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# Milk Marketing Without Federal Orders

by John Siebert, Mark Stephenson, and David Anderson

Fundamental changes are occurring in the $22.7 billion dollar U.S. dairy farming sector. The Federal Agricultural Improvement and Reform Act of 1996 (FAIR) will eliminate dairy price support purchase authority on 1 January 2000. FAIR also requires a consolidation of Federal Milk Market Order (FMMO) areas by April of 1999. Furthermore, as recommended by FAIR, the Basic Formula Price (BFP), which serves as a foundation for almost all FMMO minimum prices, is under study for replacement.

Federal Milk Market Orders regulate transactions between milk producers and milk processors. FMMO regulations originally came about to remedy chaotic marketing conditions in the 1930s. At that time, an imbalance of power between dairy farmers, who had a continuous supply of perishable raw product to sell, and fluid bottlers, who marketed a largely undifferentiated beverage, resulted in farm milk prices that fluctuated by more than 150 percent from spring to fall. The milk price wars of the 1930s were resolved by new regulations which set minimum prices for producer milk. Although the precise regulations of FMMOs have changed over the years, today these regulations are still designed in part to correct an intrinsic imbalance of bargaining power.

Perceptions of how regulatory change might give advantage to some at the expense of others, particularly on a regional basis, have led to protracted debate. This debate has pitted dairy farmer against dairy farmer, dairy farmer against processor, processor against processor, and even economist against economist. In this climate, the secretary of agriculture will submit FMMO consolidation proposals for producer referendum on an order-by-order basis. Thus it is conceivable that an order could be voted out by its dairy farmers as early as April 1999. Such deregulation in any large milk-producing area has the potential to affect all adjacent orders if milk prices in the unregulated area drop below milk prices in adjacent regulated areas. Cheaper milk might then be sent into the regulated areas, dislocating local milk.

In this climate of potential change, important choices must be made by farm, business, and agency decision makers. Here we examine major FMMO functions and envision what the dairy sector might be like without marketing orders. To assist the reader, table 1 presents a glossary of terms commonly used in milk market order administration.

**Table 1. Glossary of Milk Marketing Terms**

**FMMO or order:** Federal Milk Marketing Order. Orders regulate the terms of trade between producers and processors. Established under the authority of the Agricultural Marketing Agreement Act of 1937, orders can only exist with the approval of 66 percent of the producers in an order area.

**Producer:** A dairy farmer or a farmer-owned dairy cooperative.

**Market order administrator:** The federal government employee who oversees the operation of an FMMO.

**Classified price:** The minimum price a processor must pay for milk each month. Classified prices differ depending upon the dairy product made from the raw milk. Class I is the highest classified price and pertains to the value of milk used in beverage form. The other classified prices are lower and pertain to milk used for the following purposes: Class II for soft and frozen dairy products; Class III for cheese and butter; and Class III-A for nonfat dry milk powder.

**Blend price:** The monthly value of all milk sold at classified prices within a single FMMO area, divided by the total monthly milk production in that FMMO area. Also called the pool blend price.

**Pool equalization:** It is the responsibility of the market order administrator to compare each processor's monthly classified price obligation to the blend price. Should a processor's classified price obligation be below the blend price, then the administrator pays for the shortfall so that producers supplying that processor can receive the blend price. On the other hand, should the processor's classified price obligation be above the blend price, then the administrator collects this extra amount. On balance, disbursements equal receipts and all producers serving all processors thus receive the same blend price.

**Hundredweight:** One hundred pounds, abbreviated as cwt.

**Price differentials, zone prices, transportation credits:** These are regulated minimum prices or regulatory monthly payments used to price milk most highly where it is needed the most. For example, a price differential may reflect the fact that urban bulk milk delivery prices are set at a regulatory minimum level which is *higher* than rural bulk milk delivery prices. These prices and payments encourage the shipment of milk from rural production areas to urban processing plants.

**Cooperatives:** Approximately 80 percent of the milk sold in the U.S. is marketed through farmer-owned cooperatives. In their role as milk sellers, the order administrator treats them as producers.

**Hard products:** Cheese, butter, and powdered milk: the storable dairy products.

## Discontinuing FMMO functions: what would happen?

Below we list key FMMO functions and describe what might happen without market orders. Table 2 provides the authors' thumbnail assessment of the impact of such a change upon producers, cooperatives, processors, and consumers.

### *Minimum classified milk prices would no longer exist*

Monthly minimum classified prices differ depending upon the use to which farm milk is devoted—beverage milk, soft dairy products, frozen products, or hard dairy products. Elimination of such regulatory pricing means that aggregate supply and demand will set milk prices. Farm milk prices will depend upon location, quality, level of important components (butterfat and protein), and other factors, but not end use. Instead, it is likely that all buyers in a single area would pay one relatively similar competitive price, much as now occurs for corn and other commodities.

Under FMMOs handlers pay a higher classified minimum price for milk used in the production of beverages than for milk used in the production of butter, powder, or cheese. Elimination of such classified pricing would mean that the price of milk for beverage or bottled use would decline. The price of milk for manufacturing uses could be expected to increase.

Because the quantity of beverage milk demanded is relatively insensitive to price, a decline in this milk price, brought on by deregulation, will increase sales volume relatively little. In contrast, price increases in milk for hard products such as cheese would likely reduce sales volume because the demand for these products is relatively more price sensitive than fluid milk. Classified pricing, by discriminating the markets for milk, has resulted in higher producer incomes. Consequently, if classified pricing is eliminated then producer incomes would be expected to decline in response to FMMO elimination.

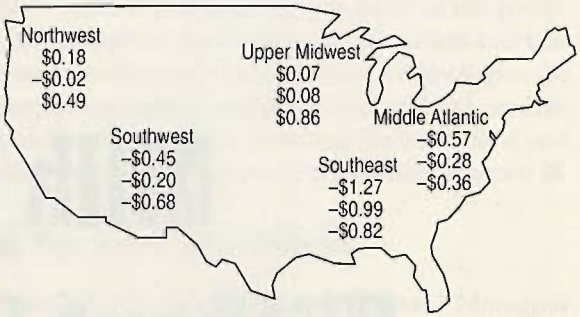


**Figure 1. Estimated regional price impact of FMMO elimination, $/hundredweight of milk. The estimated price impacts are listed vertically by author source: Stephenson, FAPRI or Cox.**

If cheese, butter, and powdered milk prices increase in response to deregulation, dairy farmers in those regions which have large cheese, butter, and nonfat dry milk production will feel the increases the most. Such areas, mostly in the West and upper Midwest, tend to have the lowest cost of milk production. Because hard products can be shipped long distances at low cost, the elimination of FMMOs could increase milk production in the West and upper Midwest while decreasing milk production in the South and Northeast, where a greater proportion of milk is used for beverage purposes.

Figure 1 contains projections of regional farm milk price changes due to the elimination of federal orders. The sources of the estimates are Stephenson, the Food and Agricultural Policy Research Institute (FAPRI), and Cox and Jesse. These sources provide a range of projected price impacts. To develop a comparison, state-level projections and/or marketing order price projections were weighted by production to correspond closely to the broad regions shown in figure 1. Methodologies and precise regions for these estimates differ, and those interested in such detail should consult the original works.

Figure 1 shows a consensus among forecasters that the elimination of federal orders will reduce farm milk prices in the Southwest, Southeast, and middle Atlantic regions. The largest price declines are projected to occur in the Southeast and range from –$0.82/cwt to –$1.27/cwt. The Southeast has a very high Class I utilization. Because FMMO elimination implies declines in fluid milk prices, this area would be expected to experience larger price declines than other areas. All three estimates project higher milk prices in the Upper Midwest, with its low Class I utilization and large amount of milk going to cheese production. The magnitude of estimated price changes does differ, with the Stephenson and FAPRI showing increases of only $0.07 to $0.08/cwt and the Cox and Jesse study

showing a price increase of $0.86/cwt. The results in the Northwest are mixed, with FAPRI projecting a slight price decrease of $0.02/cwt and the Stephenson and Cox results projecting price increases of $0.18/cwt and $0.49/cwt, respectively. Some uncertainty of outcomes may be justified in the Northwest because this region, unlike any other FMMO area, has a large nonfat dry milk industry.

Elimination of monthly minimum regulatory prices also means that price will change more frequently, that seasonal price swings will be more pronounced, and that producers and processors will have to pay much closer attention to their milk marketing strategy. Seasonal price swings are presently constrained by the impact of regulatory monthly averaging. For example, at present, milk purchased in the period before Christmas, a time when the supply of milk is tight, is priced at the same level as milk purchased between Christmas and New Years, a time when supply is usually long. With deregulation it is likely that prices will change more frequently and, to a greater degree, in response to forces of supply and demand.

Without the minimum prices set by FMMOs, both producers and processors will need a new price discovery mechanism. We anticipate that the use of futures markets for cheese, butter, powdered milk, and/or raw milk will increase. The increased use of futures markets will allow better management of price risk by both producers and processors.

Processors in many commodity sectors use futures contracts to set forward contract prices for producers. Current dairy regulations work against forward contracting. Currently, even if the agreed upon forward contract price turns out to be below the regulated minimum price, the processor must still pay the higher regulated price. Without minimum classified milk prices, both futures contracts and forward contracts will be more commonly used.

### *No pool blend prices*

By means of order-wide price averaging, FMMOs guarantee that a milk producer will receive the same regulated minimum price regardless of the processor buying that producer's milk. This regional price averaging function, termed milk pooling, will cease upon the elimination of FMMOs.

Considered by itself, the loss of pool blend prices would likely help processors who have been required to pay classified prices above the blend price (fluid bottlers) but would hurt processors who have paid classified prices below the blend price (cheese, butter, and powder manufacturers). Without regulation, bottlers of beverage milk would no longer be obligated to make pool equalization payments to the market order administrator for redistribution to other dairy farmers in the market. Conversely, cheese, butter, and powder manufacturers would no longer be able to take a "draw" from the pool equalization fund, in effect conveying bottlers' equalization payments to their own dairy farmer suppliers.

### *No price differentials, zone prices, transportation credits, or market-wide service payment policies*

The elimination of area pricing, zone pricing, credits, and market-wide service payments will affect producers and processors differently depending upon location and the types of policies in effect in a particular FMMO. Such policies as these have generally been used to subsidize the sale of milk produced in rural areas to those processing plants located in urban areas. Under deregulation, market forces will determine such spatial price relationships, with resulting gains to some and losses to others.

### *No enforcement of timely payment*

FMMOs presently require that payment for farm milk be made within approximately thirty days of delivery. Thus, dairy farmers supplying retailers and other buyers have a much easier time collecting

**Table 2. Impact of eliminating milk market orders on producers, cooperatives, processors, and consumers**

| Regulatory Functions | Impact on Producers | Impact on Cooperatives | Impact on Processors | Impact on Consumers |
|---|---|---|---|---|
| No minimum classified prices | – | – | +/– | + |
| No pool blend prices | – | +/– | +/– | + |
| No price differential, zones or transportation credits | +/– | +/– | +/– | +/– |
| No enforcement of timely payment | – | – | + | + |
| No milk payment audits | – | – | + | + |
| No compensatory payments | +/– | +/– | +/– | +/– |
| Loss of data | – | – | + | – |

Note: A "+/–" indicates that both positive and negative impacts will exist under different regional and/or affected party circumstances.

their bills than do other food wholesalers. The loss of this requirement would reduce the bargaining power of farmer-owned cooperatives (which sell over 80 percent of the milk produced in the United States) and similarly affect independent producers.

### *No milk payment audits*

FMMO auditors would no longer examine processor records to ensure payment for milk in accordance with regulations. Current FMMO third-party verification of milk weights and tests would no longer occur. The loss of such oversight would again reduce the bargaining power of milk cooperatives and independent dairy farmers and would widen farm-to-retail price spreads.

### *No compensatory payments*

In the production of bottled milk, if powdered milk is used as a fresh milk substitute then FMMOs have provisions to charge the processor. This helps to prevent cheaper reconstituted milk being shipped into an area and thus undermining the classified pricing system in the order. Referred to as compensatory payments, these charges become revenue to the local milk pool. Although reconstitution rarely occurs at present, the elimination of compensatory payments could mean that bottlers would have a greater incentive to practice reconstitution in the future, although the milk would have to be labeled as reconstituted.

### *Loss of data*

More reliable data is available for dairy than almost any other food sector. Without FMMOs, data on fluid beverage milk production and consumption will disappear. The USDA National Agricultural Statistics Service (NASS) does generate information independently on the production of soft, cultured, and frozen dairy products as well as cheese, butter, and powder. Milk price information on classified prices, blend prices, cooperative prices, and mailbox prices will be lost, leaving only data for the M-W price, state grade A prices, state grade B prices, and state average producer milk prices.

In the absence of FMMO information, NASS estimates of milk production would no longer be adjusted by FMMO benchmarks. Also, NASS would no longer be able to use FMMO information for the development of producer sampling lists. Generally speaking, dairy will have to compete with other commodities for increasingly scarce price reporting resources at the federal and state levels.

## The role of cooperatives

Cooperatives market approximately 80 percent of the raw milk sold by U.S. dairy farmers. Economists and cooperative employees have speculated that in a deregulated environment cooperatives will try to maintain the classified pricing and pooling structure with its high Class I prices and lower Class II, III, and III-A prices. Due to the fact that maintaining this system would also maintain aggregate producer income, it is clear that this would be an important goal of cooperatives. Achieving this goal will require extraordinary unity among all cooperatives and all producers. Current trends provide mixed results as to the likelihood of such unity. While sev-

eral cooperative mega-mergers are currently underway, it is also true that large producers in the Southwest have left some of these same cooperatives in order to compete against them in the sale of farm milk. It remains an open question whether cooperatives would have the market power to maintain classified prices in the absence of FMMOs.

## In the end

Table 2 describes the way in which the changes of deregulation might affect producers, cooperatives, processors, and consumers. Many changes affect producers negatively but affect processors and consumers positively. For the most part, cooperatives will be hurt by deregulation. However, due to their diversity and/or size, a few large cooperatives might do well until such time that their milk sales price is underbid.

Following FMMO deregulation, consumers may see lower fluid milk prices but higher cheese, butter, and powdered milk prices. Due to the principals of price discrimination upon which milk pricing regulation is based, the lower beverage milk price is expected to increase consumption to a smaller extent than the higher prices for cheese, butter, and powder will reduce consumption. In the aggregate, producers would lose and consumers would gain with FMMO elimination. But, individual consumers might be better or worse off given their own mix of milk product purchases. The loss of blend prices, timely payment requirements, audits, and compensatory payments are generally thought to negatively affect producers and their cooperatives. Processors and consumers will likely gain from such changes. Consumers may gain, however, if and only if processors pass benefits on.

Table 3 provides a hypothetical list of the short-run industry events which might occur in response to FMMO elimination. This table conveys possible actions by producers, processors, and brokers and how new forces will shape a deregulated dairy sector's structure. ■

## ■ For more information


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*John Siebert and David Anderson are associate professor and assistant research scientist, respectively, in the Department of Agricultural Economics, Texas A&M University; Mark Stephenson is senior extension associate in agriculture, resource, and managerial economics, Cornell University.*

**Table 3. Hypothetical list of short-run events likely to occur due to the elimination of Federal Milk Marketing Orders**

- Minimum classified prices are no longer announced by FMMOs. All other FMMO functions cease as well.
- With the Basic Formula Price (BFP) discontinued, the industry switches to futures contracts in cheese, butter, powder and/or raw milk as price discovery tools.
- Processors and producers implement any contractual clauses in their milk supply agreements which pertain to deregulation.
- Cooperatives and brokers examine any new sales opportunities and desirable milk movement patterns which may be coming into existence.
- Fluid processors who have been paying the high Class I price now reduce their raw milk pay price down to the blend (average) levels their producers received in the past through the regulated pooling process.
- Hard product manufacturers who have been paying the low Class III and Class III-A prices now seek hard product price increases so that they can generate funds to bring their producer prices up to the blend level. (This may not be possible, leaving such manufacturers hoping they can maintain their milk supply.)
- Powder manufacturers investigate the possibility of increased powder sales to bottling plants which no longer must make compensatory payments for reconstitution.
- Producers who receive a milk price below that of their neighbors make inquiries as to whether they too can supply that neighbor's milk processor.
- Producer and processor trade associations make recommendations to their members regarding normal pricing practices.
- Retailers who have been using FMMO Class I price announcements to adjust their raw milk purchase price now examine other information sources and/or other potential milk suppliers.
- It becomes apparent that raw milk prices are not constrained to change only on a monthly basis. When milk is short, some producers receive an immediate price increase. However, when milk is long, some producers receive rapid price decreases.
- Producers petition for state regulations to replace certain FMMO functions. However, it becomes clear that states cannot and/or will not replace all FMMO functions.