



## WEEKLY DAIRY OUTLOOK

June 10<sup>th</sup>, 2024

This short weekly newsletter provides you with a summary of current dairy prices, translates product prices into component prices, and summarizes major dairy related news.

Table 1. Spot dairy products prices on Friday May 31<sup>st</sup> and Friday June 7<sup>th</sup>, and their implied component prices

	May 31, 2024	June 7, 2024	Change	Month to date
CME cheddar cheese				
- blocks (\$/lb)	1.8100	1.8450	+0.0350	1.8450
- barrels (\$/lb)	1.9400	1.9550	+0.0150	1.9550
CME butter (\$/lb)	3.0900	3.0925	+0.0025	3.0925
CME Dry whey (\$/lb)	0.4450	0.4700	+0.0250	0.4700
CME Nonfat dry milk (\$/lb)	1.1675	1.1950	+0.0275	1.1950
		<b>Implied Prices</b>		
Butterfat (\$/lb)	3.53	3.54	+0.01	3.54
Protein (\$/lb)	1.72	1.80	+0.08	1.80
Other solids (\$/lb)	0.22	0.28	+0.06	0.28
Class III (\$/cwt)	18.79	19.36	+0.57	19.36
Class IV (\$/cwt)	20.97	21.21	+0.24	21.21

### Comments

- All dairy commodity prices were up on the CME cash markets last week. Thus, the implied component prices as well as Class III and Class IV prices also went up. The futures markets for cheese did not match the rise of cheese prices on the cash markets. The cash and futures markets are settled differently. Buyers of cheese on the cash markets are actually buying cheese. Physical cheese does change hands. Futures markets, on the other hands, are cash settled. One can trade futures contracts without ever having to handle a pound of cheese.

Table 2. Six-month strip of dairy futures at closing time last Thursday, and changes in their 6-month averages from the prior Friday closings<sup>1</sup>.

	Cheese (\$/lb)	Butter (\$/cwt)	Dry Whey (\$/cwt)	NDM (\$/cwt)	Class III (\$/cwt)	Class IV (\$/cwt)
June	1.957	310.000	42.900	118.000	19.52	21.15
July	1.982	318.000	47.050	121.000	20.02	21.69
August	2.010	319.475	47.125	123.700	20.34	21.76
September	1.990	317.000	48.025	125.050	20.30	22.00
October	1.963	316.975	48.775	126.325	19.97	22.14
November	1.929	309.500	49.025	128.050	19.62	21.97
Average	1.972	315.158	47.150	123.688	19.96	21.79
Weekly Change	-0.013	+3.190	+1.260	+1.555	-0.11	+0.39

<sup>1</sup> Futures prices on the Chicago Mercantile Exchange

Based on the next 6-month futures, the implied 6-month prices of milk components used in Class III and nonfat solids used in Class I, II, and IV pricings are reported in Table 3.

Table 3. Translation of futures dairy product prices into futures component prices.

	Butterfat (\$/lb)	Protein (\$/lb)	Other Solids (\$/lb)	Nonfat Solids (\$/lb)
June	3.55	1.93	0.24	1.00
July	3.64	1.90	0.28	1.03
August	3.66	1.98	0.28	1.06
September	3.63	1.94	0.29	1.07
October	3.63	1.86	0.30	1.08
November	3.54	1.84	0.30	1.10
Average	3.61	1.91	0.28	1.06
Weekly Change	+0.04	-0.08	+0.01	+0.02

- Table 4 reports price quotations for butter, skim milk powder/nonfat dry milk (SMP/NDM), whole milk powder (WMP), and cheddar from the top three exporting blocks of countries (the European Union taken as a whole) in late-May and their relative biweekly price changes.

Table 4. World price quotations of 4 major dairy commodities as of May 26<sup>th</sup>, 2024.

	US\$/lb			Biweekly Change (%)		
	E.U.	Oceania	U.S.	E.U.	Oceania	U.S.
Butter	2.94	3.10	3.11	+4.0	-0.5	+3.0
SMP/NDM	1.20	1.20	1.17	+3.4	+3.9	+3.8
WMP	1.81	1.54	2.23	+2.9	+0.7	+1.8
Cheddar	1.92	1.96	1.87	+0.4	+0.6	-2.5

- Overseas, the Global Dairy Trade index went **up 1.7%** at the GDT auction held June 6<sup>th</sup>. The index has now gone up for 6 auctions in a row. Average prices and changes from the prior session for the major dairy commodities were as follows:
  - Anhydrous milkfat: US\$ 3.36/lb +0.9%
  - Butter: US\$ 3.11/lb +1.7%
  - Cheddar: US\$ 1.93/lb +0.2%
  - Lactose US\$ 0.36/lb - 1.9%
  - Mozzarella: n.a.
  - Skim milk powder: US\$ 1.23/lb +3.0%
  - Whole milk powder: US\$ 1.58/lb +1.7%
- Last Wednesday, the USDA released average national dairy product prices, component prices and minimum Class prices in effect in the Federal Milk Marketing Orders (FMMOs) for the month of **May**. The ~11 ¢/lb rise in butter price compared to the prior month translated in an increase of 13 ¢/lb in butterfat price. Butterfat price is now about 70 ¢/lb above its ‘normal’ (i.e., long-term expected) price. Protein price saw an

increase of 90¢/lb from April. At 1.73 ¢/lb, the protein price is covering the cost of the nutrients required to produce a pound of cheese (~ \$0.90/lb). Protein price remains about \$1.00 below its long-term 'normal' price (\$2.53 to \$2.93/lb). Class III price jumped over \$3.00/cwt. At \$18.55/cwt, it finally sits in its long-term 'normal' price range (\$18.55 to \$20.20/cwt). Class IV price remains about \$1.70/cwt above its long-term 'normal' (\$18.00 to \$19.60) due to the strong butterfat price in combination with normal nonfat solids price, the latter being directly calculated from the price of skim milk powder.

Table 4. Minimum Class and component prices in the Federal Milk Marketing Orders during the month of May 2024, and changes from April 2024 and May 2023.

	May 2024	April 2024	Change (May vs. Apr)	May 2023	Change (M '24 vs. M '23)
Cheese (\$/lb)	1.871	1.548	+0.323	1.660	+0.211
Blocks (\$/lb)	1.806	1.517	+0.289	1.728	+0.079
Barrels (\$/lb)	1.895	1.545	+0.351	1.572	+0.324
Butter (\$/lb)	3.032	2.922	+0.110	2.448	+0.583
Nonfat Dry Milk (\$/lb)	1.142	1.151	-0.008	1.151	-0.008
Dry Whey (\$/lb)	0.411	0.429	-0.018	0.381	+0.030
<b>Butterfat (\$/lb)</b>	<b>3.46</b>	<b>3.33</b>	<b>+0.13</b>	<b>2.76</b>	<b>+0.71</b>
<b>Protein (\$/lb)</b>	<b>1.73</b>	<b>0.83</b>	<b>+0.90</b>	<b>1.80</b>	<b>-0.07</b>
<b>Other Solids (\$/lb)</b>	<b>0.22</b>	<b>0.24</b>	<b>-0.02</b>	<b>0.19</b>	<b>+0.03</b>
<b>Class III (\$/cwt)</b>	<b>18.55</b>	<b>15.50</b>	<b>+3.05</b>	<b>16.11</b>	<b>+2.44</b>
<b>Class IV (\$/cwt)</b>	<b>20.50</b>	<b>20.11</b>	<b>+0.39</b>	<b>18.10</b>	<b>+2.40</b>

- Last week, the USDA released its *Dairy Products* report for the month of April. Unlike the USDA report, in this newsletter all production data are expressed on a daily basis to properly compare months with different number of days.

Total cheese output stood at 39.553 million lbs/day in April, up 1.8% from April 2023, and up 0.2% from March 2024. To the uninformed, this would point to a bearish market. It is important, however, to understand where this additional cheese production is coming from. Daily production of American-style cheese was down 4.7% compared to April of last year, and down 1.2% compared to March of this year. Even more importantly, daily production of cheddar cheese – the one and only cheese whose price is used for component pricing in the FMMOs – was way down compared to April of last year, and down 2.3% from March of this year. The increased cheese production came from the huge increase in Italian-style cheese production which is dominated by Mozzarella production. Mozzarella is almost totally made to order and is sold fresh either domestically or overseas. In short, if these production data are correct, one should expect cheddar cheese prices to go up this summer, that is unless cheddar cheese demand has fallen precipitously.

On the powder side, daily production was down for both NDM and SMP compared to April of last year – down 14.2% combined. There was a marked increase in daily SMP

production in April compared to March 2024. SMP is almost totally produced for export markets, thus reflecting increased production of powder destined for exports.

Overall, daily butter production was noticeably up when compared to either April 2023 or March 2024. Butter production is up, stocks of butter are up, yet butter price is going up... At some point reality may hit the butter markets...

The *Dairy Products* report may appear inconsistent with the reduced national supply of milk. This is likely because the USDA *Milk Production Report* tracks milk production on a raw volume basis: it does not track the production of milk components. Butter doesn't really come from milk, but from the butterfat in the milk arriving at a butter plant. Likewise, cheese is really not made from milk, but from the butterfat and the true protein (casein to be more correct) in the milk arriving at a cheese plant (also often supplemented by milk solids bought on the powder markets). It is not long ago that the U.S. milk averaged about 3.6% butterfat. Nowadays, there is something wrong if a herd is producing milk below 4.0% butterfat, even for herds milking Holstein cows. Likewise, milk protein content has gone up by at least 10% in the last decade. Butterfat and protein content of milk are highly heritable traits (heritability ~ 0.5). Modern nutrition can also significantly affect both traits. In this instance, the laws of economics have worked. Once producers were paid to produce valuable milk components and not so much milk volume, they changed the genetics used for breeding their animals and challenged their nutritionists to focus on fat and protein yields.

The balance of the USDA report is summarized in Table 5.

Table 5. USDA Dairy Products Report, April 2024 (amounts are in million pounds *per day*).

	April 2024 (million lbs/d)	% Change from April 2023	% Change from March 2024
<i>Cheese</i>			
Total Cheese	39.553	+1.8	+0.2
American-style	15.603	-4.7	-1.2
Cheddar	10.744	-8.6	-2.3
Italian-style	16.796	+6.2	+0.4
Mozzarella	13.372	+6.1	+1.1
<i>Butter</i>	6.928	+5.3	+2.0
<i>Dry Milk Products</i>			
Nonfat Dry Milk	5.779	-12.7	-2.6
Skim Milk Powder	1.208	-20.8	+32.3
Combined	6.988	-14.2	+2.0
<i>Whey Products</i>			
Dry whey – total	2.708	+2.1	+5.0
Lactose – total	3.048	-1.5	-4.7
Whey Protein Concentrate	1.308	-6.1	-8.2