

Dairy Outlook

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Market Psychology

The Class III price in June was 46 cents higher than in May, while the Class IV price was up 68 cents. The market is responding to a variety of events, including the extreme heat in the southwest and some of the chaos created by the British vote to exit the European Union (Brexit). The butter price increased 34 cents to \$2.35. This increase was seen for dairy product prices overall. Cheese prices have risen 11% since last month to \$1.61 for the nearby contract. Non-fat dry milk is up 8% and dry whey is up 2%. Cheese prices are apparently reflecting strong domestic demand, although the export market is being restricted by the strong dollar. The butter price is up 11% since last month. Butter stocks are 23% above last year, and with the strong dollar and accumulating inventories in Europe, we may see imports in the autumn. California's milk production is well below a year ago, because of the extreme heat in the West and the residual effect of the continuing drought. U.S. milk production in May was up by 1.2% over last May, despite lower production in the California and New Mexico. The British withdrawal from the European Union should not have a huge U.S. dairy impact. Britain is not self-sufficient in milk production, and is Ireland's largest dairy customer. If Britain leaves the EU it may return to importing dairy products from its former colonies Australia and New Zealand since the EU tariffs will disappear. The Euro has fallen by 2.5% relative to our dollar and the New Zealand dollar and Australian dollars are up by 1.1% and 2.6% respectively since a month ago. Cheese futures prices are slightly higher for the remaining contracts in 2016, but not by very much. Butter futures show a typical fall pattern, with slight rises until November, when the post-holiday sales slump is seen. Nonfat dry milk futures are also steadily higher for the second half of the year, with the December contract 23% higher than July's. The Euro is down about 4% against the dollar since the Brexit vote, as the uncertainty about the implications of Britain exiting the European Union remains unclear.

Table 1 shows the past year's class prices, plus the futures prices for the remainder of 2016. Both Class III and Class IV prices are expected to rise considerably over the remainder of 2016, with Class IV being the higher of the two prices. My estimates for the Pennsylvania All Milk Price for the rest of 2016 show it averaging \$2.00 per cwt. more than for January-June, but still averaging \$0.88 below the 2015 average. As usual, the issues hanging over the dairy economy are the strong dollar, the Russian embargo on EU dairy imports, and China's economic doldrums. Mexico, Canada, and Latin America generally are strong U.S. customers, but sales to other customers in other hemispheres are struggling. Overall the outlook for milk prices for the rest of 2016 is better than the first half.

Corn and Soybean Markets

Corn and soybean meal markets are down 17% and 7% in the past month, although soybean prices are down only 2%. Weather in Argentina and Brazil is hurting their soybean crops. The U.S. corn crop will be large and domestic and export demand will not eliminate the drag of large inventories carried into the 2017 crop year.

Income over Feed Costs (IOFC)

Penn State's measure of income over feed costs rose by 18.5% in June from its May value, as higher milk prices combined with lower feed prices. Figure 1 shows how these values compare to recent years. June's income over feed cost is almost equal to last year's value. The June value for IOFC of \$6.74/cow/day is the best value since December 2015. Income over feed cost reflects daily gross milk income less feed costs for an average cow producing 65 pounds of milk per day. Table 2 shows the monthly data for the past 18 months.

The allocation of the revenue per hundred pounds of milk (milk margin) is shown in Table 3. The milk margin is the estimated amount of the Pennsylvania all milk price that remains after the feed costs per hundredweight of milk production are paid. Like income over feed cost, this measure shows that the June PA milk margin was 18.5% higher than in May.

Since feed prices are expected to remain reasonable, the higher milk prices shown in the futures markets for the second half of 2016 should increase IOFC.

Milk Production

The latest U.S. milk production report showed May milk production up 1.2% from a year earlier on a 30 day month basis (Figure 2). This milk production increase is problematic in the current dairy environment since the export market is tight, given the strong dollar. Cow numbers increased by 0.03% over last year. Although this increase is very small, more milk production nationally will restrict higher milk prices.

Table 1. Milk Prices and Milk Futures Prices for 2015 and 2016
(Based on futures prices of July 5, 2016)

2015	Class III \$/cwt	Class IV \$/cwt	PA All Milk \$/cwt	2016	Class III \$/cwt	Class IV \$/cwt	PA All Milk \$/cwt
Jan	\$16.18	\$13.23	\$19.20	Jan	\$13.72	\$13.31	\$17.40
Feb	\$15.46	\$13.82	\$18.30	Feb	\$13.80	\$13.49	\$17.10
Mar	\$15.56	\$13.80	\$17.70	Mar	\$13.74	\$12.74	\$16.30
Apr	\$15.81	\$13.51	\$17.60	Apr	\$13.63	\$12.68	\$16.20
May	\$16.19	\$13.91	\$17.80	May	\$12.76	\$13.09	\$15.90
Jun	\$16.33	\$13.15	\$18.10	Jun	\$13.22	\$13.77	\$16.77
Jul	\$16.33	\$13.15	\$17.60	Jul	\$14.97	\$15.26	\$18.17
Aug	\$16.27	\$12.90	\$17.60	Aug	\$15.70	\$16.00	\$18.02
Sep	\$15.82	\$15.08	\$18.90	Sep	\$15.88	\$16.35	\$18.73
Oct	\$15.46	\$16.43	\$19.40	Oct	\$16.00	\$16.45	\$19.12
Nov	\$15.30	\$16.89	\$20.30	Nov	\$15.92	\$16.62	\$19.24
Dec	\$14.44	\$15.52	\$19.20	Dec	\$15.78	\$16.51	\$18.18
Annual	\$15.76	\$14.28	\$18.48	Annual	\$14.59	\$14.69	\$17.59
Annual change	-\$ 6.58	-\$ 7.80	-\$ 7.17	Annual change	-\$ 1.17	\$ 0.41	-\$ 0.88
% change	-29.4%	-35.3%	-27.9%	% change	-7.4%	2.8%	-4.8%

Table 2: PA Income over Feed Costs

Month	All Milk Price	Feed Cost per 65 lbs. Milk	Income over feed cost
Jan-15	\$19.20	\$5.24	\$7.24
Feb-15	\$18.30	\$5.12	\$6.78
Mar-15	\$17.70	\$5.17	\$6.34
Apr-15	\$17.60	\$5.15	\$6.29
May-15	\$17.80	\$4.90	\$6.67
Jun-15	18.100	\$5.10	\$6.67
Jul-15	\$17.60	\$5.14	\$6.30
Aug-15	\$17.60	\$4.67	\$6.77
Sep-15	\$18.90	\$4.77	\$7.52
Oct-15	\$19.40	\$5.09	\$7.52
Nov-15	\$20.30	\$5.11	\$8.09
Dec-15	\$19.20	\$4.85	\$7.63
Jan-16	\$17.40	\$4.53	\$6.68
Feb-16	\$17.10	\$4.57	\$6.55
Mar-16	\$16.30	\$4.55	\$6.05
Apr-16	\$16.20	\$4.39	\$6.14
May-16	\$15.90	\$4.65	\$5.69
Jun-16	\$16.77	\$4.16	\$6.74

Table 3: PA Milk Margin

	All milk price per cwt.	Feed cost per cwt.	Milk margin per cwt.
Jan-15	\$19.20	\$8.20	\$11.00
Feb-15	\$18.30	\$7.88	\$10.42
Mar-15	\$17.70	\$8.23	\$9.47
Apr-15	\$17.60	\$7.93	\$9.67
May-15	\$17.80	\$7.53	\$10.27
Jun-15	\$18.10	\$7.84	\$10.26
Jul-15	\$17.60	\$7.90	\$9.70
Aug-15	\$17.60	\$7.18	\$10.42
Sep-15	\$18.90	\$7.34	\$11.56
Oct-15	\$19.40	\$7.84	\$11.56
Nov-15	\$20.30	\$7.86	\$12.44
Dec-15	\$19.20	\$7.46	\$11.74
Jan-16	\$17.40	\$7.12	\$10.28
Feb-16	\$17.10	\$7.03	\$10.07

Mar-16	\$16.30	\$7.00	\$9.30
Apr-16	\$16.20	\$6.76	\$9.44
May-16	\$15.90	\$7.15	\$8.75
Jun-16	\$16.77	\$6.40	\$10.37

Figure 1: PA Dairy Income over feed cost

PA Dairy Income over Feed Cost

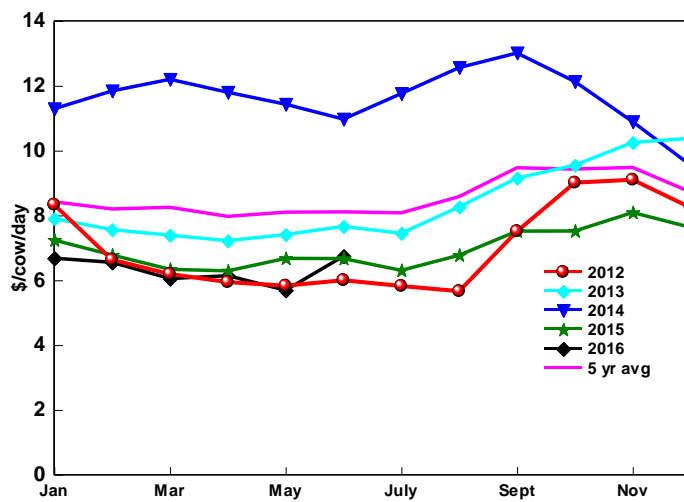


Figure 2: Milk Production

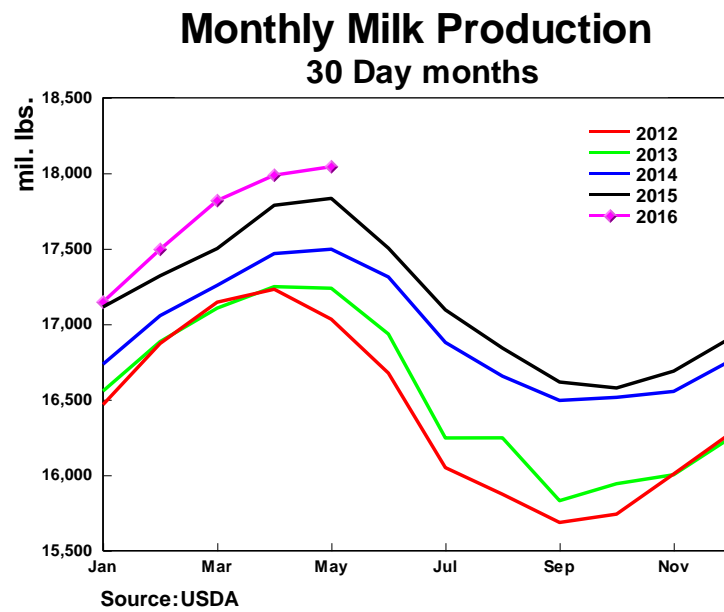


Figure 3: Dairy Cows

