	89.7	13.09	590.36	45.1
Bakery products	211.1	138.4	11.74	468.43	39.9
Sugar and confectionery	102.4	79.5	11.54	469.68	40.7
Fats and oil	31.3	21.2	11.28	497.45	44.1
Beverages	176.8	83.5	15.05	536.62	42.3
Miscellaneous food	176.7	129.2	9.62	NA	40.1
All food processing	1,666.9	1,222.2	10.67	440.67	41.3

Source: Compiled by ERS from (58).

Table 5—Number of food processing establishments

Industry	1992	1987	Change
Food	20,805	20,583	222
Meat	3,242	3,240	2
Dairy	2,024	2,366	-342
Fruits and vegetables	2,052	1,918	134
Grain mill products	2,618	2,607	11
Bakery products	3,152	2,850	302
Sugar	1,129	1,075	54
Fats and oils	540	586	-46
Beverages	2,064	2,211	-143
Other prepared foods	3,984	3,730	254

Source: Compiled by ERS from (44)

\$170-billion (name-brand) retail food market and in the \$260-billion food processing market, which is made up of unbranded, undifferentiated products or products sold to food service or other food manufacturers. For many of the 49 food processing industries, competition is typically focused among a few larger processing firms that control more than half the market.

Food processing industries charged 0.8 percent more in 1994 than in 1993 for finished consumer goods to retailers and wholesalers, compared with a 2-percent decrease in 1993. Price increases varied sharply among food products, largely reflecting changes in farm prices. Food manufacturers charged 2.5 percent

Table 6—Mergers and divestitures in food processing

Year	Acquisitions			Divestitures
	By U.S. food processing firms	By all other firms	Total	
	<i>Number</i>			
1982	165	85	250	120
1983	174	51	225	85
1984	178	64	242	100
1985	212	79	291	103
1986	NA	NA	347	150
1987	220	81	301	116
1988	229	122	351	161
1989	188	89	277	119
1990	148	60	208	108
1991	135	46	181	78
1992	163	54	217	119
1993	207	59	266	121
1994	185	47	232	103
Total	NA	NA	3,388	1,493

NA = Not available.

Source: Compiled by ERS from (2).

less for intermediate products sold to other food manufacturers.

Most consumer-directed nonprice competition in 1994 consisted of product differentiation in the form of advertising and new product introductions in the

name-brand market. About 40 percent of U.S. food sales are branded products; the other 60 percent are either unbranded, undifferentiated products, or products sold to foodservice or other food manufacturers. Sales to these two sectors would be only minimally affected by mass media advertising and other forms of product differentiation. Therefore, increasing or maintaining market share for food processors in these undifferentiated sectors is determined by price or contractual arrangements. However, the trend has been for more differentiation through new product introductions and advertising, even for traditionally undifferentiated products such as red meats, poultry, fish, and some dairy products.

The rate of new product introductions rose sharply in 1994. Over 20,000 new grocery products were introduced in 1994, compared with 17,571 in 1993. These included nearly 3,300 condiments; 2,500 candy, gum, and snack products; 2,300 new beverages; and over 1,300 dairy products (app. table 67). These estimates include new size introductions. ERS has no data measuring the success of these new products or the number of recent products removed from the market. Nearly 140,000 new grocery products have been introduced since 1982. Industry estimates put the failure rate of new food products at 90 to 99 percent. Total shelfkeeping units have remained about the same, indicating that as new products are put on the market, older ones are replaced. However, the top 20 food processing firms accounted for only about 16 percent of new product introductions in 1994. Smaller or midsized firms accounted for the remainder as they tried to make inroads in these concentrated industries.

In 1994, branded food processors spent \$6.5 billion in direct consumer advertising, continuing food's role as the leading advertiser in the U.S. economy. Prepared and convenience foods accounted for \$1.5 billion, while confectionery accounted for over \$828 million and beer for nearly \$750 million. Soft drink processors spent over \$600 million. Other beverage processors also spent \$560 million in advertising (app. table 51).

Food manufacturers must also compete vigorously for scarce space on the Nation's grocery shelves. Regardless of the extent of direct consumer advertising, consumers cannot buy the product unless it is on the shelves. Manufacturers' trade promotion spending exceeds direct consumer advertising spending. Trade shows, discounts and allowances, coupon processing fees, special promotion incentives

and prizes, advertising allowances, and instore displays are all part of processor promotions.

In addition, food processors spent nearly \$3 billion in redeeming coupons (table 7). The total for all grocery and related products was nearly \$51 billion. The Nation's grocery system issued nearly 410 billion coupons in 1994, of which 7.6 billion, with an average face value of 60 cents, were redeemed. Over 45,000 new couponing programs were started in 1994.

Domestic Performance

The aggregate performance of the 49 U.S. food processing industries was spectacular due to economic prosperity and sharp sales growth. Performance is based on profitability; productivity; capacity utilization; capital expansion; foreign trade; investment; producer, consumer, and farm prices; and equity performance. These measures range widely in different food processing industries, such as breakfast cereals and frozen specialties. Much of the information on individual food processing industries is not available. These performance measures, however, indicate a composite performance among all the 49 food processing industries.

Profitability from operations increased in 1994. Sales of the Nation's food and tobacco processors rose 4 percent in 1994. Profits from operations rose to \$36.9 billion excluding interest expense, profits from foreign operations, and gains from the sale of assets, which rose 6 percent (table 8). This increase largely reflected both increased volume and cost savings. Wages in 1994 rose 2.1 percent, and the labor force was virtually unchanged at about 1.6 million workers. Crude foodstuff prices fell nearly 2 percent. Net income from foreign operations was about \$5 billion, aided by a lower value of the U.S. dollar. Thus, profits from foreign and domestic operations averaged nearly \$42 billion, the same as in 1993. Nonoperating income from interest, dividends, and rents amounted to nearly \$6.6 billion.

The industry paid an estimated \$15 billion in 1994 interest. Total liabilities of food processors amounted to about \$240 billion by fourth quarter 1994, up about \$18 billion from 1993. Owners' equity-to-debt ratio was 0.92 percent, well below the 1.40 percent for all manufacturing firms.

After paying nearly \$11 billion in Federal and State taxes, food manufacturers earned \$22 billion. The 49 food processing industries paid out about \$9.5 billion in dividends.

Table 7—Coupons in 1994

	Number of coupon programs	Coupons dropped	Value of coupons dropped	Coupons redeemed	Cost of coupons redeemed	Average coupon	Average space cost	Space cost per offer
	<i>Number</i>	<i>Million</i>	<i>\$ million</i>	<i>Thousand</i>	<i>\$1,000</i>	<i>\$ value/dropped</i>	<i>\$1,000</i>	
Baby foods	722	4,617	3,275	87,205	71,516	0.71	12,678	17.56
Baking and cooking needs	2,357	20,672	8,833	397,250	199,339	0.43	55,259	23.44
Beers/wines/liquors	187	871	777	16,988	16,301	0.89	2,707	14.48
Beverages	2,554	17,624	9,627	329,024	202,483	0.55	51,597	20.20
Breads/bakery	1,390	6,691	2,496	140,405	65,542	0.37	21,139	15.20
Candy/snacks/chips	2,007	20,560	8,901	292,709	158,955	0.43	45,879	22.86
Cereals	7,408	47,478	42,315	922,914	860,287	0.89	142,593	19.25
Cookies/crackers	709	9,008	4,051	113,922	61,467	0.45	18,460	26.01
Dairy	2,257	15,822	6,613	291,678	148,130	0.42	37,865	16.77
Frozen and refrigerated	4,925	35,721	16,730	627,990	359,321	0.47	87,135	17.69
Health and beauty aids	5,585	87,692	63,568	1,714,571	1,337,297	0.72	221,114	39.58
Household products	2,714	43,275	22,635	886,583	533,658	0.52	88,289	32.52
Paper/plastic/aluminum	1,040	10,062	5,989	186,150	115,036	0.60	24,624	23.67
Pet foods	2,423	24,195	20,977	435,481	380,233	0.87	48,149	19.87
Prepared foods	6,435	50,192	21,225	894,347	453,836	0.42	123,663	19.21
Processed and canned meats	1,599	9,882	4,815	174,141	99,597	0.49	21,448	13.41
Smokers' requisites	83	983	1,232	21,817	30,324	1.25	7,142	86.06
Miscellaneous	685	4,133	2,843	84,765	61,128	0.69	15,503	22.61

Source: Compiled by ERS from Promotion Information Management, Chicago, Illinois.

Aftertax profits as a share of stockholders' equity rose from 13.5 percent in 1993 to 17.7 percent in 1994. Return on equity was well above that of all manufacturers. Aftertax profits as a percentage of food processing sales averaged about 5 percent.

Labor productivity in most food manufacturing industries probably rose sharply in 1994 because production rose sharply and the number of employees remained about the same. Output per employee hour increased sharply for all industries in 1993 and for red meat industries in 1992, the latest years for which data are available. In 1993, output per hour rose sharply in dairies, breweries, and soft-drink plants.

Much of this productivity increase is the result of plant and equipment modernization. In 1994, food processing industries increased plant and equipment expenditures by \$17.7 billion, compared with \$13.6 billion in 1993 (app. table 70). The U.S. food manufacturing sector accounts for about 9 percent of the base capital stock of all U.S. manufacturing.

Food processing plants operated at 77 percent of capacity in 1991 and 1992 (data for plant capacity

utilization are not available for 1993 or 1994), but varied widely among the 49 industries (app. table 72).

R&D in the food marketing sector is largely conducted in the food processing industry. But expenditures on R&D in food processing, both in the United States and abroad, have traditionally been among the lowest of all manufacturing industries. Both food processing and textiles spend about 0.4 percent of sales on inhouse R&D. In 1994, food and tobacco processors spent nearly \$1.5 billion on research. About 70 percent of food and tobacco processing R&D expenditures went to new product and process development and another 25 percent went to applied research. Only about 6 percent went to basic research. However, ERS estimates that more than \$1.4 billion in R&D is purchased from other sectors, such as food packaging, computer, and machinery firms. Food processors also benefit from the basic R&D conducted by government agencies, universities, and venture capitalists.

In 1994, the U.S. food industry was one of the higher performers in the equity markets, allowing an appreciated return to stockholders—legally the

Table 8—Profits of food and tobacco processing firms

Year and quarter	Before-tax income from operations	Aftertax income	Aftertax profits as a share of stockholders' equity	
			Food and tobacco processors	All manufacturers
	Million dollars		Percent	
1987	24,658	15,579	17.4	12.9
1	5,159	2,879	13.6	11.2
2	6,292	3,849	17.4	14.1
3	6,522	3,869	17.0	14.6
4	6,685	4,982	21.6	11.5
1988	28,686	20,625	21.9	16.4
1	5,890	4,469	19.1	15.8
2	7,106	6,005	25.0	17.5
3	7,563	5,400	21.9	16.0
4	8,127	4,751	17.9	15.4
1989	30,757	16,545	17.0	13.6
1	6,501	3,865	15.6	15.7
2	8,089	3,939	16.5	14.8
3	7,569	3,335	13.9	13.5
4	8,598	5,406	22.2	11.3
1990	33,797	16,074	16.1	10.7
1	7,105	3,493	14.7	10.9
2	8,601	5,169	21.1	13.5
3	8,501	5,117	19.6	11.2
4	9,590	2,295	9.0	7.1
1991	34,287	19,639	17.6	6.4
1 ¹	7,788	4,969	18.5	7.0
2	9,176	5,160	18.7	8.7
3	8,917	5,539	19.3	6.6
4	8,406	3,971	13.9	3.2
1992	36,213	18,384	15.7	2.3
1	7,779	3,125	10.9	-17.4
2	9,449	5,953	20.4	11.6
3	9,545	4,998	16.9	10.9
4	9,440	4,308	14.5	4.1
1993	32,603	15,857	13.5	8.1
1	8,365	2,875	9.9	4.4
2	8,175	4,846	16.6	9.8
3	8,097	4,498	15.2	9.6
4	7,966	3,638	12.3	8.6
1994	36,945	21,904	17.7	15.6
1	8,446	5,545	18.4	13.1
2	9,399	4,691	15.2	16.7
3	9,745	5,878	18.8	16.6
4	9,355	5,790	18.5	16.1

¹ Preliminary.

Source: Compiled by ERS from (52).

corporate owners. Between 1993 and 1994, the Dow Jones market equity index for food stocks rose 6.6 percent, compared with a fractional increase for all common stocks (app. table 73 and fig. 12). The equity index for beverages rose 5.6 percent. The higher-than-average performance for food processing stocks reflected higher-than-average earnings and public perceptions about the industry's continued earnings stability. Second-quarter 1994 price/earnings ratios for food processing averaged 24, compared with 16 for the all-industry composite (app. table 74).

International Performance

The United States is the world's largest importer and exporter of processed food. U.S. food processors also have extensive foreign investments, and foreign firms have sizable investments in U.S. processing firms. In 1994, the U.S. food processing industry showed a positive trade balance for the fourth consecutive year. Projected sales of foreign subsidiaries of U.S. firms also rose sharply.

U.S. food processing industry exports, valued at \$25.8 billion in 1994, exceeded imports by \$2.6 billion (app. tables 78, 79). The surplus in food processing was \$8 billion excluding seafood and beverages. Exports rose from \$23.4 billion to \$25.8 billion, while imports rose from \$21.1 billion to almost \$23.3 billion (app. table 78).

Meat products showed a trade surplus of \$3.8 billion, and fats and oils showed a surplus of \$1.7 billion. Grain mill products had a surplus of \$2.9 billion. Beverages and miscellaneous food products showed a \$5.4-billion deficit.

The foreign food processing affiliates of U.S. firms had estimated sales of \$100 billion in 1994. These affiliates, owned partly or totally by U.S. firms, had assets of \$80 billion in 1993 (app. table 85). U.S. affiliates of foreign firms had estimated sales of \$53 billion in 1994 and assets of \$48 billion in 1993 (app. table 87).

Foreign direct investment in the U.S. food processing sector was \$25.4 billion in 1993, the latest year for which "book value" is available. Direct foreign investment by the United States in foreign food processing rose from \$20.2 billion in 1992 to \$22.6 billion in 1993. In 1994, the United States spent nearly \$4 billion on foreign food plants, compared with \$3.4 billion in 1993. More than 50 percent of this investment was in European countries.

Food Wholesaling

In 1995, merchant wholesale food sales grew, with real sales volume increasing more than any year since 1989. Wholesale club sales surged due to the entry of new clubs, continuing a long-term upward trend in sales. However, sales from previously existing clubs continued to falter as markets became saturated. Foodservice distributors' sales continued to rise. The number of wholesale firm mergers increased to the highest level since 1989. Leading wholesalers continued to increase market share through acquisitions.

Sales

Total wholesale food sales reached \$505 billion in 1992, the latest year available for total sales (fig. 22). This is about 32 percent above 1987 (fig. 23). Adjusting for inflation, as measured by the PPI for processed foods and feed, sales increased by 18 percent compared with 1987. Merchant wholesalers' sales accounted for 55 percent of total wholesale sales. Brokerages and manufacturers' sales branches expanded real sales by 27 percent above 1987 levels. In 1995, merchant wholesalers' sales rose to almost \$300 billion, increasing by nearly 4 percent in real terms (figs. 24 and 25).

Structure and Organization

There were more mergers in 1994 than in any year since 1989 (table 9 and fig. 26). Fewer but larger

firms furthered the trend in rising sales concentration. Mergers by leading wholesalers created some of the largest marketing and distribution companies in the Nation, which control a large percentage of the wholesale food industry's assets (table 10). The structure of discounts offered by manufacturers is changing for the benefit of the largest buyers. Such deals encourage horizontal growth of wholesale establishments. Vertical expansion into retail divisions also continued as a means for wholesalers to obtain sales growth. Efforts were made by leading wholesalers to streamline activities in order to reduce operating costs.

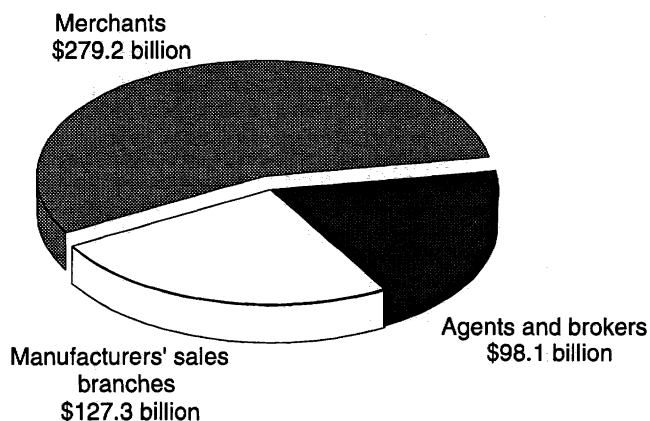
Consolidation of distribution centers is part of Fleming's (the leading food wholesaler) strategy to move to larger and more efficient distribution facilities to help reduce costs. A simplified organizational structure with minimal bureaucracy is expected to speed decisionmaking and response to customers.

Mergers

Mergers by leading wholesalers have created companies that are among the top marketing and distribution companies in the Nation. In 1994, Fleming Companies acquired Scrivner, the third largest food wholesaler (\$6 billion in volume), from Franz Haniel & Cie. in a \$1.085-billion deal. With the acquisition, Fleming expanded geographically and

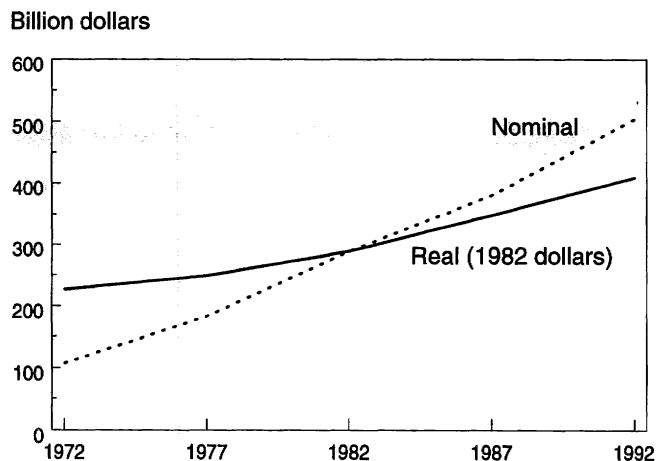
Figure 22
Wholesale food sales, 1992

Merchant wholesalers dominated the sector's \$505 billion in sales.



Source: Compiled by ERS from (47).

Figure 23
Wholesale food sales, 1972-92
Real sales continued to trend up.

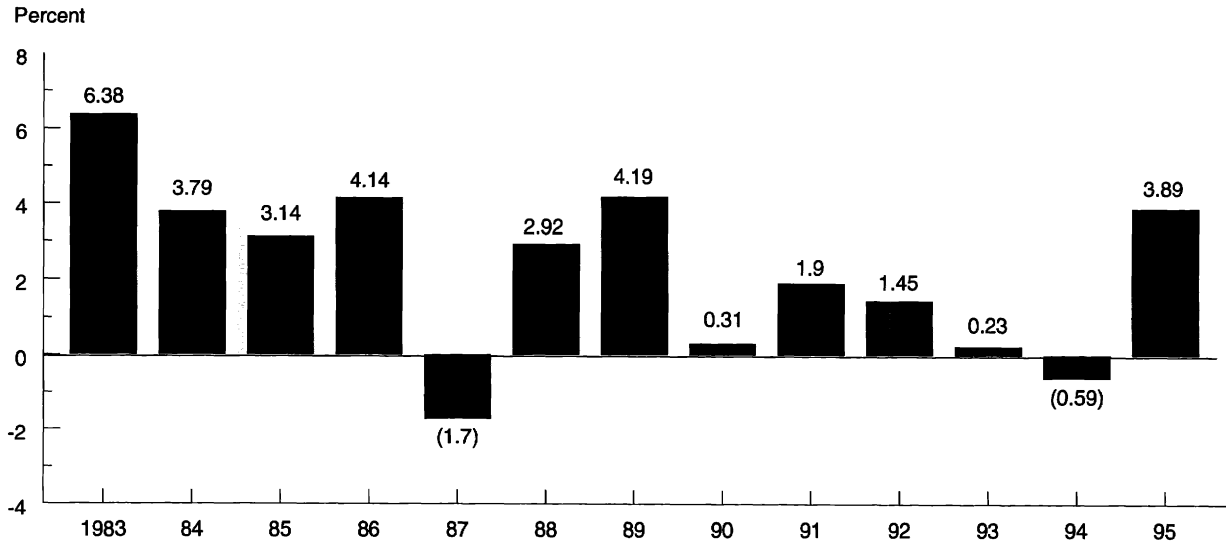


Source: Compiled by ERS from (47).

Figure 24

Average annual change in merchant wholesale sales

In 1995, real sales experienced the largest percentage increase since 1989.



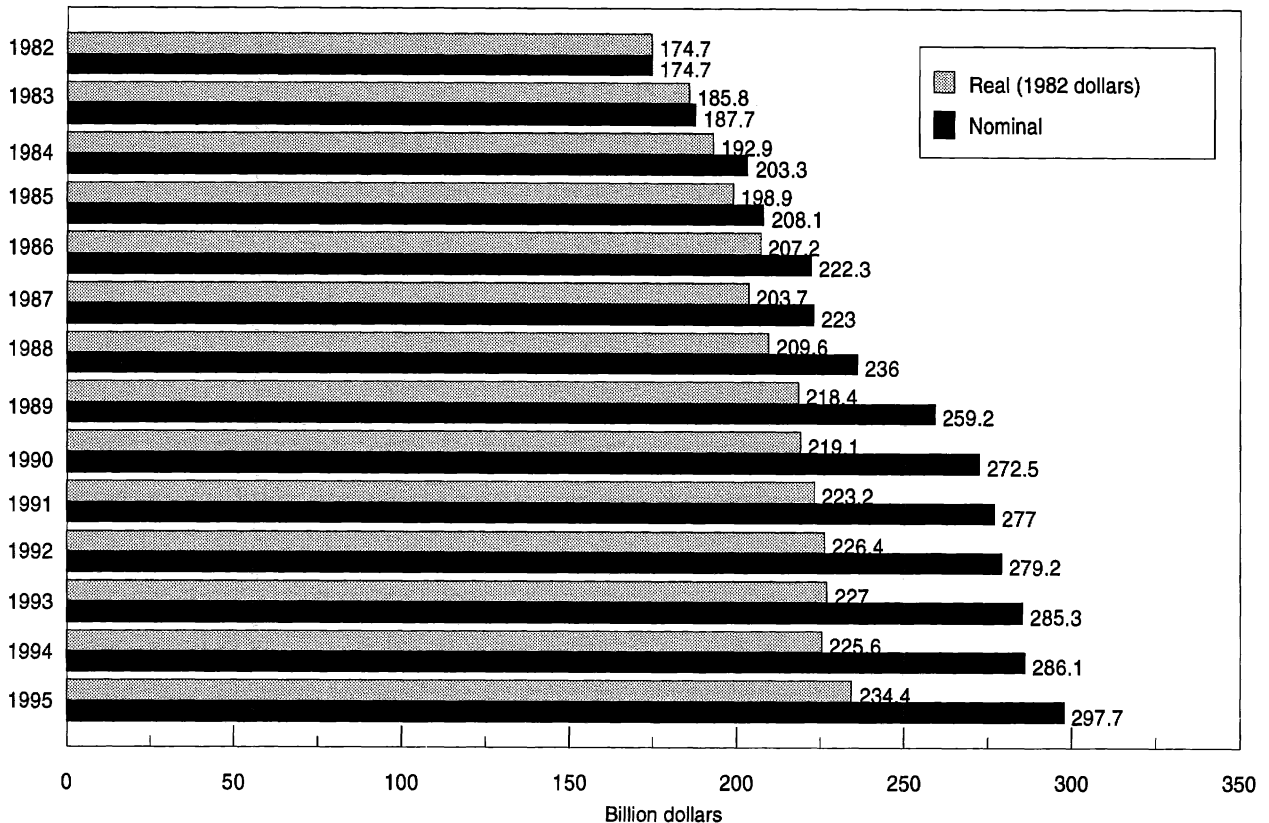
Sales adjusted for price changes (1982 = 100).

Source: Compiled by ERS from (47, 51).

Figure 25

Merchant wholesale sales, 1982-95

Real sales rose substantially in 1995.



Source: Compiled by ERS from (47, 51).

Table 9—Mergers and divestitures in the wholesale food industry

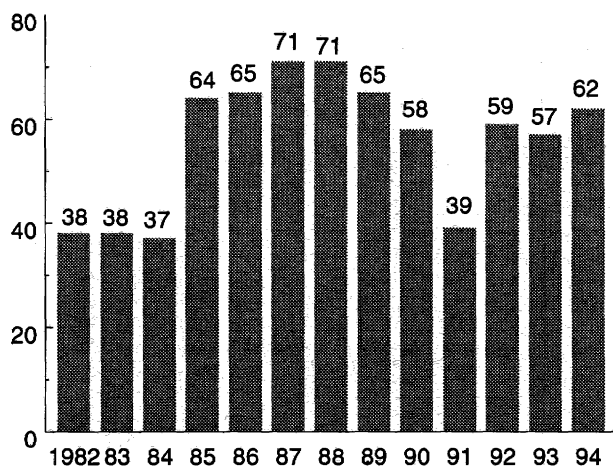
Mergers rose in 1994.

Year	Acquisitions		Total	Divestitures
	By U.S. wholesale food firms	By all other firms		
	<i>Number</i>			
1982	36	2	38	15
1983	34	4	38	13
1984	33	4	37	8
1985	61	3	64	18
1986	52	13	65	16
1987	44	27	71	12
1988	49	22	71	32
1989	39	26	65	18
1990	41	17	58	11
1991	32	7	39	16
1992	50	9	59	23
1993	39	18	57	16
1994	40	22	62	22

Source: Compiled by ERS from (2).

strengthened its presence in the retail market. Seven new markets were added and Fleming's retail percentage rose from 7 percent to 15 percent of its total sales. Supervalu acquired Sweet Life Foods, a leading New England wholesaler, in 1994. Also in

Figure 26
Mergers in the wholesale food industry
The number of mergers fell in 1993, but rebounded in 1994.



Source: Compiled by ERS from (1, 2).

1994, Nash Finch acquired Food Folks, a 23-unit chain based in Lumberton, NC, which helped the company to post record sales. Richfood Holdings continued its recent pattern of acquisitions. Most recently they purchased Super Rite Foods, a Pennsylvania-based wholesaler, making them the Nation's fourth largest wholesale grocer and the largest on the east coast.

Other wholesale establishments have expanded via joint ventures in foreign markets. Wal-Mart, Sam's parent firm, has been particularly aggressive in this regard, with expansion plans set for South America and Asia. Wal-Mart established a Hong Kong joint venture in 1994 as a foundation for expansion in the Far East. The joint venture is part of a plan to open three or four Value Clubs as a stepping stone into China. Value Club is a joint venture with Ek Chor Distribution System Co. Ltd., a Hong Kong subsidiary of Bangkok-based C.P. Pokphand Co. Value Clubs are smaller versions of the Sam's Club membership warehouses. Plans for two units in China in 1995 represented the first move for Wal-Mart outside of the Western Hemisphere. Wal-Mart indicated plans for another 23 Sam's Clubs and 11 supercenters in Mexico in 1994 and an additional 10-12 warehouse clubs and 10-12 supercenters in 1995. Wal-Mart also announced plans for expansion in South America. The opening of three Sam's Clubs in Brazil is anticipated through a joint venture with Brazil's major retailer Lojas Americanas. Also, three Sam's Clubs are planned in the first phase of an expansion program in Argentina.

Price Company went international in 1993, opening units in the United Kingdom and Mexico. Also in 1993, the Price Company merged with Costco Wholesale Club. PriceCostco opened seven warehouses in Canada during the first half of fiscal 1994. In early 1995, PriceCostco Inc. agreed to acquire Price Enterprises Inc.'s stake in the companies' Mexican joint venture Price Club de Mexico SA. Price Club de Mexico SA operates 12 membership warehouse stores in Mexico.

In 1993, Fleming formed a joint venture with Davids Holdings, the leading wholesaler in Australia. The joint venture, Davids Investments Asia Pte. Limited, will establish full-line distribution centers in Asia. Fleming expected the joint venture to help with its exporting and importing activities.

Sector Trends

Merchant wholesalers, foodservice distributors, and wholesale club operators each expanded sales in

Table 10—Distribution of wholesale food firms, by owned assets, 1992*Large distributors control most of the industry's assets.*

Asset value (\$1,000)	Firms	Share of all firms	Share of all assets	Cumulative share of firms	Cumulative share of assets
	<i>Number</i>		<i>Percent</i>		
250,000 or more	27	0.1	43.1	0.1	43.1
100,000-249,999	32	.1	10.2	.2	53.4
50,000-99,999	36	.1	4.9	.3	58.3
25,000-49,999	81	.3	5.6	.6	63.9
10,000-24,999	310	1.1	9.0	1.8	72.8
5,000-9,999	448	1.6	6.1	3.4	78.9
1,000-4,999	3,006	11.0	12.4	14.4	91.3
500-999	2,944	10.8	4.1	25.2	95.4
250-499	4,057	14.9	2.8	40.1	98.2
100-249	3,868	14.2	1.2	54.3	99.4
Less than 100	12,460	45.7	.6	100.0	100.0

Source: Compiled by ERS from (62).

1994. Wholesale club gains were below the pace set in recent years, but continued a long-term upward trend. Sales gains were achieved due to an increase in the number of clubs, as existing-club sales were down. Foodservice distributors fared better as the larger players continued to post significant sales gains.

General-Line Distributors

Leading general-line distributors continued to maintain sales through acquisitions and by adding corporate retail chains. After the Scrivner acquisition, sales by corporate stores owned by Fleming increased to 15 percent of total sales. From 1990 through 1994, corporate retail sales by Supervalu increased from 16 percent to 23 percent of annual sales, while the number of stores more than tripled. In 1995, Supervalu planned to add 33 new corporate retail stores, including a Shop'N Save supercenter. Nash Finch has announced intentions to increase sales from its corporately owned retail stores. The goal is to identify markets where it can build or buy stores so that retail sales can increase from 31 to 50 percent of total sales. In 1992, the eight largest wholesale food companies made up 44 percent of the sales of general-line merchant wholesalers (app. table 26).

Foodservice Distributors

In 1994, leading foodservice distributors combined for a 9-percent sales gain to \$24.4 billion (table 11). This was similar to last year's increase. Real sales grew as well, rising 6.1 percent from 1993. Sysco

Corporation, the leading foodservice distributor, accounted for 9.4 percent of foodservice distribution sales. Sysco is continuing to expand geographically, with new warehouses planned for Connecticut, Florida, and Wisconsin. Foodservice distribution remains relatively unconcentrated, however, as the top 50 broadline distributors accounted for only a quarter of the \$123 billion in foodservice distribution sales.

Table 11—Sales of the top 10 foodservice distributors*The 10 largest firms accounted for 20 percent of the sector's \$123 billion in sales.*

Firms	1994	1993
	<i>Billion dollars</i>	
Sysco Corporation	11.56	10.57
Kraft Foodservice	4.10	3.80
Rykoff-Sexton, Inc.	1.61	1.50
U.S. Foodservice, Inc. ¹	1.55	1.53
PYA/Monarch, Inc.	1.50	1.38
Gordon Food Service, Inc.	1.15	0.91
JP Foodservice, Inc.	1.10	1.03
Food Services of America	.90	.82
Shamrock Foods Co.	.52	.45
Consolidated Foodservice Companies	.44	.44
Total	24.43	22.45

¹ Merger of White, Swan and Unifax.
Source: Compiled by ERS from (18).

Specialty food service distributors, meat and produce suppliers for the most part, accounted for 13 percent of sales.

In 1995, Rykoff-Sexton acquired Continental Foods, Baltimore, giving the third leading broadline foodservice distributor an expanded presence on the east coast. In 1994, Gordon Food Service purchased Canadian distribution operations of Maple Leaf Foods, a Toronto-based food processor.

Wholesale Clubs

Growth in wholesale club sales leveled off in 1994 (table 12). Real sales rose by only 1.5 percent, as more clubs were added. Consolidation gave top wholesalers an increasing share of wholesale club sales. Clubs continued to offer expanded services such as instore bakeries and fresh meat and produce sections. Although classified as a general merchandise retail establishment by the U.S. Bureau of the Census, wholesale clubs substitute for traditional wholesale distributors by offering cash-and-carry services for small business operators. Wholesale club sales to small and midsized foodservice operators, such as independent restaurants, increased 35 percent to \$13 billion in 1994. Sales by Sam's to foodservice operations increased 44 percent to \$7.1 billion in 1994, which accounted for 35 percent of total sales. Sam's foodservice sales were 61 percent of sales by the leading foodservice distributor, Sysco, but topped the second-place foodservice distributor, Kraft, by 73 percent. Foodservice sales volume by the second leading wholesale club, PriceCostco, amounted to 31 percent of total annual sales. Wholesale clubs are not, however, considered a threat by foodservice distributors since clubs cater to the smaller operators

Table 12—Sales of membership wholesale clubs

Leading wholesale clubs set new sales records in 1994.

Firms	1994	1993
	<i>Billion dollars</i>	
Sam's Wholesale Club ¹	19.1	18.75
PriceCostco	16.4	15.15
BJ's Wholesale Club	2.3	2.00
Warehouse Club	.19	.21
Others	.41	1.41
Total	38.40	37.52

¹ Includes Pace Membership Warehouse sales.
Source: Compiled by ERS from (1).

whose sales volume is not adequate to justify delivery expense and value-added services.

Consolidation characterized 1993. Price Company merged with Costco Wholesale Club to surpass Sam's as the sales leader. Sam's purchased 14 clubs from K Mart's Pace Membership Warehouses. Including sales figures from the Pace Clubs, Sam's maintained its sales edge over PriceCostco. Sam's and PriceCostco's sales far outpaced that of BJ's, which ran a distant third.

In 1994, sales from previously existing clubs declined by 3.5 percent, as club membership waned. The number of warehouse club members declined by 12 percent. PriceCostco and Sam's, as well as other chains, maintained sales growth by controlling margins and expenses.

Warehouse Club Inc. filed a Chapter 11 petition for reorganization early in 1995. Plans call for the closing of 4 unprofitable stores as part of its reorganization plan. The chain has 10 units with total sales of about \$190 million.

A Michigan retail food chain, Meijer, attempted to enter the club market with a new format in response to competition from wholesale clubs. Its SourceClubs were not successful and within a few months after opening seven club stores in Ohio and Michigan, it closed operations after deciding that Sam's and PriceCostco had cornered the market.

Foreign Investment

In 1993, there were 13 U.S. food wholesale firms with foreign affiliates (app. table 85). The number of affiliates increased for the second consecutive year, rising to 197. Net income generated by foreign affiliates fell to \$522 million, which is less than half of 1992 earnings. The affiliates employed 31,000 workers and had sales totaling \$15.8 billion dollars, the second consecutive increase in annual sales. Assets held by these affiliates rose substantially to \$7.8 billion.

Foreign investments help the host country's balance of payments, through the inflow of capital and export of products from the new plants. As income in the host country rises, savings also rise, which contributes to economic growth.

Foreign-owned wholesale firms had 149 affiliates in the United States in 1993. These affiliates employed 46,200 people (app. table 86) and had assets totaling \$8.3 billion (app. table 87). Japan accounted for 41

percent of these assets. Affiliates in the United States also exported \$2 billion worth of grocery and related products, almost 70 percent going to the foreign parent. Japan accounted for most of the exports as well. These affiliates also reported product sales of nearly \$22 billion, increasing almost \$3 billion from 1992 sales (app. table 89). Approximately one-fifth of sales were accounted for by the United Kingdom.

Foreign investment in the domestic wholesale food industry increased to \$2 billion in 1993, the highest level since 1989 and a 7-percent increase over 1992 (fig. 27). Direct investment by U.S. wholesalers in foreign firms increased to \$2.5 billion in 1993, a 63-percent increase over 1992.

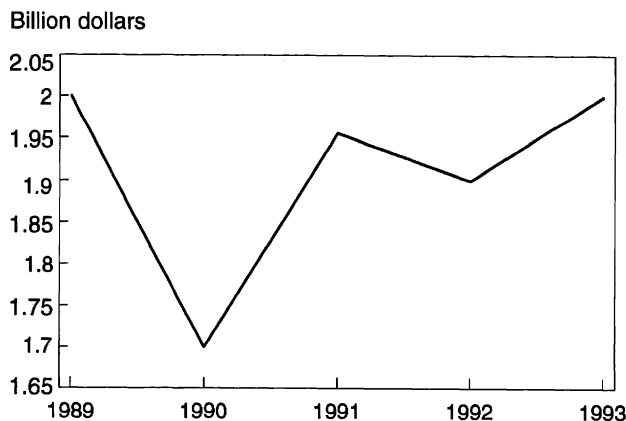
Performance

A major food industry initiative called Efficient Consumer Response (ECR) was started in 1992 to create a responsive, consumer-driven system in which distributors and suppliers work together to maximize consumer satisfaction and minimize costs. The idea is to focus on the efficiency of the total grocery supply and distribution system, rather than on the efficiency of individual components. Total system costs, inventories, and physical assets can be reduced while simultaneously improving the selection of high-quality, fresh grocery products available for consumers. Principles of the ECR initiative include electronic data interchange (EDI), which helps to reduce paperwork, category management, and cost measurement.

Figure 27

Foreign investment in U.S. wholesale food firms

Foreign investment rose slightly in 1993.



Source: Compiled by ERS from (42).

Efficient Consumer Response Programs

The two top broadline wholesalers, Fleming and Supervalu, announced ECR, or re-engineering, programs to improve the effectiveness and efficiency of their food distribution system. The Supervalu Advantage project includes changes in pricing and vendor relations in order to lower the cost of goods, increase market share growth, and invite new business opportunities. Fleming's Fast Forward program, designed to improve operations and lead to better performance in the retail arena, emphasizes category management. A key principle of category management is to focus on retail performance rather than wholesale impact, which brings the company closer to important retail issues.

Wages

The wholesale food industry employed 729,000 workers in 1994, a new record (app. table 47). Average hourly earnings of wholesale food workers rose to \$11.78 in 1994, also a record (app. table 48). Earnings were more than twice that of workers in eating and drinking establishments and almost 50 percent higher than grocery store employees' rates.

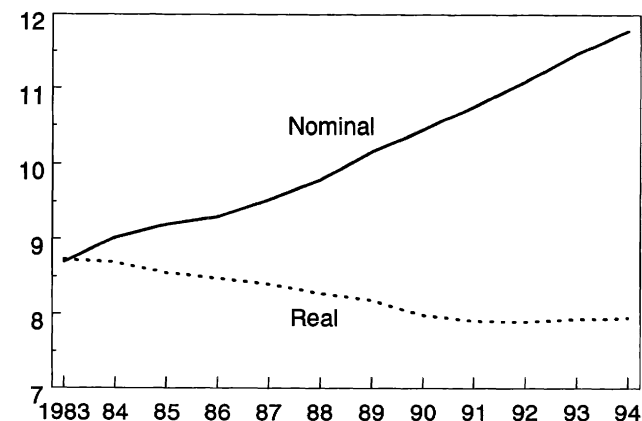
The buying power of wholesale workers' earnings increased slightly for the second consecutive year. Real average hourly earnings have remained stable since 1990 (fig. 28).

Figure 28

Average hourly earnings of wholesale food employees

Real wages increased slightly in 1994, for the second consecutive year.

Dollars per hour



Source: Compiled by ERS from (56, 61).

Profits

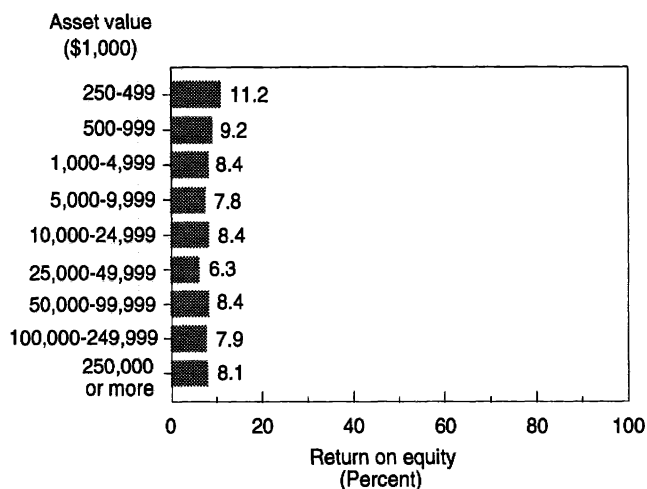
Average industry profits (return to stockholders' equity) fell over 1991-92. Return to stockholders' equity measures a firm's ability to earn a profit for its owners. Small firms continue to experience more variable profit rates than do large firms (app. table 59 and fig. 29). However, in recent years, profit rates of larger firms have gained on, if not surpassed, their small-firm counterparts, as small firm returns on equity continue to fall. Leading companies' profit rates continue to outpace the industry average. In 1994, leading wholesale firms such as Richfood Holdings, Sysco, and Super Rite experienced double or triple-digit increases in profit and double-digit returns on equity (app. table 65).

Debt-financed liabilities of wholesale food corporations filing tax returns averaged 29 percent of assets in 1992, the last year of record for all industry firms. Although falling slightly in 1991 and 1992, the ratio continues to remain stable.

Figure 29

After-tax profits of wholesale food firms, by asset value, 1982-92 average

Greater assets do not ensure returns.



Source: Compiled by ERS from (62).

Food Retailing

Sales growth resumed in 1994-95, reflecting improved conditions in the general economy, after several years of little or no industry expansion. Food retailing industry profits rose significantly, even as continuing low inflation levels limited price increases. Evidently, food retailers have begun to reap the rewards of cost-cutting efforts and investments in new technology. Mergers and acquisitions, including investor takeovers, played a more visible role in 1994-95 in contrast to the relatively low consolidation rates since 1990. Foreign investment and acquisitions also rose in 1994-95. Employment levels remained stable as retailers aimed to contain growth in payrolls and improve productivity. Wage rates remained stable, on average, but declined slightly on an inflation-adjusted basis. Food retailers continue to pursue ways to reduce external costs such as transactions with manufacturers, wholesalers, and brokers of grocery products and services through the use of new technology. Several retailers began offering home-shopping services, while others introduced self-scanning checkout systems and electronic shelf labeling, in an effort to increase consumer satisfaction.

In 1994, new regulations went into effect that required fresh meat and poultry products to be labeled with safe handling instructions. USDA also began random testing of meat in retail stores for

contaminants following outbreaks of the *E. coli* bacteria in 1993.

Sales and Sales Growth

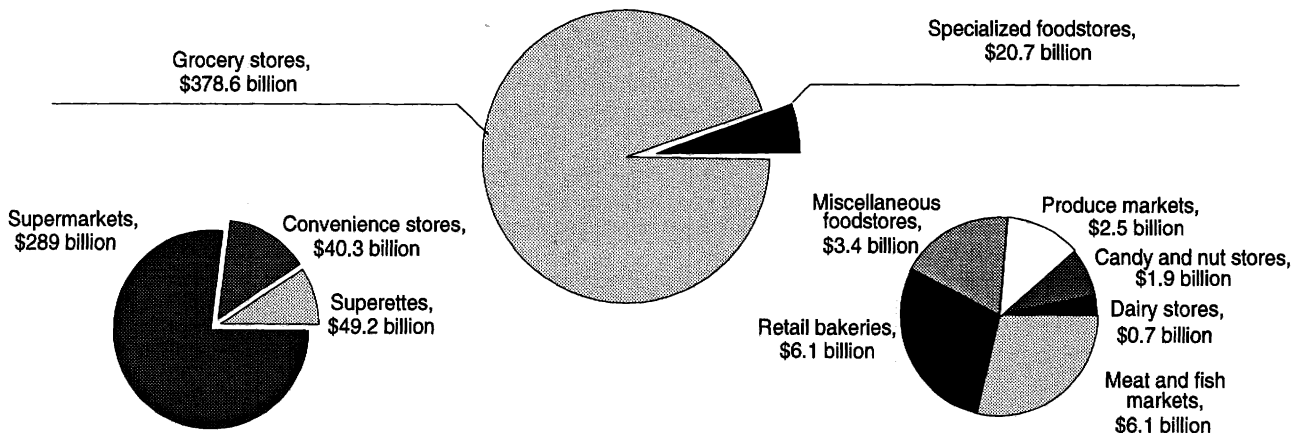
Foodstore sales reached \$410.5 billion in 1995, an increase of 2.9 percent over 1994 receipts (app. table 13). Grocery stores—including supermarkets, superettes, convenience stores, delicatessens, and bodegas—accounted for 94.8 percent of foodstore sales in 1994, the most recent year detailed data are available. Specialized foodstores—including retail bakeries, produce markets, meat and seafood markets, and dairy stores—made up the remaining 5.2 percent (fig. 30).

Grocery store sales reached \$389.1 billion in 1995, an increase of 2.8 percent over 1994 sales (app. table 13). Retail food prices increased moderately in 1994-95, consistent with overall economic conditions. The Consumer Price Index for food-at-home (retail food) increased 2.4 percent, on average, in 1994 and 3.2 percent in 1995. The ERS grocery price deflator, a measure more representative of the mix of food and nonfood products sold in supermarkets and other grocery stores, registered price increases of 2.6 percent in 1995, indicating an inflation-adjusted growth rate of 0.2 percent.

Figure 30

Foodstore sales in 1994

Sales reached \$399 billion, with supermarkets accounting for more than 72 percent of total sales.



Source: Compiled by ERS from (46).

Table 13—Number and sales of supermarkets¹

Year	Annual sales needed to qualify as a supermarket ¹	Stores ²	Sales	Share of grocery store sales
	1,000 dollars	Number	Million dollars	Percent
1958	747	15,185	23,245	51.3
1963	763	20,990	30,846	59.3
1967	826	23,305	41,381	64.4
1972	1,000	26,997	63,205	67.7
1977	1,545	29,699	112,018	73.9
1982	2,266	27,141	171,140	74.2
1983	2,322	27,331	184,354	76.7
1984	2,403	27,440	193,561	75.5
1985	2,453	27,765	203,129	75.4
1986	2,554	27,494	213,448	76.0
1987	2,659	26,227	222,861	76.6
1988	2,786	25,845	233,408	76.0
1989	2,956	25,287	249,850	76.1
1990	3,138	25,004	262,224	75.1
1991	3,257	24,908	270,598	76.4
1992	3,299	25,088	275,865	77.0
1993	3,375	25,611	281,300	76.9
1994	3,469	24,557	289,030	76.3

NA = Not available.

¹ To be classified as a supermarket, a grocery store had to generate annual sales of at least \$1 million in 1972; other years calculated using an index of prices of all products sold in grocery stores. Sales exclude sales taxes.

² Supermarkets open at yearend.

Sources: Compiled by ERS from (28).

Supermarket sales were an estimated \$289.0 billion in 1994, or 76.3 percent of total grocery store sales (table 13). Nominal sales were up 2.7 percent over 1993, with real (inflation-adjusted) increases of 0.5 percent. Despite the resumption in real growth, the number of supermarkets declined, as older, smaller stores were replaced by larger outlets offering increased variety and services. Minimum annual sales to be classified as a supermarket reached \$3.469 million in 1994, an inflation-adjusted amount equivalent to \$2.0 million in 1980.

Convenience stores, another grocery store segment, had estimated sales of \$40.3 billion, in 1994, a slight decline from 1993 sales. Convenience stores continue to consolidate as petroleum marketers have expanded their gasoline outlets to include convenience store

products. As a result, the number of traditional convenience stores has fallen. In response to increasing competition from petroleum marketers, convenience store operators are adding or expanding gasoline operations. According to *Convenience Store News*, 65 percent of traditional convenience stores also operated gasoline pumps in 1994. The declining sales and numbers of traditional convenience stores suggest that petroleum marketers have succeeded in their efforts to expand into grocery/food retailing. Although typically smaller than traditional convenience stores, they are likely to be located in better physical locations to meet the needs of time-constrained consumers.

Superettes, delicatessens, bodegas, and "mom and pop" stores make up the remaining grocery store segment, with sales of \$49.2 billion in 1994. These grocery retailers are typically located in low-density rural areas and in urban areas not served by supermarkets. They may also offer a greater variety of ethnic and other foods to meet the needs of diverse neighborhoods.

Specialized foodstores accounted for the remaining 5.5 percent of food retailing sales, or \$20.7 billion in 1994. Meat, fish, and seafood markets, the largest single segment, had sales of \$6.2 billion in 1994, an increase of 3.2 percent over 1993. The second-largest segment, retail bakeries, posted sales of \$6.2 billion in 1994, rising from \$5.7 billion in 1993. The growth of specialized bakeries such as cookie shops and bagelries has contributed to expansion of the retail bakery segment. Other specialized foodstore sales, including candy and nut shops, dairy stores, produce markets, and health and nutrition stores, are not available individually, however, as a group, sales rose 13.7 percent in 1994.

Structure and Organization

The structure and organization of the food retailing industry has changed dramatically over time. Year-to-year measures of change allow for monitoring of long-term trends. In food retailing, these measures include the chainstores' share of grocery store sales, aggregate concentration, mergers, acquisitions, and divestitures, and supermarket formats.

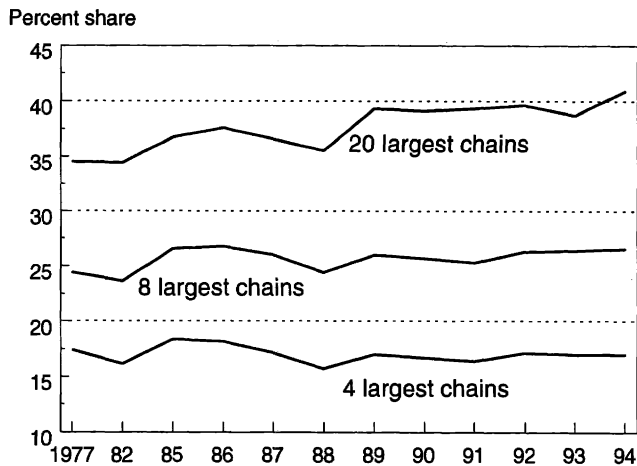
Chainstores' Share of Grocery Store Sales

Chainstore firms--retailers operating 11 or more grocery stores--accounted for 64.7 percent of total sales in 1994, amounting to \$244.8 billion (app. table 28). Single and multi-store independent retailers are responsible for the remaining sales share. Chainstore

Figure 31

Sales share of leading grocery chains

The 20 largest grocery chains accounted for more than 40 percent of grocery store sales nationwide.



Source: Compiled by ERS from (46).

sales share has grown somewhat in recent years. Chainstores operate larger stores, on average, than independent retailers. Average annual store sales of chain operators was \$11.7 million compared with \$1.8 million for independent retailers. As the U.S. population becomes more urbanized, this trend may favor chainstore retailers due to their need for higher population densities to satisfy higher sales volume required by larger stores. Independent operators, with their smaller stores, usually less than 25,000 sq. ft. in selling area, are better able to serve rural areas and urban niche markets.

Aggregate Concentration

The largest 4, 8, and 20 food retailers accounted for 17.0, 26.6, and 40.9 percent, of total U.S. grocery store sales in 1994 (fig. 31). These aggregate market shares have displayed relative stability over the last decade despite considerable changes in ownership and financial restructuring among leading firms.

Aggregate concentration measures in food retailing are less comparable than for leading food manufacturing firms, whose markets are mostly nationwide. Food retailers compete in local markets such as metropolitan areas, and in cities and towns of rural areas. Presently, there are no food retailers that operate nationwide. Nevertheless, aggregate concentration is a useful indicator of food retailing industry structure and organization.

Sales of the 4 largest firms grew by 2.7 percent between 1993 and 1994, from \$62.2 billion to \$63.9 billion. Fourth-ranked Albertson's led the group in

Table 14—Mergers and divestitures in food retailing

Total acquisitions rose in 1994.

Year	Acquisitions			Divestitures
	By U.S. food retailing firms	By all other firms	Total	
	<i>Number</i>			
1984	37	23	60	28
1985	36	16	52	33
1986	56	35	91	57
1987	39	26	65	34
1988	41	35	76	51
1989	28	25	53	37
1990	14	23	37	22
1991	20	15	35	28
1992	17	12	29	24
1993	22	17	39	23
1994	41	19	60	49

Source: Compiled by ERS from (2).

sales growth (5.4 percent), followed by Kroger Co. (4.9 percent). In contrast, American Stores (ranked second) sales fell 2.2 percent in 1994, in part the result of divestiture of the Acme Supermarkets division in Pennsylvania and Star Markets, based in Boston, MA.

The fifth through the eighth largest retailers had combined sales of \$36.2 billion in 1994, an increase of 5.2 percent from 1993. Publix Supermarkets (Florida) increased sales by 16 percent through considerable new store openings in 1994. The Atlantic and Pacific Tea Company (A&P) lost ground, falling from sixth-largest in 1993 to seventh-largest in 1994, with sales of \$8.5 billion.

Sales of the 9th-ranked through the 20th-ranked retailers reached \$53.6 billion in 1994, an increase of 8.2 percent over 1993. Penn-Traffic, a supermarket operator in Pennsylvania and New York, had an 18.5-percent sales increase in 1994, in part due to stores acquired from American Stores operating in Pennsylvania. Ahold, USA, a foreign-owned retailer, enjoyed sales growth of 12.1 percent, largely through acquisition in 1994 (see "Mergers, Acquisitions, and Divestitures"). Tenth-ranked Southland Corporation (7-Eleven Stores), a convenience store operator, lost sales in 1994 as it continued to sell underperforming stores.

Mergers, Acquisitions, and Divestitures

The number of mergers, acquisitions, and divestitures involving food retailers has risen significantly since 1992. There were 60 food retailers acquired in 1994, compared with 39 acquired in 1993 and 29 in 1992 (table 14). Of the 60 food retailers acquired in 1994, all but 19 involved other food retailers.

Mergers, acquisitions, and divestitures in 1994 included the purchase of Smitty's Super Valu for \$141 million by Yucaipa Companies (Claremont, CA). Smitty's operated 28 supermarkets in Arizona with sales of about \$600 million in 1994. Smitty's was a U.S. subsidiary of Steinberg International (Montreal, Canada). Yucaipa operates a number of supermarket chains in southern California. Star Markets (Boston, MA), a 33-supermarket chain with sales of \$840 million, was sold to Investcorp (Baharain) for \$285 million. Star Markets was a subsidiary of American Stores, the second-largest food retailer in the United States. Hannaford Bros., a supermarket retailer in New England, purchased Wilson Supermarkets (Wilmington, SC) for \$120 million. The acquisition represents efforts to diversify growth into new market areas. Also in 1994, Sainsbury PLC (London, UK) announced plans to purchase 50 percent of the voting shares of Giant Food (Landover, MD). Giant Food was among the 20 largest food retailers in 1994, with sales of \$3.7 billion.

Supermarket Formats

The number of supermarkets has declined from 26,815 stores in 1980 to 24,557 in 1994. Yet, store floor space has grown to accommodate an increasing array of products and services. The average square footage of supermarkets' selling area rose from 23,000 in 1980 to 35,000 in 1994. And the number of unique brand, package size, and flavor items carried has expanded from an estimated 14,000 to 25,000 items.

Supermarkets are classified by format—or combination of products and services (see glossary and table 15). Supermarket retailers have developed a number of store formats to appeal to various consumer segments and to differentiate themselves from competitors.

The conventional format dominated in 1980, with 85 percent of total supermarket numbers and 73.1 percent of sales (table 15). But the growth of new formats has resulted in the declining importance of conventional stores, which fell to 49.1 percent of the

number of supermarkets and 28.2 percent of sales by 1994.

Since 1980, retailers have looked to new supermarket formats as a market segmentation tool. Warehouse and superwarehouse stores are no-frills outlets that appeal to price-conscious consumers who prefer few services and less product variety in exchange for generally lower prices. These stores increased their presence from 1,677 stores in 1980 to 2,900 in 1994. Superstores serve consumers seeking "one-stop shopping" convenience by offering extensive food and nonfood items, as well as general merchandise. Superstores' share of supermarket sales nearly tripled over the 14-year period, reaching 26.5 percent in 1994.

Foreign Investment

Sales by foreign-owned foodstores in the United States amounted to \$51.5 billion in 1993, according to the most recent available statistics (app. table 89). Food retailing affiliate sales amounted to 13.4 percent of total U.S. grocery store sales in 1993, compared with 7.2 percent of sales in 1988. U.S. affiliates of foreign firms are those companies having at least 10 percent of voting stock owned by a foreign investor. The degree of control exercised by foreign investors having less than 50 percent ownership in a U.S. food retailer varies considerably, however. Foreign investment and ownership can occur through outright purchase of assets, or through equity (shareholder) purchases.

Table 15—Supermarket format: number and sales shares¹

Conventional supermarkets' share of sales has declined.

Supermarket format	Share of supermarkets		Sales share of supermarkets	
	1994	1980	1994	1980
	<i>Percent</i>			
Conventional ²	49.1	85.0	28.2	73.1
Superstore	26.5	8.9	37.2	17.7
Combination	9.8	.9	17.9	4.0
Warehouse/limited assortment	11.8	4.7	9.6	4.2
Superwarehouse	2.1	.5	5.6	1.0
Hypermarket	0.7	NA	1.5	NA

NA = Not applicable.

¹ Percentage may not sum to 100 due to rounding.

² See glossary for format description.

Sources: Compiled by ERS from (28, 64).

Table 16—The five largest foreign investors in U.S. grocery retailing

U.S. affiliate	Foreign investor (country)	National ranking (1994)	Sales		
			1994	1993	1992
<i>Billion dollars</i>					
Albertson's	Theo Albrecht (Germany) ¹	4	11.9	11.3	10.2
Atlantic and Pacific Tea Company (A&P)	Tengelmann, AG (Germany)	7	10.3	10.4	10.5
Food Lion	Delhaize, Le Lion (Belgium)	8	7.9	7.6	7.2
Ahold, USA	Ahold (The Netherlands)	9	7.4	6.6	6.3
Shaw's Supermarkets	Sainsbury PLC (United Kingdom)	29	2.0	1.9	1.8

¹ Minority share ownership
Source: Compiled by ERS.

The 5 largest U.S. food retailing affiliates were among the 30 leading food retailers nationwide, generating sales of \$39.5 billion in 1994 (table 16). Albertson's (Boise, ID) was the largest U.S. affiliate, with sales of \$11.9 billion in 1994. U.S. affiliates have grown both by building new stores and by acquiring other food retailers. There are successful examples of both strategies among the largest retailers. Fourth-ranked Albertson's and Food Lion (eighth-ranked nationally) have relied almost exclusively on internal growth strategies. Ahold, USA, the U.S. subsidiary of Royal Ahold (The Netherlands), and The Atlantic and Pacific Tea Company (A&P), owned by Tengelmann, AG (Germany), have achieved growth largely by acquiring local and regional supermarket chains.

Most Americans could not identify foreign food retailers, because they have typically followed the lead of U.S. food retailers in marketing and merchandising practices. Although foreign investors and retailers have introduced new innovations to domestic markets, their success has varied. In the 1980's, French retailers built stores in excess of 100,000 sq. ft. of selling area called hypermarkets, a European retail concept. Early successes were not sustained and, in the 1990's, a number of foreign-owned hypermarket firms such as Carrefour and Leeds failed to generate break-even sales volume, resulting in their exit from the industry.

Outward Investment by U.S. Food Retailers

Foreign sales by U.S. food retailing affiliates reached \$11.9 billion in 1993, according to currently available statistics. U.S. affiliates generated an income loss of \$433 million and employed 108,800 persons in 1993. Safeway, Inc. owns and operates 235 supermarkets in Canada, accounting for sales of \$3.4 billion in 1994.

In addition to outright ownership and equity positions, food retailers have used joint ventures, franchising, and licensing agreements as means to enter foreign markets. Circle K, a convenience store operator, has joint-venture and franchising agreements in 19 countries—including Canada and Pacific Rim countries—amounting to 836 outlets.

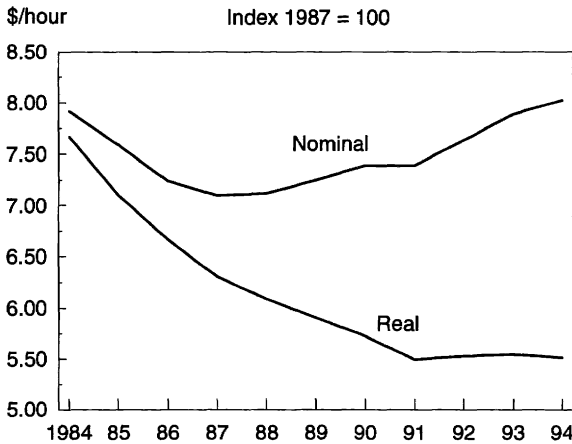
Although technically not considered a foreign investor, IGA, Inc. (Independent Grocers Alliance), a voluntary supermarket network, has licensed over 3,600 IGA supermarkets to use the IGA store banner. IGA provides training, product procurement, branding and merchandising support for both domestic and overseas grocery store retailers. More than 500 foreign supermarkets located in 16 countries participated in the IGA program in 1995.

Employment and Wages

Foodstore employment reached 3.24 million in 1994, a slight increase over 1993 levels (app. table 46). Grocery stores accounted for 88.5 percent of total employment. Although the number of grocery stores has declined over the past decade, employment has expanded as many foodstores have become more service-oriented. A typical supermarket may employ more than 200 persons, although many are on part-time schedules.

Average hourly earnings of grocery store employees rose to \$8.03, up 1.7 percent from 1993 levels (app. table 48). On a real (inflation-adjusted) basis, hourly earnings declined to \$5.52 in 1994, compared with \$5.55 in 1993 (in 1982-84 dollars) (fig. 32). Average hourly earnings do not include lump-sum payments and bonuses, such as those earned from a company profit-sharing plan. To the extent employees benefit from these sources, average hourly earnings are

Figure 32
Average hourly earnings of grocery store employees
Real wages have stabilized.



Real wages are adjusted for inflation by the CPI-W, all items.
 Source: Compiled by ERS from (42, 58).

understated. Many food retailers have resorted to these supplemental pay methods in lieu of base pay adjustments in order to limit payroll growth.

Many foodstore wage earners are also members of a labor union. Labor unions negotiate on behalf of their members with the retailers concerning wages, benefits, work rules, and grievance procedures. Contracts resulting from bargaining efforts usually are set for 1-3 years. The largest labor union in food retailing, the United Food and Commercial Workers

Union (UFCW), had contracts set for renewal covering 425,000 workers in 1994. Some bargaining agreements were reached only after union strikes, such as the 87-day strike and employer lockout in Portland, OR. In exchange for reductions in the number of employees included in the contract, an annual increase of 30 cents per hour was added to a base wage of \$12.20 per hour, among other provisions. In the New York market area, contracts covering 16,000 employees of chain retailers were approved, providing for base wage increases of \$75-\$125 per week. Health benefit provisions and limits to employees on part-time schedules were also included in many labor agreements in 1994.

Performance

Performance characteristics of the food retailing industry measure relative economic efficiency through financial statistics, labor productivity, and the introduction of new technology and investment.

Financial Measures

Financial measures including profits and earnings displayed considerable improvement in 1994 compared with recent years. Recession followed by slow sales growth during 1990-93 depressed financial conditions of food retailers. Return on stockholders' equity jumped from 7.5 percent in 1993 to 14.0 percent in 1994 (table 17). Income before taxes as a share of sales more than doubled, from 1.3 percent in 1993 to 2.8 percent in 1994. Stockholders' equity in relation to long-term debt was higher in 1994,

Table 17—Financial performance of food retailing companies with assets worth \$50 million or more
Profit rates rose in 1994.

	Share of sales			Share of assets		Profit rate		
	Operating income	Nonoperating expenses	Income before taxes	Long-term debt	Stockholders' equity	Return on stockholders' equity	Return on assets	Total stockholders' equity to total debt
	Percent					Ratio		
1981	11.9	0.2	1.7	21.0	36.3	12.5	0.9	1.5
1989	2.6	1.2	1.4	43.9	16.2	14.6	2.4	.3
1990	2.7	1.7	1.0	45.1	14.5	11.2	1.6	.3
1991	2.7	1.4	1.3	43.0	17.0	14.5	2.4	.4
1992	2.8	1.6	1.2	44.8	16.4	9.8	1.6	.4
1993	2.9	1.6	1.3	40.8	17.7	7.5	1.3	.4
1994	3.1	1.0	2.1	38.6	20.1	14.0	2.8	.5

Source: Compiled by ERS from (52).

reaching 0.5, indicating reduced leverage positions for the industry. Long-term debt as a share of assets fell to 38.6 percent, compared with 45.1 percent in 1990.

Similar measures were calculated for the 25 largest food retailers. Operating income as a share of sales was 4.3 in 1994, higher than the industry average. Similarly, return on stockholders' equity amounted to 17.1 percent, compared with a 14-percent industry average. Income before taxes amounted to 2.8 percent of sales, compared with 2.1 percent for the industry. Long-term debt as a share of assets was 43.2 percent—slightly higher than the industry level. Stockholders' equity to total debt measured 0.9, indicating less leveraging than for the industry. This result should be cautioned by the larger number of firms among the top 25 that are not publicly traded. Overall, these results suggest somewhat superior financial performance among the 25 largest food retailers compared with industry aggregates.

Productivity

The U.S. Bureau of Labor Statistics (BLS) index of output per labor hour for grocery stores fell to 91.7 in 1994 from 92.7 in 1993 and 107.9 in 1984 (1987=100) (fig. 33). The decline extends a long-term trend, partly explained by an increase in labor-intensive services provided by supermarket retailers. Although store services such as seafood and deli service and the increase in instore food preparation have been viewed as desirable by retailers and consumers alike, these labor demands apparently

have not been offset by labor reductions in other store operations, such as inventory and stocking activities.

Technology and Innovation

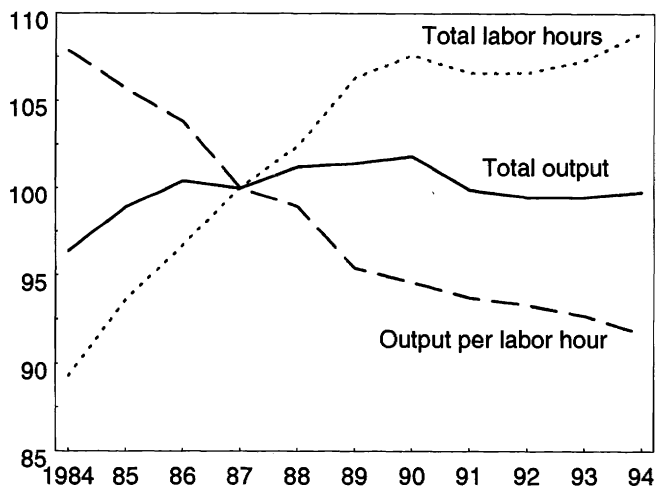
Food retailers are employing new technology to reduce both internal and external (systemwide) costs. Electronic ordering technology is gaining acceptance. Many wholesalers have informed their clients of this new technology as a requirement for procurement by retailers in order to reduce processing costs. Larger retailers are setting up satellite communication among their stores in order to better track sales volume inventory and promotional results. Methods to reduce processing time and streamline food distribution pipelines are being tried by a number of food wholesalers and retailers.

New technology to enhance consumer satisfaction and convenience includes the use of interactive TV for home ordering from local food retailers, or home PC-based ordering. Instore technology includes the greater use of electronic promotional displays, electronic shelf labeling, and self-checkout scanner systems. At the checkout, retailers are introducing the use of credit and debit cards both as a convenience to customers and to reduce handling costs compared with cash or check payment.

Figure 33

Foodstore productivity, 1984-94

Index (1987=100)



Source: Compiled by ERS from (60).

Food Service

The foodservice industry has seen continuous growth from 1993 to 1996, although real growth for foodservice remains limited by the modest economic environment of the 1990's. The industry continues to benefit by meeting the need for its services among consumers and businesses.

Separate eating places continue to dominate the industry, accounting for 83 percent of commercial foodservice sales in 1994 and 1995. Fast food is the largest eating place segment, with sales of \$94 billion in 1994. Fast-food sales are expected to cross the \$100-billion mark in 1996.

Value and convenience are important to today's consumers. Not only is fast food convenient, it eliminates the chores associated with preparing and eating a meal at home. Bundled value meals--which include a main dish, a side dish, and a beverage--have been key components in driving sales growth at fast-food restaurants.

The supermarket, deli, and convenience-store market remains a significant competitor to the fast-food segment. A wide selection of freshly made foods is appearing in these outlets, boosting foodservice sales.

As the traditional fast food-market matures, more nontraditional sites are popping up across the country. Nontraditional sites ranging from mobile operations

and pushcarts to sports centers and educational institutions are becoming stops for fast-food customers. Mall food courts and colleges/universities are two of the most widely operated nontraditional sites.

Dual-branded concepts are also enjoying success and are expanding rapidly, providing another avenue for fast-food growth. Experience has shown that two different concepts, such as Burger King/Mrs. Fields Cookies, sharing the same site can boost sales because consumers are presented with a wider range of food options than at a single-concept site.

Fast-food firms are continuing to turn their attention to the international marketplace. Fast-food companies are becoming major players in the global market and have ambitious plans for expansion overseas.

Sales

Sales of meals and snacks, including both the commercial and noncommercial sectors, reached \$274 billion in 1994 compared with \$259 billion in 1993, an increase of 6.0 percent (app. table 5). During 1994, real sales rose 4.4 percent.

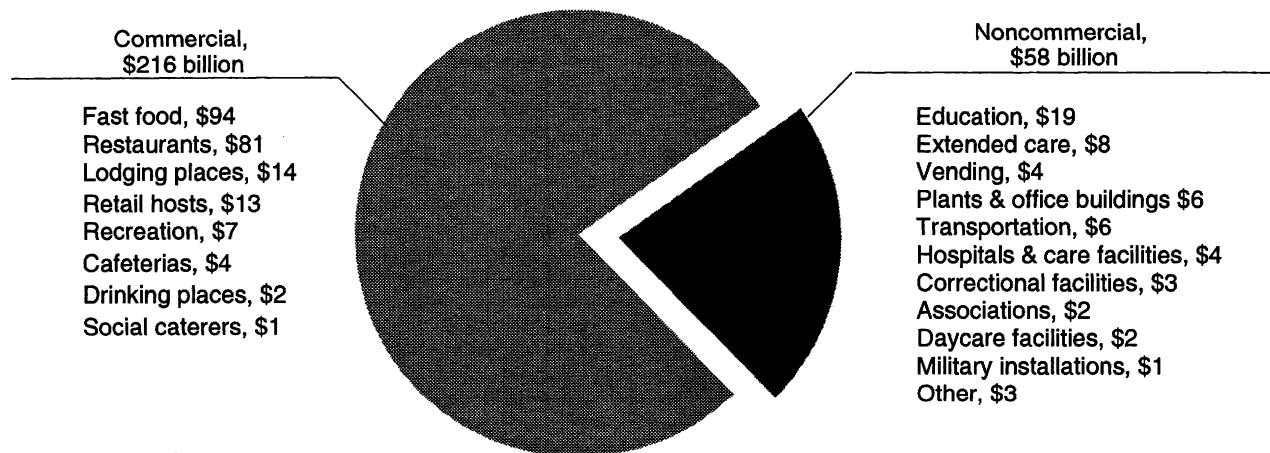
Structure and Organization

The foodservice industry consists of numerous individual market segments commonly divided into

Figure 34

Foodservice sales in 1994

Sales reached \$274 billion, with commercial sales accounting for 79 percent of total sales.



Source: Compiled by ERS.

Table 18—U.S. sales of top 25 restaurant chains

Rank 1994	Company	1994	1993
<i>Billion dollars</i>			
1	McDonald's	14.9	14.2
2	Burger King	7.3	6.7
3	Pizza Hut	5.0	4.8
4	Taco Bell	4.2	3.6
5	Wendy's	3.8	3.5
6	Hardee's	3.5	3.5
7	KFC	3.5	3.4
8	Subway	2.5	2.1
9	Little Caesar's	2.0	2.1
10	Domino's	1.9	1.9
11	Red Lobster	1.8	1.7
12	Arby's	1.8	1.6
13	Denny's	1.7	1.6
14	Dunkin Donuts	1.3	1.2
15	Shoney's	1.3	1.3
16	International Dairy Queen	1.2	1.1
17	Olive Garden	1.1	1.1
18	Big Boy Restaurant	1.1	1.1
19	Jack in the Box	1.0	1.0
20	Applebee's Neighborhood Bar and Grill	.9	.6
21	Long John Silver's	.9	.9
22	Chili's	.9	.8
23	Cracker Barrel Old Country Store	.8	.6
24	Sonic Drive-In	.8	.7
25	TGI Friday's	.8	.7
	Total	66.0	61.8

Source: Compiled by ERS from (25).

two major sectors: commercial and noncommercial. Commercial foodservice establishments exist for profit. Noncommercial foodservice operations provide food in such establishments as nursing homes, child daycare centers, hospitals, and military installations as a service rather than to make a profit. Commercial foodservice sales of meals and snacks accounted for \$216 billion, or 79 percent of foodservice sales. The noncommercial sector accounted for \$58 billion or 21 percent (fig. 34).

Separate eating places are commercial foodservice outlets that derive revenue mainly from sales of meals and snacks. They include full-service restaurants, fast-food outlets, commercial cafeterias, and social caterers. Separate eating places accounted for 83 percent of commercial foodservice sales in 1994. The remaining sales in the commercial sector were in

outlets, such as hotel restaurants and drugstore lunch counters, that were part of a larger facility, the foodservice sales of which were a small component of total revenues.

Fast food accounts for the largest and fastest rising share of sales in the foodservice industry. Sales in 1994 reached \$94 billion, up 7.9 percent from 1993 sales.

In 1994, the top 25 restaurant firms ranged from McDonald's Corporation, with \$14.9 billion in domestic sales, to IHOP Corporation, with \$631 million in domestic sales (app. table 34).

PepsiCo, Incorporated is the second largest firm, with U.S. sales totaling \$13 billion in 1994. Their restaurant division consists of Pizza Hut, Taco Bell, KFC, Hot N Now, D'Angelo's Sandwich Shop, and Chevy's Mexican Restaurant. Grand Metropolitan PLC, owner of Burger King, is the third largest restaurant firm with sales of \$7.2 billion.

U.S. sales of the 25 largest restaurant chains reached \$66.0 billion in 1994 (table 18). The four largest chains captured 48 percent of those sales in 1994, compared with 47 percent in 1993. The eight largest chains' sales measured 68 percent, up from 62 percent in 1993.

Among the top 25 chains, McDonald's continued as the largest with U.S. systemwide sales of \$14.9 billion, followed by Grand Metropolitan's Burger King with sales of \$7.3 billion. PepsiCo's Pizza Hut and Taco Bell were in third and fourth positions.

Sales of the fifth through eighth ranked chains rose 6.4 percent during 1994 to \$13.3 billion. Subway ranked eighth with sales of \$2.5 billion, up 19 percent from 1993 sales.

Sales of the 9th through 25th ranked chains reached \$21.3 billion in 1994, up 6.5 percent. Sales at Little Caesar's, the ninth ranked chain, were down to \$2.0 billion in 1994 from \$2.1 billion in 1993.

Restaurants may be broken down into six major types: sandwich, pizza, dinner house, family, chicken, and grill buffet (table 19). Among the sandwich restaurants, McDonald's holds the largest market share—34 percent. Burger King follows with 17 percent; Taco Bell, 10 percent; Wendy's, 9 percent. In pizza, Pizza Hut holds a market share of 48 percent. Though Little Caesar's market share fell

Table 19—Chains ranked by top 100 market share

Chain	Rank		Market share	
	1995	1994	1995*	1994
			<i>Percent</i>	
Sandwich				
McDonald's	1	1	33.51	33.95
Burger King	2	2	16.60	16.48
Taco Bell	3	3	10.29	9.54
Wendy's	4	4	8.80	8.68
Hardee's	5	5	7.46	7.98
Subway	6	6	6.16	5.72
Arby's	7	7	3.67	4.02
Jack in the Box	9	9	2.29	2.35
Sonic Drive-In	10	10	1.87	1.72
Pizza				
Pizza Hut	1	1	48.07	47.60
Little Caesar's Pizza	2	2	18.2	19.04
Domino's Pizza	3	3	17.56	18.19
Papa John's Pizza	4	6	4.01	2.83
Sbarro, The Italian Eatery	5	4	3.74	.65
Round Table Pizza	6	5	3.33	3.48
Chuck E. Cheese's	7	7	2.73	2.78
Godfather's Pizza	8	8	2.31	2.43
Dinner-House				
Red Lobster	1	1	18.95	20.62
Olive Garden	2	2	12.80	13.14
Applebee's Neighborhood Grill & Bar	3	4	10.37	10.10
Chili's Grill & Bar	4	3	9.73	10.15
TGI Friday's	5	5	8.91	8.88
Outback Steakhouse	6	6	8.41	6.30
Ruby Tuesday	7	8	5.58	5.10
Bennigan's	8	7	4.66	5.13
Chi-Chi's	9	9	3.48	4.19
Ground Round	10	10	3.12	3.61
Family				
Denny's	1	1	21.15	20.82
Shoney's	2	2	14.92	16.40
Big Boy Restaurant & Bakery	3	3	11.80	13.08
Cracker Barrel Old Country Store	4	4	11.33	9.80
International House of Pancakes	5	5	8.52	7.86
Perkins Family Restaurants	6	7	8.04	7.49
Friendly's Ice Cream	7	8	7.66	7.98
Bob Evans Farms	8	9	6.83	6.54
Chicken				
KFC	1	1	58.08	62.95
Boston Market	2	5	11.32	6.90
Popeye's Famous Fried Chicken	3	2	10.76	10.97
Chick-fil-A	4	4	7.92	8.12
Church's Chicken	5	3	7.82	8.36
Kenny Rogers Roasters	6	6	4.11	2.69
Grill Buffet				
Ponderosa Steakhouse	1	1	23.21	24.77
Golden Corral	2	3	19.71	18.06
Sizzler	3	2	19.57	10.01
Ryan's Family Steak House	4	4	17.60	16.47
Western Sizzlin'	5	5	10.93	11.30
Quincy's Family Steakhouse	6	6	8.99	9.38

* Projected. Source: Compiled by ERS from (25).

slightly in 1995, they remained second with 18.2 percent, followed by Domino's with 17.6 percent.

Dinner-house restaurants are usually more formal, upscale eating places. Red Lobster accounted for the largest market share in this category (18.9 percent). Denny's held the highest market share among family restaurant chains, 21.1 percent. KFC accounted for 58 percent of the chicken market. Among the grill/buffet type restaurants, Ponderosa Steakhouse took the lead with 23.2 percent, followed by Golden Corral, 19.7 percent; and Sizzler, 19.6 percent.

Mergers and Acquisitions

In 1993-94, merger and acquisition activity in the food service industry increased from 71 acquisitions in 1993 to 78 in 1994 (fig. 35). Of these acquisitions, 62 were made by U.S. foodservice firms, while 16 were made by other firms. Divestitures numbered 35 in 1994 (table 20).

Applebee's International, Inc., of Overland Park, KS, acquired Innovative Restaurant Concepts, Inc., of Marietta, GA, and its affiliates for 2.8 million shares of stock and the assumption of \$12.5 million in debt. Innovative Restaurants had sales of \$42.4 million in 1993. The sale includes 11 Rio Bravo Cantinas in Georgia, Florida, and Tennessee. Applebee's International, Inc., also acquired Pub Ventures of New England, Inc., operator of 14 Applebee's in Massachusetts, New Hampshire, and Rhode Island, with total annual sales of \$27.6 million in fiscal 1993. Applebee's International held the 16th position among restaurant companies, with 1994 sales of \$880 million.

TriArc Companies, parent to Arby's, bought Long John Silver for \$525 million. Long-term plans include the retrofitting of 600 existing units to include both brands, as well as the building of new double-branded stores.

Brinker International, Inc., of Dallas, TX, acquired Management Northwest Restaurants, Inc., for stock valued at \$7 million. Management Northwest operated nine Chili's Grill & Bar restaurants in Nevada and northern California with annual sales over \$22 million. Brinker International also acquired On the Border Cafes, Inc., of Dallas, TX. On the Border Cafes includes 21 restaurants—14 company-owned and 7 franchisees, with revenues of about \$40 million. Brinker International is also parent to Grady's American Grill and Romano's Macaroni Grill.

Table 20—Mergers and divestitures in food service*Merger activity fell in 1993, up in 1994.*

Year	Acquisitions		Total	Divestitures
	By U.S. foodservice firms	By all other firms		
	<i>Number</i>			
1982	33	18	51	33
1983	43	21	64	35
1984	39	39	78	30
1985	49	24	73	39
1986	58	23	81	35
1987	56	21	77	35
1988	46	29	75	29
1989	38	34	72	30
1990	32	15	47	25
1991	21	15	36	16
1992	39	20	59	34
1993	56	15	71	23
1994	62	16	78	35

Source: Compiled by ERS from (2).

CKE Restaurants Inc., of Anaheim, CA, acquired Carl Karcher Enterprises, Inc., and Boston Pacific, Inc., which is developing and will operate the company's franchised Boston Chicken stores.

Significant divestitures include ARAMARK, formerly known as ARA Services, Inc., Philadelphia, PA, which acquired TW Recreational Services (Flagstar Companies, Inc.) for \$130 million. This deal gives ARAMARK new operations at more than 20 parks in 10 States.

Arby's Inc., Fort Lauderdale, FL, a subsidiary of Triarc Companies, Inc., Miami Beach, FL, acquired 43 Los Angeles-area restaurants from the current franchisee (KFF Management, Inc.), Kyotaru Co., Ltd., Japan.

Boston Chicken, Inc., Naperville, IL, acquired 84 Roy Rogers restaurants in the Philadelphia area from (Hardee's Food Systems Inc., Rocky Mount, NC), Imasco Ltd., Montreal, Canada, for \$23 million. According to Technomic, Inc., a research consulting firm, Boston Chicken, Inc., is the fastest growing chain in the United States with 1994 sales of \$383,691, up 149 percent from 1993 sales.

Kenny Rogers Roasters Corporation, Ft. Lauderdale, FL, acquired the controlling interest in Clucker's Wood Roasted Chicken, Inc., Miami, FL, from the company and its two largest shareholders. Kenny Rogers Roasters is the second fastest growing chain in the United States.

Foreign firms buying U.S. firms in 1994 included Compass Group PLC, United Kingdom, which acquired Canteen Corporation of America from Flagstar Companies, Inc., of Spartanburg, SC, for \$450 million. Canteen is one of the largest food service management companies in the United States, with total revenues of \$1.1 billion in 1993 for food and vending. Canteen operates in 48 States, Washington, DC, and Japan. Gardner Merchant Ltd., of Great Britain acquired the education, business, and industry accounts of the contract foodservice division of Morrison Restaurants, Inc., Mobile, AL. Inno-Pacific Holdings Ltd. of Singapore acquired the remaining 10 percent of Shakey's International Ltd.

Franchising

According to the *Restaurant Business* annual franchising report, an estimated 89,671 franchise restaurant units operated in the United States and 18,030 units abroad in 1994 (table 21). Total sales for franchised U.S. units grew by 7.8 percent in 1994. The U.S. franchise industry accounted for \$68.6 billion in retail sales in 1994, up from 1993 sales of \$63.6 billion. The 1994 sales figure represents 36 percent of total eating place sales. The industry

Table 21—Combined units and sales of the top 50 restaurant franchises

Number of establishments	1993	1994	Increase, 1993-94
	<i>Number</i>		<i>Percent</i>
U.S. company-owned	19,532	19,849	3.9
U.S. franchisee-owned	63,543	69,822	9.9
Total U.S. units	83,075	89,671	7.9
International	16,881	18,030	6.8
Total systemwide units	99,956	107,701	7.8
	<i>Dollars</i>		
U.S. company-owned	18,616	19,864	6.7
U.S. franchisee-owned	45,005	48,740	8.3
Total	63,621	68,604	7.8
International	17,406	19,419	11.6
Total systemwide sales	81,027	88,023	8.6

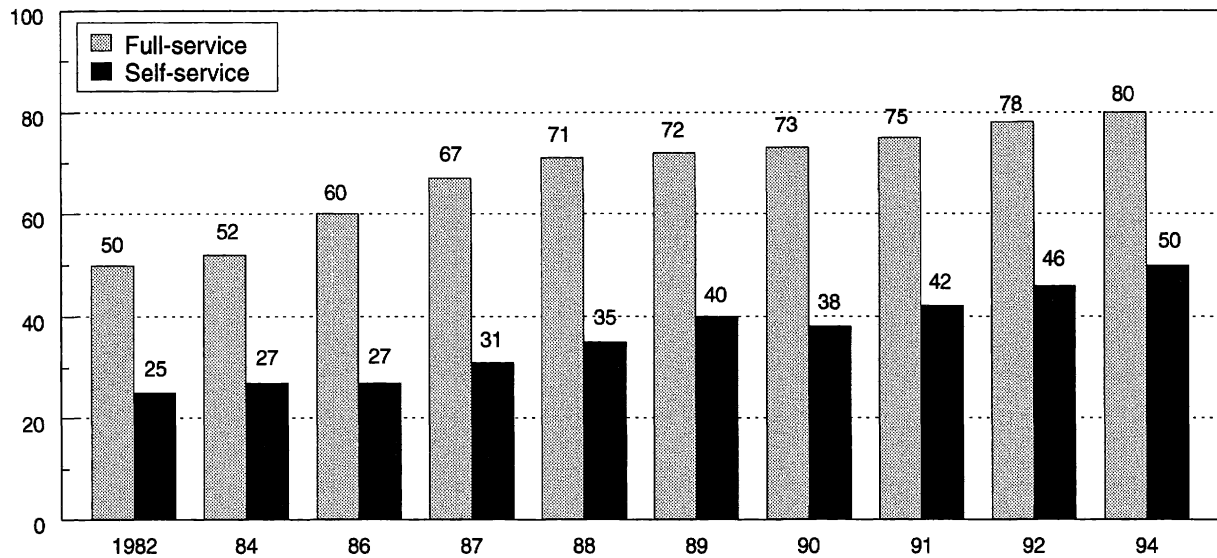
Source: Compiled by ERS from (31).

Figure 36

Delicatessen growth in supermarkets, 1982-94

The percentage of supermarkets with full-service delis has steadily increased since 1982.

Percent



Source: Compiled by ERS from (28).

added nearly 8,000 units in 1994, an increase of 7.8 percent.

Foodservice in Supermarkets

Although supermarket delis are part of the retail market, they have been one of the fastest growing outlets for food service in recent years. Sales from supermarket delis are counted in the "Food Retailing" chapter.

The number of supermarkets with delicatessens has steadily increased over the years. Eighty percent of all supermarkets had delicatessens with service employees in 1994 (fig. 36). Sales volume in the service deli reached a new high of \$18.7 billion in 1994, up 8.1 percent over 1993 sales of \$17.3 billion. The number of service deli units increased to 23,623 in 1994, up 2.7 percent over 1993.

The deli gained in its share of store sales between 1993 and 1994. Deli sales accounted for 5.1 percent of total store sales in 1994, up from 4.8 percent, and contributed an average of 15.6 percent of the total stores' profits. Though share of sales for sliced meats and cheese continue to dominate deli sales with 33.7 percent and 12.5 percent, they were down slightly from a year earlier. Prepared foods continue to make inroads in deli sales (fig. 37). Sandwiches, a popular item in the deli, increased its share slightly from 8.4 percent in 1993 to 8.9 percent in 1994. Prepared

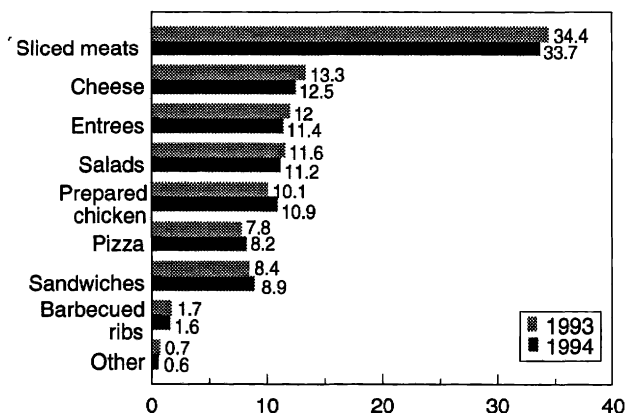
chicken and pizza also increased their share of deli sales. Hot and cold entrees' share of sales were slightly down in 1994.

Alternative Markets for Food Service

Foodservice operators are continuing to "take food to where people are" as they move into nontraditional

Figure 37

Share of deli sales in supermarkets, 1993 and 1994



Source: Compiled by ERS from Supermarket Business, selected issues.

markets such as department stores, home improvement stores, parks, schools, and colleges.

In 1994, McDonald's opened in Wal-Mart stores and could be appearing soon in Home Depot stores; Mrs. Winner's Chicken, Home Depots; Little Caesar's Pizza, K-Mart; McDonald's, Metro stores; Harry in a Hurry, Wal-Marts; Nathan's, Metro stores; Burger King, BJ's Wholesale Club; Popeyes, Church's, and Chick-fil-A, Krogers.

McDonald's has a new strategy called the Mini-Mac designed to put McDonald's fast food into supermarkets. This concept is being tested in Jewel supermarkets in Chicago. McDonald's opened an outlet in the new International Terminal at Chicago's O'Hare International Airport. A restaurant also opened in the elegant El Conquistador Resort and Country Club in Las Croabas, Puerto Rico. This restaurant operates around the clock serving staff and guests, including delivery to the resort's 918 guest rooms.

In the transportation arena, Subway has signed a deal with Continental Airlines, which allows departing flights from Denver to Houston to serve Subway sandwiches daily to more than 12,000 customers. Subway plans to expand the service to flights from Newark, NJ, where Continental is based. Greyhound Bus Lines, based in Dallas, TX, has made plans to open a Taco Bell Express in its St. Louis terminal and an Oscar Mayer Hot Dog Construction Station by the end of 1995.

Various fast-food companies have penetrated the Nation's schools and offer their products along with the school lunch. Pizza Hut and Taco Bell, the leaders in school programs, are in 5,000 and 2,500 programs nationwide. Subway, Domino's, Chick-fil-A, Arby's, Little Caesar's Pizza, and McDonald's also offer some of their products in schools.

Dual branding is becoming quite popular as chain operators join with other chains to form a multiple-brand concept while minimizing the investment and marketing risks inherent in the deployment of only a single concept in a building. For example, Taco Bell recently became a licensee of the T.J. Cinnamon's sweet roll chain. Taco Bell is also a licensee of the Cinnabon, Baskin-Robbins, and Blimpie concepts. Denny's is hooking up with Baskin-Robbins; Wendy's, Popeye's, Taco Bell, and KFC; Boston Chicken with AppleBees; Dunkin Donuts with Haagen Dazs and Checkers; Wendy's

with Little Caesar's; Outback Steakhouse with Red Lobster; California Pizza Kitchen with Chevy's; and Arby's with Sbarro and Long John Silver.

Convenience Stores (C-Stores)

According to the National Association of Convenience Stores (NACS) annual report, fast food is one of the top three product sales categories. Approximately 12 percent of all merchandise sales in 1994 was in fast food. NACS expects this number to increase.

Table 22 shows the percentage breakdown of foodservice merchandise purchases in convenience stores. Fountain drinks, hot beverages, and deli services (excluding sandwiches and fresh sandwiches) make up over half the merchandise purchases. The concept of fast-food "branding" in convenience stores is one of the fastest growing foodservice trends in convenience stores today.

Branding is an increasingly popular way for c-store retailers to offer well-known restaurant foods while reaping the production, distribution, and cost advantages already in place at fast-food restaurant operations.

In a 1994 survey conducted by NACS, more than 23 percent of the respondents currently have branded fast-food programs, 59 percent are considering a

Table 22—Percentage of foodservice purchases in c-stores, 1992-94

Product category	Merchandise purchases		
	1994	1993	1992
	Percent		
Licensed or franchised fast food (branded)	0.4	0.3	NA
Other food cooked on site	0.9	1.0	1.0
Fresh baked goods	0.6	0.7	NA
Sandwiches - fresh	1.6	0.9	1.6
Sandwiches - frozen	0.6	0.4	0.4
Deli services (excluding sandwiches)	1.1	1.3	1.4
Fountain drinks	2.9	3.0	3.0
Frozen beverages	0.6	0.8	0.2
Hot beverages	2.2	2.8	2.0
Other fast food	1.0	0.5	0.8
Total	11.9	11.7	10.4

Source: Compiled by ERS from National Association of Convenience Stores "State of The Industry 95."

branded fast-food program, and 65 percent who offer branded programs report storewide sales increases.

The top 10 branded fast-food programs currently offered by c-stores are as follows (in descending order): Subway, Taco Bell, Blimpie, Burger King, Dunkin Donuts, McDonald's, Pizza Hut, Godfather's, Baskin-Robbins, and Arby's.

Performance

Measures of performance include changes in productivity and technology, profits, menu prices and costs, foreign activity, and advertising.

Productivity and Technology

Labor productivity at eating and drinking places has been slowly declining since 1991's index of 104.6. The 1993 index was down to 103.9 (app. table 56).

The foodservice industry is embracing technology of all kinds to improve sales, profits, and service—kitchen automation to simplify labor, commuter-based management systems to control costs, and software packages to enhance marketing efforts.

According to a research firm that specializes in the shipments and uses of foodservice technology, foodservice operators spent more than \$285 million in 1993 on installed electronic information technologies alone. More than two-thirds of that expenditure was among large chains.

At the cutting edge is a small-footprint infrared oven that prepares foods in a fraction of the time required by conventional ovens. This device gives operators with space constraints more preparation power and the manufacturers of vending equipment the means to deliver automated systems that heat foods on demand.

Taco Bell has been testing an automatic taco maker that completely assembles and packages the chain's signature food item, reducing kitchen labor requirements.

A new double-sided, computer-controlled griddle not only prepares food considerably faster than conventional open-faced models, but also prevents workers from overcooking or undercooking products.

The Lang Manufacturing griddle can be programmed at the factory to prepare a number of different food items with the touch of a button by unit-level workers, and it can be reprogrammed in the restaurant

to reflect new menu items or different preparation techniques. The preset cooking routines of griddles in 1 or 100 restaurants can be adjusted by way of a computer modem and long-distance phone lines. The griddle detects fluctuations in temperature, adjusting cooking times accordingly, and even keeps the top locked in place so that employees cannot remove foods until they have completed their preset cooking cycle.

Food safety concerns have spurred advances in traditionally low-tech items, including packaging labels and directories. LifeLines Technology's Fresh Check 3-1 system is a line of packaging labels that uses polymer technology to warn manufacturers, distributors, and operators if a food product has been mishandled. If one of the company's labels is on a package subjected to higher-than-recommended temperatures or held too long, the label's appearance changes to alert its handler that it should not be shipped, delivered, or served.

There is a trend toward the use of more compact computers, graphically sophisticated software, and user-friendly data input devices, including touch screens, hand-held ordering terminals, and bar-code inventory readers. IBM has combined touch-screen, notebook computer, and local area network (LAN), technologies to create its Point-of-Sale Integrated Touch Terminal System. This system gives operators the ability to have low-profile, self-contained but networked touch-screen entry terminals throughout their business.

One of the newest devices in information systems is a multimedia dining and entertainment directory—viewed on television screens and manipulated with remote controls—that enables hotel guests to seek out a particular type of restaurant. This service is being tested at 11 San Francisco hotels

Training time can be cut dramatically with touch screens because using a system of sub-menus displaying information is more intuitive than using a keyboard. Touch screens reinforce training by requiring servers to "ask the right questions."

AT&T Global Solutions has combined hardware and software application advances into an integrated management system for full-service operations. The touch-screen-based system links point-of-sale information with back-office management data for such functions as automated inventory control, and allows servers to quickly split customer checks or authorize credit cards online.

Micros Systems Inc. has merged two cutting-edge technologies: touch screens and hand-held terminals. The terminals are used with two of the company's computer-based management systems.

Hand-held touch screens began springing up in restaurants in the mid-1980's, but early models required servers to punch small keys to enter numeric codes or abbreviated words for food and beverage items. The new hand-held touch screens are easier to use because operators are not required to memorize and enter combinations of keys; they simply select from choices presented to them through a series of changing screens.

Another high-interest field is technology that deals with cards designed to track and transfer credit, including traditional credit cards, automatic teller machine cards, debit cards used at college and industry feeding operations, and the sophisticated "smart" cards now under development.

Verifone of Redwood City, CA, is testing a wireless, tableside debit device called The Folio for use with bank and credit cards. This device is presented to the guests along with the check. Once the patron has slid their credit or bank card along the magnetic strip reader and entered a personal identification number and a tip amount, if any, the device is picked up by the server, who is alerted by a blinking light. The server connects the device to a nearby docking station that completes the transaction and issues a receipt.

Employment and Wages

The foodservice industry employed 7.1 million workers in 1994, 3.6 percent above the 1993 level (app. table 46). Foodservice accounted for 55 percent of all food marketing employees. Average hourly earnings of foodservice workers rose to \$5.47 in 1994, 2.2 percent above 1993 earnings (app. table 48).

Menu Prices and Costs

Menu prices were up 2.4 percent in 1995 and are predicted to advance 2.5 percent in 1996. Competitive pressures and price-sensitive consumers will continue to dampen menu price inflation in 1996. Wholesale food prices posted a 0.8-percent increase in 1995, but are expected to exhibit no overall growth in 1996.

Payroll captured 29.6 percent of the full-menu tableservice sales dollar at full-service restaurants with an average check per person of less than \$10 on a weighted-average basis. Employee benefits

Table 23—Major U.S. chains operating internationally, 1994

Chain	Asia/ Pacific	Europe, Africa, Middle East	Latin America	Canada	Total
	<i>Number</i>				
McDonald's	2,111	2,197	436	717	5,461
KFC	2,172	817	396	873	4,258
Pizza Hut	910	1,148	415	455	2,928
Subway	115	31	62	736	944
Dominos'	232	160	203	185	840
Dairy Queen	125	36	16	451	628
Wendy's	143	41	51	178	413
Total	5,806	4,426	1,565	3,687	15,472

Source: Compiled by ERS from chain annual reports.

accounted for an additional 4.8 percent. Payroll costs and employee benefit costs for full-service restaurants with average checks of \$10 or more were 28.1 percent and 4.6 percent. Labor costs as a percentage of the total sales dollar at limited-service (quick-service) establishments were slightly lower at 26.3 percent for payroll and 2.5 percent for benefits.

Foreign Investment

Data used here are taken from industrywide data reported by the Department of Commerce's Bureau of Economic Analysis (BEA). In 1993, the latest year for which data are available, there were 10 U.S. foodservice firms with 76 foreign affiliates (app. table 85). These affiliates had sales of \$9.0 billion, 11 percent above 1992 sales. The net income of these affiliates was \$344 million compared with \$354 million in 1992.

U.S. Investment Abroad

As U.S. markets become saturated and U.S. companies look for alternative markets, more fast-food outlets are showing up in other countries. Trade data were used to compile information at the firm and chain level. The top 50 U.S. restaurant chains operated 18,030 units outside of the United States in 1994, up from 900 units in the early 1970's. Seven of the chains accounted for 15,472 (91 percent) of those units (table 23). Asian Pacific countries accounted for the largest share of these units—37 percent. Hamburgers, chicken, and pizza chains dominate the foreign markets.

Table 24—Top U.S. food service chains in foreign markets by number and sales

Chain	Total systemwide units, 1994	Foreign units, 1994		Total systemwide sales, 1994	Foreign sales, 1994	
	<i>Number</i>	<i>Number</i>	<i>Percent</i>	<i>\$ million</i>	<i>\$ million</i>	<i>Percent</i>
McDonald's	15,205	5,461	36	25,986	11,046	43
KFC	9,407	4,258	45	7,100	3,600	51
Pizza Hut	11,546	2,928	25	6,900	1,900	28
Subway	9,893	944	10	2,500	265*	11
Dominos Pizza	5,079	840	17	2,500	415	17
Dairy Queen	5,542	628	11	5,542	300*	9
Wendy's	4,411	413	9	4,277	390*	9
Church's	1,171	233	20	590	125	21
Arby's	2,789	168	6	1,770	74	4
Taco Bell	5,615	162	3	4,290	130	3
Little Caesar	4,855	155	3	2,000	70*	4
TCBY Yogurt	2,801	141	5	388	22*	6
Sizzler	600	119	20	858	230	27
A&W	671	104	15	236	68	29
Big Boy	940	90	10	1,130	100*	
Denney's	1,548	58	4	1,779	63	4
Popeye's	772	48	6	584	35	6
Sbarro	729	41	6	384	22	6
Ponderosa	680	40	6	690	40*	6
International House of Pancakes	657	37	6	632	32*	5
TGI Fridays	314	37	12	897	114	13
Bonanza	264	30	11	267	32	12
Round Table Pizza	576	29	5	351	15*	4
Carl's Jr.	649	20	3	587	30*	5
Long John Silver's	1,456	16	1	938	6	1
Jack In The Box	1,224	16	1	1,050	23*	2
Whataburger	517	9	2	383	5*	2
Perkins	432	8	2	626	12	2
Showbiz Chuck E. Cheese	332	8	2	370	7	2
Total	90,675	17,038		72,333	19,171	27

¹ Includes U.S. company-owned and franchisee owned establishments.

*Technomic estimate.

Source: Compiled by ERS from (31).

McDonald's, the largest single foodservice organization in the world, had 15,205 units worldwide in 1994 and sales amounting to nearly \$26 billion. McDonald's operates in 79 countries and accounts for the largest number of units operating outside the United States, 5,461. Thirty-six percent of McDonald's total units operated outside the United States, compared with 34 percent in 1993 (table 24). Most of McDonald's units are franchised. McDonald's also leads in foreign sales, accounting for \$11 billion in 1994. Major markets for

McDonald's units include Japan, Canada, Germany, England, Australia, and France.

In 1994, McDonald's opened its first restaurants in Bulgaria, Bahrain, Kuwait, Latvia, Oman, United Arab Emirates, New Caledonia, Romania, Trinidad, and Saudi Arabia. The meat used in Saudi Arabia will be prepared by Islamic ritual. McDonald's expects to open 900 to 1,200 restaurants around the world in the next several years, with two-thirds outside the United States. England, France, and Germany will be popular locations. By 1996, they

plan to open units in Bombay and Delhi. They are currently testing vegetable burgers, expanded fish and chicken selections, and the preparation of meat and vegetable items in accordance with Hindu customs.

The McDonald's chain not only operates traditional restaurant units but satellite stores as well—smaller units such as kiosks or mobile carts—that serve simpler menus. McDonald's expected to open about 1,000 satellites around the world in 1995. They say the key to aggressive satellite programs is alliances with retailers and oil companies that operate convenience stores. In 1994, McDonald's satellite units operated in 377 Wal-Marts throughout the United States, Canada, Mexico and Puerto Rico. The United States, Finland, Denmark, and Italy now have McDonald's in service stations.

KFC, a division of PepsiCo, Inc., has the second largest number of international units—4,258 in 73 countries. Foreign sales for KFC totaled \$3.6 billion in 1994. Forty-five percent of all KFC outlets are located overseas. One-fourth of KFC's international units are in Japan; 11 percent, Australia; and 8 percent, Great Britain. Of the seven largest restaurant chains, only KFC and Pizza Hut operated outlets in Africa.

Pizza Hut, a division of PepsiCo, Inc., has 11,546 units operating in 82 countries. Twenty-five percent, or 2,928 restaurant units, are located outside the United States. Pizza Hut chains are located primarily in Australia, France, Spain, the United Kingdom, and Trinidad. Pizza Hut International had received government approval to open a chain of restaurants in India and Bucharest by the end of 1995. They also plan to open 300 units in China over the next 10 years.

Domino's Pizza, the second largest pizza chain, operates 840 franchised units in 37 countries. Japan and Canada are popular locations. Domino's overall growth will depend more on international expansion. They already have about 90 stores in the UK and expect to grow in South America.

Subway, a subsidiary of Doctor's Associates, Inc., operated 9,893 units in 21 countries in 1994. About 944 of those restaurants operate outside of the United States. In 1994, Subway opened new stores in Mexico, China, Japan, Indonesia, Philippines, Iceland, Slovenia, Cyprus, Kuwait, Saudi Arabia, and Korea.

Dairy Queen, a subsidiary of International Dairy Queen, Inc., had 628 of its 5,542 units operating

outside the United States in 1994. Dairy Queen opened new stores in Mexico, China, Slovenia, Cyprus, Kuwait, Saudi Arabia, and Korea during that time. Dairy Queen operates in 16 countries.

In 1994, Wendy's operated 4,411 units in 32 countries and territories, with 413 foreign units. Canada is the largest market for Wendy's restaurants, with nearly half of the foreign units. Other popular markets for Wendy's restaurants are Japan, 42; Philippines, 30; and Korea, 29. Wendy's planned for 100 new international units in 1995 to be concentrated in Latin America, the Pacific, Western Europe, and Canada. Wendy's anticipates a total addition of 550 new units in 1995-97.

Metromedia Restaurant Group, Inc., has awarded its first Bennigan's franchise after nearly 20 years to Tong Yank Group of Seoul, South Korea, which will develop at least four Bennigan's. Metromedia has two other chains, Ponderosa and Bonanza, outside the United States.

Foreign Investment in the United States

Foreign-owned firms had 77 U.S. affiliates in 1993, according to industrywide BEA data. These U.S. affiliates accounted for sales of \$5.2 billion and employed 116,800 employees. Foodservice sales in the United States by major foreign investors amounted to \$14.6 billion in 1994, up 4 percent from 1993 U.S. sales. The number of U.S. units operated by these investors increased from 17,938 in 1993 to 18,878 in 1994.

Major foreign investors in the United States are Grand Metropolitan, PLC, London, England; Imasco, Ltd., Montreal, Canada; and Allied-Domecq, PLC, formerly known as Allied Lyons (PLC), London, England (table 25). Grand Metropolitan, owner of the Burger King chain, is the largest investor in U.S. food service. Grand Metropolitan acquired Burger King in 1988 with the purchase of Pillsbury. Among the top 50 restaurants operating in the United States, Burger King is number 2 and currently operates over 6,000 outlets with U.S. systemwide sales amounting to \$7.3 billion in 1994, up from \$6.5 billion in 1993.

Imasco, Ltd., Canadian-based owner of the Hardee's and Roy Rogers chains, is the number 2 foreign investor. In 1989, the Marriott Corporation sold most of its Roy Rogers restaurants to Imasco. Imasco operates about 4,000 Hardee's/Roy Rogers outlets in the United States, with 1994 sales amounting to nearly \$4 billion.

Table 25—Largest foreign investors in U.S. foodservice operations

Foreign investor/ headquarters	U.S. chains	Type	U.S. units			U.S. sales ¹		
			1994	1993	1992	1994	1993	1992
			<i>Number</i>			<i>Billion dollars</i>		
Grand Metropolitan PLC (London, England)	Burger King	Sandwich	6,090	6,064	5,705	7.3	6.5	6.4
Imasco, LTD (Montreal, Canada)	Hardees	Sandwich	3,404	3,313	3,313	3.5	4.1	3.9
	Roy Rogers	Sandwich	530	650	650	.5	.7	.7
	Total		3,930	3,963	3,963	4.0	4.8	4.6
Allied-Domecq, PLC (London, England)	Dunkin Donuts	Snack	2,979	2,628	2,342	1.3	1.2	1.1
	Baskin-Robbins	Snack	2,355	2,220	2,390	.5	.5	.5
			5,334	4,848	4,732	1.8	1.7	1.6
Compass Group, PLC (London, England)	Canteen Corporation	Contract	1,600	1,622	1,516	1.1	1.0	1.0
Onex Corporation (Toronto, Canada)	Sky Chef	Contract	34	35	37	.5	.5	.5
Sodexho (Paris, France)	Sodexho, USA	Contract	490	450	400	.4	.4	.4
	Gardner Merchant Food Service		1,100	660	630	.4	.2	.2
	Total		1,590	1,110	1,030	.8	.6	.6
The Alberta Abela Group (Paris, France)	The Wood Co.	Contract	296	296	292	.3	.3	.2
Total			18,878	17,938	17,275	15.8	15.4	14.9

¹ Includes company-owned and franchise-owned operations.

² Name changed from Allied-Lyons, PLC.

Source: Compiled by ERS from (25).

Dunkin Donuts was acquired in 1990 by London-based Allied-Domecq, PLC, the third largest foreign investor in U.S. food service operations.

Allied Domecq also owns Baskin-Robbins ice cream stores. Allied Domecq operated over 5,300 outlets in 1994, with combined U.S. sales of \$1.8 billion.

London-based Compass Group, PLC, made its debut into the United States in April 1994 by buying the majority of Flagstar Cos. Inc.'s Canteen Corp. for \$450 million. U.S. sales for Canteen totaled \$1.1 billion from 1,600 U.S. accounts in 1994.

Onex Corporation, the Canadian-based owner of Sky Chefs, recently signed a deal with Lufthansa AG of Frankfurt, Germany, that changed its signage to "LSG Lufthansa Service/Sky Chefs." This agreement

created a global catering company with combined annual revenues of \$1.3 billion.

Sodexho is a French contract catering company that has units in 60 countries and revenues in excess of \$1.9 billion. In 1995, Sodexho acquired Gardner Merchant Services Group, creating the world's leader in contract catering with 11,745 units worldwide. The merger represents combined annual revenues of \$3.65 billion. Gardner, which has been operating in the United States for 15 years, recently bought two of the contract segments' biggest accounts. In 1994, the Trumbull, CT-based division of Gardner Merchant purchased from Morrison Restaurant Inc. the business and education accounts of its Morrison Hospitality Group for about \$100 million. This acquisition increased Gardner Merchant's U.S. portfolio to more than 1,000 accounts and will nearly double its

projected annual revenues in the future. In the United States, Waltham, MA-based Sodexho, U.S.A., operates 490 units and reports \$440 million in sales. Sodexho and Gardner Merchant operated about 1,600 accounts in the United States with total revenues of approximately \$800 million in 1995.

Other foreign investors in U.S. food service include Kyotauru Co., Ltd., Tokyo, Japan (Acapulco, Charlie Brown's, Paragon Steakhouse); Nestle (Stouffer Hotels, Top Restaurants, Rusty Scupper); and Unigate PLC, London, England (Black-eyed Pea, Dixie House, Taco Bueno, Casa Bonita, and Crystal's Pizza).

Profits

PepsiCo's restaurant division's worldwide net sales increased to \$10.5 billion in 1994, up 12 percent from 1993. Growth was primarily due to additional units (constructed and acquired) and volume growth. Domestic sales rose 8 percent to \$8.7 billion and international sales rose 37 percent to \$1.8 billion. Worldwide operating profits declined \$48 million to \$730 million in 1994. The decline reflected increased administrative and support costs. Domestic profits declined to \$659 million and international profits fell to \$71 million.

Pizza Hut's worldwide sales increased to \$6.9 billion in 1994, up 8 percent from 1993, driven by international operations and the domestic acquisition of D'Angelo Sandwich Shops in 1993. Pizza Hut's worldwide profits decreased \$77 million to \$295 million, reflecting lower net pricing due to value-oriented promotions and increased administrative and support costs. International sales led to strong double-digit growth by units in Korea, Brazil, Canada, Mexico, and Spain. International profits, however, declined sharply reflecting increased startup and administrative costs to support aggressive development strategies. Strong gains in Korea, the largest profit market, primarily reflected additional units and strong volume growth. Profits declined in the largest sales markets, Australia and Canada. Startup losses set back the new Poland operations.

Taco Bell's worldwide sales increased \$500 million to \$4.3 billion. Worldwide sales growth was led by additional Taco Bell units and also by the acquisition of Chevy's and new Chevy's units. Worldwide profits rose to \$270 million in 1994, or 7 percent above 1993. This growth reflected lower food costs, additional units, volume gains, higher soft drink prices, and increased franchise royalty revenues. Profit growth was restrained by increases from Hot N

Table 26—Top 4 foodservice corporations' expenditures in advertising¹

Company	Expenditures		
	1994	1993	1992
	<i>Million dollars</i>		
PepsiCo, Inc.	443.2	408.6	342.9
McDonald's Corp.	424.5	408.7	411.4
KFC	132.0	127.9	111.8
Pizza Hut	153.5	145.8	119.0
Taco Bell	154.8	132.2	111.6
Hot N Now Drive-In	1.9	2.4	.5
D'Angelos Sandwich Shop	.1	.1	NA
Chevy's Mexican	.9	.2	NA
Grand Met., PLC	203.0	177.4	161.5
Burger King	202.8	177.2	161.4
Luthers Bar B Q Restaurant	.2	.2	.1
General Mills	99.1	77.8	70.7
China Coast	2.2	.1	NA
General Mills	.0	.1	.1
Olive Garden	33.2	17.5	14.9
Red Lobster	63.7	60.1	55.7
Total	1,169.9	1,072.5	986.5

NA = Not applicable.

¹ Includes magazines, outdoor advertising, television (network, spot, syndicated and cable), and radio network and spot.

Source: Compiled by ERS from (3).

Now units. International operations posted strong double-digit sales growth, primarily due to additional units.

Burger King's worldwide sales rose to \$2.6 billion in 1994, reflecting additional units. Worldwide profits increased to \$165 million, up 8 percent from 1993. Domestic profits grew at a double-digit rate in 1994. Double-digit international sales growth was led by the combined impact of acquired units in the UK and new units in Mexico, Australia, and Canada. International profit growth was modest. Profits increased in Australia, the largest market, and New Zealand. Mexico's and Canada's profits declined sharply. Grand Metropolitan's Burger King increased their operating profit by 28 percent in 1994 and system sales by 12 percent to almost \$5 billion.

Concentration

The largest U.S. eating-place firms continued to hold their share of sales between 1987 and 1992, according to the Censuses of Retail Trade (app. table 30). The Nation's 4 and 50 largest eating place firms held 8 and 23 percent of sales in 1992, compared with 8 and 22 percent in 1987. Among fast-food restaurants, the 4 and 50 largest firms held market shares of 12 and 27 percent in 1992. Those shares were about the same in 1987 (11 and 27 percent).

Advertising

The top four foodservice advertisers for 1994 were PepsiCo, Incorporated; McDonald's Corporation; Grand Metropolitan, PLC; and General Mills. These top four advertisers spent \$1.2 billion in restaurant advertising in 1994, up 9 percent from 1993 and 19 percent from 1992 (table 26). Television continued to be the major advertising medium—96 percent of the total was spent on television advertising.

PepsiCo, Incorporated—parent to Pizza Hut, Taco Bell, KFC, Hot N Now, D'Angelos, and Chevy's—took the lead in restaurant advertising in 1994, spending \$443 million, up from \$409 million in 1993.

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Market Size and Sales

Appendix table 1—Food sales in the food marketing system¹

Year	Off-premise use				Total sales	Food service ²	Total
	Food-stores	Other stores	Home-delivered, mail order	Farmers, manufacturers, wholesalers			
<i>Billion dollars</i>							
1963	44.1	3.0	2.7	1.6	51.5	22.6	74.1
1967	52.1	3.3	2.5	1.6	59.5	30.4	89.9
1972	75.5	3.9	2.4	1.8	83.6	46.6	130.2
1977	118.3	7.1	2.3	2.9	130.5	84.8	215.3
1982	179.1	10.7	2.6	4.2	196.7	140.4	337.4
1983	187.3	12.8	2.7	4.3	207.1	152.1	359.2
1984	197.1	14.6	2.8	4.5	218.9	163.0	381.9
1985	204.9	16.4	2.8	4.6	228.7	171.5	400.2
1986	210.4	19.3	2.9	4.7	237.2	185.3	422.5
1987	217.7	19.7	3.4	5.3	246.0	203.3	449.3
1988	227.4	21.8	4.0	5.6	258.9	221.7	480.6
1989	242.0	24.7	4.6	6.0	277.4	236.2	515.0
1990	262.3	28.2	5.3	6.3	302.1	252.7	554.8
1991	271.6	30.8	5.8	6.5	314.6	259.8	574.4
1992	270.5	32.4	6.4	6.6	316.0	269.3	585.3
1993	273.8	34.2	6.8	6.8	321.6	285.9	607.5
1994	286.4	36.4	6.9	6.7	336.5	303.2	639.7

¹ Includes taxes and tips. Excludes home food production.

² Includes food furnished and donations.

Source: (21) and updates.

Appendix table 2—Alcoholic beverage sales in the food marketing system

Year	Packaged alcoholic beverages				Alcoholic drinks			Total	Total
	Liquor stores	Food-stores	All other	Total	Eating and drinking places ¹	Hotels and motels ¹	All other		
<i>\$1,000</i>									
1963	4,665	2,594	725	7,984	5,306	458	385	6,149	14,133
1967	6,005	3,211	904	10,120	6,222	623	551	7,396	17,516
1972	8,810	5,137	1,113	15,060	7,911	961	704	9,576	24,636
1977	11,686	8,041	1,946	21,673	11,981	1,713	1,266	14,960	36,633
1982	15,984	13,379	3,378	32,741	18,371	2,849	1,488	22,708	55,449
1983	16,818	14,789	3,878	35,485	19,038	3,051	1,620	23,709	59,194
1984	15,997	16,622	4,158	36,777	19,863	3,220	1,691	24,774	61,551
1985	17,058	16,989	4,152	38,199	20,659	3,371	1,816	25,846	64,045
1986	17,350	17,631	5,031	40,012	22,291	3,406	1,935	27,632	67,644
1987	17,283	18,197	4,991	40,471	23,204	3,691	2,106	29,001	69,473
1988	17,090	18,721	5,332	41,142	24,340	3,979	2,281	30,600	71,743
1989	17,462	19,824	5,991	43,278	24,808	4,238	2,450	31,495	74,773
1990	18,873	21,158	6,659	46,688	26,454	4,455	2,623	33,532	80,220
1991	19,511	21,190	6,940	47,641	26,878	4,574	2,678	34,090	81,731
1992	18,826	20,849	6,831	46,506	27,302	4,930	2,814	35,046	81,552
1993	18,666	20,698	6,896	46,261	27,936	5,166	2,968	36,062	82,323
1994	18,883	21,697	7,055	47,635	29,298	5,501	3,071	37,870	85,505

NA = Not available.

¹ Includes tips.

Source: (21) and updates.

Appendix table 3--Supermarket share of sales, 1994

Category	Supermarket sales 1994 ¹		Change since 1993	Average annual percent change 1989-1994
	Volume	Share of store sales		
	<i>Million dollars</i>		<i>Percent</i>	
Grocery foods	\$90,271.36	30.01	4.4	3.14
Baby foods	2,731.36	0.91	5.7	8.21
Baking needs	5,439.74	1.81	2.5	1.65
Beer & wine	7,109.06	2.36	5.3	4.31
Breakfast foods	10,151.74	3.37	4.9	5.05
Candy & gum	3,284.56	1.09	4.0	3.28
Canned fish	1,710.26	0.57	5.9	-2.33
Canned fruits	1,243.99	0.41	-2.4	-0.67
Canned vegetables	3,003.18	1.00	2.3	-0.33
Coffee & tea	4,923.97	1.64	16.2	1.13
Cookies & crackers	6,306.49	2.10	2.6	2.56
Desserts & toppings	772.71	0.26	1.9	1.74
Juice (grocery)	3,993.85	1.33	4.2	4.89
Nuts & dried fruits	1,552.54	0.52	-3.2	-0.03
Pasta	2,399.28	0.80	7.4	3.94
Pickles & olives	1,234.45	0.41	3.0	1.42
Prepared foods	2,261.96	0.75	4.0	3.08
Rice & dried vegetables	1,422.95	0.47	7.7	3.54
Sauces & dressings	6,328.00	2.10	4.9	5.07
Snacks	6,203.03	2.06	4.3	3.60
Soft drinks & mixes	12,120.03	4.03	3.2	3.22
Soups	2,858.29	0.95	5.0	5.26
Spices & extracts	1,245.49	0.41	3.3	2.48
Spreads & syrups	1,974.46	0.66	-0.3	-0.54
Perishables	148,963.89	49.50	3.0	3.44
Bakery foods, packaged	8,868.01	2.95	3.0	3.62
Dairy products	24,791.43	8.24	3.5	2.69
Deli	9,373.70	3.11	4.5	6.33
Florals	557.50	0.19	2.5	2.79
Frozen foods	16,342.03	5.43	4.8	2.22
Ice cream	4,630.92	1.54	4.0	3.24
In-store bakery	5,558.80	1.85	6.9	6.49
Meat & seafood	48,620.70	16.15	1.7	2.90
Produce	30,220.80	10.04	2.6	4.31
Nonfood groceries	30,382.61	10.09	-3.0	-1.15
Household supplies	8,409.63	2.79	-2.2	-0.58
Paper, plastic, films & oil	9,519.83	3.16	1.3	-0.56
Pet foods	5,140.06	1.71	-0.1	-0.49
Tobacco products	7,313.09	2.43	-10.7	-2.92
General merchandise	11,991.34	3.98	2.8	2.48
Health & beauty care	12,413.50	4.12	3.2	3.15
Pharmacy	4,812.48	1.60	NA	NA
Video rental	1,358.03	0.44	7.1	NA
Unclassified	806.76	0.26	NA	NA
Total supermarket	301,000.00	100.00	3.1	3.16

¹ Supermarkets with annual sales of \$2 million or more.

Source: (29)

NA = Not available.

Appendix table 4--Private label sales of large supermarket chains

	1990	1993	1994
	<i>Sales as percentage of total grocery sales</i>		
Supermarkets General	2.0	23.5	23.5
Kroger	16.5	22.0	22.5
Winn-Dixie	20.0	22.0	22.5
Stop and Shop	19.0	20.0	21.5
A&P	18.0	20.0	20.2
Smith's	11.0	20.0	20.2
Giant Food	17.5	19.0	19.0
Safeway	15.0	19.0	19.3
American Stores	16.0	17.4	18.0
Ahold	13.0	16.0	16.3
Hannaford	12.0	16.0	16.0
Ralphs	12.9	14.9	17.0
Albertson's	14.0	14.0	15.5
Vons	12.0	13.0	15.0
Food Lion	4.0	10.0	12.0
Peer Group Average	14.9	17.9	18.6
All supermarkets	13.7	14.9	15.0

Source: (1).

Appendix table 5--Foodservice sales, by industry segment¹

Industry segment	1988 ²	1989 ²	1990 ²	1991 ²	1992 ²	1993 ²	1994 ²
<i>Million dollars</i>							
Commercial:							
Separate eating places--							
Restaurants and lunchrooms	62,028	65,435	70,034	71,506	72,275	76,684	81,371
Fast-food outlets	65,749	70,180	74,361	75,845	80,015	86,834	93,743
Cafeterias	3,333	3,517	3,764	3,843	3,644	3,866	4,103
Social caterers	<u>1,214</u>	<u>1,370</u>	<u>1,484</u>	<u>1,372</u>	<u>1,222</u>	<u>1,312</u>	<u>1,408</u>
Total	132,324	140,502	149,643	152,566	157,156	168,696	180,625
Lodging places							
Lodging places	10,039	10,686	11,225	11,388	12,354	12,947	13,778
Retail hosts	7,157	8,358	9,703	10,669	11,398	12,288	13,350
Recreation and entertainment	4,828	5,392	5,833	5,988	6,282	6,642	6,992
Separate drinking places	<u>1,536</u>	<u>1,478</u>	<u>1,563</u>	<u>1,587</u>	<u>1,639</u>	<u>1,597</u>	<u>1,640</u>
Commercial feeding total	155,884	166,416	177,967	182,198	188,829	202,170	216,385
Noncommercial:							
Education--							
Elementary and secondary	7,093	7,436	7,973	8,520	8,969	9,430	9,848
Colleges and universities	<u>7,061</u>	<u>7,644</u>	<u>8,230</u>	<u>8,807</u>	<u>9,330</u>	<u>9,673</u>	<u>9,710</u>
Total	14,154	15,080	16,203	17,327	18,299	19,103	19,558
Military services--							
Troop feedings	1,068	1,104	1,074	1,062	904	626	552
Clubs and exchanges	<u>707</u>	<u>751</u>	<u>799</u>	<u>835</u>	<u>867</u>	<u>842</u>	<u>830</u>
Total	1,775	1,855	1,873	1,897	1,771	1,468	1,382
Plants and office buildings	4,668	4,999	5,335	5,481	5,611	5,861	6,110
Hospitals	3,590	3,740	3,876	3,790	3,748	3,724	3,698
Extended care facilities	5,392	5,872	6,350	6,368	6,848	7,298	7,838
Vending	5,471	5,442	5,614	5,288	5,086	4,641	4,145
Transportation	3,996	4,372	4,825	4,784	5,158	5,659	5,757
Associations	1,541	1,629	1,704	1,735	1,793	1,929	2,101
Correctional facilities	1,678	1,932	2,150	2,278	2,404	2,588	2,772
Child daycare centers	866	945	1,056	1,094	1,278	1,406	1,559
Elderly feeding programs	142	143	143	153	165	154	177
Other	<u>2,023</u>	<u>2,116</u>	<u>2,098</u>	<u>2,506</u>	<u>2,573</u>	<u>2,817</u>	<u>2,846</u>
Noncommercial feeding total	45,296	48,125	51,227	52,701	54,734	56,648	57,943
Total	201,180	214,541	229,194	234,899	243,563	258,818	274,328

¹ Excludes sales tax and tips.² Revised based on new data.Source: ERS, Food Markets Branch, (202) 501-6765. *Food Marketing Review*, selected issues.

Appendix table 6—Alcoholic beverage sales, by product category

Year	Total retail sales	Market shares		
		Distilled spirits	Wine	Beer
	<i>Million dollars</i>	<i>Percent</i>		
1967	17,516	50.8	6.0	43.2
1972	24,636	48.0	9.1	42.9
1977	36,633	41.8	10.0	48.2
1983	59,194	33.8	12.3	53.9
1984	61,151	32.1	12.4	54.5
1985	64,045	32.7	12.9	54.4
1986	67,644	32.6	13.4	54.0
1987	69,473	32.4	13.2	54.5
1988	71,743	31.9	12.7	55.3
1989	74,773	31.7	12.2	56.0
1990	80,220	32.2	12.5	55.3
1991	81,731	31.8	12.0	56.2
1992	81,552	30.9	11.5	57.5
1994	85,505	30.6	11.9	57.5

Sources: (9, 21).

Appendix table 7—Market share of distilled spirits entering U.S. trade channels

Type	1975	1977	1982	1984	1986	1988	1990	1992	1994
	<i>Percent</i>								
Domestic	71.5	72.1	69.4	67.4	68.3	68.1	64.5	67.4	67.8
Imported	28.5	28.0	30.7	32.6	31.7	31.9	35.5	32.6	32.2
Whiskey	53.2	49.5	43.9	41.3	38.7	37.6	37.4	35.2	33.5
Gin	9.8	10.0	9.3	9.1	8.7	8.3	8.0	8.0	8.0
Vodka	19.4	20.6	22.4	22.5	23.5	24.1	22.8	24.2	25.6
Rum	4.0	5.2	7.3	7.9	7.9	8.3	9.4	8.6	7.5
Brandy	3.5	3.8	4.6	5.1	5.1	5.1	4.9	5.1	4.8
Cordials	7.0	7.1	9.0	10.1	11.9	11.5	10.7	11.7	12.4
Others	3.1	3.5	3.5	4.0	3.8	4.5	6.4	6.9	8.2
	<i>Million gallons¹</i>								
Total	448	441	447	444	404	384	403	377	364

¹Equivalent to wine.

Source: (9).

Appendix table 8—Food marketing system's share of disposable personal income¹

Year	Retailing	Food service	Total food
		<i>Percent</i>	
1963	12.5	3.5	16.0
1967	10.6	3.5	14.1
1972	10.0	3.7	13.7
1977	9.5	4.2	13.7
1982	8.6	4.5	13.1
1983	8.4	4.6	13.0
1984	8.0	4.4	12.4
1985	7.8	4.4	12.2
1986	7.6	4.4	12.1
1987	7.5	4.5	12.0
1988	7.4	4.4	11.8
1989	7.4	4.4	11.8
1990	7.5	4.4	11.9
1991	7.5	4.4	11.9
1992	7.1	4.3	11.4
1993	6.9	4.5	11.4
1994	6.8	4.5	11.4

¹ Excludes alcohol.

Source: (42).

Appendix table 9—Food service as share of food expenditures

Year	Share of total dollars	Share of total food (quantity)	Share of personal dollars
		<i>Percent</i>	
1929	17.2	14.9	13.4
1939	19.2	16.9	15.0
1948	24.1	20.7	17.9
1954	25.2	22.0	18.2
1955	25.5	21.7	18.6
1956	25.8	21.7	19.0
1957	25.6	21.3	18.8
1958	25.3	21.3	18.5
1959	26.2	21.4	19.8
1960	26.6	21.4	19.9
1961	27.2	21.7	20.4
1962	28.0	22.2	21.1
1963	28.9	22.6	21.7
1964	29.4	23.3	22.3
1965	30.2	23.7	22.8
1966	31.3	24.7	23.7
1967	32.5	25.0	24.7
1968	33.5	25.6	25.5
1969	33.7	25.3	25.6
1970	33.8	25.0	26.3
1971	34.2	24.8	26.5
1972	34.6	25.2	27.1
1973	35.1	27.2	27.3
1974	34.5	26.3	26.8
1975	36.2	27.5	28.5
1976	37.5	28.0	29.9
1977	38.2	28.1	30.7
1978	38.9	29.0	31.7
1979	39.4	29.5	32.2
1980	39.3	29.2	32.2
1981	39.8	29.3	33.4
1982	40.5	29.6	34.5
1983	41.3	29.6	35.3
1984	41.6	30.0	35.7
1985	42.0	30.0	35.9
1986	43.0	30.5	36.6
1987	44.4	33.1	37.2
1988	45.4	33.9	37.8
1989	45.2	34.1	37.4
1990	44.9	34.1	36.6
1991	44.6	33.8	35.4
1992	45.3	34.5	35.3
1993	46.4	35.9	36.0
1994	47.0	36.7	36.6

Source: (21).

Appendix table 10--Food and nonfood sales or shipments in food marketing¹

Year	Processing ²	Wholesaling	Food service	Foodstores
<i>Million dollars</i>				
1972	115,051	106,457	NA	99,035
1977	192,912	182,905	NA	157,941
1982	280,529	288,658	NA	246,122
1983	289,314	309,200	135,982	256,018
1984	304,584	333,000	146,054	271,909
1985	308,606	346,300	152,773	285,062
1986	318,203	369,900	171,116	297,019
1987	329,725	380,900	185,760	309,461
1988	351,518	396,700	202,109	325,493
1989	364,403	422,600	217,700	347,045
1990	384,009	431,000	233,621	368,333
1991	387,050	441,800	241,131	374,523
1992	394,830	504,600	250,487	377,099
1993	413,988	516,700	258,466	385,386
1994	429,631	517,061	282,255	399,252

NA = Not available.

¹ Both food processing and wholesaling include double counting because of sales to other processors or wholesalers. Sales of the four sectors include nonfood grocery items. Shipments or sales of the four sectors are noncumulative.

² Industry shipments.

Sources: (41, 44, 45, 46, 47, 51).

Appendix table 11--Food processing product shipments

Industry	1989	1990	1991	1992	1993
	<i>Million dollars</i>				
Meat products	84,340	90,776	89,391	94,164	99,393
Meatpacking plants	46,542	51,069	49,362	50,434	53,297
Sausage and other prepared meats	17,515	18,779	18,361	19,972	20,742
Poultry slaughtering and processing	20,282	20,927	21,703	23,757	25,371
Dairy products	48,044	50,962	48,852	54,144	55,028
Creamery butter	1,570	1,307	1,231	1,034	979
Cheese, natural and processed	14,317	16,155	16,379	18,352	19,021
Condensed and evaporated milk	6,052	6,135	6,343	7,541	7,672
Ice cream and frozen desserts	4,474	4,660	4,761	5,291	5,608
Fluid milk	21,630	22,703	21,137	21,927	21,748
Preserved fruit and vegetables	41,627	44,494	46,806	46,400	46,896
Canned specialties	6,047	6,332	6,474	6,663	6,979
Canned fruit and vegetables	13,605	14,697	15,579	15,066	14,658
Dried fruit, vegetables, and soups	2,235	2,453	2,708	2,853	2,471
Pickles, sauces, and salad dressings	5,412	5,749	6,220	6,398	6,632
Frozen fruit and vegetables	7,422	7,473	7,395	7,535	7,883
Frozen specialties	6,904	7,797	8,427	7,886	8,272
Grain mill products	44,873	46,538	47,110	50,052	52,369
Flour and grain mill products	5,776	5,624	5,207	6,294	6,837
Cereal breakfast foods	7,912	8,704	8,954	9,799	10,615
Rice milling	1,743	1,771	1,739	1,651	1,944
Prepared flour mixes and dough	2,912	3,155	3,302	3,866	3,948
Wet corn milling	6,287	6,696	7,114	7,045	6,886
Dog, cat, and other pet food	6,703	7,015	7,097	7,024	7,245
Prepared animal feed	13,538	13,570	13,696	14,374	14,892
Bakery products	25,065	26,121	26,538	28,501	29,916
Bread and other bakery goods	16,580	17,019	17,278	18,143	18,669
Cookies and crackers	7,099	7,803	8,021	8,688	9,460
Frozen bakery products, except bread	1,386	1,298	1,238	1,671	1,787
Sugar and confections	20,184	21,044	21,958	22,713	23,573
Raw cane sugar	1,436	1,295	1,374	1,460	1,519
Cane sugar, refined	2,641	3,075	2,925	2,823	2,661
Beet sugar	2,096	2,133	2,330	2,282	2,468
Candy and other confectionery products	7,863	7,991	8,745	10,207	10,679
Chocolate and cocoa products	2,843	3,061	3,013	3,106	3,203
Chewing gum	NA	1,113	NA	NA	NA
Salted and roasted nuts and seeds	NA	2,373	NA	2,834	3,044
Fats and oils	20,194	19,499	18,735	18,743	20,062
Cottonseed oil mills	938	850	716	738	744
Soybean oil mills	10,723	10,966	9,965	10,651	11,705
Vegetable oil mills	591	490	455	666	721
Animal and marine fats and oils	2,297	1,766	1,725	1,858	1,874
Shortening and cooking oils	5,642	5,415	5,873	4,830	5,018

See footnotes at end of table.

Continued--

Appendix table 11--Food processing product shipments--Continued

Industry	1989	1990	1991	1992	1993
<i>Million dollars</i>					
Beverages	50,133	52,198	54,610	57,939	59,577
Malt beverages	14,321	15,186	15,924	17,340	17,671
Malt	798	700	610	576	576
Wines, brandy, and brandy spirits	3,539	3,657	3,585	4,302	4,514
Distilled and blended liquors	3,601	3,473	3,656	3,394	3,569
Soft drinks and carbonated water	23,002	23,847	25,191	25,416	25,997.6
Flavoring extracts and syrups	4,870	5,332	5,642	6,911	7,249
Miscellaneous foods	29,938	32,374	32,597	34,500	36,444
Processed fishery products	837	998	1,029	968	1,042
Roasted coffee	6,167	6,622	5,919	5,292	5,536
Potato chips and similar products	5,788	6,062	6,646	7,324	7,748
Manufactured ice	355	326	324	358	397
Macaroni and spaghetti	1,154	1,229	1,276	1,389	1,518
Other food preparations	10,083	11,047	11,322	12,170	13,502
Total food products	364,403	384,009	397,000	407,156	423,257

Source: (43).

Appendix table 12--Total sales of grocery and food wholesalers, by type of wholesaler

Year	Merchants	Manufacturers' sales branches and offices	Agents and brokers
<i>Billion dollars</i>			
1963	34.7	12.4	13.8
1967	43.4	15.1	15.9
1972	64.0	21.7	20.6
1977	111.6	41.6	29.7
1982	174.7	63.9	50.0
1987	223.0	89.2	68.7
1992	279.2	127.3	98.1

Source: (47).

Appendix table 13--Foodstore sales¹

Year	Total foodstore sales	Grocery store sales				Specialized foodstore sales
		Total	Supermarkets	Convenience stores	Superettes	
<i>Million dollars</i>						
1958	50,263	43,696	23,562	NA	NA	6,567
1963	57,254	52,566	31,484	NA	NA	4,688
1967	69,371	64,215	43,433	NA	NA	5,156
1972	99,035	92,273	63,791	4,200	24,282	6,762
1977	157,941	147,759	110,849	8,722	28,188	10,182
1982	246,122	230,696	171,966	19,500	39,230	15,426
1983	256,018	240,402	184,568	21,032	34,802	15,616
1984	271,909	256,465	193,059	24,565	38,841	15,444
1985	285,062	269,546	203,129	25,700	40,717	15,516
1986	297,019	280,833	213,448	26,406	40,979	16,186
1987	309,461	290,979	222,861	30,641	40,448	18,482
1988	325,483	307,173	233,408	31,398	45,135	18,310
1989	347,045	328,072	247,312	34,461	46,119	18,973
1990	368,333	348,243	262,244	37,019	48,980	20,090
1991	374,523	354,331	270,599	37,883	45,850	20,192
1992	377,099	358,148	275,865 ²	39,145 ²	43,138 ²	18,951
1993	385,386	365,725	281,300	39,729	44,933	19,661
1994	399,254	378,580	289,030	40,316	49,234	20,672
1995	410,512	389,134	NA	NA	NA	21,378

NA = Not available.

¹ Sales exclude sales taxes.² Estimated.

Sources: (29, 46).

Appendix table 14--Number of food marketing establishments

Year	Processing	Wholesaling	Eating and drinking places ¹	Retailing	Total
<i>Number</i>					
1963	37,521	41,890	334,481	319,433	733,325
1967	32,517	40,005	271,182	294,243	637,947
1972	28,193	38,531	359,524	267,352	693,600
1977	26,656	37,960	368,066	252,853	685,535
1982	22,130	38,516	379,444	254,346	694,436
1987	20,624	42,075	490,383	257,337	810,239
1992	20,805	42,874	553,879	277,629	895,174

¹ Excludes all noncommercial eating facilities and commercial outlets such as hotel restaurants, department store coffee shops, and ballpark food concessions. These eating facilities numbered over 397,000 in 1982 and over 343,000 in 1977.

Sources: (44, 45, 47).

Appendix table 15--Number of food marketing establishments covered by unemployment insurance¹

Year	Processing	Wholesaling	Eating and drinking places ²	Retailing	Total
<i>Number</i>					
1978	24,999	39,339	284,531	127,974	476,843
1979	24,172	40,009	288,016	128,114	480,311
1980	24,218	40,613	290,959	129,402	485,192
1981	24,061	41,629	292,570	129,921	488,181
1982	24,180	42,626	297,630	132,067	496,503
1983	24,127	43,498	305,684	135,125	508,434
1984	23,845	44,856	308,966	136,651	514,318
1985	23,669	45,584	314,257	138,641	522,151
1986	23,367	46,678	319,484	139,106	528,635
1987	23,174	48,677	331,368	141,426	544,645
1988	22,920	50,103	337,566	141,791	552,380
1989	22,239	51,096	343,168	142,356	558,859
1990	22,903	51,385	35,545	143,279	573,024
1991	23,546	53,237	382,163	157,280	616,226
1992	23,168	54,553	397,131	164,270	639,123
1993	23,667	55,037	409,836	168,272	656,812

¹ Includes production establishments, central business offices, and other auxiliary units.

² Excludes all noncommercial eating facilities and commercial outlets such as hotel restaurants, department store coffee shops, and ballpark food concessions. These eating facilities numbered over 397,000 in 1982 and over 343,000 in 1977.

Source: (58).

Appendix table 16--Number of food marketing establishments (county business patterns)¹

Year	Processing	Wholesaling	Eating and drinking places ²	Retailing	Total
<i>Number</i>					
1974	25,383	34,736	241,253	160,233	461,605
1975	24,550	34,577	245,774	159,710	464,611
1976	24,113	34,893	252,267	162,010	473,283
1977	24,294	35,951	275,761	167,088	503,094
1978	23,748	35,019	278,609	161,230	498,606
1979	21,362	36,127	275,447	159,162	492,098
1980	20,983	35,636	271,236	157,649	485,504
1981	20,720	35,535	273,726	162,952	492,933
1982	20,808	36,521	299,684	173,311	530,324
1983 ³	21,757	39,517	351,935	187,451	600,660
1984	21,667	37,492	350,619	185,133	594,911
1985	21,569	39,694	333,994	182,725	577,982
1986	21,145	39,758	362,895	187,430	611,228
1987	20,837	42,031	388,842	197,130	648,840
1988	20,323	40,651	370,291	183,226	614,531
1989	20,182	40,038	391,478	183,857	635,555
1990	20,492	40,766	402,564	186,062	649,884
1992	20,256	40,507	415,197	187,769	663,729
1993	20,799	41,890	430,098	190,280	683,047

¹ Includes administrative and auxiliary establishments, both of which are excluded from appendix table 13.

² Excludes all noncommercial eating facilities and commercial outlets such as hotel restaurants, department store coffee shops, and ballpark food concessions. These eating facilities numbered over 397,000 in 1982 and over 343,000 in 1977.

³ Beginning in 1983, establishments were included if they existed at any time during the year. For prior years, only firms existing at the end of the year were included.

Source: (48).

Appendix table 17--Number of retail and wholesale alcoholic beverage establishments

Year	Liquor stores	Wholesale distributors
		<i>Number</i>
1963	40,188	7,598
1967	39,719	7,109
1972	41,991	6,383
1977	44,354	6,714
1982	41,507	6,666
1987	45,086	5,835
1992	31,386	5,259

Sources: (46, 47).

Appendix table 18—Census statistics for food manufacturing industries

Industry group and industry	1992				1987			
	Total	All establishments		Cost of materials	Total	All establishments		Cost of materials
		With 20 or more employees	Value added by manufacture			With 20 or more employees	Value added by manufacture	
	----- Number -----	----- Million dollars -----			----- Number -----	----- Million dollars -----		
All industries					368,817	126,162	1,166,554.9	1,321,327.8
Food and kindred products	20,802	9,325	1,428,707.4	1,571,289.2	20,624	9,694	122,072.6	208,628.7
Meat products	3,237	1,484	18,949.6	74,533.9	3,267	1,535	13,740.4	62,850.3
Meatpacking plants	1,385	430	6,851.7	42,907.1	1,465	504	5,160.0	39,840.3
Sausages and other prepared meats	1,261	622	5,550.9	14,463.9	1,311	613	2,009.9	9,379.1
Poultry slaughtering and processing	591	432	6,547.0	17,163.0	532	401	2,276.8	8,170.5
Dairy products	2,024	1,148	16,066.1	38,072.7	2,366	1,289	11,908.9	32,945.7
Creamery butter	32	17	150.0	885.1	49	26	155.6	1,269.3
Cheese, natural and processed	574	312	4,467.1	13,854.1	643	310	2,614.4	10,315.1
Condensed and evaporated milk	215	135	3,369.5	4,173.6	185	114	2,388.2	3,445.4
Ice cream and frozen desserts	456	177	2,096.5	3,210.5	540	212	1,263.4	2,669.5
Fluid milk	747	507	5,983.1	15,949.4	949	627	5,487.3	15,246.5
Preserved fruit and vegetables	2,046	1,108	22,003.7	23,072.1	1,912	1,106	17,272.1	19,042.8
Canned specialties	220	76	425.4	3,224.1	211	86	2,661.9	2,703.4
Canned fruit and vegetables	684	399	6,970.2	7,829.8	648	418	5,441.8	6,467.8
Dehydrated fruit, vegetables, and soups	150	79	1,133.0	1,159.6	131	68	938.6	928.4
Pickles, sauces, and salad dressings	375	151	340.8	3,640.2	381	161	2,457.8	2,455.5
Frozen fruit and vegetables	255	201	2,935.9	4,605.9	258	193	2,986.0	3,669.5
Frozen specialties	362	202	4,100.1	3,737.3	283	180	2,786.0	2,818.2
Grain mill products	2,619	1,078	21,182.7	27,952.4	2,610	1,015	15,271.3	21,530.4
Flour and other grain mill products	362	170	1,599.4	4,618.2	361	168	1,384.0	3,709.9
Breakfast cereals	65	42	7,338.1	2,470.9	53	34	4,904.5	1,669.8
Rice milling	52	32	501.2	1,123.7	63	35	440.1	852.4
Blended and prepared flour	213	125	1,800.0	2,142.2	147	95	1,237.0	1,294.0
Wet corn milling	51	34	3,271.8	3,747.0	61	36	2,030.9	2,746.7
Dog, cat, and other pet food	162	106	3,685.1	3,373.3	186	101	2,739.5	2,289.1
Other prepared feeds	1,714	569	2,987.1	10,477.1	1,739	546	2,535.4	8,968.6
Bakery products	3,151	1,259	17,932.0	10,691.9	2,850	1,287	15,251.7	8,477.0
Bread, cake, and related products	2,537	945	11,431.0	6,690.2	2,356	1,030	10,550.9	5,670.6
Cookies and crackers	441	212	5,541.7	3,200.0	380	191	4,100.7	2,241.0
Frozen bakery products, except bread	173	102	959.4	801.8	114	66	600.1	565.4

See footnotes at end of table.

Continued--

Appendix table 18--Census statistics for food manufacturing industries--Continued

Industry group and industry	1992				1987			
	Total	All establishments		Cost of materials	Total	All establishments		Cost of materials
		With 20 or more employees	Value added by manufacture			With 20 or more employees	Value added by manufacture	
	----- Number -----	----- Million dollars -----			----- Number -----	----- Million dollars -----		
Sugar and confectionery products	1,130	493	10,950.6	11,964.0	1,094	520	8,927.1	10,560.6
Raw cane sugar	45	41	561.9	887.6	50	42	509.6	796.0
Cane sugar, refined	17	15	737.2	2,138.2	24	16	445.9	2,003.4
Beet sugar	40	37	799.7	1,559.3	43	38	613.2	1,277.1
Confectionery products ¹	762	299	6,350.1	3,911.9	672	292	4,163.0	3,118.1
Chocolate and cocoa products	156	32	1,475.3	1,632.3	188	55	1,578.3	1,727.0
Chewing gum ¹	762	299	6,350.1	3,911.9	29	12	750.3	347.8
Salted and roasted nuts and seeds	110	69	1,026.4	1,834.8	88	65	866.8	1,291.2
Fats and oils	543	324	3,805.8	15,505.7	595	358	3,245.5	12,916.5
Cottonseed oil mills	45	35	192.4	528.9	52	40	106.9	378.8
Soybean oil mills	101	71	1,274.8	9,379.5	115	74	1,019.0	8,199.0
Vegetable oil mills	26	14	122.9	543.2	23	15	82.7	353.3
Animal and marine fats and oils	269	138	882.3	1,557.5	305	154	750.4	1,024.1
Edible fats and oils	102	66	1,333.5	3,496.6	100	75	1,286.5	2,961.3
Beverages	2,066	974	29,065.0	28,056.5	2,214	1,132	22,693.7	24,859.8
Malt beverages	194	75	10,600.4	6,756.2	134	64	7,270.8	6,311.4
Malt	26	18	152.7	393.4	27	19	153.6	368.0
Wines, brandy, and brandy spirits	553	136	1,820.1	2,220.6	508	108	1,317.1	1,815.7
Distilled spirits, except brandy products	65	48	2,005.2	1,419.9	71	56	2,043.7	1,508.8
Bottled and canned soft drinks	926	572	10,016.7	15,490.6	1,192	785	8,612.9	13,488.8
Flavoring extracts and syrups	302	125	4,470.0	1,703.9	282	100	3,295.6	1,367.2
Miscellaneous foods and food products	3,976	1,457	16,887.9	17,353.4	3,716	1,452	13,762.0	15,445.6
Canned and cured fish and seafood	157	60	365.2	591.9	178	84	290.1	509.1
Fresh or frozen prepared fish	681	360	2,335.4	4,540.6	640	354	1,540.0	4,188.2
Roasted coffee	172	87	2,695.1	2,551.2	142	83	2,602.8	3,803.0
Potato chips and similar snacks	409	215	4,229.5	2,928.7	340	182	3,292.5	1,745.0
Manufactured ice	562	59	252.9	105.9	548	65	202.2	86.2
Macaroni and spaghetti	198	41	764.4	628.1	227	49	620.3	442.5
Food preparations	1,797	635	6,245.4	6,007.1	1,641	635	5,214.1	4,671.5
Tobacco products	114	79	27,167.1	7,993.8	NA	NA	NA	NA
Cigarettes	11	10	24,801.9	4,965.6	NA	NA	NA	NA
Cigars	27	19	170.8	103.7	NA	NA	NA	NA
Chewing and smoking tobacco	30	19	1,212.5	398.0	NA	NA	NA	NA
Tobacco stemming and redrying	46	31	981.9	2,526.6	NA	NA	NA	NA

NA = Not available.

Source: (44).

Appendix table 19--Number of grocery stores

Year	Total	Supermarkets	Convenience stores	Superettes
			<i>Number</i>	
1939	386,900	NA	NA	NA
1958	259,796	15,282	NA	NA
1963	244,838	21,167	NA	NA
1967	218,130	23,808	NA	NA
1972	194,346	27,231	NA	NA
1977	179,042	30,831	30,000	118,211
1982	177,889	26,640	38,700	112,549
1983	177,659	26,480	40,400	110,779
1984	177,430	26,265	42,950	108,215
1985	177,200	26,229	45,400	105,571
1986	176,971	25,629	47,000	104,342
1987	176,759	24,980	50,000	101,779
1988	174,531	24,614	52,500	97,417
1989	172,332	24,083	52,000	96,249
1990	170,160	23,813	51,700	94,647
1991	168,016	23,722	50,700	93,594
1992	165,898	NA	49,905	NA

NA = Not available.

Sources: (29, 47).

Appendix table 20--Specialized foodstore sales, 1987

Item	All establishments	Establishments with payroll	Establishments w/o payroll	Share of specialized foodstore sales (All establishments)
	----- <i>Thousand dollars</i> -----			--- <i>Percent</i> ---
Specialized foodstores	18,481	16,366	2,116	100.0
Retail bakeries	5,194	4,871	323	28.1
Meat and fish markets	6,261	5,616	645	33.9
Fruit & vegetable markets	2,090	1,802	288 ¹	11.3
Candy, nut, and confectionery stores	1,465	1,182	283 ¹	7.9
Dairy products stores	1,007	880	127 ¹	5.4
Misc. food stores ²	2,464	2,014	450 ¹	13.3

¹ ERS estimate based on Census of Retail Trade, 1987 and prior years.

² Includes natural-food and health-food stores, egg and poultry retailers, coffee, tea, and spice stores, vitamin stores, and all other specialized foodstores not elsewhere classified.

Source: (46).

Appendix table 21--Foodservice establishments, by industry segment

Industry segment	1981	1982	1983	1984	1985	1986	1987	1988
	<i>Number</i>							
Commercial:								
Separate eating places--								
Restaurants, lunchrooms	122,060	122,851	123,642	124,433	125,502	125,237	124,983	125,042
Fast-food outlets	113,794	117,119	120,444	123,769	124,809	125,032	126,619	127,930
Cafeterias	6,223	61,029	5,853	5,640	5,388	4,277	4,420	4,312
Total	242,077	300,999	249,939	253,842	255,699	254,546	256,022	257,284
Lodging places	23,559	24,448	23,855	23,262	22,613	24,533	25,413	26,252
Retail hosts	58,193	57,578	56,963	56,348	56,005	55,616	54,942	54,008
Recreation, entertainment	33,996	34,093	34,188	34,282	34,910	35,716	36,125	36,660
Separate drinking places	45,864	44,478	43,092	41,706	40,642	39,462	38,520	37,113
Commercial feeding total	403,701	410,155	408,030	409,453	409,869	409,873	411,022	411,317
Noncommercial:								
Education--								
Elementary, secondary	92,900	91,300	90,600	89,600	89,424	88,824	88,414	89,692
Colleges, universities	3,253	3,280	3,284	3,288	3,299	3,312	3,443	3,511
Other education	2,925	2,966	2,975	3,000	3,076	3,120	3,185	3,240
Total	99,078	97,546	96,859	95,888	95,799	95,256	95,042	96,443
Military services--								
Troop feeding	1,389	1,387	1,341	1,310	1,290	1,250	1,222	1,217
Clubs, exchanges	2,435	2,431	2,420	2,042	1,980	1,940	1,913	1,904
Total	3,824	3,818	3,761	3,352	3,270	3,190	3,135	3,121
Plants, office buildings	15,747	15,414	15,409	15,846	15,963	16,006	16,814	17,250
Hospitals	6,933	6,915	6,888	6,861	6,835	6,810	6,796	6,772
Care facilities	24,941	26,817	27,875	28,933	29,711	30,599	31,218	31,945
Vending	3,634	3,608	3,582	3,556	3,535	3,507	3,480	3,453
Transportation	714	664	644	642	640	626	607	594
Associations	19,211	19,272	19,333	19,394	19,450	19,333	19,200	19,070
Correctional facilities	6,977	7,031	7,085	7,164	7,204	7,232	7,255	7,282
Child daycare centers	64,657	70,679	78,880	84,175	88,410	91,645	94,819	96,918
Elderly feeding programs	12,915	13,246	13,993	14,035	14,068	19,167	19,605	20,000
Other	16,159	16,479	16,799	17,101	17,389	17,681	17,767	15,841
Noncommercial feeding total	274,472	281,169	290,788	296,645	301,986	310,760	315,652	320,461
Total	678,172	691,324	698,738	706,098	711,855	720,633	726,674	731,724

Source: (46).

Appendix table 22--Number of food marketing companies

Year	Processing	Wholesaling		Food service ¹	Retailing		Total
		Grocery	Liquor		Food-stores ¹	Liquor stores	
	<i>Number</i>						
1963	32,617	35,666	7,598	175,117	162,273	28,624	441,895
1967	26,549	33,848	6,246	170,851	131,926	20,200	389,620
1972	22,171	32,053	5,792	179,578	122,592	28,378	390,564
1977	20,616	31,670	5,518	186,625	120,107	29,741	394,277
1982	16,800	31,290	5,158	198,088	109,567	28,977	389,880
1987	15,692	34,155	5,835	191,798	108,439	25,163	381,082

¹ Firms with paid employees.

Sources: (42, 46, 47).

Appendix table 24—Share of shipment value for the four and eight largest food processing firms

Industry	1987			1982			1967		
	Share of shipment value			Share of shipment value			Share of shipment value		
	Total firms	4 largest firms	8 largest firms	Total firms	4 largest firms	8 largest firms	Total firms	4 largest firms	8 largest firms
	Number	----Percent----		Number	----Percent----		Number	----Percent----	
Meatpacking	1,328	32	50	1,658	29	43	2,529	26	38
Sausages	1,207	26	34	1,193	19	28	1,294	15	22
Poultry dressing				231	22	36	NA	NA	NA
Poultry and egg processing				136	22	35	NA	NA	NA
Butter	44	40	63	61	41	61	510	15	22
Cheese	508	43	55	575	34	47	891	44	51
Condensed and evaporated milk	124	45	59	132	35	50	179	41	56
Ice cream	469	25	39	482	22	34	713	33	43
Fluid milk	652	21	32	853	16	27	2,988	22	30
Canned specialties	183	59	75	171	61	77	150	69	83
Canned fruit and vegetables	462	29	40	541	21	35	930	34	52
Dehydrated fruit and vegetables	107	39	58	119	42	59	134	32	50
Pickles, sauces, and salad dressings	344	43	55	325	56	65	479	33	44
Frozen fruit and vegetables	194	31	45	195	27	42	495	36	55
Frozen specialties	244	43	59	318	38	54	NA	NA	NA
Flour and grain milling	237	44	63	251	40	60	438	30	46
Breakfast cereals	33	87	99	32	86	NA	30	88	97
Rice milling	48	56	81	49	47	75	54	46	68
Blended and prepared flour	120	43	60	91	58	74	126	68	82
Wet corn milling	31	74	94	25	74	94	32	68	89
Pet food	130	61	78	222	52	71	NA	NA	NA
Prepared feeds	1,182	20	29	1,245	20	30	NA	NA	NA
Breads and cakes	1,948	34	47	1,869	34	47	3,445	26	38
Cookies and crackers	316	58	73	269	59	71	286	59	70
Raw cane sugar	31	48	70	43	41	61	61	43	65
Cane sugar refining	14	87	99	19	65	91	22	59	82
Beet sugar	14	72	96	14	67	95	15	66	96
Confectionery	623	45	55	718	40	53	1,091	25	35

See footnotes at end of table.

Continued--

Appendix table 24--Share of shipment value for the four and eight largest food processing firms--Continued

Industry	1987			1982			1967		
	Total firms	Share of shipment value		Total firms	Share of shipment value		Total firms	Share of shipment value	
		4 largest firms	8 largest firms		4 largest firms	8 largest firms		4 largest firms	8 largest firms
	<i>Number</i>	<i>-----Percent-----</i>		<i>Number</i>	<i>-----Percent-----</i>		<i>Number</i>	<i>-----Percent-----</i>	
Chocolate and cocoa	173	69	82	77	75	89	27	77	89
Chewing gum	8	96	100	9	95	NA	19	86	96
Cottonseed oil mills	31	43	68	47	51	70	91	42	60
Soybean oil mills	47	71	91	52	61	83	60	55	76
Vegetable oil mills	20	74	92	26	52	83	34	56	78
Animal and marine fats and oils	194	35	50	270	34	48	477	28	36
Shortening and cooking oils	67	45	65	79	43	60	63	43	67
Malt beverages	101	87	98	67	77	94	125	40	59
Malt	15	64	95	24	60	80	32	39	62
Wines and brandy	469	37	53	324	51	64	175	48	63
Distilled spirits	48	53	75	371	46	89	70	54	71
Bottled and canned soft drinks	846	30	40	1,236	14	23	3,057	13	20
Flavoring extracts and syrups	245	65	73	297	65	71	401	67	75
Canned or cured seafood	153	26	42	170	62	70	268	44	59
Fresh or frozen seafood	579	18	30	697	14	24	463	26	38
Roasted coffee	110	66	78	118	65	76	206	53	71
Manufactured ice	503	19	25	530	18	26	688	33	42
Macaroni and spaghetti	196	73	82	208	42	66	190	31	48
Other food preparations	1,510	26	34	1,746	32	40	1,824	24	35

NA = Not available.

Source: (44).

Appendix table 25—Aggregate concentration in food and tobacco manufacturing, measured by proportion of value added¹, selected years.

	Proportion of value-added in food and tobacco manufacturing ²					Percent change 1967-87
	1967	1972	1977	1982	1987	
	<i>Percent</i>					
20 largest	23.4	24.3	27.4	34.0	40.4	72.6
21-50 largest	15.5	16.8	15.9	16.0	16.4	5.8
51-100 largest	11.9	12.2	11.7	11.1	9.4	-21.1
101-200 largest	8.9	9.8	10.3	8.9	7.3	-18.0
201-300 largest	4.4	4.7	4.8	4.4	3.9	-11.4
301-400 largest	3.0	3.1	3.2	3.0	2.7	-10.0
410-500 largest	2.4	2.4	2.4	2.2	2.1	-12.5
50 largest	38.9	41.1	43.3	50.0	56.8	46.0
100 largest	50.9	53.3	55.0	61.2	66.2	30.1
500 largest	69.5	73.2	75.6	79.7	82.1	18.1
All others	30.3	26.8	24.4	20.3	17.9	-41.3

¹ Companies are ranked by value-added in SICs 20 and 21 each year.

² Ratio of value-added in SICs 20 and 21 of the largest companies to total value-added in SICs 20 and 21. Value-added figures in SIC 21 were estimated for some company size classes in the years 1967, 1972, and 1977 using published market-share-estimated and specially tabulated census data.

Source: (33).

Appendix table 26--Sales concentration in food wholesaling

Wholesaler category	1977				1982	
	4 largest firms	8 largest firms	20 largest firms	50 largest firms	4 largest firms	8 largest firms
	<i>Percent</i>					
General line	15.0	22.4	36.8	56.6	17.4	26.5
Limited line	13.3	19.5	31.4	46.6	9.0	13.8
Specialty products	10.3	15.1	21.1	33.5	14.9	20.9
Frozen foods	11.3	17.5	28.7	43.3	16.5	23.5
Dairy	14.0	21.6	34.2	46.8	15.8	22.6
Poultry	8.6	12.9	21.0	34.2	11.8	16.9
Confectionery	11.9	17.3	25.5	37.1	12.5	18.2
Fish and seafood	15.5	20.4	28.9	39.6	12.5	16.3
Meat	6.9	10.8	17.9	29.1	5.5	8.1
Fresh fruit and vegetables	7.0	10.4	15.0	22.1	7.4	10.2
	1982		1987			
	20 largest firms	50 largest firms	4 largest firms	8 largest firms	20 largest firms	50 largest firms
	<i>Percent</i>					
General line	42.8	63.6	26.0	36.9	53.8	71.4
Limited line	23.8	37.2	9.6	15.3	27.2	41.8
Specialty products	25.4	34.0	12.2	18.7	29.4	44.8
Frozen foods	34.3	49.1	15.0	23.6	37.6	53.0
Dairy	35.0	49.4	15.7	25.1	39.0	52.6
Poultry	25.3	38.3	7.4	12.0	22.6	39.0
Confectionery	27.7	40.1	17.5	22.9	31.6	43.6
Fish and seafood	24.5	37.1	NA	9.2	NA	NA
Meat	14.7	25.5	6.6	10.4	18.1	30.5
Fresh fruit and vegetables	14.5	21.6	8.9	11.0	15.4	NA
	1992					
	4 largest firms	8 largest firms	20 largest firms	50 largest firms		
	<i>Percent</i>					
General line	35.4	44.0	59.3	76.4		
Limited line	13.3	18.4	28.2	39.2		
Specialty products	11.4	18.1	27.6	39.7		
Frozen foods	20.9	28.9	40.8	54.4		
Dairy	13.2	20.7	35.4	51.1		
Poultry	6.0	10.8	21.9	41.1		
Confectionery	NA	29.3	38.9	50.2		
Fish and seafood	8.1	11.7	18.7	29.4		
Meat	6.9	10.9	19.6	32.0		
Fresh fruit and vegetables	8.0	12.0	17.0	24.6		

NA = Not available.

Source: (47).

Appendix table 27--Incorporated wholesale food firms, by size of assets

Year	All firms ¹	Large firms ²	Small firms ³
	<i>Number</i>	<i>Percent</i>	
1982	22,698	67.1	32.9
1983	24,066	63.1	36.9
1984	23,089	64.2	35.8
1985	24,808	56.1	43.9
1986	24,933	61.5	38.5
1987	25,483	57.8	42.2
1988	25,555	57.1	42.9
1989	25,754	56.2	43.8
1990	25,891	58.6	41.4
1991	27,429	52.9	47.1
1992	27,269	54.3	45.7

¹ Firms that filed tax returns.² Firms with \$100,000 or more in assets.³ Firms with less than \$100,000 in assets.

Source: (62).

Appendix table 28--Chainstores' share of grocery store sales

Year	Supermarket chains	Other chains	Total
	<i>Percent</i>		
1958	41.2	2.8	44.0
1963	43.7	3.3	47.0
1967	46.3	5.1	51.4
1972	48.9	7.0	55.9
1977	52.4	6.3	59.9
1982	55.0	6.5	61.5
1983	NA	NA	61.1
1984	NA	NA	61.3
1985	NA	NA	61.1
1986	NA	NA	63.5
1987	NA	NA	63.9
1988	NA	NA	64.0
1989	NA	NA	63.9
1990	NA	NA	64.3
1991	NA	NA	65.0
1992	NA	NA	65.2
1993	NA	NA	65.1
1994	NA	NA	64.7

NA = Not available.

Source: (45).

Appendix table 29--Sales share of leading grocery chains

Year	4 largest chains	8 largest chains	20 largest chains
	<i>Percent</i>		
1963	20.0	26.6	34.0
1967	19.0	25.7	34.4
1972	17.5	24.4	34.8
1977	17.4	24.4	34.5
1982	16.1	23.6	34.9
1985	18.4	26.6	36.7
1986	18.2	26.8	37.6
1987	17.1	26.0	36.5
1988	15.7	24.4	35.5
1989	17.0	26.0	39.3
1990	16.9	25.9	39.3
1991	16.3	25.1	39.1

Sources: (46) and ERS estimates.

Appendix table 30--Concentration among separate eating places

Year	Top 4 firms	Top 8 firms	Top 20 firms	Top 50 firms
	<i>Percent of sales</i>			
1972 ¹	3.6	5.5	8.9	13.3
1977	4.5	7.3	12.4	17.8
1982	5.4	8.9	15.1	20.2
1987	8.1	12.0	17.0	22.3
1992	8.4	12.0	17.0	22.6

¹No concentration data are available for census years prior to 1972.

Source: (46).

Appendix table 31—Sales of top 50 food processing companies

Sales rank	Company	Sales ¹		Change
		1991	1990	
		-----Million dollars-----		Percent
1	Philip Morris Companies, Inc., New York, NY	29,619.0	26,368.0	12.3
2	ConAgra, Inc., Omaha, NE	18,111.1	17,253.0	5.0
3	Cargill Inc., Minneapolis, MN	12,500.0	NA	NA
4	PepsiCo Inc., Purchase, NY	11,557.0	9,992.0	15.9
5	Anheuser-Busch Companies, Inc., St. Louis, MO	11,001.7	10,011.0	9.9
6	The Coca-Cola Company, Atlanta, GA	10,190.0	8,900.0	14.5
7	IBP, Inc., Dakota City, NE	9,595.9	8,586.2	11.8
8	Archer-Daniels-Midland Company, Decatur, IL	7,759.0	7,130.0	8.8
9	Nestlé Holdings, Inc., Purchase, NY	6,501.0	6,354.0	2.3
10	H.J. Heinz Company, Pittsburgh, PA	6,314.7	5,761.3	9.6
11	Campbell Soup Company, Camden, NJ	6,204.1	6,200.0	0
12	Grand Metropolitan PLC	5,995.0	2,376.0	152.3
13	RJR Nabisco, Inc., New York, NY	5,826.0	5,783.0	0.7
14	CPC International, Inc., Englewood Cliffs, NJ	5,781.0	5,103.1	13.3
15	Sara Lee Corporation, Chicago, IL	5,700.0	5,460.0	4.4
16	Borden, Inc., New York, NY	5,629.5	5,660.7	-0.6
17	The Quaker Oats Company, Chicago, IL	5,490.0	3,270.0	67.8
18	Ralston Purina Company, St. Louis, MO	5,289.2	5,085.6	4.0
19	Kellogg Company, Battle Creek, MI	5,181.4	4,651.7	11.4
20	General Mills, Inc., Minneapolis, MN	4,940.0	4,520.3	9.3
21	Chiquita Brands Int'l, Inc., Cincinnati, OH	4,188.0	3,823.0	9.5
22	Tyson's Foods, Inc., Springdale, AR	4,000.0	3,850.0	3.9
23	Joseph E. Seagram & Sons, Inc., New York, NY	3,607.8	3,403.5	6.1
24	The Procter and Gamble Company, Cincinnati, OH	3,546.0	3,318.0	6.9
25	The Kroger Company, Cincinnati, OH	3,376.8	3,183.3	6.1
26	Associated Milk Producers, Inc., San Antonio, TX	3,006.0	2,986.5	0.6
27	Dole Food Company Inc., Westlake, CA	2,771.0	2,814.0	-1.5
28	Hershey Foods Corporation, Hershey, PA	2,700.0	2,420.9	11.5
29	George A. Hormel & Company, Austin, MN	2,681.0	2,304.5	14.6
30	Dean Foods Company, Franklin Park, IL	2,112.0	1,906.0	10.8
31	International Multifoods Corp., Minneapolis, MN	1,940.2	1,838.0	5.6
32	Mid-America Dairymen, Inc., Springfield, MO	1,862.6	1,798.0	3.5
33	Pet Incorporated, St. Louis, MO	1,793.4	²	
34	Central Soya Company, Inc., Fort Wayne, IN	1,625.0	1,500.0	8.3
35	Beef America Operating Co., Inc., Omaha, NE	1,625.0	1,500.0	8.3
36	Keebler Company, Elmhurst, IL	1,596.0	1,463.4	9.1
37	Land O'Lakes, Inc., Minneapolis, MN	1,580.0	1,418.0	11.4
38	Adolph Coors Company, Golden, CO	1,428.9	1,366.1	4.6
39	Continental Grain Company, New York, NY	1,300.0	NA	NA
40	The Stroh Brewery Co., Detroit, MI	1,300.0	NA	NA
41	McCormick & Company, Inc., Hunt Valley, MD	1,216.0	1,145.0	6.2
42	Savannah Foods & Industries, Inc., Savannah, GA	1,210.0	1,090.0	11.1
43	Idle Wild Foods, Inc., Liberal, KS	1,138.0	NA	NA
44	Wm. Wrigley Jr. Company, Chicago, IL	1,110.6	992.9	11.7
45	Interstate Brands Corporation, Kansas City, MO	1,106.7	1,104.6	0.2
46	Smithfield Foods Inc., Smithfield, VA	1,071.0	853.4	25.6
47	Sunkist Growers, Inc., Sherman Oaks, CA	1,066.0	931.0	14.5
48	Warner-Lambert Company, Morris Plains, NJ	1,054.0	1,003.0	5.1
49	Whitman Corp., Rolling Meadows, IL	1,041.2	2,305.0	NA
50	A.E. Staley Manufacturing Corp., Decatur, IL	1,000.0	862.0	16.0

NA=Not available.

¹ Sales figures for the companies represent only food and beverage segments.

² Spun off from Whitman Corp., April 1991.

Source: (15).

Appendix table 32--Sales of top 15 wholesale food companies¹

Company ²	Sales	
	1994	1993
Fleming Companies, Inc. ³	19.1	19.4
Super Valu Stores, Inc. ⁴	16.6	17.0
Wakefern Food Corporation	3.7	3.6
Associated Wholesale Grocers (K.C.)	3.0	2.5
Nash Finch Company	2.8	2.7
Roundy's Inc.	2.5	2.47
Spartan Stores, Inc.	2.5	2.2
Certified Grocers	1.87	2.01
C and S Wholesale Grocers	1.8	1.34
Richfood Holdings	1.52	1.3
Super Rite Foods, Inc.	1.47	1.26
Grocers Supply Co., Inc.	1.3	1.3
Twin County Grocers, Inc.	1.16	1.2
Super Food Services	1.13	1.17
Associated Grocers, Inc.	1.1	1.07

¹ Firm primarily serving supermarkets and retail foodstores. Foodservice distributors and wholesale clubs are listed in text tables 11 and 12.

² Companies are listed in order, according to sales rank.

³ Sales reflect Fleming's acquisition of Scrivner.

⁴ Sales reflect Super Valu's acquisition of Wetterau and Sweet Life Foods.

Sources: (1, 28, 35, 63).

Appendix table 33--Sales of top 25 food retailing companies¹

Company	1994		1993	
	Rank	Sales	Rank	Sales
		<i>Million dollars</i>		<i>Million dollars</i>
The Kroger Company (Kroger, Dillon)	1	21,442	1	20,443
American Stores Company (Acme, Jewel, Star, Lucky Stores, Inc.)	2	18,355	2	18,763
Safeway Stores, Inc. ²	3	12,240	3	11,756
Albertson's, Inc.	4	11,895	4	11,284
Winn-Dixie Stores, Inc.	5	11,082	5	10,832
Publix Supermarkets, Inc.	6	6,100	8	7,473
The Great Atlantic and Pacific Tea Company, Inc. (Shopwell, Waldbaum's, A&P, Borman's) ²	7	8,665	6	8,446
Food Lion, Inc. ²	8	8,541	7	7,610
Ahold International (BI-LO Inc., Giant Food Stores-Carlisle, Pa., First National, Top's Market) ²	9	7,933	10	6,620
Southland Corporation (7-Eleven Stores) ³	10	7,420	9	6,744
The Vons' Companies, Inc. (Safeway-So. Calif.)	11	6,684	11	5,075
H.E. Butt Grocery Company	12	4,997	12	4,618
Pathmark Stores, Inc.	13	4,927	13	4,237
Meijer, Inc.	14	4,182	14	3,928
Stop & Shop Companies, Inc.	15	4,164	15	3,568
Supervalu	16	3,789	23	2,699
Giant Food, Inc.	17	3,696	16	3,567
The Circle K Corp. ³	18	3,696	17	3,320
The Penn Traffic Company (P&C, Big Bear)	19	3,579	26	2,172
Fred Meyer, Inc.	20	3,333	18	2,979
Smith's Food & Drug Stores	21	3,128	21	2,807
Grand Union Corp.	22	2,981	20	2,834
Bruno's Inc.	23	2,969	19	2,872
Ralph's Supermarkets	24	2,835	22	2,730
Randall's Food Markets, Inc.	25	2,584	24	2,422

¹ U.S. grocery store sales only.

² Foreign-owned companies as of 1991.

³ Convenience store retailer.

Sources: (1, 4).

Appendix table 34--Sales of top 25 restaurant companies

Company	1994	1993
	<i>Billion dollars</i>	
1. McDonald's Corporation		
McDonald's	14.9	14.2
2. PepsiCo, Incorporated		
Pizza Hut	5.0	4.8
Taco Bell	4.2	3.6
KFC	3.5	3.4
Chevys Mexican Restaurant		
Hot N Now		
D'Angelo Sandwich Shop		
3. Grand Metropolitan, PLC		
Burger King	7.3	6.2
Haagen Daaz		
4. Wendy's International, Inc.		
Wendy's (Old Fashioned Hamburgers)	3.8	3.5
5. Imasco, Ltd.		
Hardee's	3.5	3.5
Roy Rogers		
6. Doctor's Associates, Inc.		
Subway	2.5	2.1
7. Little Caesar Enterprises		
Little Caesar's Pizza	2.0	2.4
8. Domino's Pizza Inc.		
Domino's Pizza	1.9	2.2
9. Darden Restaurants Inc.		
Red Lobster	1.8	1.6
Olive Garden	1.1	1.0
10. Flagstar Cos. Inc.		
Denny's	1.7	1.6
Quincy's Family Steakhouse		
Taco Cabana		
11. TriArc Corporation		
Arby's	1.8	1.6
12. Allied Domecq, PLC		
Dunkin Donuts	1.3	1.2
Baskin-Robbins		
13. Shoney's Inc.		
Shoney's	1.3	1.3
Captain D's Seafood		
Lee's Famous Recipe Chicken		
14. International Dairy Queen, Inc.	1.2	1.1
Dairy Queen		
15. Foodmaker, Inc.		
Jack in the Box	1.0	1.0
16. Applebee's International, Inc.		
Applebee's Neighborhood Grill & Bar	.8	.6
17. Elias Bros. Restaurants Inc.		
Big Boy Restaurant & Bakery	1.1	1.0
18. Long John Silver's Restaurants		
Long John Silver's	.9	.9

Continued

Appendix table 34—Sales of top 25 restaurant companies (continued)

Company	1994	1993
<i>Billion dollars</i>		
19. Cracker Barrel Old Country Store, Inc. Cracker Barrel Old Country Store	1.0	.6
20. Brinker International, Inc. Chili's Grill & Bar Romano's Macaroni Grill	.9	.8
21. Sonic Corporation	.8	.7
22. Carlson Hospitality Worldwide T.G.I. Friday's	.7	.7
23. Outback Steakhouse, Inc. Outback Steakhouse	.5	.3
24. Metromedia Company Ponderosa Steakhouse Bennigans	.7 .4	.8 .4
25. IHOP Corporation International House of Pancakes/IHOP Restaurants	.6	.5

Source: (30)

Appendix table 35—Food marketing mergers

Year	Processing	Wholesaling	Retailing	Food service	Total ¹
<i>Number</i>					
1982	250	38	38	51	377
1983	225	38	45	64	372
1984	242	37	60	78	417
1985	291	64	52	73	480
1986	347	65	91	81	584
1987	301	71	65	77	514
1988	351	71	76	75	573
1989	277	65	53	72	467
1990	208	58	37	47	350
1991	181	35	39	36	291
1992	217	59	29	59	364
1993	266	57	39	71	433
1994	232	62	60	78	432

¹ Total includes some double counting because of interindustry mergers. For example, a food processing firm merging with a foodservice firm is included as an acquisition in each sector.

Source: ERS tabulations of Food Institute data.

Appendix table 36--Food marketing mergers and divestitures costing over \$100 million, 1994¹

Buyer	Seller	Price	Type ²
		<i>Million dollars</i>	
Sandoz AG Drug, chemical and nutrition concern	Gerber Products Co., Inc. Baby food and products concern	\$3,700.0	2
Kohlberg Kravis Roberts and Co. Investment bankers	Borden Inc. Dairy and food products	\$1,890.0	2
Quaker Oats Co., Inc. Food products concern	Snapple Beverage Corp. Bottled and canned soft drinks	\$1,700.0	2
ITT Corporation Diversified, international concern	Caesar's World Inc. Casino concern	\$1,700.0	2
Clayton, Dubilier and Rice Inc. Investment firm	Philip Morris Companies Inc. Packaged frozen foods; groceries (Kraft Food Service Inc.)	\$700.0	1
Yucaipa Companies Supermarket	DeBartolo Inc. Supermarket (Ralphs Supermarkets Inc.)	\$525.0	1
Private Group Led by a cooperative of sugar-beet farmers	Harold C. Simmons Family Trust Dry beet sugar products; beet pulp (Amalgamated Sugar Co. Inc.)	\$325.0	1
Berisford International PLC Beet sugar	Kohlberg Kravis Roberts and Co. Produces kitchen equipment (Welbilt Corp.)	\$312.7	1
Empresas La Moderna Tobacco and agribusiness concern	Upjohn Co. Vegetable seeds (Asgrow Seed Co. Inc.)	\$300.0	1
Heinz (H.J.) Co. Inc. Manufacturing processed foods	Philip Morris Companies Inc. Produces frozen meals (All American Gourmet Co.)	\$200.0	1
Nestle S.A. Cookies and snacks	Dreyer's Grand Ice Cream, Inc. Ice cream and frozen desserts	\$170.0	1
Nestle S.A. Cookies and snacks	Quaker Oats Co., Inc. Chocolate manufacturer (Fabrica de Chocolates La Azteca SA de CV)	\$160.0	1
Coca-Cola Co. Inc. Soft drink concern	Mid-West Unlimited Inc. Soda bottling concern (Wichita Coca-Cola Bottling Co.)	\$150.0	1
Heinz (H.J.) Co. Inc. Manufactures processed foods	Boots Co. Infants foods (Farley's Health Products Ltd.)	\$140.0	2
Doskocil Companies Inc. Beef and pork products	International Multifoods Corp. Produces frozen entrees and appetizers (Frozen Specialty Foods Unit)	\$135.0	1
Booker PLC Holding companies	Marine Harvest International Inc. Seafood farming and processing	\$122.1	2
Private Group Led by members of senior management	Ground Round Restaurants Inc. Restaurant chain	\$100.0	2

¹ Completed or pending.² 1 = divestitures and 2 = public seller.

Source: (23).

Appendix table 37--Food marketing mergers and divestitures costing over \$100 million, 1993¹

Buyer	Seller	Price	Type ²
		<i>Million dollars</i>	
Anheuser-Busch Companies Inc. Brewery	Grupo Modelo S.A. de C.V. Brewery	\$477.0	1
Hicks, Muse and Co., Inc. Leverage buyout concern	G. Heileman Brewing Co. Brewery	\$390.0	3
Cadbury Schweppes PLC Soft drink concern	A&W Brands Inc. Soft drink concern	\$334.0	2
Philip Morris Companies, Inc. Cigarettes; food; brewing	United Biscuits Holdings PLC Produces candy (Terry's Group)	\$318.8	1
Philip Morris Companies Inc. Cigarettes; food; brewing	Molson Breweries Produces and distributes beer	\$273.0	1
Private Group Led by Foodmaker and Apollo Advisors	Restaurant Enterprises Group Inc. Restaurant chain operator	\$235.0	2
Cadbury Schweppes PLC Soft drink concern	Prudential Insurance Co. Of America Inc. Soft drink concern (Dr. Pepper/Seven-Up Companies)	\$231.3	1
Unilever NV Consumer products; dairy products	Philip Morris Companies Inc. Manufactures ice cream (Breyers Ice Cream Business)	\$215.0	1
Coca-Cola Co. Inc. Soft drink concern	Famento Economico Mexicano SA Soft drink concern (Soft Drink Division)	\$195.0	1
Dean Foods Co. Inc. Milk and dairy products	Philip Morris Companies Inc. Frozen food products (Bird's Eye Frozen Vegetable Unit)	\$140.0	1
American Maize-Products Co. Corn processing and tobacco products	American Fructose Corp. Produces high fructose corn syrups	\$120.0	2

¹ Completed or pending.² 1 = divestitures, 2 = public seller, and 3 = private seller.

Source: (23).

Appendix table 38--Food marketing mergers ranking among the 100 largest transactions in history as of 1994

Buyer/seller	Rank among all transactions	Price	Year announced
		<i>Million dollars</i>	
Kohlberg, Kravis, Roberts & Company/RJR Nabisco Inc.	1	24,562	1988
Philip Morris Company/ Kraft Inc.	4	13,100	1988
Grand Metropolitan PLC/ Pillsbury Company	24	5,636	1988
Philip Morris Company/ General Foods Corporation	25	5,628	1985
Kohlberg, Kravis, Roberts & Company/Beatrice Companies	27	5,362	1985
R.J. Reynolds Industries, Inc./ Nabisco Brands, Inc.	34	4,906	1985
SSI Holdings Corporation/ Safeway Stores, Inc.	44	4,198	1986
Phillip Morris Companies, Inc. Jacobs Suchard AG	53	3,825	1990
Private group, led by two top company executives/ Southland Corporation	56	3,723	1987
Unilever N.V. - Netherlands/ Chesebrough-Pond's Inc.	75	3,093	1986
Nestle S.A. (Switzerland)/ Carnation Company	81	2,885	1984
Seagram Company Ltd (Canada)/ Conoco, Inc.	89	2,576	1981
Beatrice Foods Company/ Esmark Inc.	91	2,509	1984
BSN SA-France Kohlberg, Kravis, Roberts & Co.	92	2,500	1990

Source: (23).

Appendix table 39--Food processing mergers¹

Year announced or completed	Rank among all industries in value	Foreign purchases of U.S. firms		U.S. purchases of foreign firms		
		Value	Number	Value	Number	
		<i>Million dollars</i>	<i>Number</i>	<i>Million dollars</i>	<i>Number</i>	
1982	4	4,952	4	131	5	154
1983	8	2,712	9	253	6	105
1984	2	7,948	8	2,994	5	96
1985	5	12,854	8	257	10	70
1986	4	8,432	13	1,246	9	98
1987	6	7,951	13	2,888	14	800
1988	1	53,209	22	8,541	14	1,569
1989	7	8,261	17	4,222	14	2,260
1990	12	7,666	15	1,074	10	4,769
1991	14	3,100	8	453	14	721
1992	10	4,328	8	446	26	2,976
1993	11	3,524	5	930	30	1,706
1994	7	11,060	5	4,248	20	381

¹ Includes only large mergers in which the value of the transaction was recorded.
Source: (23).

Appendix table 40--Aggressive buyers and divestitures in food marketing, 1990-94

Buyers	1990	1991	1992	1993	1994	5-year total
	<i>Number</i>					
PepsiCo	1	7	3	9	12	10
Philip Morris	2	1	0	2	1	2
Sara Lee	1	2	3	2	0	7
Procter and Gamble	3	2	0	3	1	8

Divestors	1990	1991	1992	1993	1994	5-year total
	<i>Number</i>					
Borden, Inc.	2	1	1	0	12	16
Marriott Corporation	2	3	6	1	0	12

Source: (23).

Appendix table 41—Going private - largest deals

Company Name (business and/or product line)	Purchase price	Year announced	Premium offered
	<i>Millions</i>		<i>Percent</i>
RJR Nabisco (tobacco and food giant)	24,561.6	1988	92.1
Beatrice Cos. (diversified food and consumer products)	5,361.6	1985	14.9
Safeway Stores Inc. (supermarket chain)	4,198.4	1986	43.8
Supermarkets General Corp. (supermarket chain)	1,801.2	1987	34.0

Source: (23)

Appendix table 42--Major economic indicators

Year	Population ² <i>Million</i>	Gross domestic product		Disposable personal income (DPI)	
		<i>Current million dollars</i>	<i>1987 million dollars</i>	<i>Current million dollars</i>	<i>1987 million dollars</i>
1963	188.4	603	2,218	418	1,461
1967	197.5	814	2,690	569	1,811
1972	209.3	1,207	3,107	849	2,816
1977	219.7	1,974	3,533	1,391	2,513
1982	231.7	3,150	3,760	2,319	2,820
1983	234.3	3,405	3,907	2,497	2,894
1984	236.4	3,777	4,148	2,759	3,080
1985	238.5	4,038	4,279	2,943	3,162
1986	240.6	4,269	4,805	3,132	3,262
1987	242.8	4,539	4,540	3,290	3,290
1988	245.0	4,900	4,710	3,548	3,404
1989	247.3	5,250	4,838	3,787	3,465
1990	249.9	5,546	4,897	4,043	3,525
1991	252.6	5,724	4,867	4,209	3,529
1992 ¹	255.4	6,020	4,979	4,431	3,632
1993	258.2	6,345	5,134	4,688	3,706
1994	260.7	6,738	5,344	4,960	3,836

	Per capita DPI		Employment	Unemployment rate
	<i>Current dollars</i>	<i>1987 dollars</i>	<i>Million</i>	<i>Percent</i>
1963	2,210	7,718	67.8	5.5
1967	2,861	9,114	74.4	3.7
1972	4,042	10,414	87.0	5.5
1977	6,316	11,406	92.0	6.9
1982	9,989	12,146	99.5	9.5
1983	10,642	12,349	100.8	9.5
1984	11,673	13,029	105.0	7.4
1985	12,339	13,258	107.2	7.2
1986	13,010	13,552	109.6	7.0
1987	13,545	13,595	112.4	6.2
1988	14,447	13,890	115.0	5.5
1989	15,307	14,005	117.3	5.3
1990	16,205	14,101	117.9	5.5
1991	16,766	14,003	116.9	6.7
1992	17,636	14,279	117.6	7.4
1993	18,153	14,341	119.3	6.8
1994	19,003	14,696	123.0	6.1

¹ Preliminary.

² The resident population, excludes armed forces overseas, as of July 1.

Sources: (42, 50, 58).

Appendix table 43--Producer price indexes for the food marketing system

Commodity	1987	1988	1989	1990	1991	1992	1993	1994
	<i>1982=100</i>							
Crude foodstuffs and feedstuffs ²	96.2	106.1	111.1	113.1	105.5	105.1	102.4	101.7
Fruit and vegetables	106.8	108.5	114.1	117.5	114.7	96.8	106.9	104.5
Grains	71.1	97.9	106.4	97.4	92.0	97.3	94.5	102.7
Livestock	102.0	103.3	106.9	115.6	107.9	104.7	107.0	96.4
Live poultry	101.2	121.5	128.8	118.8	111.2	122.6	122.0	124.4
Fluid milk	91.9	89.4	98.1	100.8	89.5	96.3	94.1	95.9
Oilseeds	99.3	134.0	123.8	112.1	106.4	107.5	115.9	117.4
Sugar and raw cane	110.3	111.9	115.5	119.2	119.2	113.7	113.2	115.2
Intermediate materials for food manufacturing ³	100.8	106.0	112.7	117.9	115.3	113.9	115.6	118.5
Flour	92.9	105.7	114.6	103.6	96.8	109.3	108.9	110.4
Refined sugar	106.4	108.9	118.3	122.7	121.6	120.0	118.2	118.3
Crude vegetable oils	84.2	116.6	103.4	115.8	103.0	97.0	110.5	135.0
Finished consumer foods ⁴	109.5	112.6	118.7	124.4	124.1	123.2	124.7	125.5
Fresh fruit	112.0	113.5	111.9	118.1	129.9	183.8	84.5	82.5
Fresh and dried vegetables	103.8	105.5	116.9	118.1	103.8	115.0	135.2	129.1
Canned fruit and juice	115.4	120.2	122.6	127.0	128.6	134.5	126.2	126.0
Frozen fruit and juice	113.3	129.8	124.6	139.0	116.3	125.8	110.7	111.9
Fresh vegetables, excluding potatoes	99.0	100.4	104.2	107.8	110.2	116.4	126.6	117.8
Canned vegetables and juices	103.6	108.3	118.6	116.7	112.9	109.6	110.5	116.2
Frozen vegetables	107.3	108.6	115.5	118.4	117.6	116.4	120.9	126.0
Potatoes	120.1	113.9	153.6	157.3	125.7	118.3	144.9	142.3
Eggs	87.6	88.6	119.6	117.6	110.7	78.6	86.6	80.9
Bakery products	118.5	126.4	135.4	141.0	146.6	152.5	156.6	160.0
Meats	100.4	99.9	104.8	117.0	113.5	106.7	110.6	104.6
Beef and veal	95.5	101.4	109.0	116.0	112.2	109.7	112.9	103.6
Pork	104.9	95.0	97.5	119.8	113.4	98.5	105.7	101.2
Processed poultry	103.5	111.6	120.8	113.6	109.9	109.1	111.7	114.7
Fish	140.0	148.7	144.6	147.2	149.5	153.0	156.5	161.5
Dairy products	101.6	102.2	110.6	117.2	114.6	118.0	118.1	119.5
Processed fruit and vegetables	108.6	113.8	120.0	124.7	119.6	120.8	118.2	121.2
Shortening and cooking oil	103.9	118.8	116.6	123.2	116.5	114.9	122.9	138.6
Soft drinks	NA	NA	NA	122.3	125.5	125.7	126.2	126.9
Beverages, alcoholic	NA	NA	NA	111.2	123.7	126.1	126.0	124.7
Tobacco products	NA	NA	NA	221.4	249.7	275.2	260.3	224.6

¹ Preliminary.² What food manufacturers paid at major markets.³ What food manufacturers charged other food manufacturers.⁴ What retailers, wholesalers, restaurateurs, or other institutions paid.

Source: (61).

Appendix table 44--Price indexes of food marketing costs

	Annual		
	1992	1993	1994
Labor--hourly earnings & benefits	418.4	432.1	443.6
Processing	435.7	448.2	460.6
Wholesaling	458.5	476.5	488.6
Retailing	383.4	396.4	406.6
Packaging & containers	370.1	371.1	385.3
Paperboard boxes & containers	324.8	322.9	338.0
Metal cans	478.1	487.7	519.0
Paper bags & related products	387.8	387.3	397.0
Plastic films & bottles	309.9	307.9	311.9
Glass containers	444.4	446.8	452.8
Metal foil	241.0	238.8	238.3
Transportation services	426.1	425.9	434.9
Advertising	468.4	487.4	507.7
Fuel & power	645.6	671.7	660.7
Electric	514.0	522.3	519.6
Petroleum	639.9	638.9	596.5
Natural gas	1,061.1	1,132.9	1,152.1
Communications, water & sewage	266.8	270.0	276.9
Rent	278.3	273.1	274.1
Maintenance & repair	454.8	465.2	472.5
Business services	441.9	459.9	475.2
Supplies	318.1	321.3	326.0
Property taxes & insurance	496.7	512.9	529.5
Interest, short-term	74.4	64.7	96.4
Total marketing cost index	414.6	424.1	434.9

Source: (37).

Appendix table 45--Value of U.S. dollar and interest rates

Year/ quarter	Value of U.S. dollar ¹		Interest rates		
	Nominal	Real ²	Short-term 3-month Treasury bill	Long-term	Prime rate charged by banks
				AAA corporate bonds (Moody's) ³	
----- Index ⁴ -----		----- Percent -----			
1963	NA	NA	3.16	4.26	4.50
1967	120.0	NA	4.32	5.51	5.61
1972	109.1	NA	4.07	7.21	5.25
1977	103.4	93.1	5.26	8.02	6.83
1982	116.6	111.8	10.67	13.79	14.86
1983	125.3	117.3	8.63	12.04	10.79
1984	138.2	128.8	9.58	12.71	12.04
1985	143.0	132.4	7.48	11.37	9.93
1986	112.2	103.6	5.98	9.02	8.33
1987	96.9	90.9	5.82	9.38	8.22
1988	92.7	88.2	6.69	9.71	9.32
1989	98.6	94.4	8.12	9.26	10.87
1990	89.1	86.0	7.51	9.32	10.00
1991	89.8	86.5	5.42	8.77	8.46
1992	86.6	86.5	3.45	8.14	6.25
1993	93.2	90.0	3.02	7.22	6.00
1994	91.6	88.6	4.29	7.97	7.15

NA = Not available.

¹ Multilateral trade-weighted index.

² Adjusted by CPI.

³ Creditworthiness of issuing organization rated very high by Moody's Investors Service, Inc.

⁴ 1973=100.

Source: (12).

Appendix table 46--Number of employees in food marketing¹

Year	Processing	Wholesaling	Eating and drinking places ²	Retailing		Total
				Food- stores ³	Grocery stores ³	
Thousands						
1963	1,752.0	472.9	1,747.9	1,383.8	NA	5,356.6
1967	1,786.3	513.0	2,191.4	1,571.6	NA	6,062.3
1972	1,745.2	536.3	2,860.2	1,805.1	1,577.8	6,946.8
1977	1,711.0	611.7	3,948.6	2,106.3	1,837.2	8,377.3
1982	1,635.9	666.8	4,829.4	2,477.3	2,169.6	9,609.4
1983	1,614.4	682.1	5,038.0	2,555.5	2,234.2	9,890.0
1984	1,611.4	706.6	5,380.9	2,635.9	2,297.3	10,334.9
1985	1,600.9	733.8	5,698.6	2,773.5	2,428.9	10,806.8
1986	1,606.9	761.1	5,901.5	2,896.3	2,544.5	11,166.1
1987	1,616.8	790.5	6,085.9	2,958.3	2,607.7	11,451.3
1988	1,626.1	820.9	6,250.2	3,073.9	2,723.5	11,779.1
1989	1,644.4	836.7	6,401.9	3,163.5	2,874.5	12,046.5
1990	1,660.5	849.2	6,509.1	3,215.0	2,880.1	12,233.9
1991	1,666.9	846.4	6,467.3	3,203.7	2,874.1	12,184.3
1992	1,662.5	846.9	6,601.9	3,179.5	2,847.1	12,290.8
1993	1,675.6	848.2	6,810.6	3,208.4	2,864.7	12,542.8
1994	1,666.9	870.7	7,055.7	3,244.0	2,873.7	12,837.3

NA = Not available.

¹ Includes full- and part-time workers.

² Excludes all noncommercial eating facilities and commercial outlets such as hotel restaurants, department store coffee shops, and ballpark food concessions.

³ Grocery stores are also included in foodstore column.

Source: (58).

Appendix table 47--Number of production workers in food marketing¹

Year	Processing	Wholesaling	Eating and drinking places ²	Retailing		Total
				Food-stores ³	Grocery stores ³	
<i>Thousands</i>						
1963	1,157.3	411.3	NA	1,289.9	NA	2,858.5
1967	1,187.3	442.3	2,047.8	1,456.6	NA	5,134.0
1972	1,191.8	462.2	2,673.7	1,676.1	1,467.3	6,003.8
1977	1,161.0	526.3	3,665.4	1,942.1	1,697.4	7,294.8
1982	1,125.5	575.3	4,442.5	2,293.7	2,016.3	8,437.0
1983	1,113.5	588.2	4,629.3	2,373.4	2,084.6	8,704.4
1984	1,118.9	597.9	4,919.4	2,440.6	2,138.9	9,076.8
1985	1,117.0	621.8	5,184.3	2,565.2	2,259.9	9,488.3
1986	1,129.4	645.0	5,366.0	2,676.7	2,364.1	9,817.1
1987	1,145.1	668.3	5,539.7	2,725.3	2,412.6	10,078.4
1988	1,154.8	692.5	5,696.8	2,828.5	2,518.9	10,372.6
1989	1,176.2	704.1	5,817.9	2,913.6	2,605.3	10,611.8
1990	1,193.8	712.6	5,905.2	2,952.7	2,658.7	10,764.2
1991	1,205.2	707.7	5,858.8	2,925.2	2,638.4	10,696.9
1992	1,211.9	710.4	5,973.9	2,895.7	2,607.4	10,791.9
1993	1,225.1	713.7	6,157.9	2,924.2	2,625.9	11,020.9
1994	1,222.0	729.0	6,363.0	2,951.1	2,631.8	11,265.1

NA = Not available.

¹ Includes full- and part-time workers.² Excludes all noncommercial eating facilities and commercial outlets such as hotel restaurants, department store coffee shops, and ballpark food concessions.³ Grocery stores are also included in foodstore column.

Source: (58).

Appendix table 48--Average hourly earnings in food marketing¹

Year	Processing	Wholesaling	Eating and drinking places ²	Retailing	
				Food-stores ³	Grocery stores ³
<i>Dollars</i>					
1963	2.30	2.23	NA	1.90	NA
1967	2.64	2.65	1.50	2.23	NA
1972	3.60	3.69	2.07	3.18	NA
1977	5.37	5.43	2.93	4.77	4.92
1982	7.92	8.25	4.09	7.31	7.48
1983	8.19	8.70	4.27	7.54	7.78
1984	8.39	9.03	4.26	7.58	7.92
1985	8.57	9.20	4.33	7.18	7.59
1986	8.74	9.30	4.35	6.93	7.24
1987	8.93	9.53	4.42	6.89	7.10
1988	9.12	9.79	4.57	7.08	7.12
1989	9.38	10.16	4.75	7.15	7.25
1990	9.62	10.45	4.97	7.31	7.39
1991	9.90	10.77	5.18	7.33	7.39
1992	10.20	11.09	5.29	7.56	7.64
1993	10.45	11.47	5.35	7.79	7.89
1994	10.67	11.78	5.47	7.93	8.03

NA = Not available.

¹ Includes full- and part-time workers.² Excludes all noncommercial eating facilities and commercial outlets such as hotel restaurants, department store coffee shops, and ballpark food concessions.³ Grocery stores are also included in foodstore column.

Source: (58).

Appendix table 49--Average weekly earnings in food marketing¹

Year	Processing	Wholesaling	Eating and drinking places ²	Retailing	
				Food-stores ³	Grocery stores ³
<i>Dollars</i>					
1963	94.30	92.32	NA	66.69	NA
1967	107.98	107.86	50.10	74.48	NA
1972	145.80	143.91	62.97	104.30	106.92
1977	214.80	209.60	81.75	155.07	161.38
1982	315.15	315.15	107.16	221.65	230.38
1983	334.95	324.96	112.30	229.81	238.85
1984	347.66	347.66	112.04	233.78	244.24
1985	352.20	351.44	111.71	221.97	230.43
1986	355.26	355.26	111.36	211.80	218.65
1987	361.19	361.19	114.48	209.20	215.13
1988	371.04	371.04	117.45	211.70	215.74
1989	385.06	385.06	121.13	213.79	217.50
1990	396.06	396.06	125.24	217.11	220.22
1991	410.94	410.34	128.98	214.77	217.27
1992 ⁴	414.12	424.75	131.72	223.78	227.67
1993	425.32	438.15	134.29	231.36	235.12
1994	440.67	453.53	138.39	235.32	239.29

NA = Not available.

¹ Includes full- and part-time workers.² Excludes all noncommercial eating facilities and commercial outlets such as hotel restaurants, department store coffee shops, and ballpark food concessions.³ Grocery stores are also included in foodstore column.

Source: (58).

Appendix table 50--Average weekly hours worked in food marketing¹

Year	Processing	Wholesaling	Eating and drinking places ²	Retailing	
				Food-stores ³	Grocery stores ³
<i>Hours</i>					
1963	41.0	41.4	NA	35.1	NA
1967	40.8	40.7	33.4	32.8	NA
1972	40.4	39.0	30.4	32.8	33.0
1977	39.7	38.6	26.1	32.8	32.8
1982	39.5	38.2	26.2	32.5	30.8
1983	39.8	38.5	26.3	31.0	30.7
1984	39.5	38.5	26.3	31.7	30.8
1985	40.0	38.2	25.8	30.6	30.4
1986	40.0	38.2	25.6	30.6	30.2
1987	40.2	37.9	25.9	30.6	30.3
1988	40.3	37.9	25.7	30.2	30.3
1989	40.7	37.9	25.5	29.9	30.0
1990	40.8	37.9	25.2	29.7	29.8
1991	40.6	38.1	24.9	29.3	29.4
1992	40.6	38.3	24.9	29.6	29.3
1993	40.7	38.2	25.1	29.7	29.4
1994	41.3	38.5	25.3	29.7	29.5

NA = Not available.

¹ Includes full- and part-time workers.² Excludes all noncommercial eating facilities and commercial outlets such as hotel restaurants, department store coffee shops, and ballpark food concessions.³ Grocery stores are also included in foodstore column.

Source: (58).

Appendix table 51--Food-related advertising

Item	1994	1993	1992	1991
	<i>Million dollars</i>			
Ten media ¹	9,741	8,948	8,744	8,434
Eating and drinking places ²	2,324	2,117	1,861	1,719
Foodstores	891	963	942	748
Processed foods	6,526	5,868	5,941	5,967
Cooking products and seasoning	667	657	649	677
Prepared and convenience foods	1,518	1,268	1,274	1,283
Dairy products	421	368	345	313
Fruit and vegetables	132	133	143	199
Meat, poultry, and fish	225	206	247	233
Bakery	343	295	255	290
Food beverages	562	498	501	515
Combination copy	41	39	81	49
Confectionery	828	752	712	624
Soft drinks	608	531	531	515
Beer	748	704	759	743
Wine	49	70	85	93
Liquor	205	214	230	284
Pet food	177	152	129	149
Coupons	3,000	2,700	2,600	2,400
Total advertising	12,741	11,748	11,034	10,834

NA = Not available.

¹ Magazines, Sunday magazines, newspapers, outdoor, network and spot television, network and spot radio, syndicated television, and cable television networks.² Includes hotel restaurants not otherwise counted among eating and drinking places.

Source: (3).

Appendix table 52--Share of food advertising expenditures by the largest food marketing firms, 1994

Industry	Share of expenditures spent by:	
	3 largest advertisers	10 largest advertisers
	----- <i>Percent</i> -----	
Restaurants	37.3	69.4
Foodstores	20.0	44.0
Food processing:		
Sugar, syrups, and artificial sweeteners	53.4	90.4
Shortening, oil, margarine, and nonstick products	35.3	90.1
Baking mixes, pie crusts, and baking ingredients	67.0	95.0
Seasonings, spices, and extracts	57.8	96.9
Gelatins and puddings (mixes and prepared)	94.0	100.0
Condiments, pickles, and relishes	95.3	74.7
Sauces, gravies, and dips	63.0	95.2
Salad dressing and mayonnaise	70.5	98.6
Soups	89.4	99.9
Breakfast cereals	62.2	81.8
Health and dietary foods	94.3	99.0
Infant foods	100.0	100.0
Pasta products and pasta-product dinners	65.7	94.1
All other prepared dinners and entrees	34.4	62.3
Jellies, jams, preserves, and peanut butter	62.9	88.6
Milk, butter, and eggs	62.9	88.6
Cheese	68.4	90.9
Ice cream, frozen novelties, and sherbet	25.3	53.0
Dairy product substitutes	80.8	100.0
Citrus fruit	93.4	100.0
Other fruit	47.2	91.6
Vegetables	65.2	89.5
Beans and grains	74.9	96.9
Meat, poultry, and fish	27.6	57.4
Bread and rolls	48.2	79.4
Cakes, pies, and pastries	56.4	97.0
Cookies and crackers	85.5	98.3

--Continued

**Appendix table 52--Share of food advertising expenditures by the largest food marketing firms, 1994,
Continued**

Industry	Share of expenditures spent by:	
	3 largest advertisers	10 largest advertisers
	----- Percent -----	
Coffee, tea, cocoa, and derivatives	54.2	82.6
Fruit juices and drinks	39.0	75.8
Vegetables juices	100.0	100.0
Candy and gum	37.9	63.1
Appetizers, snacks, and nuts	21.7	63.2
Regular carbonated drinks	61.4	92.1
Dietary carbonated drinks	87.0	99.5
Noncarbonated beverages	75.9	96.1
Bottled waters	50.9	78.4
Beer	74.2	90.3
Wine	47.6	84.1
Distilled spirits:		
Nonalcoholic preparations, mixes, and mixing ingredients	97.4	100.0
Blended or rye	100.0	100.0
Bourbon	79.6	98.3
Canadian	77.4	100.0
Irish	100.0	100.0
Scotch	52.0	96.4
Brandy, cognac, or armagnac	56.2	99.7
Cordials and liqueurs	38.7	81.1
Gin	64.4	100.0
Rum	72.7	97.9
Tequila	86.3	100.0
Vodka	80.6	98.9
Mixed drinks with liquor	98.4	100.0
Pet foods		
Dog food	56.4	91.6
Cat food	68.2	99.3
Pet food	78.8	97.7

Source: (3).

Appendix table 53—Advertising price indexes in cost per 1,000 targeted viewers or readers

Medium	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
<i>Index (1975 = 100)</i>												
Network	212	245	279	301	318	318	343	363	399	399	399	411
Spot TV	168	178	190	203	215	228	242	254	269	269	280	283
Network radio	236	244	237	268	284	301	313	332	345	338	331	344
Spot radio	148	152	155	161	170	177	182	193	205	205	203	209
Magazines	181	196	223	236	249	261	271	287	301	322	338	345
Supplements	170	177	192	204	220	229	240	254	267	301	316	322
Newspaper	215	234	252	267	286	306	327	347	368	390	410	414
Outdoor	168	182	198	208	218	229	238	250	263	274	274	277

Source: ERS

Performance Measures

Appendix table 54--Value added and employment generated by the food marketing system¹

Item	1972	1977	1982	1985	1990	1991	1992	1993
<i>Billion dollars</i>								
Value added:								
Food sector	170.0	228.2	371.3	432.6	578.4	555.1	563.2	586.8
Processing	35.5	54.1	79.8	92.2	110.3	111.9	112.0	116.1
Retailing and wholesaling	44.4	69.6	92.7	104.2	141.1	127.6	127.2	131.7
Transportation	6.6	9.8	16.5	19.3	23.3	20.8	20.7	21.8
Eating and drinking places	25.1	52.2	71.4	80.6	89.5	109.0	110.9	114.2
Other supporting sectors ²	58.4	70.2	110.9	136.3	214.2	185.8	192.4	200.3
Farm sector (food products)	18.5	29.1	37.3	41.7	49.7	47.5	50.0	46.4
Nonfood sector	927.2	1,716.8	2,741.0	3,564.4	4,894.1	5,122.2	5,456.0	5,710.1
Gross national product	1,097.2	1,974.1	3,149.6	4,038.7		5,724.8	6,020.2	6,343.3
<i>Million employees</i>								
Full-time-equivalent employment:								
Food sector	12.8	14.0	14.6	14.6	14.2	15.1	14.4	14.6
Processing	1.8	1.7	1.7	1.7	1.5	1.6	1.5	1.4
Retailing and wholesaling	3.2	3.2	3.3	3.4	3.5	3.3	3.0	3.2
Transportation	.5	.5	.5	.5	.6	.5	.5	.5
Eating and drinking places	3.9	5.5	5.8	5.9	5.1	6.5	6.4	6.5
Other supporting sectors ²	3.4	3.1	3.3	3.2	3.5	3.2	3.0	3.0
Farm sector (food products)	2.5	2.1	1.7	1.6	1.8	1.6	1.4	1.4
Nonfood sector	71.2	82.9	93.9	99.2	108.8	108.6	111.2	112.4
Civilian labor force	86.3	99.0	110.2	115.5	124.8	125.3	127.0	128.4
<i>Percent</i>								
Value added:								
Food sector	15.5	11.6	11.8	10.7	10.5	9.7	9.4	9.3
Processing	3.2	2.7	1.5	2.2	2.0	2.0	1.9	1.8
Retailing and wholesaling	4.1	3.5	2.9	2.6	2.6	2.2	2.1	2.1
Transportation	.6	.6	.5	.5	.4	.4	.3	.3
Eating and drinking places	2.3	2.6	2.3	2.0		1.9	1.8	1.8
Other supporting sectors ²	5.3	3.6	3.5	3.4	3.9	3.3	3.2	3.2
Farm sector (food products)	1.7	1.4	1.2	1.0	.9	.8	.8	.7
Nonfood sector	84.5	87.0	87.0	88.3	88.6	89.5	89.8	90.0
Gross national product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Million employees</i>								
Full-time-equivalent employment:								
Food sector	14.7	14.1	13.3	12.6	11.4	12.0	11.3	11.4
Processing	2.0	1.7	1.5	1.5	1.2	1.3	1.2	1.1
Retailing and wholesaling	3.7	3.2	3.0	2.9	2.8	2.6	2.4	2.5
Transportation	.6	.5	.5	.4	.5	.4	.4	.4
Eating and drinking places	4.5	5.5	5.3	5.1	4.1	5.2	5.0	5.1
Other supporting sectors ²	3.9	3.1	3.0	2.8	2.8	2.6	2.4	2.1
Farm sector (food products)	2.9	2.1	1.5	1.4	1.4	.3	1.1	2.3
Nonfood sector	82.3	83.7	85.2	85.9	87.2	87.4		
Civilian labor force	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ Revised following rebenchmarking to 1987 Census.

² Includes auxiliary activities needed to provide food to the final user. These include, for example, the value added and employment needed by the packaging industry to produce containers used in the food sector. These exclude the cost of materials used to produce related products.

Source: (11).

96 ERS/USDA Appendix table 56--Labor productivity in food processing and retailing

Year	Output per person per hour							
	Food processing							Eating and drinking places
	Red meats	Milk	Bakery products	Sugar	Beer	Soft drinks	Food-stores	
	<i>Index (1987=100)</i>							
1967	61.3	37.9	72.1	65.3	26.9	41.4	102.2	103.6
1972	69.7	51.4	81.9	76.5	37.5	47.0	114.2	108.7
1977	81.9	60.3	86.9	84.6	56.7	62.2	107.3	106.7
1982	91.9	81.6	89.8	76.6	69.5	71.1	102.2	103.5
1983	95.5	86.1	93.4	82.3	75.5	75.7	102.1	102.5
1984	97.0	89.4	93.9	82.5	80.2	81.6	102.4	98.9
1985	99.7	92.2	95.5	85.9	76.8	85.2	102.4	96.2
1986	98.4	96.3	101.1	88.5	90.9	91.4	102.0	99.2
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	102.7	103.9	92.7	97.4	99.5	109.9	98.1	102.6
1989	94.8	106.7	92.4	92.7	99.4	119.4	95.4	102.0
1990	92.3	107.9	93.8	93.9	106.0	126.7	94.8	103.2
1991	93.5	110.8	90.5	97.0	103.8	135.1	93.9	104.6
1992	103.0	112.3	89.8	98.2	104.1	144.1	93.4	104.1
1993		113.4		98.2	106.5	144.6	92.9	103.9

NA = Not available.

Source: (60).

Appendix table 57--Multifactor productivity indexes in U.S. food manufacturing

Year	Gross output	Capital services	Labor hours	Energy	Materials	Purchased services	Multifactor productivity
<i>Index (1987 = 100)</i>							
1949	39.8	47.4	117.3	41.9	48.7	29.4	71.3
1950	40.6	48.4	117.8	41.0	48.4	32.1	72.8
1951	41.5	49.2	120.0	42.0	48.9	36.6	73.2
1952	43.0	48.0	119.7	42.0	50.4	37.5	74.2
1953	44.1	47.9	119.5	40.4	51.1	36.6	75.6
1954	43.9	47.3	117.7	48.4	50.8	37.7	75.6
1955	46.4	47.9	118.4	51.5	55.0	39.3	75.3
1956	48.7	48.7	119.0	54.9	57.3	42.4	76.5
1957	49.1	47.5	115.6	52.7	56.2	44.8	78.5
1958	49.8	49.9	113.4	59.5	57.6	46.1	78.1
1959	52.1	50.2	114.8	59.8	59.3	47.0	79.9
1960	53.2	50.2	114.4	60.1	59.5	48.2	81.4
1961	54.0	51.1	113.6	60.0	61.4	48.6	80.8
1962	54.9	51.8	112.9	60.6	60.6	49.4	82.8
1963	56.5	52.9	112.1	63.0	61.8	51.2	84.0
1964	59.4	54.3	112.1	73.6	65.3	55.4	84.5
1965	60.8	55.0	113.3	73.7	66.2	55.5	85.5
1966	62.0	56.4	114.3	79.2	66.8	58.1	86.0
1967	65.2	58.7	114.2	77.2	70.5	64.2	86.6
1968	67.2	60.6	113.4	97.6	72.2	62.5	87.6
1969	68.1	62.0	113.4	94.8	72.3	62.8	88.6
1970	69.5	63.3	111.4	101.3	74.7	62.2	88.7
1971	70.9	64.8	109.9	96.4	76.7	58.2	89.3
1972	73.1	67.1	109.8	101.2	76.6	58.5	91.9
1973	70.6	68.5	107.7	101.0	75.7	58.6	89.7
1974	72.9	70.5	106.1	93.7	84.8	62.9	85.4
1975	73.3	72.9	102.7	96.1	84.4	65.7	86.1
1976	80.6	77.3	105.1	98.9	90.0	69.3	89.6
1977	81.7	80.9	105.3	98.8	93.6	70.9	87.9
1978	84.2	81.9	105.7	101.7	93.5	69.9	90.6
1979	84.2	84.3	106.6	97.2	92.2	72.4	91.0
1980	85.8	86.3	105.0	97.1	92.9	75.1	92.2
1981	87.9	88.1	102.6	93.4	96.4	78.6	92.2
1982	90.3	90.2	99.4	100.2	92.7	71.8	97.9
1983	90.0	91.4	98.0	94.8	91.8	76.8	98.2
1984	91.6	92.5	97.4	97.7	93.5	76.3	98.7
1985	94.5	94.9	97.4	93.1	96.4	77.4	99.6
1986	95.2	97.1	99.2	97.0	97.2	89.3	98.6
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	101.9	101.8	100.5	103.0	101.3	108.8	100.1
1989	100.8	104.2	103.2	106.2	99.1	112.6	99.3
1990	103.4	107.8	105.5	106.5	103.2	122.0	98.0
1991	104.3	112.1	103.3	107.8	103.8	124.7	98.2
1992	108.2	117.1	103.4	110.4	107.6	127.3	98.9

Source: (60)

Appendix table 58--Profit margins in food marketing

Year/ quarter	Aftertax profits for food processing, as a share of--		Aftertax profits for retail foodstores, as a share of--	
	Sales	Stock- holders' equity	Sales	Stock- holders' equity
	<i>Percent</i>			
1977	3.1	13.2	0.8	10.7
1982	3.1	13.0	1.0	12.6
1983	3.3	12.0	1.2	13.3
1984	3.3	13.3	1.4	16.2
1985 ¹	4.1	15.3	1.2	14.2
1988	5.5	20.9	.9	12.5
1	5.2	19.1	.6	8.4
2	6.5	25.0	1.3	17.8
3	5.6	21.9	.8	10.4
4	4.7	17.9	.7	13.5
1989	4.2	17.0	.8	14.9
1	4.1	15.6	.5	9.2
2	4.0	16.5	.9	17.3
3	3.4	13.9	.7	13.8
4	5.3	22.2	.9	19.1
1990	4.1	16.1	.5	11.2
1	3.7	14.7	-.8	-17.1
2	5.2	21.1	1.0	23.3
3	5.1	19.6	.5	11.6
4	2.2	9.0	1.1	26.8
1991	4.8	17.5	0.8	15.3
1	5.1	18.5	0.6	13.3
2	5.0	18.7	1.2	23.7
3	5.2	19.3	0.8	15.5
4	3.9	13.9	0.3	5.4
1992	4.4	15.7	0.4	9.0
1	3.2	10.9	0.5	10.3
2	5.7	20.3	0.7	14.1
3	4.8	16.9	0.5	10.8
4	4.0	14.5	0.0	0.7
1993	3.7	13.5	0.7	11.3
1	2.8	9.9	-0.4	-9.0
2	4.6	16.6	1.2	20.8
3	4.2	15.2	0.9	15.6
4	3.3	12.2	1.1	18.0
1994	5.2	17.7	1.2	18.5
1	5.2	18.4	1.1	17.4
2	4.3	15.2	1.4	22.3
3	5.3	19.8	1.2	18.6
4	5.1	18.5	1.1	15.8

¹ Includes tobacco, 1985 to data.

Source: (52).

Appendix table 59—Profits (return on equity) after taxes of wholesale corporate food firms, by asset group

Asset group value	1982	1983								1984
<i>1,000 dollars</i>										<i>Percent</i>
100-249	11.7	13.9								10.2
250-499	12.3	10.9								9.4
500-999	11.5	9.0								9.0
1,000-4,999	11.1	10.1								8.2
5,000-9,999	9.8	9.8								8.4
10,000-24,999	10.1	8.4								8.9
25,000-49,999	7.0	6.2								8.5
50,000-99,999	10.1	8.2								7.6
100,000-249,999	9.2	5.3								7.1
250,000 or more	6.7	8.0								6.4
<hr/>										
	1985	1986	1987	1988	1989	1990	1991	1992	Average, 1982-92	
<i>1,000 dollars</i>										<i>Percent</i>
100-249	14.7	10.9	13.7	12.8	11.9	25.6	152.5	640.5	83.5	
250-499	15.2	16.1	12.8	12.9	7.4	6.9	7.7	4.3	11.2	
500-999	10.6	9.2	10.6	11.1	6.9	9.4	4.7	4.7	9.2	
1,000-4,999	8.5	8.0	8.1	9.6	7.1	6.9	6.0	5.8	8.4	
5,000-9,999	7.4	7.7	9.1	8.9	5.4	6.5	5.3	3.3	7.8	
10,000-24,999	9.1	10.2	9.5	9.1	6.6	7.2	5.1	5.5	8.4	
25,000-49,999	6.0	6.0	6.4	7.7	4.1	5.7	5.4	7.0	6.3	
50,000-99,999	11.1	8.3	8.0	8.3	6.4	8.6	7.0	6.6	8.4	
100,000-249,999	7.7	4.6	5.0	6.6	12.8	10.4	10.4	9.6	7.9	
250,000 or more	6.7	6.5	8.8	7.8	11.4	9.3	9.1	9.7	8.1	

Source: (62).

Appendix table 60—Comparative financial statistics for selected food companies¹

Statistical year	CPC Int'l.	Campbell Soup	ConAgra Inc. ²	Flowers Industries	H.J. Heinz	Hershey Foods	Kellogg Company	McCor-mick ³	Nestlé S.A.	Quaker Oats	Ralston Purina	Sara Lee
<div style="display: flex; justify-content: space-between;"> 100 ERS/USDA Percent </div>												
Pretax margin:												
1988	10.5	9.0	2.5	8.4	11.9	10.9	17.8	5.2	8.7	8.1	10.3	4.9
1989	10.9	7.9	2.8	6.1	12.5	12.0	14.9	6.3	8.8	8.4	9.1	5.2
1990	11.0	8.4	2.3	6.7	13.3	12.0	15.7	6.9	8.0	7.3	9.5	6.1
1991	11.2	10.8	2.6	4.8	13.6	12.5	17.0	8.0	8.0	7.7	9.4	6.7
1992	11.3	12.8	2.8	5.6	15.0	12.5	16.7	9.4	8.2	7.6	7.5	7.2
1993	11.7	13.3	2.9	6.2	12.8	12.3	16.4	9.6	8.1	8.5	8.9	7.4
1994	11.3	14.4	3.1	4.8	11.3	12.2	17.2	9.3		8.2	9.3	7.2
Net margin:												
1988	6.2	5.6	1.6	5.6	7.4	6.7	11.0	2.9	5.2	5.1	6.6	3.0
1989	6.4	4.8	1.7	3.8	7.6	7.1	9.4	4.2	5.0	5.2	5.4	3.3
1990	6.5	4.9	1.5	4.1	8.3	7.2	9.7	4.5	4.9	4.2	5.5	3.8
1991	6.5	6.5	1.5	2.9	8.5	7.6	10.5	5.7	4.9	4.3	5.4	4.0
1992	6.4	7.8	1.6	3.6	9.7	7.5	10.6	6.5	5.0	4.4	4.3	4.5
1993	6.6	8.5	1.7	4.1	9.1	7.4	10.7	6.4	5.0	5.2	5.2	4.7
1994	6.4	9.4	1.8	3.0	7.7	7.3	10.7	6.3		4.9	4.9	4.5
Return on average equity:												
1988	25.3	15.1	20.0	22.1	25.8	17.5	35.7	12.4	15.1	23.1	35.4	21.1
1989	27.2	14.9	22.5	14.5	26.1	16.1	28.2	16.4	19.1	12.5	37.2	22.1
1990	27.3	17.6	22.3	16.2	27.5	16.6	29.0	17.9	16.6	20.8	54.9	20.9
1991	25.6	23.0	19.3	11.4	27.3	17.0	29.8	21.5	17.2	24.8	58.3	20.6
1992	25.5	25.7	16.7	15.0	27.5	17.3	32.0	23.0	18.4	27.9	46.2	19.9
1993	25.9	29.9	17.2	15.7	27.6	17.8	36.9	22.1	19.5	42.7	59.8	19.6
1994	26.8	34.2	19.3	10.6	23.2	18.5	40.1	22.5		58.7	65.6	20.5
Return on average assets:												
1988	8.8	8.1	5.6	10.0	11.1	9.7	16.1	4.8	7.8	8.7	9.2	6.9
1989	9.3	7.3	6.6	6.7	11.6	9.6	13.1	6.1	7.0	4.8	8.5	6.7
1990	8.9	7.6	5.0	7.7	11.9	10.0	14.4	7.0	6.4	7.0	8.6	6.2
1991	8.8	9.7	4.1	5.5	12.1	9.9	15.8	8.2	6.6	7.5	8.8	6.3
1992	8.7	11.5	3.6	7.1	11.7	9.7	16.5	8.8	6.5	8.0	6.8	6.5
1993	8.7	12.0	3.7	8.2	10.1	9.3	17.0	8.2	6.5	10.2	7.0	6.5
1994	8.8	12.8	4.2	5.6	8.2	9.2	16.2	7.5		10.0	6.3	6.3

Continued--

Appendix table 60—Comparative financial statistics for selected food companies¹—Continued

Statistical year	CPC Int'l.	Campbell Soup	ConAgra Inc. ²	Flowers Industries	H.J. Heinz	Hershey Foods	Kellogg Company	McCormick ³	Nestlé S.A.	Quaker Oats	Ralston Purina	Sara Lee
Dividend payout ratio:	<i>Percent</i>											
1988	41.3	38.7	33.5	36.4	41.6	37.1	39.0	35.5	30.1	29.6	26.6	40.6
1989	41.5	42.5	30.7	60.0	41.6	38.9	47.8	28.3	30.5	41.7	25.0	40.6
1990	41.4	41.5	31.0	60.8	42.6	38.7 (d)	45.3	30.5	32.4	50.9	28.1	42.4
1991	42.1	35.4	31.3	92.3	43.7	38.7	43.0	31.6	32.0	49.8	32.1	42.8
1992	43.2	36.4	34.7	75.5	43.8	38.3	43.6	35.1	32.2	52.9	43.1	39.9
1993	43.4	41.4	38.0	68.7	47.0	39.4	45.2	36.9	32.7	46.5	42.7	40.0
1994	43.5	43.4	38.4	97.5	61.1	41.1	44.4	36.4		49.1	47.4	42.9
Total debt/capital: ⁴												
1988	44.7	25.9	38.6	34.9	32.6	22.3	32.4	44.6	46.8	33.9	60.9	40.9
1989	49.6	33.6	39.3	34.1	35.1	17.4	34.2	43.0	40.3	44.2	72.2	50.0
1990	52.2	37.3	48.2	30.9	40.0	19.3	26.3	39.3	41.5	52.3	80.1	48.6
1991	45.9	37.0	61.4	31.9	28.6	21.6	17.7	45.1	37.9	47.5	74.2	44.5
1992	46.6	32.7	56.3	30.9	44.6	26.8	21.3	44.3	51.2	49.0		37.9
1993	41.8	39.9	61.1	13.4	53.0	26.8	34.7	49.4	45.5	59.5	83.5	43.3
1994	46.9	33.3	59.0	26.0	48.1	25.1	35.5	55.3		69.5	85.0	48.7
5-year compound growth:												
Net income	7.6	18.1	16.0	(0.1)	4.2	9.1	9.9	15.4	7.0	NA	NA	
	12.9											
Earnings per share	8.5	18.8	10.7	(1.2)	4.8	9.9	11.8	18.3	6.0	8.4	NA	11.6
Dividends/share	9.4	19.4	16.2	8.9	13.0	11.1	10.2	20.4	7.4	12.1	NA	12.5
Book value/share	8.2	2.9	13.2	6.2	6.2	6.0	4.0	7.6	5.6	NA	NA	10.0

¹ Based on continuing operations and excluding nonrecurring items.² Capitalization defined as short-term debt + long-term debt + equity.³ Based on results of McCormick's food and packaging operations.⁴ Distorted.

Source: Company reports.

Appendix table 61—Income statement for food processing and retailing, 1994

	Food and kindred products				Retail stores ¹			
	Quarter				Quarter			
	1	2	3	4	1	2	3	4
	<i>Million dollars</i>							
Net sales, receipts, and operating revenues	105,775	109,937	111,472	114,081	57,426	59,347	57,935	61,373
Less depreciation, depletion, and amortization of property, plant, and equipment	2,785	2,824	2,897	2,963	1,044	1,094	1,073	1,126
Less all other operating costs and expenses, including costs of goods sold and selling, general, and administrative expenses	94,525	97,724	98,852	101,734	54,699	56,310	55,250	58,253
Income (or loss) from operations	8,466	9,388	9,723	9,384	1,684	1,943	1,612	1,994
Net nonoperating income (expense)	(521)	(2,402)	(713)	(400)	(604)	(564)	(464)	(776)
Income (or loss) before income taxes	7,945	6,987	9,010	8,985	1,079	1,379	1,148	1,218
Cash dividends charged to retained earnings in current quarter	2,424	2,242	2,407	2,483	144	198	161	185
Net income retained in business	3,097	2,415	3,428	3,520	480	653	533	460
Retained earnings at beginning of quarter	95,521	96,422	97,261	98,047	5,908	6,447	7,063	7,725
Other direct credits (or charges) to retained earnings (net), including stock and other noncash dividends	(798)	(1,432)	(916)	(2,028)	(72)	(70)	(74)	166
Retained earnings at end of quarter	97,820	97,405	99,773	99,539	6,315	7,030	7,522	8,351
	<i>Percentage of net sales</i>							
Income statement in ratio format:								
Net sales, receipts, and operating revenues	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less depreciation, depletion, and amortization of property, plant and equipment	2.6	2.6	2.6	2.6	1.8	1.8	1.8	1.8
Less all other operating costs and expenses	89.4	88.9	88.7	89.2	95.3	94.9	95.4	94.9
Income (or loss) from operations	8.0	8.5	8.7	8.2	2.9	3.3	2.8	3.2

See footnotes at end of table.

Continued—

Appendix table 61—Income statement for food processing and retailing, 1944—Continued

	Food and kindred products				Retail stores ¹			
	Quarter				Quarter			
	1	2	3	4	1	2	3	4
	<i>Percentage of sales</i>							
Nonoperating income (expense)	(0.5)	(2.2)	(0.6)	(0.4)	(1.1)	(1.0)	(0.8)	(1.3)
Income (or loss) before income taxes	7.5	6.4	8.1	7.9	1.9	2.3	2.0	2.0
Less provisions for current and deferred domestic income taxes	2.3	2.1	2.8	2.6	0.8	0.9	0.8	0.9
Income (or loss) after income taxes	5.2	4.2	5.2	5.3	1.1	1.4	1.2	1.1
	<i>Percent</i>							
Operating ratios:								
Annual rate of profit on stockholders' equity at end of period—								
Before income taxes	26.50	22.85	29.07	28.93	30.51	37.16	30.28	29.68
After income taxes	18.42	15.23	18.83	19.32	17.63	22.95	18.31	15.72
Annual rate of profit on total assets—								
Before income taxes	9.04	7.92	10.06	9.84	5.80	7.41	6.07	6.27
After income taxes	6.28	5.28	6.52	6.58	3.35	4.57	3.67	3.32
Balance sheet ratios ²								
Total current assets to total current liabilities	1.20	1.20	1.19	1.16	1.20	1.19	1.15	1.15
Total cash and U.S. Government and other securities to total current liabilities	0.17	0.18	0.19	0.16	0.19	0.19	0.18	0.17
Total stockholders' equity to total debt	0.91	0.93	0.94	0.91	0.45	0.48	0.49	0.53

¹ Excludes firms with assets below \$25 million.

² Based on data presented in appendix table 44.

Source: (52).

Appendix table 62-Balance sheet for food processing and retailing, 1994

Item	Food and tobacco products				Retail stores ¹			
	Quarter				Quarter			
	1	2	3	4	1	2	3	4
	<i>Million dollars</i>							
Assets:								
Cash and demand deposits in the United States	3,919	4,519	5,077	3,788	2,229	2,445	2,365	2,113
Time deposits in the United States, including negotiable certificates of deposit	1,748	1,591	1,405	1,289	275	270	336	324
Total cash on hand and in U.S. banks	5,667	6,110	6,482	5,077	2,504	2,714	2,701	2,437
Other short-term financial investments, including marketable and Government securities, and commercial paper	8,897	8,546	9,822	9,546	1,560	1,395	1,343	1,520
Total cash, U.S. Government, and other securities	14,564	14,655	16,305	14,623	4,063	4,110	4,043	3,957
Trade accounts and trade notes receivable (less allowances for doubtful receivables)	32,544	31,806	33,285	34,285	2,929	2,891	2,958	3,147
Inventories	45,738	43,886	44,639	46,715	16,698	16,333	17,066	17,629
All other current assets	8,979	9,368	9,819	10,059	2,620	2,634	2,032	2,111
Total current assets	101,825	99,715	104,226	105,682	26,311	25,967	26,100	26,843
Depreciable and amortizable fixed assets, including construction in progress	169,169	170,751	172,807	172,482	55,327	56,273	57,253	59,440
Land and mineral rights	6,696	6,908	7,011	7,178	4,966	5,024	5,058	5,226
Less accumulated depreciation, depletion, and amortization	76,817	77,959	79,755	79,467	23,281	23,948	24,519	25,588
Net property, plant, and equipment	99,047	99,700	100,063	100,193	37,012	37,348	37,792	39,078
All other noncurrent assets, including investment in nonconsolidated entities, long-term investments, and intangibles	150,491	153,310	153,914	159,260	11,136	11,122	11,828	11,809
Total assets	351,363	352,726	358,203	365,135	74,458	74,437	75,720	77,730
Liabilities and stockholders' equity:								
Short-term debt, original maturity of 1 year or less--								
Loans from banks	7,180	6,236	6,164	6,484	153	188	202	281
Other short-term debt, including commercial paper	11,936	12,778	13,160	14,047	103	106	90	160
Trade accounts and trade notes payable	23,365	22,524	24,502	26,597	11,611	11,822	12,325	12,547
Income taxes accrued, prior and current years, net of payments	5,967	4,764	5,404	4,871	573	419	490	549

See footnotes at end of table.

Continued--

Appendix table 62—Balance sheet for food processing and retailing, 1994—Continued

Item	Food and tobacco products				Retail stores ¹			
	Quarter				Quarter			
	1	2	3	4	1	2	3	4
	<i>Million dollars</i>							
Installments, due in 1 year or less, on long-term debt—								
Loans from banks	1,897	1,953	1,644	1,663	887	808	867	846
Other long-term debt	5,119	5,769	6,263	6,993	804	702	702	797
All other noncurrent liabilities, including excise and sales taxes and accrued expenses	29,114	29,006	30,648	30,723	7,722	7,763	8,096	8,148
Total current liabilities	84,579	83,030	87,785	91,318	21,854	21,809	22,773	23,328
Long-term debt (due in more than 1 year)—								
Loans from banks	25,453	26,313	26,190	27,150	11,048	10,862	10,485	10,654
Other long-term debt	80,507	78,890	78,272	80,594	18,633	18,296	18,696	18,527
All other noncurrent liabilities, including deferred income taxes, capitalized leases, and minority stockholders' interest, in consolidated domestic corporations	40,926	42,173	41,993	41,827	8,772	8,631	8,596	8,803
Total liabilities	231,465	230,406	234,239	240,890	60,308	59,598	60,549	61,312
Capital stock and other capital (less Treasury stock)	22,079	24,914	24,190	24,707	7,836	7,809	7,649	8,067
Retained earnings	97,820	97,405	99,773	99,539	6,315	7,030	7,522	8,351
Stockholders' equity	119,899	122,319	123,964	124,245	14,151	14,839	15,171	16,418
Total liabilities and stockholders' equity	351,363	352,726	358,203	365,135	74,458	74,437	75,720	77,730
Net working capital:								
Excess of total current assets over total current liabilities	17,247	16,685	16,441	14,364	4,456	4,158	3,327	3,515
	<i>Percent of total assets</i>							
Selected balance-sheet ratios:								
Total cash and U.S. Government and other securities	4.1	4.2	4.6	4.0	5.5	5.5	5.3	5.1
Trade accounts and trade notes receivable	9.3	9.0	9.3	9.4	3.9	3.9	3.9	4.0
Inventories	13.0	12.4	12.5	12.8	22.4	21.9	22.5	22.7
Total current assets	29.0	28.3	29.1	28.9	35.3	34.9	34.5	34.5
Net property, plant, and equipment	28.2	28.3	27.9	27.4	49.7	50.2	49.9	50.3
Short-term debt, including installments on long-term debt	7.4	7.6	7.6	8.0	2.6	2.4	2.4	2.7
Total current liabilities	24.1	23.5	24.5	25.0	29.4	29.3	30.1	30.0
Long-term debt	30.1	29.9	29.2	29.5	39.8	39.2	38.5	37.5
Total liabilities	65.9	65.3	65.4	66.0	81.0	80.1	80.0	78.9
Stockholders' equity	34.1	34.7	34.6	34.0	19.0	19.9	20.0	21.1

¹ Excludes firms with assets below \$25 million.

Source: (52).

Appendix table 63--Aftertax profits of selected processors, 1994

Firm	Profits	Change from 1993	Return on common equity over 12-month period ending December 1994
	<i>Million dollars</i>		<i>Percent</i>
Borden, Inc.	-539.0	NA	NA
Campbell Soup Company	661.0	144	30.7
ConAgra, Inc.	462.2	17	18.3
CPC International, Inc.	345.1	-24	20.3
Dean Foods	79.7	25	14.5
Dole Food	67.9	-13	6.2
Flower Industries	33.5	-12	11.4
General Mills, Inc.	463.4	-10	33.6
H.J. Heinz Company	551.9	-4	23.6
Hershey Foods	184.2	-38	12.8
Geo. A. Hormel	118.0	17	17.8
Hudson Foods	30.7	73	14.7
IBP, Inc.	182.3	135	23.4
Interstate Bakeries	13.4	-50	6.9
Kellogg Co.	705.4	4	39.2
Lancaster Colony	66.6	28	27.6
McCormick and Company, Inc.	61.2	-39	12.4
Pet Incorporated	112.6	-3	31.1
Pilgrim's Pride	23.2	-3	14.3
Quaker Oats Company	193.1	-37	40.4
Ralston-Purina	204.1	-37	54.8
Sara Lee Corporation	260.0	-65	7.1
Smithfield Foods, Inc.	29.3	NA	17.2
Thorn Apple Valley	16.8	47	16.3
Tyson Foods, Inc.	5.7	-97	0.4

Source: (4).

Appendix table 64--Aftertax profits of selected eating places, 1994

Firm	Profits	Change from 1993	Return on common equity over 12-month period ending December 1994
	<i>Million dollars</i>		<i>Percent</i>
Bob Evans Farms	14.2	12	13.8
Brinker International	16.1	21	15.2
Cracker Barrel Old County Store	15.6	21	13.3
Flagstar	4.5	NM	NM
Marriott International	72.0	-26	27.0
McDonald's	308.9	13	18.6
Morrison's Restaurants	12.1	49	28.3
Shoney's	14.3	8	NM

NA = Not applicable.

Source: (4).

Appendix table 65—Aftertax profits of selected food wholesalers, 1994

Firm	Profit	Change from 1993	Return on common equity over 12-month period ending December 1994
	<i>Million dollars</i>	<i>----- Percent -----</i>	
Richfood Holdings	23.1	30	21.3
Rykoff-Sexton	8.6	NA	4.2
Smart and Final	17.5	18	14.2
Super Food Services	8.9	-5	6.7
Super Rite	7.9	425	18.6
SuperValu	52.6	-71	4.4
Sysco	235.0	11	18.3

NA = Not available.

Source: (4).

Appendix table 66—Aftertax profits of selected food retailers, 1994

Firm	Profits	Change from 1993	Return on common equity over 12-month period ending December 1994
	<i>Million dollars</i>	<i>----- Percent -----</i>	
Albertson's	400.1	26	25.4
American Stores Company	316.6	24	16.5
Bruno's	47.7	32	11.3
Casey's General Stores	20.4	37	11.9
Delchamps	7.6	-44	5.6
Eagle Food Centers	-24.6	NA	-51.8
Food Lion, Inc.	152.9	NA	15.5
Giant Food (Landover, MD)	89.9	-2	12.4
Great Atlantic & Pacific Tea Company	-191.8	NA	-24.9
Hannaford Brothers	62.3	14	14.1
Ingles Markets	16.6	27	10.5
Kroger	268.9	57	NA
Marsh Supermarkets	8.2	3	7.3
Penn Traffic	21.5	339	106.6
Ruddick	33.8	20	11.4
Smith's Food & Drug Centers	48.8	6	10.3
Stop & Shop	79.0	31	40.8
Weis Markets	76.2	5	10.0
Winn-Dixie Stores Company	223.9	-7	21.0

NA = Not available.

Source: (4).

Appendix table 67--New products introduced in 20 selected categories

Category	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
	Number									
Food categories:										
Baby food	14	38	10	55	53	31	95	53	7	45
Bakery foods	553	681	931	968	1,115	1,239	1,631	1,508	1,420	1,636
Baking ingredients	142	137	157	212	233	307	335	346	383	544
Beverages	625	697	832	936	913	1,143	1,367	1,538	1,845	2,250
Breakfast cereals	56	62	92	97	118	123	104	122	99	110
Condiments	904	811	1,145	1,310	1,355	1,486	1,885	2,068	3,148	3,271
Candy, gum, and snacks	1,146	1,179	1,367	1,608	1,701	2,028	2,787	2,555	2,042	2,461
Dairy	671	852	1,132	854	1,348	1,327	1,111	1,320	1,099	1,323
Desserts	62	101	56	39	69	49	124	93	158	215
Entrees	409	441	691	613	694	753	808	698	631	694
Fruit and vegetables	195	194	185	262	214	325	356	276	407	487
Pet food	103	80	82	100	126	130	202	179	276	161
Processed meat	383	401	581	548	509	663	798	785	454	565
Side dishes	187	292	435	402	489	538	530	560	680	980
Soups	167	141	170	179	215	159	265	211	248	264
Total, food	5,617	6,107	7,886	8,183	9,192	10,301	12,398	12,312	12,897	15,006
Nonfood categories:										
Health and beauty aids	1,446	1,678	2,039	2,000	2,308	2,379	3,064	3,690	3,864	4,368
Household supplies	184	178	161	233	372	317	423	474	467	426
Paper products	42	42	47	100	121	174	165	153	145	183
Tobacco products	27	27	51	12	29	31	19	45	38	38
Pet products	14	9	18	30	33	42	74	116	160	55
Total, nonfood	1,713	1,934	2,316	2,375	2,863	2,943	3,745	4,478	4,674	5,070
Total	7,330	8,041	10,182	10,558	12,055	13,244	16,143	16,790	17,571	20,076

Source: (41).

Appendix table 68--U.S. food plant construction¹

Year ²	New construction	Major renovations or expansions	Total
		<i>Number</i>	
1984	19	82	201
1985	146	149	295
1986	159	173	332
1987	198	141	339
1988	187	182	369
1989	193	157	390
1990	219	201	456
1991	146	159	305
1992	170	206	376
1993	158	177	335
1994	141	188	329

¹ Projects planned, under construction, or completed during that year. Some redundancies exist from year to year, because a project under construction in one year may have been completed in the following year.

² Covers period from July 1 to June 30 through 1990. Beginning in 1991, data for period from January 1 to December 31.

Source: (13).

Appendix table 69--New capital expenditures in the food processing sectors

Food processing industries	1988	1989	1990	1991	1992	1993
<i>Million dollars</i>						
All food processing	7,492.7	8,392.3	8,858.4	9,361.9	9,899.3	9,389.3
Meat products	881.0	1,170.1	1,255.3	1,335.9	1,189.3	1,257.9
Meatpacking	272.0	365.8	393.7	423.0	343.2	289.8
Sausages and other prepared meats	261.2	304.5	363.9	326.3	379.7	413.2
Poultry dressing	347.8	NA	NA	NA	466.4	554.8
Poultry and egg processing	NA	499.8	497.6	586.6	NA	NA
Dairy products	791.2	903.2	887.2	854.6	1,009.9	937.5
Creamery butter	9.7	13.6	16.5	17.4	9.1	12.6
Cheese, natural and processed	135.0	169.1	272.1	187.6	261.8	274.3
Condensed and evaporated milk	107.7	153.8	117.2	162.5	188.5	134.8
Ice cream and frozen desserts	157.5	148.0	140.9	161.3	188.1	180.3
Fluid milk	380.3	418.8	340.4	325.8	362.5	335.4
Preserved fruit and vegetables	1,095.8	1,220.8	1,508.6	1,620.2	1,474.8	1,414.0
Canned specialties	125.0	175.5	251.0	278.6	274.7	191.2
Canned fruit and vegetables	320.7	351.5	433.6	490.2	445.1	404.1
Dehydrated fruit, vegetables, and soups	60.7	125.0	98.6	117.9	91.7	81.3
Pickles, sauces, and salad dressings	165.6	139.2	145.3	210.5	158.8	149.4
Frozen fruit and vegetables	235.7	283.9	349.9	298.2	254.8	313.2
Frozen specialties	188.1	145.6	230.3	224.9	249.7	274.8
Grain mill products	1,297.3	1,360.2	1,316.5	1,277.7	1,606.9	1,399.0
Flour and other grain mill products	130.3	92.4	114.2	152.1	253.5	119.7
Breakfast cereals	394.5	483.1	396.8	297.9	396.6	396.4
Rice milling	38.4	27.0	23.2	25.2	23.5	39.7
Blended and prepared flour	67.3	101.0	108.3	103.6	160.6	105.5
Wet corn milling	383.2	283.9	290.4	369.5	409.2	441.9
Dog, cat, an other pet food	143.9	144.2	167.9	167.7	179.8	141.4
Other prepared feeds	139.7	228.5	215.7	161.7	183.6	154.4
Bakery products	685.4	750.8	827.4	948.4	861.8	863.5
Bread, cake, and related products	446.3	483.8	541.5	515.9	514.4	510.7
Cookies and crackers	202.2	240.6	255.5	406.6	310.3	314.2
Frozen bakery products	36.9	26.4	30.5	25.9	37.1	38.6
Sugar and confectionery products	491.3	634.5	666.9	636.2	897.4	819.4
Raw cane sugar	36.0	62.6	82.3	32.4	59.3	52.7
Cane sugar, refined	33.1	42.3	45.0	50.3	56.3	30.5
Beet sugar	46.4	60.5	55.0	108.1	96.5	128.6
Confectionery products	225.6	262.4	296.5	217.2	378.7	411.5
Chocolate and cocoa products	94.4	130.1	129.1	132.8	261.9	125.5
Chewing gum	19.8	NA	24.9	NA	NA	NA
Fats and oils	331.3	285.0	327.0	376.3	323.0	335.2
Cottonseed oil mills	19.2	28.8	24.8	27.4	12.0	21.8
Soybean oil mills	126.4	99.1	166.0	207.9	123.2	146.7
Other vegetable oil mills	4.9	34.8	5.9	6.5	10.4	8.1
Animal and marine fats and oils	102.2	57.1	45.2	40.1	70.3	70.1
Shortening and cooking oils	78.6	65.4	85.0	94.4	107.0	88.4

-- Continued

Appendix table 69—New capital expenditures in the food processing sectors, continued

Food processing industries	1988	1989	1990	1991	1992	1993
<i>Million dollars</i>						
Beverages	1,355.3	1,337.1	1,214.7	1,444.9	1,537.3	1,3987.3
Malt beverages	570.3	601.8	542.8	649.0	565.0	479.3
Malt	28.7	15.4	17.4	18.5	27.1	39.3
Wines, brandy, and brandy spirits	104.3	123.4	108.2	96.9	114.7	146.1
Distilled spirits, except brandy products	33.4	37.6	36.4	59.1	56.3	42.1
Bottled and canned soft drinks	567.7	607.8	460.0	548.5	698.5	616.2
Other flavoring extracts and syrups	50.9	51.3	49.9	72.9	75.6	64.3
Miscellaneous foods and food products	564.1	667.6	854.8	867.6	998.9	975.6
Canned and cured seafood	13.1	16.8	33.1	26.5	20.1	45.1
Fresh or frozen packaged fish	75.3	138.5	217.1	112.0	149.6	113.0
Roasted coffee	123.2	120.9	114.6	126.6	149.1	111.2
Manufactured ice	9.9	18.0	29.8	21.0	13.8	21.4
Pasta products	35.5	44.5	46.8	96.5	74.7	40.7
Other food preparations	204.5	883.3	251.7	296.0	332.3	394.2

NA = Not available.

Source: (43).

Appendix table 70—Fixed capital in food manufacturing

Year	Current cost gross stock	Current cost net stock	Constant cost gross stock	Constant cost net stock
<i>Billion dollars</i>				
1947	12.8	6.9	78.7	42.0
1958	20.1	10.2	86.2	43.7
1963	22.1	11.5	89.8	46.6
1967	27.1	14.7	97.1	52.3
1972	39.8	22.4	109.3	61.1
1977	70.7	40.3	125.5	71.3
1982	124.4	70.1	144.7	81.5
1983	129.7	72.3	146.8	81.8
1984	135.5	74.8	149.0	82.2
1985	141.8	77.9	151.8	83.3
1986	150.8	82.0	153.7	83.6
1987	159.7	86.7	157.0	85.2
1988	168.8	91.5	160.1	86.8
1989	180.8	98.2	164.5	89.5
1990	192.3	104.8	169.1	92.4
1991	201.3	110.8	175.3	96.9
1992	212.7	118.1	181.8	101.3
1993	225.0	125.7	188.4	105.6

Source: (42).

Appendix table 71--U.S. grocery retailer characteristics, 1994

	Total area	Weekly sales	Shelf keeping units	Nonfood share of sales
Traditional channels	<i>Sq. ft.</i>	<i>Dollar</i>		<i>Percent</i>
Conventional Supermarket	23,000	147,000	15,000	8
Superstore	42,000	309,500	24,000	13
Food/Drug Combo	53,000	400,500	30,000	18
Super Warehouse	58,000	592,500	23,000	8
Warehouse Store	42,000	233,000	14,000	6
Limited Assortment	12,000	66,000	1,100	6
Convenience Stores:				
Traditional	2,500	11,400	3,400	7
Petroleum-based	2,000	9,100	2,200	8
Other	NA	19,800	NA	NA
Non-Traditional Channels:				
Hypermarket	174,000	1,010,000	100,000	40
Wholesale Club	113,000	795,400	4,000	60
Mini-Club	25,200	155,000	2,400	15
Deep-discounter	30,000	150,900	25,000	80
Supercenter	147,800	506,000	112,500	50

¹ 1990

Source: (1)

Appendix table 72--Capacity utilization rates in food processing: fourth quarters 1992 and 1991

Industry	Full production		National Emergency Production	
	1992	1991	1992	1991
	<i>Percent</i>			
Meat products	85	84	64	64
Meatpacking plants	86	82	63	61
Sausages and other prepared meats	80	80	70	71
Poultry slaughtering and processing	88	89	62	63
Dairy products	78	78	64	64
Creamery butter	63	64	62	63
Cheese, natural and processed	83	86	58	59
Dry, condensed, and evaporated dairy products	76	71	65	62
Ice cream and frozen desserts	65	68	50	53
Fluid milk	81	81	73	73
Preserved fruits and vegetables	75	76	68	69
Canned specialties	87	87	85	84
Canned fruit and vegetables	70	71	69	69
Dehydrated fruits, vegetables, soups	80	74	67	64
Pickles, sauces, and salad dressing	64	66	51	52
Frozen fruits and vegetables	70	80	66	71
Frozen specialties	87	89	76	79
Grain mill products	82	84	74	74
Flour and other grain mill products	83	88	82	85
Cereal breakfast foods	85	86	78	78
Rice milling	92	94	91	88
Prepared flour mixes and doughs	74	75	52	52
Wet corn milling	96	96	96	96
Dog and cat food	73	75	70	72
Prepared feeds	81	83	63	65
Bakery products	80	81	76	76
Bread, cake, and related products	82	82	78	77
Cookies and crackers	75	78	73	75
Frozen bakery products, except bread	87	83	66	65
Sugar and confectionery products	65	64	60	58
Raw cane sugar	91	95	80	82
Cane sugar refining	85	90	79	83
Beet sugar	82	94	78	88
Candy and other confectionery products	54	51	51	49
Chocolate and cocoa products	79	77	77	76

Continued--

Appendix table 72--Capacity utilization rates in food processing: fourth quarters 1992 and 1991, continued

Industry	Full production		National Emergency Production	
	1992	1991	1992	1991
	<i>Percent</i>			
Chewing gum	92	90	66	64
Salted and roasted nuts and seeds	73	75	55	56
Fats and oils	85	85	80	83
Cottonseed oil mills	92	93	92	93
Soybean oil mills	92	94	92	93
Vegetable oil mills	95	92	95	92
Animal and marine fats and oils	85	83	80	80
Edible fats and oils	78	79	72	76
Beverages	74	75	63	64
Malt beverages	84	86	83	84
Malt	97	99	97	99
Wines, brandy, and brandy spirits	83	83	63	64
Distilled and blended liquors	78	77	50	50
Bottled and canned soft drinks	63	65	55	57
Flavoring extracts and syrups	80	76	60	54
Miscellaneous food and kindred products	70	72	61	64
Canned and cured fish and seafoods	(S)	(S)	(S)	(S)
Fresh or frozen prepared fish	73	66	65	60
Roasted coffee	73	90	66	82
Potato chips and similar snacks	78	81	68	70
Manufactured ice	(S)	(S)	(S)	(S)
Macaroni and spaghetti	90	86	79	76
Food preparations	69	71	59	61

Source: (49).

(S)

Appendix table 73—Dow Jones market indexes of stock prices for the food marketing system

Date	Food	Beverages	Food retailers and wholesalers
		<i>Percent</i>	
June 30, 1982	100.00	100.00	100.00
December 31, 1982	122.93	125.40	141.39
December 30, 1983	148.63	133.58	162.26
December 31, 1984	171.87	147.03	179.77
December 31, 1985	273.11	220.97	243.51
December 31, 1986	355.81	270.83	288.23
December 31, 1987	362.82	304.95	322.08
December 30, 1988	477.72	341.43	438.83
December 29, 1989	642.77	525.61	544.21
December 31, 1990	673.52	611.53	569.17
December 31, 1991	952.04	017.35	704.05
December 31, 1992	937.60	977.68	698.01
December 31, 1993	843.66	991.00	644.24
December 31, 1994	899.69	1,046.65	637.05

	Restaurants	Consumer noncyclical	Consumer cyclical	Dow Jones equity market
			<i>Percent</i>	
June 30, 1982	100.00	100.00	100.00	100.00
December 31, 1982	134.85	126.35	143.24	129.74
December 30, 1983	155.44	136.86	169.71	152.29
December 31, 1984	170.42	147.20	167.45	155.36
December 31, 1985	249.65	205.58	218.45	199.23
December 31, 1986	273.86	264.83	260.79	228.86
December 31, 1987	272.55	282.69	261.35	230.50
December 30, 1988	324.37	333.84	322.74	260.74
December 29, 1989	463.15	479.37	386.31	329.85
December 31, 1990	408.80	543.87	325.98	305.59
December 31, 1991	552.57	784.90	446.65	391.90
December 31, 1992	681.64	734.03	527.62	413.29
December 31, 1993	791.13	684.89	596.43	442.19
December 31, 1994	746.13	442.19	532.55	433.07

Source: (10).

Appendix table 74--Price/earnings ratio for the food marketing system

Industry	1985 fourth quarter	1986 fourth quarter	1987 third quarter	1988 third quarter	1989 third quarter	1990 fourth quarter	1992 first quarter	1993 second quarter	1994 second quarter
	<i>Percent</i>								
All- industry composite	NA	NA	15	12	15	15	26	23	16
Food marketing system	NA	NA	NA	19	21	22	16	20	22
Food wholesaling	NA	NA	NA	17	16	16	16	18	21
Food processing	15	19	15	19	20	20	19	21	24
Food retailing	13	20	20	20	27	47	27	20	18
Eating places	NA	NA	NA	NA	NA	NA	NA	22	20

NA = Not available.

Source: (4).

Food Marketing Purchases

Appendix table 75--Food marketing system purchases from U.S. agriculture

Year	Meat	Fruit and vegetables ¹	Dairy products	Bakery products
<i>Billion dollars</i>				
1982	31.5	11.5	16.7	3.4
1983	31.4	12.9	18.0	3.5
1984	32.4	13.5	18.1	3.7
1985	30.5	13.3	17.7	3.4
1986	30.9	14.6	17.8	2.9
1987	32.7	14.3	18.2	2.8
1988	33.5	16.2	17.9	3.6
1989	34.0	17.8	19.6	4.3
1990	36.9	16.5	20.5	3.7
1991	34.7	17.0	18.4	3.3
1992	34.4	17.7	20.1	3.7
1993	35.1	18.4	20.1	3.9
1994	32.7	17.6	21.2	4.1

	Poultry	Grain mill products ²	Eggs	Other foods ³	Total ⁴
<i>Billion dollars</i>					
1982	6.0	1.4	2.5	8.4	81.4
1983	6.6	1.4	2.7	8.8	85.3
1984	8.0	1.4	3.0	9.7	89.8
1985	7.9	1.3	2.3	10.0	86.4
1986	9.0	1.1	2.5	10.0	88.8
1987	8.1	1.0	2.2	11.0	90.4
1988	9.9	1.3	2.2	12.2	96.8
1989	11.4	1.6	2.8	12.3	103.8
1990	11.1	1.4	2.8	13.3	106.2
1991	11.2	1.3	2.7	13.0	101.8
1992	12.0	1.4	2.3	13.5	101.6
1993	13.2	1.4	2.6	14.9	109.6
1994	13.9	1.5	2.6	16.0	109.6

¹ Includes soups, baby foods, condiments, dressings, spreads, and relishes.

² Includes, flour, flour mixes, cereals, rice, and pasta.

³ Includes, fats and oils, sugar, and miscellaneous foods.

⁴ Excludes alcoholic beverages and aquaculture, which are estimated at \$2.5 billion in 1990.

Source: ERS

Appendix table 76--Food marketing system purchases from fisheries

Edible fishery products	Domestic commercial landings			Imports			Total		
	1992	1993	1994	1992	1993	1994	1992	1993	1994
<i>Million dollars</i>									
Finfish	1,878	1,741	1,895	2,620	2,588	2,743	4,498	4,329	4,638
Shellfish	1,654	1,576	1,856	3,086	3,261	3,902	4,740	4,837	5,750
Total	3,532	3,317	3,751	5,706	5,849	6,645	9,238	9,166	10,396

Source: (55).

Appendix table 77—Components of the marketing bill for domestically produced farm food

Year	Labor ¹	Packaging materials	Intercity rail and truck transportation	Fuels and electricity	Corporate profits before taxes	Other ²	Total marketing bill ³
<i>Billion dollars</i>							
1967	25.9	7.3	4.3	--	3.4	21.5	62.4
1968	28.0	7.6	4.5	--	3.6	22.2	65.9
1969	30.4	7.9	4.6	--	3.6	21.8	68.3
1970	32.2	8.2	5.2	2.2	3.6	23.7	75.1
1971	34.5	8.5	6.0	2.4	3.9	23.2	78.5
1972	36.6	8.9	6.1	2.5	4.0	24.3	82.4
1973	39.7	9.4	6.4	2.8	5.4	23.4	87.1
1974	44.3	11.8	7.5	3.7	6.1	24.8	98.2
1975	48.3	13.3	8.4	4.6	7.1	29.7	111.4
1976	53.8	14.5	9.1	5.0	7.7	34.9	125.0
1977	58.3	15.1	9.7	6.0	8.0	35.6	132.7
1978	66.2	16.6	10.5	7.1	9.9	37.1	147.4
1979	75.2	18.6	11.8	8.2	10.0	42.3	166.1
1980	81.5	21.0	13.0	9.0	9.9	48.3	182.7
1981	91.0	22.6	14.3	10.0	9.7	58.4	206.0
1982	96.6	23.7	14.7	11.0	9.4	62.1	217.5
1983	102.4	24.7	15.4	11.7	9.6	65.9	229.7
1984	109.3	26.2	15.9	12.5	9.6	68.7	242.2
1985	115.6	26.9	16.5	13.1	10.4	76.5	259.0
1986	122.9	27.7	16.8	13.2	10.3	79.9	270.8
1987	130.0	29.9	17.2	13.6	11.1	83.3	285.1
1988	137.9	32.6	17.8	14.1	12.0	87.5	301.9
1989	145.1	35.2	18.6	14.8	12.9	89.0	315.6
1990	154.0	36.5	19.8	15.2	13.2	104.9	343.6
1991	160.9	38.1	20.4	16.3	15.2	112.6	363.5
1992	168.4	39.2	20.6	16.7	14.9	109.6	369.4
1993	178.0	39.4	21.2	17.2	14.2	109.6	379.6
1994	188.7	42.1	21.8	17.9	16.0	114.3	401.0

Source: (37) - Howard Elitzak

Food Marketing and the International Economy

Appendix table 78--U.S. trade in processed foods, 1993 and 1994

	Exports		Imports	
	1993	1994	1993	1994
<i>Thousand dollars</i>				
Total processed food	23,384,964	25,826,846	21,126,160	23,261,332
Meat products	5,781,689	6,841,551	3,095,557	3,001,293
Meat packing	4,479,740	5,062,589	2,927,059	2,820,997
Sausage and prepared meats	145,716	143,204	138,607	154,852
Poultry dressing plants	1,156,233	1,635,758	29,891	25,424
Dairy products	1,012,075	865,460	767,554	855,253
Creamery butter	182,128	107,710	2,496	2,093
Cheese, natural and processed	57,978	71,780	464,366	490,845
Condensed and evaporated milk	627,207	522,436	295,092	354,207
Ice cream and frozen desserts	73,870	90,008	1,153	1,349
Fluid milk	70,892	74,526	4,447	6,759
Preserved fruit and vegetables	2,287,102	2,584,236	2,413,459	2,595,673
Canned specialties	80,553	93,837	39,288	46,583
Canned fruit and vegetables	849,350	954,420	1,276,997	1,348,179
Dried fruit and vegetables	579,930	621,594	240,655	255,492
Sauces and salad dressings	191,030	235,848	237,295	269,798
Frozen fruit and vegetables	536,930	617,287	615,726	671,557
Other frozen specialties	49,309	61,250	3,498	4,064
Grain mill products	3,740,035	3,741,363	699,223	838,312
Flour and grain mill products	392,280	386,058	56,389	88,721
Breakfast cereals	160,851	151,459	77,311	89,873
Rice milling	756,113	929,888	110,661	134,402
Blended and prepared flours	96,904	117,671	21,273	27,660
Wet corn milling	1,383,925	1,350,037	234,925	256,000
Dog, cat, and other pet food	315,260	386,910	76,543	84,016
Prepared animal feed	634,702	419,340	122,121	157,640
Bakery products	358,236	389,288	493,091	557,589
Bread and other	207,411	233,956	309,426	343,199
Cookies and crackers	107,823	106,625	145,722	170,878
Frozen bakery products except bread	43,002	48,707	37,943	43,512
Sugar and confections	1,669,787	1,825,812	2,086,518	2,149,118
Beet and cane sugar	204,357	250,902	683,104	708,110
Candy and confectionery products	168,744	165,152	261,866	298,011
Chocolate and cocoa products	397,786	383,298	657,861	650,463
Chewing gum	50,076	72,270	68,956	71,152
Salted and roasted nuts and seeds	848,824	954,190	414,731	421,382
Fats and oils	2,707,357	2,969,174	1,084,214	1,272,564
Cottonseed oil mills	63,069	101,036	7,441	7,969
Soybean oil mills	1,657,722	1,706,682	36,452	52,455
Vegetable oil mills	258,819	320,102	841,785	1,025,898
Animal/marine fats and oils	637,184	745,419	161,273	139,549
Shortening and cooking oils	90,563	95,935	37,263	46,693

-- Continued

Appendix table 78--U.S. trade in processed foods, 1993 and 1994--Continued

	Exports		Imports	
	1993	1994	1993	1994
<i>Thousand dollars</i>				
Beverages	1,673,203	2,077,154	3,699,506	4,084,990
Malt beverages	235,671	404,817	960,302	1,072,451
Malt	50,965	30,324	8,347	12,557
Wines, brandy, and brandy spirits	184,303	201,720	1,150,795	1,270,164
Distilled and blended spirits	355,690	389,731	1,274,653	1,328,009
Soft drinks and carbonated water	196,764	320,963	249,930	320,106
Flavorings, extracts, and syrups	649,810	729,599	55,479	81,703
Miscellaneous foods	4,155,478	4,532,804	6,787,038	7,906,540
Processed fishery products	437,746	427,682	921,649	1,036,375
Fresh fish	2,532,855	2,585,620	4,838,355	5,504,833
Roasted coffee	122,506	142,209	144,788	216,854
Potato chips	175,454	251,621	22,857	25,198
Manufactured ice	2,710	8,382	15,890	15,922
Pasta products	29,615	39,100	189,791	237,935
Other food preparations	854,594	1,078,190	653,708	869,423

Source: (17)

Appendix table 79--U.S. trade balance in processed foods

Item	Trade balance	
	1993	1994
<i>Thousand dollars</i>		
All processed food	2,258,804	2,565,514
Meat products	2,686,132	3,840,258
Dairy products	244,521	10,207
Preserved fruit and vegetables	-126,357	-11,437
Grain mill products	3,040,812	2,903,051
Bakery products	-134,855	-168,301
Sugar and confectioneries	-416,731	-323,306
Fats and oils	1,623,145	1,696,610
Beverages	-2,026,303	-2,007,836
Miscellaneous foods (including seafood)	-2,631,560	-3,373,736

Source: (17)

Appendix table 80--Top 10 recipients of U.S. food exports, 1994

Country	Value
	<i>Thousand dollars</i>
Japan	7,034,666
Canada	4,353,945
Mexico	2,629,942
South Korea	1,312,462
Netherlands	854,151
Hong Kong	833,907
Taiwan	732,459
United Kingdom	723,804
West Germany	617,162
Russia	589,610
Top 10 total	19,682,108
All others	6,144,738
Total exports	25,826,846
Source: (17)	

Appendix table 81--Leading exporters of food products to the United States, 1994

Country	Value
	<i>Thousand dollars</i>
Canada	4,641,142
Thailand	1,713,373
Mexico	1,290,686
France	1,095,144
Italy	933,194
Australia	902,049
New Zealand	778,545
Brazil	763,983
United Kingdom	733,931
Netherlands	706,213
Top 10 total	12,852,047
All others	10,409,285
Total exports	23,261,332
Source: (17)	

Appendix table 82-Leading exporters of food products to the United States, by category, 1994

Country	Value
	<i>Thousand dollars</i>
Meats	
Canada	907,445
Australia	662,208
New Zealand	464,162
Denmark	263,165
Argentina	117,719
Dairy	
New Zealand	148,851
Italy	117,859
Ireland	116,730
France	73,183
Denmark	45,826
Processed fruits and vegetables	
Mexico	357,546
Spain	241,413
Brazil	240,739
Canada	217,359
Thailand	202,657
Grain mill products	
Canada	424,791
Thailand	128,610
West Germany	48,043
Netherlands	47,115
Australia	35,271
Bakery	
Canada	243,884
Mexico	52,956
Denmark	52,953
Belgium	27,432
United Kingdom	23,171
Sugar	
Canada	325,540
Brazil	220,889
India	177,943
Dominican Republic	115,968
Mexico	104,315
Fats and oils	
Canada	430,317
Italy	190,102
Phillippines	185,943
Malaysia	119,135
Peru	56,822

-- Continued

Appendix table 82-Leading exporters of food products to the United States, by category, 1994--Continued

Country	Value
	<i>Thousand dollars</i>
Beverages	
France	869,545
Canada	660,154
United Kingdom	564,600
Netherlands	416,142
Italy	362,950
Miscellaneous food	
Canada	1,399,802
Thailand	1,328,410
Ecuador	542,736
Mexico	400,796
Mainland China	320,030

Source: (17)

Appendix table 83-Leading importers of food products to the United States, by category, 1994

Country	Value
	<i>Thousand dollars</i>
Meats	
Japan	2,481,822
Mexico	877,393
South Korea	868,856
Canada	712,670
Russia	362,941
Dairy	
Mexico	185,744
Taiwan	76,140
Canada	72,058
Japan	71,536
Algeria	61,950
Processed fruits and vegetables	
Canada	651,165
Japan	598,308
Mexico	147,396
United Kingdom	122,953
Netherlands	109,002
Grain mill products	
Japan	584,205
Canada	470,442
Netherlands	366,304
Mexico	312,364
United Kingdom	165,605
Bakery	
Canada	215,482
Mexico	45,254
Bermuda	18,054
Japan	12,990
South Korea	10,504
Sugar	
Canada	348,726
Japan	203,693
West Germany	189,004
Mexico	123,410
Netherlands	81,799
Fats and oils	
Mexico	356,087
Canada	308,832
Algeria	191,696
Japan	156,494
Mainland China	135,619

-- Continued

Appendix table 83-Leading importers of food products to the United States, by category, 1994--Continued

Country	Value
	<i>Thousand dollars</i>
Beverages	
Japan	539,532
Canada	252,713
Mexico	178,269
Australia	149,680
United Kingdom	107,970
Miscellaneous food	
Japan	2,064,365
Canada	884,205
South Korea	155,478
Mexico	148,455
United Kingdom	118,245

Source: (17)

Appendix table 84--Foreign investment in food marketing¹

Item	1989	1990	1991	1992	1993
<i>Million dollars</i>					
Direct foreign investment in the United States:					
Investment position-- ²					
Food manufacturing	23,585	22,543	24,053	25,587	25,376
Wholesaling	2,026	1,672	1,956	1,871	1,998
Foodstores	2,448	3,679	4,917	4,032	4,573
Eating and drinking places	313	1,683	1,698	1,205	1,259
Total	28,372	29,577	32,624	32,695	33,206
Capital inflows--					
Food manufacturing	7,759	897	1,678	1,598	130
Wholesaling	805	124	526	132	102
Foodstores	-2	1,010	348	214	601
Eating and drinking places	109	-7	-243	-320	50
Total	8,669	2,024	2,309	1,624	883
Income--					
Food manufacturing	1,359	1,129	1,477	533	1,038
Wholesaling	1	64	-161	110	-21
Foodstores	137	228	206	73	68
Eating and drinking places	14	-6	19	-130	56
Total	1,511	1,415	1,863	586	1,141
Direct foreign investment by the United States:					
Investment position-- ²					
Food manufacturing	11,890	15,570	17,148	20,196	22,579
Wholesaling	1,497	1,484	2,317	1,507	2,450
Foodstores	1,059	784	1,036	1,078	1,046
Eating and drinking places	NA	NA	NA	NA	4,521
Total ³	14,446	17,838	20,501	22,781	30,596
Capital outflows--					
Food manufacturing	-169	6,109	2,205	3,303	5,778
Wholesaling	-871	15	113	-100	-332
Foodstores	-97	-247	301	62	4
Eating and drinking places	NA	NA	NA	NA	NA
Total ³	-1,137	5,877	2,619	3,265	5,450
Income--					
Food manufacturing	2,295	2,522	2,929	3,187	3,672
Wholesaling	315	438	216	60	504
Foodstores	75	31	79	69	-10
Eating and drinking places	100	85	129	89	NA
Total ³	2,785	3,076	3,353		

¹ Investment on an enterprise basis.² On a historical cost basis.³ Totals do not include data from eating and drinking places to avoid disclosure of data.

Source: (42).

Appendix table 85—Profile of foreign affiliates of U.S. firms

Sector	Sales			Net income			Assets			Parent			Affiliates		
	1988	1992	1993	1988	1992	1993	1988	1992	1993	1988	1992	1993	1988	1992	1993
	-----Million dollars-----									-----Number-----					
All food manufacturing	59,932	89,159	95,182	3,520	5,683	6,392	39,508	69,107	80,318	64	64	64	663	672	762
Grain mill and bakery	19,898	21,292	21,610	947	875	952	11,721	13,939	14,501	13	11	11	174	165	174
Beverages	11,275	21,868	25,333	1,260	1,705	2,924	8,995	21,401	27,346	13	15	16	146	161	174
Meat	2,924	NA	2,712	59	NA	48	1,437	15,157	1,557	7	8	7	20	25	33
Dairy	3,941	NA	6,977	216	NA	547	2,150	2,673	3,450	3	4	3	35	35	38
Fruits and vegetables	3,675	7,263	7,290	120	411	479	2,815	6,909	6,759	8	8	9	59	84	85
Other food	18,572	31,393	31,860	918	1,460	1,441	12,390	22,765	26,865	20	18	18	229	235	258
Food wholesaling	10,896	14,388	15,783	576	1,273	522	4,698	4,975	7,804	17	12	13	159	182	197
Foodstores, eating and drinking places	11,151	21,169	20,937	353	472	89	5,397	8,145	4,934 ¹	15	24	15	56	84	91
Food marketing	81,979	124,716	132,502	4,449	7,428	6,825	50,439	82,227	93,056	96	100	92	878	971	1,056

¹ Excludes assets of eating and drinking places

Source: (42).

NA = Not available.

Appendix table 86-Employees of U.S. affiliates of foreign firms

Sector	1987	1988	1990	1991	1992	1993
<i>Thousands</i>						
All food manufacturing	146	169	247	242	242	200
Beverages	39	40	56	57	66	24
Meat	4	7	NA	NA	7	7
Dairy	17	20	NA	NA	25	23
Fruits and vegetables	4	NA	NA	NA	NA	NA
Grain mill	1	NA	NA	NA	NA	NA
Bakery	21	30	NA	NA	45	32
Other foods	61	62	NA	NA	30	56
Wholesaling	23	23	43	44	43	46
Foodstore	218	234	293	333	351	384
Eating and drinking places	20	24	118	NA	127	117
Food marketing	407	450	701	NA	763	747

NA = Not available.

Sources: (42).

Appendix table 87-Assets of U.S. affiliates of foreign firms

Sector	1987	1988	1990	1991	1992	1993
<i>Million dollars</i>						
All food manufacturing	23,304	30,317	45,987	48,178	46,799	47,931
Beverages	12,636	13,982	18,159	19,356	14,016	13,083
Meat	176	310	NA	NA	1,499	544
Dairy	1,520	2,005	NA	NA	6,054	2,738
Fruits and vegetables	325	NA	NA	NA	1,247	1,036
Grain mill	200	NA	NA	NA	4,993	14,121
Bakery	1,040	1,751	NA	NA	7,054	3,593
Other foods	7,407	9,308	27,828	28,822	7,349	12,816
Wholesaling	3,582	3,502	5,769	6,308	7,349	8,267
Foodstore	7,854	8,436	11,774	17,267	16,959	19,039
Eating and drinking places	633	193	3,327	NA	3,263	3,123
Food marketing	35,373	42,488	68,857	NA	74,370	78,360

NA = Not available.

Sources: (42).

Appendix table 88-Net income of U.S. affiliates of foreign firms

Sector	1987	1988	1990	1991	1992	1993
<i>Million dollars</i>						
All food manufacturing	394	755	89	228	226	-1,995
Beverages	284	661	372	41	414	-1,020
Meat	-10	-11	NA	NA	-29	-63
Dairy	8	2	NA	NA	6	-91
Fruits and vegetables	25	NA	NA	NA	5	-17
Grain mill	NA	11	NA	NA	37	-61
Bakery	50	63	NA	NA	-10	-200
Other foods	26	NA	-283	186	-123	-543
Wholesaling	54	24	-360	-11	107	-264
Foodstore	80	323	-331	619	-213	-126
Eating and drinking places	2	8	-82	NA	-181	-156
Food marketing	530	1,110	-684	NA	-61	-2,541

NA = Not available.

Sources: (42).

Appendix table 89-Sales of U.S. affiliates of foreign firms

Sector	1987	1988	1990	1991	1992	1993
<i>Million dollars</i>						
All food manufacturing	22,424	30,053	44,986	44,262	46,799	45,765
Beverages	5,955	7,445	6,163	13,367	14,016	6,652
Meat	1,040	1,699	882	NA	1,499	1,321
Dairy	2,864	3,983	6,722	NA	6,054	5,996
Fruits and vegetables	365	NA	NA	NA	1,247	1,127
Grain mill	171	NA	NA	NA	11,986	11,582
Bakery	2,039	2,515	4,178	NA	4,943	3,904
Other foods	9,989	11,844	16,321	NA	9,054	15,183
Wholesaling	12,927	14,244	20,476	19,724	18,894	21,734
Foodstore	22,066	21,421	37,440	47,103	48,159	51,537
Eating and drinking places	1,284	874	4,821	4,850	4,904	5,236
Food marketing	58,701	72,592	107,723	115,939	118,756	126,272

NA = Not available.

Sources: (42).

Appendix table 90—Foreign exchange rates¹

Country	Monetary unit	1989	1990	1991	1992	1993	1994
<i>--Currency units per dollar--</i>							
Australia	Dollar	0.7919	0.7807	0.7787	0.7352	0.6799	0.7316
Austria	Schilling	13.236	11.331	11.686	10.992	11.639	11.409
Belgium	Franc	39.409	33.424	34.195	32.148	34.581	33.424
Canada	Dollar	1.1842	1.1668	1.1460	1.2085	1.2902	1.3664
People's Republic of China	Yuan	3.7673	4.7921	5.3337	5.5206	5.7795	8.6295
Denmark	Krone	7.3210	6.1899	6.4038	6.0372	6.4863	6.3561
Euro Community	ECU	NA	1.2976	1.2401	1.2951	1.1702	1.1862
Finland	Markka	4.2963	3.8300	4.0481	4.4865	5.7251	5.2340
France	Franc	6.3802	5.4467	5.6468	5.2935	5.6669	5.5459
Germany	D. mark	1.8808	1.6166	1.6610	1.5618	1.6545	1.6216
Greece	Drachma	162.20	158.59	182.63	190.81	229.64	242.50
Hong Kong	Dollar	7.7402	7.7712	7.7712	7.7402	7.7357	7.7290
India	Rupee	16.213	17.492	22.712	28.156	31.291	31.394
Ireland ²	Pound	1.4180	1.6576	1.6139	1.7042	1.4647	1.4969
Italy	Lira	1372.28	1198.27	1241.28	1232.17	1573.41	1611.49
Japan	Yen	138.07	145.00	134.59	126.78	111.08	102.18
Malaysia	Ringgit	2.7079	2.7057	2.7503	2.5463	2.5738	2.6237
Netherlands	Guilder	2.1219	1.8215	1.8720	1.7587	1.8585	1.8190
New Zealand ²	Dollar	0.5979	0.5962	0.5783	0.5379	0.5413	0.5936
Norway	Krone	6.9131	6.2541	6.4912	6.2142	7.0979	7.0553
Portugal	Escudo	157.53	142.70	144.77	135.07	161.08	165.93
Singapore	Dollar	1.9511	1.18134	1.7283	1.6294	1.6158	1.5275
South Africa	Rand	2.6214	2.5885	2.7633	2.8524	3.2729	3.5534
South Korea	Won	674.29	710.64	736.73	784.66	805.75	806.93
Spain	Peseta	118.44	101.96	104.01	182.38	127.48	133.86
Sri Lanka	Rupee	35.947	40.078	41.200	44.013	48.211	49.170
Sweden	Krona	6.4559	5.9231	6.0521	5.8258	7.7956	7.7161
Switzerland	Franc	1.6369	1.3901	1.4356	1.4864	1.4781	1.3667
Taiwan	Dollar	26.407	26.918	26.759	25.160	26.416	26.457
Thailand	Baht	25.725	25.609	25.528	25.411	25.333	25.161
United Kingdom ²	Pound	163.8202	178.4103	1.5319	1.5016	1.7663	1.7674
United States ³	Dollar	98.60	89.09	89.84	86.61	93.18	91.32

¹ Averages are based on daily noon buying rates for cable transfers in New York City certified for customs purposes by the Federal Reserve Bank of New York.
Source: (13).

Appendix table 91—World's largest food processing firms, 1993

Company	Headquarters	Processed food sales	Total company sales
---Billion dollars---			
1. Nestle S.A.	SWITZERLAND	36.3	39.1
2. Philip Morris/Kraft Foods	USA	33.8	50.6
3. Unilever	UK/NETHERLANDS	21.6	41.9
4. ConAgra	USA	18.7	23.5
5. Cargill	USA	16.7	47.1
6. Pepsi Co	USA	15.7	25.0
7. Coca Cola	USA	13.9	14.0
8. Danone S.A.	FRANCE	12.3	12.3
9. Kirin Brewery	JAPAN	12.1	12.1
10. IBP, Inc.	USA	11.2	11.7
11. Mars, Inc.	USA	11.1	12.0
12. Anheuser-Busch	USA	10.8	11.5
13. Montedison/Feruzzi/Eridania	ITALY	9.9	12.3
14. Grand Metropolitan	UK	9.9	11.2
15. Archer Daniels Midland Co.	USA	8.9	11.4
16. Sara Lee	USA	7.6	15.5
17. Allied Domecq Plc	UK	7.2	7.2
18. RJR Nabisco	USA	7.0	15.1
19. Guinness Plc	UK	7.0	7.0
20. H.J. Heinz	USA	6.8	7.0
21. Asahi Breweries	JAPAN	6.8	6.8
22. CPC International	USA	6.7	6.7
23. Dalgety	UK	6.7	6.7
24. Campbell Soup	USA	6.6	6.6
25. Bass Plc	UK	6.6	6.6
26. Suntory Ltd.	JAPAN	6.6	6.6
27. Associated British Foods Plc	UK	6.5	6.5
28. Kellogg Company	USA	6.3	6.3
29. Hillsdown Plc	UK	5.8	6.0
30. Quaker Oats	USA	5.7	5.7
31. General Mills	USA	5.6	8.5
32. Tate & Lyle Plc	UK	5.6	5.6
33. Cadbury Schweppes	UK	5.6	5.6
34. Coca Cola Enterprises	USA	5.5	5.5
35. Seagram	CANADA	5.2	5.2
36. Sapporo Breweries Ltd.	JAPAN	5.1	5.1
37. Borden, Inc.	USA	4.8	6.7
38. Nippon Meat Packers	JAPAN	4.8	4.8
39. Yamazaki Baking	JAPAN	4.8	4.8
40. Tyson Foods Inc.	USA	4.6	4.7
41. Heineken	NETHERLANDS	4.6	4.6
42. United Biscuits	UK	4.5	4.5
43. Fosters Brewing Group LTD	AUSTRALIA	4.4	4.4
44. Ajinomoto Co., Inc.	JAPAN	4.3	5.2
45. Snow Brand Milk	JAPAN	4.3	4.8
46. LVMH Moet Hennessy	FRANCE	4.2	4.2
47. Besnier S.A.	FRANCE	4.1	4.1
48. Itoham Foods Inc.	JAPAN	3.9	3.9
49. Meiji Milk Products	JAPAN	3.9	3.9
50. Hershey Foods Corp.	USA	3.5	3.5

Source: ERS

Food Marketing Review Seminar Series

Anthony E. Gallo, Coordinator

Beginning in 1993, the Economic Research Service began the Food Marketing Review Seminar Series to focus on food marketing policy issues in the 1990's. The following are summaries extracted from each seminar.

Eleventh Food Marketing Seminar

April 2, 1996

Invited Speaker: James MacDonald, Ohio State University

Discussant: Mark Denbaly

Title: *Demand, Information, and Competition: Why Do Retail Food Prices Fall at Seasonal Peaks?*

Summary: Prices for food products with strong seasonal demand fluctuations tend to move counter cyclically; that is, they fall during seasonal demand peaks. The pattern is widespread, occurring for 44 of 48 products in the sample, and the price swings are relatively large. There is no evidence that the price declines are associated with declines in input prices; indeed, there is more evidence for input price increases during period of peak product demands. Rather, pricing patterns appear to follow from "thick market" effect. Increases in market demand lead to increases in informative advertising expenditures by retailers and manufacturers, and these in turn lead to increases in market information and greater price sensitivity on the part of buyers. Faced with greater but more price-elastic demands, sellers cut prices.

Tenth Food Marketing Seminar

March 20, 1996

Invited Speakers: Robert Trost, George Washington University; Fred Joutz, George Washington University; Charles Hallahan, ERS; Albert Reed, ERS

Moderator: Mark Denbaly

Title: *Evaluation of Forecasting Seven Components of the Food Consumer Price Index*

Summary: ERS computes forecasts for a number of components of the monthly food CPI. Based on component forecasts, ERS forecasts the overall, monthly food CPI. Because ERS's food price forecasts are used by both the public and private sectors, it seems important to gauge the performance of ERS forecasts. This study gauges the forecast performance of seven food price components: fish and seafood, dairy products, fats and oils, cereals and bakery, non-alcoholic beverages, sugar and sweets, and other prepared foods. The FCED computes monthly forecasts of these seven components using a simple forecast formula. This study compares the forecasts generated using this simple formula to forecasts generated using an alternative 'best' statistical model identified from historical data. The authors find that although forecasts generated from the alternative model perform slightly better than forecasts generated from the FCED formula, the difference does not appear to be large, nor does it appear to be statistically significant.

Ninth Food Marketing Seminar

November 14, 1995

Invited Speaker: Michael Ollinger, Economic Research Service of USDA

Title: Costs of Analyses of the Beef, Pork, Chicken, and Turkey Slaughter Industries: Plant Size, and Output Quality Effects, 1963-92

Summary: Using plant-level data and a translog cost function, the authors examine the effect of plant size, whether a plant is part of a multiplant firm, and value of output on production costs over the 1963-92 period in the beef, pork, chicken, and turkey industries. Preliminary results suggest that single-plant firms have a lower labor cost share and a higher material cost share than multiplant firms. Results also suggest that beef and pork plants with a higher value of output have higher production costs than plants with a lower value of output. Finally, large beef, chicken, and turkey slaughter plants have a higher labor share of costs and a lower materials share of costs than other plants.

Eighth Food Marketing Review Seminar

February 8, 1995

Invited Speakers: Gerald Grinnell, Warren Preston, Roger Schneider, Stuart Frank—Packers and Stockyards

Title: Concentration in the Red Meat Packing Industry

Summary: Congress included \$500,000 in the Department of Agriculture's (USDA) Packers and Stockyards Administration (now Grain Inspection, Packers and Stockyards Administration (GIPSA)) 1992 fiscal-year appropriation to conduct a study of concentration in the red meat packing industry. Both the Senate and House Committee reports expressed concerns about concentration in the meatpacking industry. Prior to beginning the study, GIPSA solicited public input and received comments from 51 individuals and organizations on the scope and approach of the study. Input was also obtained from other Federal agencies. An interagency working group reviewed the public comments and recommended priority research topics.

Seven projects were selected to address areas identified in the House Committee report accompanying the FY 1992 appropriation. Six of the projects were conducted by researchers from various universities. The seventh project was completed by USDA. This report is a summary of the finds of those projects. The underlying reports of the university researchers will also be released after confidential firm-specific information is removed.

Seventh Food Marketing Seminar

January 24, 1995

Invited Speaker: Ian M. Shelton, Ohio State University

Discussant: Albert Reed

Moderator: Mark Denbaly

Title: Increased Contracting in Agriculture: Its Implication for Public Policy and Consumers

Summary: The popular debate on “industrialization” of agriculture has tended to focus on issues relating to its effects on the environment and rural communities, and has paid less attention to aspects of imperfect information, risk, and resource allocation that are important in a marketing system increasingly characterized by some form of contracting between farmers and first-stage processors/handlers. In this research, contracting is treated as an example of the principal-agent problem. Principals, who are firms such as broiler and hog contractors, are assumed to have the objective of setting the terms of production contracts not only to induce maximum production effort by agents, i.e., farmers/growers, but also to provide them with a degree of insurance against production and price risk. Using this framework, it is shown how the amount of risk that growers are expected to bear in such contracts is related to both contractor and grower attitudes towards risk, and the extent of imperfect information. The research highlights the type of informational problem that principal and agent can face in contracting relationships. For example, it may be costly for contractors to continually monitor their growers. As a result, it is possible that growers may not exert maximum effort in production, a problem known as moral hazard. Growers, on the other hand, face the problem of selecting a principal with whom to contract.

Sixth Food Marketing Seminar

March 11, 1994

Invited Speaker: Michael A. Mazzocco, University of Illinois

Discussants: Phillip Kaufman, Hisham El-Osta

Moderator: Dennis Henderson

Title: Relative Efficiency in Food Processing Industries: Application of Data Envelopment Analysis

Summary: The objective of this paper is to determine the relative technical efficiency for a sample of food processing plants in a given market and to make inferences regarding their relative cost structure. The sample consisted of plants in meat processing, dairy processing, animal feed manufacture, and bakery products. Each group was analyzed independently for in-group comparison.

Fifth Food Marketing Seminar

January 6, 1994

Invited Speaker: Constance L. Falk, New Mexico State University

Discussants: Michael Harris, David Smallwood

Moderator: Dennis R. Henderson

Title: *Country of Origin Bias Toward U.S. and Mexican Food Products*

Summary: Mexican consumer preferences for and biases toward U.S. and Mexican food products were evaluated in a taste test and a simulated shopping experience test. Mexican and U.S. brands of potato chips and chile salsa were evaluated. In addition, the respondents were asked questions about their consumption habits, attitudes, and personal background. Frequency statistics, chi-square goodness of fit tests, and McNemar chi-square tests were performed to analyze the data and test the hypotheses.

Fourth Food Marketing Seminar

November 4, 1993

Invited Speaker: Steven A. Newborn, Federal Trade Commission

Discussants: Richard Rogers, Charles Handy

Moderator: Patrick O'Brien

Title: *The Federal Trade Commission's Antitrust Priorities and the Food Marketing System*

Summary: The Federal Trade Commission (FTC) and the Department of Justice's Antitrust Division (DOJ) share concurrent responsibility for enforcing the antimerger statutes. Which agency will investigate any particular merger is based on which has the most expertise in that industry. Because of its expertise, FTC handles most of the mergers in the food industry.

There are between 1,500 and 1,600 premerger notification filings annually under the Hart-Scott-Rodino Act, of which roughly 60, or 4 percent, require in-depth investigation. Of these, roughly 20, or slightly more than 1 percent, result in enforcement actions that either stop the merger through litigation, through the parties abandoning the merger, or allow the merger to be consummated but through consent orders whereby the parties usually divest the offending horizontal overlaps. In addition, and not counted in the above statistics, in any 1 year, several mergers are called off when FTC staff makes evident any interest in the competitive consequences of that transaction. These statistics suggest that businesses and their antitrust advisors are usually able to anticipate when a proposed transaction is likely to raise competitive concerns with the antitrust agencies and either refrain from attempting such a transaction or structure it to avoid competitive problems.

In the merger enforcement actions taken by the FTC since the issuance of the 1992 Joint Federal Merger Guidelines in April of that year, three involved hospital mergers, four the chemical industry, one coal terminals, one the electrical industry, one the defense industry, one the dental industry, one the railroad boxcar industry, one the furniture polish industry, and two the food industry (one was Vons' Stores acquisition of Williams Brothers Supermarket in San Luis Obispo, California, and the other was the acquisition of Haas, a dehydrated onion manufacturer by McCormick Spice Company). Two additional mergers in the food industry are presently being investigated by the FTC.

Third Food Marketing Seminar

September 28, 1993

Invited Speaker: Ian Sheldon, Ohio State University

Discussants: Daniel Pick, Robert Bohall

Moderator: Dennis R. Henderson

Title: *Effects of Imperfect Competition in Food Manufacturing on Agricultural Policy Reform*

Summary: Most policy analysis in agricultural economics typically ignores the existence of the food processing, distribution, and retail sectors. If these sectors were perfectly competitive, their exclusion would not significantly affect the welfare changes following policy reform. However, since these sectors are typically imperfectly competitive, excluding them does matter. In a theoretical model of vertically related food market, this paper shows that welfare changes of policy reform are lower than the 'perfectly competitive' case since there is imperfect pass-through of price changes occurring at the farmgate. The model shows that the pass-through effects depend on the nature of strategic interaction in the food market and the degree of product differentiation of the final food products. The theoretical model is applied regime, a sector characterized by the existence of a few larger firms.

Second Food Marketing Seminar

May 19, 1993

Invited Speaker: Gerald Grinnell, Warren Preston—Packers and Stockyards Administration

Discussants: Kenneth Nelson, Russell Parker

Moderator: Dennis R. Henderson

Title: *Empirical Research on Concentration in Meatpacking*

Summary: The authors reviewed plans for a study of concentration in the red meat packing industry that was requested by Congress. The Packers and Stockyards Administration has awarded six contracts to: define regional cattle procurement markets; examine effects of concentration on prices paid for cattle; examine price discovery in cattle procurement; analyze trends and implications of vertical coordination arrangements in cattle procurement and hog production; and conduct a literature review. The Packers and Stockyards Administration is prepared to collect data for the study and expects to complete a final report by December 1994.

First Food Marketing Seminar

March 10, 1993

Invited Speaker: Ronald Cotterill, Director, Food Marketing Policy Center, University of Connecticut

Discussants: Alden Manchester, Margaret Malanoski

Moderator: Dennis R. Henderson

Title: *Oligopoly Price Reaction Models: An Application to the U.S. Soft Drink Industry*

Summary: This research developed an oligopoly price-reaction function model for brands of soft drinks and used the model to analyze determinants of retail price. Regular soft drink and diet soft drink brands were analyzed separately. In addition to cost and demand shift variables, market structure variables, including the extent of vertical integration and the local market share of soft drink manufacturers and the local market for firm concentration ratio for grocery retailers, are incorporated in the model. Forward integration by Coca-Cola and Pepsi does seem to lower retail prices. In the regular soft drink category, Coca-Cola is a price leader and other brands follow Coke's price in markets where Coke has a large market share. Royal Crown Cola is a fringe competitive firm of regular soft drinks. In the diet category, Coca-Cola and Pepsi seem to have different strategic objectives. Coke and Pepsi appear to be pricing in a fashion to grow the category and to ensure that they establish dominant shares in this new category. Their prices are not higher in markets where they have a large market share.

Food Marketing Review: A Survey

I. Who Uses It and How?

» 1. Please check the category that best describes the sector you work in.

- a. Industry Which industry? _____
- b. Academic
- c. Government: Federal__ State__ Local__
- d. Other (please specify) _____

» 2. How many years have you used the *FMR*? _____

» 3. Please check one (or as many) of the statements below that accurately describe your use.

- a. I use the *FMR* only as a comprehensive source of data:
- i. from the appendix tables
- ii. from the tables/charts in the text
- b. I use the text presentation and analyses to better understand industry developments.
- c. I use both the data tables and text discussion in my work.
- d. I use *FMR* to get new insights into the operation of the food system.
- e. Other reasons for use (please specify) _____

» 4. Which sections do you use in your work? (Please check a category for each a thru f)

	Don't use	Use some	Very useful
a. Overview	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Food manufacturing chapter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Food wholesaling chapter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Food service chapter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Food retailing chapter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Appendix tables.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

II. Where Does *FMR* Go From Here?

» 5. Which of the following changes would increase your use of the *FMR*? (Check one or more of the choices).

- a. More frequent publication
- b. More frequent updating of tables, to be made available electronically.
- c. Conversion to a statistical compendium, with more data tables, but less text and explanatory material.
- d. Expanded analyses of current developments.
- e. Introduction of more formal analyses using econometric techniques.

» 6. If updated *FMR* appendix tables were to be made available in easily accessible electronic form, such as the Internet or ERS' AutoFax service, would you access them? YES NO

If NO, why not? _____

» 7. We are considering adding a special section that summarizes topical interests and issues. Would you be interested in the following topics?

- | | | |
|---|-------|------|
| a. Meat Industry Structure and Food Safety Policies | Yes__ | No__ |
| b. Impact of Changing CPI on Producer Prices | Yes__ | No__ |
| c. Vertical Coordination in Hog Industry | Yes__ | No__ |
| d. Food Price Transmission, Structural Changes, and Agricultural Policy Reform Effect | Yes__ | No__ |
| e. Food Price Issues: e.g., Forecast, Seasonality, Bias, etc. | Yes__ | No__ |
| f. Food Trade Issues: e.g., Price and income sensitivity of importers | Yes__ | No__ |
| g. Others _____ | | |

» 8. Is there any other desired statistical series we have missed in the appendix tables?

- a. _____
- b. _____
- c. _____
- d. _____

» 9. If the data and analyses (but not the appendix tables) were no longer provided, how would you be affected? (Check the response that most accurately describes your reaction.)

- a. It would have a big effect on me; I don't know where else I would get the information, and I use it frequently.
- b. I could get the information elsewhere, but it would be more difficult.
- c. I don't use it frequently, but it is useful to me.
- d. I would not be affected.

» 10. Did you purchase the Food Marketing Review? YES NO

» May we contact you? YES NO

» If yes, please enter your

Name (optional) _____

Phone Number _____

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