



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

In Short ■ by Hoy F. Carman

California Retail Milk Pricing: Economics or Profiteering?

Milk pricing can be an emotional issue. Both consumer organizations and producer groups believe they are disadvantaged by retailer and wholesaler pricing practices. Consumers Union, for example, conducted surveys of retail milk prices in Los Angeles and San Francisco area food stores and then charged that large supermarket chains "gouged" consumers by raising retail milk prices faster and farther than prices paid to dairy farmers increased. A 1997 Consumers Union press release, based on their price surveys, observed that

When the farm price increases even a penny, grocers generally raise the price to consumers quickly and exponentially. When the farm price drops, as it has three times in the past two years, grocers have slowly passed on a fraction of the decrease to their customers. If that historical trend continues, the large gap between the farm price and the price consumers pay will steadily grow.

Consumers Union used their September 1996 Bay Area milk price survey to call on the California attorney general to "investigate whether there exists an unspoken agreement on the part of the major Bay Area supermarket chains to set the price of milk."

On the opposite coast, a spokesman for the Northeast's largest farmers' cooperative, Methuen, Massachusetts, based Agri-Mark, expressed another view when arguing for increased farm-level prices for fluid milk. Doug DiMento, speaking to the Associated Press for the cooperative owned by 1,600 dairy farmers in New England and New York, stated that "There is no direct relationship between farm prices and retail prices. We've seen farm prices steadily decline since the early 1980s, yet we've seen retail prices rise." A consumer or-

ganization, Public Voice for Food and Health Policy, disagreed with the producer view that producer and consumer prices were unrelated. They blamed the Northeast Interstate Dairy Compact, which sets producer prices for fluid milk, with increasing prices to consumers. Public Voice spokesman Art Jaeger was quoted as stating that "It doesn't take a rocket scientist to figure out that the folks in the middle are going to pass these costs on to consumers." Earlier, Senator Patrick Leahy of Vermont had charged that supermarkets were using the dairy compact to take advantage of consumers. Senator Leahy expressed the view that price increases at the farm level should not have translated into price increases at the retail level. Said Leahy, "They do not need to raise prices higher than they already are to make a good profit. Some middlemen and chain stores are using the compact as an excuse for profiteering." At the same time, retailers on both coasts defended their pricing practices and denied any price gouging or profiteering on their part.

The above quotes provide a variety of views on the behavior of milk marketing margins. Here I examine the relationship between farm-level and retail prices for whole fluid milk in California over time. The focus is on the responsiveness of retail milk prices to both increases and decreases in farm-level prices, with attention to the possible lags involved. I also examine the relationship between marketing margins and changes in marketing costs, the major determinant of the difference between farm-level and retail prices for food. I do not analyze farm-to-retail price relationships for the Northeast or other areas. While I would expect similar reactions, they may differ from those found in California because of different institutional relationships and market participants.

Real retail milk prices and marketing margins show no clear uptrends

Figure 1 shows the behavior of retail milk prices for the Los Angeles market for the period January 1985 through March 1997 (San Francisco and Sacramento exhibit similar patterns). These data indicate that California's retail price of milk in current dollars trended upward over time, but real milk prices (prices adjusted for inflation) show no clear long-term trend. In real terms, the recent Los Angeles average retail milk price of \$2.70 per gallon in March 1997 was lower than most other times during the last twelve years. Real marketing margins trended upward over the period 1985-93 but showed no clear trend since 1993 (figure 2).

Analysis of California farm/retail milk price relationships provides some direct evidence on critics' charges of profiteering and noncompetitive price behavior by retailers (see Carman for a full discussion of the economic and statistical analysis). Contrary to the perceptions of many, I found a strong direct relationship between California retail and farm-level milk prices in each market area. Retailers increased their prices in response to free on board (FOB) price increases and they also reduced prices in response to FOB price decreases. I found no statistical difference in the total amount that retail prices increase or decrease in response to a one-dollar producer price increase or decrease. Retailers do, however, take a month longer to fully respond to a farm price decrease than to a farm price increase, and this delay can benefit retailers at the expense of consumers.

Why retail prices fall slowly

I cannot fully explain the cause of this asymmetric timing of retail price adjustments. Other economists have observed the same lags for other perishable com-

modities. Some portion of the observed price behavior could be due to the actions of processors and wholesalers in response to farm price changes, but I do not have data for these sectors. Lag differences could also be due to the nature of competitive price adjustments in food retailing, or they could result from market power. One hypothesis holds that the observed price behavior is consistent with supermarket pricing practices for goods, such as milk, which have inelastic demand. With inelastic demand, total revenue increases with a price increase and decreases with a price decrease. Thus, retailers may be much more reluctant to reduce prices than to raise them. This reluctance is especially evident when using gross margin pricing because of the adverse impact of price reductions on gross margins, even for goods with elastic demand. Retailers may not respond to a price decrease until they observe a decrease in unit sales, or until they become concerned about an actual or possible loss in market share. The observed pricing behavior is also consistent with the use of search costs to explain lagged price changes. Here, each supermarket has possible spatial market power that is limited by consumer search. When producer prices increase, supermarkets maintain profit margins by quickly passing the increase on to consumers. When producer prices decrease, however, each retailer can temporarily improve profit margins by slowly reducing prices in response to the consumer search process. As customers gain knowledge of comparative prices and respond, prices (and margins) will be pushed down to a competitive level. Finally, the observed price behavior could be the result of price leadership in markets with a few large participants. Using this explanation, large retailers would wait for their major direct competitors to reduce prices before following, in order to avoid the adverse effects of "price war" type behavior on profits.

While there are several possible explanations for the observed relationships between farm and retail fluid milk prices in California, the specific reasons have not been isolated. What I can conclude, however, is that the false perception that California retail milk prices tend to only in-

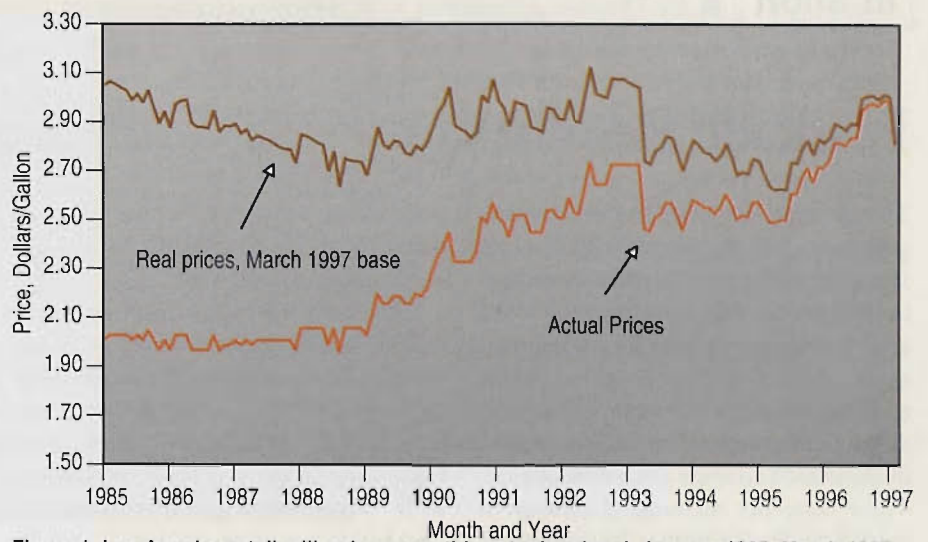


Figure 1. Los Angeles retail milk prices, monthly actual and real, January 1985–March 1997

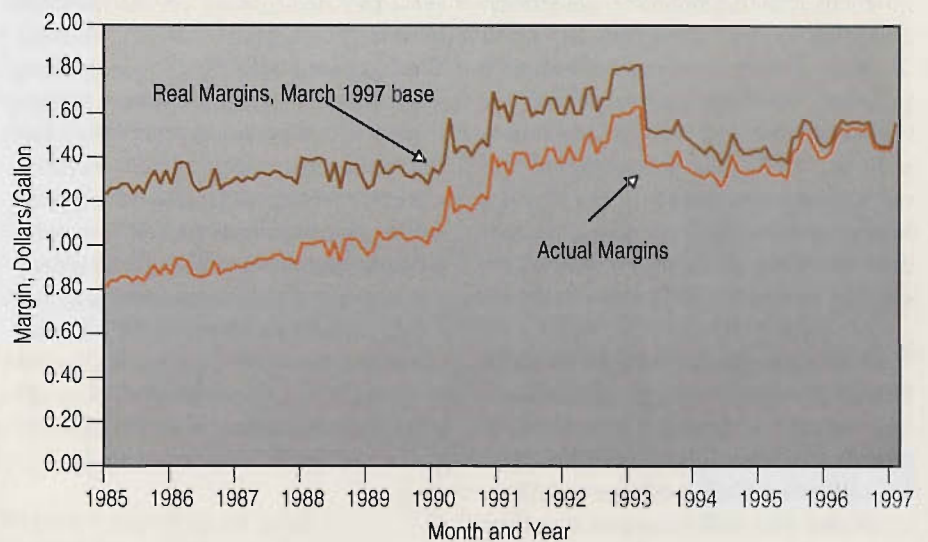


Figure 2. Los Angeles milk marketing margins, monthly actual and real, January 1985–March 1997

crease and not respond to producer price decreases appears to be largely due to the one-month lagged delay of retail price decreases in response to farm price decreases. ■

■ For more information

Carman, H.F. "California Milk Marketing Margins." *J. Food Distrib. Res.* 29, no. 3(1998):1–6.

Houck, J.P. "An Approach to Specifying and Estimating Nonreversible Functions." *Amer. J. Agr. Econ.* 59 (August 1977):570–72.

Odabashian, E. "Got Moo-La? Bay Area Grocers Continue to Gouge Consumers on Milk." Consumers Union of U.S., Inc., West

Coast Regional Office, San Francisco CA, March 1997.

———. "Got Moo-La? Los Angeles Grocers Continue to Gouge Consumers on Milk." Consumers Union of U.S., Inc., West Coast Regional Office, San Francisco CA, June 1997.

Hoy F. Carman is professor of agricultural economics at the University of California, Davis, where he has been on the faculty since 1967. He has served as dean of the College of Agricultural and Environmental Sciences, and as chairman of the Department of Agricultural Economics. He teaches undergraduate and graduate courses in microeconomics, agricultural and managerial marketing, production management, and case problems in management. A discussion among students in one of his marketing courses sparked his research on milk pricing and, subsequently, this article.