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The Dairy Industry and Dairy Policy in 1982

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Preface

Andrew Novakovic is an Assistant Professor in the Department of Agricultural Economics at Cornell University.

This paper was the basis for remarks made at the 1982 Morrisville Dairy Days and on other occasions in Fall 1981.

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Introduction

Insofar as dairy policy is concerned, the recent months have been as turbulent as any in the history of the dairy price support program. Faced with a record surplus of milk and unprecedented price support expenditures, the President and Congress have decided that dairy price supports must be reduced.

With the expiration of the 1977 Food and Agriculture Act on September 30, 1981, a new Farm Bill was expected on October 1; however, legislation was not passed until mid-December. Difficult decisions regarding price support policy contributed to the more than two-month delay in formulating and enacting agricultural policy for the next four years.

Barring any interim changes, dairy price support policy has been charted through September 1985. The purpose of this paper is to 1) discuss the new dairy support policy and 2) try to assess the implications of the current economic situation and price support policy for the dairy industry in 1982 and beyond. I will begin by differentiating price support policy from other federal dairy programs and reviewing the principal features of the price support program.

Federal Dairy Programs

Federal programs and regulations can, and often do, have a profound impact on the economic performance of the dairy industry, from farmers to consumers. There are four major programs which have direct impact on the dairy sector.

1. Food and Nutrition Programs. This category actually refers to a collection of programs, including School Lunch, Special Milk, and various domestic and international donation programs (e.g., P.L. 480). With the exception of the latter, the principal impact of these programs is that they tend to encourage the use of milk or milk products. Typically, these programs are viewed as components of food policy not agricultural policy, and consumers are assumed to be the primary benefactors, not producers. Hence, these programs have not been subject to much of the kind of criticisms that have been levied against other dairy programs and agricultural policy in general. Nevertheless, it should be recognized that these programs play a role in overall dairy policy, particularly one that tends to result in excess supplies of milk. That these programs are an important component of dairy policy is further evidenced by the strong support they receive from dairy producer groups.

2. Dairy Import Quotas. The importation of manufactured dairy products is restricted to limit the quantities of dairy products imported and thereby limit the possibility that U.S. efforts to support domestic prices would also support world dairy prices. When federal actions to increase domestic prices result in U.S. prices that are higher

than world prices, foreign countries will find it attractive to sell their dairy products in the U.S. Import quotas also prevent foreign countries from flooding U.S. dairy markets with cheaper dairy products, and thereby putting downward pressure on dairy product prices.

3. Federal Milk Marketing Orders. Milk marketing orders are primarily intended to create an orderly environment for the marketing of Grade A raw milk, especially that which is intended for the beverage milk market. Market orders do have an impact on prices, but their principal focus has been more on the distribution of prices than on the level of prices. Pressures to change or even eliminate the milk marketing order system have abated as interest in price supports waxed; however, these pressures will build again. Due to the general deregulation fervor in vogue these days and specific issues such as the pricing of reconstituted milk, the attention of policymakers is likely to refocus on milk marketing orders now that price support legislation has been passed and attentions to support wane for awhile.

4. Dairy Price Supports. The dairy price support program affects the level and stability of milk and milk product prices. At the time of its inception around World War II, dairy farm income enhancement was the primary objective. More recently, price stability has been the principal stated objective, although there clearly remain income enhancing effects.

Support of farm milk prices is achieved through government purchases of manufactured dairy products at prices that are designed to enable dairy manufacturers to pay a price equivalent to the support price, after taking a fair compensation for manufacturing costs. The support price announced at least annually by the Secretary of Agriculture is a price goal; it is the intent of the Secretary to create conditions that will lead to market prices that are no less than the support prices. The Secretary does this by guaranteeing to purchase an unlimited quantity of certain manufactured dairy products which meet certain well-defined grade, size, package, and product standards. Products are purchased at announced prices referred to as USDA or CCC purchase prices.[1/] Purchase prices are based on the announced support price and USDA estimates of manufacturing costs; thus they are calculated so as to enable manufacturers to sell dairy products to the USDA, cover their processing costs, and pay a price for milk at least equivalent to the support price.[2/]

1/The CCC or Commodity Credit Corporation is the buying agency of USDA responsible for purchasing dairy and other agricultural products under various USDA programs.

2/For further details on how the price support program works, see the Appendix.

Economic conditions in the dairy sector have led to massive USDA purchases of dairy products under the price support program at an unprecedented cost to the federal government. This and the general climate for deregulation have unquestionably focused public attention on dairy price supports.

What is the Situation and How Did We Get There?

The balance of U.S. milk supply and demand in recent years is illustrated in Table 1. Production and total supply has been trending upward. Consumption, as it is measured by farm use and commercial disappearance has been trending up but is leveling off. Milk surpluses, as measured by net government removals or the difference between the quantity of milk supplied and the quantity of milk used in commercial markets, have declined, increased, declined again, and rapidly increased in two cycles since 1972.

Comparing 1980 and 1981 levels, milk production was up three percent, imports were up 10 percent, the total milk supply was up 3.5 percent, commercial disappearance (consumption) was up one percent, ending commercial stocks were down 14 percent, and net government removals were up 49 percent. Milk production reached a new record high in 1981, and even though total commercial use was among its highest levels, net government removals topped the previous record of 10.7 billion pounds set in 1962. This represents a milk surplus of 9.9 percent of total milk production, which also exceeded the previous record for net government removals as a percentage of milk production set in 1962 and 1953.

The record quantity of milk purchased under price support programs combined with inflated prices resulted in unprecedented net expenditures on dairy products, as is shown in Figure 1. Net expenditures breached the $1 billion barrier in 1980 and came close to $2 billion in 1981.

Farm prices have exceeded or equaled support prices (for manufacturing grade milk) in all but six years since 1949. Three of those years are 1977, 1980 and 1981, as is illustrated in Figure 2. In recent years, market prices have failed to reach support levels because USDA's purchase prices for manufactured dairy products have not been sufficiently high to yield the desired market price at the farm level. At the same time, wholesale prices for supported products have basically equaled USDA purchase prices for the last two years, and retail prices for dairy products increased at a slower rate in 1981 than did prices for food or consumer prices in general.

These economic trends have played a role in shaping price support policy as well as having been affected by price supports. Beginning in late 1972, milk production began to decrease and through 1974 milk supply and demand became progressively tighter, as is shown in Table 1. Economists would normally interpret these conditions as signaling a rise in prices to stimulate production and reduce consumption. Many in the dairy industry expected support prices to be increased at this time. This,

Table 1. U.S. Milk Supply and Utilization, billion pounds 1975-1981

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981[a]	1982[b]
Supply											
Production	119.9	115.4	115.6	115.4	120.2	122.7	121.5	123.4	128.4	132.3	135.0
Farm Use	3.5	3.4	3.2	3.1	3.0	2.8	2.7	2.5	2.3	2.2	2.2
Marketings	116.4	112.0	112.4	112.3	117.2	119.8	118.8	120.9	126.1	130.1	132.8
Beginning Commercial Stocks	3.6	3.5	4.7	5.6	3.7	5.3	4.9	4.5	5.4	5.8	5.0
Imports	1.7	3.9	2.9	1.7	1.9	2.0	2.3	2.3	2.1	2.3	2.2
TOTAL SUPPLY	121.6	119.4	120.0	119.6	122.9	127.1	126.0	127.7	133.6	138.2	140.0
Utilization											
Commercial Disappearance	112.8	112.4	113.1	113.8	116.3	116.1	118.8	120.2	119.1	120.2	120.5
Ending Commercial Stocks	3.5	4.7	5.6	3.7	5.3	4.9	4.5	5.4	5.8	5.0	5.1
Net Government Removals	5.3	2.2	1.3	2.0	1.2	6.1	2.7	2.1	8.8	13.0	14.4
TOTAL USE	121.6	119.4	120.0	119.6	122.9	127.1	126.0	127.7	133.6	138.2	140.0

Source: Dairy Situation, U.S. Department of Agriculture, March 1975, March 1976, March and September 1981.

[a]Estimated

[b]Projected

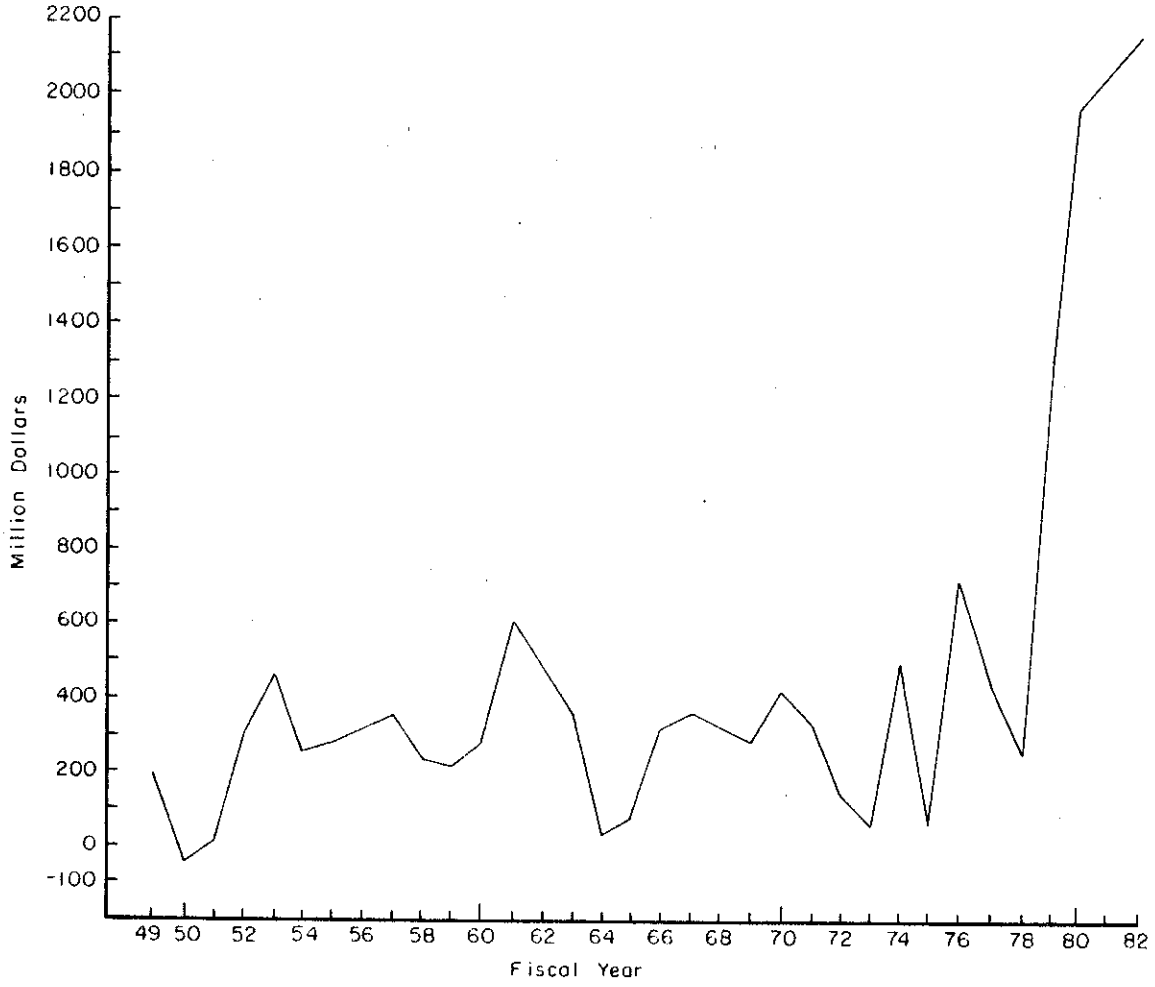

Figure 1. USDA Net Expenditures on Dairy Products.

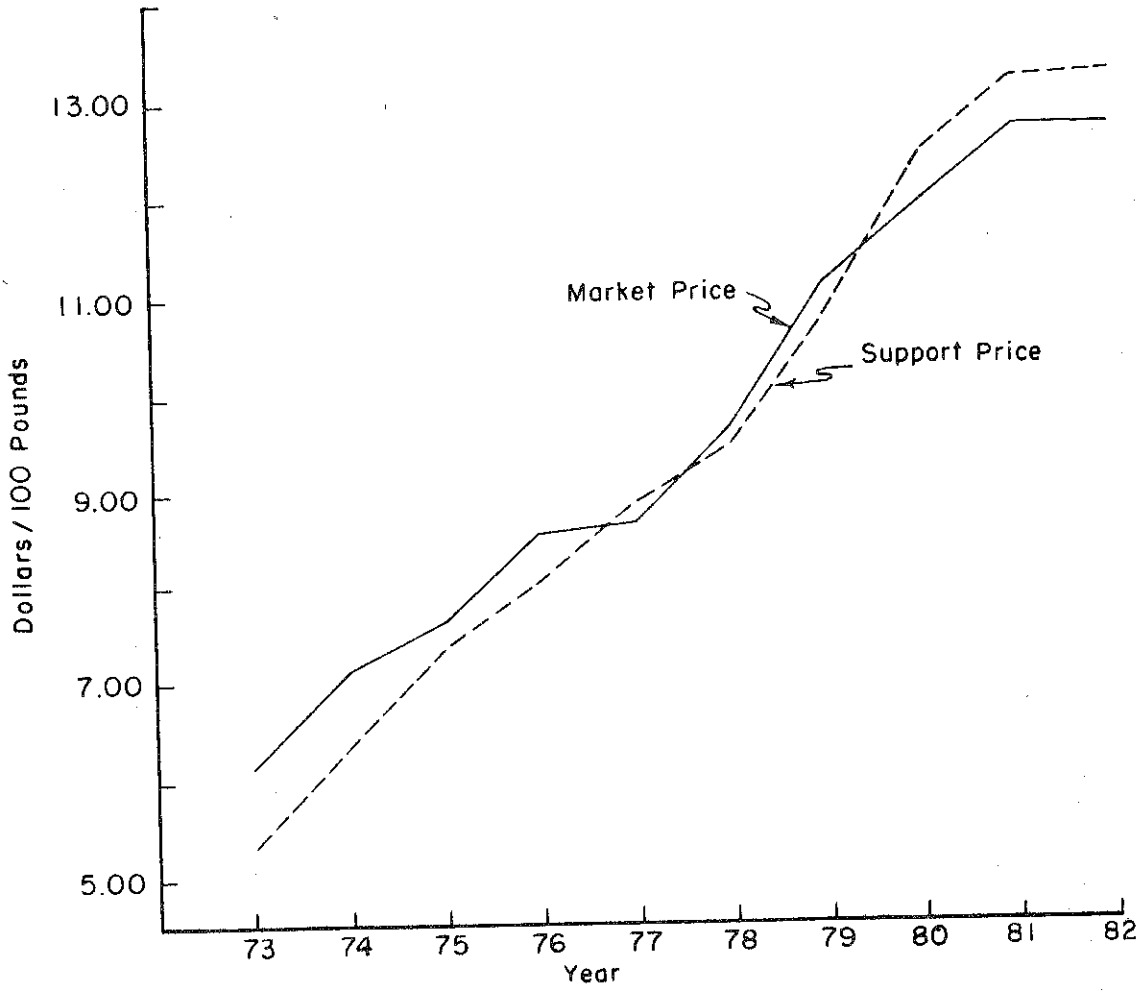

Figure 2. Manufacturing Milk Prices

however, happened to be when President Nixon was making every effort to control price rises and Secretary Butz was advocating a de-emphasis of agricultural support programs. Hence support prices were not raised but dairy import quotas were relaxed to permit foreign supplies to fill the gap. Although perceptions of the actual impact of this move on farm prices and incomes may have been exaggerated, this was nonetheless immensely unpopular with dairy farmers.

In 1975, Presidential candidate Carter sought to woo dairy farmer votes by promising a significant increase in the support price and thereby redressing the wrongs of the Republican administration. Unfortunately, by the time President Carter fulfilled his campaign pledge in 1976, increased farm prices were no longer warranted by existing conditions. The increase in the support price to over 82 percent of parity was based on market conditions two to three years earlier and came at a time of relatively good balance between supply and demand. High imports were no longer needed, commercial stocks had returned to normal levels, and supply was more or less in line with demand. Many economists predicted that President Carter's action would lead to over-production, large USDA purchases, and high government expenditures on dairy products. In the meantime, Congress, not wishing to be outdone by the President, passed legislation in 1977 that raised the price support minimum to 80 percent of parity and added a semiannual adjustment that required that the support price be adjusted in April for increases in the prices paid index (see Appendix).

At first in 1977, these predictions seemed to be fulfilled, but an unexpected drop in production and an unusually large increase in consumption, especially cheese consumption, in 1978 resulted in a fairly well balanced market that year. When the legislation setting the 80 percent of parity support price minimum had to be reviewed in 1979, market conditions looked favorable to a continuation of the 80 percent floor so Congress extended it through 1981. Many economists again protested the wisdom of this action, but by this time the failure of our previous forecasts to match reality had badly damaged our credibility.

The unexpected and fortuitous bubble in dairy product consumption in 1978 and 1979 burst in 1980 at the same time that milk production took a large jump (see Table 1). Consequently, net removals under the price support program burgeoned and the stage was set for what had been predicted three years earlier. Since then the over-supply of milk has been growing larger as gains in milk production have exceeded any gains in milk consumption, all at the considerable expense of taxpayers.

In 1980, the Administration changed again and the political strategy was reversed. President Reagan, fulfilling his campaign promises, vowed to bring the cost of the price support program under control. At no time did anyone seriously suggest a reduction in the support price but it became clear that increases in the support price would slow and, in fact, stop altogether for awhile.

As a first step, the semiannual adjustment scheduled for April 1981 was de-authorized; however, the new Farm Bill slated for 1981 became the focal point for discussions of the future of dairy price support policy.

After much debate between the House, Senate, White House, and other concerned parties, a dairy policy for the next four years finally emerged two months after the normal deadline when the Agriculture and Food Act was passed in December 1981.

The dairy price support policy charted in the new Farm Bill is unlike any previous dairy policy. On the surface it looks quite complicated, involving two so-called trigger mechanisms and the possibility of three different minimum levels for support prices.

Despite its overt complexity, the 1981 Agriculture and Food Act may result in the simplest program ever. The support price for 1981-82 has already been set at $13.10 per cwt. (for manufacturing grade milk at average fat test). This was the support price set in October 1980. Under the new legislation, specific support prices must be adhered to for the remaining three years of the Bill in every year in which net government expenditures exceed $1 billion. This is a virtual certainty in 1982 as most forecasters are projecting net expenditures of well over $2 billion. Support prices, when net expenditures are high, i.e., more than $1 billion, are as follows:

$13.25 per cwt. on October 1, 1982
$14.00 per cwt. on October 1, 1983
$14.60 per cwt. on October 1, 1984.

These prices should be well below 70 percent of parity. If net expenditures are below the $1 billion trigger but net purchases exceed a certain quantity, then the support price for that year can be held to a minimum of 70 percent of parity. If neither the expenditure nor purchases trigger levels are exceeded, then the support price will be no less than 75 percent of parity. The purchases trigger changes in each year. For fiscal year 1982 it is 4 billion pounds milk equivalent (M.E.); in 1983 it is 3.5 billion pounds M.E.; in 1984 it is 2.69 billion pounds M.E. The outlook for 1983 through 1985 is uncertain, but it would seem that dairy farmers will be fortunate to have supports at 70 percent of parity in those years.

The Outlook for the Dairy Industry in 1982

Projections for 1982 have already been revealed in Table 1 and Figures 1 and 2. The specific numbers are unlikely to be accurate, but the message they should convey is as follows. Milk production will increase almost as much in 1982 as it did in 1981, imports may be down slightly, commercial stocks may go up slightly, and only a modest increase in consumption is expected. This implies an 11 percent increase in net removals and a concomitant increase in USDA net expenditures to over $2 billion. Annual increases in retail prices will be modest, about 3 to 5 percent. Wholesale prices will increase even less in 1982. Farm prices for milk will at best average the same in 1982 as in 1981 and for the first half of 1982 they are likely to be less than they were a year earlier.

On what basis are these projections made? The specific numbers involve a fair bit of guesswork, but the general direction is based on the following line of reasoning.

The relation between market prices and support prices from the fourth quarter of 1979 through 1981 is shown in Figure 3. Because USDA has held the support price steady since October 1980 and has not adjusted its make-allowance to reflect increases in manufacturing costs since October 1979, USDA purchase prices have become more and more out of line with the support price. Dairy manufacturers are forced to pay less for milk as their selling prices stay constant and their manufacturing costs increase with inflation. This situation can only worsen until the support price is increased next October or until the make-allowances are adjusted, which does not seem to be likely. The reduction in farm prices in the U.S. and New York is also indicated in Table 2, which shows that prices have already begun to decline.

Given this prognosis for farm prices, modest increases in wholesale and retail prices for all dairy products are expected only to reflect increases in processing and marketing costs. Wholesale prices for manufactured products may even lag behind USDA purchase prices (see Appendix). USDA has recently begun to more strictly enforce purchasing rules and have added delays and paperwork for manufacturers wishing to sell manufactured dairy products to the government. This may prompt manufacturers to cut prices to encourage commercial sales and thereby avoid the extra hassle and cost of selling to the USDA.

The modest rise in retail prices should encourage consumption, but the sluggish and recessionary economy will offset some of that effect as consumer incomes drop off.

The most difficult variable to forecast is production. With declining or, at best, constant milk prices, one might expect a decrease in production, but this may not occur in 1982 for three major reasons. One, the price of feed, the largest single input cost for a dairy farmer, is expected to decrease through the first half of 1982. Two, the farm and nonfarm options for dairy farmers who might like to get out of dairying will be poor. With high unemployment in the nonfarm sector, jobs off the farm will be almost impossible to find until the economic recovery begins. Dairymen investigating alternative farm enterprises will find that returns in other agricultural sectors are, by and large, no better and often worse than they are in dairying. Three, the number of cows may very well continue to increase, counter to the long-run trend. Replacements on farms continue to be at unusually high levels and low beef prices have and will continue to discourage culling.

Some of these factors are illustrated in Table 3 which has data for the U.S. and New York. Although milk prices have already begun to soften, this table readily demonstrates that feed prices are decreasing more swiftly. The prices received for corn and beef, which are feasible alternatives for dairymen in some parts of the country, are declining more rapidly than milk prices. Cull cow prices are also declining. There is nothing in these numbers that suggests anything but more economic incentives to produce milk. If one couples this with the

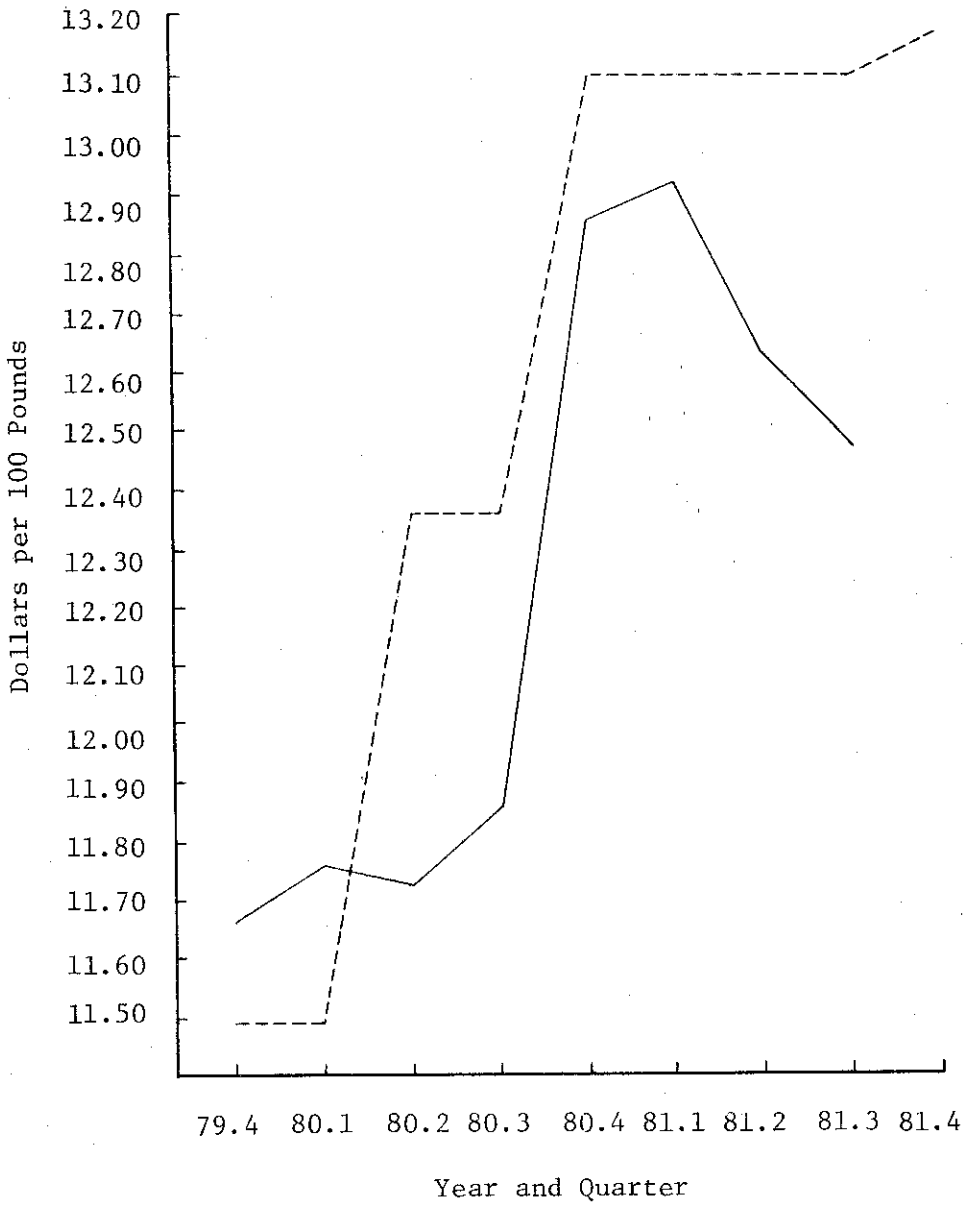

Figure 3. U.S. Average Market and Support Prices for Manufacturing Grade Milk (average fat test).

Table 2. Milk Prices, 1980 and 1981 ($/cwt.)

Year or Quarter	1980	1981	% Change
	Price Received - All Milk, U.S.		
I	12.80	13.97	9.2
II	12.60	13.50	7.2
III	12.87	13.53	5.2
IV	13.94	14.03[a]	0.7
Year	13.00	13.76	5.9
	Price Received - All Milk, N.Y.		
I	12.60	13.84	9.9
II	12.20	13.20	8.2
III	13.10	13.87	5.9
IV	14.04	14.17[a]	0.9
Year	13.00	13.77	5.9
	Minnesota - Wisconsin Price (3.5% BF)		
I	11.44	12.66	10.7
II	11.68	12.61	8.0
III	11.89	12.49	5.1
IV	12.52	12.53	0.0
Year	11.88	12.57	5.8
	Support Price (3.5% BF)		
I	11.22	12.80	14.1
II	12.07	12.80	6.1
III	12.07	12.80	6.1
IV	12.80	12.87	0.6
Year	12.04	12.82	6.5

Sources: Agricultural Prices, Statistical Reporting Service and Dairy Market News, Agricultural Marketing Service, U.S. Department of Agriculture.

[a]Preliminary.

Table 3. Comparative Dairy Statistics, United States and New York, 1980 and 1981

Year or Quarter	United States 1980	United States 1981	United States % Change	New York 1980	New York 1981	New York % Change
		Milk Produced (M lbs.)				
I	31,223	33,068	5.9	2,710	2,769	2.1
II	33,998	35,236	3.7	2,949	3,015	2.2
III	32,182	33,018[a]	2.6	2,682	2,723[a]	1.5
IV	31,022	31,500[a]	1.5	2,611	2,666[a]	2.1
Year	128,425	132,822	3.4	10,952	11,173	2.0
		Price Received - All Milk ($/cwt.)				
I	12.80	13.97	9.2	12.60	13.84	9.9
II	12.60	13.50	7.2	12.20	13.20	8.2
III	12.87	13.53[a]	5.2	13.10	13.87[a]	5.9
IV	13.94	14.03[a]	0.7	14.04	14.17[a]	0.9
Year	13.00	13.76	5.9	13.00	13.77	5.9
		Price Received - Corn ($/bu.)				
I	2.42	3.22	33.1	2.82	3.60	27.7
II	2.43	3.22	32.5	2.93	--	--
III	2.89	2.98[a]	3.1	3.43	--	--
IV	3.10	2.35[a]	-24.2	3.36	-- [a]	--
Year	2.71	2.94	8.5	3.50	--	--
		Price Received - Cows ($/cwt.)				
I	50.37	43.90	-12.9	49.14	43.17	-12.2
II	44.37	43.14	-2.8	45.37	43.24	-4.7
III	44.44	42.34[a]	-4.8	45.54	41.77[a]	-8.3
IV	43.47	36.57[a]	-15.9	44.90	38.03[a]	-15.3
Year	45.70	41.49	-9.2	46.30	41.55	-10.3
		Price Received - Steers and Heifers ($/cwt.)				
I	68.87	62.80	-8.9	58.77	51.10	-13.1
II	64.24	63.87	-0.6	55.30	51.74	-6.5
III	68.30	63.20[a]	-7.5	55.50	54.40[a]	-2.0
IV	66.00	58.60[a]	-11.2	53.30	45.07[a]	-15.4
Year	66.90	62.12	-7.2	55.72	50.58	-9.2

Table 3. (Continued)

Year or Quarter	United States 1980	United States 1981	United States % Change	New York 1980	New York 1981	New York % Change
	Price Paid - 16% Dairy Ration ($/cwt.)					
I	8.22	10.00	21.7	8.34	10.20	22.3
II	8.27	9.90	19.7	8.40	9.95	18.5
III	8.97	9.44	5.3	9.07	9.40	3.7
IV	9.92	9.07[a]	-8.6	10.12	9.19[a]	-9.2
Year	8.85	9.60	8.5	8.98	9.69	7.9
	Milk - Feed Price Ratio					
I	1.56	1.41	-9.7	1.51	1.36	-10.0
II	1.53	1.37	-10.5	1.45	1.33	-8.3
III	1.43	1.44	0.7	1.45	1.48	2.1
IV	1.40	1.55[a]	10.7	1.39	1.55[a]	11.5
Year	1.47	1.44	-2.0	1.47	1.43	-2.7

SOURCES: Milk and Agricultural Prices, Statistical Reporting Service, U.S. Department of Agriculture.

[a]Preliminary.

likelihood that many dairy farmers will have to expand production to maintain cash flows needed to service debt, the situation only worsens.

How Do We Get Out of This Mess?

There are two simple solutions to the current problem, but they are not easily achieved. One, production can be reduced, and/or two, consumption can be increased. The latter is far more desirable, but decreases in production are more likely to be the solution.

How can consumption be stimulated? Relatively lower prices will help, but until the general economic situation improves, unemployment is reduced and consumer incomes improved, it will be difficult to count on consumers buying many more dairy products. An added difficulty is presented by the increasing use of imitation dairy products, in particular imitation cheese. Although imitation cheese is a long way from cutting into cheese markets the way margarine has displaced butter markets, imitation cheese use is expanding rapidly and is becoming an important factor in limiting the growth in cheese sales.

Milk and dairy product promotion will continue to encourage consumption and discourage switching to dairy product substitutes. The National Milk Producers Federation and many dairy leaders are currently exploring the possibility of a nationwide promotion program targeted on manufactured dairy products. This would supplement promotion programs which focus on fluid milk products that exist in many dairy producing states. Studies have indicated that dairy promotion can effectively stimulate consumption and return more to the producer than is spent on advertising; however, promotion activities cannot be expected to eliminate the current surplus. Dairy product development may hold the most opportunity for expanded consumption by improving current products and developing new products and uses for milk, including nonfood uses. Although many new developments are on the brink of being commercially feasible, product development is inherently a slow and long-run process. No short-term miracles to stimulate consumption are in sight.

Expanded dairy exports have been promoted by many, including Congress, but expanded exports will be difficult to achieve. U.S. dairy prices for exportable dairy products typically run 50 to 100 percent higher than the prices offered by foreign competitors. The U.S. could underwrite and subsidize exports, as so many other dairy exporters do, but this obviously limits the benefits of exporting. It may be desirable to subsidize exports to reduce a large, unmanageable surplus in the short run, which has been done, but export subsidies should not become a long-run policy. Because the U.S. does export very little dairy products now, it would take time to develop more export markets. Moreover, foreign markets are as glutted with milk as our's are; unless some way is found to profitably supply the world's hungry and impoverished masses, our exports in commercial channels will likely remain relatively small.

Although there is hope to increase consumption, increases will not be easy. Likewise, decreases in supply will be difficult. Decreases

in the supply of milk and dairy products can be achieved by reducing domestic production or further limiting dairy product imports. More restrictive quotas on most dairy imports are likely to be vetoed by foreign policy interests . Casein imports, which are currently unrestricted, have been reviewed several times recently; casein quotas are currently being considered. Although dairy producers have argued strongly for casein quotas, they have not found a sympathetic ear among those who are concerned with federal trade policy. President Reagan has not issued a decision on quotas yet and the outcome is uncertain. Like efforts to expand consumption, dairy quotas by themselves will not solve the problem of oversupply.

Dairy leaders are also discussing the feasibility of a so-called self help program under which milk producers would share in the cost of the price support program. Plans at this stage call for producer financing when net government purchases exceed a certain quantity, perhaps 3.5 billion pounds milk equivalent. This plan also would set up a national Dairy Board, controlled by dairy farmers, which would help administer dairy programs. Proponents of the plan also expect prices to be supported at no less than 75 percent of parity with semiannual adjustment. The large surplus likely to be generated under those prices in the near future would probably be disposed of through subsidized international or domestic food programs. Such a program would shift some of the financial burden of price supports to producers but many would still question the wisdom of generating large surpluses and the equity of requiring consumers to pay prices that are above market clearing levels.

Twenty years ago dairy leaders proposed a different type of self help plan that would have allotted production quotas to dairy farmers. Production quotas have never been particularly popular with farmers hence the form of the current proposal is not surprising. The self help plan proposed in 1982 would do little to discourage production; in fact, it might stimulate production. Lower milk prices over an extended period of time will eventually discourage production. Barring a concerted national effort by dairymen to adopt a stiff supply control program, decreases in production will most likely come by more dairy farmers retiring from dairying not by all dairymen milking fewer cows. As discouraging as the dairy outlook might be, most dairymen will continue to find dairying to be better than their other options, at least for most of 1982. Attrition will come slowly, and so will decreases in production.

To ease the burden of stagnant prices and decreasing net returns, dairymen should make every effort to encourage their cooperatives and other organizations to improve marketing efficiency. This will not reduce the oversupply of milk, but reducing marketing costs will increase net returns. This will be particularly important to dairy cooperatives which own processing facilities. Milk assembly and processing costs can be reduced through the efficient handling of larger volumes of milk. For many, this will mean more joint efforts, mergers and consolidations to attain efficient sizes in processing plants and higher densities on milk pick-up routes.

APPENDIX

How Does the Dairy Price Support Program Work?

To understand the implications of current support policy, one must have a basic understanding of how the price support program works.

Typically, the Secretary of Agriculture announces a support price for farm milk once a year on October 1. This support price is actually a price goal--a minimum, average price that USDA hopes to see realized in the marketplace. The USDA is free to specify a price goal within a range specified by Congress. This range is defined by a pricing guide called parity.

Parity implies a price that is equitable or on par with something. Under the price support program, parity prices are intended to result in farm incomes that are on par with farm incomes in the period 1910 to 1914. This period was chosen by Congress when the price support program was being developed because it was believed to be the most recent period when farmers received a fair or equitable return for their produce. Fairness in this case was probably based on perceptions of farm incomes relative to nonfarm incomes in 1910 to 1914, but in any case it is actually measured by the relationship between the prices farmers receive and the prices farmers pay. (Prices are much easier to measure than incomes.)

Given this concept of parity as a guide, Congress has written a precise mathematical definition of a parity price. The parity price for milk is determined by three variables: 1) the increase in the prices farmers pay since 1910 to 1914 as measured by the prices paid index, 2) the increase in the prices farmers receive since 1910 to 1914 as measured by the prices received index, and 3) the average prevailing market price for milk. The formula that is used could be written as follows:

$$\text{Parity Price} = \frac{\text{Prices Paid Index}}{\text{Prices Received Index}} \times \text{Market Price}$$

What this means is that the parity price will be as much higher (or lower) than the market price as increases in prices paid are higher (or lower) relative to increases in prices received. In other words, if prices paid have increased by a factor of 10 since 1910 to 1914 and price received have increased by a factor of 5 then prices paid have increased twice as fast as prices received. The ratio of the prices paid index to the prices received index equals two. Therefore, the parity price will be twice the market price. In a sense, this calculation adjusts the market for a kind of price inflation--the inflation of prices paid relative to prices received.

The parity price calculated according to this procedure is not the support price. The support price is a percentage of the parity price. Congress has typically required that the support price be set between 75 percent and 90 percent of the parity price. The so-called flexible parity approach is intended to give the Secretary discretion to choose a support price that is consistent with supply and demand while still providing minimum guarantees to farmers and processors as to the boundaries for the support price. The 75 to 90 percent range has historically encompassed prices that could be justified on the basis of market conditions.

The price support level is often chosen based on some particular percentage of parity. For the last several years Congress required support prices to be no less than 80 percent of the parity price. Because USDA did not wish to go higher than this, support prices have been set at 80 percent of parity at the beginning of each marketing year between 1978 and 1980.1/

Although USDA's price support goal is often expressed as a percentage of parity, once a support price is announced USDA's commitment is to achieve that price not a particular parity level. For example, if USDA announces in October that it is setting the support price at 80% of parity and that price calculates to be $10 per cwt., then USDA is committing itself to a price goal of $10 per cwt., not 80% of parity. If 80% parity in March of the following year happens to be $9 or $11 per cwt., USDA's commitment remains to $10 per cwt.

The mechanism for calculating support prices is complex and a considerable amount of legislation is devoted to defining the process. Nevertheless, the support price is merely a price goal; if USDA did nothing else than announce the support price, the price support would be totally ineffective and meaningless. USDA must take some further action if the price goal is to be achieved.

Contrary to what some believe, it is not illegal for someone to pay a dairy farmer or a dairy cooperative less than the support price. The USDA attempts to achieve its farm price goal by creating an extra demand for manufactured dairy products that is sufficient, in light of existing supply and demand, to elicit a market price for raw milk that is at least as high as the support price. The USDA buys American cheese, butter, and nonfat dry milk in its efforts to bolster the demand for milk.

USDA purchases these products at wholesale prices that are based on the support price and USDA's estimate of what it costs a manufacturer to make cheese, butter, or nonfat dry milk; the manufacturing cost used by USDA is often called the make-allowance. Thus the wholesale price

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1/Support prices are not always chosen because they are some particular percentage of parity. For example, in 1977 the support price was set at $9 per cwt., which happened to be 82 percent of the parity price. Support prices under the Agriculture and Food Act of 1981 can be pegged a particular dollar amount, not a percentage of parity.

offered by the USDA for a specific manufactured dairy product is calculated to return enough money to the manufacturer to cover processing costs and pay at least the equivalent of the support price for raw milk. It is the USDA's purchase prices for cheese, butter, and nonfat dry milk, in relation to actual manufacturing costs, that determine the effective level of price supports for milk. When market prices for milk do not reach support levels it implies that the USDA purchase prices for cheese, butter, and/or nonfat dry milk are too low.

To summarize, there are three types of prices that are important to the price support program: the parity price for milk, the support price for milk, and purchase prices for manufactured dairy products. The parity price reflects the conceptual basis and objectives of the price support program; it serves as one step in the calculation of the support price. The support price is the farm price goal, and as such it receives the most attention. Nevertheless, the support price is by and large irrelevant in and of itself until it is used to calculate purchase prices. Purchase prices are probably the least well known and understood of the three, but they are the prices that actually make the program work. By directly supporting prices for manufactured dairy products through purchases of those products at the announced purchase prices, USDA makes it possible for market prices for farm milk to reach the support price goal.