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Economics and Implications of U.S. Dairy Situation and Public Programs

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U.S. milk production and surpluses are at an all time high, creating price and public program difficulties. This paper analyzes the dairy situation and implications arising from it.

Supply and Surplus Situation

Milk production increased 9.5%, and CCC purchases 557% since 1979. As a result CCC purchases totaled 10.2% of milk production during 1982, American cheese surpluses were 26% of production, butter surpluses were 35% of production, and nonfat dry milk surpluses were 71% of production. Average farm milk prices declined $.25 to $13.55 per cwt. in 1982. (Table 1)

Table 1
Milk Production - Surplus Situation 1979-1982

	1979	1981	1982
Milk Production (Bil. Pds.)	123.4	131.6	135.1
CCC Milk Equiv Purchases (Bil. Pds.)	2.1	12.7	13.8
Milk Surplus	1.7%	9.7%	10.2%
American Cheese Surplus [a/]	1.8%	21.6%	25.5% [b/]
Butter Surplus [a/]	8.3%	28.6%	35.0% [b/]
Non Fat Dry Milk Surplus [a/]	28.1%	64.8%	70.8% [b/]
Average Farm Milk (cwt.)	$12.00	$13.80	$13.55
Avg. Manufacturing Milk Price (cwt.)	$11.10	$12.70	$12.65
Per Capita Consumption Milk Equiv.	548#	540#	549#

a/ CCC purchases as % of production.

b/ Jan.-Sept. (latest data available at time of authorship)

The increase in milk production during the past 4 years has been nation-wide, -- no one area is solely or largely responsible for the increase. Although western states did increase milk production 18.1%, nevertheless southeastern states increased production 4.9%, midwestern states increased 6.9%, and northeastern states increased 7.9%. Wisconsin was up 3.5% (Table 2)

The same pattern existed in the top 10 states in milk production, -- all had increases. Although California had the largest increase in milk production during the 1979-82 period of 15.8%, the top 5 States averaged an 8.8% increase, and the second 5 States had an average increase of 8.3%. Together the top 10 States increased milk production 8.7% in the 4 year period 1979-82, and produce two-thirds of U.S. production. (Table 3)

Table 2
Total Milk Production 1979-1982

	1979	1982[a)]	Percent Change
	(Billion Pounds)		
Midwest sector	54.1	57.8	+ 6.9
Western sector	20.8	24.6	+18.1
North Eastern sector	23.6	25.5	+ 7.9
South Eastern sector	7.2	7.6	+ 4.9
Wisconsin	21.8	22.6	+ 3.5
U.S.	123.4	134.3	+ 8.9

a) October 1981 - September 1982 (latest data available for individual States at time of authorship)

Table 3
Milk Production Top 10 States 1979-1982

State	1982 % of U.S. Milk Production[a]	Billion Pounds 1979	1982[a]	Percent Change
Wisconsin	16.8	21.8	22.6	+ 3.5
California	10.8	12.6	14.5	+15.8
New York	8.3	10.6	11.1	+ 4.8
Minnesota	7.6	9.1	10.3	+12.2
Pennsylvania	6.8	8.1	9.2	+ 3.6
Top 5	50.4	62.2	67.7	+ 8.8
Michigan	3.9	4.8	5.2	+ 8.1
Ohio	3.3	4.3	4.5	+ 5.0
Iowa	3.2	3.9	4.3	+10.8
Texas	2.8	3.4	3.7	+ 8.8
Washington	2.3	2.8	3.1	+11.4
2nd 5	15.6	19.2	20.8	+ 8.3
Top 10	66.0	81.4	88.5	+ 8.7
U.S. Total	100.0	123.4	134.3	+ 8.9

a) October 1981 - September 1982 (latest data available for individual States at time of authorship)

Causes For Milk Build Up

The increase in milk supply and surplus occurred during a period when farm milk prices were flat and even falling. The price support level has remained at $13.10 per cwt for milk of average butterfat test since October 1, 1980, and under current law will remain there until October 1, 1984. "Effective" farm milk prices could actually decrease if the $.50 + $.50 per cwt milk tax program is implemented.

The five major reasons for milk supply and surplus increases are:

(a) Low beef prices which discouraged culling marginal dairy cattle, with the net result that the number of milk cows was up 208,000 (2.6%) in 1982 over 1979, to 11 million. There have been 3 consecutive

years of increased milk cow numbers over the previous year (1980, 1981, & 1982). This increase in milk cow numbers is the first increase since 1953.

(b) Low feed prices have increased the milk-feed ratio (pounds of feed that can be purchased with the proceeds from 1 pound of milk), thereby encouraging heavier feeding, and hence increased milk production. For example, the average milk-feed ratio in 1982 was 1.54, compared to 1.39 in 1975. Average milk production per cow was therefore up 6.7% in 1982 over 1979, to 12,252 pounds.

(c) The depressed state of the general economy has impacted negatively on commercial sales of dairy products, with per capita commercial sales in 1981 down 1.5% from 1979, and just barely up to the 1979 level in 1982. Per capita consumptions of milk equivalent at 549 pounds in 1982, was down one-fourth from 1950, and down one-third from 1940. This coupled with the production increase has increased the dairy "surplus," thereby increasing the volume of purchases by USDA and keeping farm milk prices at or below support levels.

(d) The poor profitability of agriculture in general, with about a one-third drop in net farm income between 1979 and 1982. ($32.4 bil. to $19 bil.) This has been a major factor in the recent boom in milk production, encouraging entry into dairying, and discouraging egress from dairying. Economic improvement in agriculture generally, would result in downward pressure on milk production thereby helping improve farm milk prices.

(e) Dairy farm income has also been low, encouraging increased milk production to generate increased cash flow to cover costs. Wisconsin farmers with 30-49 dairy cows (the average dairy herd size in Wisconsin), keeping electronic farm records, had an average labor income

(returns for labor and management) of $12,600 per operator in 1981. This equated to a 4.5% return per dollar of total farm capital investment of $280,000. This low income encouraged milk production to increase cash flow.

Current Price Support Program

The clock appeared to have wound down on more than two years of dairy price support controversy August 18, 1982, when Congress approved the budget reconciliation bill, which would reduce dairy support costs an estimated $4.2 billion by October 1985. Although many questioned this Administration estimate, everyone agreed farm milk prices would be considerably less than under previous legislation.

Nevertheless, doubts were voiced about the new legislation by both industry and government which it was felt would sooner or later mandate revisions in the new dairy price support law. Court challenges and decisions in December 1982, and on into 1983 lent further credence to this conclusion. Therefore no matter what the specifics of the ultimate outcome of legal and legislative challenges, new dairy price support legislation appears inevitable.

To get a better handle on likely new legislation it is necessary to examine the 1982 legislation.

The 1982 dairy price support program would:

- Freeze the dairy price support level at $13.10 per cwt. October 1, 1982, to October 1, 1984;
- Permit an increase in price support in fiscal year 1985 to the level of parity that $13.10 per cwt. is on October 1, 1983;
- "Penalize" farmers 50 cents per cwt. starting Dec. 1, 1982 if projected CCC support purchase exceeds five billion pounds

milk equivalent per year, and another 50 cents per cwt. if projected purchases exceed 7.5 billion pounds milk equivalent per year by April 1, 1983. Since surpluses are in excess of these volumes, the total "penalty" will be $1.00 per cwt. unless current legal action is successful in overturning this section of the law.

- Allow an individual farmer to get a refund of the second 50 cents per cwt. penalty if he reduces his annual production by as large a percent as the U.S. annual surplus (There would be no refund on the first 50 cents per cwt. penalty);

Opposition abounds

- Critics say the combination of income reductions under the law, combined with increased production costs, will be too costly to farmers. USDA research indicates that production costs increased 23 percent, or $2.39 per cwt., in the 1979-1981 period. Thus no increase in farm milk prices for four years 1980-1984 puts farmers in a severe cost-price squeeze.
- Cost an average farmer-with 500,000 pounds of milk annually if surpluses are not reduced-$2,500 in annual gross income from the first penalty, and another $2,500 annually from the second penalty. A $5000 "tax" with a $12,600 net income would therefore be very severe.
- The point also has been raised that the law offers no or at least insufficient incentive for the farmer to reduce production, since the first 50 cent per cwt. penalty is nonrefundable even if milk production is reduced. Increased

production may actually result from an attempt to increase cash flow to cover increased costs from the 50 cent per cwt. penalty.

- Further, opponents have noted that since product prices to dairies remain constant, there is no price incentive for increased consumption.
- Finally, critics say that the "penalty" payment by farmers goes directly to the government, with little direct influence on the problem of surplus production. They contend that refunding the entire $1 per cwt "tax" back to farmers as a production reduction incentive payment, would be a far more constructive in terms of solving the surplus milk problem, then merely treating most of the money as additional tax revenue for the U.S. Treasury, as under the current law.

These criticisms will likely eventually result in new legislation. An examination of alternatives, therefore, is of value in projecting possible new legislation.

Dairy Price Support Proposals

New dairy price support legislation will involve a multitude of compromises by farm, trade, consumer, and government groups, so it is impossible to predict specific details and provisions. However it is possible to predict with almost 100% certainty that the two major provisions of any new dairy law will be (a) reduced government cost, and (b) incentives for reduced milk production. Why? Simply because government refuses to continue spending $2.2 billion plus annually on dairy price support, and everyone agrees a 10% 13 billion pound plus annual milk surplus is unjustifiable.

New dairy legislation will therefore likely include one or a combination of the following plans:

(a) Continuation of current "penalty tax" to dairy farmers on all their milk, but with larger refunds for reduced production. Variations of this approach are being pushed by major dairy and farm organizations. A major program proposal is for a 50¢ per cwt. deduct on all milk, with the proceeds refunded at the rate of a $10 incentive payment for each hundredweight production is reduced. Proponents conclude that this program would reduce milk production since farmers would realize $10 per cwt. incentive payment plus about $9.28 per cwt variable costs (USDA 1981 estimates) not incurred for a total of about $19.28 per cwt on reduced production. This is over $6.00 per cwt. more than the $13.10 per cwt support price on manufacturing milk, or $12.65 per cwt average price for manufacturing milk realized in 1982. By reducing milk production CCC support costs would also be reduced. Therefore proponents see this program as beneficial to farmers and also the Government.

Farmers would get about $4.50 per cwt on reduced production under the current program of a $1 per cwt. penalty payment on all milk, and a 50¢ per cwt. refund on all milk after reducing production by the same percent as the current surplus of slightly over 10%. Thus the proposed program would more than double the incentive payment for reducing production,--from $4.50 per cwt. to $10 per cwt. Since the increased incentive payments for reduced production would come from farmer payments, and would not increase government costs, proponents conclude the proposed program would be beneficial to farmers and tax payers alike.

(b) Substantial reductions in price support level, with support levels tied to surplus purchases by CCC. This is the program the U.S. Administration, and recently the American Farm Bureau Federation is supporting. USDA projections indicate that a $1.10 per cwt. reduction in the price support level to $12 would reduce annual CCC expenditures approximately $153 million with current surpluses. Moreover the $1.10 per cwt. reduction in price support would reduce retail prices, thereby increasing commercial consumption, and in turn reducing price support purchases approximately $225 million more annually. Total savings to USDA would therefore be about $378 million. Cost savings would be even greater with a larger reduction in price supports. Cost savings, plus the incentive for increased consumption will result in strong support for tying price support levels to CCC purchase levels. Several major dairy cooperatives also favor this approach, because they have retail sales and wish to increase commercial sales. However, because of relatively inelastic consumer demand for dairy products, reducing the support prices to $12 per cwt. will not greatly increase commercial sales,...only by about 2.1 billion pounds of milk equivalent. This would still leave support purchases at 11.7 billion pounds milk equivalent, so in itself would not greatly help the surplus situation.

(c) Mandatory supply control with production quotas for each farmer, and with substantial price penalties on "overbase" milk.

Several supply control plans were introduced in the 1982 Congress. New legislation of this type would likely be similar to one, or a composite of them. They were:

The House of Representatives offered a plan which included a $13.10

minimum support and the same percent of parity until 1985. It provided for a penalty on surplus production of about $11.50 per cwt., leaving about $1.60 per cwt. for the surplus milk. The penalty on surplus was refundable if production was reduced by the same percentage as the national surplus, thereby, increasing the blend price back to $13.10 on the reduced volume. With a 10 percent reduction in milk production, net income for a farmer with an initial 500,000 pounds annually would be increased about $3,840 per year --- 77 cents per cwt because of the refund, and reduced production costs from lower volume. The trigger figure was 5 billion pounds of CCC annual purchases. The base figure for new producers was 450,000 pounds. Finally, a five-cent per cwt. producer checkoff was included for promotion.

However most major dairy groups are not now pushing rigid supply control. Furthermore the U.S. Administration is opposed to supply control for milk on philosophical grounds, and a fear bases will acquire values. Thus there is little prospect that a rigid supply control program such as Canada has will be adopted in the foreseeable future.

(d) Complete removal of dairy price support program. Because of inelastic consumer demand, a 1% increase in milk supply on commercial markets results in about a 2.5% decrease in farm milk prices. Removal of the price support program would add the 13.8 billion pounds of CCC purchases in 1982 to commercial market supplies. This would be 11.3% additional supplies, which in turn would reduce farm milk prices 28.25%, -- $3.70 below the $13.10 per cwt support prices. Thus manufacturing milk prices would fall to approximately $9.40 per cwt, -- which is $3.60 below the cost of milk production as estimated by USDA. Prices this low would therefore place many farmers in severe jeopardy. Removal of the price support program therefore appears unlikely.

Conclusion With Respect to Dairy Price Support Proposals

Proposed new legislation is likely to follow the 1982 Act with respect to combining self-help and price reductions when surpluses exist. However, greater incentives to reduce production likely will be stressed.

The dairy industry therefore can look forward to lower support and farm milk prices in the foreseeable future than would have occurred under previous legislation. CCC purchases are still projected at approximately 13 billion pounds milk equivalent in fiscal year 1983 - about 10 percent of production. So long as this situation exists, the pressures will be insurmountable for severely curtailed, and more restrictive dairy price support legislation. Thus the pressure is on in the U.S. to reduce milk production.

Dairy Import - Export Issues

Since it will take time to get a reduction in milk production regardless of new dairy price support legislation, continued milk surpluses are likely for the foreseeable future. This surplus situation will result in continued pressure to dispose of some of our excess supplies in international markets, as well as reducing "unneeded" dairy imports from abroad. Issues involved in expanding dairy exports, and reducing imports include export subsidies, import levies, and casein import regulation. Each is discussed below.

Dairy Export Subsidies: The U.S. dairy industry feels it has been boxed out of international markets not because of what it has done, but because the EEC and Canada subsidize dairy exports and we do not. Hence there will be continued pressure for the U.S. to subsidize dairy exports as one phase of its dairy program, to compete in international markets,

thereby reducing our surpluses. Pressure to "dump" dairy production in international trade as a way of reducing surpluses in competition with Canada and the EEC, will therefore continue until our surpluses recede, - which of course will take time regardless of which dairy price support program is adopted.

In this respect export subsidies on dairy products by European Common Market countries, were a "front burner" issue at both the 88 nation week long trade conference in Geneva, Switzerland concluding December 3, 1982, and at the U.S.-European trade conference in Brussels, Belgium concluding December 10, 1982. Although U.S. Secretary of Agriculture, John Block, has been threatening for months to start dumping surplus dairy products on world markets if the European Economic Community did not stop subsidizing dairy exports, the Europeans stoutly refused to agree to U.S. demands at both Geneva and Brussels. The only agreement between the U.S. and the Europeans was for "further study" of the controversy.

Why are European export subsidies on dairy products so important to the U.S., and what are the facts on the issue? U.S. dairy exports have been averaging only about one-fourth dairy imports in recent years. As a result net dairy imports averaged approximately 2 billion pounds of milk equivalent representing a 36 cents per hundredweight loss to dairy farmers, according to USDA studies. As already indicated, USDA dairy price support purchases currently total about 10% of U.S. annual milk production, costing $2.2 billion plus. The huge dairy import balance contributing to price support purchases, due to the inability to export dairy products because of European dairy export subsidies is, therefore, of major concern to the U.S.

Recent European dairy export subsidies have been:

	Per Pound	% of U.S. prices
Nonfat dry milk	$ .19	20%
Cheddar Cheese	.23	17
Butter	.52	35
Casein	.95	67

European dairy export subsidies have therefore pulled the world price for dairy products considerably below U.S. prices. This has made it virtually impossible for the U.S. to export dairy products commercially, and accounts in large part for our poor dairy export situation, which in turn increases dairy price support purchases. Unless we also subsidize, we cannot compete with EEC subsidized dairy exports.

EEC export subsidies have also encouraged the importation of low priced foreign subsidized dairy products into the U.S., thereby further exacerbating the U.S. dairy surplus problem.

Therefore European dairy export subsidies will remain a critical issue between the U.S. and Europe. So far we have not subsidized dairy exports, but great pressure continues to be exerted on the Administration to do so, because of EEC's continued insistence on subsidization. Unless the EEC restricts their subsidization of dairy exports, the U.S. may eventually be forced into also subsidizing dairy exports, in order to compete commercially in international markets. Currently we can not compete because the EEC and Canada subsidize dairy exports, and we do not.

Import Protection Against Subsidized Dairy Exports: the 1979 U.S. Trade Act permits 60 day action by the U.S. in stopping domestic price undercutting by subsidized imports, but the practice can go on that long before being stopped. The Act does permit subsidized imports priced at

the same level as our dairy products. Therefore, subsidized imports compete head to head with our domestic dairy products in the U.S.

For example, West Germany recently undercut our Grade A-B Swiss cheese prices by $.07 per pound, and Denmark undercut our Grade C Swiss price by $.17 per pound, through the use of export subsidies. Both were forced by the U.S. Government to reduce their subsidy to eliminate the price undercutting, but the practice continued for some time before being stopped. There were several other similar instances from various EEC countries, with subsidized cheese undercutting our domestic cheese.

At the time Germany and Denmark were forced to reduce export subsidies on Swiss cheese, EEC countries also reduced export subsidies three to eight cents per pound on the other types of cheese - Gouda, Edam, Danbo, Havarti, Danish Blue, English Stilton, Emmenthaler-Gruyere, and Esrom. This illustrates the wide variety of dairy products that have EEC export subsidies, which compete vigorously with our dairy products, thereby increasing surplus supplies in the U.S., and price support purchases, and in turn pressures to reduce price support levels.

Export subsidies are used to move dairy products out of overseas markets to compete with our dairy products. This contributes to our dairy import-export imbalance, and increases dairy price support purchases.

Government Import Levies: EEC import levies are assessed at the difference between import prices and world prices. Thus, import levies have been approximately $.95 per pound on butter, and $.41 per pound on skim milk powder. This import pricing procedure further deters imports, and increases our difficulty in moving dairy products into European markets.

Import levies by other countries increase the landed cost of our dairy products. This further contributes to our dairy export difficulties, and increases dairy price support purchases.

Casein Imports: One of the most quoted recent dairy industry statement is from the USDA publication on casein imports (USDA, ESS, Staff Report AGESS 810521): "If no casein had been imported in 1980, Government purchases of nonfat dry milk would have been 333 million pounds lower, saving about $300 million in CCC outlays." Reference to the U.S.D.A.'s own publication therefore verifies a positive correlation between casein imports and dairy price support purchases. As is universally known, there are no U.S. import quotas on casein.

EEC subsidies of $.95 per pound are two-thirds of current U.S. average casein prices of approximately $1.45 per pound. Quoting the USDA publication: "This subsidy helps explain the dramatic increase in exportable supplies of casein from the EEC to the U.S."

Casein imports doubled since 1965, and increased approximately one-third during the 1970's, to 152 million pounds in 1982. In 1955, 99% of the casein was used for industrial products, and only 1% for food and feed. By 1981, 86% of casein imports were used in food and feed directly competing with U.S. dairy products, thereby increasing dairy price support purchases, with 37% used for imitation cheese.

The opportunity for unlimited subsidized casein imports into the U.S. hurts our dairy import-export balance, thereby contributing to the dairy price support problem.

Conclusion with Respect to Dairy Exports and Imports: The U.S. dairy industry could compete in world markets if the U.S. subsidized dairy exports as its competitors do. This would reduce dairy price

support costs more than the cost of the export subsidies, since it would free up the U.S. commercial dairy industry to compete in world markets, and sell as aggressively abroad as at home. Now they cannot, and as a result, unsold dairy products end up in government warehouses as government price support purchases.

Direct dairy export subsidies would merely replace the indirect dairy export subsidies which now exist, and would therefore not reflect a change in trade policy, which the Administration says it opposes. Rather than buying dairy products, for price support, and then selling them for less than half their cost as in the U.S.-New Zealand butter sale, it would be far cheaper to directly subsidize dairy exports and let commercial dairy firms aggressively market them internationally.

The 1981 Farm Bill gives the President authority to use dairy export subsidies. Use of this authority would reduce dairy price support costs.

The restrictions on dairy imports similar to those practiced by our competitors would also narrow the dairy import gap, thereby reducing price support purchases. This is particularly true with respect to casein imports, which the USDA itself concedes substantially increases dairy price support purchases.

Our dairy prices are above world prices because other countries subsidize dairy exports. Dairy farmers ask why would doing what our competitors do antagonize them and jeopardize our grain sales? (Grain sales helped give us a $20 billion agricultural trade surplus in 1982, helping pay for a $63 billion plus trade deficit from the import of oil, cars, tv's sets etc.) Dairy farmers feel that subsidizing dairy exports as others do, could actually lead to speedier reduction in trade barriers

by serving as a prod, and getting other countries off dead center on trade negotiations.

This could also help our dairy price support situation because we could compete in world markets, and not have to absorb all dairy surpluses domestically, as we now do, thereby threatening the dairy price support program.

For the foreseeable future the two major "pushes" in the U.S. dairy industry likely will be (a) attempting to reduce production through a production reduction incentive program, and (b) attempting to move more dairy products into international trade as a way of reducing surpluses. While U.S. dairy farmers do not wish to financially hurt dairy farmers in the EEC and Canada, they nevertheless want the same export and import trade rules applied to their products as their competitors have, so they can compete on an equitable basis.