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Policy Brief on the RTE Breakfast Cereal Industry

by

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POLICY BRIEF ON THE RTE BREAKFAST CEREAL INDUSTRY*

*by Ronald W. Cotterill***

This brief addresses three issues related to the performance of the RTE cereal industry. *First*, consumers are dissatisfied with the high price of many breakfast cereals and farmers are concerned about the consequent impact on the demand for agricultural inputs to the industry. *Second*, although private label cereals are lower priced and their share of market has grown, marketing strategies of the big three cereal companies have blunted its growth and may altogether stop it in the near future. *Third*, RTE is a specific example of takeovers, leveraged buyouts, and/or mergers in many food industries. In many food industries these have increased prices to consumers, generated lay offs, wage give backs, and lower prices paid for other inputs in order to generate increased cash flows to meet financial terms of such deals. Mergers may generate gains in economic efficiency, but these changes are not efficiency gains. They are corporate transfers of income. By way of background for these points this memo provides a set of charts and graphs and a brief discussion. These charts and graphs have been pulled from other publications so the numbers on them don't start with one and go consecutively up.

Figure 2 RTE Cereal Price Index vs Food-at-home CPI (1983-1992). This chart documents that the shelf prices for RTE breakfast cereals have increased dramatically over this

*This memo was sent on December 9, 1994 to Congressman Samuel Gejdenson. It initiated the public campaign by Congressmen Samuel Gejdenson and Charles Schumer that has, as this memo predicts, ultimately lowered cereal prices.

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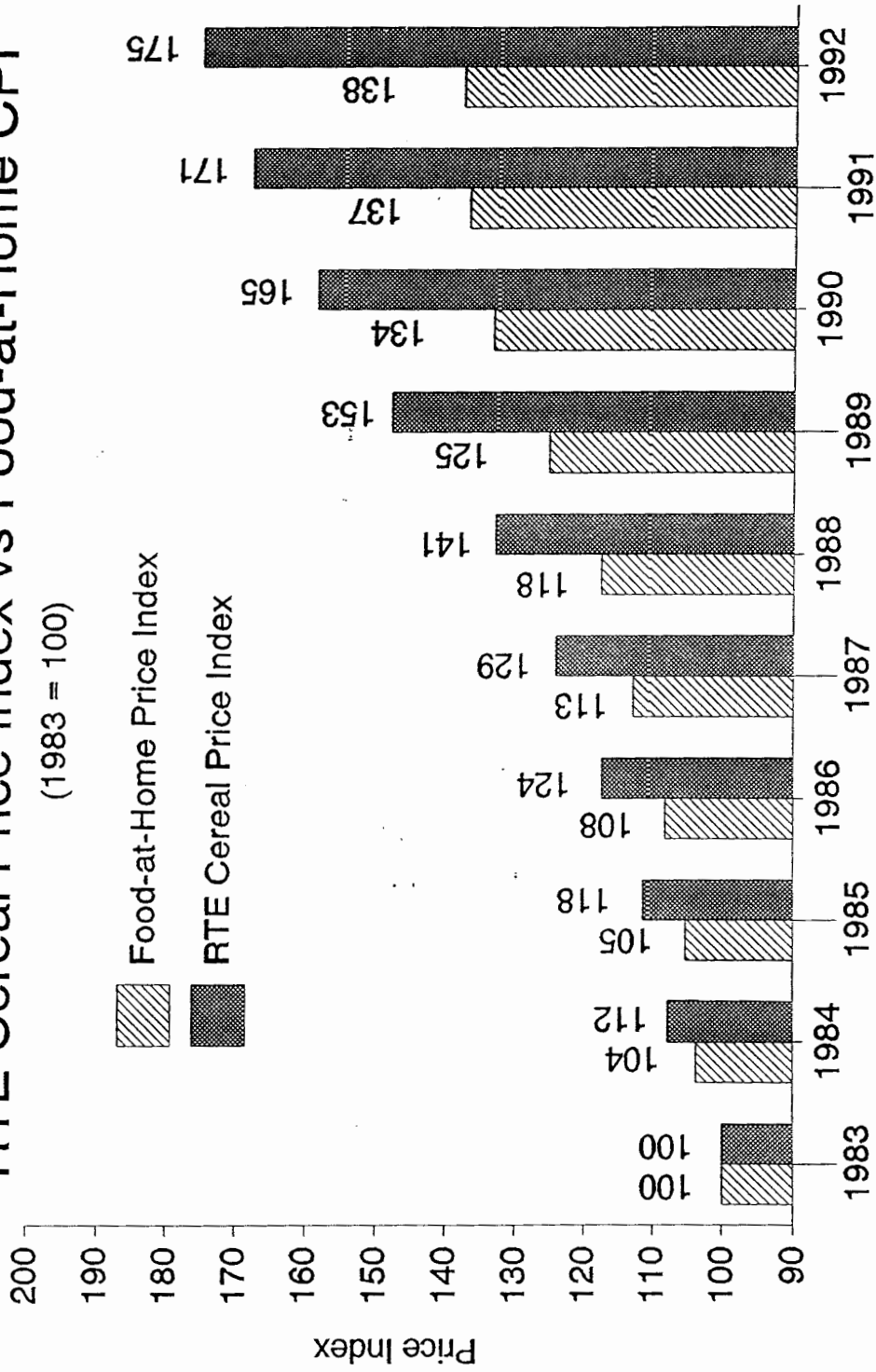
period relative to the shelf prices of other food at home. Neither of these series include the price reducing effect of manufacturer's coupons. However, it is quite doubtful that all of the increase in the shelf price of breakfast cereal relative to other foods would be explained by an increasing use of manufacturing coupons in breakfast cereal.

When this chart was provided to the New York Times in August 1993, it spawned over two dozen newspaper articles around the country on the high price of breakfast cereals. Kellogg's Vice President for Public Relations called me and asked for a copy to present to its Board of Directors. Kellogg subsequently hired Cambridge Economics (the consulting business of Professor Jerry Hausman of MIT) to do a study to refute the contention that breakfast cereal prices have increased and damaged consumers. His study is quite complex but flawed. As one would expect, it supports industry views. Any hearing on the industry should address the Kellogg's study and allow for rebuttal.

Since the price of breakfast cereals has accelerated and is high, a question of high current interest is how have margins changed over time and how important are production costs, selling costs, and profits in this industry?

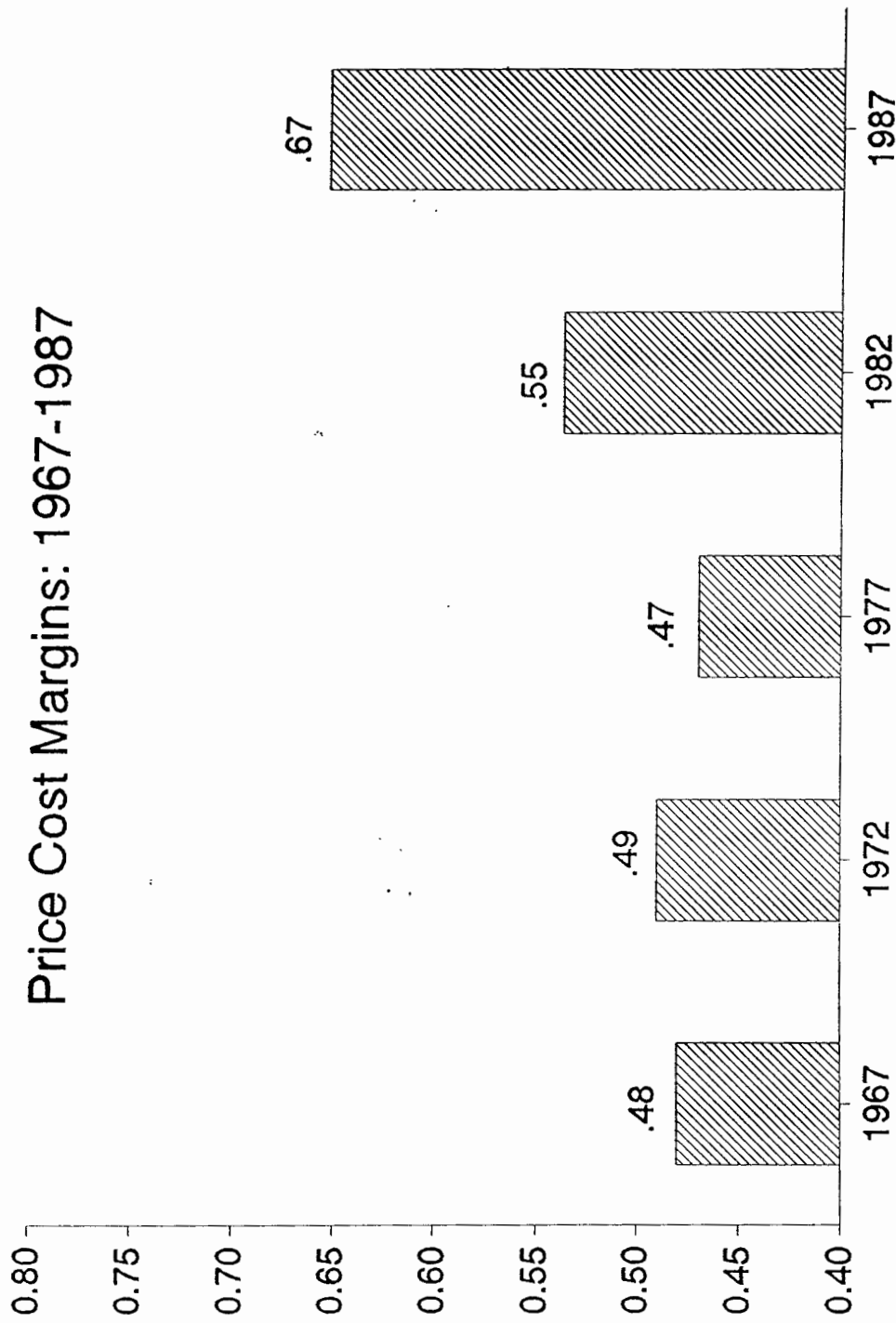
Figure 2 A reports the RTE cereal industry price cost margins for the Census years from 1967 to 1987. Census price cost margins are a first start towards understanding the changes in the cereal industry that have led to high prices during recent years (The 1992 Census information is to the best of my knowledge not available at this time. It probably will become available in the next year or so). The price cost margin is defined as the dollar shipments of breakfast cereal minus the material cost to produce the breakfast cereal minus the implant labor payroll to produce the breakfast cereal divided by the dollar sales of breakfast cereal. Economists

Figure 2
 RTE Cereal Price Index vs Food-at-Home CPI
 (1983 = 100)



Source: Appendix Table A2; Cotterill, 1993a, Exhibit C.

Figure 2A. RTE Cereal Industry U.S. Census
Price Cost Margins: 1967-1987



Source: Food Marketing Policy Center, University of Connecticut, U.S. Census of Manufactures, Industry Series, selected years.

generally use price cost margins such as these as an index of market power in an industry. Firms with market power can charge prices in excess of cost of production. As you can see in Figure 2A, the price cost margin in 1967 was 0.48. In 1972 and 1977 the price cost margin was essentially stable at 0.49 and 0.47. During the 1980s, however, dramatic changes in the way cereal companies did business affected the price cost margin in a very strong fashion resulting in an increase in the price cost margin in 1982 to 0.55 and subsequent increase in 1987 to 0.67. The price cost margin since 1987 probably has not gone appreciably down and quite probably has gone up to 0.7 or slightly higher.

Let's look at the 1987 PCM and analyze its components. First, since the price cost margin is 0.67 the residual 0.33, or \$.33 on the dollar, covers in-plant labor and materials. Materials would include grains, boxes, and electricity. The purchase price for the grain and other food stuffs used in the average box of cereal accounts for less than \$.05 on the dollar. Returning now to the price cost margin value of \$.67 on the dollar, approximately \$.15 covers capital costs, i.e. the depreciation charges necessary to cover the use of buildings and equipment. Roughly \$.02 is necessary for research and development, costs which are not very high in this industry. The remaining \$.50 of the price cost margin is roughly allocated \$.30 to marketing expenses (primarily advertising, manufacturer's coupons, and in-store trade promotions) and \$.20 on the dollar for profits. This twenty percent rate of return on sales translates into a return on managed investment in this industry of over fifty percent which is well over two times the return on investment that is observed in the U.S. manufacturing economy. The cereal industry is highly profitable.

This high profitability is indeed the tip of the iceberg when assessing industry

performance because, as mentioned above, roughly 30 percent of the price of breakfast cereal is allocated to marketing expenses which are in excess of the cost of producing and distributing the product. For example, in 1987 the breakfast cereal industry advertising to sales ratio was 12.9 percent. Only chewing gum and soft drinks had higher advertising sales ratios in the food industry and except for these three industries the average advertising sales ratio for food industries is less than five percent of sales. Thus, advertising plays a very important, and some would say excessive, role in this industry.

Although I do not have immediately available information on the rank of the RTE cereal industry price cost margin relative to all other U.S. manufacturing industries for 1987, I do have such information for 1972. Frederick M. Scherer, a noted economist writing on the breakfast cereal industry, reports that in 1972 only 8 out of 451 U.S. census industries had higher price cost margins than breakfast cereals (Scherer p.215). Given the recent explosion in the price cost margin of breakfast cereal, I would not be surprised to find the breakfast cereals now ranks as the highest price cost margin industry in the entire economy.

The bottom line is this. If the industry were to reduce its marketing expenses by a third without changing price, it would double its already high profit rate. This industry has a huge "fatty cushion" built into its prices. The industry may counter that some marketing expenses (manufacturer's coupons, and in-store specials such as "buy one get one free:") reduce prices. But coupons are a notoriously inefficient and discriminatory way to reduce price. Moreover, even if one credits the industry with the price reducing impact of coupons, the story does not change much. I would roughly estimate that coupon redemptions by consumers reduce industry revenues by 10 percent. This coupon adjustment reduces the PCM from 0.67 to 0.63 and

increases profits as a percent of sales increases from 20 to 22 percent.

Moving to the direct analysis of cereal prices the Food Marketing Policy Center at the University of Connecticut has purchased over a period of several years detailed information on grocery product prices from Information Resources Inc. for twenty quarters and over fifty U.S. cities plus total U.S. beginning January 1988 through December 1992. Using the IRI infocan supermarket price data we can learn quite a bit about pricing practices of the breakfast cereal industry.

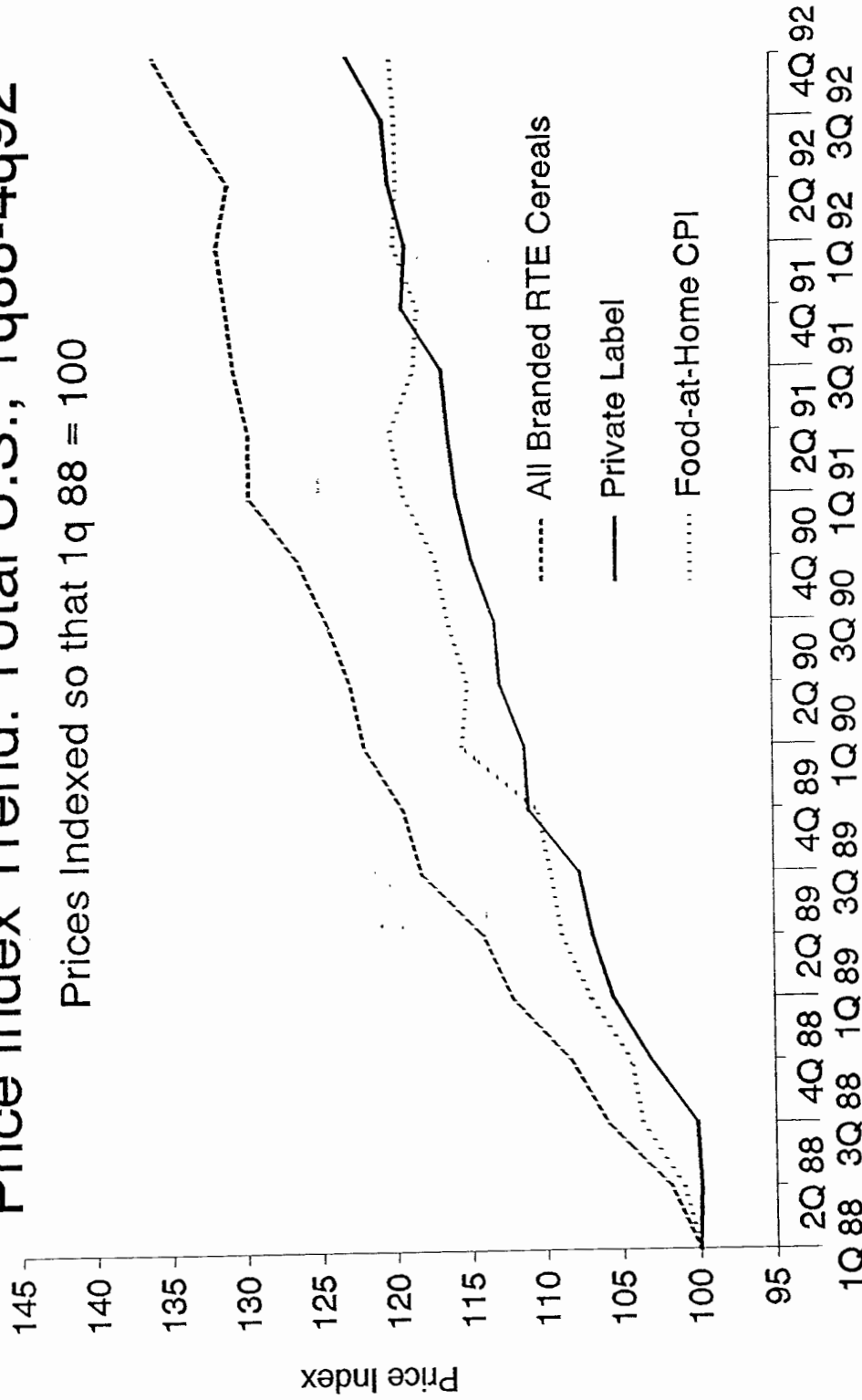
Figure 3 graphs price indices for the food-at-home CPI over the five year period on a quarterly basis and graphs private label price index as well as the all branded RTE cereal price index over this period. As you can see, private label cereal prices quite closely track the food-at-home CPI price index through this period. However, the branded RTE cereal price index does not. Branded cereal prices increased approximately 35 percent over this five-year period whereas, private label prices increased approximately 20 percent and were in line with food-at-home CPI food price increases.

Moving on to **Figure 5** one sees actual price trends for five branded cereals and private label over the period. Note first of all that different cereals have different prices on a per pound basis. This is because breakfast cereal is highly differentiated and some brands enjoy stronger franchises with consumers than others. Recall from the price cost margins that the actual cost of producing breakfast cereal is approximately 50 percent of the price so these higher prices are not in and of themselves due to higher cost of grains or other material inputs into the breakfast cereals. Note also in **Figure 5** that private label breakfast cereals are the lowest throughout most of this five year period. However, Kellogg's Corn Flakes does dip down in fourth quarter 1991

Figure 3

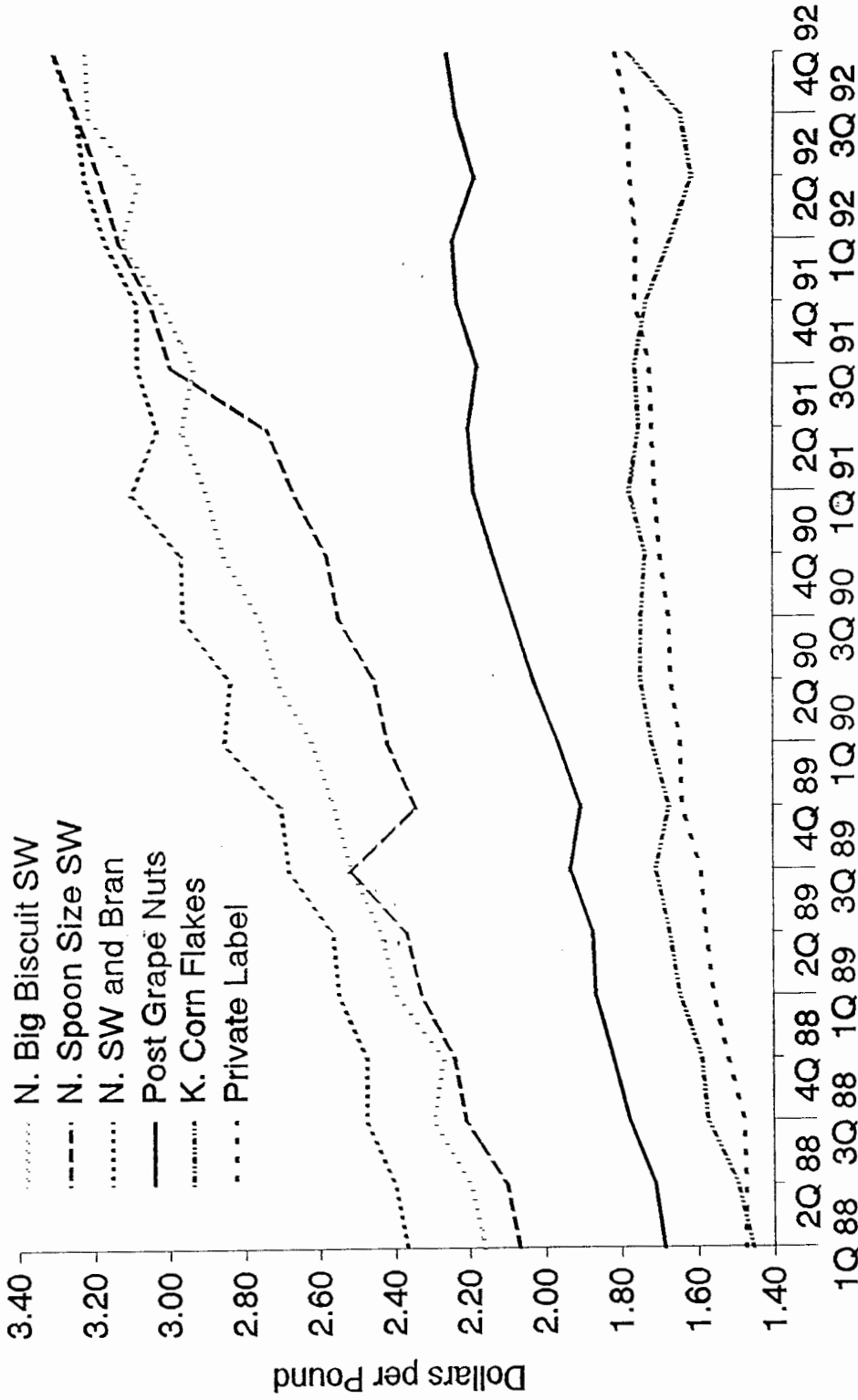
Price Index Trend: Total U.S., 1q88-4q92

Prices Indexed so that 1q 88 = 100



Source: Appendix Table A3

Figure 5
Price Trends: Total U.S., 1q88-4q92



Source: Appendix Table A3

and throughout 1992 to offer lower price per pound than the average for private label cereals. During this period Kellogg decided to compete on price with private label in an attempt to limit its penetration into the RTE cereal industry and it used Kellogg's Corn Flakes as a primary price competitive vehicle. Third, and important, note that when Kellogg's Corn Flakes dropped its price dramatically to compete against private label other breakfast cereals in this chart really did not respond with lower prices. This is additional evidence of product differentiation in this industry. Kellogg's Corn Flakes may compete with private label cereals, however, other differentiated products such as Shredded Wheat and Grape Nuts really do not compete with private label.

Table 1 provides market share information over several years for the major manufacturers. General Mills and Post have gained market share and Kelloggs has lost some market share during the recent past. Most important for the organization and performance of the industry, however, is the fact that the smaller cereal manufacturers Quaker, Ralston, and Nabisco also have lost market share and by most industry assessments at this point are considered at risk. In fact, since January 1993 Nabisco has been owned and operated by Post. An increase in concentration of sales among the top three firms will further reduce competitive vigor in this industry.***

*** The set of tables providing the underlying and additional data are appended. Table A2 provides the historical trend data that was used to produce Figure 2 for the Food-at-home CPI and the RTE cereal price per pound over time. Table A3 is very large and it provides price per pound information on a dollar basis and also on an index number basis with first quarter 1988 having an index value of 100 for several leading brands of breakfast cereal and major components of breakfast cereal industry such as private label and branded breakfast cereals. Finally, Table A12 provides dollar sales and volume data in millions of pounds on a quarterly basis for all RTE cereal and for private label cereal for the five calendar years 1988-1992.

Table 1 Ready-to-Eat Cereal Volume Share for 6 Major Manufacturers, 1988-1992

	1988	1989	1990	1991	1992
Kellogg	40.965	39.670	37.351	37.393	37.029
General Mills	21.306	23.685	24.462	25.114	25.576
Post	11.883	10.560	11.188	11.420	11.792
Quaker Oats	8.528	8.068	7.547	7.188	7.133
Ralston Purina	5.462	5.946	6.002	4.938	4.629
Nabisco	5.423	4.702	4.362	3.208	2.941
Private Label	3.670	4.494	6.106	7.747	7.990

Source: I.R.I. Infoscan Data Base. University of Connecticut, Food Marketing Policy Center.

Well what does this brief introduction to the economics of the cereal industry suggest in terms of possible public policy concerns? First, it is clear that the industry has in the past 12-15 years embarked upon the type of competition that results in a proliferation of brands breakfast cereal and higher marketing expenses and higher overall prices for all brands of breakfast cereals to consumers. Consumers clearly are dissatisfied with the price of breakfast cereal on the shelves in U.S. supermarkets. The industry's basic response is "use a coupon." Only 30-35 percent of breakfast cereal, however, is purchased with a coupon. Moreover, couponing is price discrimination pure and simple. It divides consumers into two groups. Those that are willing to take the time and effort to assemble coupons and use them on a regular basis and those who are not. Consequently, the cereal industry is able to maximize profits at an even higher rate than if they charged everybody the same price. That is the economic rationale for any price discrimination model.

Response to this point is often "well, consumers buy it even though it is higher priced, so they must like it." This reasoning confuses the analysis of the industry's performance with an analysis of consumer's food purchasing habits. Even a pure monopolist, i.e. a single seller of a product, who charges a monopoly price sells a product to consumers and consumers buy the product willingly. This fact is not sufficient evidence to maintain that consumers are satisfied with the performance of a particular industry.

The truly challenging issue is how could one devise public policies or incentives that would change the industry's conduct in a fashion that would make consumers happier. Moreover, how could one determine what precisely is desirable performance for this industry. Economists basically have two approaches to these types of questions. The first is direct

regulation such as advertising regulation or price regulation. This approach is very unpopular and branded as a "liberal" big government solution that fetters business. I don't think any economist, liberal or otherwise, would suggest this type of intervention in the breakfast cereal industry.

A more effective remedy that takes advantage of market forces might be simply to generate information and publicity through hearings on the industry's performance and conduct. This industry is extremely sensitive to its public image and might very well change some of its competitive tactics towards providing lower price value options for American consumers in response to such information and publicity. If consumers knew, for example, that Post spent 34 percent of its revenues for Post Grape Nuts on marketing expenses and also enjoyed a 33 percent profit sales margin in 1991, perhaps they would boycott the product (Cotterill affidavit, Para 40). If Congress investigated the pricing and profitability of this industry on a brand by brand basis, the response to such publicity would be explosive.

This leads to a second major policy point related to the breakfast cereal industry, the growth of private label breakfast cereals. None of the top three breakfast cereal companies provides or manufactures private label cereals at this time. This is a clear-cut and conscious decision on their part not to dilute their brand franchises and their pricing power in the industry. They regard private label as the enemy. Nearly all the private label in the industry is provided by RalCorp (a recent spinoff of Ralston Purina) and two much smaller companies Gilster Mary Lee and Malt-o-Meal. Although private label has grown over the last five years, the question is whether it will continue to grow during the near future. The big three companies have absolutely no interest in seeing that its growth continues. Also, the fact that private label is

introduced one supermarket chain at a time and is stronger in some local markets (South or West) than others means that the big three can geographically price discriminate or use other marketing tactics on a geographical basis to limit the penetration of private label cereals. The corollary of this conduct is that consumers benefit from price competition only in those markets where private label is strong and that competition, as we saw only benefits consumers of certain brands of cereals, not all brands of cereals and certainly not highly differentiated brands of cereal that have no direct private label form competitor.

Another reason that private label penetration will be limited is that the strategy of brand proliferation that the large cereal manufacturers have undertaken in the last 10-15 years means that the market is packed with many small share highly differentiated expensive brands. These brands are not good targets for private label since private label at best can usually capture only 20-30 percent of the consumers of a particular brand of cereal. Thus, if only one percent of the market consumes a particular brand of cereal, the private label potential market is only 0.2 to 0.3 percent (the majority of all breakfast cereal brands have less than one percent market shares).

The role of private label and other small brands in the breakfast cereal industry certainly is a topic that, if examined in a public forum, might generate both business and consumer responses that would accelerate the expansion of private label breakfast cereal production in sales.

The third general policy point that relates to the breakfast cereal does not flow directly from the charts and tables that I earlier presented. It is the issue of leverage buyouts, takeovers, and mergers in food industries. Kohlberg, Kravis, and Roberts, a single firm, has done more

to transform the organization and performance of the U.S. food industries in the last ten years than government has in 50 years. The highly leveraged transactions that KKR and other investment bankers have visited upon the food industry have translated to an immediate need to generate short-term cash to pay down corporate debt in order for the companies to survive. This Darwinian need for capital has meant that managers of large food corporations have had absolutely no choice but to take Darwinian price and cost control measures. Research at MIT (Chevalier), among other places, and here at the University of Connecticut (Cotterill) has shown that leverage buyouts in food industries have tended to elevate prices to consumers, lower wages to workers and result in tougher terms of trade for farmers and others that provide inputs to these industries.

In the breakfast cereal industry we have a perfect example of this strategy. In 1988 KKR undertook a leverage buyout out of RJR Nabisco. At \$28 billion it was by far the largest LBO in history. Consequently, RJR Nabisco had to raise several billion dollars in order to pay down a significant portion of their LBO debt. Available information indicates that they decided among other things that Nabisco Shredded Wheat operation should be harvested and sold in order to generate cash. They harvested Nabisco Shredded Wheat by elevating prices, cutting advertising expenses, and generally reducing any long term commitment to the business so that they could remove as much cash as possible in a short term period. A quote by Philip Morris management to its Board when it purchased Nabisco Shredded Wheat from RJR Nabisco collaborates this strategy.

Since KKR purchased RJR Nabisco in 1988, the franchise appears to have been managed for short term profit (Cotterill 1993, Para 30).

In my mind this type of behavior illuminates the inherent split between main street

American businesses and Wall Street financiers. Main street American businesses have, in fact, suffered consolidation, corporate layoffs, reduced wages, and lower input prices to farmers as a result of these Darwinian moves by finance wizards in the increasingly unfettered capital markets that we have established over the past ten to fifteen years. These are not efficiency moves. They are corporate transfers, what economists call pecuniary economies, that affect incomes of the factors of production and consumers.

This leads me to the second major policy alternative that government can use to change the performance of food, and other industries in the economy. The first major mechanism that I mentioned earlier was *direct regulation* or its weaker associate: information, publicity, and possibly jawboning. The second mechanism is *antitrust policy*. Antitrust policy is or at least should be based upon careful economic analysis of relationship between the financial and market structure of industries and their price and profit performance. Antitrust law, built up over the past one hundred years, has maintained that price competition is good and any merger or acquisition or leveraged financial transaction that, via the swipe of a pen, enables management to elevate prices to consumers is unlawful. The antitrust approach is not to limit competition but to channel competition so competition benefits consumers. Many large American firms in industries such as the breakfast cereal industry compete vigorously with each other. However, one has to question whether the type of competition that they engage in benefits consumers or whether it simply is causing business rivalry at the expense of consumers. Do consumers benefit from the fact that the big three cereal companies compete with each other by spending \$40-\$50 million to introduce a new product when four out of five fail, and several are introduced each year? This competition may serve their own strategic interests, e.g. keeps others out of the

industry, but the cost to consumers outweighs the benefits.

In its recent quarterly report Kelloggs clearly states that it is using this "cash cow" strategy in the domestic market.

During the third quarter, strong performances from the Company's developing cereal business in Europe, Latin America, and Asia-Pacific and from our convenience foods businesses in the United States more than offset softness in our U.S. cereal volume. We are particularly pleased that we achieved volume growth in virtually every developing market around the world.

Our U.S. cereal volume was negatively impacted by our action of reducing price-promotion spending on established brands. We are monitoring the U.S. cereal category carefully, but continue to believe that the best way to achieve long-term profitable growth is by introducing successful new products and investing in brand-building advertising.

The primary tenant of antitrust policy is that an industry that is supplied by a large number of firms will tend to compete on price in a more vigorous fashion. Conversely, an industry dominated by one, two, or three very large firms with barriers to entry generates non-price rivalry, not price competition, and does not benefit consumers. Antitrust properly applied promotes a vigorous competitive economy and promotes the fortunes of smaller firms, including small business.

This brief is over, but I have one parting thought that is related to Robert Reich's corporate welfare thrust and the libertarian economics of new right. It seems to me that the left needs some provocative new thinking to counter the political economy of the right. Here is an "out in left field" idea. The drive to dismantle government and replace public programs with private market initiatives is successful because much of the modern U.S. culture is based upon advertising and the materialistic images that it conveys. A public agency such as the State Department of Social Services never gets to talk to consumers (i.e. taxpayers) about what it is doing. Kelloggs talks to kids, as well as adults, every day about its products. To provide some

redress on this issue why not move all advertising into the "profit margin" category, i.e. out of expenses. Then it could not be written off as an expense to reduce corporate taxes. Combined with a progressive tax structure this would benefit small business most. Also, it would reduce the amount of advertising by business which in turn would reduce the salaries of professional sports stars and provide some much needed rebalance in society's reward structure. Madison Avenue could channel creative resources towards the History Channel rather than commercials for products such as Kelloggs Corn Flakes and Campbell's soup. Also, since my basic premise is that these ads are inherently political, this tax treatment squares with the fact that individuals including large corporations cannot now deduct political contributions (advertising) on their tax returns. Why should large corporations get a tax write off to intrude into homes in a most obnoxious fashion? Attacking advertising as political may sound far-fetched, but the lack of voice by public goods is real. Also, this idea is not as outlandish as some recent conservative proposals.

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Table A2 Historical Trend of Ready to Eat Cereal and Food at Home CPI

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Food-at-home CPI	99.1	102.8	104.3	107.3	111.9	116.6	124.2	132.3	135.8	136.8
Food-at-home CPI Index (1983=100)	100.0	103.7	105.2	108.3	112.9	117.7	125.3	133.5	137.0	138.0
Price per pound (Nielsen)	1.7	1.9	2	2.1	2.2	2.4	2.6	2.8	2.9	2.9
RTE Price per pound (IRI)						2.4	2.6	2.8	2.9	2.976
RTE Price Index	100.0	111.8	117.6	123.5	129.4	141.2	152.9	164.7	170.6	175.1

Source: New York State Dept. of Law; IRI Infoscan Data Base, University of Connecticut, Food Marketing Policy Center; 1993 *Economic Report of the President*.

Table A3 Total U.S. RTE Cereal Price per Pound and Price Indices, 1988-1992 Quarterly

Quarter	1Q 88	2Q 88	3Q 88	4Q 88	1Q 89	2Q 89	3Q 89	4Q 89	1Q 90	2Q 90	3Q 90	4Q 90	1Q 91	2Q 91	3Q 91	4Q 91	1Q 92	2Q 92	3Q 92	4Q 92
All RTE Cereals																				
\$/lb	2.283	2.322	2.412	2.464	2.55	2.591	2.68	2.707	2.756	2.775	2.802	2.844	2.905	2.899	2.917	2.937	2.947	2.936	2.986	3.036
Index	100	101.7	105.7	107.9	111.7	113.5	117.4	118.6	120.7	121.6	122.7	124.6	127.2	127.0	127.8	128.6	129.1	128.6	130.8	133.0
Private Label																				
\$/lb	1.476	1.474	1.478	1.521	1.558	1.577	1.59	1.639	1.643	1.667	1.672	1.695	1.71	1.718	1.724	1.763	1.76	1.777	1.783	1.818
Index	100	99.9	100.1	103.0	105.6	106.8	107.7	111.0	111.3	112.9	113.3	114.8	115.9	116.4	116.8	119.4	119.2	120.4	120.8	123.2
All Branded RTE Cereal																				
\$/lb	2.312	2.355	2.449	2.503	2.593	2.638	2.734	2.762	2.823	2.844	2.880	2.925	3.000	3.001	3.023	3.036	3.050	3.033	3.093	3.146
Index	100	101.8	105.9	108.3	112.2	114.1	118.3	119.5	122.1	123.0	124.6	126.5	129.7	129.8	130.8	131.3	131.9	131.2	133.8	136.1
Nabisco																				
All Nabisco Brands																				
\$/lb	2.146	2.191	2.293	2.291	2.397	2.443	2.559	2.539	2.648	2.649	2.716	2.754	2.853	2.898	2.999	3.046	3.143	3.165	3.238	3.279
Index	100	102.1	106.8	106.8	111.7	113.8	119.2	118.3	123.4	123.4	126.6	128.3	132.9	135.0	139.7	141.9	146.5	147.5	150.9	152.8
Nabisco Big Biscuit Shredded Wheat																				
\$/lb	2.161	2.197	2.295	2.269	2.395	2.439	2.517	2.564	2.621	2.718	2.763	2.861	2.908	2.974	2.945	3.027	3.137	3.092	3.228	3.238
Index	100	101.7	106.2	105.0	110.8	112.9	116.5	118.6	121.3	125.8	127.9	132.4	134.6	137.6	136.3	140.1	145.2	143.1	149.4	149.8
Spoon Size Shredded Wheat																				
\$/lb	2.068	2.1	2.208	2.239	2.329	2.368	2.52	2.345	2.422	2.457	2.553	2.586	2.674	2.747	3.005	3.058	3.146	3.195	3.257	3.317
Index	100	101.5	106.8	108.3	112.6	114.5	121.9	113.4	117.1	118.8	123.5	125.0	129.3	132.8	145.3	147.9	152.1	154.5	157.5	160.4
Shredded Wheat and Bran																				
\$/lb	2.367	2.399	2.476	2.476	2.549	2.567	2.683	2.705	2.858	2.843	2.968	2.973	3.108	3.042	3.094	3.097	3.18	3.237	3.259	3.32
Index	100	101.4	104.6	104.6	107.7	108.4	113.4	114.3	120.7	120.1	125.4	125.6	131.3	128.5	130.7	130.8	134.3	136.8	137.7	140.3
Shredded Wheat Line																				
\$/lb	2.167	2.200	2.295	2.301	2.401	2.434	2.557	2.488	2.564	2.608	2.692	2.738	2.825	2.868	3.002	3.056	3.150	3.170	3.249	3.293
Index	100	101.5	105.9	106.2	110.8	112.3	118.0	114.8	118.3	120.4	124.3	126.4	130.4	132.4	138.6	141.1	145.4	146.3	150.0	152.0
Frosted Wheat Squares																				
\$/lb	2.453	2.28	2.418	2.348	2.475	2.461	2.541	2.603	2.765	2.809	2.962	3.036	3.046	3.156	3.216	3.363	3.477	3.523	3.544	3.597
Index	100	92.9	98.6	95.7	100.9	100.3	103.6	106.1	112.7	114.5	120.8	123.8	124.2	128.7	131.1	137.1	141.7	143.6	144.5	146.6
Fruit Wheats																				
\$/lb	2.178	2.24	2.299	2.325	2.463	2.65	2.785	2.846	2.957	3.021	3.045	3.1	3.205	3.247	3.26	3.371	3.484	3.465	3.562	3.612
Index	100	102.8	105.6	106.7	113.1	121.7	127.9	130.7	135.8	138.7	139.8	142.3	147.2	149.1	149.7	154.8	160.0	159.1	163.5	165.8
100% Bran																				
\$/lb	1.88	1.904	1.991	1.975	2.095	2.135	2.228	2.139	2.189	2.257	2.376	2.374	2.447	2.466	2.498	2.484	2.539	2.588	2.654	2.663
Index	100	101.3	105.9	105.1	111.4	113.6	118.5	113.8	116.4	120.1	126.4	126.3	130.2	131.2	132.9	132.1	135.1	137.7	141.2	141.6
Team Flakes																				
\$/lb	2.342	2.365	2.487	2.468	2.623	2.625	2.776	2.812	2.913	3.011	3.17	3.17	3.305	3.416	3.17	3.393	3.546	3.589	3.596	3.684
Index	100	101.0	106.2	105.4	112.0	112.1	118.5	120.1	124.4	128.6	135.4	135.4	141.1	145.9	135.4	144.9	151.4	153.2	153.5	157.3
Teddy Graham Breakfast Bears																				
\$/lb					2.921	2.94	2.931	2.654	2.489	3.033	3.137	3.127	3.338	3.252	3.338	3.333	3.338	3.338	3.333	2.645
Index ¹					100	100.7	100.3	90.9	85.2	103.8	107.4	107.1	114.3	111.3	114.3	114.3	114.3	114.3	114.3	90.6

(continues)

Table A3 (continued)

Quarter	1Q 88	2Q 88	3Q 88	4Q 88	1Q 89	2Q 89	3Q 89	4Q 89	1Q 90	2Q 90	3Q 90	4Q 90	1Q 91	2Q 91	3Q 91	4Q 91	1Q 92	2Q 92	3Q 92	4Q 92	
Post																					
Grape Nuts																					
\$/lb	1.687	1.710	1.776	1.820	1.866	1.874	1.933	1.906	1.965	2.030	2.083	2.140	2.190	2.206	2.183	2.237	2.250	2.191	2.242	2.267	
Index	100	101.4	105.3	107.9	110.6	111.1	114.6	113.0	116.5	120.3	123.5	126.9	129.8	130.8	129.4	132.6	133.4	129.9	132.9	134.4	
Toasties																					
\$/lb	1.139	1.152	1.167	1.156	1.149	1.128	1.185	1.252	1.291	1.343	1.417	1.439	1.47	1.427	1.429	1.523	1.583	1.565	1.581	1.65	
Index	100	101.1	102.5	101.5	100.9	99.0	104.0	109.9	113.3	117.9	124.4	126.3	129.1	125.3	125.5	133.7	139.0	137.4	138.8	144.8	
Raisin Bran																					
\$/lb	1.987	1.995	2.08	2.128	2.133	2.125	2.258	2.315	2.356	2.385	2.323	2.312	2.396	2.418	2.417	2.431	2.479	2.445	2.508	2.47	
Index	100	100.4	104.7	107.1	107.3	106.9	113.6	116.5	118.6	120.0	116.9	116.4	120.6	121.7	121.6	122.3	124.8	123.0	126.2	124.3	
Kellogg																					
Corn Flakes																					
\$/lb	1.457	1.496	1.573	1.589	1.645	1.671	1.706	1.673	1.718	1.747	1.745	1.735	1.777	1.751	1.762	1.733	1.669	1.615	1.645	1.785	
Index	100	102.7	108.0	109.1	112.9	114.7	117.1	114.8	117.9	119.9	119.8	119.1	122.0	120.2	120.9	118.9	114.6	110.8	112.9	122.5	
Raisin Bran																					
\$/lb	1.963	2.013	2.056	2.063	2.191	2.208	2.316	2.233	2.33	2.33	2.392	2.403	2.424	2.43	2.472	2.393	2.424	2.396	2.435	2.443	
Index	100	102.5	104.7	105.1	111.6	112.5	118.0	113.8	118.7	118.7	121.9	122.4	123.5	123.8	125.9	121.9	123.5	122.1	124.0	124.5	
General Mills																					
Cheerios																					
\$/lb	2.355	2.378	2.482	2.573	2.634	2.634	2.732	2.822	2.906	2.961	2.935	3.074	3.123	3.082	3.115	3.159	3.22	3.265	3.252	3.245	
Index	100	101.0	105.4	109.3	111.8	111.8	116.0	119.8	123.4	125.7	124.6	130.5	132.6	130.9	132.3	134.1	136.7	138.6	138.1	137.8	
Total																					
\$/lb	3.003	3.038	3.165	3.244	3.173	3.256	3.409	3.481	3.641	3.628	3.612	3.741	3.86	3.866	3.922	4.05	4.076	4.045	4.103	4.143	
Index	100	101.2	105.4	108.0	105.7	108.4	113.5	115.9	121.2	120.8	120.3	124.6	128.5	128.7	130.6	134.9	135.7	134.7	136.6	138.0	

¹ Indexed so fourth quarter 1989 is 100.

Source: 1988-1992 IRI Infoscan Data Base, University of Connecticut, Food Marketing Policy Center, *Economic Report of the President*, 1993.

Table A12 Total U.S. All RTE Cereals and Private Label Sales in Dollars and Volume (Pounds) Sold, 1988-1992 Quarterly

Quarter	1Q 88	2Q 88	3Q 88	4Q 88	1Q 89	2Q 89	3Q 89	4Q 89	1Q 90	2Q 90	3Q 90	4Q 90	1Q 91	2Q 91	3Q 91	4Q 91	1Q 92	2Q 92	3Q 92	4Q 92	
All RTE Cereals																					
Sales (\$M)	1259	1299	1384	1296	1444	1489	1534	1424	1632	1658	1670	1576	1735	1744	1786	1665	1827	1807	1894	1770	
Volume (M lbs)	551	559	574	526	566	575	572	526	592	597	596	554	597	602	612	567	620	615	634	583	
Private Label																					
Sales (\$M)	27.5	29.7	32.0	31.5	36.6	25.0	42.6	41.6	54.9	58.1	63.7	61.9	74.3	81.7	85.6	76.7	86.5	84.0	92.0	87.2	
Volume (M lbs)	18.6	20.2	21.6	20.7	23.5	39.5	26.8	25.4	33.4	34.8	38.1	36.5	43.5	47.6	49.7	43.5	49.1	47.2	51.6	48.0	

Source: IRI Infoscan Data Base, University of Connecticut, Food Marketing Policy Center.