

Bringing Dairy Policy into the 21st Century:



A Guide to Rethinking Dairy Policy for a Dynamic Industry

I think it's safe to say that no one in the industry is really happy with the status of federal order pricing. Markets have changed and changed dramatically. But we're stuck with a system that doesn't reflect those changes. It's locked in the past... It's rigid and can't adequately adjust to change. And when it does, it's so slow that any changes are usually too little too late.

Connie Tipton, President and CEO, IDFA on federal milk pricing. (Keynote Speech at International Dairy Forum, La Quinta, California, January 21, 2008)

Introduction

Once heavily dependent on dairy purchases by the federal government, the U.S. dairy industry has been transforming itself into a potent economic force in an increasingly global marketplace. Increases in dairy farm productivity, innovations in manufacturing, marketing and transportation, and development of new, high-value dairy products and food ingredients have positioned the industry for success in domestic and export markets.

For all of these exciting changes, the industry's full potential remains untapped, thanks largely to a suite of mid-20th century federal policies that clash with the new realities of the 21st century dairy industry. Few, if any, U.S. industries are as heavily controlled by the federal government as the dairy industry. Like other agricultural sectors, it must comply with federal food safety, nutritional and environmental regulations. The dairy industry, however, is also subject to a wide array of federal programs that control the price and market supply of the product, but have failed to protect small dairy farms' incomes while accelerating a shift to fewer and larger farms. (See "A Quick Guide..." below.)

A Quick Guide to Federal Dairy-Farm Income Enhancement Programs

The federal dairy-farm safety net is composed of a broad array of programs, some of which have origins dating back as far as 1933. Programs covered in this paper include:

- 1) *Federal Milk Marketing Orders* (FMMOs) – The U.S. Department of Agriculture, not the market, sets prices for milk received by farmers throughout the country. FMMOs were designed to ensure a local milk supply for all communities and to ensure that dairy farmers were guaranteed minimum prices.
- 2) *Milk Price Support Program* (MPSP) – USDA purchases of cheese, butter and milk powder remove those products from the marketplace, driving up their prices along with the price paid for farmers' milk.
- 3) *Milk Income Loss Contract* (MILC) program – The federal government writes dairy farmers a check when the price they receive for their milk falls below a predetermined level. The lower the milk price, the higher the check from taxpayers.
- 4) *Dairy Export Incentive Program* (DEIP) – USDA subsidizes exports of cheese, butter and milk powder when U.S. prices for those commodities are too high to allow them to compete in world markets. The subsidies make it profitable for U.S. exporters to sell to importers at prices below the U.S. level and help dispose of dairy commodities purchased under the MPSP.

Few would question the overall goal of providing an income safety net for dairy farms to ensure an adequate, dependable supply of milk for the nation. In practice, however, the current mix of federal programs has failed to protect small dairy farms and has kept the industry from meeting the needs of customers and reaching its economic potential. The industry's future growth will be driven by the demand for innovative, value-added products, and especially by export market development, given the slow growth of domestic demand for traditional dairy products. However, most current dairy policies date back to the 1930s and 1940s. They retain their outdated focus on managing the price and supply of milk and basic dairy commodities often at the expense of new-product and market development. The goal of this paper is to identify policy areas that need the kinds of reforms that will enable the entire industry to meet its 21st century challenges.

The Need to Bring Order to the Federal Milk Marketing Order System

1. Introduction: A Mid-20th Century Price Fixing Out of Synch with a 21st Century Market

It should come as no surprise that the 2008 Farm Bill required USDA to form a commission to review commission to address a long list of concerns about the *Federal Milk Marketing Order* pricing system. Time and time again, the current pricing system, despite periodic tinkering by USDA, has failed to protect small farmers and has undermined the industry's ability to meet consumers' needs. FMMO milk pricing formulas often send highly distorted and untimely signals to the industry. Their extreme complexity creates confusion and undermines accountability. And the plodding FMMO regulatory process creates uncertainty for the industry that inhibits planning and prevents the industry from responding quickly and effectively to new developments.

FMMOs were established by Congress in 1937 to address challenges unique to the dairy industry during the post-Depression era. During that period, federal policy makers were rightly concerned about ensuring the viability of milk production close to the nation's populated regions. Unlike today, the dairy industry at that time lacked the sophisticated refrigeration, transportation equipment, and manufacturing methods that would allow the industry to efficiently serve the nation's populations centers with a wide array of fresh milk and manufactured dairy products. The original FMMO system was designed to provide financial encouragement to farmers to convert from Grade B to Grade A milk-producing facilities. The system did its job. Today, more than 99% of the nation's milk is Grade A.

The status of dairy farms relative to other players in the industry has also changed dramatically since the FMMOs were established. Seventy years ago, dairy farms had far less clout. The FMMOs were designed to balance the market power of farmers and manufacturers by requiring manufacturers to pay farmers no less than minimum FMMO monthly milk prices. Now, however, farmers' dairy co-ops are a potent force in the marketplace, controlling the distribution of more than 85% of the milk produced on the nation's dairy farms. In addition, the 2008 Farm Bill lifted the prohibition against dairy farms entering into forward contracts with dairy manufacturers for the purpose of locking in favorable milk prices. The dominance of co-ops and the availability of forward contracting have given dairy farms more bargaining power and have dramatically reduced the need for the comprehensive federal price-setting ability still embodied in today's FMMOs.

2. FMMO Milk Pricing Formulas: *One Unintended Negative Consequence after Another*

Rigid, complex formulas determine minimum milk prices that dairy manufacturers must pay dairy farms. These formulas, which were put in place in January 2000, are the source of a long list of the most egregious problems created by the FMMO system, including: being out of touch with current market conditions; preventing milk from moving efficiently into its highest value uses; undercutting competitive forces; creating unnecessary financial risks for many dairy manufacturing plants; forcing cost-effective dairy manufacturing plants to relocate; and driving investments away from dairy products that represent the future of a consumer-driven dairy industry.

Three primary pieces of information used in the formulas to determine minimum farm milk prices are especially problematic: 1) the previous month's market prices of cheddar cheese, nonfat dry milk powder, butter, and dry whey (which is a product of the cheese-making process); 2) fixed marketing margins for the manufacturers of those four dairy commodities, known as the "make allowance"; and 3) yield factors that reflect how many pounds of each of the four dairy commodities can be produced from 100 pounds of milk.

USDA's formulas for setting prices for the three classes of milk used to make manufactured dairy products will inevitably miss the mark. In the first place, any month's milk prices are based on the *previous* month's market prices for manufactured dairy commodities, putting the prices dairy farmers receive and the prices dairy manufacturers pay out of touch with current market conditions. Second, USDA sets milk prices based on competition for a select few *manufactured dairy commodities*. As a result, milk prices are not being determined by bidding *for milk* among competing dairy manufacturers and milk is not being moved as efficiently as it could be to its highest-value uses.

FMMO make allowances and yield factors add a third artificial distortion in milk pricing that poses a serious threat to the viability of many of the industry's manufacturing facilities. A recent debate about the impact of cost increases brought make allowances into the dairy policy spotlight.¹ However, the debate did not focus on the fundamental, systemic problems with USDA's approach to make allowances and yield factors that continue to place many dairy product manufacturers at a financial disadvantage.

For example, USDA uses a single, national average make allowance to compute the minimum milk prices that must be paid to dairy farmers regulated by FMMOs. Obviously, there will be many manufacturers of cheese, for example, that find themselves located in geographic areas where costs exceed the national average. The minimum FMMO milk price that they will have to pay, which is based on a fixed, *national average* make allowance, will be too high for them to generate sufficient returns from the sale of cheese to cover their costs. As a result, the FMMO milk pricing system will unnecessarily place the survival of these cheese plants in jeopardy. Many manufacturers of butter and milk powder, which also have to pay minimum milk prices based on national average make allowances, are similarly placed at risk.

¹ In 2007, to account for increases over time in dairy manufacturing costs, USDA issued a ruling that increased the dairy manufacturing make allowances used in calculating minimum prices of milk paid to dairy farms by manufacturers of the four dairy commodities identified above.

The FMMO pricing formulas also create artificial financial risks for manufacturers of other similar commodities by basing minimum milk prices on such a narrow range of dairy commodities. The prices that all cheese plants pay for the milk they use, for example, is based on the average cost of manufacturing *cheddar* cheese. Suppose that the price of *mozzarella* cheese fell as a result of an economic dip that disproportionately affected U.S. pizza consumption. If cheddar cheese prices remained constant or declined to a lesser extent, the cheddar-cheese-based minimum price of milk that mozzarella cheese manufacturers would have to pay would be higher than warranted by the supply and demand fundamentals of the mozzarella cheese industry. The incomes of mozzarella cheese manufacturers would be squeezed unnecessarily in the process.

A similar problem occurs for manufacturers of high-value dairy protein ingredients, such as whey protein isolates (WPIs), used in cutting-edge, domestic consumer products like energy bars and sports drinks. FMMO formulas require manufacturers of WPIs to pay minimum prices for farmers that are based on the wholesale prices of dry whey, a completely different product priced largely in export markets.

A recent tripling of the price of dry whey to record levels in 2006 and 2007 served as a stark reminder of unintended, but real investment disincentives created by FMMOs. Thanks to the pricing formulas, WPI manufacturers subject to federal pricing regulations were placed in a government-created cost-price squeeze and unnecessarily lost money producing some one of the industry's most-promising products. They had to pay minimum milk prices based on skyrocketing prices for dry whey, which has no relation to prices for WPIs.² As a result, owners of WPI plants in federally regulated areas were sent a powerful message that the FMMO pricing formulas can turn the tables on otherwise favorable investment opportunities in innovative dairy products. The upshot is that business decisions for dairy manufacturers regulated by FMMOs are needlessly forced away from the kinds of investments that represent a clear path to a prosperous future in a consumer demand-driven industry. Similar manufacturing plants in locations that are not subject to federal pricing regulations and formulas, however, paid prices for their milk that reflected competitive conditions and thus avoided the artificial cost-price squeeze imposed on federally regulated plants.

The FMMO pricing formulas also have a powerful, distorting impact on the location of cheese manufacturing plants. They set a national average minimum price for milk used to make cheese that is significantly higher than the price set by California, which has its own state milk marketing order, and other areas that are not regulated by FMMOs. Since cheese manufacturers are largely paid the same wholesale price for their product regardless of their location, they have a powerful incentive to build new plants outside of FMMO-regulated areas to take advantage of lower milk prices. As a result, the federal government, through FMMO pricing formulas, has unintentionally been placed in the unenviable position of picking regional winners and losers.

² Manufacturers of milk protein concentrates (MPCs) are also held hostage by the pricing formulas since the price of the milk they buy is based not on the market for MPCs, but on the market for nonfat dry milk powder.

Moving From Milk Price Supports to Programs that Support Market Development

1. Introduction

The *Milk Price Support Program* is literally a throwback to a bygone era of the milk industry. With roots in the 1940s, the program fails to meet the needs of the modern, consumer-oriented dairy industry and generates a host of unnecessary, unintended negative consequences. The costs of the program greatly outweigh its

Milk Price Support Program

The MPSP allows the federal government to purchase unlimited amounts of butter, nonfat dry milk, and cheese to prevent dairy commodity prices from falling below levels specified by Congress. The program was formally authorized in 1949 and has cost U.S. taxpayers more than \$35 billion to date for federal purchases, transportation, storage, reprocessing, packaging, and disposal of USDA's dairy product inventory.

Adapted from: *USDA Milk Price Support Program Fact Sheet, 2004*

benefits. In addition to taxpayer costs associated with purchase, storage, transportation and packaging of USDA-purchased commodities, the MPSP discourages product innovation and diversification, undermines export market growth, creates tensions with trading partners, and imposes supply-management on a demand-driven industry.

Support for the elimination of this anachronistic and counter-productive program is growing throughout the industry. In an October 31, 2008 speech at the annual convention of the National Milk Producers Federation (NMPF), for instance, the president of the organization recommended that Congress be asked to replace the MPSP with programs “that will benefit the entire industry in a new global marketplace”.

2. Pricing the U.S. out of the Global Marketplace

Although the economic future of the dairy industry depends on the development and expansion of markets here and abroad, the current dairy safety net still encourages dairy manufacturers to produce for the federal government instead of the marketplace. During the 1980s and 1990s, for example, cheese, butter and milk powder plants sold a total of \$21.088 billion to USDA, which, under the price support program, was compelled to buy and store those products to help prop up milk prices. Between 2005 and 2008, however, as a result of the expansion of global dairy markets and rising dairy product prices, USDA purchased virtually no dairy products and U.S. *unsubsidized* commercial exports surged to the equivalent of 10% of U.S. milk production. Previously, most of U.S. dairy export was subsidized by the federal government.

Now, however, in the wake of the collapse of the global economy and the recent down-turn in milk prices, the MPSP is back with a vengeance. USDA, in its 2009 Agricultural Outlook Forum, forecasted that its Commodity Credit Corporation (CCC) will purchase and store the equivalent of more than 600 million pounds of milk in 2009 to artificially inflate milk prices. As a result, U.S. dairy exports are forecast to decline dramatically, leaving the rest of the world to question whether the United States can be a dependable supplier.

3. Encouraging Production for the Government, Not the Consumer

The renewal of CCC dairy commodity purchases also encourages an undesirable pattern of behavior development in the dairy industry. One of the main engines of product innovation is competition and the risk of losing market share in its absence. If dairy manufacturers fail to keep their products at the cutting edge of the marketplace, they run the risk of falling behind competitors in the race to satisfy consumers. CCC purchases, which are primarily nonfat dry milk powder, send strong signals to milk powder manufacturers that they have an assured market in the federal government for their basic commodity and don't need to develop and market innovative, new products made from milk powder as aggressively as they would in the absence of the MPSP.

Once prices rise again, the CCC can sell stored cheese, butter and milk powder back into commercial channels. These government sales have a counter-productive impact on the marketplace since they compete with commercial sales, add to the dairy supply, and drive down prices received by dairy manufacturers and farmers.

4. From Supply Management to Demand-Enhancement

There are creative ways for USDA to use its purchasing authorities to help provide a safety net for dairy farmers without the unintended negative consequences of the MPSP. But that would require viewing the dairy industry from a 21st century market-development perspective rather than through a 1930s-style supply management lens.

Instead of storing bulk commodities that are not at the leading edge of consumer demand, for example, USDA could harness the federal food assistance programs to enhance the demand for the nutritious dairy products that represent the future of the industry. These include yogurts, low-fat and reduced-fat cheeses, and innovative milk products for which the demand is growing. In the current recession, market demand has been undercut by the pervasive loss of jobs and declining asset values. Those same forces have increased the urgency of assisting low-income families lacking purchasing power to fully meet their food needs in the marketplace. Donations of these dairy products could provide a fourfold win for the nation and the dairy industry. It would not only help boost milk prices, fight hunger, and fill gaps in current market demand created by the recession, but would also help develop future markets for nutritious dairy products. That's a far cry from the fourfold negative consequences of the current MPSP discussed above.

Realizing the Full Potential of Income Subsidy Payments to Dairy Farmers

Income subsidies offer an opportunity to create a safety net that can effectively protect small dairy farms' incomes without the kinds of unintended consequences common to the MPSP and FMMOs.

Dairy farmers are currently served by a new version of the *Milk Income Loss Contract* (MILC) program, which was first established in the 2002 Farm Bill and was reauthorized with some improvements last year. The MILC program is targeted toward smaller dairy

farms since it limits the amount of annual milk production from a farm that qualifies for federal payments. (See box, “MILC Program Subsidy Payments” for details.) In 2009, the Congressional Budget Office estimates that the MILC program will provide about \$1 billion in subsidy payments to dairy farms.

While the current MILC program has fewer negative impacts than the MPSP and attempts to account for much-higher feed costs now faced by dairy farmers, it does have shortcomings.

In times of relatively low prices, low-cost dairy farms with cows that produce far more milk than average, for example, will receive substantial MILC payments even though they are earning high incomes. That's because MILC

payments are triggered largely by the level of milk prices. Conversely, when milk prices are relatively high, farms that are earning low incomes due to surges in production costs, may receive inadequate MILC payments. The 2008 Farm Bill did insert a feed-cost adjustment mechanism into the MILC program, which partially addresses the problem. However, it hasn't been sufficient to effectively protect many dairy farms' incomes since costs of production also include other expensive items, such as fuel and other energy-related items.

Revenue assurance programs avoid that conundrum and have the potential to improve on current income support programs by providing better methods of helping small and large farms cope with price and income volatility.

They can be triggered by income changes rather than price changes and can address all aspects of dairy farm risk, including prices, costs, and yields. When prices *and* costs are low, milk yields are high, and incomes are at acceptable levels, revenue assurance programs would not make unnecessary payments to dairy farms. On the other hand, when prices are high, but incomes are low due to low milk yields and high energy and feed costs, revenue insurance would provide needed income support to dairy farmers. Revenue insurance programs have the added advantage of being considered by global trade authorities to be less-trade-distorting than price-based programs like the MILC program and the MPSP.

Recent examples indicate that revenue assurance programs can provide a legitimate alternative dairy farm safety net. The 2008 Farm Bill provided a new revenue assurance crop-subsidy option, the *Average Crop Revenue Election* (ACRE) program, which provides participating farmers with protection against adverse changes in crop prices and yields. Since 1996, crop farmers have also enrolled in revenue insurance programs that comprised more than half of all federal crop insurance spending in 2006. And last year, USDA began its *Livestock Gross Margin for Dairy Cattle Insurance Policy* program, which enables participating dairy farmers to insure their operations against negative movements in the relationship between milk prices and dairy cattle feed costs.

MILC Program Subsidy Payments

The MILC program provides dairy farmers with counter-cyclical type payments above what they receive in the marketplace. Payments are triggered when the actual Boston area FMMO Class I price falls below \$16.94 per 100 pounds of milk. (One gallon of milk equals 11.6 pounds.) When feed costs exceed a certain level, the trigger price is increased above \$16.94, increasing the payment. Dairy farms are eligible for payments on only their first 2,985,000 pounds of milk production each year or about total annual output from a dairy farm with 150 cows.

Conclusion

The review in this paper of major U.S. dairy programs reveals the type of policy combination required to bring federal involvement in the dairy sector into line with the 21st century opportunities and challenges facing today's dairy industry. The current suite of federal dairy policies forms an unreasonable combination of programs that can undermine innovation, export market potential, and the ability to respond rapidly to changing consumer demands and other dynamic market forces. A basic policy equation that benefits all domestic stakeholders would require pairing a more-effective, income-subsidy safety net with a revamped, more-market-oriented FMMO system. That combination would meet the criteria for a 21st century dairy policy in the box below and would lay the groundwork for a robust industry-government partnership that brings lasting prosperity to dairy farms and manufacturers alike.

Criteria and Guiding Principles for 21st Century Dairy Policy

- ***An effective, income-based farm safety net.*** The dairy farm safety net should be focused on addressing the real income support and risk management needs of dairy farms, rather than be driven by government manipulation of price levels.
- ***A competitive orientation.*** Federal dairy policy should encourage a competitive environment, rather than impose limits on artificial limits on production, product-innovation and marketing that can undermine the industry's competitive standing at home and abroad.
- ***Consistency with a consumer-driven industry.*** Dairy programs should be consistent with today's consumer-driven industry and focus on enhancing demand rather than controlling prices and supply.
- ***Supportive of trade expansion.*** The safety net should not include policies that distort global markets, undermine industry competitiveness and clash with our global trading obligations.