

OUTLOOK FOR DAIRY

James J. Miller
Economic Research Service, USDA

Dairy market conditions in 1999 and 2000 are expected to differ dramatically from the sluggish milk production and record milk prices of 1998. Recent relatively high producer returns are expected to unleash a surge of milk production sufficient to overtake projected milk demand and drop milk prices sharply. However, the timing of these developments is highly uncertain. The full brunt of the production expansion is projected to arrive in 2000, although an earlier appearance is a distinct possibility.

A number of cross-currents affected 1998 milk production. Concentrate feed prices began the year somewhat high but fell considerably as the year progressed. Weather effects were quite adverse in some regions at some times but were quite favorable at other places and times. Supplies of top quality forage stayed tight but supplies of lesser quality alfalfa were large. But, the key feature of last year's milk production was the failure of output, for most of the year, to respond to high prices. Except for weather-related aberrations, milk production was essentially flat from late 1995 until the autumn of 1998.

Milk cow numbers were 1.3 percent below a year earlier in first quarter 1998. The decreases slowly diminished until cow numbers were just 0.7 percent below a year earlier in the last quarter. Moderation in cow number declines was caused by the improved level of 1996-98 returns but probably was less than might have been expected on the basis of past experience.

Milk per cow grew modestly through summer, despite milk-feed price ratios that should have encouraged aggressive concentrate feeding and above-trend increases in milk per cow. Tight supplies of prime hay undoubtedly played a role. Fourth quarter gains were sizable but, like changes in cow numbers, probably not fully consistent with the incentives produced by record milk prices.

Late 1998 production increases likely were the harbinger of things to come throughout 1999 and into 2000. The concentrate ration value is projected to fall 7 to 10 percent, following 1998's 10 percent drop. Returns over concentrate cost will be well below the very high 1998 level but probably will exceed those of any other recent year. The milk-feed price ratio probably will set a record.

Milk cow numbers at the end of 1999 are not expected to be much below current levels. Although the exit of dairy farmers may not change much, the pressure of recent returns should spur expanding producers to pick up the pace. Even without optimal forage conditions, milk per cow should post a large gain, although it may not fully catch up with trend after the sluggishness

of recent years.

Expansion in milk production is projected to accelerate gradually during 1999. Output is expected to rise about 2 percent this year, with gains in milk per cow exceeding 2 percent and easily outweighing the fractional decline in cow numbers. The greatest growth in milk production is not projected to occur until late 1999 or 2000. However, the incentives to expand output have been so large that a surge in production is a possibility at any time.

Brisk economic growth and consumer willingness to spend boosted dairy product demand in 1998. Consumers bought 2 percent more dairy products on a milkfat basis and 1 percent more on a skim solids basis, even though retail dairy prices averaged 4 percent above 1997. Demand for milkfat was particularly strong with sales of butter, cream, cream cheese, and ice cream showing relatively little effect of extremely high prices. Meanwhile, cheese sales rose almost 2 percent, commercial disappearance of nonfat dry milk was about unchanged, and fluid sales slipped fractionally.

Dairy demand is expected to be fairly strong in 1999, but probably will not match that of 1998. Economic growth is projected to be strong, but consumers may not spend with such exuberance. Sales will also be affected by carry-over effects from the high wholesale prices of 1998. Some wholesale buyers probably will make purchasing adjustments based on their experiences of last year--not just current prices. At retail, current year-to-year increases in prices probably are larger than at any time in 1998. The projected increase in 1999 milk production will mean that significantly larger quantities will have to clear commercial markets this year. However, the somewhat softer demand means that they probably will do so only at lower prices.

Commercial dairy stocks at the start of 1999 were fairly moderate. Milkfat stocks were somewhat larger than a year earlier, while skim solids holdings were slightly smaller. Commercial stocks may be a key indicator this year. A quick build-up in stocks might well be an omen of a sustained period of lower prices.

International dairy markets have been mostly adrift. Export supplies have been moderate, in part because of lower output in New Zealand. However, demand softness has kept prices below a year earlier. Russia has purchased some butter but economic problems have greatly limited imports. Similarly, weaker Asian demand has held dry milk prices low. More recent economic problems in Brasil threaten to push some Argentine products elsewhere. Prospects for substantive improvements in 1999 international dairy markets seem dim.

Exports under the Dairy Export Incentive Program (DEIP) will be large in 1999, but there will be a hiatus in new contracts for nonfat dry milk caused by exhausting some key allocations before midyear. In addition, the shrinking amounts allowed under WTO mean that DEIP cannot absorb a large surplus. Sizable purchases of nonfat dry milk are expected to continue in 1999 (the last year of the price support purchase program). Some tightening in markets for separated skim solids may keep purchases somewhat smaller than last year.

Wholesale prices of cheese and butter have been on a rollercoaster ride that may not yet be at an end. Exchange prices of cheese have recovered modestly after January's 65-cent plunge,

evidently a correction to an over-reaction and very similar to the earlier pattern of butter prices. Cheese prices may edge somewhat higher before seasonally rising milk production erodes them this spring. Butter prices may stay unsettled. The relative values of milk for cheese and butter-powder may reverse a number of times, and prospects for the seasonally tight second half of the year may be particularly uncertain.

Farm milk prices are expected to regain some stability by late spring-early summer--but at levels much below the second half of 1998 or the start of 1999. The expansion in milk production has begun to overcome dairy demand increases, bringing about a price readjustment. However, the flush season price low is not expected to be extreme. Demand strength is projected to keep spring prices well above 1997 averages. A moderate seasonal increase in milk prices is expected during the second half of the year. For all of 1999, farm milk prices are projected to be about \$14.00 to \$14.75 per cwt, down about \$1 from the 1998 record but still much higher than most of the nineties.

A faster-than-expected expansion in milk output would, of course, reduce 1999 milk prices. However, general strength of early 1999 prices, the recovery of wholesale prices after the initial crashes, the absence of rapid build-ups in commercial stocks, and quite modest price support purchases of powder suggest that substantial market strength persists. Rapid growth in milk output under these conditions probably would have more effect in nullifying second-half seasonal increases than in pushing spring prices to very low levels.

Retail dairy product prices are expected to reach a peak during the first half of 1999 and then decline slightly or hold about steady during the second half. Compared with a year earlier, retail prices probably will be 6 to 7 percent higher during the first half, with the increases diminishing substantially in the second. The farm-retail price spread is expected to grow considerably after the 4-percent decrease in 1998.

The general pattern of a slowly growing dairy industry remains the long-term outlook. Generally favorable milk-feed price ratios will help milk per cow expand about 2 percent per year, with the assistance of genetic and management improvements, structural shifts, and bovine somatotropin. Large numbers of dairy farmers will continue to leave dairying. But, construction of new or dramatically expanded dairy farms is expected to hold declines in milk cow numbers to 1 percent or less in most years.

Demand is expected to trend slowly higher. Gains in cheese sales and in use of dairy products in processed foods are projected to outweigh losses in other dairy sales. The contribution of dairy products to the sensory appeal of many prepared foods lends strength, even though most of the basic dairy products operate in mature markets.

A general tendency for supply to grow slightly faster than demand is expected to result in a slight erosion in real milk prices. However, the relatively equal growth rates and the demise of the price support purchase program imply that year-to-year price changes may vary greatly. Feed conditions, changes in the general economy or international markets, weather, or structural variability could move prices sharply in either direction.

The experiences of recent years have brought some common presumptions about dairy demand into question. Clearly, last year's butter prices made it very difficult to believe the rumors of the

death of milkfat demand. It is true that there has been a very gradual shift of market value from milkfat to skim solids. However, the true trend has always been dwarfed by shorter-run swings in milkfat or skim solids demand. The 1996-98 period, like the mid-eighties, had very strong demand for milkfat while skim solids demand was sluggish, while the intervening years were dramatically different. A sudden cessation in these swings in relative demand seems highly unlikely.

The popular image of dairy product demand is a consumer standing in front of a supermarket dairy case filling a shopping cart. Except for fluid milk, dairy demand is more commonly represented by a wholesale buyer buying ingredients for some type of food preparation, whether in a restaurant, industrial food plant, or even a supermarket itself. Dairy demand has undoubtedly been changed by the growth in the food preparation business--although the direction of some of these changes is quite unclear.

There is some tendency for ingredients in high value-added uses to be less price-responsive at wholesale than the wholesale demand by retailers. However, commercial food preparers have substitution alternatives that are not available to home preparers. Given the uncertainties about even the direction of change, re-estimation of wholesale price responsiveness would seem to be quite important for understanding dairy markets.

Very large individual buyers for commercial food preparation have become common. These buyers typically are not content with generic bulk commodities from the spot markets but insist on special specifications or services. The growing importance of such buyers has had the side effect of diminishing the amount available for trading in the traditional price discovery markets. Some of the recent price volatility may be attributable to the probably irreversible trend toward thin spot markets.

The emergence of a large food preparation industry has lengthened the time between price changes and full response to those changes. Food processors incur substantial cost to reformulate products and change labels. They also tend to be cautious about introducing product changes that may affect flavor or consumer acceptance and to cushion the immediate effect of changes in ingredient costs on prices of their products.

Retail consumers also may be responding more slowly to price changes. For most consumers, purchase of basic foodstuffs now requires an extremely small share of their income. They probably are less aware of price changes and have no compelling reason to alter purchases quickly.

The record wholesale prices of the second half of 1998 did not produce any significant immediate response in product movement. Similarly, the very low butter prices of the early nineties took several years to generate full response, as did the fairly high nonfat dry milk prices of the mid-nineties. Whether or not the ultimate size of the adjustment to prices has changed, the adjustments definitely seem to develop more slowly, a significant contributor to increased price volatility.

The sluggishness of the production response to the much higher returns of 1996-98 was a bit surprising, particularly to those with memories of the dairy industry of the eighties. Part of the answer probably lies in the greater maturity of the Western dairy industry. The West cannot now

easily post the same rapid growth because of the current hindrances of more limited alfalfa supplies, budding environmental problems, and fewer promising areas for new dairy development.

In the rest of the country, dairy farms may be more distinctly separated into two types than has been the case for several decades. Traditionally organized farms have been under long-term income stress and have been exiting at rates reminiscent of the late sixties and early seventies. Most of the partially offsetting herd expansions have come from new “industrial” operations or operators making the leap from traditional farms to such larger operations using highly specialized labor. In contrast, dairy farm growth during the late seventies and eighties tended to be more widespread but in more modest increments and with fewer changes in basic organization.

Development of “new style” Northern dairy farms has not been as rapid as expected. In particular, the relatively high returns of the last few years have yet to accelerate producer expansion plans appreciably. The change from managing cows to managing people is both daunting and highly risky for many dairy farmers. Once plans are carefully thought out and set, they may become very conservative about any alteration.