THE OUTLOOK FOR DAIRY

James J. Miller
Economic Research Service, USDA

Early 2000 news of the dairy industry has been dominated by discussion of low farm milk prices. However, the really remarkable aspect is not the low prices--but how difficult it was to bring them to this level. During 1998-99, milk production rose more than 4 percent. Yet, milk prices were records in 1998 and well above the decade's average last year. Only the output jumps of late 1999 were large enough to drop prices sharply. The race between expanding milk production and exceptional demand growth is not yet over, although milk production is the heavy favorite for 2000.

Dairy Demand Surges

During each of the last two years, real growth in the economy exceeded 4 percent as the current expansion approached record length. Disposable personal income also rose 4 percent in inflation-adjusted terms. With money in their pockets, their assets buoyed by a strong stock market, and confidence high, consumers were in the mood to spend. Real personal consumption expenditures rose about 5 percent in 1998 and in 1999. Expenditures for food shared the increase, rising almost 3 percent in 1998 and accelerating to almost 4 percent in 1999.

Consumer willingness to treat themselves boosted demand for cheese, butter, and milkfat for processed foods. Despite high prices in 1998 and 1999, commercial use of American cheese jumped almost 8 percent last year, following a 3-percent rise in 1998. Sales of other varieties rose 5 percent, after 2-percent growth in 1998. Meanwhile, commercial use of butter jumped almost 5 percent to the highest level since 1960. Sharply increased spending for away-from-home eating undoubtedly was an important factor, as was willingness to pay for the convenience of other forms of commercial food preparation. In addition, consumers probably simply did not let prices have much effect on food choices, particularly when entertaining.

Demand for those dairy products more dependent on retail sales generally was not as strong as for butter and cheese. Fluid milk sales grew only fractionally, while use of cottage cheese and most frozen products slipped. Even for these products, consumer indulgence was somewhat in evidence. Whole milk and reduced fat fluid products rose, while skim milk sales declined. Similarly, regular ice cream decreased less than did lower fat frozen products.

Not all was rosy for dairy demand, however. Use of separated skim solids in processed foods fell significantly, even though these products were in ample supply at stable and relatively low prices. Commercial disappearance of nonfat dry milk fell almost 6 percent in 1999, following a 3 percent decline in 1998. In part, the decrease reflected the ample supplies of raw milk and the reduced need to use powder to produce other dairy products. However, final use of nonfat dry milk has obviously slipped, as has the apparent use of wet forms of skim solids as ingredients. This weakness held growth in the total 1999 sales of skim solids to only half the 3-percent increase in milkfat use.

Relatively strong growth in dairy demand is likely to continue in 2000. But, it may not match the boom of 1998-99. Economic activity and consumer incomes are expected to rise at a brisk rate, although possibly not quite matching last year. Some of the 1999 exuberance in food spending may be missing, particularly for dairy products. A part of the strength in 1998-99 demand probably was just making up for the somewhat sluggish 1996-97 reaction to economic expansion.

Weakness in use of skim solids in processed foods is a major uncertainty in the 2000 demand outlook, in part because information about these uses is relatively sparse. If such use recovers, or even just stabilizes, dairy demand would lose its only substantial weakness and the current period of low prices will be fairly short-lived. However, further erosion of this market could leave a surplus that would sap cheese prices and might require a long time to work off, even if economic growth continues.

Milk Production Also Surges

Milk production is in the middle of a substantial expansion precipitated by relatively high milk prices in 3 of the last 4 years, low concentrate feed prices, and ample supplies of alfalfa hay. Milk cow numbers are above a year earlier for the first time since 1986 and milk per cow is growing briskly. Milk production in 2000 will add another large increase to last year's rise of more than 3 percent.

Milk per cow rose more than 3 percent in 1999. Although the year-to-year growth was exaggerated by the relatively weak 1998 milk per cow, last year's was the first above-trend increase since 1994. A milk-feed price ratio averaging above 2.0 for the first time ever deserves much of the credit, reflected a huge incentive to provide cows with all the feed they can use. In addition, there were no serious weather problems directly lowering milk per cow in a significant way. Although supplies of prime alfalfa hay stayed tight, there was more available than during the preceding 2 years because of reduced export demand, and supplies of mediocre alfalfa were very large.

Large supplies of grains and oilseeds will keep concentrate feed prices relatively low in 2000, possibly the lowest in 13 years. The milk-feed price ratio is expected to stay modestly favorable to increased concentrate feeding and growth in milk per cow. Stocks of alfalfa hay probably are large, based on last year's heavy alfalfa production and the large total hay stocks. Milk per cow is projected to rise about 2 percent this year.

Lower returns will begin to weaken milk cow numbers--but how quickly and dramatically is very uncertain. Large numbers of producers have been hanging on but have not generated much family income, even during the last 2 years. Returns over concentrate costs are expected to fall about 10 to 20 percent in 2000 to levels similar to 1997. At these returns, exit of weaker producers likely will accelerate, possibly soon.

An extended period of low returns may be needed to slow farmer expansion. The unexpected 1998-99 returns gave the large, "new-style" dairy farms a sizable war chest for expansion. Tight western alfalfa supplies and a scarcity of replacement heifers, factors that limited expansion during 1998 and 1999, either have or are expected to ease. Relatively large numbers of new or greatly enlarged operations have or will be coming into production in a number of regions. These farms will not be deterred by the expected returns and will be moving toward full production this year and next.

Average milk cows numbers may decline this year, but any decrease probably will be very small. Increased farm exit is expected to begin overcoming the effects of expanding producers by about midyear and restore year-to-year declines in milk cow numbers. However, the strong expansion momentum might keep cow numbers higher throughout 2000.

International Markets Quiet

Recent international dairy markets have had a rather tenuous stability. Prices have moved little even though dry milk markets appeared to be tightening, butter markets softening, and exchange rates changing significantly. Milk output is again growing substantially in Oceania but new sales are not being sought very aggressively. The European Union (EU) is in the middle of the normal end-of-quota-year supply uncertainty, but export supplies seem fairly limited because of large sales committed earlier and fairly good domestic use. International butter demand stays modest. Russia has been importing, but not in the amounts of a few years ago. Dry milk demand has been more active as the Asian economies have recovered and as several Latin American countries have been active.

International market prices are not expected to change dramatically this year unless weather cuts Oceanic production early in the 2000/01 season. EU export supplies are projected to be fairly steady, while U. S. Dairy Export Incentive Program (DEIP) exports will be smaller. Meanwhile, international demand is not expected to improve substantially. Dry milk prices might tend a little stronger, while butter prices stagnate. Even without much rise in international prices, the weaker domestic prices imply that U. S. imports beyond TRQ levels probably will be smaller in 2000.

Contracts under the DEIP will be fairly modest until the new allocations become available at midyear. Less than 10,000 tons of nonfat dry milk remains unfilled from the regular allocation, and the reallocated amount for April-June is only 6,300 tons. Most of the milkfat allocation remains, but others have been fairly well used up. Importing countries have been fairly aggressive about locking up DEIP contracts for dry milks since last summer, in part reflecting the tightening international markets and in part the smaller DEIP limits under WTO. If international market conditions continue as expected, dry milk contracts may again go fairly quickly once available.

Surging milk production and weakness in some uses generated a sizable surplus of skim solids throughout 1999 and early 2000. With opportunities for new DEIP contracts quite limited, sales of nonfat dry milk to the government under the dairy price support program have been relatively heavy since mid-December, about 10 million pounds per week. If sales of skim solids for ingredient use stabilizes as expected, this year’s net removals may be slightly less than, or close to, 1999's 6.5 billion pounds, milk equivalent, skim solids basis. Last year’s skim solids surplus was the largest since the eighties.

Tight milkfat markets in 1999 meant that net removals were tiny on a milkfat basis, with exporters unable to get supplies for much of the allowable DEIP exports of butter. In 2000, DEIP butter exports might be slightly higher, and price support purchases of cheese cannot be ruled out. However, net removals of milkfat are expected to stay quite small as milkfat markets are likely to stay fairly tight.

Prices Down Sharply

Current wholesale prices of butter and cheese are well below the levels of much of 1999, and heavy milk production threatens to keep them there for several months. However, prices are more unsettled than would normally be expected in light of the growth in milk output and the seasonally quiet markets typical of winter. Very large quantities of most dairy products continue to be sold. As long as demand remains so strong, even a very modest slackening of the production expansion could trigger substantial price increases. The possibility of a market situation similar to last year's is on the minds of traders, even if potential price swings probably are smaller. Price increases may begin well before the seasonal peak in output, or they may not come until almost autumn depending on when production rises start to ease. In any case, seasonal price rises are projected to be smaller than in recent years.

Farm milk prices in 1999 fell about $1 per cwt to $14.38. The 2000 decline is projected to be closer to $2 per cwt, leaving prices similar to those of the early nineties. Even very strong demand cannot easily absorb a 5-percent increase in output over 2 years.

Our view of the longer-term forces pushing the dairy industry have not changed much in recent years: slow growth in production and demand, a tendency to very gradual declines in real prices, and a domestic market that is relatively isolated from international markets. However, the baseline projections must take into account the adjustment pattern generated by the generally strong prices of 1996-99. Prolonged price strength leads to sustained growth in milk production, that leads to a period of low prices, that leads to corrections in production and prices.

Sometime during the next few years, lower returns will slow expansion by the stronger producers enough that it can no longer cover both the exit of weaker producers and demand growth. The timing of this event is very difficult to predict, in part because the data available is quite inadequate. However, we expect that at least 2 years of relatively low prices will be needed to slow growth in milk production.

Demand obviously also plays a role, under the current circumstances possibly more so than ever. If the recent phenomenal demand were to continue, the period of low prices could be significantly shortened. On the other hand, a recession (or even a period without significant growth) could significantly extend the low-price period. Since the economic expansion has already reached record length, a slowdown of some sort is a natural concern.

There is also a question of delayed demand response to the high prices of recent years. We are used to thinking of long-run price response as being similar to the short-run response. But, changes in the nature of dairy product demand may have accentuated lags in the demand response to high dairy prices. More than one-half of the sales of milkfat are to away-from-home eating places or to food processors--not directly to consumers through retail stores. For skim solids, the share is only slightly less than one-half. Commercial buyers do not necessarily respond less to changes in wholesale dairy product prices, but they certainly resist quick changes. There is a real possibility that product reformulations and menu changes in response to the tight markets of recent years may still be in the future.

Food processors chasing consumer fads may be responsible for one key aspect of the current market situation. Use of skim solids, both dry and wet, in processed foods rose sharply during the first half of the nineties, before dropping again in recent years. Some of this increase was undoubtedly caused by the introduction of premium versions of staple products. However, the timing of the increases and the subsequent declines suggests that a major contributing factor was the fad for lowfat or nonfat foods. This is further supported by the prominence of baked goods and their ingredient products among the surge of new product introductions during this period. If the demise of lowfat foods has been a major source of the 1998-99 declines in skim solids demand, then this demand weakness may have about run its course, since last year's use probably was back to the levels of the early nineties.