



Dairy Outlook

February 2009

By Ken Bailey

Professor, Penn State University

Market Psychology

The market is clearly looking for traction and direction. In the short term there is a surplus of product that is overweighing the market. However, the market is also looking into the second half of the year and is trying to assess what prices should be so as to not eliminate supply down the road. Butter and nonfat dry milk are clearly in surplus and are at relatively depressed prices. Butter is trading on the CME at around \$1.105-\$1.125 per pound, just above support prices of \$1.05, and Western nonfat dry milk is trading at just around the support price of \$0.80 per pound. Surplus product is entering the Dairy Price Support Program (also known as the CCC). Since October 1, 2008 about 4.6 million pounds of butter and 174.7 million pounds of nonfat dry milk have entered the program. Both commodities have been heavily dependent on the export market which has since contracted. In the case of butter, imports have also increased as well.

Cheese and whey prices are also a bit depressed, although more buoyant than butter and nonfat. Cheese prices are trading at around \$1.25-\$1.33 per pound on the CME, just below the long term average of \$1.35 per pound. Generally speaking sales have been fairly good for American cheese but bad for mozzarella cheese (see Table 1). Still, production and inventories are well ahead of demand, causing prices to tumble from 2008 levels. In the case of dry whey, prices seem to be improving due to strong sales and reduced production and inventory. Still, whey prices are only recovering a bit from the highs of 2007 and 2008.

As we look ahead all eyes are on the future milk supply and export markets. There has been some speculation that the market is going to cull 100,000 – 200,000 head of cattle, or that we were going to have a Congressionally-sponsored herd buyout program. That has not proven to be true. Still, we did see a fairly abrupt reduction in cow numbers in January, reversing a positive trend. If this continues, and it is likely, we will see very modest milk production growth in 2009 (less than one percent). In terms of exports, we are heavily dependent on trade to balance our growth in the milk supply. In 2008 the U.S. exported 933.7 million pounds of nonfat dry milk (423,540 mt) and consumed domestically 801.2 million pounds (363,419 mt).

My forecast is that we will see market prices bottom out in February-March and for the milk supply to contract through April-May. As the milk supply growth slows, cheese prices will begin to rebound. Whey prices will also rebound slightly due to reduced production/inventory. Butter prices could rebound by



early summer if we seasonally produce less cream than we normally do. As for nonfat, we don't see a rebound on the horizon due to massive over production and inventories here and around the world.

Futures Prices

Class III futures have declined steadily since mid-June 2008 and took a very big drop during January 2009 (Figure 1). More specifically, the August 2009 futures contract has fallen from a peak of \$21 per cwt in mid-June to \$13.20 by February 24. That is a loss of \$7.80 per cwt. As of February 24, 2009, Class III futures contracts were \$9.28 per cwt for February and rose to \$11.37 by June. Thereafter prices peaked at around \$14.40 in November and December 2009.

Class III futures prices are weak during the months of February through June and then appear to be rising seasonally, although not above \$14.40 per cwt. There is the possibility that the difference in futures prices between these spring and falls months will widen as we approach the summer months. In other words, we expect the spring prices to remain the same, but prices after May could rise as the milk supply tightens. Thus it is advisable to closely monitor the monthly milk production reports and evaluate how quickly the milk supply changes.

Corn prices have also decline (Figure 2). The most recent futures data for the September 2009 contract show that market prices rose from a December 2008 low of below \$3.60 per bushel to \$4.40 by early January, and have since declined back to \$4.00. There is still a great deal of uncertainty as to the future direction of corn prices. The most recent USDA report (WASDE) narrowed the range of corn prices for the current season to \$3.65-\$4.15 per bushel due to a world reduction in corn production for 2008/09 of 4.6 million tons. Most of that reduction is due to heat and dryness in Argentina and Brazil.

Milk and Corn

The combination of lower milk prices and a slight rise in corn prices has led to a rapid erosion in milk producer margins. We have computed an index called Income Over Feed Costs (IOFC) which reflects gross income less feed costs for an average cow producing 65 pounds of milk. That index rose to over \$10 per cwt in the second half of 2007 and then declined steadily in 2008 (Figure 3). The measure of IOFC fell below the 5-year average starting in August 2008. As we entered the new year, the measure fell to near record levels of \$4.36 per cow per day. It is this dramatic decline in gross earnings that is expected to result in greater culling rates and thus lower cow numbers in the spring months.

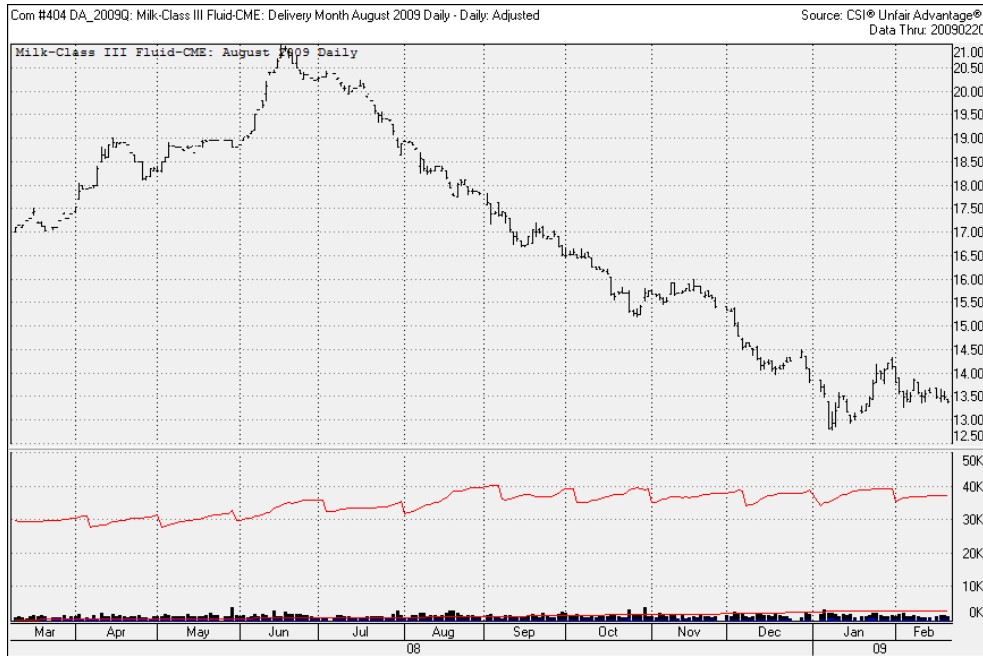


Figure 1. August 2009 Class III Milk Price (CSI)

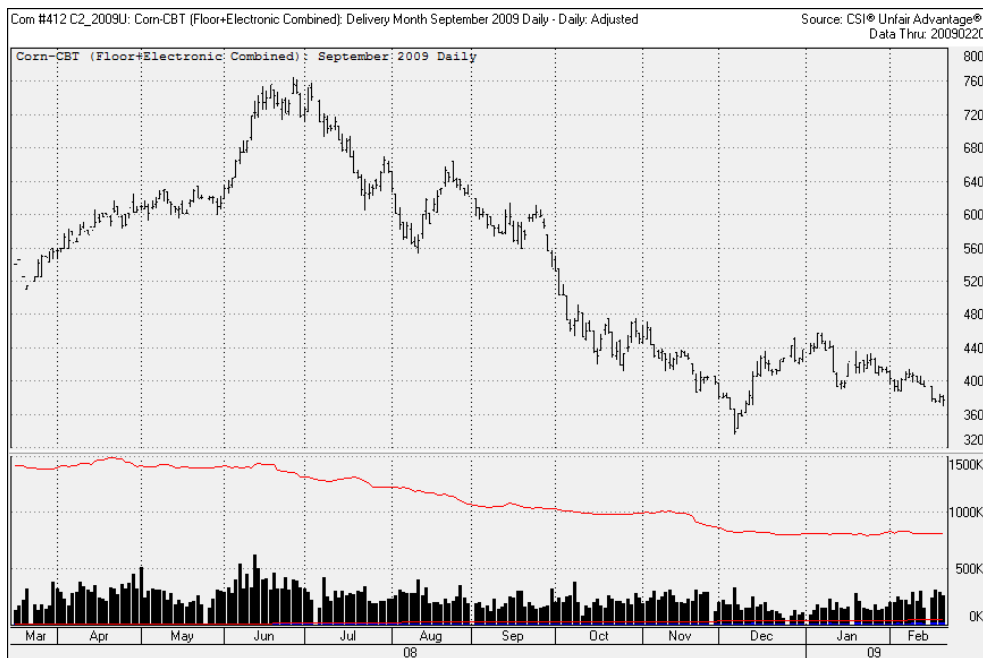


Figure 2. September 2009 Corn Contract (CSI)

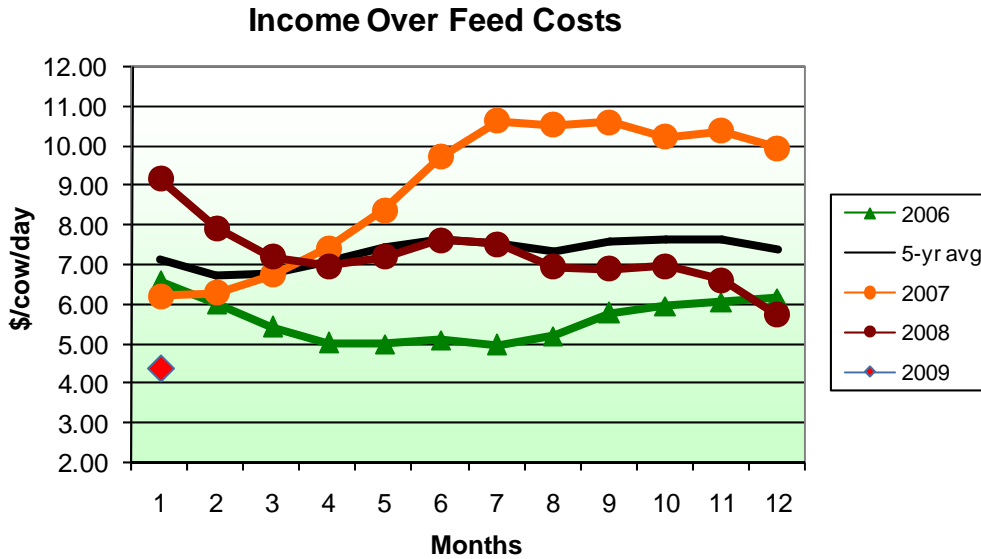


Figure 3. PSU's Income Over Feed Costs (IOFC)

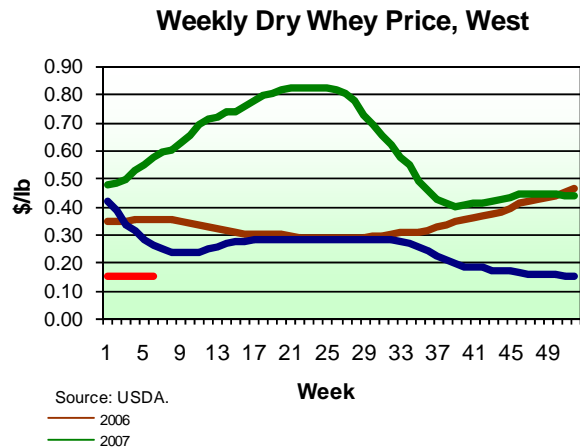
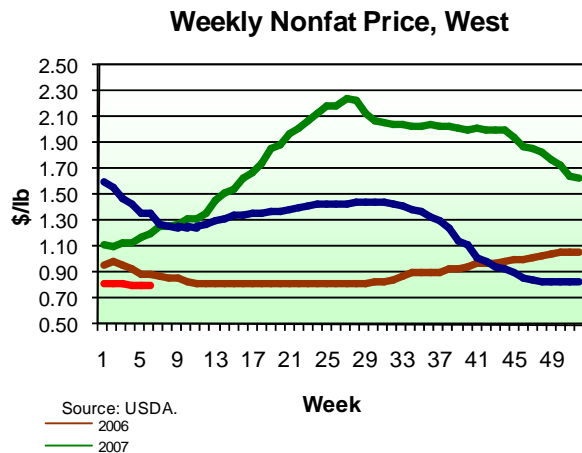
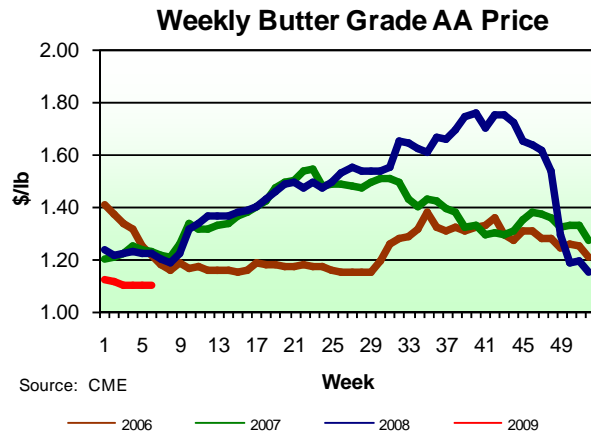
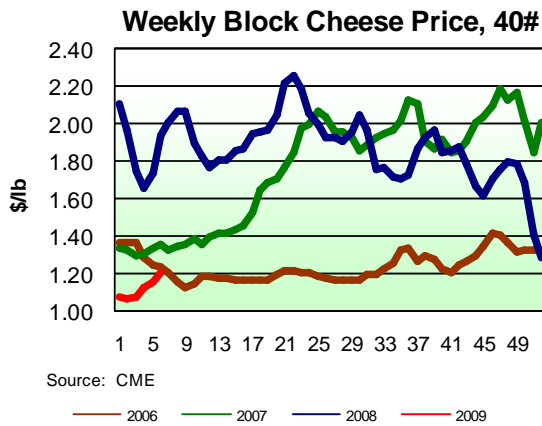
Commodity Prices

Dairy commodity prices during the first weeks of the year were depressed. Only cheese prices now show any strength. Cash block cheese prices at the CME rose from \$1.064 in mid-January to \$1.2065 by mid-February. Futures prices for Class III imply that cheese prices will strengthen as we enter the summer months. The implied cheese price from futures data (Table 2) suggests cheese price could reach just over \$1.60 per pound by late fall.

Butter cash prices at the CME have been just over \$1.10 per pound since the third week in January. Butter prices are already rising. Cash settled butter futures prices indicates that the market expects these prices to rise to \$1.21 per pound by May and then \$1.36 per pound by November. These are still relatively low prices and the market could experience some volatility in butter prices, particularly as we enter the summer.

Current prices for nonfat dry milk are at support levels, but the nonfat futures prices suggest nonfat prices are going to rise steadily to \$0.95 per pound by December 2009. At the same time, the WASDE is forecasting CCC purchases of 575 million pounds this year. Thus it is clear that the futures data is overly bullish.

As for dry whey, production is declining due to negative margins and inventories are falling, thus we agree with futures data that suggests that dry whey prices could rise to \$0.26 per pound by November 2009.



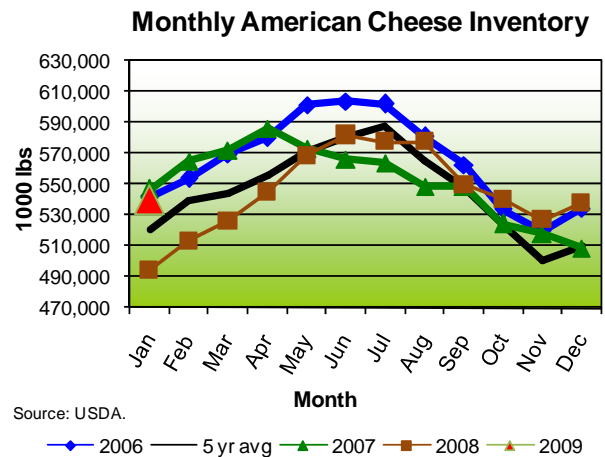
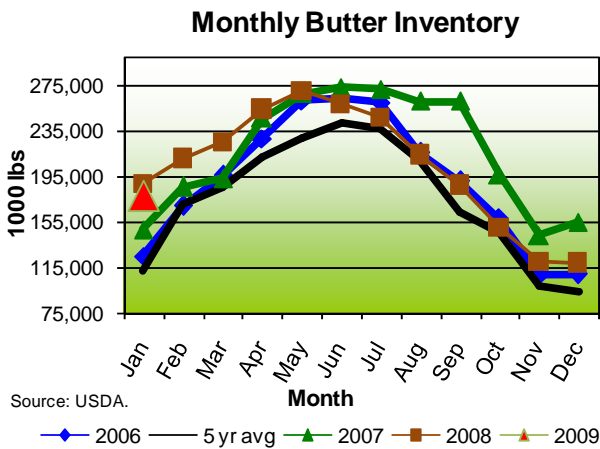
Milk Production

Estimated U.S. milk production grew just 0.8 percent in the month of January 2009. This is less than the normal rate of growth of 1.3 percent. USDA revised 2008 U.S. cow numbers and milk production higher from last month (cow numbers rose from 9.271 mil to 9.315 mil, and milk production rose from 189.7 billion to 190 billion). This positive adjustment in the milk supply for 2008 was a surprise. Cow numbers fell 14,000 head in January 2009 from the month before. Some of this decline can be attributed to the CWT program (they culled 51,000 head in December 2008 through February 2009). But much of this decline was likely due to heavy culling and herd liquidations in response to a poor economic environment for dairy producers during the fourth quarter of 2008.

Cold Storage Report

Butter inventories fell in January 2009 relative to a year ago to 177.8 million lbs. While 5.5 percent below a year ago, January's butter inventories are still well above the five year average of 112 million lbs for the month. Thus butter inventories are more than adequate for January.

The cheese inventory data is also showing growth. Both American and "other cheese," the latter being mostly fresh mozzarella cheese, are well ahead of a year ago. This suggests that implied domestic use is lower for the month of January.



Commercial Disappearance

The data below indicates that domestic use of butter, other cheese (mozzarella), and nonfat dry milk for the last quarter of 2008 was well below year ago levels. However, consumption of American cheese and dry whey products showed growth. Much of the growth in American cheese could have been due to greater demand for fast food and private label products in the grocery store in response to the U.S. recession. Overall the domestic demand picture appears weak.

Table 1. Domestic Commercial Disappearance of Select Dairy Products, Mil Lbs

	Jan-Dec 2007	Percent Change	Jan-Dec 2008	Percent Change	Oct-Dec 2007	Oct-Dec 2008	Percent Change
Butter	1,654.2	0.2%	1,627.5	-1.9%	523.9	504.7	-3.7%
American cheese	3,891.7	-1.1%	3,974.9	1.9%	1,010.1	1,052.7	4.2%
Other cheese	6,044.3	3.7%	5,899.5	-2.7%	1,589.2	1,513.8	-4.7%
Skim/nonfat dry milk	820.8	-4.2%	801.2	-2.7%	170.4	130.7	-23.3%
Dry whey	429.2	-24.1%	483.9	12.4%	394.0	439.7	11.6%
Fluid milk products	55,086	-0.1%	55,138	0.1%	14,226	14,291	0.5%

Table 2. Implied Cheese Prices and Futures Prices for 2009

		NASS Prices/Futures Prices					
		Cheese	Butter	Nonfat	Dry Whey	Class III	Class IV
		\$/lb	\$/lb	\$/lb	\$/lb	\$/cwt	\$/cwt
2008							
Jan		1.9998	1.2301	1.5090	0.3992	19.32	16.29
Feb		1.8403	1.2044	1.3331	0.2736	17.03	14.67
Mar		1.9575	1.2539	1.2512	0.2435	18.00	14.17
Apr		1.8164	1.3492	1.2506	0.2560	16.76	14.56
May		1.9525	1.4170	1.2985	0.2700	18.18	15.26
Jun		2.1609	1.4669	1.3508	0.2758	20.24	15.92
Jul		1.9585	1.5180	1.4053	0.2642	18.25	16.60
Aug		1.8699	1.5713	1.3840	0.2470	17.32	16.64
Sep		1.7773	1.6365	1.2131	0.2183	16.28	15.45
Oct		1.9065	1.6997	0.9987	0.1945	17.06	13.62
Nov		1.7508	1.6356	0.8701	0.1895	15.51	12.24
Dec		1.7542	1.2448	0.8425	0.1730	15.28	10.35
Annual		1.8954	1.4356	1.2256	0.2504	17.44	14.65
2009							
Jan		1.2963	1.0868	0.8318	0.1696	10.78	9.59
Feb		1.1483	1.0750	0.8275	0.1580	9.28	9.50
Mar		1.2421	1.1200	0.8200	0.1625	10.23	9.63
Apr		1.2437	1.1600	0.8350	0.1775	10.35	9.93
May		1.2931	1.2050	0.8500	0.1800	10.86	10.25
Jun		1.3496	1.2350	0.8700	0.1925	11.49	10.55
Jul		1.4534	1.2725	0.8850	0.2100	12.61	10.83
Aug		1.5238	1.2925	0.8950	0.2225	13.37	11.00
Sep		1.5719	1.3225	0.9150	0.2300	13.89	11.30
Oct		1.5782	1.3475	0.9300	0.2450	14.05	11.54
Nov		1.6136	1.3625	0.9475	0.2575	14.47	11.75
Dec		1.6152	1.3600	0.9500	0.2550	14.47	11.76
Annual		1.4108	1.2366	0.8797	0.2050	12.15	10.64
Annual change		-0.48	-0.20	-0.35	-0.05	-5.28	-4.01
% change		-25.6	-13.9	-28.2	-18.1	-30.3	-27.4

Forecast February - December 2009.

Uses futures prices as of February 23, 2009.