FEDERAL DAIRY PROGRAMS

Insights Into Their Past Provide Perspectives on Their Future
The Honorable Patrick J. Leahy
Chairman, Committee on Agriculture,
    Nutrition, and Forestry
United States Senate

Dear Mr. Chairman:

Pursuant to your request of February 1, 1989, and subsequent agreements with your office, this report traces the evolution of federal dairy programs, examines changes in the dairy industry over the last several decades, and summarizes our past analyses of how federal programs have affected dairy supplies. It contains recommendations to the Congress aimed at achieving long-term solutions to periodic imbalances in the supply of and demand for dairy products.

This work was performed under the direction of John W. Harman, Director, Food and Agriculture Issues, (202) 275-5138. Other major contributors to this report are listed in appendix VIII.

Sincerely yours,

J. Dexter Peach
Assistant Comptroller General
Executive Summary

has increased from about 100 billion pounds in 1930 to about 146 billion pounds in 1988. Further, regional shifts are occurring in dairy production patterns. For example, between 1970 and 1988, the Southwest increased its share of U.S. milk production by nearly 60 percent, and the Corn Belt’s share declined by about 20 percent.

Production increases have contributed to changes in federal involvement in the industry. Initially, the government became involved when low milk prices appeared to threaten the adequacy of the nation’s milk supply. Federal actions were therefore intended to stabilize milk prices and encourage milk production. This, over time, resulted in large, costly government surpluses purchased under the price support program. Consequently, government actions during the 1980s were directed at curbing milk production.

GAO has noted that the milk marketing order and price support programs have contributed to periodic surpluses by creating incentives to produce more milk than can be marketed. Efforts to reduce milk surpluses, such as paying farmers to reduce production or stop dairy farming for a period of time, have achieved only temporary success. Accordingly, GAO has encouraged changes that, over the long term, would provide more permanent solutions to periodic surplus problems, make dairy programs more market-oriented, and reduce the federal role in the dairy industry.

Principal Findings

Dairy Industry Has Changed

Over the last 60 years, the efficiency of milk production has increased. Annual milk production per cow increased from about 4,500 pounds in 1930 to about 14,200 pounds in 1988. These gains have largely resulted from better technology, management, and breeding.

Gains in production have more than compensated for decreases in the number of dairy cows and farms. Between 1930 and 1988, the number of cows declined from 22.2 million to 10.2 million; dairy farms decreased from about 4.5 million to about 220,000. The average herd size in that period increased from 5 to about 46. However, herd sizes vary among the states. For example, in 1988, the average herd size in Wisconsin was slightly above the national average, while in California it was 205.
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Dairy Termination Program would reduce milk production by 39.4 billion pounds and save the government about $2.4 billion. However, the estimates of annual milk reductions attributable to the program declined each year after 1987, indicating the program would not have a lasting effect on milk production.

GAO has encouraged a more market-oriented approach to dairy programs that would provide a more permanent solution to periodic surpluses. Such changes may not be easy or come quickly. Accordingly, GAO has offered a series of steps that would gradually reduce and could ultimately end federal involvement in the milk marketing order program. In addition, GAO continues to support the use of a supply-demand adjuster in the price support program.

Recommendations to the Congress

During its deliberations on the 1990 Farm Bill, the Congress will face difficult decisions involving trade-offs among a number of competing policy objectives. Consistent with its prior reports, GAO continues to believe that the Congress should adopt changes that, in the long term, will substantially decrease federal involvement in the dairy industry. Accordingly, in regard to the price support program, GAO recommends that the Congress continue to use a supply-demand adjuster, tied to a relatively low level of expected surplus purchases, to set price support levels. In regard to milk marketing orders, GAO recommends that the Congress gradually decrease the federal role in milk pricing through a series of steps that better reflect regional cost of production differences, allow freer movement of milk between regions, and eliminate features of milk pricing that distort regional production patterns (see ch. 4).

Agency Comments

GAO obtained and incorporated the views of responsible USDA officials on the factual materials presented in this report. USDA had earlier provided its views on the conclusions included in GAO’s previously published reports. However, as directed by the requester, GAO did not obtain written comments on a draft of this report.
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Abbreviations
ASCS Agricultural Stabilization and Conservation Service
CCC Commodity Credit Corporation
FNS Food and Nutrition Service
GAO General Accounting Office
M-W Minnesota-Wisconsin
TEFAP Temporary Emergency Food Assistance Program
USDA U.S. Department of Agriculture
price received for milk by farmers. In general, the program's costs are
dependent upon the degree to which milk production exceeds commer-
cial use. The larger the surplus, the more dairy products the federal gov-
ernment purchases and the greater its costs. (See app. II for additional
information on the federal price support program.)

Since 1980, the Congress has established several programs, such as the
Milk Diversion Program, the Dairy Termination Program, and the Dairy
Promotion Program, that were designed to address costly dairy surplus
problems associated with the price support program. The Milk Diversion
Program, which was created to reduce surplus milk supplies, ran from
January 1984 through March 1985. USDA paid participating dairy farm-
ers to reduce their milk sales by from 5 to 30 percent from a specified
base period. Under the Dairy Termination Program, USDA paid dairy
farmers to slaughter or export their herds and leave dairying for a
period of 5 years. The program ran from April 1986 through September
1987. Unlike the Dairy Termination Program and the Milk Diversion
Program, which were created to control production, the ongoing Dairy
Promotion Program was initiated in May 1984 to increase consumption
do products. As such, it funds dairy product promotion, product
research and development, and nutrition research and education activi-
ties. (See apps. III through V for further descriptions of these programs.)

The Senate Committee on Agriculture, Nutrition, and Forestry requested
that we provide a description of dairy programs that would discuss (1)
how the dairy industry has changed since the federal government first
enacted legislation in the early 1930s, (2) the historical evolution of the
federal involvement in the dairy industry, and (3) how federal dairy
programs, according to our previous analyses, have affected milk
supplies.

To accomplish the first two objectives, we reviewed documents and
reports from USDA, the Congressional Research Service, and various un-
iversities. Data used to show the changes in the dairy industry structure
are generally for a period from 1930 to 1988. However, in some cases
data were not readily available for the earlier years or were available
only through 1987. To accomplish the third objective, we reviewed
reports that we have issued on the dairy industry since 1980. These
reports are listed at the end of this report under "Related GAO
Products."
The dairy industry has changed significantly during the past several decades. In the early part of this century, milk was consumed either on the farms where it was produced or in nearby communities. Milk was processed into various products by numerous small local creameries or cheese factories. Since the 1930s the number of dairy farms, milk cows, and milk processors has decreased significantly. During the same time, however, average production per cow has increased, spurred on by technological advances, better breeding, and improved feed management practices. These gains in efficiency have contributed to about a 45-percent increase in annual milk production since 1930. In addition, the percent of U.S. milk produced in the Northwest and Southwest has increased faster than in other parts of the country.

### Decline in Number of Dairy Farms, Cows, and Milk Processors

Over the last several decades, the number of dairy farms, cows, and processors has declined. For example, between 1930 and 1988, the number of farms fell by 95 percent and the number of cows by 54 percent. Similarly, the number of processors declined by 48 percent between 1970 and 1987. While there are fewer dairy farms and processors than in 1930, the remaining farms and processors tend to be larger than in earlier years.

### Dairy Farm and Cow Numbers

After rising slightly in the early 1930s, the number of farms with milk cows has declined steadily. Figure 2.1 shows the trend in farm numbers from 1930 to 1988.
Chapter 2
The Changing Dairy Industry

Figure 2.2: Average Number of Milk Cows in the United States, 1930-88

Although fewer dairy farms and milk cows exist currently than in the 1930s, the remaining dairy farms are larger. For example, the average U.S. herd size increased more than nine-fold during the period 1930-88, increasing from about 5 head to about 46 head per dairy farm. Average herd size varies by state. For example, in 1988, the average herd size in California was 205, while in Wisconsin it was 49.

Size and Number of Processors

In the early part of this century, numerous small plants processed milk into various dairy products. As table 2.1 illustrates, the number of plants that process dairy products has declined significantly from 3,749 in 1970 to 1,933 in 1987.

Table 2.1: Number of U.S. Processors Manufacturing One or More Dairy Products, Selected Years

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<tbody>
<tr>
<td>Processors</td>
<td>3,749</td>
<td>2,801</td>
<td>2,257</td>
<td>2,061</td>
<td>1,933</td>
</tr>
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Gains in milk production efficiency have contributed to increases in national milk production. Figure 2.4 shows that from 1930 to 1988, annual U.S. milk production increased from 100 billion pounds to about 146 billion pounds.

Additionally, over the past several years, the share of U.S. milk production has increased more in the Northwest and Southwest than in other parts of the country. For example, the Southwest has increased its percentage of U.S. milk production by about 60 percent, to 14.9 percent of the 1988 national milk production, while the Corn Belt’s share has declined by about 20 percent. Figure 2.5 shows the regional share of milk production in 1970 compared with 1988.
Federal Involvement in the Dairy Industry Has Changed Periodically to Meet Federal Policy Goals

The focus of the federal government’s involvement in the dairy industry has changed since its first dairy programs were initiated over 50 years ago. During much of this time, federal efforts were aimed at encouraging milk production and stabilizing milk prices that farmers received. The two principal dairy programs—the federal milk marketing orders and the price support system—were created and refined to achieve these objectives. During the 1980s, however, because of high production and increasing inventories of government-owned surplus dairy products, the Congress took actions to control production and reduce surpluses.


As early as 1910, dairy farmers began voluntarily banding together in cooperatives to better market their milk. These cooperative associations developed pricing plans that established minimum prices that their members were willing to accept. During the 1920s, relative urban prosperity and increasing milk sales enabled cooperatives to implement more sophisticated price plans with at least partial success. Milk distributors paid for milk according to end use, with a higher price paid for milk used for fluid purposes, and the proceeds were shared among farmer members. However, during the economic depression of the 1930s, the voluntary price plans eventually broke down under price competition. As milk prices fell and farmers faced unstable market conditions, the Congress stepped in and enacted two major pieces of legislation—the Agricultural Adjustment Act of 1933 and the Agricultural Marketing Agreement Act of 1937.

The Agricultural Adjustment Act

In 1933, in an effort to improve farm purchasing power, the Congress passed the Agricultural Adjustment Act (Title I, P.L. 73-10, May 12, 1933). The act’s objective was to restore farm purchasing power to the 1909-14 level, or “parity.” Parity prices for dairy farmers were to be accomplished indirectly through several means. To increase milk prices and farmers’ incomes, the act designated milk and its products as basic commodities and authorized marketing provisions to assist dairy farmers. In addition, the act, as amended, authorized government purchases and distribution of surplus dairy products. The basis of the current price support system originates from the act’s purchase and distribution programs while the current milk marketing program evolved from the act’s marketing provisions. Section 22 of the act, as amended, provided the authority for the President to direct investigations of imports of agricultural products and to implement quotas on imports found to interfere with domestic programs.
Chapter 3
Federal Involvement in the Dairy Industry Has Changed Periodically to Meet Federal Policy Goals

The Agricultural Marketing Agreement Act of 1937

While the 1933 act, as amended, authorized the Secretary to establish minimum milk prices, the Agricultural Marketing Agreement Act of 1937 (P.L. 75-137, June 3, 1937) established the criteria for setting these minimum prices. Specifically, the act required the Secretary of Agriculture to set minimum milk prices at parity in each order and to ensure that each marketing area’s milk prices reflected local economic conditions, including the supply and costs of cattle feed and the supply and demand for milk and its products. In addition, minimum milk prices were to be established at a level that would ensure a sufficient quantity of pure and wholesome milk.

The act also had two new provisions for administering the orders. First, it gave the Secretary of Agriculture authority to mediate and, upon the approval of all parties, to arbitrate disputes between milk handlers and cooperatives. Second, it added a dairy farmer referendum provision, which allowed dairy farmers to vote on the adoption of orders.

The Federal Government Provides Production Incentives to Meet World War II Needs: 1940-46

World War II increased the demand for milk and milk products. Our troops’ and allies’ needs for manufactured dairy products, along with increased domestic demand for fluid milk, put pressure on U.S. milk production capability. To help meet these needs, the federal government encouraged farmers to increase production by first purchasing dairy products at support levels and later by increasing parity and creating farm subsidy programs.

In March 1941, USDA began to purchase substantial quantities of American cheese, evaporated milk, and nonfat dry milk solids for wartime shipments to the British. To help meet these increased needs, the United States began encouraging domestic increases in milk production. Price supports used to encourage milk production were first implemented in April 1941 as USDA began supporting milk prices through open market purchases of butter. The Steagall Amendment, which was enacted in July 1941, further enhanced this support program by requiring milk to be supported at not less than 85 percent of parity. In October 1942, the Congress amended the Emergency Price Control Act, raising the support price to not less than 90 percent of parity.
Chapter 3
Federal Involvement in the Dairy Industry
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Policy Goals

Dairy Product Import Controls

Dairy product import quotas were established in the early 1950s to limit foreign producers from competing in the domestic market and interfering with the government-established minimum price. Initially, imports were restrained under section 104 of the Defense Production Act of 1950, as amended, and other temporary legislation dealing with wartime exigencies. When section 104 expired in 1953, import quotas were continued under section 22 of the Agricultural Adjustment Act of 1933, as amended.

Price Support Level Increased Steadily Through the 1970s

According to USDA, by the mid-1960s milk production decreased because farmers were leaving dairying more rapidly than in previous years because of unfavorable economic conditions. To increase financial incentives to remain in dairy farming, the Secretary of Agriculture raised the price support level several times during the late 1960s. During the 1970s, the prices of many factors involved in producing milk, such as cattle feed, fertilizer, and petroleum products, increased rapidly. The Congress responded to these increased costs through the Food and Agriculture Act of 1977 (P.L. 95-113, Sept. 29, 1977), which further increased dairy price support levels from 75 percent to 80 percent of parity. Additionally, to ensure that the support price accurately reflected the most current parity price index, the act required semiannual, rather than annual, adjustments in the parity price.

The semiannual adjustments in an inflationary economy resulted in a sharply increasing price support level. To illustrate, the support price increased from $9.00 to $13.10 per hundredweight between 1977 and 1980—an increase of $4.10, or 46 percent. By comparison, during the same period, the overall inflation rate was 27 percent. Milk price support levels over the last 40 years are shown in appendix VII.

Federal Milk Marketing Orders Adopt a National Uniform Pricing System

In the 1940s and 1950s, milk markets were local in character. Milk movements between markets were limited, and markets were isolated from the effect of the level of milk prices in other areas. Through the purchases of manufactured dairy products, the Agricultural Act of 1949 established a national price floor for all milk. Local markets became interrelated through price supports that ensured nationwide minimum milk prices to farmers and technologies that permitted the transportation of milk between markets. As markets became interrelated, the federal government developed a national uniform pricing scheme for milk marketing orders to replace local pricing policies.
Chapter 3
Federal Involvement in the Dairy Industry
Has Changed Periodically to Meet Federal
Policy Goals

Figure 3.1: U.S. Government Net Market Removals, 1951-88 Marketing Years, in Milk Equivalents

Notes: The marketing year was changed from April 1-March 31 to October 1-September 30 in 1977.
"Milk equivalent" is the volume equivalent of whole milk used in making other dairy products.

Concerns over the large inventories of government-owned dairy products led the Congress to take steps to reduce dairy surpluses. These actions began in 1980 and included reducing and freezing price support levels, distributing surplus dairy products, promoting the sale of dairy products, paying farmers to reduce milk production, and later paying them to leave dairying completely. The actions were initiated in the Agriculture and Food Act of 1981, the Dairy Production Stabilization Act of 1983, and the Food Security Act of 1985. In addition, in an effort designed to reduce interference in the milk price support program, the federal government continued its import control programs.

The Agriculture and Food Act of 1981

After the Congress set the price support level at $13.10 in October 1980, the Agriculture and Food Act of 1981 (P.L. 97-98, Dec. 22, 1981) established a set of triggers relating the minimum support level to the size of CCC purchases. Specifically, support prices could increase only if CCC purchases were expected to be at stated levels. This was a major departure from prior price support policy because it removed the linkage between the price support level and the parity index.
of the program, dairy farmers could contract with CCC to reduce their milk sales by between 5 and 30 percent for a 15-month period that ended March 31, 1985. In return, these farmers received $10 for each hundredweight of milk sale reduction. The act authorized the Secretary to establish a 50-cent assessment on dairy farmers’ marketing receipts to partially offset Milk Diversion Program costs. This assessment replaced two 50-cent assessments authorized by the 1982 Budget Reconciliation Act to partially offset the price support program costs. Collections from the assessments totaled about $594 million under the 1982 act and about $875 million under the Milk Diversion Program.

The 1983 act also directed the establishment of a nationwide Dairy Promotion Program. The promotion program, designed to reduce milk supplies and increase consumption of dairy products, includes promotion, research, and nutrition research and education activities. The program is financed by a mandatory assessment of 15 cents per hundredweight on the proceeds of all milk sold commercially. Collections are divided between a national dairy promotion organization and approved state, regional, and local promotion organizations throughout the country.

The Food Security Act of 1985

The surplus control provisions of the Food Security Act of 1985 (P.L. 99-198, Dec. 23, 1985) (1) modified the 1983 trigger mechanism for adjusting the support price levels and (2) authorized the Dairy Termination Program, which paid farmers to slaughter or export their cattle and leave dairy farming for 5 years. Other provisions of the act realigned the national pricing system for milk under federal marketing orders and created export incentive programs for dairy products.

The act mandated that the support price be lowered to $11.35 on January 1, 1987, and to $11.10 on October 1, 1987. In addition, the act established a supply-demand adjuster to regulate the price support level. This trigger mechanism required the Secretary of Agriculture to increase or decrease the price support level based on the estimated levels of future CCC purchases. Specifically, on January 1 of 1988, 1989, and 1990, the Secretary would reduce the support price by 50 cents per hundredweight of milk if the projected annual CCC purchases of dairy products exceeded 5 billion pounds milk equivalent. Conversely, if the Secretary projected that purchases would be 2.5 billion pounds or less, the price support would increase by 50 cents. Following these mandates, the Secretary reduced the price support level by 50 cents in 1988, setting it at

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3Milk equivalent is the volume equivalent of whole milk used in making other dairy products.
discretion to change product eligibility for this program. The Hunger Prevention Act of 1988 extended the operation of the Dairy Export Incentive Program through September 1990. The 1985 act had an additional export provision—ccc shall export specified minimum levels of dairy products during the fiscal years 1986-90.

### Dairy Product Import Control Efforts

The Trade Agreements of 1979, which ratified the Tokyo round of the Multilateral Trade Negotiations, required changes in the administration of the import quotas program. As a result of trade negotiations, the U.S. government agreed to expand its cheese import quotas. Imports of dairy products remained steady between 1978 and 1988, ranging from 1.6 to 2 percent of U.S. milk production. In contrast, export sales have increased significantly from 0.3 percent of U.S. milk production in 1978 to a peak of 2.9 percent in 1982. Export sales in 1988 were 0.9 percent of U.S. milk production.

### The Congress Faces the 1990s

Much of Congress' efforts over the last 10 years have focused on reducing large and costly surpluses. As it contemplates changes to dairy programs during the development of the 1990 Farm Bill, it faces a different situation. Surpluses, while still significant, are lower than they have been in most of the 1980s. In fact, the Congress has become concerned about the availability of surplus dairy products for various nutrition programs such as the school lunch program. Reductions in surpluses have also been accompanied by increases in consumer prices for dairy products. For example, during the mid- and late 1980s, consumer prices for dairy products rose an average of 2 percent annually. In 1989, however, they increased by 6 percent.

Are surpluses a thing of the past? Many factors will play a role in answering this question because many factors influence the demand for and supply of milk. One of the more important factors is the production incentives provided by federal dairy programs. Consequently, as the Congress deliberates over the 1990 Farm Bill, it will need to examine changes in the program from the perspective of what production signals it intends to send to the farmers. We have analyzed how major dairy programs have affected milk supplies and believe that our conclusions as summarized in chapter 4 still merit consideration.
moving-average price mechanism. A supply-demand adjuster was adopted in the Food Security Act of 1985.

The price support program contributed to the surplus problem by creating financial incentives for farmers to produce more milk than would be commercially consumed at resulting prices. For example, in 1985 we observed that the price support had gone from $9.00 per hundredweight in 1977 to $13.10 in 1980. This increase was almost double the rate of inflation. Moreover, despite a surplus of dairy products, which would normally depress prices and send signals to farmers to reduce production, the price support program encouraged additional production by setting the support price above the price determined strictly by supply and demand. The impact of these increases was particularly pronounced in 1980, when CCC purchases jumped dramatically from the previous year's level of about $251 million to about $1.3 billion.

To reduce the incentives for excessive production, we have encouraged changes that would make the price support program more market-oriented. Our 1985 report analyzed nine policy options to the price support program using six specific goals that we considered important to balance the interests of consumers, the dairy industry, distributors, and taxpayers. Our judgment was that if these goals were met, it would help to ensure that an adequate supply of milk is provided in an efficient manner. Our six goals were that dairy policy should

- automatically adjust support and market price levels so as not to generate large surpluses,
- accommodate changes in production costs,
- avoid regional production patterns different from those that would exist under a pricing mechanism where milk is produced and distributed at least cost to the consumer,
- avoid large government costs,
- have cost visibility so the program benefits can be more readily compared with taxpayer, dairy farmer, and consumer costs, and
- result in the market mechanism being the main price- and income-determining factor most of the time, while also cushioning the amount by which the price could drop.

We concluded that two options, both of which vary price support levels based upon market-determined factors, best met most of the six goals. These two options were
Chapter 4
More Permanent Solution Needed for Controlling Surpluses

We also reported that the economic incentives provided by the milk marketing orders contributed to surpluses. For example, in addition to grade A differentials, marketing orders use various distance differentials to calculate minimum milk prices for each order. These differentials were established to approximate the cost of moving milk from Eau Claire, Wisconsin (the basing point), to the area of use. The further away a particular plant is located from Eau Claire, the greater the distance differential and the higher the minimum milk price will be. Differentials were originally created to provide incentives for moving milk from the Upper Midwest, a surplus area, to areas of shortages. As indicated earlier, the need to provide such incentives is questionable since the Upper Midwest is no longer the only area from which surplus milk can flow. Further, the differentials provide artificial incentives for increased production in areas outside the Upper Midwest because they, in effect, add more to the minimum price farmers receive for milk than is justified based on additional costs to produce the milk or of obtaining supplies from alternative sources. These incentives to overproduce are magnified in the Southwest, southern Plains, and Southern Plains because production costs in these regions are relatively low while minimum milk prices are relatively high.

Milk marketing orders treat farmers in some regions inequitably because, as noted above, they tend to favor those who are distant from Eau Claire. Further, the regional inequities associated with the differentials may become worse over time because of the supply-demand adjuster provisions of the Food Security Act of 1985. For example, price support reductions triggered by the supply-demand adjuster may more severely affect farmers in the Upper Midwest than farmers in other regions because Upper Midwest farmers do not benefit from the distance differentials and have a higher cost of production. Over the long run, it is possible that increases in production in certain regions could trigger enough price reductions that dairy farming would no longer be profitable for Upper Midwest farmers. Similarly, the long-term profitability of dairy farming in other regions, such as the Corn Belt, Northeast, and Southeast, could also be threatened because these regions have relatively high costs of production. In contrast, regions with a lower cost of production and high distance differentials, such as the Southwest, Southern Plains, and Northwest, may become the major milk producing regions of the country. It should be noted that regional production patterns in which low-cost regions produce more milk than high-cost regions is not necessarily bad and indeed is consistent with one of the policy goals in our 1985 report. Milk marketing orders, however, distort
added to the surplus and would likely have been purchased by USDA, we estimated that the 1984 purchase costs avoided by the program could be between $614 million and $664 million. However, we stated that—on the basis of USDA's estimates of 1985 milk production, herd size, and number of replacement heifers—milk sales could rebound to preprogram levels after the program's expiration. This in fact happened. After declining to 135.5 billion pounds in 1984, U.S. milk production climbed to 143.1 billion pounds in 1985, an all-time high to that date. It has continued to rise, with milk production totaling 145.5 billion pounds in 1988.

### Dairy Termination Program

In 1989, we reported on the cost-effectiveness of the Dairy Termination Program and its impact on milk production and dairy surpluses through 1990. Through the use of an econometric model, we estimated that from 1986 through 1990, the Dairy Termination Program would reduce milk production by 39.4 billion pounds below what it would have been without the program. However, the estimates of annual reductions declined each year after 1987, indicating that the program would not have a lasting effect on milk production. We estimated that because of lower production the program reduced federal purchases of surplus dairy products, which would lead to an estimated net program savings for the federal government of $2.4 billion for fiscal years 1986 through 1990.

Although we concluded that the program temporarily reduced surplus purchases in a cost-effective manner, we noted that it is difficult to predict the benefits or costs of a similar program that might be used to address future dairy surplus problems. This occurs because of difficulties in predicting certain key variables, such as how much farmers would bid to participate in a future program. In fact, on the basis of a 1987 farmer questionnaire that we administered, another Dairy Termination Program might be more costly for the federal government. For example, according to the survey, most of the dairy farmers whose bids to participate in the program were not accepted said they would be interested in a future program but only at a significantly higher “buy out” cost to the federal government. The survey also tended to support conclusions that the current program's impact is temporary. For example, over 40 percent of Dairy Termination Program participants believed

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Chapter 4
More Permanent Solution Needed for
Controlling Surpluses
producer support, USDA's Agricultural Marketing Service schedules hearings to receive evidence on the proposed order or changes. All parties affected by the regulation, including producers, cooperatives, processors, the government, and consumers, can present evidence at the hearings. On the basis of the hearing record, the Agricultural Marketing Service drafts a final decision on the order. To become effective, the order must be approved by producers selling to plants in the order area.

**Price Classifications**

Under the current pricing system, each market order provides for minimum milk prices in as many as three different classes. Each order, as adopted by the dairy farmers, specifies the number of milk classes in that order. Class I milk, the highest price class, is used for fluid consumption and generally applies to milk sold as whole milk, skim and low-fat milk, milk drinks, and buttermilk. Class II milk is used to manufacture soft products, such as yogurt, ice cream, and cottage cheese. Class III milk is used in manufacturing hard products, such as butter, cheese, and nonfat dry milk. Some orders have only two classes of milk, in which case all grade A milk except that used for fluid purposes is classified as class II.

**The Minnesota-Wisconsin (M-W) Price Series**

The foundation of the federal order pricing system is the Minnesota-Wisconsin (M-W) price series. To arrive at the M-W price, the USDA conducts a monthly survey of milk prices paid by selected grade B milk purchasing plants in Minnesota and Wisconsin. The estimated average price paid by these plants is the basis for all prices paid to farmers delivering milk to plants regulated by federal milk orders. The M-W price is the class III price for all federal market orders.

USDA sets the class II price at a given differential, usually a few cents above the class III price. USDA updates these prices monthly depending on the movement of the M-W price series.

Class I prices are different in each order. To set the class I price in each order, USDA first adds a fixed amount, a grade A differential, to the class III price. The grade A differential is about $1.04 per hundredweight and is an incentive to encourage farmers to upgrade their facilities to meet higher grade A sanitary standards. In addition, USDA adds a distance differential, which increases the guaranteed price for milk used for fluid consumption and is generally based on the distance a plant is from the
In addition to administering orders, most market administrators verify weights, perform butterfat tests, and provide marketing information to farmers who are not members of cooperative associations. Farmers are charged for these services. Cooperative associations perform these services for their members.
for manufacturing grade milk are free to move above the support level if supply and demand conditions warrant. Prices also at times can go below the support price.

Until October 1980, the determination of this price floor was based on the notion of "parity." Parity is the price that provides farmers the same purchasing power as a unit of production had in the base period, 1910-14. Prior to October 1980, price supports generally had been maintained at a level between 75 to 90 percent of parity. However, congressional action in October 1980 to freeze the support price and the provisions of the Agriculture and Food Act of 1981 removed the traditional linkage between the support price level and the parity index. The 1981 act, instead, established a trigger mechanism relating the minimum support level to the size of expected CCC purchases. This supply-demand adjuster concept, although modified since, is still in use today.

Program Administration

USDA's Agricultural Stabilization and Conservation Service (ASCS) administers the price support program through the CCC.
Appendix III
Milk Diversion Program

Program Administration

The ASCS, through the CCC, administered the Milk Diversion Program.
USDA's ASCS administered the Dairy Termination Program.
Program Operation

On March 23, 1984, the Secretary of Agriculture issued a dairy products promotion and research order containing the program's terms and conditions. In May 1984, the Secretary announced the appointment of a 36-member National Dairy Promotion and Research Board of dairy farmers to administer the national program. The program activities include promotion, product research and development, and nutrition research and education.

In the program's fiscal year 1989, the Board devoted about 79 percent of its annual program budget, or $69.3 million, to generic advertising of various dairy products, including fluid milk, cheese, butter, ice cream, and nonfat dry milk. Advertising is directed toward existing and potential consumers of a specific dairy product with the objective of enhancing sales.

The Board committed about 5 percent of its fiscal year 1989 budget for product research and development activities. The research and development projects are long-term efforts to increase consumption of dairy products by offering consumers new products and by identifying and explaining the nutritional benefits of dairy products. These activities are encompassed in four general areas: (1) competitive research grants, (2) dairy foods research centers, (3) directed research, and (4) scholarships. Further, about 12 percent of the fiscal year 1989 budget went to nutrition research and education activities.

Program Administration

The promotion program is administered by the National Dairy Promotion and Research Board whose members are appointed by the Secretary of Agriculture. Board members are selected from nominations submitted by farmer organizations and programs. Board members represent 13 geographic regions, each of which represents approximately equal proportions of total U.S. milk production.

The USDA has oversight responsibility for program activities. This includes reviewing and approving all budgets, agreements, and contracts. Further, the USDA maintains contact with the Board's staff and receives reports on program activities and monthly financial reports. The Board reimburses the Secretary for the department's administrative costs in overseeing the program.

USDA is required to submit an annual report—describing activities conducted under the Dairy Promotion and Research Order, an accounting of
Appendix VI

Temporary Emergency Food Assistance Program

Purpose

The Temporary Emergency Food Assistance Program (TEFAP) made excess dairy products, along with other commodities, available to the needy. It was established in response to a 1981 congressional directive to the USDA to reduce the dairy product inventory held by the CCC.

Authority

The Temporary Emergency Food Assistance Act of 1983 (Title II, P.L. 98-8, Mar. 24, 1983) formalized the 1981 Special Distribution Program and was the initial authorization for TEFAP.

Effective Dates and Duration

The Congress has extended the TEFAP annually since 1983. Most recently, TEFAP was extended through fiscal year 1990 by the Hunger Prevention Act of 1988 (P.L. 100-435, Sept. 19, 1988).

Funding

Since 1983, legislation has authorized USDA to allocate $50 million annually to the states to help defray costs of storing and distributing TEFAP commodities.

Program Operation

The Agriculture and Food Act of 1981 directed the USDA to use all available authorities to reduce CCC's dairy product inventories. In December 1981, USDA responded by making cheese available to states for distribution to the needy. The Temporary Emergency Food Assistance Act of 1983 formalized the Special Distribution Program and directed USDA to make all CCC commodities not used for other programs, such as the National School Lunch Program and international donations, available for distribution to the needy.

USDA's Food and Nutrition Service (FNS) issued interim rules that, among other things, (1) required that state and local agencies maintain accurate and complete records to document the receipt, disposal, and inventory of TEFAP products and (2) set forth the allocation formula FNS used to make funds and commodities available to states. The formula provided that the allocation be based 60 percent on the number of persons in households within the state having incomes below the poverty level and 40 percent on the number of unemployed persons within the state.

The 1983 legislation, as amended, also required the Secretary of Agriculture to take the necessary precautions to ensure that donated commodities did not displace commercial sales.
Appendix VII

Milk Price Support Level, 1949-90

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(continued)
## Major Contributors to This Report

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Related GAO Products


Milk Marketing Orders: Options for Change (GAO/RCED-88-9, Mar. 21, 1988).

Farm Programs: An Overview of Price and Income Support and Storage Programs (GAO/RCED-88-84BR, Feb. 29, 1988).


## Appendix VII

### Milk Price Support Level, 1949-90

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Implementation of TEFAP is carried out on the state level. Each state selects a state agency to operate the program. Frequently, that state agency also operates FNS' traditional donation programs. The states generally have agreements with local government and charitable organizations that operate TEFAP at local levels. These local agencies distribute the products to program participants through other organizations, distribute the products themselves, or use a combination of both methods.

Program Administration

USDA's FNS and its seven regional offices administer TEFAP.
Appendix V
Dairy Promotion Program

funds collected and spent, and an independent analysis of the effectiveness of the program—to the House Committee on Agriculture and the Senate Committee on Agriculture, Nutrition, and Forestry by July 1 of each year.
Appendix V

Dairy Promotion Program

Purpose

The purpose of the Dairy Promotion Program is to establish a coordinated promotion program designed to strengthen the dairy industry's position in the marketplace and to maintain and expand domestic and foreign markets and uses for fluid milk and dairy products produced in the United States.

Authority

The Dairy Production Stabilization Act of 1983 (Title I, P.L. 98-180, Nov. 29, 1983) directed the Secretary of Agriculture to issue a Dairy Promotion and Research Order to implement the national promotion program.

Effective Dates and Duration

The Dairy Promotion Program became fully effective on May 1, 1984. As required by the act, a referendum would be held upon the request of 10 percent or more of the affected producers or at any time the Secretary so chooses to determine whether a majority of those who vote favor continuation of the program. If continuation of the program is not approved by a majority of those voting, the program would be terminated. The Dairy Production Stabilization Act also required the Secretary to conduct a referendum within the 60-day period preceding September 30, 1985. Nearly 90 percent of the farmers who voted in this 1985 referendum favored continuation of the program. No further referendum had been called through January 1990.

Funding

The Dairy Promotion Program is funded by a mandatory $0.15 per hundredweight assessment on all milk produced in the contiguous 48 states and marketed commercially by dairy farmers. The act provides that dairy farmers can receive a credit of up to $0.10 per hundredweight for contributions to qualified regional, state, or local promotion programs.

During fiscal year 1989 (the program's fiscal year runs from May 1 to April 30), this assessment generated about $215 million, with the national program receiving about $78 million of this total. The remaining $137 million, or about 64 percent of the assessed revenue, was diverted to regional, state, or local programs. The national program received an average of $0.0542 per hundredweight of milk marketed commercially on a monthly basis during fiscal year 1989, compared with an average of $0.0552 for fiscal year 1988 and $0.0604 for the fiscal year 1987. The decline reflected increased allocations by dairy farmers of promotion funds to qualified regional, state, or local programs.
## Dairy Termination Program

| Purpose | The purpose of the Dairy Termination Program was to reduce excess milk supplies by removing 12 billion pounds of milk, or about 8.7 percent of milk marketings, using 1985 marketings as a base. |
| Effective Dates and Duration | The program covered an 18-month period beginning April 1, 1986, and ending September 30, 1987. |
| Funding | To pay for the program, the Congress authorized assessments on dairy farmers. Farmers paid $0.40 per hundredweight of production from April 1 through December 31, 1986, and $0.25 per hundredweight from January 1 through September 30, 1987. These assessments totaled about $677 million. The estimated payout to participants was $1.8 billion. |
| Program Operation | Any dairy farmer interested in participating in the Dairy Termination Program was required to submit a bid to the Secretary of Agriculture. These bids, in dollars per hundredweight terms, indicated the amount of federal payment a dairy farmer was willing to accept in return for his or her participation in the program. Farmers based these bids on their milk marketings during the 1985 base period and submitted them by March 7, 1986. If the bid was accepted, the dairy farmer was required to leave the industry for 5 years, slaughter or export his dairy animals, and idle dairy facilities for 5 years. Program participants had to slaughter or export their dairy herd sometime between April 1, 1986, and September 30, 1987. Approximately 40,000 dairy farmers submitted bids for the program, of which the USDA accepted about 14,000. The amount of the accepted bids ranged from $3.40 to $22.50 per hundredweight of milk, with an average payment to participants of $15.80 per hundredweight of their milk marketing base. Under the Dairy Termination Program, about 1.62 million dairy cattle were slaughtered or exported, representing an estimated decrease in milk production of 12.3 billion pounds of 1985 milk marketings. |
## Milk Diversion Program

| Purpose | The purpose of the Milk Diversion Program was to reduce surplus milk supplies and to help stabilize the supply and demand for dairy products. |
| Funding | Payments made to participating farmers were funded primarily through a mandated, nonrefundable assessment of 50 cents per hundredweight on the sales proceeds of milk marketed for commercial use by dairy farmers in the 48 contiguous states for the duration of the program. Payments to farmers totaled about $955 million. |
| Program Operation | Under the program terms, dairy farmers in the contiguous 48 states voluntarily contracted with the CCC to reduce their milk marketings during the 15-month period beginning January 1, 1984, by 5 to 30 percent of their milk marketings during a legislatively established base period. The base period was 1982 or, at the dairy farmer’s option, an average of 1981-82 marketings. In return, dairy farmers received $10 for each hundredweight of milk marketing reduction. The program’s enrollment period was from January 1 to February 1, 1984. Each dairy farmer seeking to enter into the Milk Diversion Program submitted a plan describing how the farmer intended to achieve the reduction, including the approximate number of dairy cows that would be sold for slaughter during each month of the contract period. About 38,000 dairy farmers, out of a total of about 200,000, took part in the diversion program. Participants marketed about 22 percent of the milk sold. The total contracted milk marketing reduction was 23 percent of the participants’ milk marketings during the 1982 (or 1981-82) base period. Collectively, this was equivalent to a contracted reduction in milk marketings of about 9.4 billion pounds—7.5 billion pounds in 1984 and 1.9 billion pounds in the first 3 months of 1985. |
Appendix II

Milk Price Support Program

Purpose

The purpose of the federal milk price support program is to ensure an adequate supply of pure and wholesome milk by recognizing cost-of-production changes and keeping farm income high enough to maintain sufficient production capacity for meeting current and future needs.

Authority

The Agricultural Act of 1949 (7 U.S.C. 1446) is the permanent authority for the milk price support program.

Effective Dates and Duration

The basic provisions of the 1949 milk price support program remain in effect today.

Funding

The price support program is funded by CCC through statutory borrowing authority.

Program Operation

The 1949 act specified three major guidelines for the operation of the price support program. First, it provided for minimum and maximum levels at which farm milk prices were to be supported. Second, the act authorized the Secretary of Agriculture to determine the specific price within the minimum and maximum prices specified in the legislation. Lastly, the legislation specified that the price of milk be supported through government purchases of milk and its products.

Since raw milk is a bulky, perishable product, the government cannot reasonably buy raw milk. Instead, the CCC offers to buy, at announced prices, all quantities of butter, cheese, and nonfat dry milk that are offered and meet USDA specifications, establishing a floor under milk prices. Whenever market prices fall below this announced support level, the CCC becomes an alternative market. Although dairy farmers do not sell milk directly to the CCC, the price they receive is indirectly supported when milk plants sell their excess supplies to the CCC in the form of manufactured products. The CCC purchase prices include “manufacturing (make) allowances,” or margins to cover the costs of processing milk into dairy products. These margins are administratively set to attain the desired level of prices at the farm for milk classified as manufacturing milk and are adjusted periodically to reflect changes in manufacturing costs. The support price is not a guaranteed price to farmers. If market conditions warrant, the market prices for manufactured products can rise above the government’s purchase prices. Prices to farmers
Eau Claire, Wisconsin, basing point. The original intention of the distance differential was to make it profitable to transport milk from surplus milk-producing areas to deficit areas to avert shortages that might otherwise occur. The Food Security Act of 1985 increased the minimum class I prices in some orders so that a proportional relationship no longer exists between an order's minimum class I price and its distance from Eau Claire. In general, however, the more distant an order is from the basing point, the higher the minimum class I prices.

**Blending Price**

Plants pay a “blend price” to individual dairy farmers or cooperatives within an order. The value of the milk is determined for the market order by multiplying the quantity of milk in each class by the class price. The total value of the milk in all classes is divided by the total pounds of milk delivered to obtain the blend price, a weighted average price for all milk marketed in that order. Each farmer or cooperative then receives this blend price, adjusted for the location within the order area, regardless of how the milk supply is used.

To make it possible for all plants to pay the blend price to all dairy farmers, the difference between what the plant pays producers and the plant's utilization value of the milk is paid to, or received from, a marketing order settlement fund. Plants that use more of their milk for class I purposes than the market average must contribute into the producer settlement fund. Plants that use less than the market average draw from this fund.

**Program Administration**

USDA's Agricultural Marketing Service administers milk marketing orders. Marketing orders are legal instruments and, once issued by the Secretary of Agriculture, are binding on all plants operating in the regulated market order area.

When a federal milk order is issued, the Secretary of Agriculture appoints a market administrator to administer the terms of the order. The market administrator establishes an office and employs a staff to assist in (1) calculating minimum prices in accordance with the order provisions, (2) collecting reports from plants on quantities of milk received and the amount used in each price classification, (3) verifying plants' reports and the size of payments made to farmers, and (4) publishing market information that benefits plants, farmers, and others interested in the market.
Federal Milk Marketing Order Program

Purpose

Federal milk marketing orders are intended to (1) promote orderly market conditions in fluid milk markets, (2) ensure consumers (both locally and nationally) of an adequate supply of good quality milk, (3) stabilize milk prices, and (4) improve farmers' income.

Authority

The Agricultural Marketing Agreement Act of 1937, as amended, (7 U.S.C. 601 et. seq.) authorized the milk marketing order program. This act made permanent the 1933 Agricultural Adjustment Act, as amended, which authorized milk plants to enter into voluntary agreements with the Secretary of Agriculture to establish minimum milk prices.

Effective Dates and Duration

The basic principles and concepts set by the 1937 act continue to be in effect today.

Funding

Milk purchasing organizations pay fees to the market administrator for administering the order. This fee is set at a specified rate depending on the amount of milk purchased. The rate varies among the market orders.

Program Operation

Federal milk marketing orders regulate the terms under which milk plants purchase grade A (fluid grade) milk from dairy farmers or their cooperatives in markets where farmers have elected to be regulated by federal orders. Only grade A milk is regulated by federal milk marketing orders.

Federal orders set acceptable marketing practices, terms/conditions of milk sales, and milk prices. Milk marketing orders cannot directly control milk production, limit milk marketings, fix consumer milk prices, or set sanitary and quality standards. They can, however, provide funds for dairy product promotion and research and serve as reliable sources of market information.

Orders are established or changed through standard administrative procedures. Interested parties, such as dairy farmers or their cooperatives, may petition the Secretary of Agriculture for an order or a change to an order. If the proposed order or change meets requirements, such as potential for improving marketing conditions, or has enlisted substantial
the program would have little or no effect on production at the end of 5 years. Further, about 26 percent of participants reported they may return to dairying at the end of the 5 years.

Conclusions

Our work has shown the need for greater reliance on market-oriented approaches for the nation's dairy programs. The price support and milk marketing order programs have created financial incentives for farmers to add to dairy surpluses. These surpluses, in turn, caused the Congress to create additional programs such as the Milk Diversion and Dairy Termination programs to control production. However, our analyses of these programs indicate that they have had or will have only temporary effects on production and that the Congress could once again be faced with dairy surplus problems. We continue to believe that the market-oriented approaches encouraged in our past reports offer a long-term solution to better balancing milk production and consumption and, in addition, would reduce the need for the Congress to continually adjust programs on the basis of short-term imbalances in production and consumption.

Recommendations to the Congress

During its deliberations on the 1990 Farm Bill, the Congress will face difficult decisions involving trade-offs among a number of competing policy objectives. Consistent with our prior reports, we continue to believe that the Congress should adopt changes that, in the long term, would substantially decrease federal involvement in the dairy industry. Accordingly, we recommend that the Congress continue to use the supply-demand adjuster tied to a relatively low level of expected surplus purchases by USDA to set price support levels. Additionally, the Congress should gradually decrease the federal role in milk pricing. This could be accomplished through a series of transitional steps that would

- establish new basing points for calculating distance differentials,
- remove down allocation and compensatory payment provisions, and
- eliminate the grade A and distance differentials in federal orders.
regional milk prices so that regional production patterns may not reflect true regional cost differences.

On the basis of our analyses of the program, we suggested steps that would gradually reduce, and could ultimately end, federal involvement in the program. A possible first step would be to increase the number of locations (basing points) from which distance differentials are calculated. This action would recognize that the Upper Midwest is no longer the primary source of surplus dairy products and would reduce some of the regional inequities associated with the distance differentials. After allowing time for the industry to adjust, a second step would be to remove down allocations (the lower pricing of unneeded milk from distant markets regardless of its use) and compensatory payments (a charge placed on milk or milk solids shipped into one market from another market) from the program. Both these provisions reduce financial incentives for the movement of milk from one region to another unless the milk was moving to a region where a shortage existed. Such restrictions impede efficient marketing. After another adjustment period, it might be possible to eliminate distance differentials as well as grade A differentials. At this point, pricing provisions would have been eliminated, but USDA supervision would remain. The next step might be to eliminate orders entirely.

Surplus-Reduction Programs Are Only Temporarily Successful

As discussed in chapter 3 of this report, the Congress took a number of actions to address the dairy surplus problem that included establishing two production control programs—the Milk Diversion and Dairy Termination programs. Our past analyses of these programs indicate that they might have a certain appeal for use in future surplus situations because they were at least temporarily successful in the past. However, our overriding conclusion was that neither program is a long-term solution to the surplus problem.

Milk Diversion Program

In 1985, we reported on the effects of the Milk Diversion Program on milk production and USDA's dairy product purchases, dairy farmer decisions on program participation, and program administration. We estimated that the Milk Diversion Program reduced 1984 milk production by about 3.74 billion to 4.11 billion pounds below the level that could otherwise have been expected to occur. Because this milk would have

\(^{3}\)Effects and Administration of the 1984 Milk Diversion Program (GAO/RCED-85-126, July 29, 1986).
Chapter 4
More Permanent Solution Needed for Controlling Surpluses

- a supply-demand adjuster, which would raise, lower, or maintain the support price depending on the anticipated level of government purchases, and
- a moving-average price, which would establish the support price based on a designated percentage of the average market price for milk over some preceding time period.

We also noted that a third option—elimination of both the milk marketing orders and the price support program—met most of our goals but, in the short run, would likely result in substantial industry instability and adverse financial impact on some dairy farmers and dairy plants. The remaining options, which included such alternatives as a voluntary production control program and a target price program, met fewer of the goals.

Under provisions of the Food Security Act of 1985, the Congress adopted a supply-demand adjuster. The adjuster has resulted in two of the three scheduled changes in price supports. The use of a supply-demand adjuster will need to be reauthorized in the 1990 Farm Bill if it is to continue to stabilize milk supplies.

Milk Marketing Orders

We reported in 1988 that (1) the rationale for establishing the milk marketing order program was outdated, (2) the program contributed to milk surpluses, and (3) the program treated farmers in some regions of the country inequitably. We suggested a series of steps that would reduce federal involvement in the program.

In examining the milk marketing order program, we noted that certain circumstances justifying its original creation no longer existed. Marketing orders were initially established to encourage and maintain a locally produced supply of grade A fluid milk at a time when there was the possibility of local shortages and no economical means existed for transporting fluid milk from areas of surpluses to areas of shortages. To promote grade A milk production, marketing orders offered premiums to farmers called grade A differentials. Since then, however, the situation has changed. Grade A milk is produced in all regions of the country, and technologies are available to transfer grade A milk, either as fluid or in a form to be later reconstituted as fluid, from one region to another, as needed. Because of these changes, we questioned whether the original justification for the program remained valid.

*Milk Marketing Orders: Options for Change (GAO/RCED-88-9, Mar. 21, 1988).*
More Permanent Solution Needed for Controlling Surpluses

Avoiding excessive surpluses while also achieving other policy objectives, such as maintaining farmer income and ensuring an adequate supply of milk, has presented and will continue to present difficult policy decisions for the Congress. On the basis of our past work, we concluded that certain aspects of the price support and milk marketing order programs have contributed to periodic surpluses and that programs created to reduce surpluses have had only temporary success. We believe that a more permanent solution is needed and have encouraged changes that would make dairy programs more market-oriented and reduce federal involvement in the dairy industry.

Making dairy programs more market-oriented and reducing federal involvement in the dairy industry could bring about some unanticipated conditions. Therefore, we have endorsed incremental changes that would allow periods of reflection and adjustment. This chapter summarizes our past analyses of federal efforts to manage milk production and control surpluses and discusses approaches that could reduce the need for the federal government to be involved in the management of milk production.

Price Support and Milk Marketing Order Programs Contribute to Surpluses

As discussed in chapter 2, milk production has increased and, under the existing dairy price support program and marketing orders, farmers have produced much more milk than consumers have been willing to purchase at prevailing prices. As a result, federal program costs have increased from a recent low of about $251 million in fiscal year 1979 to a high of about $2.6 billion in fiscal year 1983. Although government purchases of surplus dairy products decreased significantly since 1983, fiscal year 1989 purchases still account for about $700 million. Our past work has indicated that both the price support and milk marketing order programs have contributed to the surpluses by creating incentives for farmers to produce more milk than could be used commercially. We have offered program-specific alternatives to reduce these incentives and make the programs more dependent on market forces.

Price Support Program

Our 1985 report concluded that rapid increases in price supports added to the large government surpluses of the 1980s. Our analyses indicated that the goals of dairy policy could best be met by use of either a supply-demand adjuster with sufficiently low expected purchase levels or a

Chapter 3
Federal Involvement in the Dairy Industry
Has Changed Periodically to Meet Federal Policy Goals

$10.60. However, drought legislation enacted in August 1988 precluded a January 1989 reduction and raised the support price by 50 cents for the April through June quarter of 1989. The objective of this higher support price was to compensate dairy farmers for higher feed costs that they might experience as a result of the 1988 drought. The Secretary lowered the support price by 50 cents to $10.10 effective January 1, 1990.

When the support price was increased in April 1989, the price paid by CCC for butter remained constant, and the full increase was allocated to nonfat dry milk and cheese. In July 1989 and January 1990, when the support price was decreased, the full decrease in each case was allocated to butter and cheese, while the price paid for nonfat dry milk remained constant. These allocation adjustments were intended to result in the lowest level of government expenditure.

The Dairy Termination Program, authorized by the Food Security Act of 1985, covered the period April 1, 1986 to September 30, 1987. It was designed to decrease milk production through eliminating dairy herds. To participate in this program, all interested farmers submitted bids for the payment they were willing to accept in return for their participation. If the bid was accepted, farmers were required to quit dairying for 5 years, slaughter or export their dairy animals, and idle their dairy facilities for 5 years. USDA accepted bids from about 14,000 dairy farmers, equating to 12.3 billion pounds of 1985 milk sales. The federal payments to participating farmers totaled an estimated $1.8 billion.

The 1985 act also realigned the national pricing system for fluid milk. Specifically, it increased the class I milk prices in 36 of the 44 federal milk market orders in existence at the time—increases that will remain in effect unless modified by an order amendment. These increases removed the proportional relationship between minimum class I prices for federal milk market orders and each order’s distance from Eau Claire, Wisconsin.

The 1985 act also mandated that CCC operate a dairy product export incentive program from February 21, 1986, through September 30, 1989. In response, the USDA created the Dairy Export Incentive Program. Under this program, USDA made payments (in CCC-owned dairy commodities) to entities that sold U.S. dairy products for export. USDA has the

\(^5\)The Omnibus Trade Bill signed into law on Aug. 23, 1988, provides that generic certificates may be used in place of CCC-owned dairy products.
Chapter 3
Federal Involvement in the Dairy Industry Has Changed Periodically to Meet Federal Policy Goals

The 1981 act also directed USDA to reduce CCC's dairy product inventories. Consequently, in December 1981 USDA began giving surplus cheese to states for distribution to the needy. The reported success of its initial effort prompted USDA to make additional quantities of cheese available and to add other dairy products. This effort evolved into USDA's Special Distribution Program under which butter, cheese, nonfat dry milk, and other surplus products were provided to states to distribute to the needy.

The Temporary Emergency Food Assistance Act of 1983 (Title II, P.L. 98-8, Mar. 24, 1983) formalized the Special Distribution Program under the Temporary Emergency Food Assistance Program (TEFAP). The act directed USDA to make any CCC commodities such as cheese, butter, and nonfat dry milk, in excess of quantities needed for other programs and activities, available for distribution to the needy. The Hunger Prevention Act of 1988 (P.L. 100-435, Sept. 19, 1988) extended TEFAP through September 1990. (See app. VI for a description of the TEFAP program.)

### The Dairy Production Stabilization Act of 1983

The Dairy Production Stabilization Act of 1983 (Title I, P.L. 98-180, Nov. 29, 1983) continued efforts to control surpluses. The act authorized a price support trigger mechanism that would reduce the support price if CCC purchases were expected to exceed certain levels, established the Milk Diversion Program, and created a nationwide Dairy Promotion Program.

The 1983 act immediately reduced the milk price support level by 50 cents to $12.60 per hundredweight and established a trigger mechanism that required additional 50-cent reductions on April 1 and July 1, 1985, if estimated government purchases for the 12-month period following those dates exceeded specified levels. However, the act also authorized the support level to increase at least 50 cents on July 1, 1985, if the Secretary estimated government purchases for the succeeding 12-month period to be below specified levels and judged the increase was needed to ensure an adequate supply of milk to meet current needs. Following these directives, the Secretary of Agriculture reduced the support price to $12.10 on April 1, 1985, and to $11.60 on July 1, 1985.

The Milk Diversion Program, established by the 1983 act, became the nation's first voluntary supply management program. Under the terms

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3In Sept. 1982, the Budget Reconciliation Act of 1982 froze the support price at $13.10 per hundredweight.
In the 1960s, the federal government established a uniform pricing system based on the Minnesota-Wisconsin (M-W) price series. The M-W price is the estimated average price paid for grade B milk by plants in Minnesota and Wisconsin. Grade B milk is used only for manufacturing dairy products and is not regulated by federal milk marketing orders. Grade A milk can be used for fluid consumption or for manufacturing and is produced under higher quality standards than grade B milk. The M-W price eventually became the basis for all prices paid to farmers delivering grade A milk to plants regulated by federal milk marketing orders.¹

During the late 1970s and early 1980s, farmers began to produce milk at unprecedented levels—a 26-percent production increase between 1975 and 1988. (See fig. 2.4.) Because the market was unable to absorb the additional dairy products, CCC purchases under the price support program were at all-time highs. During the 1982-83 marketing year, CCC purchased an unprecedented $2.6 billion in dairy products, equivalent to about 16.6 billion pounds of milk. This contrasts with CCC purchases of about $251 million in dairy products in 1979. Figure 3.1 shows government net market removals of butter, cheese, nonfat dry milk, evaporated milk, and dry whole milk during the marketing years of 1951-88.

General Subsidy Program and Efforts to Encourage Production

Government-imposed price ceilings for corn and a high price support level for hogs resulted in corn producers' securing a better return when they used the feed on the farm rather than by selling it on the market. As a result, dairy farmers were unable to obtain sufficient corn and other feed grains necessary to increase milk production. In response, the Congress, in October 1943, initiated a program, which varied by region of the country, subsidizing dairy farmers according to the amount of feed they purchased. Subsidy payments were continued until the price ceilings were terminated on July 1, 1946.

Postwar Decrease in Demand Resulted in Congressional Actions to Support Dairy Farmer Income: 1946-79

After the war, demand for dairy products dropped. Consequently, the Congress extended, through 1949, the milk price supports used during the war. In 1949, in order to preserve milk prices and farm purchasing power, the price support program was permanently adopted. While the price support level generally increased during the late 1960s, the level increased more rapidly during the 1970s, reflecting congressional concerns over the rising cost to produce milk. The establishment of a nationwide support price for milk and technologies that permitted transportation of milk between markets caused milk markets to become interrelated. As markets became interrelated, the federal government developed a national uniform pricing scheme that reflected changes in both the price support level and the national supply/demand situation for milk. In addition, the federal government initiated import controls that were designed to reduce interference of domestic price support programs.

The Agricultural Act of 1949

Through the Agricultural Act of 1949 (P.L. 81-439, Oct. 31, 1949), the Congress permanently adopted the price support programs it had created during the war to preserve the higher milk prices and farm purchasing power. The milk price support program was intended to ensure an adequate national supply of milk.

The act created a permanent price support program and required that the Secretary of Agriculture, through government purchases, support the price of milk at 75 to 90 percent of parity. USDA did not purchase milk directly from dairy farmers. Rather, the price the farmers received was indirectly supported when milk plants sold their excess supplies to the CCC in the form of manufactured products. Thus, to maintain minimum prices, CCC purchased at designated prices all quantities of butter, cheese, and nonfat dry milk that were offered and met USDA specifications.
Chapter 3
Federal Involvement in the Dairy Industry
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Under the marketing provisions of the act, milk processing plants were permitted to enter into voluntary agreements with the Secretary of Agriculture to establish minimum milk prices. Because not all plants were obliged to sign the agreements, the act authorized the Secretary to issue a license requiring compliance by all plants in a given market. In 1933, plants entered into 15 marketing agreements with the Secretary. However, violations of the agreements, and of the licenses by those who had not signed the agreements, were widespread.

In response to challenges of milk licenses under the 1933 act, the Congress amended the 1933 act in 1935 (P.L. 74-320, Aug. 24, 1935). The 1935 amendments replaced licenses with marketing orders and established more specific terms and provisions for the orders. Under the amendments, marketing orders guaranteed uniform prices to all dairy farmers and required plants to price milk based on the milk's end use and to use price adjustments or differentials based on such factors as (1) the grade or quality of the milk, and (2) the location at which the delivery of milk is made. The act also authorized a voting mechanism through which dairy farmers could approve or reject certain provisions of an order.

Under the act's purchase and distribution programs, the government purchased manufactured dairy products in an effort to support milk prices and distributed these products for school lunch, institutional, and welfare purposes. USDA did not announce specific price support levels or purchase prices. Purchases were generally made on the basis of competitive bids; and the quantities purchased usually did not exceed those that could be used for school lunch, institutional, or welfare purposes. These programs were intended to (1) improve dairy farmers' incomes and (2) improve the nation's health and well-being.

Section 22 of the Agricultural Adjustment Act of 1933, as amended, authorized the President, on advice of the Secretary of Agriculture, to direct investigations of imports of agricultural products. These investigations were intended to determine whether articles were being imported into the United States in large enough quantities to interfere with the agricultural price support programs. The first dairy product import quotas under section 22 were imposed in 1953.1

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The Changing Dairy Industry

Figure 2.5: U.S. Regional Share of Milk Production, 1970 and 1988

30 Share of U.S. Milk Production in Percent

25

20

15

10

5

0

Appalachia

Corn Belt

Northeast

Northwest

Southeast

Southern Plains

Southwest

Upper Midwest

Western Plains

U.S. Region

- Del. - Ill.
- Ky. - Ind.
- Md. - Iowa
- N.C. - Mo.
- Tenn. - Ohio
- Va.
- W.Va.
- R.I.
- Vt.

- Conn. - Maine
- Ora.
- Wash.
- N.H.
- Ohio
- N.Y.
- Pa.
- S.C.

- Ida. - Ala.
- Ark.
- Fla.
- Ga.
- Miss.

- N. Mex.
- Okla.
- Tex.
- La.

- Ariz.
- Okla.
- Nev.
- S.D.

- Mich.
- Cal.
- Utah
- Wyo.

- Colo.
- Minn.
- Neb.

- Kan.
- Mont.
- N.D.

Chapter 2
The Changing Dairy Industry

The average processing facility that exists currently is larger than those that existed 20 years ago.

Increased Milk Production Efficiencies

As the number of dairy farms and cows in the United States has declined, milk production has become much more efficient. Figure 2.3 shows that average production increased dramatically from about 4,500 pounds per cow in 1930 to about 14,200 pounds per cow in 1988.

Gains in efficiency have been shaped by improved breeding, better management, and advances in technology. For example, more widespread use of artificial insemination and better sires have improved the genetics of today's dairy herds. Better management of feeding, reproduction, and herd health has also contributed to increased production. Finally, recent technologies—such as newly developed feed additives and computer technology for use in feeding, breeding, and general farm management—have improved dairy productivity.

The number of dairy farms declined from a high of about 5 million in the mid-1930s to a low of about 220,000 in 1988.

The number of milk cows in the United States has also declined over the past 58 years. Figure 2.2 shows that between 1930 and 1988, the number of milk cows nationwide declined from about 22.2 million to about 10.2 million.
We conducted our review from September through December 1989 in accordance with generally accepted government auditing standards.
Federal involvement in the dairy industry began in reaction to unstable marketing conditions and low milk prices before and during the Great Depression. Prior to the Depression, farmers relied on cooperatives to secure an acceptable price for their milk. However, with the Depression, consumers purchased fewer dairy products, and milk production began to exceed consumption. This situation resulted in lower milk prices for the farmers and contributed to unstable market conditions.

In response to these conditions, the Congress initiated actions intended to ensure an adequate supply of good quality milk, stabilize milk prices, and improve farmers' income. More specifically, it created two interrelated programs—the federal milk marketing order and the price support programs, both of which are administered by the U.S. Department of Agriculture (USDA). While the Congress has adjusted these two programs periodically, they remain the principal means of regulating the dairy industry. The Congress has also implemented import controls to help protect the domestic market. More recently, the Congress has also established other dairy programs, such as the Dairy Termination Program, to address problems associated with the surplus of dairy products.

### Federal Milk Marketing Order Program

The federal milk marketing order program, created in 1937, sets acceptable marketing practices, terms and conditions of milk sales, and milk prices. As of January 1990, there were 41 federal marketing orders in the United States, and the areas covered by these orders produced about 70 percent of the milk produced in the United States. Each order fixes the minimum prices that must be paid by plants that purchase milk and specifies how these payments are to be distributed among farmers. Federal orders are voluntary and are in effect only in areas where dairy farmers have voted for their adoption. Marketing orders apply only to grade A milk, which is the only milk eligible for fluid use. Even though the majority of milk produced in the United States is eligible for fluid consumption, much is used for manufactured dairy products. (See app. I for additional information on the federal milk marketing order program.)

### The Milk Price Support Program

The milk price support program helps ensure dairy farmers a minimum price for milk they produce. Under the program, the USDA, through its Commodity Credit Corporation (CCC), purchases, at specified prices, all quantities of butter, cheese, or nonfat dry milk, that are offered and meet USDA specifications. Such purchases reduce excess supplies of dairy products on the commercial market and help maintain the minimum
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The Upper Midwest continues to be the major milk producing area, representing about 28 percent of U.S. milk production in 1988. Although its share of total milk production has not changed significantly since 1970, the shares of some other regions have. The Southwest, for example, has increased its percentage of U.S. milk production by about 60 percent, to 14.9 percent of the 1988 national milk production, while the Corn Belt's share has declined by about 20 percent. A variety of reasons, including incentives provided under marketing orders, could cause these changes.

Federal involvement in the dairy industry began in the 1930s when low milk prices were perceived to threaten the nation's milk supply. Both the marketing order and price support programs were created to stabilize prices for the farmer and help ensure an adequate supply of milk. Through the 1970s, the two programs were changed generally to support incomes for the farmer.

During the late 1970s and early 1980s, farmers produced milk at unprecedented levels. Because the market was unable to absorb the additional production, net government purchases of dairy products dramatically increased from $251 million in 1979 to $2.6 billion in 1983. This led to actions intended to control the surplus. For example, the Milk Diversion Program, in 1984, paid farmers to reduce the amount of milk they marketed for a 15-month period. In 1985, the Congress (1) instituted a "supply-demand adjuster," which—for a limited number of years—automatically reduced price supports if surpluses were projected to exceed certain levels, and (2) authorized the Dairy Termination Program, which paid farmers to slaughter or export their dairy animals and leave dairying. Because of the 1988 drought, the Congress passed legislation to suspend use of the automatic supply-demand adjuster in 1989.

GAO has reported that consistent increases in price supports during the 1970s created incentives for farmers to increase milk production despite accumulating dairy surpluses. Similarly, GAO has reported that milk marketing orders created incentives for excessive production because the minimum fluid milk prices under certain orders were artificially high. These high prices also created regional pricing inequities, thus treating some farmers unfavorably compared with others.

GAO has concluded that efforts to control surpluses have been only temporarily successful. It estimated that, from 1986 through 1990, the
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Purpose

During the 1980s, excessive milk production resulted in large government purchases of surplus dairy products. However, as the nation enters the 1990s, federal dairy surplus purchases have declined to such an extent that concerns now exist over the availability of dairy products for government donation programs. In addition, consumers have become concerned about recent increases in dairy product retail prices. In deliberating over the 1990 farm bill, the Congress will again be considering policy and program changes that will affect the level of future surplus purchases. To aid in these deliberations, the Senate Committee on Agriculture, Nutrition, and Forestry requested that GAO report on federal dairy programs, including (1) how the dairy industry has changed since the federal government first enacted specific dairy legislation during the 1930s, (2) the evolution of federal involvement in the dairy industry, and (3) how federal programs, according to previous GAO analyses, have affected milk supplies.

Background

The objectives of federal dairy policy have been to support farmers' prices and incomes, expand consumption, ensure an adequate supply of good quality milk, and stabilize dairy prices and markets. The policy is carried out principally through two programs—the milk marketing order program, created in 1937, and a price support program, created in 1949.

Marketing orders regulate milk marketing in areas of the United States where farmers have voluntarily adopted them. Orders, administered by the U.S. Department of Agriculture (USDA), set marketing practices, terms/conditions of sale, minimum prices to be paid by plants, and distribution of financial returns among farmers.

Under the price support program, USDA purchases, at designated prices, the butter, cheese, and nonfat dry milk that cannot be used commercially. The program stabilizes milk prices by, in effect, guaranteeing a minimum price for any amount of dairy product that can be produced. Federal outlays for the program are dependent upon the extent to which milk production exceeds commercial use. The more that production exceeds use, the more surplus products the government buys and the greater the government's cost.

Results in Brief

The dairy industry has changed significantly in the over 50 years of federal involvement. For example, while the number of cows and farms has declined substantially, milk production has become more efficient and...