

rethinking Dairyland

Background for Decisions about Wisconsin's Dairy Industry

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A FAIRER SHAKE FROM FEDERAL PROGRAMS?

They have blunted Wisconsin's competitive advantages, but reform is possible, and it's preferable to ending them.

Two federal regulatory programs extensively affect milk pricing in the United States – dairy price supports and milk marketing orders.

Price supports work in the background. The government offers to buy nonperishable dairy products (butter, cheese and nonfat dry milk) at announced prices. When milk is in heavy supply, the government buys these products to keep farm milk prices from falling as far as they otherwise might. When milk supply and demand are in balance, the price support program is usually dormant.

Milk marketing orders affect milk prices directly and continuously. A milk order sets minimum prices paid by processors in a given geographic area depending on what product the processor makes. There are 11 federal milk orders plus a similar pricing scheme in California. Milk used to produce fluid milk commands the highest price; milk for cheese, butter, and dry milk the lowest. Although processors pay different prices for milk used for different products, farmers in each market receive a uniform minimum price regardless of how their milk is used. That's because the orders "pool" all revenues based on the order prices and how milk is used in that market.

Price Supports Promoted Regional Dairy Restructuring

From its inception in 1949 until the mid-1970s, the dairy price support program operated as a buffer stock program. The government bought surplus dairy products during the

spring milk flush and placed them in storage. When prices rose in the fall, those products went back on the market. Dairy farmers benefited from this price stability, but the program had a minimal effect on the level of prices.

That changed with the 1977 farm bill, which raised milk prices well above market-clearing levels and provided no means of controlling supply. The support price was tied to the rate of inflation, which was increasing rapidly in the late 1970s. At the same time, the adoption of cost-reducing technology and expanding milk yield per cow kept costs down.

The resulting enhanced profitability encouraged dairy expansion in the West, especially California. Between 1975 and 1990, California added 335,000 cows to its dairy herd, doubling milk production in the Golden State. In contrast, Wisconsin dairy farmers used enhanced milk income to improve farm infrastructure and for non-farm expenditures. Wisconsin dairy cow numbers fell by about 100,000 cows between 1975 and 1990.

By the early 1980s, the government was buying as much as one third of all U.S. butter and cheddar cheese and 70 percent of all nonfat dry milk. The support program was clearly out of control. To reduce the program's cost, the government ultimately reduced the price support level from \$13.10 per hundredweight to \$9.90. The lower safety net price support level no longer drove milk production. But the support program still spurred western dairy expansion by providing a ready market for nonfat dry milk at prices higher than commercial market-clearing levels.

This is part of a series of brief reports on the current state of the Wisconsin dairy industry and factors that will influence its evolution. Expanded versions of these reports, with additional data and graphics, are posted online at <http://www.aae.wisc.edu/www/pub/>

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Federal Milk Orders Affected Regional Dairy Competitiveness

Federal orders have been used to price milk for more than 60 years. They have promoted stability in fluid milk markets, and dairy farmers have benefited from reduced market risks and some degree of income enhancement.

Unfortunately, federal orders have not evolved to conform to changes in how milk is produced and marketed. Consequently, their impact on the profitability of dairying varies from region to region.

These regional differences are rooted to the way that the federal orders set prices for Class I, or fluid milk. Since the 1960s, USDA has used a common method to set Class I prices in all marketing orders east of the Rocky Mountains. Each month, in each market, the USDA calculates the Class I minimum price by adding a Class I differential to a measure of manufacturing milk values. The Class I differential is a price adjustment that varies according to the distance of a given market from the Upper Midwest. The farther from the Upper Midwest, the larger the Class I differential, and therefore, the higher the minimum Class I price.

The logic was that the Upper Midwest was the nation's principal reserve supplier of fluid milk. Therefore, when other regions ran short, higher Class I prices would help them attract milk from the Upper Midwest to the areas of shortage.

The flaw in this logic was that many markets distant from the Upper Midwest never have a milk shortage. Since fluid prices in a given market affect average prices paid to all farmers, regardless of whether their milk goes for manufacturing or fluid, higher Class I differentials encouraged more production for manufacturing uses. The more manufacturing milk produced, the lower the price. This penalized states like Wisconsin, where most milk produced is used for manufactured products.

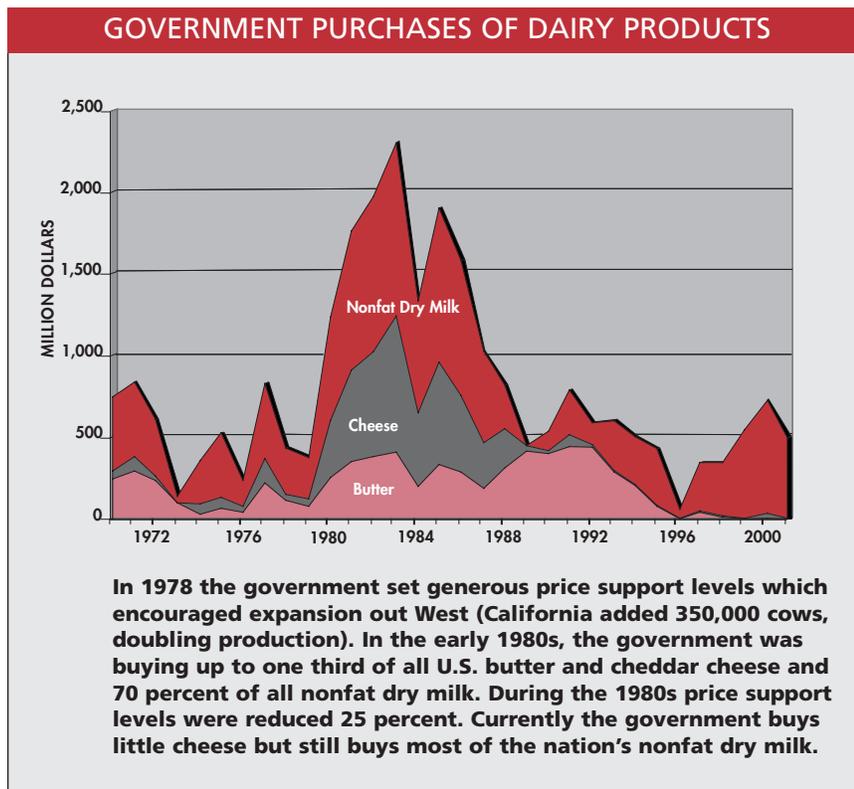
Would Wisconsin Be Better Off Without Federal Dairy Programs?

Are federal dairy programs doing Wisconsin more harm than good? To address this question, UW-Madison analysts used a computer simulation model to estimate what would happen if both programs had been eliminated in 2000.

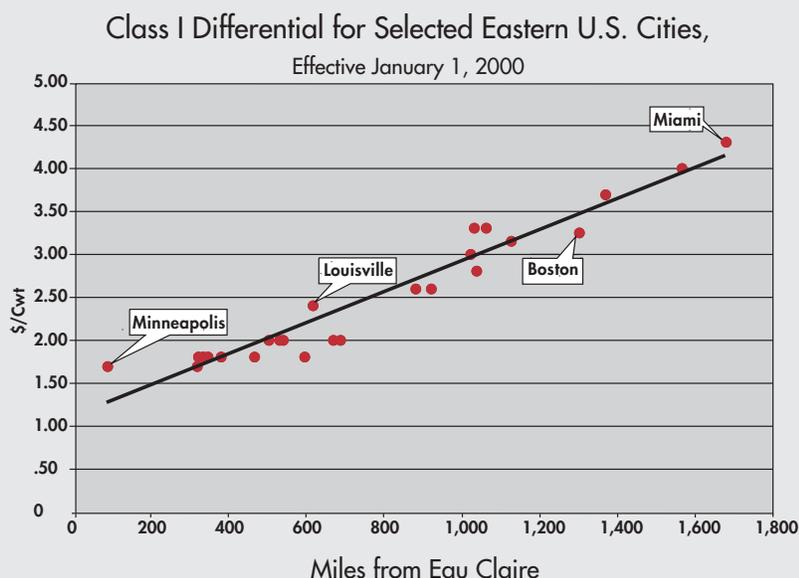
Ending price supports would be costly to Wisconsin, the analysis suggests. Terminating the price support program in 2000 would cut the national average farm milk price by an estimated \$0.42-0.70 per hundredweight. U.S. milk production would drop 3-4 billion pounds because of lower prices, and milk revenues would drop by \$1.1-1.6 billion. In the Upper Midwest, farmers would be paid \$0.41-0.57 less for each hundredweight produced.

The current version of the dairy price support program — spelled out by the Farm Security and Rural Investment Act of 2002 — provides a reasonable safety net for dairy farmers in Wisconsin and elsewhere. The current level of support is low enough so that it does not artificially enhance milk prices. At the same time, it is high enough to prevent price catastrophes and industry over-adjustment.

Wisconsin could benefit slightly if federal milk marketing orders had ended, while some other regions would see losses. But the overall effect of terminating marketing orders is small. U.S. average prices would fall 5-10 cents per hundredweight, and milk production would drop less than 1 percent. In general, prices paid to farmers would decrease in regions with high Class I use as fluid milk prices fall below order minimum prices. Prices to farmers would gain in regions where manufacturing is important: Lower fluid prices would spur more fluid milk consumption. This would pull milk from manufacturing uses and raise prices for manufactured dairy products.



THE FARTHER FROM EAU CLAIRE, THE HIGHER THE MINIMUM FLUID MILK PRICE



The federal market order system, a system designed to prevent seasonal milk shortages, brought about regional shifts in profitability.

Under that system, the farther from the Upper Midwest, the greater the Class I differential, a price adjustment used to boost the minimum price paid by beverage milk processors. In theory, the differential attracts milk from an area of surplus (the upper Midwest) to markets that don't produce enough of their own milk on a year-round basis. In fact, many of the distant markets never run short. The higher minimum prices simply encourage farmers there to overproduce.

Differential (\$/Cwt) = 0.0018 x Miles from Eau Claire + 1.1098 R² = 0.930

The Upper Midwest would see modest farm milk price gains of about 20 cents per hundredweight from termination of marketing orders, the computer model predicts. Other major manufacturing regions would see similar results.

Previous simulations had suggested larger effects — farm milk price gains of 8-10 percent for the Upper Midwest. This diminished effect is partly due to using 2000 as the base year. Milk was in surplus in 2000, so the simulated impact of the reduced supply of milk for manufacturing was less than in years when milk supply and demand were in closer balance.

The small impact of terminating orders on the Upper Midwest is also attributable to the liberalized pooling rules that federal order reform implemented in January 2000. Under the new rules, regulated handlers in the Upper Midwest order affiliate large numbers of producers and volumes of milk with other orders that have higher Class I prices and higher Class I utilization. Only a fraction of the milk pooled on other orders has to be physically transported to qualify for pooling. So the plants receive the full benefit of a higher producer price differential without incurring hauling costs on the associated pooled volume of milk. These net benefits, included in the base model solution, disappear when federal orders are terminated.

The fairly small impact of the simulated end of federal orders suggests that competition seems to have mitigated the price distortions the federal orders bring about. For example, Wisconsin milk cooperatives have made up for low Class I differentials by paying price premiums for Class I milk. Such premiums are relatively low or nonexistent in other markets. This tends to equilibrate prices actually paid for Class I milk,

even though the minimum prices may be distorted. Similarly, liberal pooling has tended to increase Class I use and producer returns in Wisconsin while decreasing them in destination markets. This serves to equalize uniform prices across markets with similar production characteristics.

Resolving the inequities

But the fact that competition is overcoming inequities in the order system doesn't mean that order reforms should not be aggressively pursued. The pricing system needs to reflect current market conditions, not political interests. Still, while terminating federal orders would promote market orientation, it would not guarantee the prosperity or even viability of Wisconsin's dairy industry. Wisconsin needs to look at what it can do for itself in order to ensure its long-term well being.

Federal dairy programs have influenced regional competitiveness in dairying. They have created production and marketing inefficiencies and distorted regional production incentives, but they have proven largely immune to changes that would alter the regional distribution of benefits.

Despite repeated frustration, the Wisconsin Congressional delegation aggressively sought changes in federal dairy policies and had modest success. Former Congressman Steve Gunderson was instrumental in forcing federal order consolidation — the number of orders dropped from more than 30 to 11 — and obligating USDA to rethink the structure of Class I differentials in the 1996 farm bill. Senators Kohl and Feingold and several Wisconsin House delegates played an active role in ending the Northeast Interstate Dairy Compact, which threatened to further Balkanize the dairy industry. Though it comes hard, change is possible.

A Blueprint for Changes in Federal Dairy Programs.

From Wisconsin's perspective, the fundamental objective is simple: eliminate or at least minimize artificial (non-market) milk production incentives. It is essential that Wisconsin be permitted to exploit its natural competitive advantages in producing milk. That means market orientation. Market orientation won't guarantee that the state's dairy sector will grow or even stabilize. But there is good evidence that economic forces will treat Wisconsin dairy farmers and processors more favorably than political forces.

Use the support program as a safety net, not to raise prices above market-clearing levels.

If dairy farmers need income support, direct payments are preferable to elevated support prices. If supply management is used, avoid programs that unduly penalize dairy farmers who want to modernize or expand their facilities or that confine benefits to those who plan to exit in a few years.

Don't let the government be the primary market for dairy products. Government purchase prices distort the allocation of milk among various dairy products. The government will have to purchase the eligible dairy products from time to time in order for the dairy price support program to provide an effective safety net. But when the CCC becomes the primary market for a product for an extended period, processors receive bad signals and milk is being allocated inefficiently.

Establish minimum fluid milk prices that let the market operate. Minimum fluid price levels should accomplish the following:

- Encourage fluid milk consumption. Per capita consumption of beverage milk continues to slide. Setting minimum prices higher than can be justified by costs of supplying fluid milk reduces consumer sales and stifles development of new beverage products. Taxing fluid milk consumers to raise farm milk prices is short-sighted.

- Provide fluid milk to deficit markets at a minimum cost. It's inefficient to set fluid prices at levels that encourage all local fluid milk markets to be self-sufficient year-round. It makes sense to set prices that result in a combination of local production and shipments from other markets.

- Recognize that dairy products – including fluid milk – trade in national markets. The concept of a local milkshed became obsolete when grocery chains began to maintain national distribution systems for perishable items.

- Let competitive forces determine effective prices.

If the Class I differential doesn't cover the additional cost of supplying fluid milk (over that of supplying manufacturing milk) then cooperatives can negotiate with fluid milk processors to get premiums to cover the difference and raise the effective Class I price to a competitive level. If the differential exceeds the marginal cost of supplying fluid milk, then the Class I price won't fall to market-clearing levels and will spur excess milk production.

- Base the fluid milk price on market-driven supply and demand for manufacturing milk — not on demand created by the government. Fluid milk prices are supposed to reflect supply and demand for milk used for manufacturing, but that's seldom the case. Fluid milk prices are set using a formula based on the higher of two manufacturing milk prices — Class III (milk used for cheese) or Class IV (milk for butter and nonfat dry milk). Ironically, although roughly five times as much milk gets used for Class III as for Class IV, the price of nonfat dry milk usually sets fluid milk prices. That's because Class IV prices are kept artificially high by the federal dairy price support program, which buys most of the nation's nonfat dry milk. Cheese prices (and so Class III prices) are generally kept in line by market forces. Basing fluid milk prices on market-driven prices, rather than an artificial government price, would be less likely to encourage overproduction.

- Do not encourage excess production of milk used for manufacturing. Dairy farmers respond to average milk prices, which are a function of federal order class prices and utilization by class. If Class I prices are higher than they would be under competitive conditions, then fluid milk consumption is too low and milk production is too high. The result is too much milk for manufacturing purposes. This lowers farm milk prices everywhere, but more so in regions that depend heavily on manufacturing.

Prevent subsidization of dairy feed costs. Cheap feed means cheap milk. Grain producers should plant feed grains and oilseeds based on expected market returns, not on government payments tied directly to levels of production (e.g., market loss payments, loan deficiency payments). If income support to crop farmers is deemed appropriate, eligibility should not be linked to production.

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