

Overview

Government dairy donation purchases, along with the differing dynamics of retail vs. food-service sales, continue to be the main movers of domestic demand and prices for dairy products as the end of 2020 draws near. Cheese prices rose again in October, capping the second major cheese price run-up of the pandemic, as a second round of government purchases stoked demand. This ended at the beginning of November, when daily cash market prices of both blocks and barrels dropped sharply for more than a week as markets anticipated federal purchases winding down.

Bright spots for dairy in the year's first three quarters of data include increases in total sales of fluid milk, yogurt and butter, which have been buttressed by strong retail demand. Cheese, meanwhile, has seen mixed progress in commercial use year-to-date, with use that's been higher for American-type cheese but slightly lower for other types. Export growth has also been strong for dry skim milk, whey products and other than American-type cheese, which has offset the drop in its domestic use. The DMC margin dipped a toe below \$9.50 per cwt in September, due to strengthening corn and soybean meal prices that followed modest, but steady declines for the year to that point.

Commercial Use of Dairy Products

Fluid milk sales began this year below year-earlier levels in January and February, but a large spike in use during March, as the pandemic first hit, managed to boost total first quarter sales above last year. Fluid sales have been consistently up on a rolling 3-month basis since then, through August. Domestic commercial use of butter was almost three percent higher than a year ago for 2020 to date through September, with particularly strong growth in the double digits during March through June. Following

drops in July and August, September growth was again robust, bringing the third quarter in just about flat. Heavy reliance on food-service sales in the domestic market created stronger headwinds for cheese during the first three quarters of 2020. This was particularly the case for other than American types, much of which is mozzarella, and for which monthly growth in domestic commercial use was modestly positive only in January and June. U.S. consumption was more robust for American-type cheese, beginning in May, which helped keep domestic use of all

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Domestic Commercial Use	Jul–Sept 2020	Jul–Sept 2019	2019–2020 Change	Percent Change
		(million pounds)		
Total Fluid Milk Products	NA	11,265	NA	NA
Yogurt	1,140	1,066	74	6.9%
Butter	490	491	-2	-0.3%
American-type Cheese	1,321	1,275	46	3.6%
All Other Cheese	1,896	1,913	-17	-0.9%
Total Cheese	3,216	3,188	28	0.9%
Dry Skim Milk	221	265	-44	-16.6%
All Products (milk equiv., milkfat basis)	55,759	54,748	1,010	1.8%
All Products (milk equiv., skim solids basis)	45,462	45,494	-33	-0.1%
All Products (milk equiv., total solids basis)	48,571	48,274	297	0.6%

Commercial Use of Dairy Products *from page 2*

cheese just a bit above flat for the year to date through the third quarter. Domestic use of dry skim milk and whey products was sharply lower year to date through September, but this was either mostly, or entirely, offset by strong export growth. Domestic use of whole milk powder was up for the year to date by almost 25 percent, reflecting strong demand in commercial baking and confectionery use. Aggregate use, on a milk equivalent basis, was generally stronger during the third quarter.

U.S. Dairy Trade

The third quarter produced strong export growth, mostly well into double digits, for all major product categories except lactose and whole milk powder, for which robust domestic use competed heavily with export sales. Lactose exports began the year strong, but have been mostly lower since May.

Imports were lower, by low double digits, for most of the major import categories as well as in total, with the major exception being milk protein concentrate.

Milk Production

Annual growth in the national milking cow herd slowed a bit in September, when it rose by 33,000 cows from a year earlier. Herd growth in July and August was about 10,000 cows higher than this. However, a September spurt in production per cow pushed milk production up by 2.3 percent from a year earlier. Production growth in July and August was just under 2 percent above a year ago. Growth in milk solids production was significantly higher than liquid milk production growth during the third quarter, based on data from USDA's Economic Research Service.

U.S. Dairy Exports	Jul–Sept 2020	Jul–Sept 2019	2019–2020 Change	Percent Change
		(metric tons)		
Butter	5,162	4,311	851	20%
Anhydrous Milk Fat/Butteroil	1,362	932	437	47%
Cheddar Cheese	10,913	9,099	1,814	20%
American–type Cheese	10,979	9,194	1,785	19%
All Other Cheese	77,733	72,398	5,335	7%
Total Cheese	88,712	81,592	7,120	9%
Dry Skim Milk	205,597	165,908	39,689	24%
Whole Milk Powder	8,062	13,117	-5,055	-39%
Dry Whey	58,575	37,332	21,243	57%
Whey Protein Concentrate/Isolate	52,235	41,377	10,858	26%
Lactose	91,807	97,339	-5,531	-6%
Percent of U.S. Milk Solids Exported	16.4%	14.5%	1.9%	13%

U.S. Dairy Imports	Jul–Sept 2020	Jul–Sept 2019	2019–2020 Change	Percent Change
		(metric tons)		
Butter	11,807	13,129	-1,322	-10%
Cheese	43,476	50,853	-7,378	-15%
Dry Skim Milk	191	32	159	504%
MPC (all protein levels)	12,045	10,838	1,207	11%
Casein	13,848	15,403	-1,555	-10%
Percent of U.S. Milk Solids Imported	3.2%	3.7%	-0.5%	-13%

Dairy Products

Total U.S. cheese production was essentially unchanged during the third quarter, with gains in American types, particularly cheddar, offset by drops in other types, including mozzarella. Butter production was five percent higher than a year ago during the quarter; domestic use was flat, but strong export growth absorbed the excess and drew down stocks a bit as well. Total production of dry skim milk products grew along with butter.

Dairy Product Inventories

Commercial stocks of dry skim milk at the end of September were five percent lower in volume than a year earlier, but

24 percent lower year-over-year as measured by days of total commercial use in stock, due to a 20 percent increase in total use that month. Dry whey and cheeses saw smaller declines, while butter inventories increased by both measures. Still, the inventory situation was very different from that seen last spring, with September dry skim milk stockpiles only 60 percent of what they were at the end of April and butter stocks down significantly from May. Cheese inventories were also lower at the end of September than in May.

Milk and Dairy Products Production	Jul–Sept 2020	Jul–Sept 2019	2019–2020 Change	Percent Change
Milk Production				
Cows (1,000 head)	9,361	9,322	39	0.4%
Per Cow (pounds)	5,910	5,818	92	1.6%
Total Milk (million pounds)	55,328	54,237	1,091	2.0%
Total Milk Solids (million pounds)	7,024	6,848	176	2.6%
Dairy Products Production		(million pounds)		
Cheese				
American Types	1,334	1,302	32	2.5%
Cheddar	954	911	43	4.7%
Italian Types	1,360	1,401	-41	-2.9%
Mozzarella	1,083	1,114	-31	-2.8%
Total Cheese	3,285	3,282	3	0.1%
Butter	459	436	22	5.1%
Dry Milk Products				
Nonfat Dry Milk	432	423	9	2.1%
Skim Milk Powder	185	166	19	11.2%
Dry Whey	239	258	-20	-7.7%
Whey Protein Concentrate	118	120	-2	-1.3%

Dairy Product Inventories	Sept 2020	Aug 2020	Sept 2019	2019–2020 Change
		(million pounds)		
Butter	344	372	291	18%
American Cheese	773	790	775	0%
Other Cheese	588	588	599	-2%
Dry Skim Milk	242	280	254	-5%
Dry Whey	79	87	83	-4%

Dairy Product and Federal Order Class Prices

Changes in the monthly dairy product prices in the National Dairy Product Sales Report (NDPSR) from September to October were again relatively modest for butter, nonfat dry milk and, to some extent, for dry whey. NDPSR cheese prices were again the exception, rising strongly in October after falling sharply a month before, for their second major price run-up this year. Another round of USDA food-box purchases were a key driver of the October rise. Remaining often out of sync, it has for the past several months, the Class I price

dropped by more than \$3 per cwt in October while Class III rose by over \$5 per cwt, portending another month of large negative producer price differentials that month.

Retail prices for whole and low-fat fluid milk were lower in October than a month earlier, by larger amounts than typical in recent months. Natural cheddar cheese prices were slightly lower at retail while butter rose slightly.

Milk and Feed Prices

The downswing in cheese prices that started in July continued in September, taking milk prices down with it. The September

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Dairy Product and Federal Order Prices	Oct 2020	Sept 2020	Oct 2019	2019–2020 Change
NDPSR Dairy Product Prices				
		(per pound)		
Butter	\$1.525	\$1.487	\$2.156	-\$0.631
Cheddar Cheese	\$2.292	\$1.774	\$1.969	\$0.323
40-Pound Blocks	\$2.569	\$1.950	\$2.057	\$0.512
500-Pound Barrels	\$1.964	\$1.574	\$1.838	\$0.126
Nonfat Dry Milk	\$1.067	\$1.001	\$1.096	-\$0.029
Dry Whey	\$0.348	\$0.320	\$0.340	\$0.008
Federal Order Class Prices for Milk				
		(per hundredweight)		
Class I Mover	\$15.20	\$18.44	\$17.84	-\$2.64
Class III	\$21.61	\$16.43	\$18.72	\$2.89
Class IV	\$13.47	\$12.75	\$16.39	-\$2.92
Retail Dairy Product Prices				
Fluid Whole Milk (per gallon)	\$3.380	\$3.448	\$3.119	\$0.261
Lowfat Fluid Milk (per gallon)	\$2.928	\$3.017	\$2.818	\$0.110
Cheddar Cheese (per pound)	\$5.583	\$5.611	\$5.277	\$0.306
Butter (per pound)	\$3.586	\$3.570	\$3.979	-\$0.393

Milk and Feed Prices	Sept 2020	Aug 2020	Sept 2019	2019–2020 Change
Producer Prices				
All Milk (per cwt.)	\$17.90	\$18.80	\$19.30	-\$1.40
Feed Prices				
Corn (per bushel)	\$3.41	\$3.12	\$3.80	-\$0.39
Soybean Meal (per ton)	\$321	\$290	\$296	\$25
Alfalfa Hay (per ton)	\$182	\$182	\$193	-\$11
DMC Feed Cost (per cwt.)	\$8.50	\$7.97	\$8.89	-\$0.38
DMC Margin (per cwt.)	\$9.40	\$10.83	\$10.41	-\$1.02

Milk and Feed Prices *from page 4*

U.S. average all-milk price was \$0.90 per cwt lower than the August price and \$2.60 per cwt below July's. Rising corn and soybean meal prices combined with the lower milk price to drop the September margin under the Dairy Margin Coverage (DMC) program just under the \$9.50 per cwt maximum level of coverage under the program, the fourth time this year when the margin came in below this level.

Looking Ahead

As of mid-November, dairy futures indicated that butter and nonfat dry milk prices would gradually rise through

next year, while dry whey prices would remain fairly stable. Cheese prices, on the other hand, were expected to drop, from almost \$2.50 per pound in November, to around \$1.75 per pound by the end of the winter months, which would bring milk prices down by about \$3 per cwt over that period.

This outlook effectively assumes that significant USDA purchases, particularly the food-box purchases that have been concentrated over relatively short periods this year, will end; it also takes account of growing milk production. With feed costs projected to rise over this period, the DMC margin is expected to drop below \$9.50 per cwt early in 2021 and generate payments averaging around \$1 per cwt through at least the first half of 2021.

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