WHAT WILL HAPPEN AFTER THE USDA'S DAIRY PRICE SUPPORT PROGRAM ENDS?

W.D. Dobson*

The USDA's dairy price support program is scheduled to end after 1999. Currently, the USDA purchases butter, nonfat dry milk (NDM) and cheese in amounts needed to prevent U.S. farm milk prices from falling below designated support levels. While USDA purchases of dairy products for price support purposes have been small in recent years (average budget outlays of $77 million/year for price supports and export subsidies during 1993-97), purchases under the program have provided a price safety net for U.S. dairy farmers. The scheduled phaseout of the program—which has been a fixture in U.S. dairy markets for generations—understandably causes concern. Dairy farmers, milk processors and others have asked how milk prices and dairy markets will change after the price support program ends. This briefing paper addresses these issues in a Question and Answer (Q&A) framework and considers options for the U.S. dairy industry in the post-1999 period.

Questions & Answers Relating to Termination of Dairy Price Supports

Q1: What, if anything, will replace the USDA's dairy price support program when it ends after 1999?

A1: Under the Federal Agricultural Improvement and Reform Act of 1996 (1996 Farm Bill), the USDA's dairy price support program based on product purchases will be eliminated after December 31, 1999. Starting in 2000 a recourse loan program for dairy processors—under which loans must be repaid with interest—will be implemented for manufacturers of butter, cheese and NDM. Under this program, processors can receive Commodity Credit Corporation loans to help them finance and manage inventories of dairy products purchased at a milk price equivalent to a $9.90 per hundredweight support price. The USDA will not acquire dairy products under this recourse loan program. The new recourse loan program for dairy products is likely find limited use since there is little evidence that processors find it difficult to obtain private credit at reasonable interest rates to finance dairy product inventories. Hence, a recourse loan program for dairy products is unlikely to provide a floor under U.S. milk and dairy product prices.

* W.D. Dobson is Distinguished Professor in the Department of Agricultural and Applied Economics and Director of Renk Agribusiness Institute at the University of Wisconsin-Madison. Research results reported in this paper were financed in part with funds provided by the Babcock Institute for International Dairy Research and Development.
The Dairy Export Incentive Program (DEIP) was authorized by the 1996 Farm Bill to continue through 2002. By expanding export sales, this program increases domestic dairy product prices. However, as a result of commitments made by the U.S. government to reduce export subsidies under the Uruguay Round GATT agreement, the amount of dairy products that can be exported with subsidy under the DEIP will be reduced substantially by 2000.

The maximum amounts of butter, cheese, and NDM that can be exported with DEIP subsidies under the GATT agreement in 2000 are shown in Table 1.

Table 1. Maximum Subsidized Exports under the Dairy Export Incentive Program.*

<table>
<thead>
<tr>
<th>Product</th>
<th>Maximum Subsidized Exports in 2000 (Metric tons)</th>
<th>Maximum Subsidized Exports in 2000 as a % of 1997 Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butter &amp; Butteroil</td>
<td>21,097</td>
<td>4.0%</td>
</tr>
<tr>
<td>Cheese</td>
<td>3,030</td>
<td>0.1%</td>
</tr>
<tr>
<td>NDM</td>
<td>68,201</td>
<td>12.4%</td>
</tr>
</tbody>
</table>


Thus, the DEIP program will provide the most substantial support for NDM prices after the present dairy price support program ends. DEIP export subsidies for cheese will be essentially eliminated in 2000.

The federal milk order program will remain in place after the current dairy price support program ends. As a result of proposed amendments currently under consideration, the marketing areas for the orders are likely to be consolidated but changes in the Class I differentials probably will be small. The Basic Formula Price (based on manufacturing milk values) which is the mover for Class I (fluid milk) prices under the orders will reflect changes in manufacturing milk prices that stem from elimination of the current dairy price support program.

Q2: Market developments have kept milk and dairy product prices relatively high at times in recent years and especially during mid to late1998, suggesting that a dairy price support program may no longer be needed. Have market conditions changed sufficiently that a dairy price support program is no longer needed to keep domestic milk prices above recent support levels?
A2: Figure 1 appearing below indicates that U.S. manufacturing milk prices (as measured by the federal milk order Class III prices) been higher than the government support price in recent years. This suggests that elimination of the price support program will have little or no impact. But such a conclusion is an oversimplification.

During January 1997-July 1998, U.S. market prices for butter, cheddar cheese, and NDM averaged 200%, 19%, and 3% higher, respectively, than the USDA support prices for these products. Therefore, only NDM prices averaged near support levels in this recent period.

**Figure 1. Basic Formula Price and USDA Support Price, August 1968-August 1998.**

![Graph showing Basic Formula Price and USDA Support Price from August 1968 to August 1998.](graph.png)

Source: Chicago Reporter, August 1998.

However, over much of the past decade the picture has been different. Table 2 shows the number of months during the 103-month January 1990-July 1998 period when U.S. market prices for butter, cheddar cheese, and NDM were less than 5% higher than the USDA support price.

**Table 2. Number of Months when U.S. Market Prices for Dairy Products Were Less than Five Percent Higher than the USDA Support Price, 1990-Mid 1998.***

<table>
<thead>
<tr>
<th>Product</th>
<th>Number of Months 1990-July 1998 when U.S. Market Prices Were Less Than 5% Higher Than the Support Price</th>
<th>% of Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butter</td>
<td>40</td>
<td>38.8%</td>
</tr>
<tr>
<td>Cheddar Cheese</td>
<td>13</td>
<td>12.6%</td>
</tr>
<tr>
<td>NDM</td>
<td>48</td>
<td>46.6%</td>
</tr>
</tbody>
</table>

Cheese prices clearly remained more than 5% above the support level much of the time during 1990 to mid-1998. However, NDM prices were within 5% of the support price nearly half the time during this period. Moreover, unlike the recent situation when butter prices were at or near record levels, monthly U.S. butter prices averaged within 5% of the support price nearly 40% of the time during 1990 to mid-1998.

The high milk and dairy product prices of 1998 reflect impacts of reductions in milk production in California, in particular, that were weather related. Because of a host of developments, butter production was about 10% lower than year-earlier levels during the first nine months of 1998. Reflecting seasonally strong holiday demand, butter and cheese prices are likely to remain relatively high at least for the remainder of 1998. But, given high prospective milk/feed price ratios, expect U.S. milk production to recover in the coming months. Any strong recovery of milk production will put downward pressure on milk and dairy product prices in 1999.

Market participants apparently expect the downward pressure on U.S. milk prices to materialize. BFP milk futures contracts expiring in the second quarter of 1999 traded mostly in the $12.10 to $12.60 per hundredweight range during early-December 1998, down about 25% from the cash BFP price for November 1998.

Q3: Will imports of foreign dairy products depress U.S. milk prices significantly after the USDA's price support program ends?

A3: No, the U.S. has strong border protection which, at most times, limits dairy imports to only a small percentage of U.S. consumption of dairy products. The border protection takes the form of tariff rate quotas negotiated during the Uruguay Round GATT agreement. Under a tariff rate quota, a negotiated tariff is applied to imports up to a quantitative (quota) limit and a typically much higher rate is applied to imports exceeding the quota levels. U.S. within quota tariffs are low enough to allow commercial imports of small amounts of butter and NDM and larger amounts of cheese to enter the U.S. Most of the time, the over quota tariffs are high enough to strongly discourage imports of over quota dairy products. U.S. imports of butter, cheese, and NDM during 1994 to 1998 (expressed as a percent of domestic consumption) appear in Table 3.


<table>
<thead>
<tr>
<th>Year</th>
<th>Butter (Imports as % of Consumption)</th>
<th>Cheese</th>
<th>NDM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>0.2%</td>
<td>4.7%</td>
<td>0.2%</td>
</tr>
<tr>
<td>1995</td>
<td>0.4</td>
<td>4.7</td>
<td>0.2</td>
</tr>
<tr>
<td>1996</td>
<td>0.2</td>
<td>4.5</td>
<td>0.4</td>
</tr>
<tr>
<td>Year</td>
<td>Butter (Preliminary)</td>
<td>Butter (Forecast)</td>
<td>Cheese (Preliminary)</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------</td>
<td>-------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>1997</td>
<td>0.8</td>
<td>4.2</td>
<td>0.5</td>
</tr>
<tr>
<td>1998</td>
<td>0.8</td>
<td>4.1</td>
<td>0.4</td>
</tr>
</tbody>
</table>


U.S. cheese imports are clearly the largest in percentage terms. Under the Uruguay Round GATT agreement, the U.S. agreed to allow within quota cheese imports totaling 141,991 metric tons (equivalent to 4.1% of 1997 U.S. consumption) by 2000. Hence, probably there will be little or no cheese imports over and above the quantities indicated in Table 3 during the GATT Uruguay Round implementation period which ends in 2000 and for a number of years thereafter. Imports of butter and NDM in the quantities indicated in Table 3 would exert little downward pressure on U.S. prices of these products. The cheese imports are more substantial—large enough to put some downward pressure on U.S. cheese prices. But the amount of downward pressure is reduced by the fact that some imported specialty cheeses do not compete directly with similar cheeses produced in the U.S.

U.S. imports of butter, cheese, and NDM will remain near the levels indicated in Table 3 until the new World Trade Organization (WTO) negotiations scheduled to begin in 1999 are completed, and new tariff rate quotas, minimum access quantities and export subsidy provisions are determined. If the time required to complete the Uruguay Round GATT agreement is a useful predictor, expect the new WTO negotiations to take seven or eight years to complete. The new provisions then will require several additional years to implement fully. Hence, for much of the next decade at least dairy imports will have little impact on U.S. domestic milk and dairy product prices.

Hence, any downward pressure on U.S. milk and dairy product prices will stem primarily from domestic supply and demand developments.

*The Codex Wildcard:* Revised international standards for certain cheeses will be considered for adoption at the Codex Alimentarius Commission meeting in June 1999. If the new Codex standards for cheese are adopted by the U.S. (it is not clear if or when this will happen), this would allow U.S. cheeses to be made with "...milk and/or products obtained from milk," meaning that casein, milk protein concentrate, and other forms of whey proteins would be allowed to be used in cheese production in the U.S.--currently not the case. Imported casein presently enters the U.S. with zero tariff. Hence, if the new Codex cheese standards are adopted by the U.S., this could mean that imported casein would displace some domestically produced milk and dairy products.

**Q4:** Will expanded U.S. dairy exports help to strengthen U.S. milk and dairy product prices and lessen the need for the USDA's dairy price support program?

**A4:** This is a complex question. The answer depends partly on whether the U.S. dairy industry takes a strong, proactive position with regard to expanding exports.
World dairy product prices are generally lower than U.S. prices, giving U.S. firms little price incentive to export bulk dairy products. For example, U.S. market prices for bulk butter, cheddar cheese and NDM averaged 61%, 25%, and 44% higher, respectively, than world prices for these products during January 1997 through July 1998. During the January 1990 to July 1998 period, the U.S. average monthly prices of cheddar cheese fell within 5% of the world price only once. U.S. monthly average NDM prices recorded no instances when the prices averaged within 5% of world prices during this period. U.S. monthly butter prices fell to within 5% of the world price 17 times during this period (16.5% of the time). The small U.S. butter and cheese export percentages in Table 4 are explained in part by the absence of strong price incentives for exporting.

Table 4. U.S. Exports of Butter, Cheese, and Nonfat Dry Milk, 1994-98.*

<table>
<thead>
<tr>
<th>Year</th>
<th>Butter (Exports as a % of Production)</th>
<th>Cheese</th>
<th>NDM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>16.0%</td>
<td>0.8%</td>
<td>22.0%</td>
</tr>
<tr>
<td>1995</td>
<td>11.2</td>
<td>0.9</td>
<td>29.3</td>
</tr>
<tr>
<td>1996</td>
<td>3.6</td>
<td>1.0</td>
<td>6.6</td>
</tr>
<tr>
<td>1997 (Preliminary)</td>
<td>3.4</td>
<td>1.1</td>
<td>21.3</td>
</tr>
<tr>
<td>1998 (Forecast)</td>
<td>2.0</td>
<td>1.2</td>
<td>19.8</td>
</tr>
</tbody>
</table>


NDM exports, which are a relatively large percentage of production, include substantial quantities of subsidized DEIP exports. As mentioned earlier, the Uruguay Round GATT agreement will limit those exports to the equivalent of about 12% of NDM 1997 production by 2000.

The prospects for exporting differentiated (value-added) dairy products are better. Examples of successful exporters of differentiated dairy products include Foremost Farms of Baraboo, Wisconsin which has exported dried whey and lactose products to a score of countries; profits of Davisco in exporting dried whey products from Minnesota and Idaho plants; the savvy exhibited by Hilmar Cheese of California in tailoring cheese products for export to the Japanese market; Cabot Creamery's sales of cheddar cheese to the UK; successful exports of specialty cheeses to Mexico by a few Upper Midwestern firms, and Dean Foods' exports of fluid milk for sale at Wal Mart Stores in Mexico City.
While these successes are noteworthy, they account for only a small percentage of aggregate U.S. milk and dairy product production. Why aren't U.S. exports of value-added dairy products larger? Partly it is because many small and mid-sized U.S. agribusinesses and cooperatives that are potential exporters fail to do so for a number of reasons, including those noted below [1]:

- Exporting is thought to be almost exclusively a "big firm's game."
- The U.S. domestic market is large and "comfortable" to operate in.
- Managers fear the "red tape" involved in exporting.
- Many managers overestimate the difficulty of exporting.
- Cooperatives are inherently short of capital and reluctant to put available capital into risky exporting ventures.

These concerns would diminish in importance if U.S. firms (a) had strong price incentives to export, or (b) thought they had few, if any, other options for maintaining acceptable prices for U.S. milk producers. The incentives to export identified in these two points currently are lacking. Thus, for the near term exporting appears likely to provide little in the way of expanded sales and price support for U.S. dairy products.

Q5: Will world market prices provide a price floor similar to that provided by the current USDA price support program?

A5: World market prices will provide a limited amount of support for U.S. dairy product prices. But the floors typically will be lower and less stable than those provided by the current USDA price support program. Figure 2 shows just how low the price floor provided by world prices (as measured by FOB Northern Europe prices) of NDM might be. While recent price history suggests that world butter and cheese prices would provide a higher floor for U.S. prices for these products, the stability of those floors might not be great (Figure 3). World dairy markets are "thin" (only the equivalent of 5% to 7% of world milk production enters world markets) creating a situation where any substantial increase in U.S. exports of these products would sharply depress world dairy product prices. Additional subsidized exports of dairy products by European Union firms also would drive down world dairy product prices and lower the price floor.
Figure 2. World Nonfat Dry Milk Prices, January 1995-July 1998.

Figure 3. World Butter and Cheddar Cheese Prices, January 1995-July 1998.

WORLD BUTTER PRICES
(62 Percent Butterfat - Unsalted)

WORLD CHEDDAR CHEESE PRICES
(40 Pound Blocks Cheddar)

Options for the U.S. Dairy Industry in the Post-1999 Period

Option No. 1: Do nothing and allow the current USDA price support program to end after 1999. This option would create incentives for U.S. firms to expand dairy exports. This and other impacts of Option No. 1 were discussed throughout the Q & A section and no further comments will be made about those impacts.

Option No. 2: Lobby strongly for an extension of the current dairy price support program beyond the announced 1999 expiration date to 2002. Under the 1996 Farm Bill, U.S. dairy farmers failed to receive transition payments (technically designated as "Production Flexibility Contract Payments") comparable to those received by grain producers for 1996-2002. It could be argued that equity considerations justify continuation of the current dairy price support program until 2002. That the Congress and Administration might consider such an option is suggested by budget actions taken prior to the 1998 Congressional elections. The Congress (a) "sweetened" the transition payments to grain producers under the Market Loss Assistance Program for 1998--boosting transition payments for corn producers by about 50% for 1998, (b) extended ethanol tax subsidies (scheduled to expire in 2000) until 2007, and (c) abandoned its pledge to deny disaster payments to producers who failed to purchase crop insurance.

Secondly, it can be argued that extension of the current dairy price support program for a finite number of additional years would help to ease the transition to larger farms that is rapidly taking place in the U.S. Extension of the dairy price support program for additional years would ease the transition for small farmers who are nearing retirement or are in the process of expanding to competitive sizes.

What are the downside risks associated with this option? First, it would delay adjustments in the U.S. dairy industry aimed at expanding domestic and foreign market sales of dairy products. In the absence of the incentives created by elimination of dairy price supports, such market expansion initiatives--especially for exporting--are likely to be limited.

Experience in other countries--notably New Zealand--suggests that deregulation would create a stronger, more internationally competitive dairy industry. However, as business strategist, Michael Porter of Harvard University, has pointed out in describing the impacts of such initiatives [3]:

"Deregulating a protected industry, for example, will lead to bankruptcies sooner and to stronger, more competitive companies only later."

If the financial problems of operators of small farms could be reduced at a reasonable cost during a transition period, this, it can be argued, would justify an extension of the current price support program for a finite number of additional years.
Complications might arise in connection with U.S. commitments made under the Uruguay Round GATT Agreement. The Uruguay Round GATT Agreement requires WTO member-countries to reduce the total amount of trade-distorting domestic support for agriculture by 20% from a 1986-88 base period by the year 2000. As a result of changes in U.S. commodity programs after 1985, the level of aggregate domestic support in the U.S. had, by the early 1990s, already declined to less than the specified WTO ceiling for the year 2000 [2]. U.S. compliance was based partly on the assumption that the current U.S. dairy price support program would end after 1999. However, if the current dairy price support program were extended for a few additional years, the U.S. would still remain below the WTO ceiling as measured by aggregate measures of support. The U.S., however, would be the target of criticism for such actions--especially from the European Union--which would characterize the action as U.S. backsliding on trade commitments.

Option 3: Carefully analyze the outcome of the U.S.-New Zealand challenge to Canada's dairy exporting regime under the WTO to determine possibilities for two-tier exporting. Canada pools certain Class V receipts obtained from dairy products sold in export markets at prices lower than those paid for comparable products sold within Canada. This scheme, it can be argued, is a hybrid producer and government-financed export subsidy program. Among other things, the U.S.-New Zealand WTO challenge to Canada's complex Class V exporting scheme contends that Canada makes subsidized exports of dairy products exceeding the quantities agreed to under the Uruguay Round GATT agreement.

If all aspects of Canada's Class V dairy exporting arrangement are found to be GATT/WTO compatible by the WTO panel investigating the challenge, this could open the door to use of similar arrangements by the U.S., EU and others. In particular, export pooling arrangements such as the Class IV system considered by the U.S. during deliberations on the 1996 Farm Bill might be put into operation.

The use of a Class IV type of arrangement would have advantages for the Upper Midwestern dairy industry. Presently, California and other Western dairy firms have few price incentives to export dairy products. As a result, they have taken a domestically oriented expansion strategy which involves selling cheese produced with low cost milk in markets traditionally served by Wisconsin firms. If the Western firms had incentives to export, they might de-emphasize the inward looking strategy.

There is a downside to Class IV exporting. If the U.S. exported substantial additional quantities of dairy products with subsidy, this would depress prices in "thin" world dairy product markets. The amount of price depression would be especially great if EU exporters engaged in similar two-tier exporting. Non-subsidizing exporters such as the New Zealanders would likely challenge such exporting schemes in the WTO.
**Option 4:** Adopt an import substitution strategy to serve more of the U.S. cheese market. In recent years, U.S. cheese imports have amounted to slightly more than 4% of U.S. consumption. This may appear to be a relatively small amount of imports, but in total U.S. cheese imports amount to more than 150 thousand tons of cheese per year. This puts the U.S. in roughly the same category as Japan, making the U.S. one of the two largest cheese importing countries of the world. While the U.S. could not produce cheeses comparable to certain imported specialty cheeses, some additional cheeses which would substitute for foreign imports could be produced domestically. The additional sales created by the import substitution strategy could increase domestic milk and cheese prices by a small amount.

**Option 5:** Take steps to minimize the impacts on fluid milk prices of the occasionally low and volatile manufacturing milk prices that will emerge when the current price support program ends. The Basic Formula Price (BFP) used as a mover for Class I prices in federal orders may dip to unusually low levels at times after the current price support program ends. The BFP exhibited roller coaster swings in 1998, hitting a low of $10.88 in May before rebounding to $16.84 in November. The price series could exhibit even bigger swings in the absence of the current price support program. Producers and processors may wish to reduce the amount of downward price movement and volatility in Class I prices that will stem from swings in the BFP. This could be done by severing the direct link between manufacturing milk prices and Class I prices. Alternatively, producer cooperatives could negotiate Class I price floors to lessen such downward price movements.

**Conclusions**

The U.S. dairy industry will have complex choices to make regarding how to adjust to the scheduled phase out of the current USDA dairy price support program. Congressional and Administration actions prior to the 1998 elections regarding transition payments, ethanol tax subsidies, and disaster payments almost certainly will encourage certain dairy industry groups to press for continuation of the current dairy product purchase program. If successful, one downside to this strategy is that it would reduce incentives of the industry to vigorously pursue strategies to expand exports of dairy products. A positive aspect of continuing the current price support program is that it would help to ease the economic transition and restructuring currently underway in the U.S. dairy industry. Other options short of continuing the present program might be useful. Some are merely "fine tuning." One that is not in the fine tuning category—but which is of uncertain GATT/WTO compatibility and of uncertain impact on world dairy product prices—is a Class IV export pooling scheme.
References

