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Price Competition Between National Brand and Private Label Food Products: 1966-1992*

by

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Abstract

The presence and behavior of private labels add a significant dimension to price competition among the food system's subsectors. Recent surveys in two college towns in Texas show a larger price difference between national brands and private labels than previous studies. The increase in price differences are attributed to "horizontal" and "vertical" influences on prices and also to advertising and the proliferation of brands. This competitive process gives the consumer the advantage of new products and products with brand appeal (national brands) as well as low

cost copies (private labels) of these successful products.

Introduction

Private label refers to "products that are sold to retail outlets where the store name appears on the packaging instead of the manufacturer name or brand name," according to the Private Label Manufacturers Association (Brickman, 1988). A recent report in the *Wall Street Journal* indicates that private label goods in 1992 accounted for 18.3 percent of all units sold in grocery stores and nearly 14 percent of total supermarket volume; in 1989, the corresponding

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figures were 16.4 percent of units sold and 12.5 percent of dollar volume ("More Shoppers," 1992). The growth in private labels has been attributed to a weak economy as well as an increasing perception that the quality of private labels has improved ("Quality Creates," 1987). As single brands, private labels are ranked as the number one, two, or three brands in over 40 percent of 476 total categories (Walker, 1991). Indeed, retail executives predict within five years private label products will account for 20 percent of total supermarket volume ("More Shoppers," 1992).

Private label or retailer brands are not at all uncommon and are seen in many lines of goods from hardware to food. In most cases, the retailer's prime motivations are to offer products at discounted prices and to derive higher retail margins than those on comparable national brands (Albion, 1983). According to a retailing analyst with Shearson Lehman Brothers (Albion also reached a similar conclusion), supermarkets have a gross margin of 20 to 25 percent on private label food products, a figure which is twice as high as the gross margin for national brands ("More Shoppers," 1992). This implies that supermarkets can charge consumers less for their own brands than for national brands, and still derive higher profits.

Private labels enjoy cost advantages which result from a more efficient coordinating of retail, wholesale and manufacturer handling of these products. These cost advantages may also reflect a reduction or elimination of some production and marketing costs. Private label products tend to be less up to date in their developing features and less advertised overall; this may be consistent with the cost advantages in production and marketing.

The extent of private label use in a market typically corresponds with the development of large firm retailers. The size of the firm is more germane to fostering private labels than the size of the store. Indeed, some of the largest U.S. retail firms, including K-Mart, Penneys and Sears, have placed a strong emphasis on private labels. As the food industry experienced a transition toward large retail firms over the past several decades, private labels increased in importance. In addi-

tion, the strong leadership of advertised manufacturer brands (at premium prices) invites the development of private label products. Private label products fit a niche that is almost always on the low end of the price spectrum. Finally, private labels are introduced more easily into mature product categories and, generally, offered in densely distributed and highly salient product categories (Albion, 1983).

Objectives

This paper examines differences in prices between national brand and private label food products and offers explanations for these differences in light of structural changes that have affected the food industry in the past quarter century.

Private Labels and Their Role In Food Industry Performance

Most efforts to describe industrial "performance" give a lot of weight to efficiency. There is a tendency to perceive an industry as performing well if it gets standard quality goods to consumers at a relatively low provider cost. There are several reasons for this opinion. First, excessive prices and profits are associated with monopoly--perhaps the most famous reason for poor performance. Second, the classic economic models deal with homogeneous goods and leave little or no latitude for product development or differentiation. Additionally, price and cost advantages are objective and universally accepted while variations in product quality are more subjective. Even though consumers may respond to product differentiation in their purchasing behavior, many are unable to articulate a rationale for that behavior. All of these factors predispose consumers, as well as economic analysts, to appreciate the private label because it delivers standard quality goods at lower prices.

The role of private labels in food industry performance is more subtle and complex. New product competition and product differentiation are important in food industry performance. These processes have enabled our lifestyle changes and made the food industry responsive to our changing needs. These major marketing thrusts

have been accomplished and paid for by a large percentage of the large conglomerate food manufacturers who identify and establish successful new food products. Private label products are copies of these initiatives and appear after initial product development has produced a successful volume for scale economies. Therefore, the wider margins of advertised products (to cover the development and market entry costs) enable, to some extent, the emergence and success of private labels. Private labels only emerge where the national brand products are successful and generate high volume.

While the private label product is, in a sense, a "parasite" in the market, it has very important effects on overall food industry performance. Any serious and balanced assessment of industry performance would look for two characteristics: a vigorous capacity for innovation and mechanisms for presenting the innovative products at "competitive" prices when volume meets scale economy requirements. This latter characteristic is often seen as inconsistent with the first. To elaborate, the type of firms which offer innovative food products tends to be the large Galbraithian conglomerate. Such large firms have seemingly little interest in the narrow margins expected with "competitive" products. At the same time, they cannot prevent smaller manufacturers from producing private label copy products, and in turn the large food chains promote these products at substantial price discounts.

The interaction of these several subsets of firms at both the manufacturing and distribution levels provides both the characteristics typically sought: variety and efficiency. The overall result is achieved through specialization within these industry subsectors. Private label is an output of the subsector including large retailers and small manufacturers. It is the mechanism which makes new and innovative products available to consumers at "competitive" prices when volume reaches scale economy requirements.

Expectations for Price Differences

In this scenario, the higher prices received for advertised brands are considered an innovation premium. Is there an intrinsic way to determine

how much of an innovation or differentiation premium there should be? Conceptually, the factors which prioritize this premium above the cost of presenting private labels would include: (a) a risk premium (many "new products" will not be successful), (b) manufacturing costs while the volume of products is too small for scale economy requirements, (c) advertising and other marketing costs, (d) introduction costs (slotting allowance), and (e) special costs for distributing a small introductory volume. It is clear from this list that some products would have a higher premium than others. A product early in its product life cycle will have higher risks and higher premiums than a product in the more mature stage of its life cycle. These concepts give some basis for expecting differences between products and changes through time. At the same time, it is difficult to translate the list into cost levels for the industry.

Price differences may be assessed by measuring what levels of price differences are significant in this industry. When examining the aggregate (across the thousand products in the supermarket) price level between competitors, we find only slight price differences--two or three percent and certainly less than five percent. In a typical newspaper ad containing 150 advertised prices, a dozen or fewer items would include 30 to 40 percent discounts from shelf prices, while many would be in the five to 10 percent range. These examples are not extremes, but are meant to give a sense of the level of price discounts and premiums used in competitive rivalry within this industry and in interaction with consumers. In the context of usual price differences and price comparisons, 20 to 40 percent price variations are large indeed. These large price differences are not temporary or unpredictable like price specials. Being large and steady, month after month, they are clearly the most forceful example of price competition.

Price Differences Observed

Several studies over the past 25 years--NCFM (1966), Jafri and Lifferth (1977), ERS and A.C. Nielsen (cited in Handy, 1980)--have attempted to measure the difference in prices between private label and national brand. The usual practice is to consider the private label to be

the standard of measure or the basis of comparison. This concept seems to stem from the observation that the private label product is basic in its characteristics while the national brand product has added features and services with a premium price. The usual way to express the relative price difference is to measure the percentage by which the national brand price exceeds the private label price.

In a given product family, there frequently will be several manufacturers' brands. While competing advertised brands seem to be equivalent in quality, these goods may be priced differently. A product priced higher in one week may be priced lower the following week. These alternative brands make it difficult to choose the manufacturer brand comparable to the private label. For example, in the case of instant coffee, selection between Folgers, Maxwell House or Nescafe for comparison with the store brand is arbitrary. Even though one may undergo a different pattern of specials in the test period and its aggregate price level may differ slightly, there is no initial basis for choosing between such competing national brands. The brand that is arbitrarily chosen at first would be used throughout the test.

"Normal" retail food price patterns vary from week to week, reflecting price specials and other factors. Prices must be observed for several weeks so that collected price averages are not biased by temporary price variations. Seven weeks of data were collected for 10 product pairs in Town A and for 10 weeks in Town B--both college towns in Texas--in order to enhance comparisons with earlier studies. The product families chosen included frozen orange juice concentrate, 12 oz.; fresh milk, one-half gallon; canned tuna fish, 6.5 oz.; canned cut green beans, 16 oz.; tomato soup, 16 oz.; canned whole kernel corn, 16 oz.; white bread, 24 oz.; instant coffee, 4 oz.; canned sliced cling peaches, 16 oz.; and catsup, 28 oz. Students collected data under faculty supervision. Town A, with a population of approximately 17,000, had one large food chain and four independent stores. Town B, with a population of approximately 100,000, had four national chains and several independent stores. Data were taken from three independents and the one chain in the smaller town and from three

chains and one independent in the larger town. These samples are too small to make comparisons between types of firms, so only the aggregated data were used for comparisons. Weekly prices were averaged for both private label and manufacturer's brands. Table 1 shows the differences as a percentage of private label.

The data collected in this project are shown in the two right hand columns in Table 1. In addition, similar data are shown from earlier studies. These studies attempted to measure the same price difference. In some cases, the product changed over the years. For example, in 1966, the 6 oz. frozen orange juice was more popular than it is now. In addition, there are also differences in the sizes of certain products in different periods. A 28 oz. catsup was monitored in the present period while a smaller size was used in previous studies. Of course, the private label and national brand were sized identically and were deemed equivalent for comparison purposes.

The simple average price difference for each of the towns was approximately 30 percent. Since there is great variation from product to product, it is precarious to project what the store-wide average might be. The ERS survey studied 16 stores in Washington, D.C., and included 41 items with an average difference of 34.9 percent. The ERS study also reported A. C. Nielsen data comparing 30 products with an average difference of 23 percent. These substantial price differences suggest that retailers may use price incentives to attract attention to their own brands. Conversely, the premium for innovation and status is substantial. Compared to price specials, and especially to aggregate price differences between competing stores, these are significant price differences.

Price Differences Over Time

There is no evidence from reported studies that the magnitude of differences is decreasing over time. Comparisons over extended time periods are difficult, and individual products that are quite innovative at one time may be mature commodities at another. Yet the comparisons we are able to make suggest differences may be increasing. To elaborate, when the first study in 1966 was conducted, the typical supermarket had

Table 1

**Price Differences between Private Label and National Brands as a Percentage of Private Labels
(various years 1966-92)**

PRODUCT GROUP	NCFM 1966	J&L 1975	ERS, USDA 1980	A.C. NIEL. 1980	TOWN A 1991	TOWN B 1992
	%	%	%	%	%	%
Frozen orange juice conc. 12 oz.	35	41.2	18.9	27.6	40.0	18.0
Milk, half gallon					41.3	14.9
Canned tuna fish, 6.5 oz.	24	17.9	13.7	13.9	23.6	44.6
Canned green beans, cut, 16 oz.	33				21.7	32.0
Canned corn, 16 oz.					21.8	21.8
Tomato soup, canned 16 oz.					1.4	11.4
White bread, 24 oz.			55.0		55.2	55.7
Instant coffee, 4 oz.			14.1	17.4	34.1	32.0
Sliced cling peaches, 16 oz.	4	6.4	20.1	7.9	12.8	21.7
Catsup, 28 oz.	14	12.0	27.6	33.8	43.6	48.7

NCFM from *National Commission on Food Marketing* (1966)

J&L from *Jafri and Lifferth* (1977)

ERS, USDA and A.C. NIEL from *Handy* (1985)

about 10,000 square feet of selling area and offered about 6,000 items. Today these numbers have at least tripled, and the advertised brands have stronger marketing programs. With more and stronger non-price messages, consumers may be less aware or sensitive to price signals, and wider differences may be needed to get their attention.

While the average price difference across the products studied is approximately 30 percent, product prices vary greatly. It is not possible to account for that variation in a precise way. However, certain tendencies are useful in explaining some of this variation. We would expect products with higher marketing costs to reflect the greatest differences between national brand and private label prices. The high cost marketing may be associated with innovative or extensively promoted products where consumers perceive product differentiation as high.

There are also products, such as bread and milk, whose perishability makes physical distribution expensive, and increases the cost advantage of integrating production, distribution and retailing. This factor would suggest that bread and milk be put in a higher price difference group than canned sliced cling peaches, beans, corn, and tuna fish. While this seems generally consistent with the results, Town B has tuna and canned green beans with higher differences than expected and milk with lower than expected. These influences--innovation, promotion and economies of integration--may be classified as "vertical determinants" of retail prices. They come from the economics of the particular product (looking at the food marketing system as a vertical channel).

"Horizontal influences" on retail prices also occur. Price rivalry between competing supermarkets (and sometimes even between convenience stores) may be classified as a horizontal influence on price. Competing stores tend to check each other's prices and to be responsive to their competitors' price changes. This process leads to situations in which retail prices are inconsistent with expectations stemming from the economics of the particular product, but consistent with competitors. When a store is offering many products (the typical superstore would have

15,000 to 20,000 items--some as many as 35,000), keeping track of the economics of each product may be less important than having important products priced consistently with competitors. This is the most likely explanation for situations in which price differences deviate from what the horizontal influences would lead us to expect.

Other plausible explanations for the increase in price differences between national brands and private labels involve the role of advertising and the proliferation of brands. National brands are heavily advertised. Indeed, advertising and other selling expenses averaged 13 percent of sales in the mid-1970s, twice the level of other manufacturer sectors (Connor and Weimer, 1986). Effective advertising can render demand less elastic or increase the degree of product differentiation (Albion, 1983; Parker and Connor, 1979). Recent evidence suggests that national brands may be charging higher prices due to their overall market power and an increased product differentiation. Wills and Mueller (1989) examined price differences between national brands and private labels in 74 food product categories. They concluded that "price premiums and higher profits of advertised national brands are primarily attributable to market power, not to superior products or lower costs." Likewise, Connor and Peterson (1992) concluded that a positive relationship exists between advertising and national brand/private label price differences. They observed that a one percent increase in the advertising-to-sales ratio widens the national brand/private label price difference by two percentage points. They further concluded that as the level of market concentration increases, or the elasticity of demand for a good decreases, the national brand-private label price margin widens.

An increase in the national brand/private label price difference may also be explained by the proliferation of brands. The increase in brand numbers is generally observed within mature product categories and/or when production technology is standardized. Brand numbers have increased tremendously in certain product categories such as breakfast cereals, frozen foods and snack items such as cookies and crackers. The leading brands, such as Kelloggs, Birds Eye and Nabisco, may be able to maintain their market

shares. Meanwhile, the weaker brands may find themselves with excess capacity which in turn may allow retailers to extract greater concessions in prices for their private labels (Albion, 1983). Thus, private label price decreases can also prompt a wider difference between national brands and private labels.

Summary and Conclusions

Store brands have a greater price advantage than nationally advertised brands. This advantage tends to be largest where marketing costs are high, such as with innovative, highly promoted or perishable products. These price differences seem to be increasing over time, and their magnitude is greater when compared to price differences between stores or in cases of price specials.

While we usually consider price competition as interactions between competing stores, the presence and behavior of private labels add a significant price competition dimension for the food system's competing subsectors. With market leadership in the hands of the largest chain store firms, the competitive incentives of small food manufacturers are brought to bear on the large multinational manufacturing conglomerates. This competitive process gives the consumer numerous advantages. While the large companies may offer new products or products with brand appeal, the competition can offer low cost copies of these successful products. Over several decades, the food industry has successfully developed this subtle and complex competitive rivalry.

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