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FLUID MILK

Farm and Retail Prices and the Factors That Influence Them

Statement of Robert A. Robinson, Managing Director, Natural Resources and Environment

Mr. Chairman and Members of the Subcommittee:

Thank you for the opportunity to discuss our work on fluid milk prices. Our statement today is based primarily on our October 8, 1998, report entitled Dairy Industry: Information on Prices for Fluid Milk and the Factors That Influence Them (GAO/RCED-99-4).[1] As you know, the process by which milk prices are set is a very complex one. This is because milk prices are influenced by a variety of federal and state programs that regulate the production and sale of milk and because several entities are involved in the process of moving milk from the farm to the consumer. Each of these entities—dairy farmers, cooperatives, wholesale milk processors, and retailers—perform distinct functions relating to the processing and marketing of milk, and each receives a portion of the price of milk. At your request, our comments today will focus on the relationship between farm-level and retail-level milk prices and the factors that influence the price of milk as it moves from the farm to the consumer.

In summary, for the period January 1996 through February 1998, we found the following:

- On average, farmers received about 42 percent of the retail price of a gallon of 2-percent milk (the most frequently purchased milk), and retailers received about 17 percent; the spread between farm and retail prices increased in most of the markets we reviewed.

- Changes in fluid milk prices at the farm level generally did not mirror similar price changes at the retail level in most markets. This is because as milk passes through various processing, packaging, and distribution stages after it leaves the farm, a variety of other factors begin to influence its price. For example, at the wholesale level, the costs of pasteurization, packaging, and transportation, have a major influence on milk prices, and for some retailers the pricing strategies used by other retailers may have a significant influence on the prices that consumers pay for milk at the retail level. Consequently, as milk moves farther from the farm, farm prices may have less of an impact on prices than these other factors.

[1] We are currently updating the information included in the October 1998 report, at the request of Senators Feingold and Leahy, and expect to issue our updated report in June 2001.

Background

U.S. dairy farmers produce about 20 billion gallons of raw milk every year. The top four milk-producing states in the United States are California, Wisconsin, New York, and Pennsylvania. About 7 billion gallons of the nation's milk is used to produce fluid milk products such as the four kinds of milk—whole, 2-percent, 1-percent, and skim milk—as well as buttermilk and flavored milk, yielding about $22 billion in retail sales annually. Sales of 2-percent milk sold in gallon containers account for the largest volume of retail fluid milk sales in the United States.

Fluid milk reaches the consumer by a variety of pathways. Dairy farmers who produce the raw milk used in fluid products can (1) market it through dairy cooperatives, (2) sell it directly to wholesale milk processors, or (3) process it into fluid milk for direct sale to consumers. Most milk produced by dairy farmers in the United States is marketed through dairy cooperatives. Dairy cooperatives, in turn, can either sell, or arrange the sale of, raw milk purchased from farmers to wholesale milk processors, or they can process it into fluid milk and distribute the fluid milk to retail outlets themselves. Wholesale milk processors process and package the raw milk into fluid milk, which they then distribute to retail outlets. Wholesale milk processors include independent bottling plants or retail food chains that own bottling plants. Retail outlets purchase fluid milk from processors for direct sale to consumers.

Most milk produced in the United States is regulated under either federal or state programs. These programs ensure that farm prices do not fall below a minimum level and provide a safety net for individual farmers who lack market power compared with other entities, such as wholesale milk processors and retailers. The primary federal programs include the milk marketing order and dairy price support programs. Currently, about 70 percent of the milk produced in the United States is regulated under the federal milk marketing order program. The federal program sets minimum prices that can be paid to farmers for unprocessed, fluid-grade milk in specified marketing order areas. These prices vary by the class of product for which the milk is used, and, for some classes, the minimum price also varies by location.[2] Some areas, such as California, which are not under the federal milk marketing order program, are covered by state programs. In these areas, dairy farmers are paid the minimum milk prices that are

[2] The four usage classes are Class I for fluid milk; Class II for soft manufactured dairy products such as yogurt and ice cream; Class III for hard cheese; and Class IV for butter and powdered milk.

established by the state government. These minimum prices may be higher than federal minimum prices.[3]

Dairy farmers selling milk within a federal milk marketing order receive an average price, or blend price, that is based on the weighted average of the prices for the four usage classes for all the raw milk sold in that marketing order. The average price of milk they receive depends, in part, on the extent to which the total milk supply in a specific area is being used for fluid or manufacturing purposes. Buyers of milk regulated by federal and state programs are permitted to pay farmers prices in excess of the established minimums—known as over order premiums. Any such excess payments are determined by market forces.

Analysis of Farm-to-Retail Prices

In our 1998 report, we analyzed milk prices for the period January 1996 through February 1998, for 31 selected markets across the country, including the Philadelphia, Pennsylvania, market. We found that on average, farmers received 42 percent of the retail price for a gallon of 2-percent milk, cooperatives received 10 percent, wholesale milk processors received 31 percent, and retailers received 17 percent.[4] However, the portion received by those in various stages of the milk marketing chain varied substantially among the markets. For example, the portion of the average retail price that farmers received ranged from about 31 to 54 percent, and the portion that retailers received varied between about 4 and 31 percent.[5] For the Philadelphia market, we found that farmers, on average, received 42 percent of the retail price of a gallon of 2-percent milk and retailers received 20 percent.

Furthermore, we found that retail prices for a gallon of 2-percent milk remained constant or increased in 27 markets and decreased in 4 markets during the review period. In contrast, farm prices decreased in 27 markets

[3] In addition to federal and state regulatory programs that set minimum milk prices, in 1996, the Congress approved the creation of the Northeast Interstate Dairy Compact for six New England states. The Compact supplements federal and state programs by setting the minimum price to be paid to farmers for fluid milk marketed in the six-state area. The Compact is scheduled to terminate, unless reauthorized, by September 30, 2001.

[4] For the 1998 report, our detailed analysis focused on data for 2-percent milk; consequently our results may not reflect pricing patterns and trends for whole, 1-percent, and skim milk.

[5] Except for one market where retailers received a negative return because milk was being used as a loss leader.

and remained constant in 4 markets. As a result of these price changes, the spread between farm and retail prices had increased in 27 of the 31 markets over the 26-month period we reviewed. In the Philadelphia market, we found that between January 1996 and February 1998 the farm-level price had decreased by about 13 cents while retail prices had remained constant. As a result, the difference between farm and retail prices had increased by about 13 cents per gallon.

In addition, retail prices for the four kinds of milk—whole, 2-percent, 1-percent, and skim—varied significantly in the 31 markets we reviewed. For example, in some markets, 1-percent milk was the lowest-priced milk sold at the retail level; in other markets, skim milk was the lowest-priced milk; and in still other markets, the lowest-priced milk sold in retail stores shifted among 2-percent, 1-percent, and skim milk. For the period we reviewed, in the Philadelphia market, skim milk was the lowest-priced milk sold, averaging about $2.31 per gallon and whole milk was the highest-priced, averaging about $2.58 per gallon.

Relationship Between Farm and Retail Milk Prices

In 1998, we reported that for the period January 1996 through February 1998, changes in prices at any given stage in the milk marketing chain were most often reflected in changes in prices at the next stage. For example, in most of the markets we analyzed, there was a strong correlation between changes in farm prices and changes in cooperative prices—the next stage in the milk distribution process. Similarly, changes in wholesale prices generally correlated with changes in retail prices. In contrast, changes in prices received by farmers less frequently correlated with changes in retail prices. This is because as milk moves from the dairy farm to the consumer it passes through various processing, packaging, and distribution stages, and many factors other than the farm-level price begin to influence fluid milk prices at each subsequent stage. In particular, we found that supply and demand forces influence milk prices at all stages of the milk marketing process; however, the following factors influence milk prices at each particular stage:

- Federal and state dairy programs have a major influence on farm-level prices for raw milk used in fluid products. These programs provide farmers with the assurance that milk prices will not fall below the government-set minimums and therefore may play a significant role in the production decisions of dairy farmers.

- The price that cooperatives charge wholesale milk processors for fluid milk is influenced not only by the minimum price established by federal

and state milk marketing order programs but also by the services that the cooperatives provide to the wholesale milk processors. Cooperatives generally sell raw milk that will be used for fluid purposes to wholesale milk processors at prices above the federal or state minimums. This higher price, in part, compensates cooperatives for the services they provide to wholesalers. These services include (1) transporting milk from different milk-producing areas, (2) scheduling milk deliveries to coincide with demand, and (3) standardizing the component content of milk deliveries. In addition, cooperatives may be able to sell milk to wholesale milk processors for a price higher than the government-set minimum price because they have greater market power compared with the wholesalers. One of the primary reasons dairy farmers become members of cooperatives is to benefit from the cooperative's greater bargaining power.

- Processing, packaging, and distributing costs have a significant influence on the wholesale price of fluid milk, in addition to the wholesaler's need to earn a normal return on investment. Processing services provided by wholesale milk processors include pasteurization, homogenization, and the standardization of butterfat and nonfat solids in flavored milks, buttermilk, whole, 2-percent, 1-percent, and skim milk. Wholesalers also incur costs for packaging these products into a variety of types and sizes of containers and arranging for their distribution to retail outlets for sale to consumers. Costs of distribution may be significantly higher in rural markets compared with urban markets because smaller quantities of milk have to be transported over longer distances. Some wholesalers also provide different levels of in-store service in addition to shipping the products to retailers—such as unloading the milk at the store dock, restocking the dairy case, and removing outdated and/or leaking containers. Differences in any or all of these factors will be reflected in differences in wholesale-level prices.

- Retail prices for fluid milk are influenced not only by certain factors that generally apply to all retailers but also by specific considerations at individual retail outlets. The retail-level factors that generally influence price include the wholesale cost of the product; retailers' operating costs, such as labor, rent, and utilities; and their need to earn a normal return on investment. In addition, the size, age, tastes, and income levels of the population in the marketing area and the prices of substitutes will influence how retailers set prices for milk. For individual retail outlets, other considerations may influence the manner in which retail prices for milk are set. To meet their stores' goals, such as profit maximization and increased market share, individual retailers may use a number of strategies for pricing fluid milk. In developing these pricing strategies,

retailers consider a variety of factors beyond their operating costs, such as the prices charged by their competitors, the role that milk prices play in attracting customers to their stores, the convenience offered by their store compared with other stores, and their desire to build an image of quality or low prices for their stores. Those retail pricing strategies that are primarily based on a retailer's operating costs are generally referred to as vertical pricing strategies, whereas those strategies that are based on responding to prices charged by competitors are referred to as horizontal pricing strategies. Retailers generally use a combination of horizontal and vertical pricing strategies when setting prices for fluid milk.

In conclusion, Mr. Chairman, our work shows that while the farm price of milk has some influence on the retail price, other factors may ultimately have a greater influence on the retail price. Given that farm prices account only for about 40 percent of the retail price, there is adequate opportunity for other factors, such as wholesale processing costs and retail pricing strategies, to significantly influence the other 60 percent of the retail price.

That concludes our prepared statement. If you or other Members of the Subcommittee have any questions we will be pleased to respond to them.

Contacts and Acknowledgment

For future contacts regarding this testimony, please contact Lawrence J. Dyckman or Anu Mittal on (202) 512-5138. Individuals making key contributions to this testimony and/or the report on which it was based include Jay Cherlow, James Dishmon, and Jay Scott.