

# RESEARCH report

Volume 18 • Number 8  
August 5, 2014

*Stand on the bar, stomp your feet, start clapping  
Got a real good feeling something bad about to happen  
Pulled up to the church but I got so nervous  
Had to back it on up, couldn't make it to the service  
Grabbed all the cash underneath my mattress  
Got a real good feelin' something bad about to happen*  
— **Miranda Lambert and Carrie Underwood** "Somethin' Bad"

*"To expect the unexpected shows a thoroughly modern intellect."*  
— **Oscar Wilde**

*What a fool believes he sees  
No wise man has the power to reason away  
What seems to be  
Is always better than nothing  
And nothing at all*  
— **Doobie Brothers** "What a Fool Believes"

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**S**hould end-users be buying 2015 Class III and butter futures given prevailing discounts to elevated spot prices? Inverted curves tempt, especially when current (and recent past) pricing has wrecked budgets. For some, it's not hard to imagine the dilemma: I budgeted 175 for 2014 butter, I am paying 240; I can buy all of 2015 at 172, why wouldn't I do that?

The good news: we've examined the historical data hoping to unearth an answer. The bad news: the results are mixed.

Looking at butter, on Friday, January through December 2015 futures closed at a 68-cent discount to the spot market. Going back to 2006 — the first time we had cash-settled butter futures to evaluate in early August — we find only two years with inversions, both radically smaller. In 2010, with the spot market at \$1.84 per pound, 2011 futures were trading at \$1.59, a 25-cent discount. The next year, in 2011, with the spot price at \$2.04 per pound on August 1, calendar year 2012 futures averaged \$1.80, a 24-cent discount. By virtue of the fact that prices were at \$2.04 on August 1, 2011, it is obvious that buying 2011 futures in August, 2010 made sense. Butter averaged \$1.96 per pound across 2011. Accordingly, the 2011 advance purchase yielded a 37-cent advantage. Buying the forward discount again in August 2011 did not turn out the same way. In 2012, butter averaged \$1.60 per pound. So, an August 2011 purchase at \$1.80 for 2012 would have been 20-cents off the market.

Thinking that, in August, the second half of the subsequent year might be too distant, we evaluated discounts and performance against only the first half. That look did not yield much different results. Only two big inversions, in



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the same years, with the same outcomes.

While the butter story is inconclusive, history says a hedge in the cheese space has proven wise. On Friday, 2015 cheese futures settled at an average of \$1.82 per pound, 18 cents below spot block settlement at \$2.00. We used Class III futures data to perform cheese-related analysis because the history runs deeper. Indeed, we can go back to 2002 to evaluate full-year and 2000 to look at first-half opportunities.

First off, in early August, market participants see more chances to buy “next year” Class III at a discount. This time around, 2015 futures averaged \$18.07 per hundredweight, a \$3.37 discount to the front-month (August 2014) contract. Going back to 2002, we find two instances with a bigger discount (2007 and 2011) and several other years with a smaller wedge (2013, 2010, 2005, 2004 and 2003). On average, in years with forward discounts, the subsequent year trailed the nearby month by \$2.07. To make things simpler, let’s throw away 2010 and 2005, when inversion was mild and the nearby price modest (35-cent and 54-cent discounts, respectively against \$14.97 and \$13.49).

The results:

- In the years with bigger discounts, buying the next year turned out to be a good decision. On August 1, 2011, calendar year 2012 was trading at \$16.90 — fully \$4.60 below the nearby price. Calendar year 2012 ended up averaging

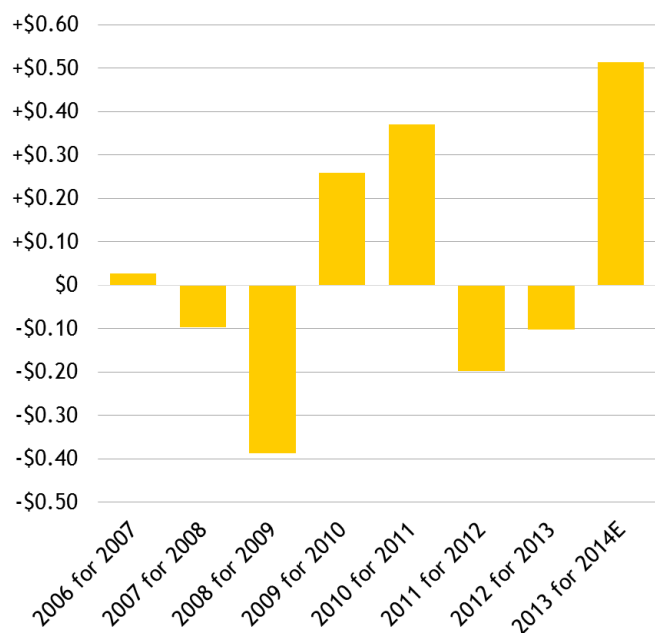
\$17.44. On August 1, 2007, calendar year 2008 was trading at \$15.27. Calendar year 2008 ended up averaging, oddly enough, \$17.44.

- In the years with smaller discounts, buying the next year turned out to be a good decision, too. On August 1, 2003, calendar year 2004 was trading at \$12.02; 2004 ended up averaging \$15.39. On August 2, 2004, calendar year 2005 was trading at \$12.51; 2005 ended up averaging \$14.05.
- We do not yet know precisely how good the 2013 purchase for 2014 will be. But, last August 1, 2014 was trading at \$16.77. The 2014 actual average will be about \$21.70.

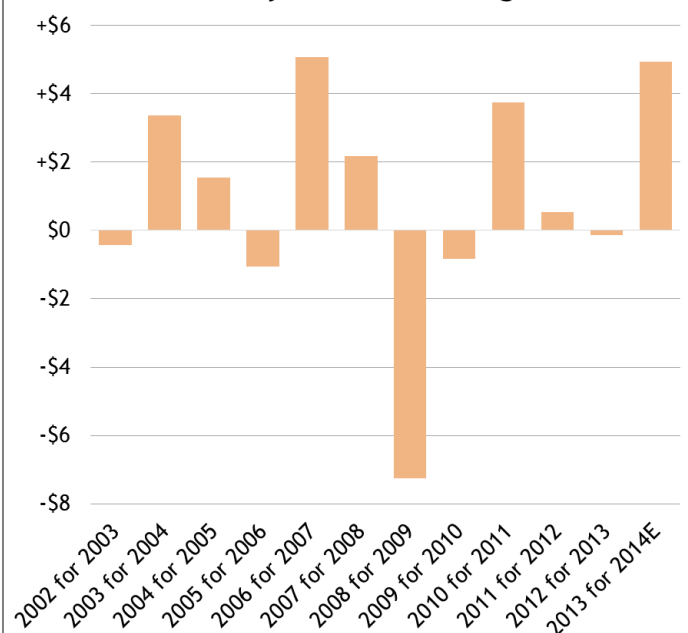
Before getting too carried away about the prospects for purchasing Class III or cheese futures for 2015 today, it should not escape notice that the prevailing opportunity is priced at a high level. We find two occasions going back to 2002 when August 1 pricing for the subsequent year topped \$18.07. In both cases, actual pricing turned out to be a lot less. On August 1, 2008, end-users could have purchased 2009 for \$18.61. That turned out to be a big loser versus the market, which turned out at \$11.36. On August 1, 2012, end-users could have purchased 2013 for \$18.12; the actual 2013 average came in at \$17.99.

Finally, as the accompanying tables clearly demonstrate, futures pricing on August 1 does not offer useful “predictions” for actual performance in the follow-

Butter Buy Forward on August 1



Class III Buy Forward on August 1



ing year. For Class III, the closest match was in 2012 for 2013, with a 13-cent miss. Otherwise, we have seen a \$5-plus miss to the upside (2006 for 2007) and a \$7-plus miss to the downside (2008 for 2009). We calculate an average miss of 17% against the actual price from 2002 through 2013. Applying that to current pricing for 2015 yields a range between \$15.00 and \$21.15 per hundredweight. We find the average butter miss at 15%, which translates to \$1.46 to \$1.97 against last Friday's \$1.72 settlement.

While it would be wrong to ignore any immediately obvious historical patterns, it is perhaps no less wrong to focus on the data in pure “winner” and “loser” terms. In our experience, over the long run, successful risk management programs rely more on discipline than out-and-out discernment. And, though it may seem a bit illogical and self-serving, we can make good arguments today for why end-users should be buying 2015 cheese as well as for why dairy producers should be selling 2015 Class III. For end-users, we can point to:

- History above suggesting buying the discount may be wise.
- Ability to budget and own a price below 2014 actuals.
- Low-stocks and potential for sustained high pricing if New Zealand turns dry, US milk production under-performs and/or China needs more milk powders than we think.

For producers, we can point to:

- Ability to secure high milk prices relative to hedge-able feed costs — as good a forward margin opportunity as we have seen.
- Structural supply-side expansion in the US that has the potential to push production well ahead of demand.
- Reality that good milk production in New Zealand and continued quiet from China could generate much-lower-than-anticipated prices.



**L**ast week, with peak production months just ahead, New Zealand dairy producers learned they will likely be receiving less money for their milk. A lot less. Fonterra cut its payout forecast for the 2014/15 season (June 2014 to May 2015) to NZ\$6.00 per kilogram of milk solids. Westland Milk Products followed suit, saying it expects to pay a similar rate. Fonterra projects paying a 20-to-25 cent dividend, which

### Butter: Buy Next Year on August 1

In	For	Average Price	vs Spot Price	Actual Average	Difference
2006	2007	\$ 1.34	+\$0.09	\$ 1.37	+\$0.03
2007	2008	\$ 1.56	+\$0.05	\$ 1.46	-\$0.10
2008	2009	\$ 1.63	+\$0.06	\$ 1.24	-\$0.39
2009	2010	\$ 1.47	+\$0.22	\$ 1.73	+\$0.26
2010	2011	\$ 1.59	-\$0.25	\$ 1.96	+\$0.37
2011	2012	\$ 1.80	-\$0.24	\$ 1.60	-\$0.20
2012	2013	\$ 1.66	+\$0.01	\$ 1.56	-\$0.10
2013	2014	\$ 1.57	+\$0.14	\$ 2.08	+\$0.51
2014	2015	\$ 1.72	-\$0.68		

### Class III: Buy Next Year on August 1

In	For	Average Price	vs Front Month	Actual Average	Difference
2002	2003	\$ 11.86	+\$2.24	\$ 11.42	-\$0.44
2003	2004	\$ 12.02	-\$1.88	\$ 15.39	+\$3.38
2004	2005	\$ 12.51	-\$1.76	\$ 14.05	+\$1.54
2005	2006	\$ 12.95	-\$0.54	\$ 11.89	-\$1.06
2006	2007	\$ 12.98	+\$1.92	\$ 18.04	+\$5.06
2007	2008	\$ 15.27	-\$4.29	\$ 17.44	+\$2.17
2008	2009	\$ 18.61	+\$0.61	\$ 11.36	-\$7.25
2009	2010	\$ 15.23	+\$4.13	\$ 14.41	-\$0.82
2010	2011	\$ 14.62	-\$0.35	\$ 18.36	+\$3.74
2011	2012	\$ 16.90	-\$4.60	\$ 17.44	+\$0.54
2012	2013	\$ 18.12	+\$0.99	\$ 17.99	-\$0.13
2013	2014	\$ 16.77	-\$1.06	\$ 21.70	+\$4.94
2014	2015	\$ 18.07	-\$3.37		

would bring total payments for the season to something like NZ\$6.23.

The new figures represent a nearly 30% drop in projected income from the record season just in the rearview mirror (NZ\$8.75) and a 15% haircut from previous projections. The presumptive hit to the New Zealand economy? Billions of dollars.

People who have seen their prospective income slashed by 15% or 30% don't likely have much patience for talk about perspective. But, context matters. A NZ\$6.23 season would rank as better than that seen in 2012/13 (NZ\$6.12), would not trail 2011/12 by much (NZ\$6.40) and is within a dime of the 10-year average (NZ\$6.29).

While less income will translate to less profitability, our understanding about production costs suggests New Zealand producers will still be in the black. Most estimates we have seen suggest that production costs average about NZ\$5.00.

When adjusting for currency, the metric system and component tests, the NZ\$6.23 estimate for

2014/15 translates to about \$15.60 per hundredweight. By comparison, using actual performance for June and July and futures market projections for August through May, the US All-Milk price comes in at \$21.33 per hundredweight. At that level, the New Zealand/US price gap is about \$5.75 per hundredweight. That compares to \$1.04 for the season just completed and \$1.98 on average over the past five years. Indeed, one has to go all the way back to 2008/09 to find a gap that wide. While plausible and with precedent, the projected differential seems large and, on balance, supportive to a view that US pricing will travel to levels beneath the prevailing futures curve.

Belief in basic economics suggests that a 30% year-over-year reduction in milk income will ultimately tug at milk production potential. The key word there may be “ultimately” as we wonder whether anything can stymie early-season momentum. The cows are in the starting gate. The grass is set to turn green. It seems possible, however, that prospects for a lower payout could lead to a more abrupt end to the 2014/15 season than might be the case in a robust pricing environment. As production lags seasonally during the first quarter, producers may be quicker to cull. (It is always possible, though, that lower prices have a counter-intuitive effect, with producers milking more cows longer as a way to generate additional cash flow.)

Finally, keep in mind that the NZ\$6.20-NZ\$6.25 figure is just a forecast. It could rise if dairy commodity

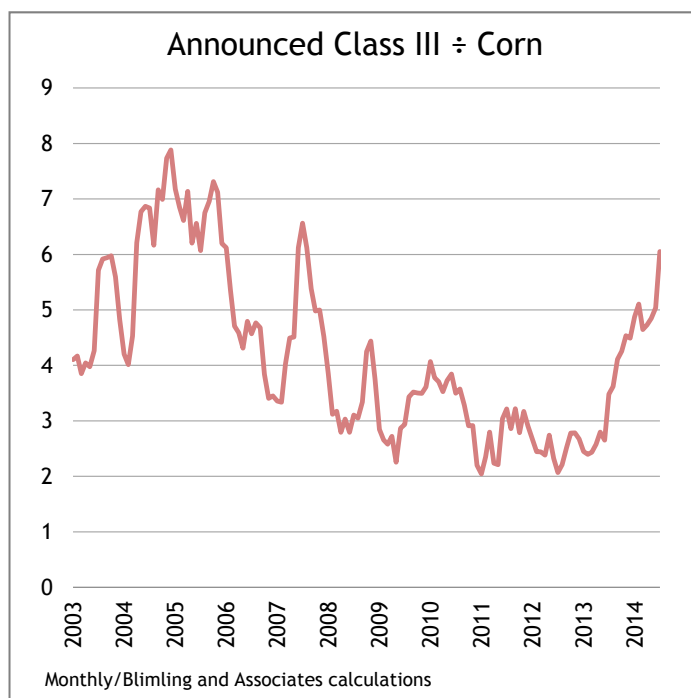
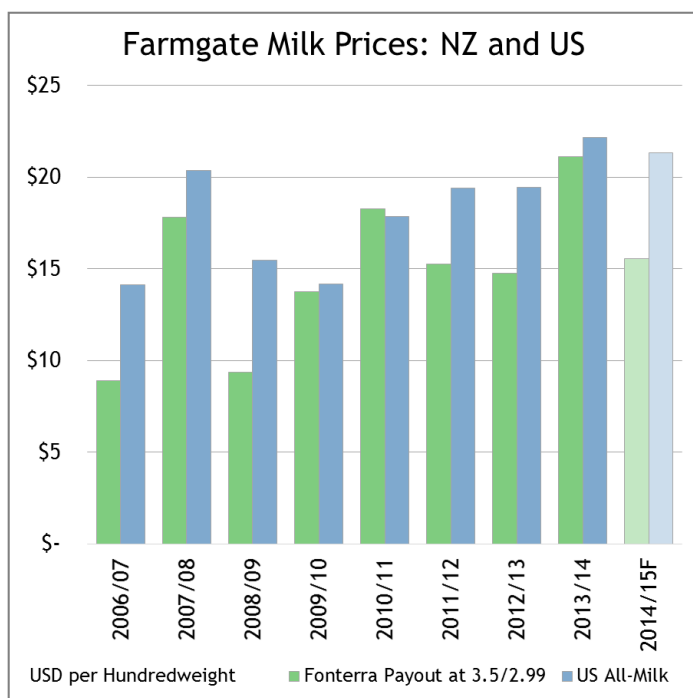
prices rebound; it could fall if prices suffer additional setbacks.

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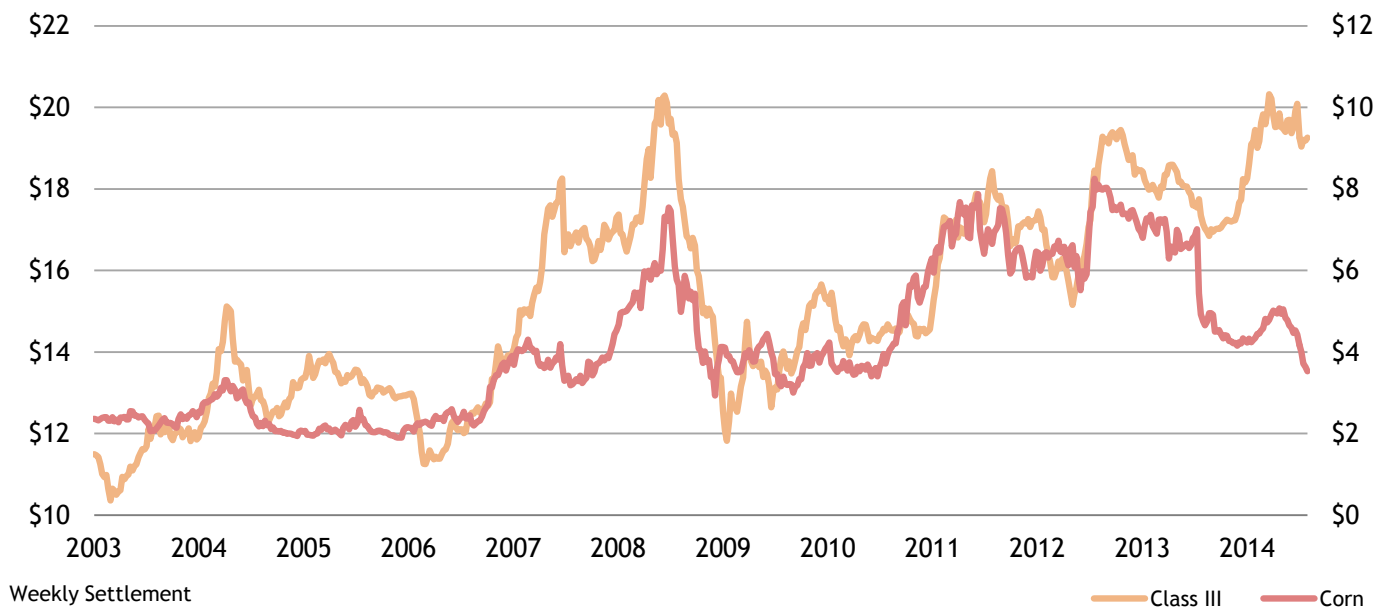
If the current gap between corn and milk prices seems wide, well, it is. Indeed, plotting nearby corn futures prices against the 12-month forward curve for Class III milk reveals a huge spread. In pure dollars-and-cents difference terms, the spread between those two measures was at its widest level since at least 2003. On a milk-divided-by-corn basis, this past Friday's ratio was 5.46, the highest level since the week ending August 18, 2006.

How often has the marketplace actually achieved a ratio at that level? Not often and, until last month, not since 2007. From January 2003 through June 2014, we count 30 months in which the announced Class III price was equal to or greater than 5.46 times the nearby corn futures price on the last day of the month. It happened 22 months in a row between April 2004 and January 2006. But: during that stretch, nearby corn futures averaged \$2.21 per bushel and Class III milk \$14.93 per hundredweight.

Over the past 10 years, announced Class III prices have averaged 4.04 times the price of corn. That translates to \$14.24 per hundredweight based on last Friday's \$3.5250 per bushel nearby corn futures settlement.



## 12-Month Forward Milk Curve + Corn



As we learned (fatefully) last year, lower corn prices do not automatically mean lower milk prices. At this time in 2013, the consensus view held that, with corn below \$5.00 per bushel for the first time in nearly three years, milk prices would have to be lower, too. On Friday, August 2, 2013, nearby corn futures closed at \$4.76 per bushel, with the Class III 12-month forward strip averaging \$17.14 per hundredweight — a 3.60 ratio. By now, we know how that turned out: August 2013 through July 2014 Class III prices averaged \$20.81 per hundredweight even as corn averaged \$4.46 per bushel (a 4.67 ratio). With that lesson in hand, we are reluctant to get too carried away with calls for unthinkable low milk prices just because corn is in the \$3.50 per bushel neighborhood. At the same time, market participants should be aware that the current relationship between milk and corn futures has reached extraordinary, and likely unsustainable, levels.

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Overall, our dairy commodity and milk price forecasts have not changed much from a month ago. We expect butter strength and nonfat dry milk weakness to persist; we believe the cheese market will continue to chop around at comparatively elevated levels.

The “big picture” list at the moment:

**China Demand** Anecdotal and published reports point to product for sale out of China, a function of too

-aggressive purchasing earlier in the year and improved local milk production. The consensus says that China comes back to the market before too long as the excess gets worked off. Fair enough. But our analysis continues to suggest that forward-going volumes could be light. As discussed in last month’s *Research Report*, if 2014 demand is up 3% and milk production is up 5%, China has already imported 85% of what it needs for the year. Think of it another way: considering how China imports ramped up in the fourth quarter of 2013 and exploded higher early in 2014, what are the odds that China needs more than year-prior levels as 2014 comes to a close and 2015 begins? In our estimation, slim. Assuming global milk production continues apace, that is going to be a problem — keeping powder prices under wraps and eventually creating issues for the cheese market.

**Weather** Conditions in New Zealand appear favorable as the peak production season nears. That’s good. But the real key is what happens from September on into year end. The NIWA seasonal outlook for August through October notes:

*Rainfall is equally likely (40% chance) to be normal or above normal in the north and east of the North Island, and normal or below normal in the west of the North Island and in the north of the South Island. In remaining South Island regions, seasonal rainfall is most likely (45%) to be in the near-normal range.*

Elsewhere, drought in California lingers, with potential



to complicate things in 2015 if it does not rain this Fall on into Winter. India is on the watch list, too, as monsoon rains fall shy of normal levels. The Indian government has taken away its 5% subsidy on SMP exports. The latest data shows India exporting about 40,000 metric tons of SMP so far in 2014.

**US and EU Milk Production** US milk production has grown steadily, but output in parts of the Midwest continues to lag expectations/hopes. Cow numbers have been moving higher, demonstrating that producers are responding to high prices and strong margins. That said, high cattle prices provide a well-paved exit ramp should the mood sour. And, we continue to wonder about appetite for major/prolonged expansion. If banks are not interested in lending and/or producers are not interested in borrowing, structural expansion could be muted or fitful. Even so, we expect milk production growth to be strong during the second half, if only because comparable 2013 performance was weak. In Europe, production was up about 5% year-to-date through May. Weather remains good. Milk prices have moved lower, but remain well above average. With quotas sunseting early next year, we expect production to remain solid.

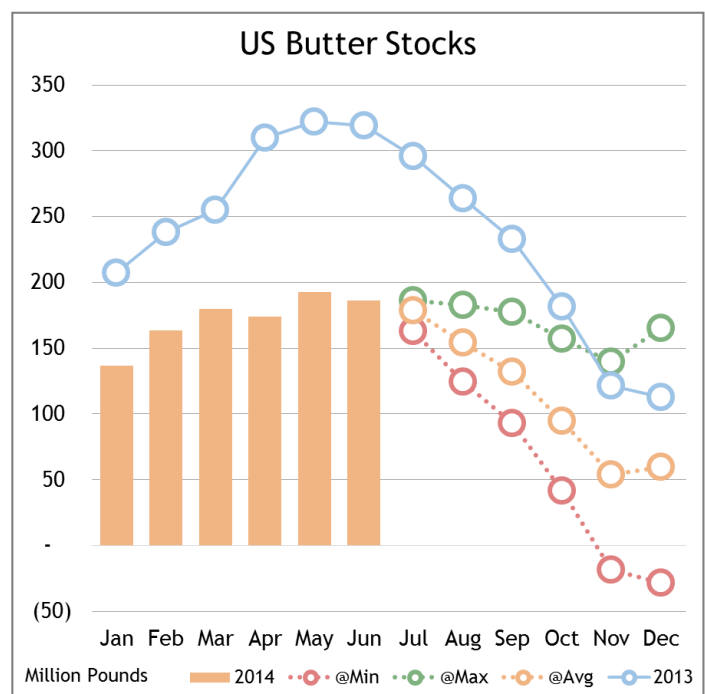
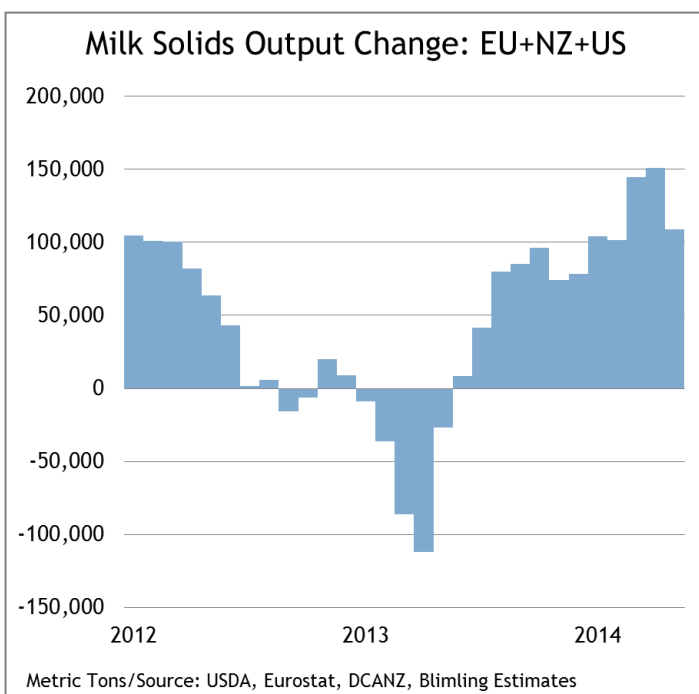
The “little picture” notes:

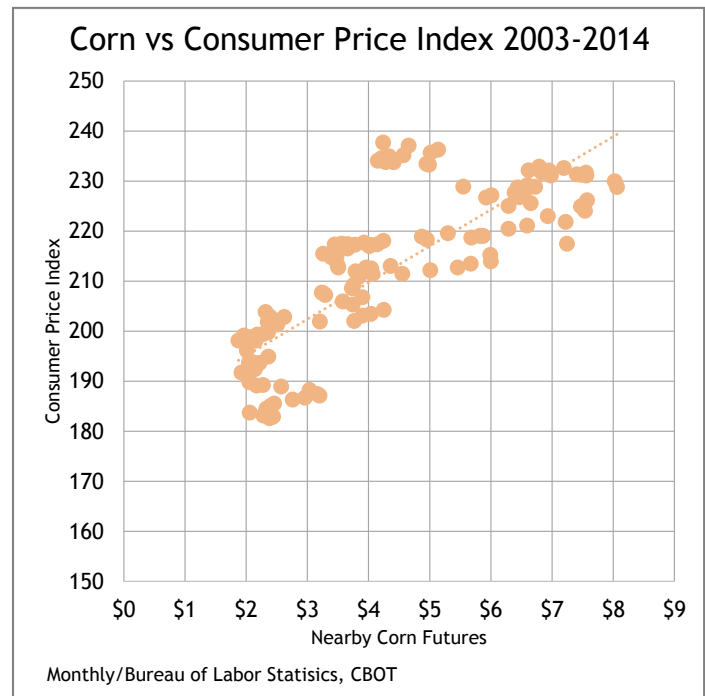
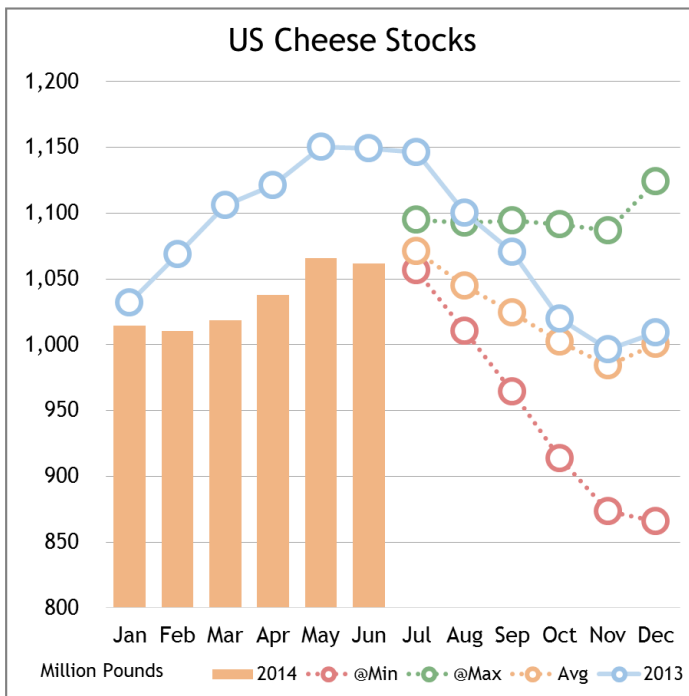
**Butter** At some point, the US market is going to have to answer to lower prices elsewhere in the world — especially weak valuation in Oceania. Critically, however, we don’t think the “solutions” will unfold

quickly enough to derail CME spot pricing anytime soon. In our estimation, the calendar is going to be a stern taskmaster. With stocks low and the holiday season just ahead, we believe the market has another pop in it before calming down during the fourth quarter.

**Cheese** Supply has consistently failed to “get ahead” over the past few months. We are a bit surprised that reduced export traffic has not yielded more available supply. Perhaps the “extra” is quietly filling pipelines in the background. Domestic demand has been better than expected, with retail pricing not as high and promotional activity not as low as many anticipated. Stocks are down on a year-over-year basis, but the situation has not deteriorated over the past two months. We do not believe many will be caught short once the holiday push begins in earnest, but it is a possibility. We believe imports will ultimately play a role as New Zealand’s season cranks up and product mix adjusts for less China WMP demand. Cheaper US skim could also help bolster cheese output at home. Our forecast calls for something approximating the recent range prevailing over the near-term, with a bias toward lower as Fall unfolds.

**Powder** The market is unambiguously weak and will likely remain in a debilitated state. US manufacturers and marketers have product available, but demand is sketchy both here and abroad. US product is not especially competitive versus other origins. That situa-





tion has been tweaked for the worse over the past few weeks as the Euro has lost ground to the US Dollar. We expect New Zealand to make more SMP/AMF and less WMP early in the season. We figure Europe is going to keep its dryers running, too. And, several US plants will be making more every day. Our forecast for the rest of 2014 has not changed much.

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**L**ower corn prices have also led us to wonder about broader economic impacts. Specifically, we wonder whether depressed grain prices portend deflationary forces for the economy writ large. Our curiosity was further piqued by recent commentary from former CNBC-talking-head-turned-hedge-fund-manager Ron Insana. Here's what Insana wrote:

*I will make a bet with this country's leading inflationistas, who continue to warn that inflation is about to surge, that they are dead wrong.*

*I'll bet a truckload of scarce limes, or a couple bushels of wheat, that inflation is about to fall, and fall hard.*

*While recent measures of inflation — from producer prices and consumer prices to the PCE deflator (the Federal Reserve's preferred gauge of inflationary pressures) — have all approached a 2% year-over-year gain recently, it would appear that Janet*

*Yellen's recent testimony will prove spot on. Inflationary pressures, particularly in food and energy costs, will likely prove "transitory."*

*Let's look at the evidence: Agricultural commodity prices, excluding meats, have crashed.*

To Insana's point, on Friday, corn was down 26% year-over-year, with soybeans off 9%, soyoil down 16% and wheat down 19%. Throw in sugar down 2% and several staple food ingredients cost a lot less today than was the case a year ago — and, in the case of grains, three or even four years ago.

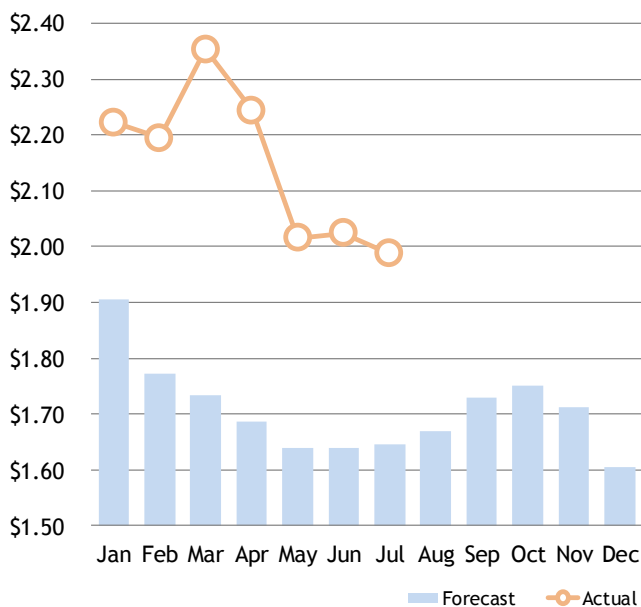
A look at historical inflation data does show decent correlations between grain prices and CPI for all goods, CPI for food and the producer price index (PPI) for finished consumer foods. Soybeans have the highest correlation coefficient: 73.9% against CPI going back to January 2003. Corn is at 64.7%, wheat at 55.5%. It is not at all clear that consumers will see food prices come down aggressively, or at all, just because wheat is 19% cheaper today than a year ago. After enduring several years with compressed margins, food manufacturers could look to make up for lost ground, holding retail prices steady and letting profits expand some. At the same time, given strained/vulnerable consumer spending at the lower levels of the income spectrum, food companies might be tempted (or pressured) to drive sales volume by using the real estate created by lower commodity costs to lower prices. ■

**"Final" 2014 Price Forecast (as of December 31, 2013)**

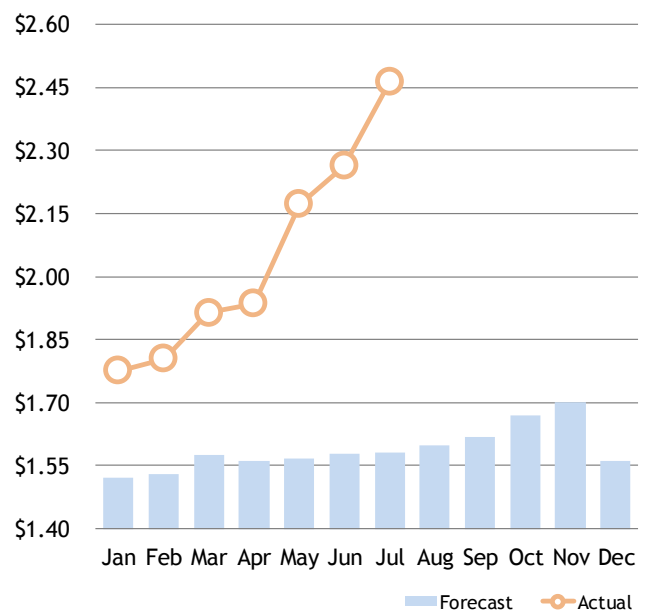
	Block Cheddar		Grade AA Butter		NDM (NDPSR)		Whey (NDPSR)	
Month	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual
Jan	\$ 1.90	\$ 2.22	\$ 1.52	\$ 1.78	\$ 2.03	\$2.03	\$ 0.58	\$0.60
Feb	\$ 1.77	\$ 2.19	\$ 1.53	\$ 1.80	\$ 2.00	\$2.08	\$ 0.57	\$0.63
Mar	\$ 1.73	\$ 2.35	\$ 1.57	\$ 1.91	\$ 1.87	\$2.09	\$ 0.56	\$0.66
Apr	\$ 1.69	\$ 2.24	\$ 1.56	\$ 1.94	\$ 1.72	\$2.03	\$ 0.56	\$0.68
May	\$ 1.64	\$ 2.02	\$ 1.57	\$ 2.17	\$ 1.55	\$1.88	\$ 0.55	\$0.67
Jun	\$ 1.64	\$ 2.02	\$ 1.58	\$ 2.26	\$ 1.41	\$1.86	\$ 0.55	\$0.68
Jul	\$ 1.65	\$ 1.99	\$ 1.58	\$ 2.46	\$ 1.39	\$1.86	\$ 0.55	\$0.69
Aug	\$ 1.67		\$ 1.60		\$ 1.40		\$ 0.56	
Sep	\$ 1.73		\$ 1.62		\$ 1.42		\$ 0.57	
Oct	\$ 1.75		\$ 1.67		\$ 1.42		\$ 0.58	
Nov	\$ 1.71		\$ 1.70		\$ 1.39		\$ 0.58	
Dec	\$ 1.60		\$ 1.56		\$ 1.37		\$ 0.55	
Avg	\$ 1.71		\$ 1.59		\$ 1.58		\$ 0.56	

	Class I Mover		Class II Milk		Class III Milk		Class IV Milk	
Month	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual
Jan	\$ 21.48	\$ 21.48	\$ 21.68	\$ 22.21	\$ 19.80	\$ 21.15	\$ 21.72	\$ 22.29
Feb	\$ 21.74	\$ 22.02	\$ 22.43	\$ 23.73	\$ 18.55	\$ 23.35	\$ 21.45	\$ 23.46
Mar	\$ 21.60	\$ 23.64	\$ 22.46	\$ 24.21	\$ 17.84	\$ 23.33	\$ 20.54	\$ 23.66
Apr	\$ 20.82	\$ 23.65	\$ 21.56	\$ 24.74	\$ 17.50	\$ 24.31	\$ 19.21	\$ 23.40
May	\$ 19.20	\$ 24.47	\$ 19.91	\$ 24.44	\$ 16.86	\$ 22.57	\$ 17.74	\$ 22.65
Jun	\$ 17.89	\$ 22.86	\$ 18.65	\$ 23.94	\$ 16.71	\$ 21.36	\$ 16.55	\$ 23.13
Jul	\$ 16.70	\$ 23.02	\$ 17.41	\$ 24.41	\$ 16.75	\$ 21.60	\$ 16.44	\$ 23.78
Aug	\$ 16.75	\$ 23.87	\$ 17.18		\$ 16.96		\$ 16.53	
Sep	\$ 16.93		\$ 17.24		\$ 17.39		\$ 16.75	
Oct	\$ 17.21		\$ 17.64		\$ 17.94		\$ 17.02	
Nov	\$ 17.96		\$ 17.93		\$ 17.84		\$ 16.95	
Dec	\$ 17.96		\$ 17.41		\$ 17.05		\$ 16.48	
Avg	\$ 18.85		\$ 19.29		\$ 17.60		\$ 18.12	

**2014 CME Block Cheddar Forecast**

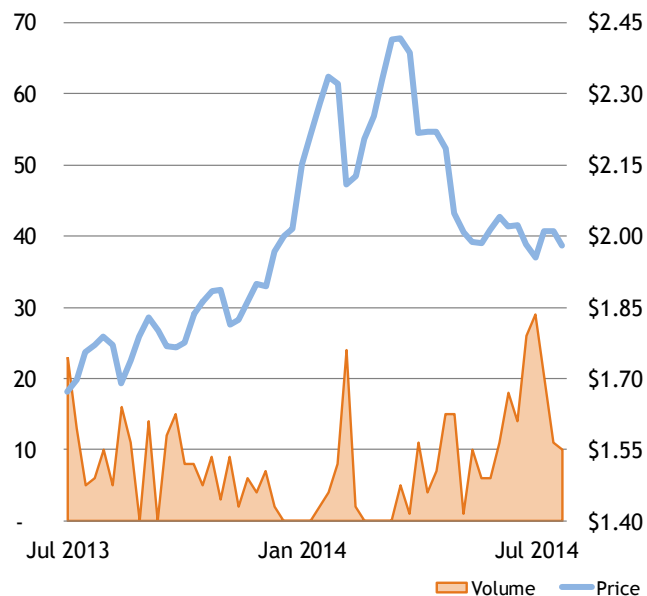


**2014 CME Butter Forecast**

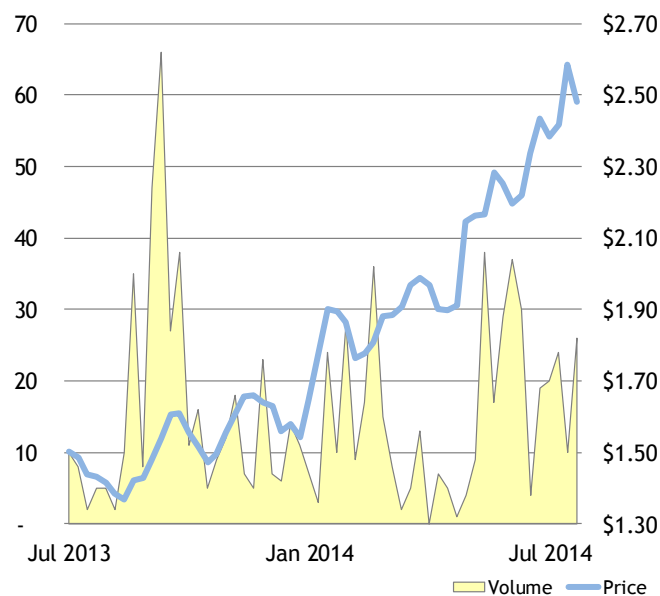




### CME Block Cheddar Weekly Volume and Price



### CME Butter Weekly Volume and Price



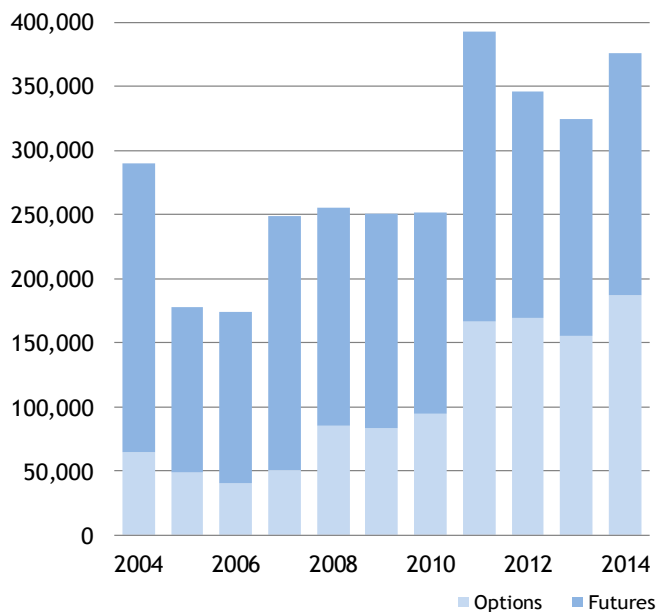
### CME Cash Markets

	Block Cheddar				Barrel Cheddar		Grade AA Butter			
	Settle	Volume	Bids	Offers	Settle	Volume	Settle	Volume	Bids	Offers
30-Jun-14	\$ 2.0000	4	1	0	\$ 2.0100	0	\$ 2.5000	3	1	0
1-Jul-14	\$ 1.9875	8	0	1	\$ 1.9825	1	\$ 2.4500	7	0	1
2-Jul-14	\$ 1.9725	6	0	1	\$ 1.9850	1	\$ 2.4000	2	0	1
3-Jul-14	\$ 1.9675	8	0	1	\$ 1.9850	1	\$ 2.3900	7	1	0
4-Jul-14										
7-Jul-14	\$ 1.9550	6	3	1	\$ 1.9850	0	\$ 2.3950	5	0	1
8-Jul-14	\$ 1.9550	6	1	0	\$ 1.9450	6	\$ 2.3850	6	0	1
9-Jul-14	\$ 1.9475	9	1	0	\$ 1.9450	1	\$ 2.3850	0	1	0
10-Jul-14	\$ 1.9500	1	2	1	\$ 1.9600	2	\$ 2.3850	0	0	0
11-Jul-14	\$ 1.9700	7	1	1	\$ 1.9875	6	\$ 2.3725	9	0	0
14-Jul-14	\$ 1.9975	10	1	0	\$ 2.0050	5	\$ 2.3750	6	1	0
15-Jul-14	\$ 2.0000	1	0	0	\$ 2.0325	0	\$ 2.3900	13	1	0
16-Jul-14	\$ 2.0025	3	0	1	\$ 2.0400	6	\$ 2.3900	0	0	0
17-Jul-14	\$ 2.0225	0	1	0	\$ 2.0600	4	\$ 2.4500	1	2	0
18-Jul-14	\$ 2.0275	6	1	0	\$ 2.0700	5	\$ 2.4800	4	0	0
21-Jul-14	\$ 2.0275	0	1	1	\$ 2.0700	0	\$ 2.5100	0	2	0
22-Jul-14	\$ 2.0300	2	2	1	\$ 2.0700	0	\$ 2.5800	0	1	0
23-Jul-14	\$ 2.0400	3	0	0	\$ 2.0325	6	\$ 2.6200	9	0	0
24-Jul-14	\$ 1.9875	3	0	0	\$ 1.9975	5	\$ 2.6200	0	0	0
25-Jul-14	\$ 1.9700	3	1	0	\$ 1.9525	3	\$ 2.5900	1	0	1
28-Jul-14	\$ 1.9725	3	2	1	\$ 1.9475	5	\$ 2.5700	7	0	0
29-Jul-14	\$ 1.9800	0	1	0	\$ 1.9475	0	\$ 2.5250	8	0	1
30-Jul-14	\$ 1.9750	3	0	0	\$ 1.9475	0	\$ 2.4700	2	1	1
31-Jul-14	\$ 1.9775	2	1	0	\$ 1.9875	0	\$ 2.4400	3	1	1
1-Aug-14	\$ 2.0000	2	1	1	\$ 2.0000	1	\$ 2.4000	6	1	1

## CME Futures/Options Volume and Open Interest

	Class III Open		Class III Options Open		Cash Butter Open		Dry Whey Open		NDM Open		Cheese Open	
	Volume	Interest	Volume	Interest	Volume	Interest	Volume	Interest	Volume	Interest	Volume	Interest
30-Jun-14	987	27,833	517	74,427	166	6,067	17	2,575	146	3,553	209	12,496
1-Jul-14	2,048	27,906	1,416	74,878	300	6,230	113	2,660	114	3,586	286	12,580
2-Jul-14	2,211	27,994	3,224	65,513	157	6,304	246	2,833	108	3,662	396	12,707
3-Jul-14	804	23,652	735	65,705	56	5,148	22	2,371	11	2,932	90	10,958
4-Jul-14	-	-	-	-	-	-	-	-	-	-	-	-
7-Jul-14	870	23,899	914	66,031	25	5,153	100	2,380	23	2,938	260	11,117
8-Jul-14	988	24,134	2,350	67,481	48	5,153	50	2,430	79	2,950	117	11,193
9-Jul-14	1,759	24,759	3,490	69,824	52	5,173	174	2,543	73	2,968	571	11,655
10-Jul-14	1,133	25,089	1,195	70,587	117	5,188	42	2,576	204	3,048	177	11,791
11-Jul-14	861	25,303	565	70,891	197	5,281	29	2,600	123	3,040	231	11,921
14-Jul-14	954	25,429	1,058	71,424	108	5,301	50	2,644	26	3,058	226	12,050
15-Jul-14	1,032	25,736	1,783	72,541	243	5,362	64	2,687	151	3,148	335	12,205
16-Jul-14	1,786	26,267	1,056	72,881	203	5,438	106	2,726	140	3,174	445	12,383
17-Jul-14	1,067	26,558	453	73,102	142	5,502	41	2,745	23	3,180	255	12,503
18-Jul-14	881	26,836	1,475	74,116	87	5,553	96	2,771	102	3,224	185	12,617
21-Jul-14	1,207	27,243	706	74,511	77	5,581	143	2,863	66	3,249	415	12,879
22-Jul-14	1,010	27,404	881	74,740	147	5,650	43	2,863	103	3,306	190	12,908
23-Jul-14	1,132	27,710	1,324	74,987	186	5,712	17	2,874	109	3,310	86	12,945
24-Jul-14	1,423	27,869	1,241	75,380	221	5,818	45	2,907	87	3,367	204	12,957
25-Jul-14	1,157	28,180	2,071	76,597	131	5,831	70	2,955	59	3,413	244	13,125
28-Jul-14	879	28,430	997	77,265	127	5,850	34	2,984	63	3,435	174	13,240
29-Jul-14	1,048	28,754	1,191	78,027	92	5,816	4	2,986	41	3,446	42	13,259
30-Jul-14	805	29,105	781	68,112	19	5,818	40	3,035	10	3,512	172	13,248
31-Jul-14	1,592	25,268	1,431	39,035	143	4,918	96	2,702	74	2,917	197	11,763
1-Aug-14	1,028	25,459	990	69,613	66	4,939	3	2,703	20	2,917	47	11,777

Jan-Jul CME Class III Milk Volume



Jan-Jul CME Butter Futures Volume

