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# **THE DAIRY INDUSTRY AND DAIRY POLICY IN 1985**

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### Preface

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## Introduction

The objectives of this paper are: first, to review the current economic situation of the dairy industry and the dominant dairy policies and issues of 1984 and second, to assess the economic and political outlook for the dairy industry in 1985. The paper begins with a discussion of the economic status of dairy markets in the U.S. at the end of 1984, followed by a review of the major policy issues of 1984. The paper concludes with some comments on the 1985 economic outlook for the U.S. dairy industry and on the possible policy changes that could shape the dairy economy beyond 1985.

Nineteen eighty-four will be remembered in the record books as the year of the asterisk. The Dairy Production Stabilization Act of 1983 (DPSA) initiated a set of program changes and a sequence of events without precedent. The DPSA combines four major actions. First, it lowered the support price by 50¢/cwt. last December, and it authorizes future 50¢/cwt. reductions in April and July, 1985. Second, it authorizes a direct assessment of 50¢/cwt. against all farm marketings of milk from December 1, 1983 through March 31, 1985. Third, it offers payments of \$10/cwt. of milk "diverted" to farmers who agree to sell less milk in 1984 and the first quarter of 1985 than they did during a base period. Fourth, all farmers are required to contribute 15¢/cwt. of milk marketed to a new national dairy promotion and research program, although credits of up to 10¢/cwt. are allowed for contributors to similar regional or statewide programs.

Each component of the DPSA has a different effect. The cut in the support serves to discourage production and encourage consumption through lower prices; generally one can expect that several months or more are required before these price effects occur. The assessment further discourages production by lowering farm returns, also a longer-run effect, and it immediately reduces the taxpayer cost of the support program. The milk diversion program has the more or less immediate effect of lowering milk marketings, through both lower production and higher use of milk on farms. The promotion program primarily serves to increase consumption.

Although the price cut and assessment began on December 1, 1983, the milk diversion program did not really begin until February 1, 1984, when the sign-up period ended. Consequently, milk production did not begin to turn down nationally until March. In New York, it took an extra month before production decreased relative to year earlier levels. California is the only state (among the 48 contiguous states) that has increased its production in 1984, which it has done by a rather sizeable three or four percent.

While the diversion program caused a reduction in milk production, it had no effect on the demand for milk by processors. Other factors, however, led to commercial demand that was unusually strong throughout 1984. Lower dairy prices and a continually stronger economy appear to deserve most of the credit for the increase, since the new promotion program did not get under way until September.

The combination of strong commercial sales, reduced production, and the desire of all dairy processors to keep their plants as full as possible meant that milk processors were not always able to get as much milk as they wanted. This condition in turn caused milk prices to be bid higher than the support level. Despite the 50¢ cut in support price, by September the monthly average price of milk actually exceeded year earlier levels; moreover, only in April was

the monthly price the full 50¢ lower than the year earlier level. Upward pressures on price were particularly great in those regions of the country where participation in the diversion program was the highest, e.g., the Southeast. In these areas, premiums of up to \$3/cwt. were reported to have been paid by fluid milk processors to attract milk from manufacturers in the Upper Midwest and elsewhere.

Although commercial sales improved considerably in 1984 and farm level demand was strong, a considerable amount of milk still ended up in CCC stocks in the form of cheese, nonfat dry milk, or butter. The combination of intense competition for a smaller farm milk supply and a continuing large surplus of milk production compared to commercial use has left many farmers puzzled about the dairy situation in 1984 and what to expect in 1985. Specific supply, use, and price estimates for 1984 and possible changes in 1985 are discussed below.

## The National Economic Situation

### Milk Production

The long trend of increasing and record-breaking milk production finally broke in 1984, as shown in Table 1. This was due in large part to reductions on farms participating in the milk diversion program, although lower returns to all farmers also contributed to the decline. The 3.9 billion pounds (2.8%) drop in production was the largest since 1973, when milk production fell 4.3 billion pounds (3.6%). The average number of milk cows on farms fell 2.2%, the first decrease in cow numbers in five years. Production per cow also dropped slightly, 0.7%, probably due to changes in feeding and milking practices by participants in the milk diversion program.

Cow and heifer numbers were up slightly at the beginning of the year. Although cow numbers declined, replacement numbers have increased through the year. On the July 1 inventory, the number of replacement heifer equalled 45.6% of cow numbers.

### Imports and Exports

The Bureau of Census data on imports, shown in Table 2, often are inconsistent with quotas and Customs Service data on imports of quota<sup>1</sup> products. Given this caveat, it appears that imports were up about 7% in 1984. Most of the gain in imports came from Italian and other specialty cheeses, casein, lactose, condensed milk, and butter products. American cheese and nonfat dry milk imports both declined about 10%.

Since 1981, exports and shipments of dairy products have exceeded imports, contrary to the normal post World War II situation. Based on the preliminary

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<sup>1</sup>Unless otherwise noted, all aggregations of dairy products are reported in milk equivalent units based on the butterfat content of the individual products and raw milk (fat solids basis).

Table 1. U.S. Milk Production, Cattle Numbers, and Production Per Cow

	Average 1974-1978	1979	1980	1981	1982	1983	1984 <sup>a/</sup>	1984 as % of 1983
Milk Production (mil. lbs.)	119,056	123,411	128,525	133,013	135,802	139,968	136,105	97.2
Production Per Cow (lbs.)	10,794	11,488	11,889	12,177	12,309	12,587	12,518	99.5
Milk Cows on Farms, average during year (thous.)	11,030	10,743	10,810	10,923	11,033	11,120	10,873	97.8
Milk Cattle on Farms, January 1 (thousands)								
Milk Cows and Heifers that have Calved	11,094	10,790	10,779	10,860	11,012	11,066 <sup>a/</sup>	11,140	100.7
Milk Cow Replacements, Heifers 500 Pounds and Over	3,952	3,932	4,158	4,345	4,532	4,533 <sup>a/</sup>	4,541	100.2
Heifers Per 100 Cows (no.)	35.6	36.4	38.6	40.0	41.2	41.0 <sup>a/</sup>	40.8	99.5

Source: Dairy Outlook and Situation Report, DS-399, U.S. Department of Agriculture (ERS), December, 1984.

<sup>a/</sup> Preliminary.



Table 2. U.S. Dairy Product Imports and Exports

	Average 1974-1978	1979	1980	1981	1982	1983	1984	1984 as % of 1983
American Cheese	35,297 <sup>f/</sup>	17,964	18,077	19,941	17,845	21,655	20,000	92.4
Italian Cheese <sup>a/</sup>	11,108	7,692	7,057	8,549	13,575	658	14,500	106.2
Swiss Cheese <sup>a/</sup>	76,379	93,971	80,688	79,416	82,041	84,134	84,500	100.4
Other Cheese <sup>b/</sup>	107,978	128,662	125,359	139,845	155,882	166,800	195,000	116.9
Total Cheese	230,763	248,289	231,161	247,661	269,343	286,247	314,000	110.0
Butter, Butteroil and other Butterfat Mixtures	3,693	4,554	4,462	4,231	5,281	5,258	5,580	106.1
Nonfat Dry Milk	24,710 <sup>g/</sup>	2,178	4,890	2,751	1,935	2,399	2,150	89.6
Casein	112,971	150,827	151,226	127,823	176,752	159,527	189,000	118.5
(million pounds of milk equivalent, fat solids basis)								
Quota Imports	1,265	1,235	1,820	2,061	2,163	2,243	2,375	105.9
Non-Quota Imports	879	1,070	289	268	314	373	425	113.9
Total Imports	2,163	2,305	2,109	2,329	2,477	2,616	2,800	107.0
Exports and Shipments <sup>c/</sup>								
Commercial <sup>d/</sup>	1,011	982	932	3,683	4,596	2,701	4,000	148.0
USDA <sup>e/</sup>	30	38	56	67	644	1,608	1,600	99.5
Net Commercial Imports	1,152	1,323	1,177	-1,354	-2,119	-85	-1,200	1411.8

Source: Dairy Outlook and Situation Report, U.S. Department of Agriculture from U.S. Department of Commerce, Bureau of Census; 1984 estimated by Andrew Novakovic from available USDA data.

a/ Includes all Emmenthaler type and Gruyere process cheese.

b/ Includes Edam, Gouda, Blue Mold, Roquefort, Pecorino, Gjetost, Bryndza, soft, ripened cheeses, and others.

c/ Shipments are exports to U.S. territories.

d/ Includes sales for dollars and government to government sales, usually at less than domestic market prices.

e/ Includes P.L. 480 and AID programs.

f/ Excluding abnormally high imports in 1974, the average equals 16,097.

g/ Excluding abnormally high imports in 1974, the average equals 2,121.

data, exports were higher in 1984 than the previous peak in 1982. On a milk equivalent basis, the U.S. was a net exporter of about 1.2 million pounds of dairy products in 1984.

### Dairy Product Consumption

Several figures are reported by the USDA which, in slightly different ways, measure consumption. These figures differ in that some account for sales, while others measure disappearance, a figure calculated as a residual from production and other directly measured supplies and uses of milk or dairy products. Disappearance figures, and there are several, may or may not include farm use, exports, government donations, and changes in commercial stocks.

The data shown in Table 3 describe domestic disappearance of dairy products, a figure which excludes export use. The most recent of these data are available for 1983. Farm consumption exhibits a steady decline, due both to decreases in the farm population as well as declining per capita use of "home-produced" milk and dairy products. Commercial use of dairy products is measured in several ways. Civilian commercial use excludes purchases by the military and any purchase or use through a USDA program. This measure perhaps most closely corresponds to the conventional concept of demand--how much consumers buy at a given price. By this measure, consumers have been steadily increasing their purchases of dairy products. Civilian commercial use increased over four percent between 1983 and 1979. Greater total use in this category appears to be due to higher per capita use as well as increases in population. During the five-year period 1974 to 1978, per capita civilian commercial disappearance averaged 510 pounds; since 1979 it has averaged over 516 pounds.

In the last few years, USDA donations have increased greatly; between 1983 and 1982 alone donations increased over 50%. Increases in this category, which includes product donations from USDA stocks as well as products purchased through National School Lunch and Special Milk programs, primarily reflect USDA's desire to reduce the massive stocks of dairy products accumulated under the dairy price support program.

If one looks at civilian commercial disappearance plus USDA donations, excluding direct product donations, a figure USDA calls civilian consumption, this measure of civilian use is more stable than civilian commercial disappearance, both in the aggregate and on a per capita basis. The data suggests that normal commercial use has increased in partial compensation for decreases in Special Milk and School Lunch program funding.

Domestic disappearance of selected dairy products from commercial sources is shown in Table 4. In 1983, the year for which the most recent data are available, domestic disappearance of most products stayed on its recent aggregate trend. Whole milk and cottage cheese showed modest declines, while lowfat milk and frozen desserts increased. Contrary to recent trends, disappearance of cheese dropped slightly and dry milk disappearance increased considerably. Commercial disappearance of cheese may be showing a decline because heavy USDA donations have displaced commercial sales. Cottage cheese and canned milk disappearance remain fairly level.

Table 3. U.S. Domestic Disappearance of Dairy Products

	Average 1974-1978	1979	1980	1981	1982 <sup>a/</sup>	1983 <sup>a/</sup>	1983 as % of 1982
	(million pounds, milk equivalent, fat solids basis)						
Consumed on farms	1,396	1,031	943	886	839	835	99.5
Civilian, commercial sources	110,093	115,375	114,823	118,206	119,722	120,207	100.4
USDA donations <sup>a/</sup>	5,400	5,820	7,058	4,645	8,552	13,124	153.5
Civilian consumption, excluding product donations <sup>b/</sup>	114,989	119,906	118,466	119,992	121,461	121,942	100.4
Total Civilian	116,889	122,226	122,824	123,737	129,113	134,166	103.9
Military	1,040	1,163	1,067	1,019	1,369	1,307	95.5
Total Civilian and Military	117,928	123,389	123,891	124,756	130,482	135,473	103.8
	(pounds, milk equivalent, fat solids basis)						
Per Capita Civilian, commercial sources	510	517	509	519	520	517	99.4
Per Capita Civilian consumption, excluding donations <sup>b/</sup>	532	538	525	527	528	525	99.4

Source: Dairy Outlook and Situation Report, DS-398, U.S. Department of Agriculture (ERS), September 1984,  
page 18.

<sup>a/</sup> Includes products purchased through National School Lunch and Special Milk programs as well as product donations from USDA inventories.

<sup>b/</sup> Civilian disappearance, commercial sources, plus milk consumed on farms plus products purchased through National School Lunch and Special Milk programs.

Table 4. U.S. Total and Per Capita Domestic Disappearance of Selected Dairy Products from Commercial Sources

	Average 1974-1978	1979	1980	1981	1982 <sup>a/</sup>	1983 <sup>a/</sup>	1983 as % of 1982
	(million pounds of product)						
<b>TOTAL</b>							
Whole Milk	36,850	33,937	32,754	31,685	30,670	29,965	97.7
Lowfat Milk	17,577	20,647	21,743	22,443	22,780	23,490	103.1
Frozen Desserts <sup>b/</sup>	5,935	5,885	5,943	6,029	6,079	6,281	103.3
Cottage Cheese	1,017	1,010	1,017	992	978	974	99.6
Butter <sup>c/</sup>	910	921	894	880	891	897	100.7
Cheese <sup>c/</sup>	3,297	3,814	3,810	4,043	4,216	4,170	98.9
Canned Milk <sup>d/</sup>	1,800	1,646	1,586	1,640	1,608	1,621	100.8
Dry Milk <sup>e/</sup>	795	798	748	650	643	714	111.0
	(pounds)						
<b>PER CAPITA</b>							
Whole Milk	172.0	152.0	145.0	139.0	133.0	129.0	97.0
Lowfat Milk	81.7	92.5	96.3	98.4	98.9	101.0	102.1
Frozen Desserts <sup>b/</sup>	27.4	26.2	26.2	26.3	26.3	26.8	101.9
Cottage Cheese	4.7	4.5	4.5	4.3	4.2	4.2	100.0
Butter <sup>c/</sup>	4.2	4.1	3.9	3.8	3.8	3.8	100.0
Cheese <sup>c/</sup>	15.2	17.0	16.8	17.6	18.2	17.9	98.4
Canned Milk <sup>d/</sup>	8.3	7.3	7.0	7.2	6.9	7.0	101.4
Dry Milk <sup>e/</sup>	3.7	3.6	3.3	2.9	2.7	3.1	114.8

Source: Dairy Outlook and Situation Report, U.S. Department of Agriculture, June and December issues.

a/ Preliminary.

b/ Excludes mellorine.

c/ Excludes cottage cheese.

d/ Whole and skim evaporated and condensed milk, bulk as well as canned.

e/ Includes dry whole milk, nonfat dry milk, and dry buttermilk.

f/ Domestic civilian disappearance from commercial sources, which includes milk consumed on farms but excludes donations for food use.

### Commercial Stocks

After rising 18% in 1983, total commercial stocks fell back 6.5% at the end of 1984. As shown in Table 5, stocks of other cheese dropped only 3% but nonfat dry milk stocks were chopped back to 63% of year earlier levels. It would appear that the commercial trade is trimming its inventories in the face of tight supplies of milk in 1984 and price cuts in 1985 that will reduce inventory values.

### USDA Stocks, Purchases, and Expenditures

Net removals on a milk equivalent basis for the fiscal year ending September 30, 1984 fell to 62% of year earlier levels, as shown in Table 6. Cuts in net removals were made for all three major products, with the greatest reduction in butter (39%) and the least for nonfat dry milk (27%).

Expenditures on price support activities were cut accordingly. Net expenditures on price support activities fell to less than \$1.6 billion, a cut of \$1 billion. It should be noted that the net expenditures for FY1982-83 included revenue from the milk marketing assessments. Assessment revenues were also collected in FY1983-84; moreover, expenses for the diversion program and assessment refunds were also made last year. If one ignored these revenues and expenses, net expenditures just on the purchasing aspect of the support program cost \$2.8 billion in FY1982-83 and \$2.1 billion in FY1983-84. It perhaps should also be noted that the cash accounting procedures used by USDA to make these calculations tended to understate accrued costs last year. Although last year covered nine months of the milk diversion program, payments were made for only the first six months of "diversion." This has the effect of understating the cost of the diversion program in FY1983-84 and overstating it in FY1984-85 (by about \$200 million).

Net expenditures on School Lunch and other food aid programs continued to increase, almost 12%. Net expenditures on the Special Milk program, on the other hand declined over 5%. In absolute terms, the dollar decrease in Special Milk was almost exactly offset by the increase in School Lunch and other programs. In total, just over \$1.6 billion was spent by the U.S. government on dairy commodity programs.

Net removals also continue to be a sizeable percentage of total production, although greatly reduced from year earlier levels, as shown in Table 7. In 1984, net removals as a percent of production ran about 17% for cheese and butter and 57% for nonfat dry milk, compared to 28%, 32%, and 71%, respectively, in 1983. On a milk equivalent basis, net removals of all products were half of year earlier levels, such that in 1984 6.5% of all milk marketed was sold in the form of dairy products to USDA.

Due to the cut in net removals and continuing large donations of dairy products, government stocks were reduced considerably. At the end of 1984, stocks of cheese, butter and nonfat dry milk were 88%, 70%, and 93% of year earlier levels, respectively. Nonfat dry milk continues to be the hardest product to utilize and the most difficult of which to curtail production. Tables 8 through 10, indicate how much of each dairy product was purchased, how it was used, and how much was left over at the end of the fiscal year. The data

Table 5. U.S. Ending Stocks of Dairy Products

	Average 1974-1978	1979	1980	1981	1982	1983	1984 <sup>e/</sup>	1984 as % of 1983
	(million pounds of product)							
Commercial								
American Cheese	357.3	403.7	422.8	373.8	334.7	368.2	341.6	92.8
Other Cheese	66.5	105.6	99.3	86.6	82.8	104.9	101.8	97.0
Butter	27.2	25.2	36.5	47.3	28.1	35.8	31.3	87.4
Nonfat Dry Milk	83.1	92.6	85.0	86.7	93.3	74.6	47.1	63.1
Total (M.E.) <sup>a/</sup>	4847 <sup>d/</sup>	5419	5752	5398	4603	5234	4896	93.5
Government								
American Cheese <sup>b/</sup>	13.1	2.8	168.6	515.4	646.8	793.3	698.5	88.0
Butter <sup>c/</sup>	42.4	152.6	268.2	381.9	438.7	463.5	322.8	69.6
Nonfat Dry Milk	316.9	392.7	501.7	803.0	1188.7	1320.3	1232.9	93.4
Total (M.E.) <sup>a/</sup>	1007 <sup>d/</sup>	3180	7207	12,980	15,451	17,412	13,565	77.9

Source: Dairy Outlook and Situation Report, U.S. Department of Agriculture; 1984 estimated by Andrew Novakovic from USDA reported stocks on November 1, 1984.

- <sup>a/</sup> Includes manufactured products for which current monthly series are available (excludes nonfat dry milk, cream, and bulk milk), computed on fat-solids basis.  
<sup>b/</sup> Includes process cheese.  
<sup>c/</sup> Includes butter equivalent of butteroil and ghee.  
<sup>d/</sup> Estimates used for 1974.  
<sup>e/</sup> Preliminary.

Table 6. USDA Removals of and Net Expenditures on Dairy Products by Fiscal Year<sup>a/</sup>

	Average <sup>b/</sup> 1974-1978	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984 as % of 1983
Net Removals (bil. lbs. M.E., fat basis)	2.1	1.1	8.2	12.7	13.8	16.6	10.3	62.0
Net Expenditures (million dollars)								
Support Purchases	348.6	244.3	1274.0	1967.2	2231.3	2592.0 <sup>c/</sup>	1588.1 <sup>d/</sup>	61.3
School Lunch and Food Aid	13.2	6.3	5.8	7.5	7.9	8.4	9.4	111.9
Total	361.9	250.6	1279.8	1974.7	2239.2	2600.4	1597.5	61.4
Special Milk	112.9	134.1	156.8	118.8	28.1	18.0	17.0	94.4
TOTAL	474.8	384.7	1436.6	2093.5	2267.3	2618.4	1614.5	61.7

Source: Dairy Outlook and Situation Report, U.S. Department of Agriculture (ERS), December issue.

a/ Fiscal year begins October 1.

b/ Fiscal years 1973-74 to 1975-76 began on April 1, the transition quarter April 1 to September 30, 1976 is ignored for this calculation.

c/ Includes \$253.8 million in revenue from milk marketing assessments.

d/ Includes \$832.4 million in revenue from milk marketing assessments, \$15.9 million refunds of the (second) 50¢/cwt. assessment collected during September through November of 1983, and \$335.5 million in milk diversion payments for milk "diverted" during the first half of 1984.

Table 7. USDA Net Removals and Production of American Cheese, Butter, Nonfat Dry Milk and All Milk

	Average 1974-1978	1979	1980	1981	1982	1983	1984	1984 as % of 1983
	(million pounds)							
American Cheese								
Net Removals	70.9	40.2	349.7	563.0	642.5	832.8	465.3	55.9
Production	1938	2190	2376	2642	2752	2928	2706	92.4
% Net Removals <sup>a/</sup>	3.7	1.8	14.7	21.3	23.3	28.4	17.2	-
Butter								
Net Removals	94.0	81.6	257.0	351.5	382.0	413.2	195.6	47.3
Production	1001	985	1145	1228	1257	1299	1117	86.0
% Net Removals <sup>a/</sup>	9.4	8.3	22.4	28.6	30.4	31.8	17.5	-
Nonfat Dry Milk								
Net Removals	312.7	255.3	634.3	851.3	948.1	1061.0	676.5	63.8
Production	995	909	1161	1314	1401	1500	1190	79.3
% Net Removals <sup>a/</sup>	31.4	28.1	54.6	64.8	67.7	70.7	56.8	-
All Milk (M.E., fats basis)								
Net Removals	2688	2119	8800	12,861	14,282	16,813	8492	50.5
Marketings	11,609	120,942	126,187	130,709	133,441	137,619	130,800	95.0
% Net Removals <sup>a/</sup>	2.3	1.8	7.0	9.8	10.7	12.2	6.5	-

Source: Dairy Outlook and Situation Report, U.S. Department of Agriculture (ERS); 1984 estimated by Andrew Novakovic from available USDA data.

<sup>a/</sup> Net removals as a percentage of production (or marketings).



Table 8. Use of CCC Stocks of Cheese, by Fiscal Year<sup>a/</sup>

	Average 1974-1978 <sup>b/</sup>	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984 as % of 1983
					(million pounds)			
Purchases (contract basis)	70.0	12.4	343.0	533.4	610.6	832.3	570.9	68.6
Domestic Sales <sup>c/</sup>	1.0	0.3	2.1	6.6	10.1	13.1	32.2	245.8
Export Sales <sup>c/</sup>	-	-	-	0.9	18.0	23.0	3.0	13.0
Total Sales	<u>1.0</u>	<u>0.3</u>	<u>2.1</u>	<u>7.5</u>	<u>28.1</u>	<u>36.1</u>	<u>35.2</u>	<u>97.5</u>
Domestic Donations, Welfare <sup>d/</sup>	62.9	40.9	145.1	164.3	324.5	629.5	682.6	108.4
Domestic Donations, Federal <sup>e/</sup>	.7	0.1	1.2	2.9	3.2	4.2	4.7	111.9
Foreign Donations	-	-	-	-	11.0	22.5	34.2	152.0
Total Donations	<u>63.5</u>	<u>41.0</u>	<u>146.3</u>	<u>167.2</u>	<u>338.7</u>	<u>656.2</u>	<u>721.5</u>	<u>110.0</u>
Total Sales and Donations	64.5	41.3	148.4	174.7	366.8	692.3	756.7	109.3
Ending Uncommitted Stocks	21.5	*	195.8	554.4	825.1	902.7	767.6	85.0

Source: 1983-84 Dairy Price Support Program, U.S. Department of Agriculture (ASCS), March 1984.

\* Less than 50,000 pounds.

a/ Fiscal year begins October 1.

b/ Fiscal years 1973-74 to 1975-76 began on April 1, the transition quarter April 1 to September 30, 1976 is ignored for this calculation.

c/ Sales to foreign governments for welfare programs.

d/ Traditionally, product used in schools and institutions, primarily through the School Lunch program; as of 1981-82 also includes direct donations to the needy.

e/ Used by the Department of Defense (military), Bureau of Prisons, and Veterans Administration.

Table 9. Use of CCC Stocks of Butter and Butter Products, by Fiscal Year<sup>a/</sup>

	Average <sup>b/</sup> 1974-1978	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984 as % of 1983
	(million pounds)							
Purchases (contract basis)	107.6	59.8	235.7	356.5	383.1	409.1	232.5	56.8
Domestic Sales <sup>c/</sup>	8.0	14.2	4.2	0.1	7.3	0.6	3.4	566.7
Export Sales <sup>c/</sup>	.7	-	0.9	291.9	29.3	55.0	9.3	16.9
Total Sales	8.6	14.2	5.1	292.0	36.6	55.6	12.7	22.8
Domestic Donations, Welfare <sup>d/</sup>	71.9	92.8	100.5	107.9	117.5	284.1	309.8	109.0
Domestic Donations, Federal <sup>e/</sup>	3.7	9.6	10.3	10.4	18.6	12.8	15.5	121.1
Foreign Donations	-	-	-	-	13.2	62.9	109.0	173.3
Total Donations	75.7	102.4	110.8	118.3	149.3	359.8	434.3	120.7
Total Sales and Donations	84.3	116.6	115.9	410.3	185.9	415.4	447.0	107.6
Ending Uncommitted Stocks	79.1	147.1	266.5	216.5	402.7	391.2	255.3	65.3

Source: 1983-84 Dairy Price Support Program, U.S. Department of Agriculture (ASCS), March 1984.

<sup>a/</sup> Fiscal year begins October 1.

<sup>b/</sup> Fiscal years 1973-74 to 1975-76 began on April 1, the transition quarter April 1 to September 30, 1976 is ignored for this calculation.

<sup>c/</sup> Includes small amount of cash sales in 1973-74 and some barter sales after 1980-81, other sales after 1979-80 are to foreign governments for use in welfare programs.

<sup>d/</sup> Traditionally, product used in schools and institutions, primarily through the School Lunch program; as of 1981-82 also includes direct donations to the needy.

<sup>e/</sup> Used by the Department of Defense (military), Bureau of Prisons, and Veterans Administration.

Table 10. Use of CCC Stocks of Nonfat Dry Milk, by Fiscal Year<sup>a/</sup>

	Average <sup>b/</sup> 1974-1978	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984 as % of 1983
	(million pounds)							
Purchases (contract basis)	312.4	202.1	592.2	787.0	954.3	1041.2	767.8	73.7
Domestic Sales <sup>c/</sup>	27.0	72.4	72.9	51.7	53.7	63.4	84.2	132.8
Export Sales <sup>d/</sup>	15.6	12.4	130.8	192.1	100.0	170.4	115.5	67.8
Total Sales	<u>42.6</u>	<u>84.8</u>	<u>203.7</u>	<u>243.8</u>	<u>153.7</u>	<u>233.8</u>	<u>199.7</u>	<u>85.4</u>
Domestic Donations, Welfare <sup>e/</sup>	47.3	79.4	52.1	44.9	54.9	77.7	115.4	148.5
Domestic Donations, Federal <sup>f/</sup>	0.2	0.3	0.2	*	0.5	0.4	0.2	50.0
Foreign Donations	108.1	168.6	216.8	219.2	319.8	512.0	560.2	109.4
Total Donations	<u>155.6</u>	<u>248.3</u>	<u>269.1</u>	<u>264.1</u>	<u>375.2</u>	<u>590.1</u>	<u>675.8</u>	<u>114.5</u>
Total Sales and Donations	198.3	333.1	472.8	507.9	528.9	823.9	875.5	106.3
Ending Uncommitted Stocks	365.4	447.9	548.0	811.1	1177.1	1346.4	1204.0	89.4

Source: 1983-84 Dairy Price Support Program, U.S. Department of Agriculture (ASCS), March 1984.

a/ Fiscal year begins October 1.

b/ Fiscal years 1973-74 to 1975-76 began on April 1, the transition quarter April 1 to September 30, 1976 is ignored for this calculation.

c/ 1977-78 and thereafter all sales are for animal feed, prior to 1977 most sales are for unrestricted use.

d/ Primarily sales to foreign governments for welfare programs, small amounts to U.S. Army overseas and some barter sales after 1980-81.

e/ Traditionally, product used in schools and institutions, primarily through the School Lunch program; as of 1981-82 also includes direct donations to the needy.

f/ Used by the Department of Defense (military), Bureau of Prisons, and Veterans Administration.

vividly shows the large increase in donations during the last few years. Although increases are shown in virtually all categories for each of the three products, cheese and butter rely more heavily on domestic donations whereas nonfat dry milk is more frequently donated abroad. The last few years also show a fairly sizeable increase in export sales for all three products. For the most part, these are subsidized sales to foreign governments for use in food aid programs. Although domestic sales increased substantially in 1983-84 for all products, use in this category remains fairly low relative to total use--4% for cheese, 1% for butter, and 12% for nonfat dry milk.

Although a fairly small part of the total, domestic donations have become very large relative to domestic production. Cheese and butter donations were equal to about 25% of production of those products in 1984. For nonfat dry milk, the figure is close to 10%. When compared to commercial use, the relative level of donations is even higher. At these levels, despite efforts to minimize the effect, it seems inevitable that some commercial sales of cheese and butter, and perhaps even nonfat dry milk, have been displaced by donations. For example, given trends in cheese consumption, it's possible that commercial sales of American cheese were reduced about 7% due to large donations.

### Prices

As noted in the introduction, this was an unusual year for farm milk prices. Although the support price was 50¢/cwt. lower in 1984 than 1983, monthly milk prices in all but one month reflect a much smaller drop than that; in fact, in a few months, 1984 prices were actually higher. The reason for this seeming contradiction lies in the milk diversion program, which led to much shorter supplies than the price cut alone would have caused. Regardless of whether they sold dairy products to the USDA or not, dairy processors spent much of 1984 scurrying to find more milk for their plants. To attract this milk, farm (and plant-to-plant) prices were bid up to within 20¢/cwt. of 1983 levels (as shown in Table 11). Although a surplus of about 6% existed from the viewpoint of the market as a whole, farm prices showed some strength as plant operators felt supplies were unduly short from their point of view.

The strength in farm milk prices was also reflected in wholesale product prices, which fell only slightly in the case of cheese and actually increased for butter. Nonfat dry milk price, however, continued to ride with the purchase price. Retail prices, as for the last two years, rose only slightly. Retail prices of dairy products advanced at about one-third the rate of retail prices for all food.

### The National Economic Outlook

A summary of the U.S. supply and utilization of milk for the last 10 years and a projection for 1985 is presented in Table 12. Similar to last year, two principal questions surround the outlook: What will happen to production after the milk diversion program ends and with new cuts in support prices? and How much will consumption increase as a result of favorable prices and the new promotion program?

Table 11. U.S. Farm Prices for Milk, CCC Purchase, Wholesale, and Retail Prices for Cheese, Butter, and Nonfat Dry Milk and Selected Retail Price Indices

	1979	1980	1981	1982	1983	1984	1984 as % of 1983
<b>Farm Milk (\$/cwt., ave. fat):</b>							
All Milk	12.03	13.05	13.76	13.59	13.57 <sup>c/</sup>	13.38 <sup>d/</sup>	98.6
Grade A	12.23	13.21	13.94	13.73	13.74 <sup>c/</sup>	13.55 <sup>d/</sup>	98.6
Grade B	11.09	12.05	12.73	12.66	12.60 <sup>c/</sup>	12.40 <sup>d/</sup>	98.4
Milk/Feed Ratio	1.55	1.48	1.44	1.53	1.44 <sup>c/</sup>	1.40 <sup>d/</sup>	97.2
<b>Cheese (¢/lb.):</b>							
CCC Purchase, Natural Cheddar, Grade A or higher, blocks <sup>a/</sup>	115.5	132.0	140.0	140.0	139.1	134.8	96.9
Wholesale, American Cheddar (40 pound blocks), f.o.b. Wisconsin Assembly Points	123.8	133.0	139.4	138.3	138.3	138.0	99.8
Retail, American (1/2 lb. pieces)	214.0	235.0	255.7	263.5	265.2	267.0	100.7
<b>Butter (¢/lb.):</b>							
CCC Purchase, Grade A or higher, Chicago <sup>a/</sup>	121.5	140.2	149.0	149.0	148.5	143.3	96.5
Wholesale, Grade A, Chicago (1 lb.)	122.4	139.3	148.0	147.7	147.3	148.8	101.0
Retail, Grade AA, sticks (1 lb.)	168.3	187.8	199.3	204.6	206.6	207.6	100.5
<b>Nonfat Dry Milk (¢/lb.):<sup>b/</sup></b>							
CCC Purchase, Spray Process, Extra Grade, Unfortified <sup>a/</sup>	78.9	89.1	94.0	94.0	93.7	91.0	97.1
Wholesale, f.o.b. Central States, high heat (bulk)	80.7	88.4	93.1	93.2	93.2	90.9	97.5
<b>Retail Price Indices (1967=100.0):</b>							
Fluid Whole Milk	191.4	208.4	220.2	221.4	222.9	224.7	100.8
All Dairy Products	207.1	227.4	243.6	247.0	249.9	253.3	101.4
All Food	234.5	254.6	274.6	285.7	291.7	302.9	103.8
All Consumer Prices	217.4	246.8	272.3	289.1	298.4	311.3	104.3

Source: Dairy Outlook and Situation Report, U.S. Department of Agriculture (ERS); 1984 estimated by Andrew Novakovic from available USDA data.

a/ Simple annual average of announced support price.

b/ There is no retail price information for nonfat dry milk.

c/ Excludes assessments averaging 48¢/cwt. for the year.

d/ Excludes 50¢/cwt. assessment.

Table 12. U.S. Milk Supply, Utilization, and Prices

	1974-1978	1979	1980	1981	1982	1983	1984	1985	1985 as % of 1984
	(billion pounds)								
<u>Supply</u>									
Production	119.1	123.4	128.5	133.0	135.8	140.0	136.1	138.0	101.4
Farm Use	3.0	2.5	2.3	2.3	2.4	2.4	5.3	3.0	56.6
Marketings	116.1	120.9	126.2	130.7	133.4	137.6	130.8	135.0	103.2
Beginning Commercial Stocks	4.8	4.5	5.4	5.8	5.4	4.6	5.2	4.9	94.2
Imports	2.2	2.3	2.1	2.3	2.5	2.6	2.8	2.9	103.6
TOTAL SUPPLY	123.1	127.7	133.7	138.8	141.3	144.8	138.8	142.8	102.9
<u>Utilization</u>									
Commercial Disappearance	115.6	120.2	119.2	120.5	122.4	122.8	125.4	128.0	102.1
Ending Commercial Stocks	4.8	5.4	5.8	5.4	4.6	5.2	4.9	5.0	102.0
Net Government Removals	2.7	2.1	8.8	12.9	14.3	16.8	8.5	9.8	115.3
TOTAL USE	123.1	127.7	133.7	138.8	141.3	144.8	138.8	142.8	102.9
<u>Prices</u>									
All Farm Milk	9.43 <sup>a/</sup>	12.03	13.05	13.76	13.59	13.76 <sup>b/</sup>	13.38 <sup>c/</sup>	12.99 <sup>d/</sup>	97.1

Source: Dairy Outlook and Situation Report, U.S. Department of Agriculture (ERS); 1984 estimated by Andrew Novakovic from available USDA data; 1985 projected by Andrew Novakovic.

a/ Average weighted by marketings.

b/ Excludes milk marketing assessments averaging 48¢/cwt. for the year.

c/ Excludes 50¢/cwt. milk marketing assessment.

d/ Excludes milk marketing assessment averaging 12.5¢/cwt. for the year.

The author's estimates for 1985 are offered in Table 12. Several factors are behind the almost two billion pound (1.4%) increase in production. One, although the gross price of milk is expected to drop about 40¢/cwt., the fact that the milk marketing assessment will be terminated on March 31 implies that the effective farm price (including assessments) will be about the same in 1985 as 1984. While this by itself does not encourage production, it indicates that price changes may be much less of a negative factor than the pending support price cuts on April 1 and July 1 might otherwise suggest. Feed prices are expected to decline slightly, holding costs about even or slightly below last year's level. Again, this does not provide a big incentive to increase, but neither does it portend a decrease in production. Third, the means for a resurgence in cow numbers is evident in the large number of replacement heifers that are now available. Fourth, although the outcome of the 1985 farm bill may be somewhat grim for dairy farmers, it is expected that most financially marginal farmers will wait to see what it brings, thus delaying some of the expected attrition in farm numbers. Finally, in the face of the foregoing assumptions, it seems likely that most of the participants in the diversion program will return to full-time farming, increasing their herd size and bringing production per cow back up (and<sup>2</sup> using less milk on the farm). Thus some increase in production seems certain.

Farm marketings are expected to increase over 3% as production rises and farm use returns more nearly to normal levels following the expiration of the diversion program. With minor changes in commercial stocks and imports, this puts total supply at 142.8 billion pounds, slightly above its 1982 level.

Commercial disappearance is shown to increase over two percent. This may be a conservative guess given the uncertainty about the impact of the new national promotion program, which began in earnest last September. While a larger increase will obviously be welcome, it will be a considerable achievement to reach 128 billion pounds.

Again, given a small change in commercial stocks, these estimates leave 9.8 billion pounds in net removals, a 15% increase over 1984. Even if one were most optimistic about changes in production (less) and consumption (more), it

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<sup>2</sup>The 138 billion pounds forecast for 1985 can be interpreted in two ways. Looked at from one perspective, this is consistent with production in the first quarter of 1985 four percent less than production in the first quarter of 1983 (the percentage reduction which occurred during the last half of 1984) and an increase for the remaining three quarters of 1985 equal to three percent more than production during the same period in 1984 (i.e., quarter I 1985 = quarter I 1983 - 4% and quarters II-IV 1985 = quarters II-IV 1984 + 3%). One can also think of 1985 in terms of what MDP participants might do versus what nonparticipants might do. In 1984, a rough guess of what these two groups did might be that the nonparticipants, who represented about 76% of the milk produced in 1983, increased their production 3.5% while the participants decreased their production 23%. If the nonparticipants increase their production 3% in 1985 and if 85% of the participants increase their production 10% after March 31 while the other 15% quit milking altogether, then total production will increase to 138 billion pounds.

seems that at best net removals will be little improved compared to 1984. At this level of net removals and given the "extra quarter of diversion payments that will be paid in FY1984-85, net expenditures for the fiscal year ending on September 31 may be in the neighborhood of \$2 billion.

#### Policy Issues in 1984

Last year for the first time in perhaps five or ten years, changing price support policy was not a big issue. For the most part, the dairy industry was occupied with learning about and adjusting to the market conditions created by the current legislation.

To the extent that policies were discussed it was primarily with an eye toward 1985 and beyond. Issues such as product identity standards, product labeling, federal order pricing, etc. are still on the stove but well toward the back. The principal issue preying on the minds of everyone in the dairy industry is what happens under the new farm bill.

#### Prospects for Policy Changes

The quadrennial review of agricultural policy and new agricultural legislation is slated for 1985. Dairy cooperative and other groups have already developed positions. Much of the debate that has taken place over the last three years will continue. Many are fearful that Congress will take drastic measures, perhaps even eliminate price supports, as a result of the lower than expected sign-up under the diversion program and the prospects for no improvement in 1985.

Among the most likely changes are the following. First, the old parity formula is assuredly assigned to history; however an alternative may be specified and take parity's place as a standard by which to set support prices. Perhaps the prime contender for a new standard is simply a revision of the parity formula to better reflect prices relevant to dairy farming--the so-called dairy parity approach. This is the approach that has been endorsed by the National Milk Producer's Federation. Other possibilities include a cost of production measure or three- to five-year moving averages of farm milk prices. Key concerns for any price standard will be that it be flexible, perhaps within upper and lower bounds, and that it reflect changes in productivity and supply and demand conditions.

With respect to the latter, a second potential component of 1985 agricultural, legislation may well be a trigger mechanism that automatically signals an increase (decrease) in the support price when relative deficits (surpluses) exist or are expected. The supply/demand adjuster concept has also been endorsed by the National Milk Producer's Federation as well as the Milk Industry Foundation. A third item may also be related to a trigger mechanism, and that would be a farmer assessment to defray government costs when they reach a certain level.

These first two items have been discussed for several years and would not represent a dramatic policy shift. If a more substantive change occurs it is likely to reflect a concern that the current program provides too great a



benefit to large producers. The National Milk Producer's Federation and other dairy farm interest groups have called for a standby supply control program (as opposed to an assessment), but there seems to be virtually no political support for such programs, permanent or temporary.

Early signals from the USDA and the administration are that they will endorse replacing support prices and product purchases with a target price-deficiency payment program that would give up to \$10,000 to farmers if the relevant market price fell below the target price. The administration further suggests eliminating all dairy support efforts, including direct payments, by 1991. Congress is not likely to adopt such a policy and is more likely to be concerned about providing some kind of market safety net or income maintenance. This concern could lead to proposals for lower support prices with supplemental income subsidies to smaller farmers, along the lines of the target price-loan rate programs for cash grain producers.

The pressures to change prices under federal orders will continue to build. Indications of a major cut in price supports will likely be countered by proposals to raise Class I differentials, especially the implicit transportation differential component. On the other hand, consumer interests will increasingly push for lower Class I prices. Whether Congress will directly intervene in what is normally an administrative affair and mandate changes in federal order prices does not yet seem likely but is increasingly possible. In addition, there are growing signs that relaxing or eliminating dairy import quotas may be seriously proposed as the U.S. approaches a new round of multilateral trade negotiations. Dairy quotas came under harsh review during the last MTN and largely survived. It has been suggested that it may be more important to make concessions on quotas to our European trading partners the next time around.