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ANALYSES OF DAIRY PRICE SUPPORT ALTERNATIVES

By

Truman F. Graf

Analysis of Dairy Price Support Alternatives

By Truman F. Graf
Department of Agricultural Economics
University of Wisconsin
Madison, Wisconsin

The 1981 4-year Farm Bill is not scheduled to take effect until October 1, 1981 -- at the expiration of current legislation. Nevertheless, the die appears cast by mid-June 1981 with respect to dairy price support provisions in the new legislation. Although final details are still to be worked out, minimum dairy price supports will likely be reduced from their present level of 80% of parity, to either 75% or 70% of parity -- most likely 70% for at least the first year. The Administration is pushing for a 70% minimum, with the option of 0% parity support, if in the judgement of the U.S. Secretary of Agriculture, the milk supply situation warrants it. The Administration is also threatening to veto any legislation requiring 75% parity minimum supports. The U.S. Senate is accepting a 70% parity minimum, and although the U.S. House of Representatives is holding out for 75%, budget reconciliation to meet or come close to the \$885 million annual maximum permitted in budget targets requested by President Reagan and approved by Congress earlier this Spring, appears likely to force the minimum price support level down to 70% for at least a year. The Administration and both Houses of Congress agree on 90% of parity as the maximum dairy price support level. Current milk production and CCC purchases, will likely result in dairy price supports being set at minimum levels for the foreseeable future.

As was the case on April 1, 1981, mid-term price support increases to cover increased milk production costs, may well go by the boards, at least for the first year, because of large CCC dairy purchases.

What has caused this situation? What are the implications of proposed dairy legislation, and what are price support alternatives down the road?

Background

Permanent dairy price support legislation is provided for in the Agricultural Act of 1949, requiring the U.S. Secretary of Agriculture to support the price of milk at between 75 and 90% of parity. This law would take effect if no new dairy price support legislation is enacted by October 1, 1981, which ironically would then result in 75% parity minimum price support, as contracted to 70% most likely under new legislation.

Temporary legislation (the 1977 4-year Farm Bill) raised minimum dairy price supports to 80% of parity until October 1, 1981, with mid-year adjustments to reflect changes in production costs. Under this temporary legislation the support price of \$12.80 per cwt. for manufacturing milk testing 3.5% butterfat, which was 80% of parity on October 1, 1980, was to have been raised 71¢ per cwt., to \$13.51 per cwt. on April 1, 1981, to reflect production cost increases since October 1, 1980. This increase was scrapped by new legislation signed into law by President Reagan in his hospital bed on March 31, 1981 -- the day after he was shot. Thus, the \$12.80 support price will be in effect for an entire year (October 1, 1980 to September 30, 1981), during which time farm production costs will likely increase at least 9%, based on projecting the increase in the USDA "prices paid index by farmers" from September 15, 1980 to May 15, 1981, over a twelve month period. Dairy farmers will therefore need to "absorb" at least a \$1.02 per cwt. cost increase over average U.S. costs in 1980, with no increase in price supports, and therefore little increase in farm milk prices. If new legislation results in a 70% parity dairy price support effective October 1, 1981, with no midterm adjustment, the \$12.80 per cwt. support price would carry over for another year until October 1, 1982, because 70% of parity on October 1, 1981 in all likelihood will be no higher than \$12.80 -- and very possibly could be less. Farmers would then need to absorb two years of increased costs of about 18% or \$2.04 per cwt. with no increase in price supports, and consequently only minor or no increases in farm milk prices.

What brought on this situation?

- (a) 25 consecutive months of increased milk production through May 1981;
- (b) 1980 milk production up 4.1% over 1979, to 128.4 billion pounds, with Jan.-May, 1981 up 3.6% over the previous year;
- (c) 1980 production per cow up 3.3% over 1979 to 11,875 pounds, with May 1981 up 2.8%.
- (d) 15 consecutive months of increased milk cow numbers through May 1981, with 1980 up 72,000 (.7%) over 1979, to 10.8 million. This was the first increase since 1953. May 1981 milk cow numbers were still up 70,000 --.6% over the previous year;
- (e) 1980 CCC net purchases 6.9% of milk production;
- (f) 1980 CCC net purchases -- 8.8 billion pounds milk equivalent;
- (g) 1980 CCC purchases -- 15% of cheddar cheese, 21% of butter, and 56% of nonfat dry milk production;
- (h) 1980 CCC milk price support expenditure \$1.353 billion (gross), \$1.062 (net before inventory valuation for 1980 marketing year);
- (i) 1980 commercial use of dairy products down .8% on milk equivalent basis, butter down 2.2%, American cheese down 4.1%, nonfat dry milk down 12.3%, and 1980 per capita consumption of dairy products down .9% -- the first decrease since 1974. January-March 1981 commercial use of dairy products was down 5%.

Critics cite these data as evidence that high support prices are encouraging excess milk production. They therefore argue for substantial reduction in price supports for milk. Proponents of the current program of 80% parity minimum price supports, naturally disagree, and contend that the present supply-demand situation is largely unrelated to the milk price support program.

Thus, the battle lines are drawn with respect to dairy price support legislation. Long term alternatives irrespective of what is incorporated into the 1981 Farm Bill are:

- (a) Continuation of 80% of parity minimum support prices;
 - (b) Reducing minimum support prices to 75% parity or less;
 - (c) Using a trigger mechanism to vary the support level inversely to support purchases;
 - (d) Changing the Prices Paid Index to more nearly reflect milk production costs;
 - (e) Using "cost of production" rather than "parity" to determine support prices;
 - (f) Using direct payments;
 - (g) Using supply control;
 - (h) Discontinuation of dairy price support.
- Each is discussed in turn in this report.

Continuation of 80% of Parity Minimum Price Support

Proponents of the present milk price support program contend it did not cause the current surplus situation, which instead was caused by low feed, beef and pork prices, encouraging milk production, and a stagnant economy discouraging dairy product consumption. They contend that all of these factors are expected to change in the near term, thereby discouraging milk production and encouraging consumption. They point out that the milk feed ratio has already dropped 12% in the past year, from 1.53 in May 1980, to 1.35 in May 1981, and USDA is projecting increased commercial use of dairy products in 1981 compared to 1980.

Proponents emphasize that dropping the support level to 70% of parity would be a serious economic blow to farmers, resulting in farm milk support prices \$1.79 per cwt. below what they would be at 80% of parity (as of May, 1981). Farm milk prices will likely closely parallel support prices in the near future because of heavy milk production and large CCC purchases. A \$1.79 per cwt. reduction in farm milk prices would trim the annual income for an average Wisconsin dairy farmer

\$9,021 (based on 1980 average milk production per Wisconsin farmer of 504,000 pounds). For U.S. dairy farmers the reduction would be \$2.3 billion annually in farm cash receipts based on 1980 production. The above reductions would be halved at 75% of parity. Proponents of 80% of parity contend these reductions would be serious for many dairy farmers, especially young beginning farmers who had to go deeply in debt to begin farming.

They also contend that 80% parity support prices are not "high," citing the following:

(a) Prices paid by farmers for production items have been increasing faster than farm milk prices. For example, May 1981 production costs were 10.3% higher than a year earlier, compared to an increase of only 7.1% in farm milk prices.

(b) Consumer prices for dairy products have increased less than the cost of living. March 1980 - March 1981 consumer prices for dairy products were up 10.1%, compared to an increase of 10.6% in the cost of living.

(c) Milk prices have been declining rather than increasing relative to wage levels. The minutes of work required to purchase various dairy products dropped 18% for American Cheese, 44% for milk, 49% for butter, and 59% for ice cream in the past three decades.

(d) The cost of 1.5 billion pounds of net imports were indirectly charged to the price support program in the 1980 marketing year, since they resulted in increased price support purchases of approximately that magnitude.

(e) 1980 casein imports displaced 333 million pounds of domestic nonfat dry milk costing CCC about \$300 million (USDA ESS Staff Report 810521, June 1981). This is 53% of 1980 CCC purchases.

75% Parity or Less Minimum Price Support

Proponents of 75% parity or less minimum milk price support cite the fact that permanent legislation (the 1979 Agricultural Act) requires support prices to be set at a level which will:

- (a) assure an adequate supply of milk to meet current needs;
- (b) reflect changes in the cost of production;
- (c) assure a level of farm income adequate to maintain productive capacity sufficient to meet anticipated future needs.

They cite the 6.9% surplus in 1980 as evidence that the present 80% parity support level is not needed to assure an adequate supply of milk. They also cite USDA studies showing that farm milk prices were above average production costs by \$1.18 per cwt., \$1.49 per cwt., and \$1.89 per cwt. in 1978, 1979 and 1980, respectively, as evidence that the present 80% parity support level is not needed to assure adequate farm incomes. Thus, they conclude support prices could be cut to 75% parity or less, and still more than meet the requirements of permanent price support legislation, and reduce surplus, government costs, and consumer prices.

USDA estimates CCC dairy price support gross costs will be \$2.1 billion in the 1981 marketing year -- 55% larger than in the 1980 marketing year. Proponents of 75% of parity or less, contend a reduction in these large expenditures must be made, or the entire dairy price support program may be jeopardized.

Trigger Pricing

"Trigger" support pricing ties milk price support levels to government support purchases. "Trigger" proposals have been made -- by the National Milk Producers Federation (NMPF), American Farm Bureau Federation (AFBF), and the U.S. House and Senate Agricultural Subcommittees. These various proposals would allow the milk support price to drop 70-75% of parity if government purchases warranted, and permit increases to 90% parity with reduced government purchases.

Under the AFBF proposal, 4 billion pounds of milk equivalent net removals by the government would reduce support prices to 75% of parity, and 6.5 billion pounds to 70% of parity. Two billion pounds or less of net removals would keep support prices at 80% parity or above. Volumes between the two extremes would result in 71% to 79% of parity. The 70% parity price support level would be permitted only if casein imports were restricted.

NMPF volumes would be 5.5 billion pounds or more of CCC purchases for 75% parity support, and less than 3.5 billion pounds for 80% support (Table 1). NMPF would tie trigger pricing to prohibition against increased dairy imports, and a guarantee that farmers would actually receive the price support level. However, because of budget limitations, NMPF would permit 70% parity minimum price support for the 1982 marketing year only (Oct. 1, 1981-Sept. 30, 1982).

Table 1
NMPF Trigger Pricing Schedule

Support Price as Percent of Parity	The higher of anticipated annual rate of net government purchases	
	Nonfat dry milk (million pounds)	Milk Equivalent (butterfat basis) of Butter and Cheese (billion pounds)
75	more than 500	5.5 or more
76	450 - 499.9	5.0 - 5.499
77	400 - 449.9	4.5 - 4.999
78	350 - 399.9	4.0 - 4.499
79	300 - 349.9	3.5 - 3.999
80	250 - 299.9	3.0 - 3.499
81	200 - 249.9	2.5 - 2.999
82	150 - 199.9	2.0 - 2.499
83	100 - 149.9	1.5 - 1.999
84	50 - 99.9	1.0 - 1.499
85 - 90	less than 50	less than 1.0

NMPF uses CCC support purchase projections by the U.S. Secretary of Agriculture for the next marketing year as the basis for target support prices, while AFBF uses the past six month moving average CCC purchases as the basis for target support prices. Both NMPF and AFBF propose mid-term price support adjustments to reflect increased production costs.

As of mid-June, the U.S. Senate Agricultural Committee Bill called for a minimum 75% of parity milk price support level, but would permit a minimum 70% support level if estimated government annual purchases exceeded \$500 million or 3.5 billion pounds of milk equivalent. Mid-term price support adjustments would occur only if the current support level had dropped below 70% parity by that time.

As of mid-June, the U.S. House of Representatives' Agricultural Committee Bill specified a minimum support level of 75% of parity if estimated government purchases exceed 5.5 billion pounds of milk equivalent annually. No mid-term price support adjustment to reflect increased production costs would be made in 1982, but the adjustment would be authorized for 1983-85.

Estimated costs for the 1982 marketing year are about \$950 million for the Senate bill, and \$1.4 billion for the House bill -- about \$65 million and \$475 million respectively in excess of the maximum \$885 million dairy price support allocation in the earlier budget resolution adopted by both Houses.

Thus, 70% parity milk price support would be permitted for the 1981 marketing year in the NMPF, AFBF, and U.S. Senate proposals. The House proposal has a 75% parity minimum support level. Current CCC dairy purchases would require minimum price support levels under all four plans.

Trigger pricing proponents argue that 8.8 billion pounds of milk equivalent purchases by CCC at a gross cash cost of \$1.353 billion during the past marketing year, with USDA projections for even more in 1981, mandate this automatic adjustor. Without it the entire dairy support program will be jeopardized because of staggering government support expenditures. They also contend it

will encourage production adjustments in surplus situations thereby indicating producer and industry responsibility, credit farmers with higher prices during short supply situations, and enhance credibility of the price support program.

Critics contend trigger support pricing doesn't take current net dairy imports into consideration, thus penalizing farmers by lower support prices. Dairy support purchases have been increased an average of 1.4 billion pounds annually since 1970, because net dairy imports exceeded net dairy exports by that amount (Table 2). This cost farmers an average of approximately 25¢ per cwt. at the -9¢ per cwt. per 500 million pound milk equivalent import ratio established by USDA analyses. In three of the past ten years, net dairy imports exceeded CCC removals. Thus, even under the most liberal trigger proposal (NMPF), only an average of 2.1 billion pounds of "domestic" CCC milk equivalent purchases would have reduced support prices below 80% of parity. This is only 1.6% of 1980 milk production.

TABLE 2

CCC Dairy Removals and Net Dairy Imports, 1970-1980
(in billion pounds milk equivalent)

Calendar Year	CCC Removals	Net Imports	Amount Net Imports Were Above Or Below Removals
1970	5.8	1.4	-4.4
1971	7.3	-1.1	-8.4
1972	5.3	.2	-5.1
1973	2.2	3.2	+1.0
1974	1.3	2.3	+1.0
1975	2.0	1.1	-.9
1976	1.2	1.4	+.2
1977	6.1	1.5	-4.6
1978	2.7	1.9	-.8
1979	2.1	1.9	-.2
1980	8.8	1.2	-7.6

Critics of trigger pricing also contend that rigid projected or past supply-demand numerical criteria could be inaccurate and misleading in determining support prices. They prefer present law which requires the U.S. Secretary of Agriculture to also use supply-demand criteria in setting support prices but without being locked into rigid numerical limits.

Dairy Prices Paid Index

In calculating parity prices for milk, the "index of prices paid by farmers" is used in measuring increases in costs to farmers since the base period (1910-14 = 100). Components included in this prices paid index, weights assigned to each component, and the percentage increases in prices of each component are indicated in Table 3.

Critics emphasize the prices paid index reflects costs for all farmers, rather than to dairy farmers specifically, and weights used in arriving at cost increases reflect average weights for all farmers rather than dairy farmers. Thus, they propose changing the prices paid index to more closely reflect current costs to dairy farmers. Proposed changes would substantially increase the weight for feed -- reduce or eliminate completely the weight for family living and reduce weights for fuel, feeder livestock, hired labor, and interest. They base these proposed changes on the fact that USDA studies indicate feed costs represent close to 50% of the cost of producing milk, while the prices paid index allocates a weight of only 11.8% to feed costs. Similarly the BLS consumer price (family living) index reflecting almost one-third (30.4%) of the overall prices paid index, actually reflects costs only to "all urban consumers," and therefore has little relevance to costs to dairy farmers. They also contend the current weights for fuel, feeder livestock, hired labor, and interest are disproportionately high.

Table 3
Prices Paid Index

Component	Weights	% Changes in Prices Paid 1910-14 to 5/15/81
BLS (Family Living) Consumer Price Index	30.4	+847
Feed	11.8	+562
Feeder Livestock	11.7	+1009
Seed	1.8	+892
Fertilizer	4.2	+391
Agr. Chemicals	1.7	+489
Fuels & Energy	3.5	+770
Farm & Motor Supplies	2.2	+642
Autos and Trucks	2.5	+1646
Tractors & Machinery	4.5	+1764
Other Machinery	2.7	+1597
Building & Fencing	3.6	+1233
Farm Services & Cash Rent	7.4	+960
Interest	4.0	+3401
Taxes	2.8	+1917
Farm Wage Rates	5.2	+2588
All Components (Overall Prices Paid Index)	100.0	+1035

The proposed changes would reduce the prices paid index, since weights for high cost items would generally be reduced, while weights for lower cost items increased. Therefore, support prices based on a specific percentage of parity (such as 75% or 80%) would also be reduced, thereby reducing government support purchases and costs, while increasing consumption.

Cost of Production

Milk support prices are currently based on "parity" calculations attempting to measure changes in prices paid and received since 1910-14, and equating "purchasing power" for current farmers to purchasing power for farmers in 1910-14. "Cost of production" rather than "parity" is being proposed, because of difficulties in determining cost changes since 1910-14 for specific products such as milk, and in relating milk prices to "all" prices received by farmers in computing parity. Also parity does not accurately reflect asset appreciation.

Critics of "parity" as a way of calculating milk support prices cite USDA studies showing 1980 farm milk prices were \$1.89 per cwt. (17%) above total net costs of production. Therefore, the approximate \$1.79 per cwt. reduction in supports at 70% rather than 80% of parity would still permit farmers to cover their production costs. Also, as indicated earlier, average farm milk prices were above average production costs by \$1.18 per cwt., and \$1.49 per cwt. in 1978 and 1979, respectively.

Thus, critics contend "cost of production" would provide a more realistic and accurate barometer for determining support prices, than "parity" is doing. They therefore recommend dairy supports be more closely tied to cost of production, especially since support programs for grains and other agricultural products are already tied to cost of production calculations.

Direct Payments

Currently farm milk prices are supported through purchases of butter, skim milk powder, and cheddar cheese in the open market by the USDA. Reducing the supply of these products in commercial markets in turn increases their prices, thereby generally permitting plants to pay at least the support price to farmers. Thus, farm milk prices are only indirectly supported, with direct support at the plant not the farm level.

Direct payments is an alternative which has been discussed on and off for over thirty years. Under direct payments, farmers would receive payments directly from the government, rather than indirectly receiving support through USDA purchase of dairy products. The advantage to direct payments is that farmers could be guaranteed the minimum support level, whereas under the current procedure, they may or may not receive minimum supports. (However, farm milk prices have been at or above support levels more than 75% of the time in the past three decades.) Also, farmers, not plants, would receive support, which is what is called for in support legislation.

Disadvantages of direct payments are (a) since the demand for dairy products is relatively inelastic, government costs to maintain the same level of price support to farmers would actually be higher with direct payments than with the current product purchase program, or with the same dollar cost to the government, farmers would receive a lower support price. (b) Dairy products are needed anyway for AID, PL480, school lunch, and other government programs, so eliminating government purchases through direct payments would still necessitate some type of government purchase program. (c) Direct payments may be viewed by consumer and taxpayer groups as "government doles," which would likely make them more difficult for agricultural groups to justify, then when cost calculation is more indirect as with the CCC dairy product purchase program.

Supply Management

The current 6.5% surplus has also resulted in renewed calls for a supply management program under which farmers would be penalized for producing

over their "base" volume of milk. Procedures for implementing a plan of this type could vary, but basically it would involve determining a "base" for each dairy farmer tied to national needs, and the farmer's individual production during a recent time span.

"Base" production would receive a favorable price relative to farm costs, such as the Federal Milk Order Class I price (\$14.67 per cwt. at 3.5% B.F. test for the U.S. in May 1981). Meanwhile, excess milk (production over base) could receive the Class III price (\$12.61 per cwt. at 3.5% B.F. test M-W, May 1981). This compares to the current situation where farmers receive the Federal Milk Order blend price for all their milk (\$13.61 per cwt. at 3.5% B.F. test, May 1981).

Thus, farmers would be discouraged from increasing production. Young and beginning farmers, and those attempting to increase production to cover large debt loads, would therefore generally be penalized; while older, longer tenured farmers who are "cutting back" would gain. Overall though farmers could gain if all reduced production. With balanced production, 1% less milk means approximately 2.5% higher farm milk prices, and 1.5% more gross income.

Discontinuation of Dairy Price Support Program

Although discontinuation of dairy price supports may be considered unthinkable by dairy farmers and their organizations, some critics have long questioned the need for any price support program at all. What then would be the impact of completely removing the dairy price support program?

The price elasticity of demand for farm milk is approximately $-.4$, which means a 1% decrease in price is needed to increase quantity demanded .4%, other things being equal. This in turn means a 2.5% decrease in farm milk prices

would be needed to sell 1% more milk. Removal or severe pruning of the dairy price support program because of excess production would therefore result in a severe short-run reduction in farm milk prices.

Price support purchases in the 1980 marketing year were 8.8 billion pounds of milk equivalent -- 6.9% of U.S. milk production. With a 2.5% decrease in farm milk prices for every 1% additional milk, a 17.25% drop in milk prices would result from 6.9% more milk on the market with no CCC purchases.

$$(6.9\% \times 2.5\% = 17.25\%)$$

A 17.25% drop in farm milk prices translates to \$2.20 per cwt. less than the current price support level. Instead of the current support price of \$12.80 per cwt. (3.5% butterfat), farmers would have received only \$10.60 per cwt.

$$(\$12.80 \times 17.25\% = \$2.20) \quad (\$12.80 - \$2.20 = \$10.60)$$

A \$2.20 per cwt. drop in farm milk prices would have resulted in \$2.8 billion lower annual cash receipts for U.S. dairy farmers in 1980. This would have meant a decrease of \$11,088 annually for an average Wisconsin dairy farmer in 1980.

Complete elimination of the dairy price support program would therefore cause severe dislocation in the dairy industry, at least in the short run, and many farmers would be unable to cover their costs.

Summary

To say the future of dairy price supports is uncertain is to put it very mildly. Dairy price supports have moved front and center, and now have become an "in" type of conversation. This is illustrated by the fact

that the first Bill that President Reagan signed into law was to rescind the April 1, 1981 dairy price support increase, previously mandated by law -- and he signed this bill in his hospital bed.

In this high profile situation, the future of the dairy price support program is of course unpredictable. Critics currently appear to have the upper hand because of large CCC purchases. In this type of situation, the best procedure for dairy farmers and their organizations would appear to be to try to get across their side of the argument with respect to: (a) dairy farmer costs compared to farm milk prices, (b) retail dairy prices compared to wage rates (real price of milk), (c) consumer prices of dairy products compared to other consumer prices, (d) impact of imports on farm milk prices and CCC purchases, (e) the actual CCC cost of dairy product removals after inventory credits, rather than gross cash costs, and (f) the impact of milk price reduction on farmer equity -- hence on their decision to produce or not produce milk -- and therefore ultimately on consumer prices for milk.

A 1% reduction in production from a balanced supply-demand base, results in approximately a 2.5% increase in farm milk prices. Therefore, a reduction in production of milk by dairy farmers would also help their price, as well as reduce their reliance on the price support program.