

Forum

High Cereal Prices and the Prospects for Relief by Expansion of Private Label and Antitrust Enforcement

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ABSTRACT

This article responds to key points in the GMA Fact Sheet Analysis of cereal industry conduct and performance. It also explains the organization of the industry using research by Wall Street analysts that document high concentration, barriers to entry, and noncompetitive pricing games. The result is high price cost margins and high prices. The judge's decision in *State of New York v. P. Morris Kraft General Foods et al.* is critiqued. She relies upon a broad definition of competition that compromises the role of price in achieving allocative efficiency in markets. The new application of the antitrust laws to unilateral market power is explained. Finally the prospects for price relief through expansion of private label cereals, although complex, are reasonably good. [EconLit cites: L100, L410, L660]
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1. EXECUTIVE SUMMARY

- A bowl of breakfast cereal with milk does not, as the industry claims, cost 25 to 30 cents. When 22 leading brands are checked, a bowl of cereal with milk costs an average 81 cents and ranges from a low of 48.4 cents (Kelloggs Corn Flakes) to a high of \$1.14 (Post Banana Nut Crunch).
- Cereal is not, as the industry claims, a good value. The price of Certified Black Angus sirloin steak at \$2.89 lb. is cheaper than 19 of the 22 cereals price checked. A steak and egg breakfast is cheaper than many bowls of breakfast cereals. High cereal prices are due to high levels of advertising, other nonprice marketing add ons, and high profits.
- Contrary to the industries claims, coupon use by consumers, does not offset the increases in announced cereal prices between 1983 and 1995 or between 1989 and 1993. In both periods the price consumers paid, net of coupons, increased more rapidly than the food at home component of the Consumer Price Index. Prices of breakfast cereal, net of coupons increased between 17 and 24% from 1989 to 1993 when the Food at Home CPI increased 12.6%. The industry's claim of 6.6% net of coupon cereal price increase during this period is based upon as faulty projection of a sample result to the entire U.S. population.

- The cereal industries claim that the judges opinion in a recent New York court case establishes that the industry is intensively competitive. A careful reading of the opinion in *State of NY v. Phillip Morris et al.* (State of New York vs. Kraft General Foods Inc.), however, reveals that the judge did not deny that this industry competes in a costly non-price fashion. She concluded that this preference for nonprice competition in lieu of price competition is not due to collusion, rather is the result of independent actions by the leading firms. Yet Wall Street analysts and many economists have documented that the independent action of firms in this industry are a form of tacit collusion that produces the observed poor (from the standpoint of consumers and grain farmers) performance record.
- Unilateral market power is the ability of a firm to elevate the price of a brand of breakfast cereal above its cost of production because they have differentiated the product through advertising and positioning in a segmented cereal market. In the New York case the judge ruled that combining Nabisco Shredded Wheat with the Post cereal operations, most notably its marketing of Post Grape Nuts, would not allow Post to increase the price of these breakfast cereals. Even if this is correct it says nothing about the exercise of unilateral market power among other brands in the portfolios of the big four cereal companies, Kellogg, General Mills, Post, and Quaker.
- The industry claims that my numbers and economic analysis have been presented to the FTC and Antitrust Division of the Justice Department and that these agencies have rejected the analysis that I presented as expert economist for the state of New York in their recent unsuccessful challenge of the acquisition of Nabisco Shredded Wheat by Phillip Morris. In fact, all exhibits and analyses presented at this public trial remain unavailable to the public, including federal agency staff, because Phillip Morris is disputing their release. Their argument is that release of many documents would provide sensitive information to their competitors. But the great majority of these documents are for economic activities in the early 1990s that are of no competitive significance today. Phillip Morris does not want the public to learn how this industry operates. Consumer's Union is intervening in the court proceedings on behalf of consumers to argue for keeping public trial records public.
- Private label breakfast cereals provide consumers real value, and their continued expansion will improve the price performance of this industry. Branded manufacturers, however, prefer to compete with private label by further segmentation of the market because private label can't achieve sufficient distribution volume needed for economic viability when copying small share brands.
- The long run success of private label will depend upon major changes in marketing strategies and management structure at leading supermarket retailers. British supermarket retailers and mass merchandisers such as Wal-Mart have demonstrated that the needed changes can be achieved and that they are profitable. These changes will lower prices to consumers due to more efficient distribution, less advertising, and nonprice marketing activities.

2. RESPONSE TO KEY POINTS RAISED BY THE GROCERY MANUFACTURERS OF AMERICA

Congressmen Gejdenson and Schumer should be commended for their persistent interest in the performance of the ready to eat cereal industry. The release of their well documented and thorough report, "Consumers in a Box" a year ago focused media attention on high cereal prices, which in turn documented widespread consumer anger over this industry's per-

formance. Today, the Congressmen have asked for an assessment of the factors that contribute to high cereal prices, and the outlook for consumer relief from the expansion of private label cereals, and more effective antitrust enforcement.

This is no small task. I would like to begin by responding to the industry's rebuttal to the Congressmen's report. None of the cereal manufacturers has commented publicly on the Congressional inquiry. Instead, they have designated Mr. Jeffrey Nedelman of the Grocery Manufacturers of America as their common spokesman. The GMA's entire written response consists of a three page press release that contains seven "facts" (GMA, 1995).

Fact 1 is the cheap breakfast defense. The GMA states "Breakfast Cereal provides consumers with real value. Today the average bowl of ready to eat cereal, including milk, costs between 25 and 30 cents" (GMA, 1995). To see whether this is true, I did what any consumer can do. I went to a large regional chain supermarket where I buy groceries and collected prices on 22 leading cereal brands. My results are reported in Table 1. I chose box sizes that I would buy for my family of four (not the smallest ones). First I computed the price per serving. Then I noticed that a serving is not a bowl of cereal. Quaker Puffed Wheat, for example, claims 1/2 oz. (15 g) is a serving. Most use 1 cup; however, this is only a half bowl of cereal. I computed a bowl price by using 2 cups of cereal or at a minimum 60 grams of cereal. These bowl prices are reported in the next to last column of Table 1. Adding one cup of skim milk produces the cereal with milk prices that are in the last column. This column is in bold print because this is the price a consumer pays for a bowl of cereal for breakfast. The average bowl price is 81 cents and ranges from a low of 48 cents to \$1.14. The 25–30-cent cereal breakfast is a myth. It is incredible that the industry leads its rebuttal argument with such a disingenuous use of nutrition labels.

To see what the costs of other breakfast options are. Certified Black Angus sirloin steak at 2.89/lb. is cheaper than 19 of these 22 breakfast cereals. One slice of World Classics Store Ground Whole Wheat bread is equivalent to a serving of cereal within the USDA guidelines and costs only 8.4 cents. In fact, I can eat a breakfast with steak (2 oz.), an egg, two pieces of toast and coffee for 73 cents. Breakfast with a 1/4 lb. of steak costs \$1.09. These compare favorably to many of the bowls of cereal in Table 1. Cereal is not a "good value."

Professor Frederic M. Scherer gives the economist perspective on "good value" in the cereal industry, writing:

OPEC claimed that their cartel was innocuous because the cost of their energy source was still much less than other alternatives. The true question is what would the price of cereal be under a purely free enterprise situation. Nature endowed cereal makers with an unusually economical means of providing nutrition. If they have abused that endowment by pricing above a competitive level they have performed badly. (Galbraith, 1994, p. 31)

Fact 2, and I quote, is "Cereal Prices in real terms have risen less than the rate of inflation—between 1 and 2% annually" (GMA, 1995). This is the "consumers don't know what they are talking about, the prices of breakfast haven't gone up as fast as other foods," defense. Figure 1 graphs the Bureau of Labor Statistics cereal price and the food-at-home price indices over the 12 years. Until 1995, cereal price advances regularly dominated food at home advances. Between 1983 and 1994 cereal prices increased 90.8%, whereas all food prices increased 45.4%. The Congressmen's focus of attention on this issue and the ensuing media stories including segments on *ABC Good Morning America*, *ABC 20/20*, *NBC Today*, *NBC Phil Donahue*, *NBC, Ch. 4 Washington, DC*, and *CNBC* have had an impact. For the first year since who knows when Kelloggs and Post did not announce price increases in 1995. Others announced only modest price increases.

TABLE 1. Cost of Selected Brands of Cereal per Serving and per Bowl (22 Leading Brands)

Brand	Box Size ^a	Price	Price per lb.	Serving Size ^a	Price per Serving	Price p.s. w/Milk ^b	Price per Bowl ^c	Price/Bowl w/Milk ^d
K Corn Flakes	18/510	2.69	2.39	1 cup, 1.1/30	15.8	24.2	31.6	48.4
K Frosted Flakes	20/567	4.39	3.51	.75 cup, 1.1/30	23.2	31.6	62.3	79.0
K Rice Krispies	15/425	3.49	3.72	1.25 cup, 1.1/30	24.6	33.0	49.2	66.0
K Complete Bran Flakes	17.3/490	3.59	3.32	.75 cup, 1.1/30	22.0	30.4	58.5	75.3
K Raisin Bran	25.5/722	4.99	3.13	1 cup, 2/55	38.1	46.5	72.2	93.0
K Frosted Mini Wheats	19/539	4.29	3.61	1 cup, 2/55	43.7	52.2	87.4	104.4
K Apple Jacks	15/425	4.29	4.58	1 cup, 1.1/30	30.3	38.7	60.6	77.4
K Fruit Loops	11/312	3.29	4.79	1cup, 1.1/30	31.6	40.0	63.2	80.0
K Pop Tarts	12.5/354	3.89	4.98	.75 cup, 1.1/30	33.0	41.4	66.0	82.8
GM Cheerios	20/567	4.35	3.48	1 cup, 1.1/30	23.0	31.4	46.0	62.8
GM Wheaties	18/510	3.56	3.16	1 cup, 1.1/30	20.9	29.3	41.8	58.6
GM Total	18/510	4.35	3.87	.75 cup, 1.1/30	25.6	34.0	51.2	68.0
GM Kix	13/368	3.49	4.30	1.33 cup, 1.1/30	28.5	36.9	57.0	73.8
GM Trix	17/481	4.69	4.41	1 cup, 1.1/30	29.3	37.7	58.6	75.4
GM Count Chocula	12/340	4.29	5.72	1 cup, 1.1/30	37.9	46.3	75.8	92.6
P Raisin Bran	20/567	3.49	2.79	1 cup, 2.2/59	36.3	44.7	72.6	89.4
P Banana Nut Crunch	20.5/581	4.79	3.74	1 cup, 2.2/59	48.7	57.1	97.4	114.2
Post Fruit and Fiber	15/245	3.79	4.04	1 cup, 2/51	45.5	53.9	91.0	107.8
P/Nab S.S. Shredded Wheat	17.2/487	3.89	3.62	1 cup, 2/49	39.1	47.5	78.2	95.0
Q Puffed Wheat	6/170	2.29	6.11	1.25 cup, .55/15	20.3	28.4	81.1	97.9
Q Captain Crunch	16/453	3.62	3.62	.75 cup, 1.0/27	21.6	30.0	57.5	74.3
Q Life	21.7/615	3.79	2.79	.75 cup, 1.1/32	19.6	28.0	52.1	68.9
Average Value					29.9	38.3	64.2	81.1

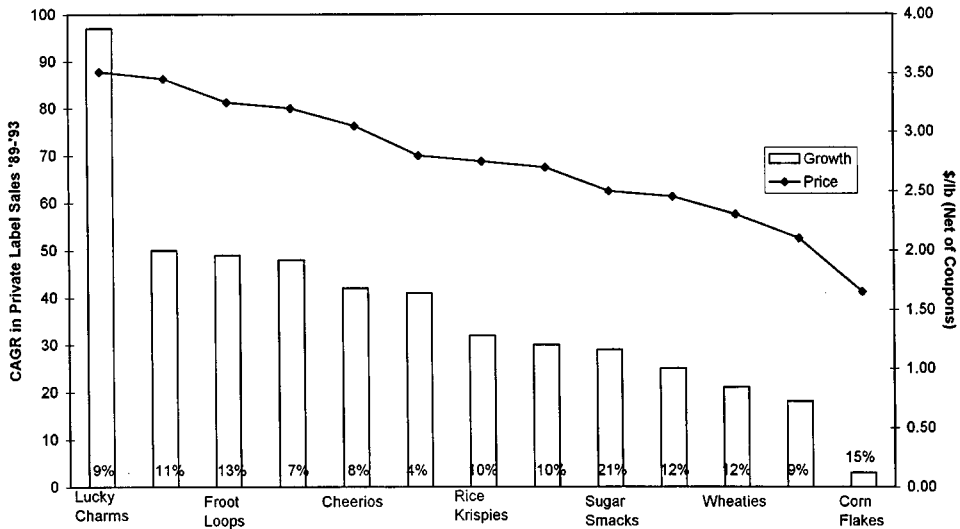
^aWeight in ounces and grams.

^b1/2 cup skim milk @ 2.69/gal. = 8.4 cents.

^cThis is 2 cups or at minimim 2.2 oz. (60 grams) of cereal.

^d1 cup skim milk @2.69/gal. = 16.8 cents.

Source: Food Marketing Policy Center, University of Connecticut.



Note: Percent in rectangle reflects private-label penetration in the given category.

Source: Galbraith, 1994

Figure 1 Relationship between high prices and private-label growth.

This industry's claim that the government statistics are misleading is based upon the fact that they are not adjusted for coupon use by consumers. This point doesn't exonerate the industry. In fact during 1994 and 1995 it is well documented that *reductions in consumer oriented price give back programs contributed to an increase in the actual net price consumers paid* even though in some instances shelf prices went down.

The GMA (GMA, 1995), however, focuses upon an earlier era. They assert that ready-to-eat cereal prices, net of coupons redeemed by consumers, increased 6.6% between 1989 and 1993. They compare this to an accurately calculated increase in the food-at-home consumer price index of 12.8% over this period and an overall consumer price index for all items of 16.5%.

Let's examine this relationship between the increase in cereal prices and the food-at-home component of the consumer price index for the 1989 to 1993 period in more detail. Figure 2 indicates that the food-at-home CPI increased from 125.3 in 1989 to 141.4 in 1993. This 16.1 point increase is a 12.8% increase. The BLS cereal index in Figure 2 increases from 148.0 to 183.5. This 35.5-point increase is a 24% increase in the price of breakfast cereal. The cereal industry would have us believe that once one has adjusted for coupons that consumers redeem, this 24% increase would be reduced to 6.6%.

Yet the Congressmen's study reports that in 1993 Americans redeemed only 2% of the coupons that the industry distributed. These 500 million coupons had an average face value of 88 cents, which means that consumers received \$440 million in benefits from coupon redemptions. There are two sources for this estimation of couponing activity in the industry. One is CS First Boston (Maubousin, 1994), which is cited in the "Consumers in a Box" (Gejdenson & Schumer, 1995) report and a second source is General Mills which is cited in the Congressional Research Service Memorandum on Cereal Pricing dated December 23, 1994 (Bass, 1994). Since industry sales in 1993 were \$8.27 billion, the \$440

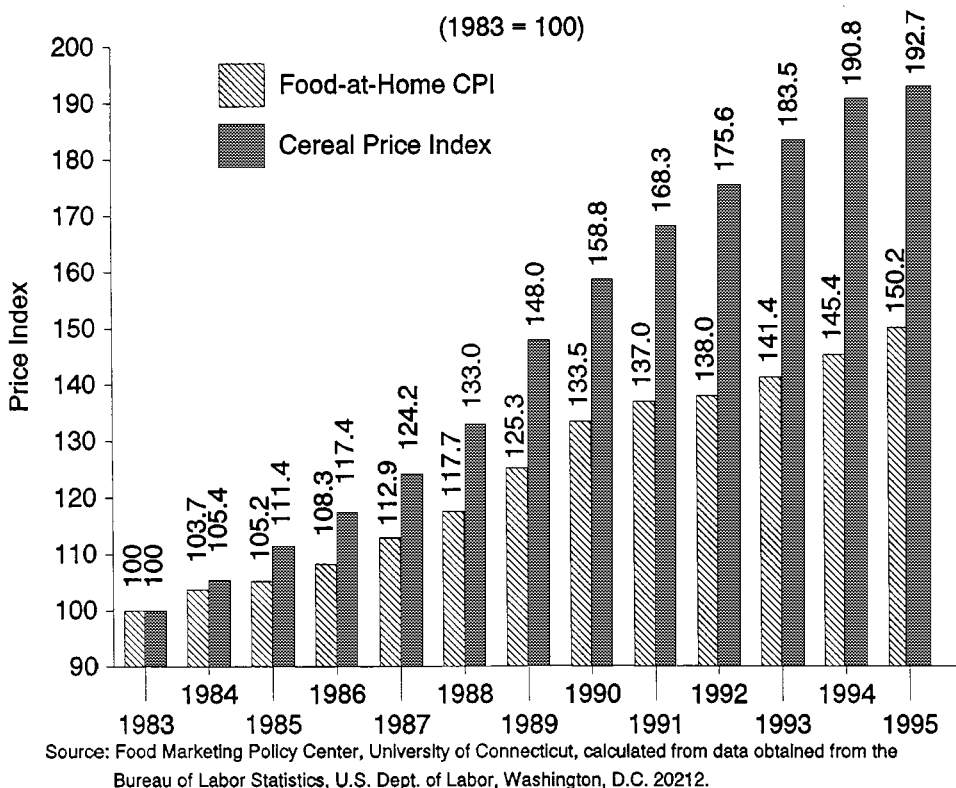


Figure 2 RTE cereal price index vs. food-at-home CPI.

million reduction constitutes a 5% reduction in price. Using this fact, if one reduces the BLS cereal price index value of 183.5 in 1993 by 5%, one obtains a net of coupon index value of 174.3. Comparing this to the 1989 value of 148 one has an increase in the net of coupon price of 26.3 points. This is a 17.8% increase in the net of coupon price. But this estimate is clearly biased down from the true net of coupon price increase because coupons are not netted out of the 1989 price index. (We do not have coupon information for 1989). Adjusting the 1989 price index down for the coupons used during that year would increase the absolute and % change for the 1989–1993 period.

If coupons reduced prices 5% in 1989, then the percentage change in the net of coupon price is 24%, the same as the percentage change in the CPI price. If the coupon related reduction in price in 1989 is less than the 5% reduction in 1993, then the percentage change in net of coupon price between 1989 and 1993 is less than 24%, but above the 17.4% value that assumes no coupon usage in 1989. Since millions of coupons were redeemed in 1989, the percentage change in the net of coupon price between 1989 and 1993 is above 17.4 and most likely very close to 24%. This estimate is triple the GMA estimate.

The erroneous GMA 6.6% net of coupon price increase is from a recent antitrust suit (State of New York v. Philip Morris, Kraft/General Foods, Southern District Court of New York). I served as expert economist for the State of New York and am very familiar with the facts and decision in that case (Cotterill, 1994b). If one goes to the public trial record,

one will find that at the time this estimate was introduced to the court by Philip Morris, the State of New York rebutted it with business records from the companies that were not generated for purposes of litigation, as was this particular A.C. Nielsen estimate.

Specifically, the 6.6% net of coupon price increase is based upon a Nielsen household panel sample of consumers that does not provide an accurate estimate of all consumer's behavior in the market place. At trial, the State of New York showed that this particular Nielsen sample significantly overestimates coupon redemption rates by the general public. For example, Post's own business documents indicate that it redeemed \$75 million of coupons in 1992 but the overstated Nielsen sample redemption rate erroneously predicts that Post redeemed \$175 million of coupons in 1992 (State of New York vs. Philip Morris, transcript). Judge Wood offered Kraft extra time, if needed, to rebut the State of New York (Transcript @ 2227) and Kraft did not respond. Use of this flawed document with its dramatic over-estimation of consumer benefits due to coupon redemption is self serving for the industry. Consumers are not wrong when they complain about cereal prices that they judge in their neighborhood supermarkets to be high.

Since cereal is no cheaper than steak and eggs for breakfast and BLS prices have risen dramatically over the past 12 years but for the recent slowdown, it is entirely appropriate to ask why have the prices consumers pay gone up so much? Again, according to the GMA fact sheet (GMA, 1995) and the cereal manufacturers, this is not due to the domination of the industry by three firms, high barriers to entry, and noncompetitive price conduct as documented by several reports during the past 15 years (see Galbraith, 1994; Gejdenson & Schumer, 1995; Kahn, 1996; Maubousin, 1994; Scherer, 1990; Shepherd, 1990; Sutton, 1991). The cereal manufacturers maintain that their industry is intensely competitive and has become more so over time (GMA, 1995, Facts 3 and 4).

Herein lies a fundamental confusion around what is meant by the term competitive. Businessmen claim they compete when they advertise, issue coupons in a fashion that allows price discrimination, and devote massive resources to product proliferation that creates barriers to entry and elevates the prices of all cereals. When economists and the antitrust authorities measure competition they focus first and foremost upon price (Horizontal Merger Guidelines, pp. 20–25). Competitive industries price at or near marginal cost. Firms in such an industry do not have power individually or collectively to elevate price above cost levels. As the Gejdenson and Schumer (1995) report documents prices in this industry are significantly above the cost of production. Table 2 provides a breakdown of retail and manufacturer prices. A significant portion, 55% of the manufacturer price goes to marketing and promotion expenses and profits. These are not cost of production expenses.

3. WALL STREET ANALYSTS AND JUDGE KIMBA WOOD'S VIEWS ON COMPETITION IN THE CEREAL INDUSTRY

Since academics are out of favor with this industry, permit me to quote, two recent Wall Street studies. They illustrate why this industry can generate the highest Bureau of Census computed price cost margins of any food industry and the fourth highest in the US economy (Gejdenson & Schumer, 1995, p.6). The message from Wall Street is (a) the oligopolistic consensus in this industry is strong, barriers to entry are higher than ever and (b) investors need not fear a "Marlboro Friday" price war as occurred in cigarettes in early 1994. Noncompetitive pricing, cash flows, and high long-term profits make the long term outlook

TABLE 2. Breakdown of Retail Price of Cold Cereal

	% of Manufacturing Price		% of Manufacturing Price		% of Manufacturing Price		% of Retail Price	
	\$		\$		\$		\$	
1. Assume the retail price is: (You will get this from your store price check)								
2. Estimated retailer gross margin on cereal is 20%, so the cereal manufacturer's (wholesale) price to the retailer is $0.8 \times \$3.00 = \$2.40/\text{lb}$							\$3.00/lb	100.0
Retailers share of the \$3.00 price is:								
3. Breakdown of manufacturer's price:								
3a. Manufacturer's Costs of goods sold								
3a1. Grain				100.0				
3a2. Other ingredients				6.5		\$.156		20.0
3a3. Packaging				8.5		\$.204		80.0
3a4. Labor				11.5		\$.276		36.3
3a5. Manufacturing costs*				6.5		\$.156		5.2
				12.5		\$.300		6.7
Subtotal				45.5			\$1.09	9.2
3b. Manufacturer's Gross Margin								5.2
3b1. Marketing expenses								10.0
3b1a. Advertising				37.5		\$.90	\$1.31	43.7
3b1b. Consumer promo (manufacturer's coupons)		13.0	\$.31					30.0
		14.5	\$.35					10.3
3b1c. Trade promo (retail in-store)								11.7
3b2. Operating profit (earnings before interest and taxes)		10.0	\$.24					8.0
				17.0		\$.41		13.7

* Includes capital costs (depreciation).
Source: Food Marketing Policy Center, University of Connecticut, based on estimates in CS First Boston Reports "Kellogg Company," New York, October 25, 1994. Similar estimates are available from other sources including Ralston and Co. "The Ready to Eat Cereal Industry," Cleveland, February, 1989.

for this industry extremely attractive. Steve Galbraith (1994), a Bernstein Research analyst, writes,

In looking at the overall food industry today it is clear that there is a close correlation between Herfindahl indices (of seller concentration) and industry profitability levels. While the R-T-E industry does not enjoy the levels of concentration of the domestic soup or the baby food industry, we believe the category is sufficiently concentrated to ensure that the 80-year history of above-average returns on capital is more likely than not to persist.

In light of the extremely attractive long-term outlook for the domestic cereal industry's profitability, many investors continue to express concerns that additional entrants will be enticed to join the category, putting further pressure on industry profitability. Historically, however, entry into the category has proved difficult at best, and only low-end producers have been able to gain share in recent years (and, in fact, almost all the low-end share gain has come at the expense of Ralcorp's branded business—the change in other industry participants' share has been minimal). Some very powerful food companies have tried—and failed—to join the industry in the past. We believe that the economics and risk of entry at the branded end of the business have, if anything, become *more* daunting for the new entrant; we view it as extremely doubtful that there will be any significant new participants in the branded end of the category.

In our view, the industry has reached such a profound level of market segmentation that a new branded entrant would probably have to produce as many as *six* successful brands in order to have sufficient mass to remain a viable long-term player in the industry. Industrial studies have indicated that real efficiencies of scale for a plant kick in at about the 80-million pound level (about a 3% tonnage share base). At this level of capacity, a new plant could achieve sufficient economies of scale to support profitably the cost of capital required to enter the industry at the branded end. Historically, especially in the 50s and 60s, such a level of market share could actually be achieved through the introduction of one or two winning formulae (Frosted Flakes introduced in 1953 achieved almost a 4% share in two years, Cap'n Crunch entered the industry in 1965 and quickly achieved close to a 3% share). In the past, a wholly new industry participant and existing players would actually have been on reasonably equal footing. Today, however, existing industry players can profitably support a new product with market share as low as 30–50 basis points—this is because established producers typically only have to make marginal capital investments to support new product roll-outs. We believe the likelihood of a *new* branded entrant achieving mass (of 3% market share) in any short period of time is extremely small. In fact, no established participant has done so in any five-year period in recent history (although General Mills came close with some of its Cheerio flankers in the 1980s—Honey Nut Cheerios, for example, now has about a 2.5% share). (pp. 31–35)

Academic studies also document that high seller concentration, especially in food industries, does result in persistently high profit rates (Conner et al., 1985; Cotterill & Iton, 1993; Kwoka & Ravenscraft, 1986; Mueller, 1990). They also establish that barriers to entry are so high in cereal that the discipline of potential competition does not exist (Schmalensee, 1978; Sutton, 1991). Thus consumers must rely upon rivalry among established firms to produce competitive prices. This, in fact, does not occur.

Michael Maubousin, a CS First Boston Analyst, explains that price interdependence leads firms to price in a noncompetitive fashion (Maubousin, 1994). Others including Galbraith and many academics concur. Although this industry does not explicitly collude by assembling as ADM and others wet corn millers did in meetings to fix price, tacit collusion does occur in the market place. Mr. Maubousin maintains that the industry follows a “tit for tat” strategy that results in a joint profit maximizing (high price and high price cost margin) equilibrium. He writes,

It is our view that Kellogg's competitive strategy in the U.S. ready-to-eat cereal business mirrors a tit-for-tat strategy closely. Over the years, Kellogg has been a good leader, pricing its products and spending its marketing dollars responsibly. In so doing, it has provided the industry near-maximum profits (starts by cooperating). In the early 1990s, due to a number of circumstances, General Mills

appeared to take more of a “defection” stance which, for a few years, paid off. Kellogg responded to General Mills’ “defection” by “defecting” itself, thus lowering profits for both players (defects swiftly and decisively).

In April 1994, General Mills clearly shifted its strategy to one that can be fairly termed as “cooperation.” By lowering prices and reducing promotional spending a greater amount, General Mills demonstrated concern not only about its own profit outlook, but about the profits of the industry. Consistent with a tit-for-tat strategy, Kellogg also reduced promotional spending and is not likely to increase prices in the near term as it has over the past two years (forgives). This most recent strategy shift has led to increased profitability for Kellogg, prompting the company’s CEO to declare that the economics of Kellogg’s U.S. cereal business are “terrific.”

Our analysis has dwelled on only two industry participants—albeit they represent the majority of the business—and has excluded three other companies. Our most basic rationale for this is that we are unconvinced that any of these three companies (Post, Quaker Oats, Ralcorp) would be able to permanently affect the industry structure. This is so because either Kellogg or General Mills is in a position to exert substantial profit pressure on any of these companies, and would likely do so if the smaller company pursued strategies that were detrimental to the category.” (Maubousin, 1994, p. 4)

If this is not a description of tacit collusion then what is it? Judge Wood discusses this very same observed pattern of conduct in the cereal industry. She writes,

Manufacturers of RTE cereal, with minor but growing exceptions, compete largely through new product introductions, advertising, couponing, and trade allowances. The State is critical of these forms of competition, claiming, among other things, that they are wasteful and inefficient means of delivering products to consumers, that they erect barriers to new entrants, and that they are used to the exclusion of price competition in the form of “everyday low prices.” Professor Kahn was also critical of the ways in which participants in this industry compete. Trail @ 2378–2379 (Kahn). The State contends that competition has been limited to these forms as a result of “collusion” among the large manufacturers. The State produced no evidence of explicit collusion, and appears to rely heavily on evidence that the two manufacturers with the largest market shares are “leaders” in taking price-related actions, that other manufacturers generally follow the “leaders,” and that all of the manufacturers act with a recognition of their interdependence, which causes them to avoid the price-depressing practice of selling at “everyday low prices,” and causes them instead to rely almost exclusively on the other forms of competition noted above. The record does not support plaintiff’s contention that the forms competition has taken in the RTE cereal industry result from collusion rather than from independently determined conduct. (State of New York vs. Kraft General Foods et al. 70 F. Supp. 911)

Two very important insights emerge from this passage. First note that the Judge does not deny the wasteful nonprice conduct of this industry. This case does not provide a “seal of approval” for the conduct of this industry, as claimed by the GMA Fact Sheet (1995). Second, she asks whether the observed conduct is due to “collusion” and concludes that it is not. She maintains that it is due to independently determined conduct. But what this describes as independently determined conduct is the very core, as Maubousin (1994) explains, of tacit collusion that allows the firms to elevate prices. These high prices establish a noncompetitive margin between price and direct production cost which in turn is used for anticompetitive levels of marketing and profits. In other words establishing that conduct in the market place is “independent” does not prove that there is no tacit collusion. Edward Chamberlin, writing in the 1930s first explained that firms acting independently to maximize their own profits, can, by following relatively simple rules of conduct such as price leadership, move the industry price level to the monopoly level (Scherer & Ross, 1990, p. 205).

The judge also found that unilateral effects, profit seeking actions by a single company that do not need a cooperative response by another company, were not materially enhanced in this merger case. Post’s acquisition of the Nabisco Shredded Wheat line did not, in her

opinion allow the company to elevate the price of Grape Nuts and Shredded Wheat, two close substitutes, ostensibly because of competition with other brands of breakfast cereal. Again, (even if it were correct) this conclusion does not extend to *all brands* in the industry. It is entirely possible and quite plausible that the concentration of most brands into the portfolios of the big three cereal companies gives each of them unilateral pricing power.

The industry would also have us believe that it has become more competitive since one measure of seller concentration, the Hirschman Herfindahl Index (HHI) which is the sum of the squared market shares of all firms in the industry, has declined by 25% since 1970 (from 2,755 to 2,215 in 1992). This argument implicitly recognizes the importance of high seller concentration for effective tacit collusion. The HHI has declined because Kellogg has lost share primarily to General Mills over this period; however, this shift has not lowered the HHI to a level where research (as documented above) and anti-trust agency staff automatically view this industry as effectively competitive. At 2,215 the HHI is not below the 1,000 level where mergers are routinely approved. It remains about the 1,800 level where the merger guidelines state “the agency regards markets in this region to be highly concentrated. Where the post merger HHI exceeds 1800, it will be presumed that mergers producing an increase in the HHI of more than 100 points are likely to create or enhance market power or facilitate its exercise (U.S. Department of Justice, 1992, p. 16). If the proposed merger increases the HHI by less than 100 points, as the Judge decided in this case, there are similar concerns but one must look at the conduct of the industry to determine competitive impact.

The industry through the GMA argues that the views of “the nutty professor from Connecticut” are without merit because I served as expert economist for the State of New York and the judge ruled against the state. According to Mr. Nedelman, the analysis and “numbers” that I presented to the court have also been presented to and rejected by staff at the F.T.C. and Department of Justice as well.

Although the judge’s decision was issued over a year ago, and the transcript of the trial is public, a full public review and discussion of that case is not possible because all of the exhibits in the trial, including statistical analyses, reports, tables, and charts by plaintiff’s and defendant’s economists and relevant documents from the business records of the firms have yet to be made public. No one, including the staff at the Justice Department on the FTC has seen the “numbers” and economic analyses that were presented at trial. In fact the analysis done for the State of New York squares precisely with recent statements by Carl Shapiro, Deputy Assistant Attorney General, Antitrust Division of the Justice Department, and by Jonathan B. Baker, Director, Bureau of Economics, F.T.C. on how to analyze the impacts of a merger in a differentiated industry such as breakfast cereal (Shapiro, 1995). Each mentions the New York case.

I look forward to the time when I can present and discuss the analysis, but Philip Morris and others in the industry do not have a similar feeling. The release of the trial exhibits in this case is tardy and in dispute. The trial was public and the public has right to know in complete detail the facts and arguments that were presented. This is especially true in this case because the judge used verbatim, the defendants Proposed Finding of Fact for all of her written opinion except the findings of law section. Not one disputed fact in the Kraft General Foods brief, and there were many, was decided in favor of the state.

Kraft General Foods seeks to restrict the public’s access to the facts in this case on the grounds that it would damage competition because their competitors would receive information on their internal operations. The trial in this case was in September 1994. There are very few facts from the pre-September 1994 era that have *competitive* relevance today.

Moreover the big three firms in this industry already know what each other is doing with a great deal of precision (Cotterill, 1997). The industry wants this record put under seal so that the public cannot more fully understand their operations and the decision in this case. For example my first affidavit in this case in January 1993 was made public before Kraft General Foods attorneys came up to speed. It contains two profit rates. Nabisco Shredded Wheat operating profit jumped to 29 cents of every dollar sold in 1990 when RJR/Nabisco decided to harvest it's ready to eat cereal business by raising prices and slashing consumer promotion and advertising. This was a component of their drive to raise cash to pay for the record 28 billion dollar leveraged buyout that capped the merger mania of the 1980s (*Barbarians at the Gate*). Post also increased price and reduced marketing so that 33 cents of every dollar they received for Grape Nuts in 1990 was operating profit. These rates are well above the industry average profit sales rate of 17%, which is very high by food industry standards. The record on this case contains similar profit rates for these brands for 1991, 1992, 1993, and year-to-date 1994. Since Post acquired Nabisco Shredded Wheat in January 1993, two of these annual rates monitor profitability after the merger. Kraft General Foods does not want the public to know those profit rates. They do not want the public to know how many millions of dollars consumers paid into their corporate coffers for these two cereal brands that accounted for less than 5% of the total cereal market. I estimate their 1990 profits to be \$91.5 million (profit rates times 1990 sales estimates from the University of Connecticut, IRI data base). Multiplying \$91.5 million times five gives \$457.5 million operating profit for the 1990–1994 sales of Grape Nuts and Shredded Wheat. This demonstrates the level of market power corporations can garner in “quiet corners” of this market.

Attorneys working pro bono on behalf of the Consumers Union are intervening in the Court proceeding to argue for full public disclosure. The industry cites this case as evidence that it is competitive. For their argument to be credible they cannot now move to seal the record in this public trial. Let the public see all the facts.

4. THE PROSPECT FOR RELIEF VIA ANTITRUST ENFORCEMENT

This leads squarely to one of the other topic areas that the Congressmen requested information on, the prospect for consumer relief via antitrust enforcement. As the New York case indicates, it is very difficult to challenge successfully this industry in court under the Sherman and Clayton antitrust acts. Even when there is widespread consensus among academic economists, government lawyers, and Wall Street analysts on how this industry operates in a noncompetitive fashion and even when consumers clearly are angry about the performance of the industry, courts support this industry and find that it does not violate the antitrust laws.

The New York case is also controversial from the standpoint of law because it suggests that tacit collusion on price behind high barriers to entry in a concentrated market is not sufficient to establish that the industry is exercising market power. If the Judge had so ruled then the burden of proof shifts to the defendant who must demonstrate that the proposed merger would enhance competition or result in efficiency gains that lower consumer prices for brands of breakfast cereals. The New York ruling implies that as long as the firms are competing in some way, for example by back-of-the-box offers of free toys, the industry is competitive. This is the businessman's, not the antitrust economist's, definition of competition. Inserting the businessmen's definition into the antitrust laws means that no merger, not even a merger between Coke and Pepsi or General Motors and Ford, absent explicit doc-

umented collusion (price fixing), would be anticompetitive. And if one can document price fixing then the industry is violating the Section I restraint of trade provisions of the Sherman Act which is a criminal offense that results in fines and/or jail sentences for the executives involved. This is not the way Congress intended merger enforcement under the Clayton Act to extend the reach of the antitrust laws.

Professor Alfred Kahn, the court's economist in this case presented a similar viewpoint after listening to the 3-week trial. He recognized the performance of the industry from the standpoint of price and consumer's desire for low prices was poor but recognized that they did compete in other ways (transcript pp. 2367, 2372). He concluded, however, that the Post-Nabisco merger made no difference and, therefore, did not tend to significantly lessen competition (transcript pp. 2378–2379). In my opinion, this reasoning fails to recognize the shift in burden of proof once anticompetitive price conduct has been recognized. Professor Kahn offers a new merger defense, a shared monopoly defense. If an industry is already anticompetitive, then the merger can't make it worse, so it is lawful. This is truly new territory for Section 7 Clayton Act cases.

The New York case is also controversial because it uses a new approach to antitrust enforcement that can directly attack market power that is based upon advertising, market segmentation, and other nonprice strategies. This new approach is brand level analysis of pricing power. For this reason the New York and other similar cases have quickly found their way into recent law articles on merger analysis. James Keyte (1995), for example, argues that the new economic and econometric analyses of market definition and market power advanced in this case (Cotterill & Haller 1997) and by Shapiro (1995) and Baker (1996) are too narrow. Speaking for the defense bar he would qualify the analysis with a less technical, more wide-ranging discussion reminiscent of Brown Shoe (1954). This is more than a trivial technical issue.

In the 1970s and early 1980s, the analysis in the cereal case focused upon tacit collusion and attempted to use company price announcements and the timing of price changes to prove its existence. That case attempted to extend the reach of Section 2 of the Sherman Antitrust Act from single firm monopoly to the "shared monopoly" of a tight oligopoly that practices tacit collusion. Note that the New York case is a Section 7 Clayton Act merger case wherein the issue is the impact of the merger upon market power; i.e., the ability to raise the prices consumers pay. The intent is to stop concentration before firms can exercise market power or if they possess such power, to prevent its consolidation or persistence through the acquisition of competitors.

In the mid 1980s, Deneckere and Davidson (1985), and others including Shapiro established that mergers that increase market shares even a small amount can elevate price in an industry without tacit or explicit collusion. Jonathan Baker, working with Bresnahan (1985), demonstrated that one can analyze demand relationships at the *brand* level in industries such as cereal to measure brand level price elasticities of demand and evaluate the impact of a merger upon prices. Essentially if the merger is between two brands that compete with each other (high cross price elasticities) then the merger internalizes and eliminates the price depressing effect of this competition. Each brand's demand is more inelastic after the merger. Not only are the prices of the merged brands higher, a ripple effect leads other nearby brands to elevate prices (Werden & Rozanski, 1994).

Working with a massive Information Resources Inc. database collected from supermarket scanners throughout the nation, faculty, and students at the University of Connecticut Food Marketing Policy Center have demonstrated that one can estimate brand level elasticities for a wide array of brands in industries such as beer, breakfast cereal, and soft drinks

(Cotterill, 1994a; Cotterill & Langan, 1994). Research scientists from Harvard and Yale, are participating in this broad scale effort that includes analysis of private label, brand pricing relationships as well.

The significance of the recent theoretical advances and new empirical research based upon scanner data is that antitrust enforcement agencies are now extending the concept of the unilateral market power from dominant firm industries in homogeneous product industries to firms in differentiated product industries with relatively small shares of the market. The Merger Guidelines explicitly discuss dominance and suggest that a merger that produces a market share greater than 35% is likely to be challenged. However, if one reads the guidelines carefully, this high share creates no safe harbor for mergers in differentiated product industries (Shapiro, 1995 p. 5; Willig, 1991, pp. 299–305). In an industry such as cereal it is entirely possible, as the State of New York argued, that a merger that places Grape Nuts and Shredded Wheat, two close substitutes in the simple health nutrition segment of the market, under common management can result in the exercise of market power in this corner of the market. Consumers who eat Shredded Wheat don't regard a kid cereal such as GM Lucky Charms as a viable substitute product. Market power may surface after this type of merger even though the market shares of the two brands in the entire cereal industry are very low, approximately 2.5 and 3.0% in the Grape Nuts Shredded Wheat case (Cotterill & Haller, 1997).

To summarize, the antitrust enforcement agencies have new tools and methods to evaluate market power in differentiated industries. Extending merger analysis to the brand level to attack market power that rests upon advertising and segmentation strategies is revolutionary. It is an entirely new way to attack excessive advertising which creates inelastic demand (market power). Advertising that conveys information (reduces demand elasticities) is procompetitive. To date, however, in several cases (*New York v. Kraft General Foods*, *US v. Gillette*, *Pennsylvania v. Russell Stover Candies*), the unilateral effects analysis has not carried the day for the government. In the recent *Continental Bakeries* case, however, it did (Shapiro, 1995). Perhaps antitrust enforcement will be more effective for consumers. However, many large consumer products firms including cereal manufacturers have a vested interest in preserving market power that rests upon advertising and segmentation.

5. RELIEF FROM EXPANDED PRIVATE LABEL?

Shifting now to the final major issue, can the market correct itself via expansion of private label breakfast cereals? The top four firms in this industry regard private label as the enemy. Although consumers find private label attractive these firms continue to refuse to produce private label because its expansion reduces the profitability of their brands. Instead the leading companies have recently laid off production workers and closed plants. Private label is produced primarily by Ralcorp and two smaller firms, Malto Meal and Gilster Mary Lee. Figure 1 illustrates that high prices attract private label activity.

Steve Galbraith (1994) explains the conventional wisdom concerning the ability of private label to be successful only where the gouge gap is high and the target brand has a large market share. He writes,

Private-label products will continue to gain volume share given the "gouge gaps" between private-label and branded alternatives; we expect private-label and value brands to make up around 12% of the market by 1998 (up from 9% today). Furthermore, a broader array of stockkeeping units (SKUs) are

at risk than ever before as higher-margin extruded and puffed products like Kix, Froot Loops, and the various Cheerios line extensions have grown to sufficient size (2% of the market) to be attractive targets for private-label producers. . . (p. 17)

Private label competition has induced lower brand prices for roughly 35–40% of the cereal market, however nearly half of the market is effectively protected from private label by extensive segmentation and differentiation. Rather than competing on price, this has been the preferred strategy by the top four firms in their battle against private label.

Private label may expand beyond its current 10% volume share level, however gains will probably be slower than in the past. The rate of expansion also depends upon retailers. They actually make more profit on private label cereal than branded cereal and thus have an incentive to expand private label. There also are supply channel management issues that suggest a long run shift beyond copycat private labels to aggressively managed and promoted retailer lines of private label cereals.

The British experience is instructive. J. Sainsbury, the leading retailer, has extensive own label products that account for two-thirds of its sales. Behind Kelloggs with approximately 50% share, Sainsbury is the number two cereal supplier in its stores, with approximately 30% of sales. This type of market structure is preferable to one in which, for example, Kelloggs has 50%, and the number two firm is General Mills, with 30%. When several supermarket chains jointly occupy the number two position, each has only a portion of the market-wide 30% share for private label. These firms do not jointly price and promote that 30% share as General Mills would. Therefore, effective market concentration is lower. Moreover, even if the retail market is highly concentrated and retailers exercise market power, increasing private label share would benefit consumers to the extent that it eliminates the double marginalization that occurs when a powerful cereal industry sells to a powerful retailing industry. Integration of two successive monopolists lowers prices and increases output. They move from the “double” to the “single” monopoly price level. Prices are, however, still not at the lower competitive level.

Expanded private label cereal operation may also benefit the innovative chains and consumers in two other not commonly appreciated ways. First, the price promotion spiral with its very lumpy promotion activities makes this industry one of the most delinquent examples of the benefits of efficient consumer response (ECR) management principles. Distribution is sporadic and consumers are encouraged to pantry load when their favorite brands are on special (Galbraith, 1994). In fact, one consumer reporter has made a reputation with advice on how to pantry load to “beat” the industry’s huge prices (Cooperrider, 1995). This is another economic pathology generated by the lack of price competition in this industry. It sends the wrong signal to consumers because it encourages them to behave in a manner that makes cereal distribution more expensive. Private label cereals under retailer control can avoid these practices thereby reducing supply chain and consumer costs.

The second long run advantage for retailers from moving beyond copy cat private label towards the Sainsbury model of consumer recognized lines of quality private label products is the resulting enterprise differentiation that it confers. If a supermarket chain had the consumer trust and reputation for quality merchandise as, for example L.L. Bean or Sainsbury, there would be real economies of scope in advertising and promotion across categories. Those economies would reduce the profitable level of such activities and thereby reduce consumer prices. As I have argued elsewhere (Cotterill, 1997), the British retailer-led model has much to offer, but its adoption has been slow in the US. The challenge is for US supermarket retailers to view themselves as the captains of the food marketing channel and

to develop a new management culture that moves them beyond shopkeeping for dominant food manufacturers brands. This does not require confrontation or direct marketplace attacks upon leading manufacturers. Rather it requires willingness to develop tighter supply channel management relationships with manufacturers that will work with them. Retailer must also develop more category level marketing expertise. Retailers will no longer be able to rely upon manufacturers to tell them what the consumer and trade promotion strategy will be and to provide them with dollars to implement these strategies. One thing is certain: if US supermarket retailers are not up for the challenge, Wal-Mart is. Also, the British are coming! J. Sainsbury owns Shaws Supermarkets in New England and recently acquired a major stake in Giant, the leading retailer in Washington and Baltimore.

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