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The Evolution of Milk Pricing and Government Intervention in Dairy Markets

by

Eric M. Erba and Andrew M. Novakovic

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PREFACE

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ABSTRACT

A review of U. S. dairy policy from the early 1900s through the 1980s exposes the changing nature of regulation in dairy markets. While dairy policy was originally legislated to stabilize markets and increase milk prices at the farm level, its focus in the 1980s shifted to the apparently chronic problem of surplus dairy products. This report reexamines the events during the 1900s that led to federal and state regulation of the dairy industry and describes the progression of dairy policy from the 1933 Agricultural Adjustment Act through the 1990 Food, Agriculture, Conservation and Trade Act.

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Introduction

The United States federal and state governments regulate many agricultural products, but none is more regulated than milk. The U. S. is not unusual in this respect; most governments in major milk-producing countries take an active role in the regulation of milk production and milk marketing. Prior to the Great Depression, federal and state governments were not directly involved in regulating the dairy industry. The economic collapse caused by the Depression led to the first piece of legislation that attempted to raise producer milk prices and stabilize the tumultuous market. Once involved in regulation of the dairy industry, political inertia effectively eliminated any possibility for a quick separation of the federal government from further commitments to the industry. This paper details the characteristics that led to governmental intervention, the manner and form of intervention throughout the past 60 years, and the impact of legislative attempts to direct and oversee the dairy industry.

The Dairy Industry Prior to 1900

Prior to the twentieth century, farming in the United States was widespread, and most people raised a high percentage of the food they consumed. In general, farms were not specialized. Changes in how food was produced and how farms evolved to become specialized operations occurred with the growth of large cities, e.g., Boston, New York, and Philadelphia. Large cities relied on nearby farms to provide a supply of food, and dairy farms, in particular, were quick to respond to population shifts as people moved from rural communities to urban centers.

The railroad was, in part, responsible for the specialization of dairy farms. The railroad provided a means of shipping goods more quickly and to more distant locations. Railroads changed the profile of dairy farmers by moving milk from saturated local markets to large cities where both the demand and price for fluid milk was higher. Dairy farmers recognized the opportunity for specialization afforded to them and began to concentrate on milk production. As the demand for fluid milk in the burgeoning cities increased, milk was shipped longer distances from more distant farms in order to meet the demands of population-dense areas. Dairy farmers transported milk to receiving stations in 40-quart cans, which were then placed on railroad cars and transported to processing plants located in the city. The introduction of refrigerated tanker cars in the late 1870s further increased the volume of milk shipments and the distance over which milk could be transported (8).

As roads improved, trucks began to replace rail cars as the main means of transporting milk to processing plants. The introduction of trucks meant greater flexibility for the farmer in terms of when the milk could be shipped to plants or receiving stations and diminished the need for farmers to transport their milk by rail. However, for the largest cities, railroads continued to be the method of choice for bringing in milk from distances greater than about 80 miles from the city (8).

Milk Distribution and Milk Cooperatives Prior to the 1920s

The expansion of the fluid milk market led to specialized dairy farms, and milk handlers and dealers evolved to facilitate distribution of fluid milk products within the cities.¹ Historically, farmers produced and distributed fluid milk as well as some manufactured products; these producer-distributors were the norm. As large cities developed and farmers faced greater demands for fluid milk and dairy products, the number of producer-distributors declined. Dairymen became more involved in the production of milk and could not afford to expend time distributing their product. The distribution task became the responsibility of organizations specializing in milk processing and marketing. These firms bought, processed and distributed fluid milk and had the capacity to manufacture dairy products if surplus quantities of milk existed. Specialized processors grew to large sizes because of the economies of size in assembling and distributing milk, and thus, the milk produced by several dairy farmers was required to adequately supply a single processor.

The pattern of milk buying that characterized this period was that of a few large, organized distributors with some degree of market power buying a perishable product from many small, unorganized producers. The producers had little influence in pricing decisions and were consequently suspicious of the prices, weights and tests performed by buyers. The inequality in bargaining power was the primary reason for producers organizing collective bargaining units. The producers wanted to "level the playing field" when bargaining with dealers and thought that such an organization could affect the price by controlling milk supplies. Milk handlers were opposed to these collective bargaining groups and viewed milk marketing cooperatives as illegal conspiracies in restraint of trade. Handlers also claimed that the cooperatives violated the intent of the Sherman Act of 1890, which prohibited price fixing. The cooperatives, on the other hand, argued that the Clayton Act of 1914 permitted non-stock cooperatives to bargain collectively for prices on behalf of their members (8). However, the Clayton Act did not address the vague wording of the Sherman Act, nor did it provide specific provisions detailing the circumstances under which cooperatives would be protected by the law. Hence, cooperatives were subject to legal action that challenged their existence. In 1922, the Capper-Volstead Act was passed and clarified the legal status of cooperative marketing associations. The Capper-Volstead Act essentially gave limited antitrust immunity to marketing cooperatives, and under the auspices of the Act, farmers were free to collude and participate in price-setting behavior.

Pricing of Milk Prior to the 1920s

No standard pricing procedures were in place for the pricing of fluid milk products, and experimentation with different schemes was not uncommon with innovations introduced by cooperatives and private firms. Producers realized that it was the milk dealers who controlled the level of milk pricing. Though producers attempted to band together in an effort to increase their bargaining power, dealers dominated price negotiations from the late 1800s to about 1916 (3, 4, 8).

¹A "handler" is any milk dealer who disposes of grade A fluid milk products. Handlers include fluid milk processors who distribute milk to consumers and retailers as well as persons who sell milk to other dealers for fluid milk distribution. The term "handler" applies to proprietary operations and cooperative associations that handle milk for their members.

Several problems were encountered when devising a milk pricing plan. First, production of milk was variable from year to year, and within a single year, seasonal variations in level of milk production were likely to occur. Second, consumption of fluid milk also varied seasonally, but consumption patterns did not coincide with production patterns. Third, because milk was a perishable commodity, it could not be stored to balance out the seasonal differences in supply and demand for fluid milk. Fourth, in order for milk to be eligible for fluid use, stricter sanitary requirements had to be met on the farm which led to a significant increase in the cost of production. The additional cost of producing milk eligible for fluid use had to be returned to the farmer. In absence of an economic stimulus, there would be no incentive to upgrade the sanitary standards on the farm. The combination of these factors resulted in a number of approaches to pricing milk. Flat pricing, base excess, classified pricing, and base rating formed the foundation of the pricing strategies that emerged in the early 1900s.

Flat pricing was a simple approach to the milk pricing question but had obvious flaws that became apparent upon implementation. Under this system, the price for all milk sold by a single farmer was the same, regardless of location of purchase or production, composition, or other quality factors. Though apparently impervious to concerns about equitable producer prices, the price received could vary from farmer to farmer depending on demand of handler. Fluid milk handlers had to offer a higher price than manufacturing plants to attract milk and compensate farmers for the added expense of meeting higher sanitary requirements. However, flat pricing often compelled processors to add farmers in the short supply season and cut farmers during the flush, contributing to the instability of the dairy industry. Small processors generally used flat pricing because they did not bargain with cooperatives for milk. Large fluid processors, by virtue of the sheer volume of milk processed, usually dealt with cooperatives to obtain a supply of milk. As a result, these processors faced a different pricing scheme – usually the base excess plan or classified pricing scheme.

The base excess plan established a base level of production according to milk deliveries during the short supply months. The base level was updated as often as every year. The farmers were paid fluid milk prices for this milk. Any milk in excess of the base received the manufacturing milk price. Base excess pricing was an improvement over flat pricing in terms of reducing instability, but price instability was not eliminated entirely because of seasonal fluctuations in production. The plan was also flawed in that neighboring farmers could receive vastly different milk prices which sparked criticism from groups concerned about equitable producer prices.

Classified pricing came about from the marketing of a cooperative's milk, and more specifically, from the problem of "surplus" milk on a seasonal basis.² The three main objectives of classified pricing were to obtain higher returns for producers, to facilitate disposal of the milk in excess of the fluid milk requirements so that no instability was created in the fluid milk market by the presence of surplus milk, and to reduce the inherent instability of fluid milk prices by issuing uniform prices to all handlers (3). The tenet of classified pricing was that the price farmers receive should be based on handler use of the milk. Each dairy product was assigned to a "class", and the price paid by handlers for the milk was based on the amounts of milk used in each class. A necessary complement to classified pricing was a pooling of revenues from the sales of milk. This feature allowed either all producers delivering to a single handler or all producers belonging to the same

²In this case, "surplus" milk was used to describe milk in excess of fluid needs.

cooperative to receive the same average or "blend" price. The pooling procedure acknowledged many of the concerns about equitable producer prices which were inadequately addressed by the other pricing plans. Classified pricing started around 1886 in the Boston market and was steadily adopted in other city markets in the 1920s and 1930s (3, 4). This approach to pricing milk was the most widely accepted and equitable among all pricing plans.

The base rating plan was a combination of two milk pricing methods – the base excess plan and the classified pricing plan. The base for each producer was set equal to the average volume of milk marketed during the months in which milk supply was short. The base price was set to the average price for all milk sold in fluid form plus any lower class milk up to an amount equal to the volume of milk representing the combined bases of all cooperative members. Surplus milk received a price equal to the manufacturing milk price. The base rating plan also attempted to distribute returns for milk among producers as an incentive to develop more stable milk production patterns from month to month and year to year.

Problems with Milk Pricing During and After World War I

During World War I, cooperatives bargained for flat prices on all milk sold. They were successful in getting a favorable milk price because of the high demand for manufactured products in Europe. At the end of the war, demand for evaporated and condensed milk and other manufactured products diminished, and as a consequence of the disappearance of the manufactured milk market, processing plants closed all over the United States. Plants that continued to operate paid reduced prices for raw milk in order to survive. Producers and their bargaining cooperatives could not successfully force an increase in the price because the supply of milk far exceeded the demand for milk.

The most fundamental difficulty in flat pricing was that distributors sold milk products that were valued both more and less than the price they paid for producer milk, and the proportion of milk sold in each use category varied greatly between distributors. Furthermore, distributors became dissatisfied with flat pricing as a means of purchasing milk from producer cooperatives. From a distributor's view point, there was too much milk in the flush and not enough during the short months. During the flush periods, milk was priced too high to dispose of it profitably, and flat pricing failed to recognize that a large part of the distributors' volume had a market value below the average on which the price was based (1).

From a cooperative's view point, bargaining for flat pricing was met with several difficulties. If a cooperative bargained for a flat price that approximated the weighted average of fluid versus manufactured products, the distributor who utilized more milk for fluid was advantaged, and the distributor who used more milk for manufactured products was disadvantaged. Under flat pricing, the distributors selling a significant proportion of manufactured products tended to cut off producers in order to bring their milk receipts and fluid milk sales into closer adjustment (4). For example, a handler wanted to buy the minimum amount of milk necessary to cover his fluid milk sales system. Therefore, when production increased above what was needed for fluid milk sales, several strategies were used to reduce the supply of milk. Handlers often instructed dairy farmers to hold back one day's worth of milk, which was likely to be sold elsewhere at a lower price (4). Dealers were also known to send an insufficient number of cans to farms, and dairymen who did not have access to additional cans were forced to either use the milk on the farm or dump it.

Thus, for bargaining associations that did not operate manufacturing facilities, it was crucial to persuade dealers to buy the total available supply of milk at all times.

Members of milk cooperatives met to discuss a strategy for proposing a widespread pricing plan to milk dealers, and classified pricing was recommended as the pricing plan of choice. Milk used for manufactured products which competed with similar products made outside the local fluid market was priced accordingly, which gave the cooperatives a freer hand in negotiating a price for milk sold for fluid purposes. The plan required dealers to reveal the exact use and sales of all milk products in order to determine the correct prices for each class of milk. Surprisingly, dealers accepted the proposal. However, when attempting to institute classified pricing, the cooperatives faced practical problems. For example, there were no means of assuring the accuracy of the dealers' reports of milk usage. Furthermore, extending classified pricing to non-members to prevent breakdown of the system from price cutting proved to be much more challenging than the cooperatives had anticipated. In spite of the logistical problems surrounding classified pricing, the plan saw extensive use in Boston, Washington, D.C., and Philadelphia around 1918 and increased to cover about 68 markets by 1933 (4).

The Intervention of the Federal Government in Milk Markets

Even before the Great Depression had its effects on milk prices, classified pricing plans were breaking down. Cooperatives did not have the power to audit the records of processors to determine the accuracy of milk usage reports. Underpayment by processors was widespread because the classified pricing plan lacked provisions for enforcement of the agreement between cooperatives and processors. Furthermore, cooperatives were not able to exercise monopoly control over milk producers and the milk supply, and thus, no credible threat of withholding milk could be made. Because classified pricing was never universally accepted, a processing firm could offer to buy milk from individual farmers for a price that was slightly above the cooperative blend price and limit purchases to an amount close to the firm's fluid milk sales (4, 5).

The stock market crash in October, 1929 marked the beginning of the Great Depression and tougher times for dairy farmers. With the Great Depression came a severe drop in milk prices, resulting in a decrease in consumer purchasing power. In milk markets, instability was a predictable result of the failing economy. Producers who did not belong to cooperatives contributed to the increased instability by undercutting existing milk prices in an attempt to sell their product. On several occasions, producers who shipped milk to large markets attempted to force processors to increase prices by organizing milk strikes. Processors were able to obtain a sufficient supply of milk from producers who did not participate in the strike, and thus, the milk strikes typically proved to be largely ineffective. Dairy men, like most other farmers, began to turn to the government for reenforcement of their local efforts. Requests were made to state and federal governments for assistance in re-establishing more orderly market conditions in hopes of increasing and stabilizing milk prices (4, 5).

Disorderliness, which refers to the lack of a predictable, sustainable, and efficient flow of a product to a specific market, ultimately led to the breakdown of dairy markets. If fluid milk markets were to have orderly supply, orderly production was required which further depended on orderly provisions for assembly and distribution. In addition, an orderly relationship between different markets in terms of price and supply was required. Without state or federal governmental intervention, there was little chance of creating orderly

marketing beyond the local level. The 1933 Agricultural Adjustment Act (AAA) sought to correct these failures in dairy markets by including provisions for milk and dairy products.

The AAA attempted to improve prices and income to dairy farmers in two ways. First, milk and dairy products were designated as basic commodities, and as such they were offered the same price supports and production adjustment operations that existed for storable commodities. In spite of these allowances, the dairy industry did not support the proposal, and consequently, it was not adopted. The second set of measures that directly impacted the dairy industry was marketing agreements and licenses.³ With marketing agreements, milk dealers in a designated area were required to pay producers on a classified price basis and pool the returns to farmers either on a handler basis or a marketwide basis. In return, milk dealers were allowed to set minimum retail prices and minimum producer prices (8).⁴ Marketing agreements were voluntary for processors and handlers, and they were only popular in the largest cities, such as Boston, Baltimore, Knoxville, St. Louis and Chicago. Although marketing agreements were a well-conceived solution to the problems experienced in dairy markets, violations of agreements were widespread and were dealt with inadequately by the federal government. Dealers often misused their price-setting ability and set high retail prices without appropriately adjusting the minimum prices paid to producers.

At the same time as the passage and institution of the AAA, the idea of "parity" was developed and used as a general goal for assisting farmers. Parity used the 1910 - 1914 relationship between prices received and prices paid by farmers as a benchmark for establishing price and income goals. This specific time period was selected because of the favorable ratio of prices received by farmers relative to the prices paid. Though the immediate impact of the parity concept was minimal, parity was later used explicitly in setting support prices and loan rates for many agricultural commodities.

During the middle 1930s, several Supreme Court rulings challenged the constitutionality of the 1933 AAA. Federal courts narrowly construed the passage of open-ended laws, and if the AAA was challenged in court, it might have been declared unconstitutional because it lacked specific provisions for each section. Consequently, several amendments to the Act were passed by Congress in 1935. First, licenses were replaced with "orders" that were issued by the Secretary of Agriculture. Federal Milk Marketing Orders (FMMOs) provided the means for extending uniform opportunities and responsibilities to and enforcing them upon the entire designated market (7). Marketing orders corrected a major flaw in early collective bargaining approaches to regulation, i.e., voluntary participation by processors and dealers. Second, class pricing and location price differentials were authorized within FMMOs along with market-wide pooling of revenues from milk sales. As an alternative to market-wide pooling, individual handler pooling was allowed upon approval by 75% of the producers in the order. Third, the 1935 Act authorized the use of funds for the expansion of markets and disposal of surplus agricultural products. Surplus products were to be purchased by the federal government and distributed for relief efforts. However, the impact on the dairy industry and overall milk

³Marketing agreements were arrangements between the Secretary of Agriculture, producer associations, processors, and handlers that set prices and other terms of trade. Licenses regulated the conditions under which handlers could operate in a market.

⁴The setting of retail prices by dealers was not well received by retailers and was abandoned by 1934 as a matter of policy.

price structure was minimal because dairy product purchases amounted to less than 1% of total milk production.

State and Federal Regulation in the 1930s

The Federal government's authority to regulate interstate agricultural markets was interpreted with little latitude by courts in general, and federal government intervention in intrastate markets was ruled illegal by federal courts.⁵ The ruling led to a proliferation of legislation for state regulation of milk markets. State sovereignty gave states clearcut authority to regulate intrastate milk markets directly so that federal devices were not needed.

State regulation manifested itself in many shapes and forms. Most included some sort of resale price regulation, and others also restricted the entry of milk dealers into the industry through state licensing. Classified pricing was yet another issue that was addressed by most state laws. In 1932, Wisconsin passed the first state milk control law (8). The chief feature of the law was that it issued regulations specifying maximum and minimum retail prices in an attempt to prevent price undercutting by retailers. New York, Virginia, Maryland and other states soon followed with their own versions of milk pricing regulation. However, by 1941 most states that had previously legislated milk pricing regulations phased out state regulation altogether. A few states such as Georgia, Florida, Alabama, Montana, California, and Oregon enacted state regulation in the 1930s that lasted at least 30 years (8). Currently, only California maintains exclusive state-wide regulation of milk markets, though a handful of other states maintain regulations in specific regions within each state's boundaries.

While federal regulation of intrastate milk markets was frowned upon by the federal courts, there was no doubt about the federal government's authority in interstate milk markets. In continuing with the intent of previous policy, the provisions for marketing agreements and orders established in the 1935 Act were basically restated and strengthened in the 1937 Agricultural Marketing Agreement Act (AMAA). One of the policies of the AMAA was "to establish and maintain such orderly marketing conditions for agricultural commodities in interstate commerce as would provide farmers with parity prices...". However, USDA contended that the chief objective of the AMAA was to stabilize milk markets rather than to raise milk prices to artificially high levels.

The AMAA provided a framework for long-term price and market stability. One fundamental difference between the AMAA and previous agricultural acts was the focus and intent of the legislation. With the AMAA, the approach to problems in milk marketing changed from dealing with the severe income difficulties resulting from the Depression to dealing with the inherent instability in milk markets. Specifically, the AMAA addressed the instability dilemma by instituting two policies. First, all handlers serving in an approved marketing area were brought under the scope of the regulatory mechanism. Second, all handlers were placed in the same competitive position with respect to a minimum price for milk for the same use. While this in and of itself would not eliminate instability caused by fundamental changes in supply and demand, it did tend to control the fluctuations caused by imperfect competition between buyers and sellers. Thus, although the two strategies

⁵Intrastate milk markets must have the milkshed (area of milk production) and the markets (points of sales) within the state boundaries.

combined did not entirely erase the issue of instable fluid milk markets, the Act was instrumental in alleviating conditions of disorderly marketing.

A Continuation of 1930s Policies During WWII and Throughout the 1940s

The policies of the 1930s served to increase the farm price of milk and led to overproduction in many markets, gaining the attention of policy makers. Legislators attempted to set milk prices to bring supply and demand in each market into closer adjustment, but not all markets responded as anticipated to set prices. In some markets surpluses accumulated, making quick price adjustments impossible without seriously impacting the welfare of thousands of dairy farmers.

The solution to the problem of localized surpluses was the United States' involvement in World War II. Excess supplies disappeared quickly in the face of increasing wartime demands, and the problem soon became one of inducing sufficient production to satisfy wartime needs for milk. The Steagall Amendment was one of many instruments devised to cope with the shortage of milk. The amendment set the support price at not less than 85 percent of parity for dairy products and other nonbasic commodities for which increased production was needed to satisfy the demands induced by WWII (12). Furthermore, open market purchases of butter by the government were instituted in 1941, marking the first widespread attempt to support the price of milk by purchasing manufactured dairy products (8).⁶ As another alternative to bolster milk supplies, government incentive payments were available to dairy farmers who were willing to increase milk production.

In addition to increases in the cost of production and complications stemming from the United States' involvement in WWII, competition from manufacturing plants for limited milk supplies threatened to create a shortage of fluid milk. A formula pricing scheme for fluid (class I) milk was developed to induce dairy farmers and milk cooperatives to provide a sufficient supply of milk for beverage purposes. Under the formula pricing approach, fluid milk prices were set at a fixed amount above the price for milk used in manufacturing dairy products. The formula pricing of fluid milk was adopted in most FMMOs during WWII. Supply and demand adjusters were added later to vary the price actually paid from that determined through the use of the formula. The inclusion of the supply and demand adjusters was intended to reflect local market conditions, but they were limited in their usefulness as a result of difficulties encountered when incorporating them into pricing mechanisms.

Government Intervention in Milk Markets After World War II

The end of World War II brought about the demise of several temporary milk price enhancement mechanisms. However, the concept of governmental purchases of manufactured dairy products as a price support mechanism was retained and became the cornerstone of the dairy price support program, as specified by the Agricultural Act of 1949. Other features of the Act affecting the dairy industry were the ideas of a modern parity formula, so named because of the changes made to parity calculations, and a flexible price

⁶Similar direct market purchases on a smaller scale occurred in the early 1920s and throughout the 1930s after the Commodity Credit Corporation was established.

support mechanism.⁷ The 1949 Act also gave the Commodity Credit Corporation (CCC) the authority to purchase manufactured dairy products, and the CCC continues to operate accordingly today.⁸

Import Restrictions on Dairy Products

In the absence of import restrictions, the dairy price support program would be burdened with the task of supporting world dairy prices because domestic prices for manufactured dairy products are generally higher than world market prices. Import controls are a necessary component of U.S. dairy policy. Even as early as 1933, legislators foresaw the potential impact on the dairy sector by allowing dairy products to flow into the United States unchecked. Hence, section 22 of the 1933 AAA included a list of general provisions under which the entry of foreign manufactured dairy products could be restricted to avoid such complications. The import restrictions allowed by section 22 were not applied until the implementation of the Trade Agreements Extension Act of 1951, two years after the institution of the dairy price support program. Imported products have typically been held to about 1 to 3 percent of total U.S. milk production. Products in direct competition with supported products are most tightly restricted while products that are not produced in the U.S. or produced in low quantities are less restricted.

Dairy Policy in the 1960s

Dairy policy in the 1960s was characterized by a growing awareness of market interrelationships, and improvements in transportation methods, roads, and trucks led to sweeping changes in the FMMO system. What was once considered a series of disparate and loosely linked marketing orders was increasingly viewed as an integrated system. Two key features that developed in the 1960s that contributed to uniting the FMMOs was the Minnesota-Wisconsin (M-W) price and a class pricing system that used the M-W price as the basic formula price (BFP).⁹ Over a decade elapsed before all FMMOs accepted and totally converted to the M-W system, but once they adopted the M-W system, class prices were determined by adding differentials of various magnitude to the M-W price. Milk used

⁷"Flexible" refers to the discretionary power of the Secretary of Agriculture to set the minimum support price within a range of 75 to 90 percent of parity.

⁸The government-owned Commodity Credit Corporation carries out price support activities for many agricultural commodities. To support milk prices, the CCC offers to buy butter, nonfat dry milk, and cheddar cheese at prices calculated to return at least the support price, on the average, to manufacturing grade milk. Because the support price is a goal price established by the federal government and not a "real" price, dairy farmers may receive prices that are either above or below the support price. The CCC purchasing mechanism indirectly establishes a price floor for milk used for manufacturing dairy products which, in turn, indirectly supports the price for all milk.

⁹The M-W price is determined by a survey of grade B milk processing plants in Minnesota and Wisconsin. It is a market pay price for manufacturing grade milk resulting from competition among the grade B plants. The survey is administered by each states' agricultural statistics service, and the results of the survey are forwarded to the National Agricultural Statistics Service which determines the final M-W price.

in products with an intrinsically higher value received larger differentials, e.g. the class I price for milk used in beverage milk products was higher than the class price for the identical volume of milk used to produce ice cream or butter. By using the M-W price as the basic mover of grade A milk prices in FMMOs, price changes were reflected simultaneously in all order areas. With the acceptance of the M-W came the demise of the supply and demand adjusters that were developed after WWII.

A second important advancement during the 1960s was the recognition of a rationale for determining class I prices. In a series of studies which aspired to explain the existing pattern of fluid milk prices across the country, researchers hypothesized that the relationship between fluid market I prices depended on two factors - distance from the Upper Midwest and transportation costs (10). To verify the supposition, a base point in Eau Claire, WI was selected to represent the center of the area of greatest surplus grade A milk production, and market prices (not federal order prices) were estimated relative to distance from Eau Claire. The hypothesis concerning market prices proved to be valid, and transportation based pricing using Eau Claire as the base point has since evolved into the primary explanation for the regulated geographic structure of class I prices. It became accepted practice to set class I prices in other cities by adding a fixed differential to the Eau Claire class I price which generally reflected costs of transportation with some allowance for local supply and demand conditions (10). This approach to milk pricing served to align class I prices in FMMOs east of the Rocky Mountains.

Dairy Policy in the 1970s and 1980s

The theme of the early 1970s was to get government out of agriculture, as advocated by Secretary of Agriculture Earl Butz. However, despite the ambitious effort to separate government from agriculture, the focus of the late 1970s through the early 1980s was to reestablish more aggressive support of dairy farmers. Consequently, policy makers started to see the results of past legislation in the form of increased dairy product surpluses and increased government expenditures as early as 1977.

Starting in late 1972, several factors converged to create a domestic shortage of dairy products. With milk supplies lagging behind projected levels and commercial disappearance of dairy products remaining unchanged, milk prices increased as expected. However, President Richard Nixon was determined to control both wages and rising prices, and when milk prices increased by 30 percent in the span of a few months in late 1973, President Nixon attempted to carry out his decree by temporarily suspending a select group of import quotas. Furthermore, to take political advantage of the market price increases, support prices for milk were increased concurrently.

Revisions in dairy policy and price support increases came about with the passage of the Agriculture and Consumer Protection Act of 1973. As mandated by previous acts, the new legislation called for milk prices to be established at levels that would "...assure a sufficient quantity of pure and wholesome milk to meet current consumption needs." The 1973 Act also addressed the issue of depressed farm income levels, an added twist not seen in earlier legislation. Specifically, the 1973 Act sought to assure a level of farm income "...adequate to maintain productive capacity sufficient to meet anticipated future needs." Furthermore, the Act noted that a price structure which recognized the sum total of forces affecting the national supply and demand for fluid and manufacturing grade milk was necessary if milk prices were to be set equitably. No other Act in history attempted to account for as many factors in determining the right price for milk. For example, the total

supply of milk was shown to depend on the prices received, costs of production, alternative income producing alternatives on and off the farm, and future expectations of milk price. Demand for milk and other dairy products, on the other hand, depended on retail prices, consumer income, changes in demographics, availability of substitutes, and advertising. Despite the encouragement from farmers to boost milk prices, legislators acted conservatively and set parity at 80 percent. It was generally agreed that the increase in parity level was trivial as a result of the high prevailing M-W price at the time the Act was passed.

Eventually, domestic milk prices dropped as a result of the relaxation of the import quotas, which led to a "collision" between the market price for milk and the mandated increase in support prices. Dairy farmers, seeing the sudden drop in the price of milk, felt that the times of favorable milk prices were slipping away, and strongly requested assistance from Congress and the new president.

When President Carter entered the office of the presidency in 1976, he came with the promise for higher milk prices. In his first year, he used his authority to set the support price at a level in excess of 80 percent of parity. Congress used the Food and Agriculture Act of 1977 as the legislative vehicle for maintaining higher prices for dairy farmers. The 1977 Act set the support price at 80 percent of parity and also required that it be adjusted semi-annually to reflect changes in prices paid by farmers for input supplies, known as the Prices Paid Index. These provisions were authorized for two years, but because the price support provisions seemed to function as planned, i.e., the support price seemed to follow the Prices Paid Index, they were extended for another two years in 1979. Policy makers did not recognize that market forces were bringing milk supplies into adjustment with demand and that the support price increases promised during President Carter's campaign did not coincide with the prevailing conditions.

In the four years following the passage of the 1977 Food and Agriculture Act, the support price for grade A milk rose to \$13.10 per hundredweight, and annual net governmental expenditures on the dairy sector increased to nearly \$2 billion. Faced with staggering expenditures on dairy products and no end in sight, the federal government and Congress were forced to act on one of two alternatives - either reduce the support price to stop encouraging milk production or continue to support dairy farmers but reduce the production surplus by some other means. A fierce political battle ensued to determine which alternative, if either, would be best suited to achieve a reduction in governmental expenditures. Reducing the support price was eventually chosen as the means for reducing the surplus of milk and dairy products. Nonetheless, legislators soon realized that cutting the support price was nearly impossible because of political inertia, and therefore, they opted for the less difficult and controversial decision of freezing the support price. Consequently, by legislative act, the last scheduled price increase for the 1980 - 1981 time frame as outlined in the 1979 Act was rescinded, and the support price became frozen at \$13.10 per hundredweight. Recognizing that something had to be done in the 1981 farm bill, Congress not only eliminated semi-annual adjustments, it also temporarily severed the tie to parity. Under the 1981 Agriculture and Food Act, minimum support prices were legislatively set at incrementally increasing levels for the years 1982 through 1985 in dollars per hundredweight.

By the end of 1981, milk production was still increasing and net removals remained high. Legislators concerned only with the federal budget and the mounting deficit stepped into the picture with the intent of reducing governmental expenditures on dairy products. Not satisfied with the immediate impact on the budget, Congress introduced the 1982 Omnibus Budget Reconciliation Act which authorized a means for dairymen to help fund

the dairy price support program. A \$0.50 assessment was placed on every hundredweight of milk marketed with the first collection of the assessment schedule for April, 1983. Furthermore, the bill also allowed for an additional but refundable \$0.50 deduction per hundredweight implemented in September, 1983. The deduction was refundable to producers who reduced marketings by an amount specified by the Secretary of Agriculture. The assessments and deductions proved to be effective instruments for generating revenue to assist in the funding of the dairy price support program; from October 1, 1983 to September 30, 1984 over \$800 million was collected from dairy farmers. However, the assessments were extremely unpopular with farmers and did little to curb total milk production, forcing legislators to seek other means of reducing milk production.

The 1983 Dairy Production Stabilization Act marked the first attempt by the federal government to control the supply of milk. The Act featured the Milk Diversion Program (MDP), devised to encourage dairy producers to reduce the amount of milk marketed. Under the MDP, direct payments of \$10.00 per hundredweight were offered to dairy farmers who reduced marketings by a percentage of a historical base. The decrease in the amount of milk marketed was in the range of 5 to 30 percent. The MDP operated from January 1984 to March 1985, and about 38,000 or 20 percent of commercial dairy producers participated (2, 11). Marketings for 1984 and the first quarter of 1985 were reduced by approximately 9.4 billion pounds. However, it was estimated that 2.2 billion pounds of the volume reduced was "air", that is, some producers had already reduced their level of production relative to the base prior to the contract period (2, 11). Nonparticipants also increased their production during the time that the program was operational so that total reductions were somewhat less than the 7.4 million pounds of milk actually diverted. Participants received a total of \$955 million in payments for the reduced production levels (12). At the conclusion of the MDP, it became clear that the MDP did not solve any problems; it had only delayed the time in which the problem manifested itself. Program participants, who were no longer under any obligation to reduce milk production, restored cows to their herds. This resulted in a surge in national milk production to record levels, triggering the CCC purchasing mechanism in an attempt to maintain the mandated level of price support.

Another highlight from the Act included the authorization of a National Dairy Promotion and Research Board. The National Dairy Board (NDB) is responsible for promotion and advertisement of any dairy products, nutritional education, and related research, and it is funded by a nonrefundable assessment of \$0.15 per hundredweight on milk marketed (9, 12). Although the National Dairy Board was authorized in December 1983, it was not constituted until the middle of 1984, which meant that there was no immediate impact on altering demand for dairy products through promotion and advertising. Producers initially viewed the NDB favorably, but it was soon criticized by some producers because of the mandatory assessments and perceived ineffectiveness in boosting demand for dairy products.

In continuing with the policy of reducing governmental expenditures on surplus dairy products, the Dairy Production Stabilization Act also included provisions for price support adjustments and assessments. The support price was reduced to \$12.60 on December 1, 1983, and was reduced further on April 1, 1985 and July 1, 1985 because net removals were expected to exceed preset levels.¹⁰ A \$0.50 per hundredweight nonrefundable

¹⁰The United States Department of Agriculture (USDA) was authorized to decrease the support price on April 1, 1985 to \$12.10 if net removals were expected to exceed six billion pounds on a milk equivalent, fat-solids basis (M.E.) from April 1, 1985 to March 30, 1986. Furthermore, the USDA was

deduction, like that conceived by the 1982 Budget Reconciliation Act, was also approved through March, 1985. With the expectation of a new farm bill, most provisions were slated to end at some point during 1985.

The Food Security Act of 1985 (FSA) brought about several changes in dairy policy, and it included provisions for modifying class I differentials, a whole herd buyout program, and a program to assist in exporting dairy products. In what would later be viewed as a landmark maneuver, Congress legislated specific pricing in FMMOs by increasing the class I differentials. The change in the differentials, however, was not nearly as sensitive an issue as the manner in which they were modified, i.e., the differentials were not increased uniformly across all orders. For example, the class I differential increased by 8¢ per hundredweight in the Upper Midwest, but increased by \$1.03 per hundredweight in Southeast Florida. Producers in the Upper Midwest perceived the changes as discriminatory and would later advance the concept of eliminating class I differentials altogether.

The FSA authorized the Dairy Termination Program (DTP), marking the second major attempt to initiate some form of supply control in the dairy industry. The idea behind the DTP was to buy out an entire dairy herd and obtain a commitment from the participating farmers not to partake in dairying for the next five years. Cows and heifers that were purchased from farmers exiting the dairy farming business were required to be exported or slaughtered. The buyout program was voluntary; interested parties submitted sealed bids for the minimum price per hundredweight for which they would be willing to comply with the regulations. A total of 12 billion pounds of milk was targeted for removal from the market. The DTP accepted about 14,000 bids of the 39,534 bids submitted (6). The national cutoff point for acceptable bids was \$22.50, and over the 18-month span which marked the operation of the DTP (April, 1986 through September, 1987), the total cost in payments to farmers was \$1.827 billion (6). Participation in the DTP was not uniform throughout the country. California accounted for the largest portion of the 12.28 billion pounds purchased, but the percentage of farmers participating was not exceptionally high in any particular state (6). Farmers from southeastern states had a disproportionately larger application and acceptance rate than farmers from other regions of the country; the states of Wisconsin, New York, Pennsylvania, and Nevada had the lowest participation rates.

The Dairy Export Incentive Program was also devised to reduce surplus dairy products. The program was designed to assist U.S. exporters of dairy products in entering foreign markets. The CCC was authorized to accept or reject bids for export subsidies from any qualified exporter of dairy products. These payments were given to offset some of the costs involved in selling the higher priced U.S. dairy products in the lower priced world market. Payments were originally made via certificates redeemable in commodities held by the CCC, but this policy was later changed to a direct cash subsidy. Although still in existence, the DEIP represents only a modest effort to increase U.S. exports of dairy products.

The FSA specified changes in the support price as well. For the calendar year of 1986, the support price was dropped to \$11.60 per hundredweight. Further reductions dropped the support price to \$11.35 per hundredweight for January through September of

empowered to decrease the support price by an additional \$0.50 per hundredweight on July 1, 1985 if projected net removals exceeded five billion pounds, M.E. from July 1, 1985 to June 30, 1986 (9).

1987, after which the support price dropped to \$11.10 per hundredweight for the remainder of the year. Moreover, triggered price cuts were approved for the next three years.¹¹ However, drought conditions in 1989 brought about emergency relief amendments to the 1985 FSA scheduled support price reductions. On April 1, 1989, the support price increased by \$0.50 per hundredweight followed by a \$0.50 per hundredweight reduction on July 1, 1989, bringing the price support to \$10.60 per hundredweight. On January 1, 1990 the last of the triggered price cuts went into effect, dropping the price support to \$10.10 per hundredweight where it has remained ever since.

The 1990 Food, Agriculture, Conservation and Trade Act

The dominant dairy policy theme of the 1970s and 1980s was that of price supports. In particular, the legislation that emerged in the 1980s was intended to address problems that resulted from well-intended but ultimately-disastrous strategies in the 1970s. In contrast, the approach to dairy policy that is developing in the 1990s moves away from the issue of price supports and toward topics that concern FMMOs and international trade.

The Food, Agriculture, Conservation and Trade Act of 1990 (FACTA) emerged as the first piece of legislation to impact the dairy industry in the 1990s. The FACTA did little more than complete the trend that started in the 1980s by establishing a schedule of support price changes related to surpluses and a price floor of \$10.10 per hundredweight. The Act also contained a controversial and fiercely contested provision—Section 102, entitled Milk Manufacturing Margin Adjustment. This provision attempts to prevent states which still have milk pricing authority from setting prices for milk used in manufacturing less than that which pertains to federal orders. Growing discontent with the M-W price series among both processors and producers prompted legislators to address the issue of devising a new BFP. In 1992, USDA held a hearing to accept proposals for alternatives to the M-W price as authorized by Section 103 of FACTA. In August, 1994, a recommended decision was issued by USDA for a new BFP, and barring an unexpected defeat of the proposal, the new BFP will be effective in early 1995.

Conclusion

A review of U. S. dairy policy from the early 1900s through the 1980s reveals the "chameleon" nature of governmental intervention in dairy markets. In its infancy, dairy policy attempted to stabilize dairy markets and bolster prices to help ailing dairy farmers, but more recently, dairy policy has been viewed as a tool to help curb excess production as milk supply outstrips demand for dairy products. Policy makers have been more inclined to modify the original Congressional acts to address the needs of dairy farmers rather than completely overhaul the legislation, and therefore, dairy policy enacted in the 1930s remains largely intact today. However, the large dairy surplus during the 1970s and 1980s suggests that regulations have not always been appropriately designed or administered to benefit producers and consumers alike.

¹¹On January 1 of 1988, 1989, and 1990 the support price was to be reduced by \$0.50 per hundredweight if net removals exceeded 5 billion pounds ME, and if net removals were less than 2.5 billion pounds ME, the support price was to increase by \$0.50 per hundredweight.

The 1990s brings yet another look at dairy policy in the face of an emerging global economy and increasing concerns over the federal deficit. Among the topics in dairy policy receiving the most attention are class pricing and international trade. Specifically, by 1995, new methods for determining the BFP and class II prices will be in place, and a fourth class established to price milk used in the production of nonfat dry milk will be celebrating its second anniversary. In addition, the recent Congressional approval of two international trade agreements, the North American Free Trade Agreement (NAFTA) and the General Agreement on Tariffs and Trade (GATT), has given dairy policy an unprecedented international flavor.

The change from a Democratic to a Republican Congress in 1995 adds another dimension to the equation for change in dairy policy. The expiration of the FACTA at the end of 1995 and the Republicans' promulgation of their agenda to reduce government's role in economic and social policies has left people involved in agriculture to speculate how the change in Congress will effect the new farm bill. Considerable changes are probable. Major modifications are not made easily, but the difficulty of implementing sweeping changes must be viewed in light of the Republicans' perception of what most citizens want, i.e., reduced government expenditures, less governmental regulation, and lower taxes.

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