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Fostering a Dynamic Dairy Policy: Part III

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Fostering a Dynamic Dairy Policy: Part III[1]

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Declines in milk prices to below support levels and the accumulation of CCC stocks during the first half of 2003 have raised a number of questions that will be addressed in this, the third in a series of dairy policy papers including:

- To what extent has dairy policy contributed to current economic conditions?
- What other factors are contributing to current conditions?
- What policy options exist for dealing with the current situation?
- What are the consequences of each option?

Contribution of Dairy Policy

Parts I and II of this paper concluded that Federal Milk Marketing Order (FMMO) reform decisions had not adequately considered either the effects on all segments of the industry or their long-run consequences.[2] As a result, vested interests have developed that have made it impossible to obtain a consensus on needed remedial changes in dairy policy. Neither of these papers addressed how interactions between Federal Order, price support, and the direct payment (MILC) programs contribute to current industry conditions, which have deteriorated since Parts I and II were published. It is the conclusion of this paper that these three programs are internally inconsistent with the effect of fostering and accentuating the accumulation of government stocks and, therefore, contribute to the decline in milk prices.

The focal point of this internally inconsistent policy, not discussed in the previous papers, is the inherent conflict between the direct payments and price supports. The sequence of cause and effect relationships is as follows:

1. Direct payments increase returns (gross income) to dairy farmers above the level that would otherwise have existed.
2. This increase in returns causes the recipient producers to increase production above the level that would have existed in the absence of such direct payments. This increase in production results both from the fact that direct payments shield at least one-third of U.S. milk production from market realities and from the tendency of smaller producers, having less than the approximately 130 cow payment limit, to remain in production. Smaller producers, operating within the payment limit, historically have been the most likely to exit from milk production.

[1] This paper benefited from comments provided by Bill Motes and Mary Ledman. The implications and conclusions drawn from these comments are those of the author and should not be attributed to either of these individuals.

[2] Ronald D. Knutson, *Fostering a Dynamic Dairy Policy*, AFPC Issue Paper 02-1, Agriculture and Food Policy Center, Texas A&M University, College Station, TX, November 2002. Ronald D. Knutson, *Fostering a Dynamic Dairy Policy: Part II*, AFPC Issue Paper 03-1, Agriculture and Food Policy Center, Texas A&M University, College Station, TX, February 2003.

3. Higher production than would otherwise have existed ends up being processed into storable manufactured products (butter, NFDM, and cheese). Those products that cannot be sold commercially and are not needed for commercial stocks are sold to the Commodity Credit Corporation. The result is that CCC stocks are higher than they would have been absent the direct payments.
4. High government stocks place downward pressure on manufactured product prices within the limits of the prices set by the price support program and the qualified products offered by processors to the Commodity Credit Corporation.[3]

This cause and effect sequence is not unique to dairy. It results from an inherent inconsistency in utilizing safety net programs that simultaneously and independently support farm prices (price support programs) and income (direct payment programs). This inherent inconsistency previously was experienced by program crops when from the mid-1970s through 1995 the nonrecourse loan program (a price support program) was operated simultaneously with a target price program (a direct payment program). The target price program guaranteed farmers a specified level of returns (not a specified market price), to which farmers responded by increasing production above that which otherwise would have existed. Simultaneously, the nonrecourse loan program was supporting the market price for the program crops such as corn, wheat, cotton, and rice, at a level lower than the target price. The increased production fostered by the target price drove the market price for these program crops down to the nonrecourse support level (referred to as the loan rate). If the support price was above the world market price, as it often was, the residual product that could not be sold in the domestic and foreign market was forfeited (sold) to the Commodity Credit Corporation.

As CCC stocks of program commodities grew, political and government cost pressures developed to either dispose of these stocks, to reduce the target price, or to control production. In reality, all of these strategies were employed, singly or in combination, at various times. For example, rice and cotton farmers at times were required to set aside (not produce on) as much as 30 percent of their land to be eligible for direct payments. On another occasion, a payment-in-kind program gave farmers CCC commodities in return for setting aside a portion of their land. The effects of these programs were not only to reduce production but also to release CCC commodities onto the market with the effect of further lowering the market price.

A series of such consequences led cotton and rice producers to adopt the marketing loan program in 1986 as a direct payment alternative to the price support program. Eliminating the support price effectively removed the floor on the market price by making a direct payment of the difference between the market price and the loan rate. From 1986 through 1996, USDA operated with two direct payment programs--a target price in combination with the marketing loan program. While the 1996 farm bill replaced

[3] The issue of why manufactured product prices fall below the specified CCC support level is not treated here. Suffice it to say that this phenomenon is not new, although it appears to have increased in intensity. The price shortfall appears to result from the combination of an increased proportion of products that do not meet the CCC quality specifications (but can be sold commercially), the risks associated with the product being rejected, delays in inspection, and the related transaction costs.

the target price with a fixed direct payment that was extended to all program commodities, the 2002 farm bill reinstated it in modified form, while retaining the fixed payments.

The important lesson demonstrated from this experience is the inherent incompatibility of price supports and direct payments. Since farmers react to direct payments by increasing production, the simultaneous employment of price supports results in the accumulation of costly CCC stocks, which drive prices down and eventually become untenably large. FMMOs have contributed to the increase in milk production by a reform provision that sets the price of milk used for fluid purposes (Class I) at a fixed differential over the higher of the price of milk used for cheese (Class III) and the price of milk used for butter and NFDM (Class IV). This provision, hereinafter referred to as "higher of" pricing, has provided the greatest incentives for increased milk production in high fluid utilization markets, which typically have higher production costs.

Other Contributing Factors

While dairy policies are an important factor leading to the current low milk prices, the following three other factors need to be recognized:

- Curtailed income growth and increased unemployment reduce consumption of milk and its products. Of course, this effect would be reversed when the U.S. economy gets back on a growth track.
- Consumers' reduced preference for cheeseburgers and pizzas has curbed cheese consumption. Per capita cheese consumption, a majority of which is sold through fast food establishments, had experienced persistent growth since 1957, one of the few bright spots influencing the overall demand for milk.
- Technological change in milk production has fostered the growth of large-scale dairy farms, which when well managed, experience substantially lower milk production costs per cwt than smaller farms. Available information suggests that there are strong economic incentives for progressive dairy farmers to expand their operations to 2,000 cows and beyond. These forces operate despite surplus conditions and reduced milk prices, although not with the same vigor as when prices are high.

The relative importance of these other contributing factors, their duration, and their interaction with the previously discussed policy variables has not been sufficiently studied. However, they must be recognized and considered in charting the future policy course as was discussed in Part II.

Dairy Policy Options and Consequences

Many combinations of policy options for dealing with the current CCC stock/price situation existing in dairy could be identified. The emphasis here is on the direction of impacts, realizing that the magnitude of the consequences would depend on the intensity with which each option is pursued.

Status quo

Continuation of the current policy utilized hereinafter as the baseline for comparison and involving the combination of price supports at the $9.90 per cwt level, direct payments, and "higher of" FMMO pricing would have the following general consequences:

- CCC stocks would continue to build creating increasing pressures for disposal.
- As CCC stocks build, incentives for the private sector to hold stocks decline.
- As CCC stocks build, commodity and milk prices would remain near support levels.
- Seasonal rises in milk prices would be shorter and less pronounced.
- Export demand is dependent on the Dairy Export Incentive Program (DEIP), and prices are maintained at a level that makes it impossible to compete in processing U.S. sources of imported milk protein.
- Income pressures would continue, but would be influenced by the level of feed costs. The most intense income pressures would be on farmers having a range of 130 cows to 1,500 cows who, due to payment limitations, are not eligible for further income support and are unable to realize the economies of size experienced by farms having over 1,500 cows.[4]

Increase price supports

Increasing price supports, while maintaining the level of direct payments and "higher of" FMMO pricing, would have the following general consequences:

- CCC stocks would be further increased relative to the status quo as incentives for increased milk production build and as consumption is curbed by higher milk prices.[5]
- As CCC stocks build, private sector incentives to build stocks further decline.
- Higher CCC stocks mean that prices will more firmly rest at or near support levels.
- Higher CCC stocks make it even less likely that seasonal milk prices would rise above the support levels.
- Export demand is even more dependent on the Dairy Export Incentive Program (DEIP) than under the status quo baseline policy, and prices are maintained at a level that makes it impossible to compete in processing U.S. sources of imported milk protein.
- Income pressure would be reduced, although inequities for moderate size farms (250-1,500 cows) would remain.

Increase direct payments

Increasing direct payment levels, while maintaining the current price support levels and "higher of" FMMO pricing, would have the following general consequences:

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[4] To a degree the 1,500 cow dividing line is arbitrary. It is recognized that larger farms generally realize lower costs, but the relationship of costs and size is not uniform, depends on management, and the level of debt financing. Larger farms also tend to realize higher milk prices, particularly in traditional milk production areas such as the Midwest.

[5] While it is recognized that the demand for milk is inelastic, this does not negate the fact that consumption declines as the price support is increased. For each 1 percent increase in the price support level, the magnitude of that decrease is believed to be in the range of 0.1-0.2 percent for fluid milk and 0.5-0.7 percent for manufactured products (includes ice cream, NFDM, butter, and cheese).

- CCC stocks would increase above status quo levels, but below the price support increase option, as a result of increased production. The production increase would be less than the increase price support option because of payment limits. Consumption would be the same as under the status quo—greater than if price supports were increased.
- Higher CCC stocks would reduce private sector incentives to hold stocks.
- Higher CCC stocks mean that prices will more firmly rest at or near support levels.
- Higher CCC stocks make it even less likely that seasonal milk prices would rise above the support levels.
- Export demand continues to be dependent on the Dairy Export Incentive Program (DEIP) as it is under the status quo baseline policy, and prices are maintained at a level that makes it impossible to compete in processing U.S. sources of imported milk protein.
- Income pressure would be greater for moderate size farms (250-1,500 cows) as under status quo policies. Income of farms within the payment limit (less than 250 cows) would improve relative to all larger size farms having generally higher levels of efficiency.

Eliminate direct payments

Eliminating direct payments, while maintaining the current price support levels and "higher of" FMMO pricing, would have the following general consequences:

- CCC stocks would decrease below status quo levels as a result of reduced production by farms that are within the payment limit. Consumption would be the same as under the status quo—greater than if price supports were increased. Economic pressures to reduce production to a level that is more consistent with demand would increase over time.
- Lower CCC stocks would increase private sector incentives to hold stocks.
- Lower CCC stocks mean that prices will less firmly rest at or near support levels.
- Lower CCC stocks make it more likely that seasonal milk prices would rise above the support levels.
- Export demand continues to be dependent on the Dairy Export Incentive Program (DEIP) as it is under the status quo baseline policy, and prices are maintained at a level that makes it impossible to compete in processing U.S. sources of imported milk protein.
- Income pressure would be greater for farms within the payment limit (less than 250 cows). Inequities imposed by payment limits on moderate and larger size farms would be removed. There would be generally higher levels of milk production efficiency.

Eliminate price supports

Eliminating the price support program, while maintaining the current direct payment program and "higher of" FMMO pricing, would have the following general consequences:

- CCC stocks would decrease below status quo levels as a result of removing the floor under market prices. Production by farms that are within the payment limit

would experience relatively less production decline than other farms. Moderate size farms would experience the greatest income pressure. Consumption would increase with reduced milk prices. Economic pressures to reduce production to a level that is more consistent with demand would be substantial and increase over time.

- As CCC stocks are drawn down, private sector incentives to hold stocks would increase to the point where all stocks would eventually be held by the private sector, as currently is the case for most other program commodities.
- The absence of price supports and CCC stocks means that prices will be market determined. As CCC stocks are disposed of and production declines, prices would rebound. Political pressures would develop to increase direct payment levels and to eliminate payment limits. The impacts on government costs would be determined by the tradeoff between payment levels and reduced CCC support, storage, and disposition costs.
- Lower CCC stocks result in seasonal milk prices patterns determined by market forces. This means a higher level of price instability, resembling that which existed during the post-1996 farm bill when CCC stocks were low or nonexistent.
- Export demand is no longer dependent on the Dairy Export Incentive Program (DEIP) because manufacture product prices fall to a level that makes it feasible for U.S. processors to compete in processing U.S. sources of milk protein that would otherwise by imported.
- Income pressure would be relatively less on farms within the payment limit. Inequities would exist for farms exceeding the payment limits. There would be generally higher levels of milk production efficiency.

Eliminate "higher of" pricing of Class I milk

"Higher of" reform provision sets the price of milk use for fluid purposes (Class I) at a fixed differential over the higher of the price of milk used for cheese (Class III) and the price of milk used for butter and NFDM (Class IV). The general effect of "higher of" pricing has been to increase milk production in higher fluid utilization (Class I) and higher cost milk production areas. The higher Class I price reduces fluid milk consumption in all federal order markets with adverse effects on consumers and fluid milk processors. The effect of increased production and reduced consumption is to reduce prices for manufactured products toward the price support level. As a result producers located in high manufacturing markets suffer. The effect is regional distortions in both milk prices and production patterns. Beneficiaries have been producers in higher Class I utilization areas and manufacturing milk processors. Eliminating "higher of" pricing would have the following consequences:

- Prices of Class I milk would decline when the Class III or Class IV prices are different.[6]
- Fluid milk consumption would increase as Class I prices decline.
- Production in higher cost Class I utilization markets would decline.

[6] Admittedly, "higher of" pricing is not as much of a problem when CCC purchase prices are properly aligned. However, history clearly has demonstrated strong political resistance to tilting CCC purchase prices consistent with market forces. This suggests a need for a trigger mechanism on CCC purchase prices that is trackable, transparent, and effective.

- Prices of manufactured products would increase as a result of milk being attracted away from these uses by increased fluid milk consumption and reduced production in high fluid utilization markets.
- CCC stocks would decline as less manufactured products would be sold to the CCC.
- Income to producers in the aggregate would not be materially affected, although it would be redistributed in the direction of those producers who are the most efficient.

Dairy production control programs

A number of attempts have been made by government to explicitly control the production of milk. The only one of these that has had unqualified success in curtailing production involves mandatory marketing quotas as utilized by Canada and the European Union's common agricultural policy (CAP). A study of the Canadian dairy policy indicates a substantial curtailing of growth in dairy farm size and a consequential increase in the cost of milk production.[7] This study determined that the largest single asset on the balance sheet of Canadian dairy farmers is the value of quotas, which in Canada are traded. These quota values are a windfall gain and opportunity cost to dairy farmers who are currently in production, a barrier to entry and cost to those who desire to enter production, and a cost to consumers. U.S. experience with explicit government control of milk production has involved various forms of voluntary programs.[8] Such programs, at best, have reduced milk production in the short run, but have not been effective in the long run.[9] The most effective program involved a buyout of whole dairy farms, which can also be credited with having contributed to the construction of often-larger farms in other states and regions of the United States.

Implications

Experience with dairy programs demonstrates the unforeseen consequences and problems that result when one government program and provision thereof is piled on top of

[7] Knutson, Ronald D., Robert Romain, David Anderson, and James W. Richardson, "Farm Level Consequences of Canadian and U.S. Dairy Policies," *AJAE,* December 1997.

[8] Mandatory programs in the United States typically require a confirming vote of two-thirds of the current producers. Voluntary programs are enrolled in by individual producers. The only U.S. production control program currently exists in tobacco, although one is authorized, but not implemented, for sugar.

[9] *Alternatives to Reduce Dairy Surpluses*, Report to the Congress by the Comptroller General of the United States, United States General Accounting Office, CED-80-88, July 21, 1980. *Effects and Administration of the 1984 Milk Diversion Program,* Report to the Congress by the Comptroller General of the United States, United States General Accounting Office, RCED-85-126, July 29, 1985. *Dairy Termination Program: A Perspective on its Participants and Milk Production,* Report to the Congress by the Comptroller General of the United States, United States General Accounting Office, RCED-88-157, May 1988. *Dairy Termination Program: An Estimate of its Impact and Cost-Effectiveness,* Report to the Congress by the Comptroller General of the United States, United States General Accounting Office, RCED-89-96, July 1989. *Federal Dairy Programs: Insights into Past Provide Perspective for the Future,* Report to the Congress by the Comptroller General of the United States, United States General Accounting Office, RCED-90-40, March 8, 1990.

another. It is illustrated in this paper by direct payments and FMMO's "higher of" pricing being piled on top of the price support program, which results in intolerably high levels of government stocks. It is illustrated by the Northeast Dairy Compact being piled on top of FMMOs and the price support program with the same effect. Parts I and II of this paper series indicated the unforeseen consequences from the FMMO reform decision to create four Classes of milk with the effect of isolating milk used for butter and NFDM from competing with milk used for cheese. The basic need is to keep programs simple, transparent, and designed to achieve a set of objectives that are neither ambiguous nor conflicting. Parts I, II, and III of this series indicate that this need is not satisfied by current dairy programs.