

FORECAST

update

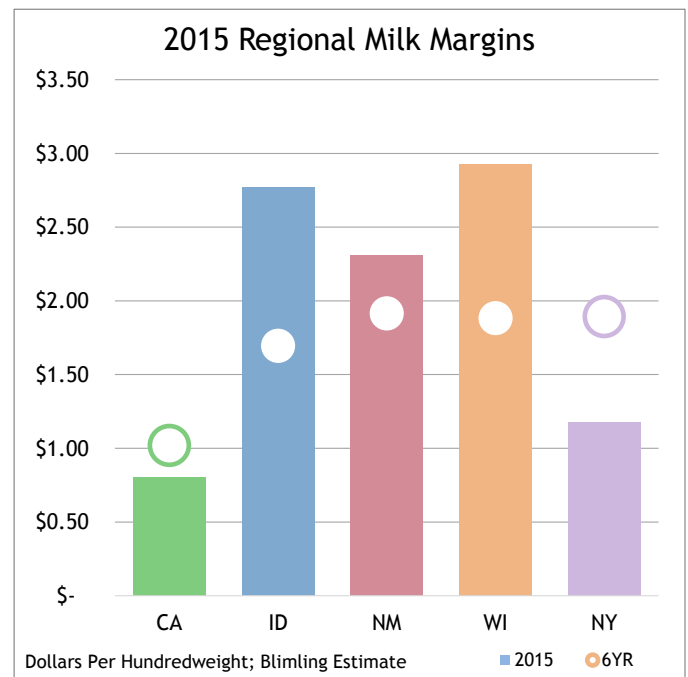
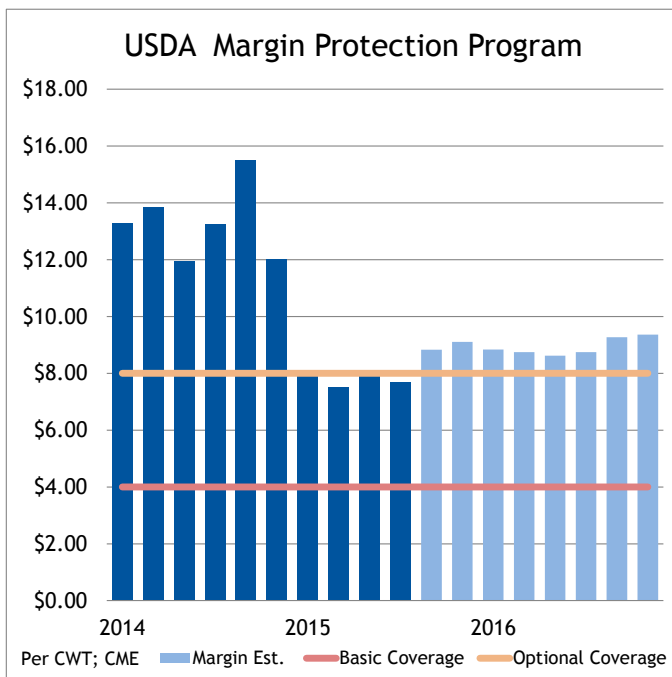
Volume 8 • Number 9
October 6, 2015

When thinking about US milk production prospects, price is a focal point. And at least through August, milk prices are a cause for concern. Averaging \$16.80 on a year-to-date basis, the US All Milk price is the lowest since 2010. Despite feed costs also reaching five year lows, margins feel snug in some regions. Producers hoped USDA's new Margin Protection Program would provide some relief, but so far payouts have been minimal.

As a national program, MPP does not capture the intricacies of local dairy margins. And, 2015 added some extra wrinkles. For example, a wider than normal Class III/IV spread gave Midwestern producers a significant bump compared to the national average. Conversely, California margins

tightened under significant Class IV exposure and higher feed prices relative to the rest of the US. Regardless how any individual farm might be performing in any given region, by using national average prices a payout was not triggered.

Looking to 2016, futures markets point to an average feed cost of \$8.78 per hundredweight and an All Milk price of \$17.71. The result is an \$8.73 margin, so the program would not be active. Said another way, the milk price needs to drop to \$16.78 for the \$8.00 margin coverage to pay out. And the basic \$4.00 level would not kick in until milk fell to \$12.78. With minimal payouts this year and current futures projecting none for 2016, MPP should have little impact on US milk flows.



The Rundown

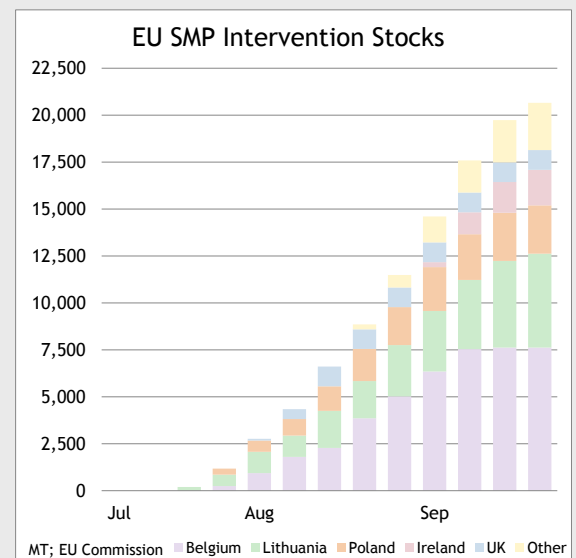
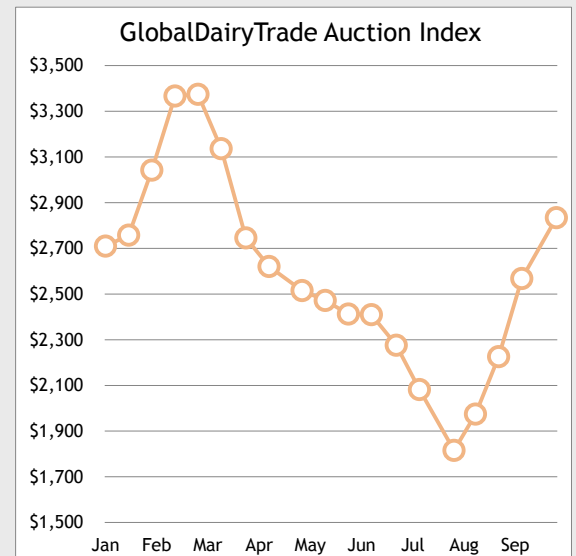
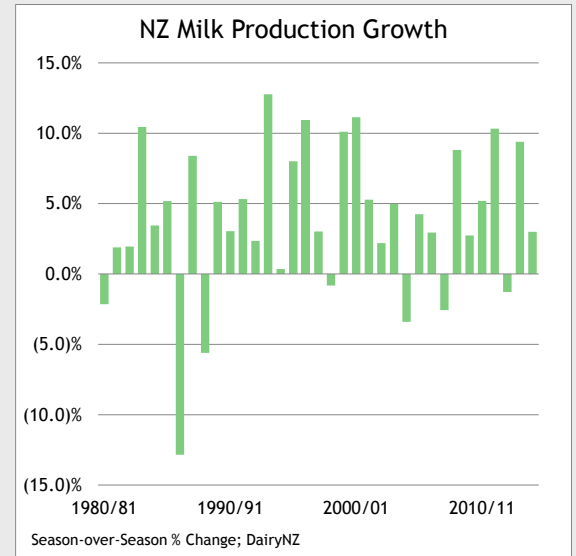
Global Milk Production

New Zealand

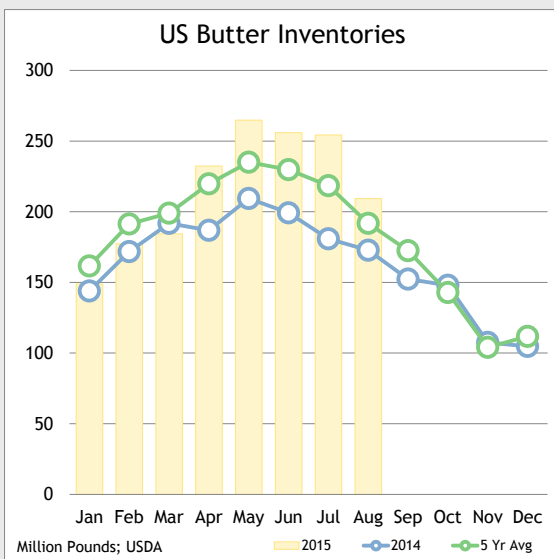
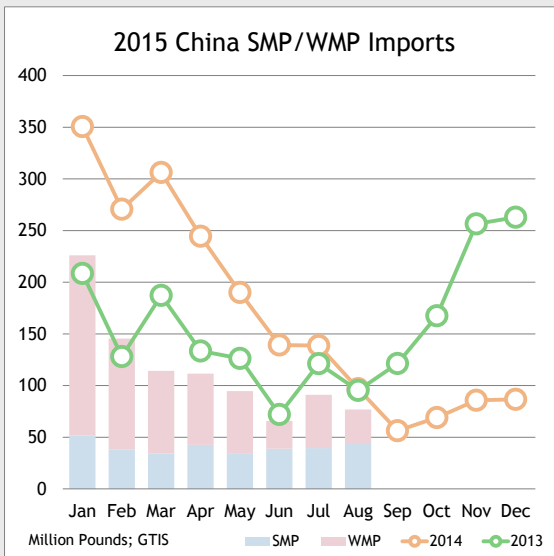
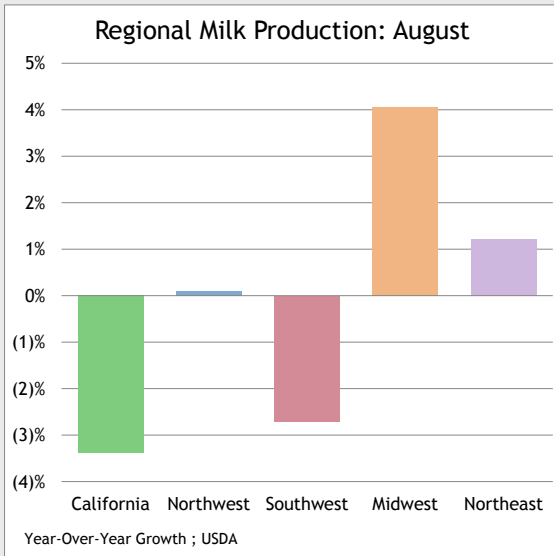
- New Zealand milk production prospects remain a hot button issue across the dairy industry. And, the focus only intensified when August output slipped by 0.8% year-over-year and the weather turned unfavorable for pasture growth. Full season forecasts reflect the sour outlook. Fonterra recently projected a 5% reduction, while Bank of New Zealand and Rabobank are estimating an even larger decrease. Of course, such estimates challenge history a bit, as the last time season-to-season milk production dipped by more than 3% was in the late 1980s.
- What could cause such a historic slide? Weather, for one. El Niño appears a certainty but its impact on New Zealand is far less clear. In some instances, El Niño is a major force, in other years not so much. However, the combination of low milk prices is a new wrinkle that farmers will have to contend with. Already, producers are reportedly cutting back on supplementary feed purchases in an effort to preserve cash flows. Thus, if soil conditions turn dry, pastures turn brown, and grass available for grazing declines, milk production may fall faster than in years past.
- While trade press and conference calls often lead with a New Zealand update, given the strong milk flows around the world, even a historic step down would not be insurmountable. At almost seven-times the size of New Zealand, continued growth in the EU can more than mitigate any supply disruptions. Indeed, a 1% gain in European production would more than back fill a 5% decline in New Zealand's output. But while the Europe-for-New Zealand analysis works on paper, it discounts the reality of buyer's behavior in the marketplace. That is, once the news cycle starts and buyers begin to fret about the availability of product and the likelihood of higher prices, a fundamental analysis on paper will do little to reign in a market. And in dairy, history has shown that this response could be longer and stronger than anticipated on the front-end.

Europe

- EU milk production continued to expand in July. Compared to 2014, output grew by 358,000 metric tons (3%) – equal to 2% of New Zealand's annual output. And, lower prices didn't slow output down in August either. The Netherlands and Ireland, for example, each reported 10% gains over August 2014.
- Year-to-date through July, milk production surpassed prior year levels by 1%. Assuming the current pace continues, annual output could finish up roughly 2%. With Russia not buying cheese, much of this extra milk moved into dryers - specifically SMP. Indeed, year-to-date SMP production was 4% above last year.
- With more SMP around, manufacturers are taking advantage of government programs. Estimates suggest that between Private Storage Aid and intervention more than 50,000 metric tons of SMP were sitting in warehouses by the end of September.



The Rundown



US

- If cow numbers are the guide, then US dairy farmers must be still doing alright. From August 2014, roughly 53,000 head were added to the herd, a 0.6% gain year-over-year. This growth in cow numbers helped drive milk output in August up 0.8% from 2014. Year-to-date through August, milk production in the US was running 1.5% ahead of last year.
- The on-farm realities are quite a bit different depending on the region. For example, California dairy producers remain challenged by drought conditions, resulting in relatively higher feed costs. As such, milk production dropped 3.4% in August, and cow numbers fell 2,000 head from December. Meanwhile, farms in the Midwest are flourishing. Output in August was up 4.0% year-over-year, marking the ninth consecutive month of +4% gains. Growth in the Midwestern region this year was primarily driven by a 29,000 head increase in the milking herd.
- With milk prices holding steady and feed costs at five-year lows, milk production growth is expected to continue. The slowdown in California may continue to weigh on growth rates, but US milk flows expected to expand by 0.5% to 1.0% through year-end. In total, 2015 output could beat 2014 levels by roughly 2.5 million pounds, the equivalent of 5% of New Zealand's annual milk output.

So What?

- US dairy commodity prices were all over the board over the past several weeks. New record prices for butter. Powder values dipping below 70-cents. Whey prices slipped below the 20-cent mark. And cheese seemingly content trading in a narrow-ish range.
- While the underpinnings of today's market are much different than a year ago, the lessons learned in 2014 are a driving force behind the plotlines that are playing out in 2015. Mainly, end users will not get caught short. Buying to protect a budget or plan number, or buying to provide some calm to executives in the corner office have supported and fueled the dairy markets in recent months. Never mind that at times, the available data and fundamentals might otherwise encourage taking a more patient or waiting it out approach. But after a year like 2014, when butter averaged \$2.16 per pound and cheese was close behind at \$2.11, patience was in short supply. And, we expect that to be the case again in 2016.
- The fundamentals will ultimately matter, they always do. But right here, right now, persistent end-users bids seem poised to support the market through year end as numbers are once again recalibrated and the cycle begins anew.

We Believe...

- US cheese supplies – particularly barrels – are ample heading into the holiday season. And while the market occasionally falls out of the prevailing range, seasonal forces keep buyers clamoring for more. Indeed, pipeline filling could support prices in the coming weeks. Looking ahead, 2016 forward coverage needs could prop up prices above what fundamentals might otherwise suggest.

Bullish

- Seasonally strong demand growth quickly whittles down inventories
- Demand for forward coverage in 2016 builds carry into the market
- In spite of stiff competition, cheese exports keep moving

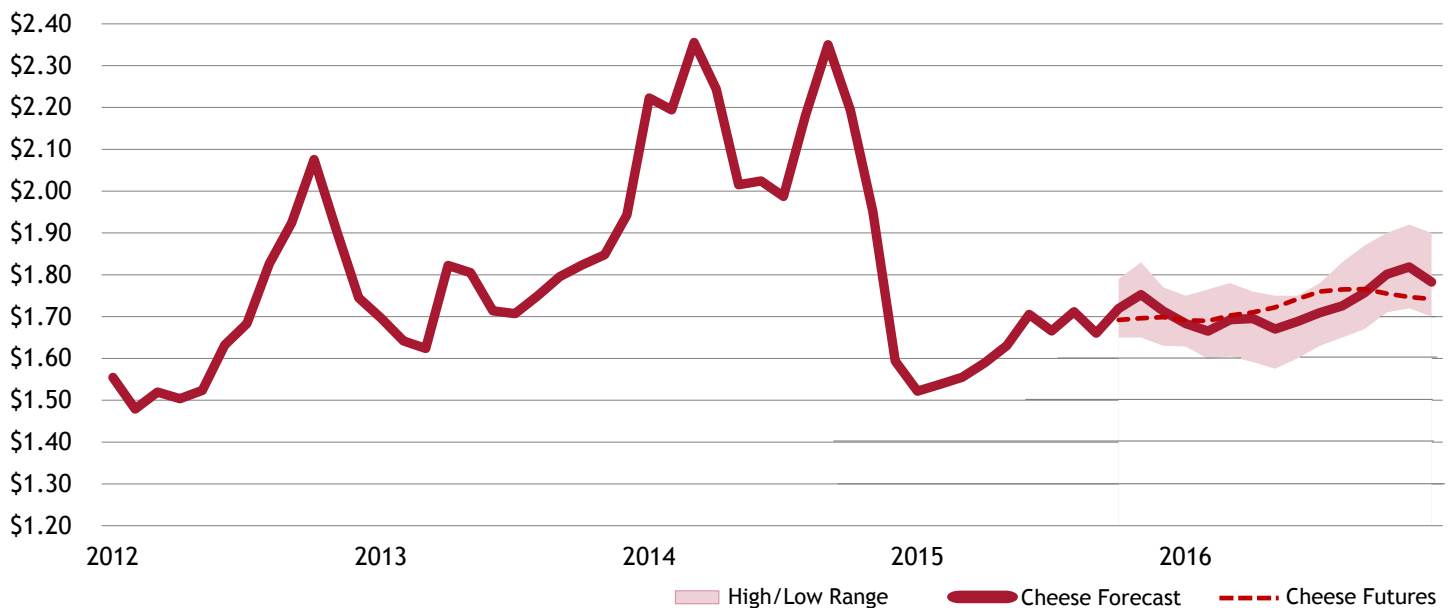
Bearish

- Still robust milk production – particularly in key cheese making regions – pushes milk into cheese vats
- Imported cheese weighs on domestic supplies
- Novelty of low fuel prices begins to wear off, slowing demand growth

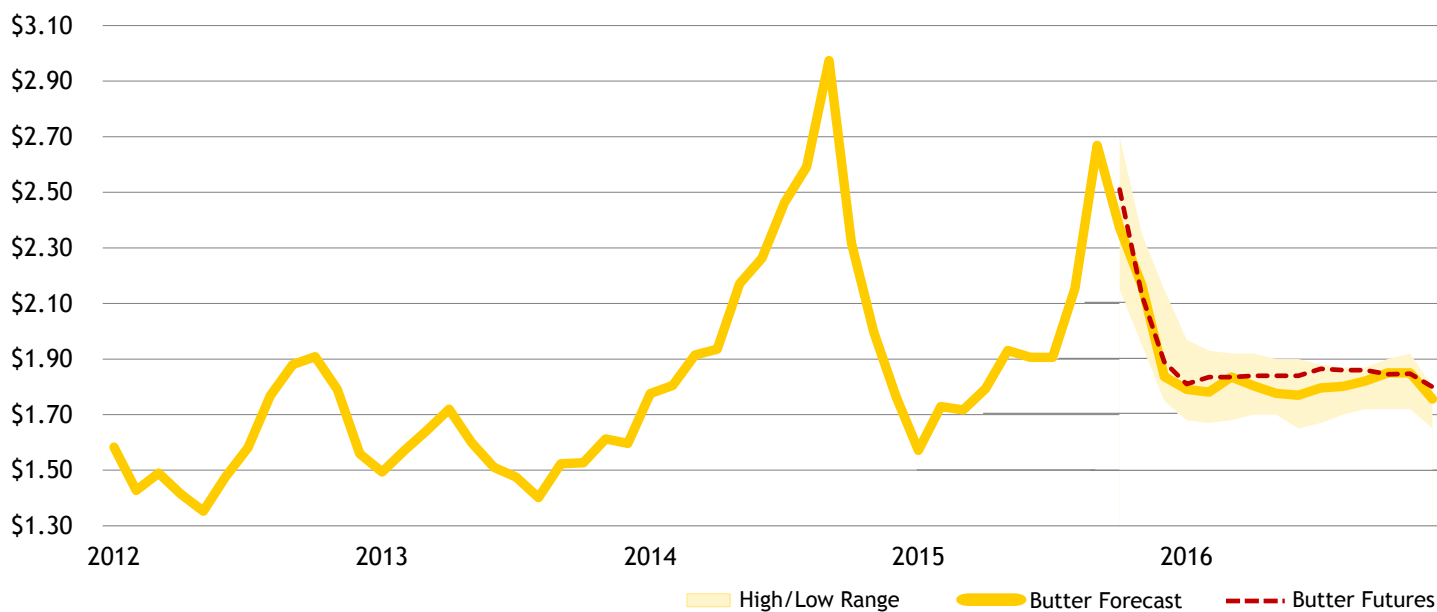
CME Block Cheddar Cheese

Month	2011	2012	2013	2014	2015	2016	10-14 Avg
Jan	\$1.51	\$1.55	\$1.70	\$2.22	\$1.52	\$1.68	\$1.69
Feb	\$1.91	\$1.48	\$1.64	\$2.19	\$1.54	\$1.67	\$1.73
Mar	\$1.81	\$1.52	\$1.62	\$2.36	\$1.55	\$1.69	\$1.72
Apr	\$1.60	\$1.50	\$1.82	\$2.24	\$1.59	\$1.70	\$1.72
May	\$1.69	\$1.52	\$1.81	\$2.02	\$1.63	\$1.67	\$1.69
Jun	\$2.10	\$1.63	\$1.71	\$2.02	\$1.71	\$1.69	\$1.77
Jul	\$2.12	\$1.68	\$1.71	\$1.99	\$1.67	\$1.71	\$1.81
Aug	\$1.97	\$1.83	\$1.75	\$2.18	\$1.71	\$1.73	\$1.87
Sep	\$1.76	\$1.92	\$1.80	\$2.35	\$1.66	\$1.76	\$1.91
Oct	\$1.72	\$2.08	\$1.82	\$2.19	\$1.72	\$1.80	\$1.91
Nov	\$1.87	\$1.91	\$1.85	\$1.95	\$1.75	\$1.82	\$1.81
Dec	\$1.62	\$1.74	\$1.94	\$1.59	\$1.71	\$1.78	\$1.66
Avg	\$1.81	\$1.70	\$1.76	\$2.11	\$1.65	\$1.72	\$1.77

CME Block Cheddar: Monthly



CME Butter: Monthly

**Bullish**

- Butter inventories continue to decline at an above-average pace
- End-user nervousness keeps a bid in the market
- Forward coverage activity supports 2016 futures prices

Bearish

- Imported butterfat displaces US product – particularly for manufacturing
- Already micro-fixed and hedged butter starts making its way into commercial channels
- High prices curtail demand

CME Grade AA Butter

Month	2011	2012	2013	2014	2015	2016	10-14 Avg
Jan	\$2.03	\$1.58	\$1.49	\$1.78	\$1.57	\$1.79	\$1.66
Feb	\$2.06	\$1.43	\$1.57	\$1.80	\$1.73	\$1.78	\$1.64
Mar	\$2.09	\$1.49	\$1.64	\$1.91	\$1.72	\$1.84	\$1.72
Apr	\$1.99	\$1.41	\$1.72	\$1.94	\$1.79	\$1.80	\$1.72
May	\$2.07	\$1.35	\$1.60	\$2.17	\$1.93	\$1.78	\$1.76
Jun	\$2.11	\$1.48	\$1.51	\$2.26	\$1.91	\$1.77	\$1.80
Jul	\$2.04	\$1.58	\$1.48	\$2.46	\$1.91	\$1.80	\$1.87
Aug	\$2.09	\$1.77	\$1.40	\$2.59	\$2.15	\$1.80	\$1.97
Sep	\$1.87	\$1.88	\$1.52	\$2.97	\$2.67	\$1.82	\$2.10
Oct	\$1.83	\$1.91	\$1.53	\$2.32	\$2.37	\$1.85	\$1.95
Nov	\$1.74	\$1.79	\$1.61	\$2.00	\$2.16	\$1.85	\$1.81
Dec	\$1.61	\$1.56	\$1.60	\$1.76	\$1.84	\$1.76	\$1.63
Avg	\$1.96	\$1.60	\$1.56	\$2.16	\$1.98	\$1.80	\$1.80

We Believe...

- Fueled by nervous end-users, butter market volatility may last for a while. Buyers are anxious to fill their coolers adding a steady bid to the market ahead of the holiday season. While imported butterfat could fill some domestic needs, a rapid drawdown in stocks will only add more anxiety to an already precarious inventory situation. As buyers come looking for product, prices levels will remain elevated until the holiday pipeline is full.

We Believe...

- Uneasiness surrounding global supply has a lit fire under the NDM market. As prices increase, end-users are layering in further physical coverage and pulling product out of manufacturers' warehouses. But, ample product remains in storage. Combined with steady milk growth in the US and Europe, and still softer demand from China, the recent uptick seems poised to give way to persistently bearish fundamentals as 2016 approaches.

Bullish

- As prices bounce back, end-users hit the buy button
- Weather concerns in New Zealand creates uneasiness in the marketplace
- Larger-than-expected seasonal buying from China

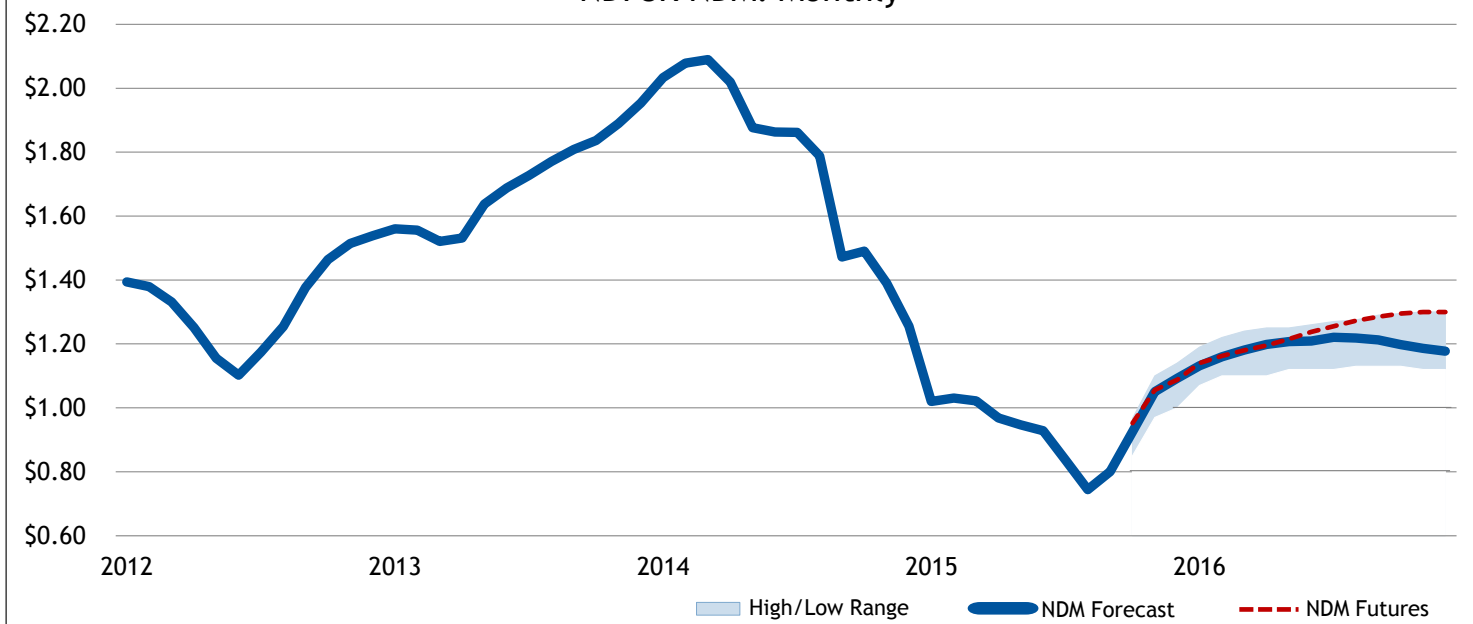
Bearish

- Better-than-expected milk production in New Zealand
- Without a cheese market in Russia, continued expansion in European milk supply keeps powder plants full
- Robust physical forward coverage reduces end-user needs in early 2016

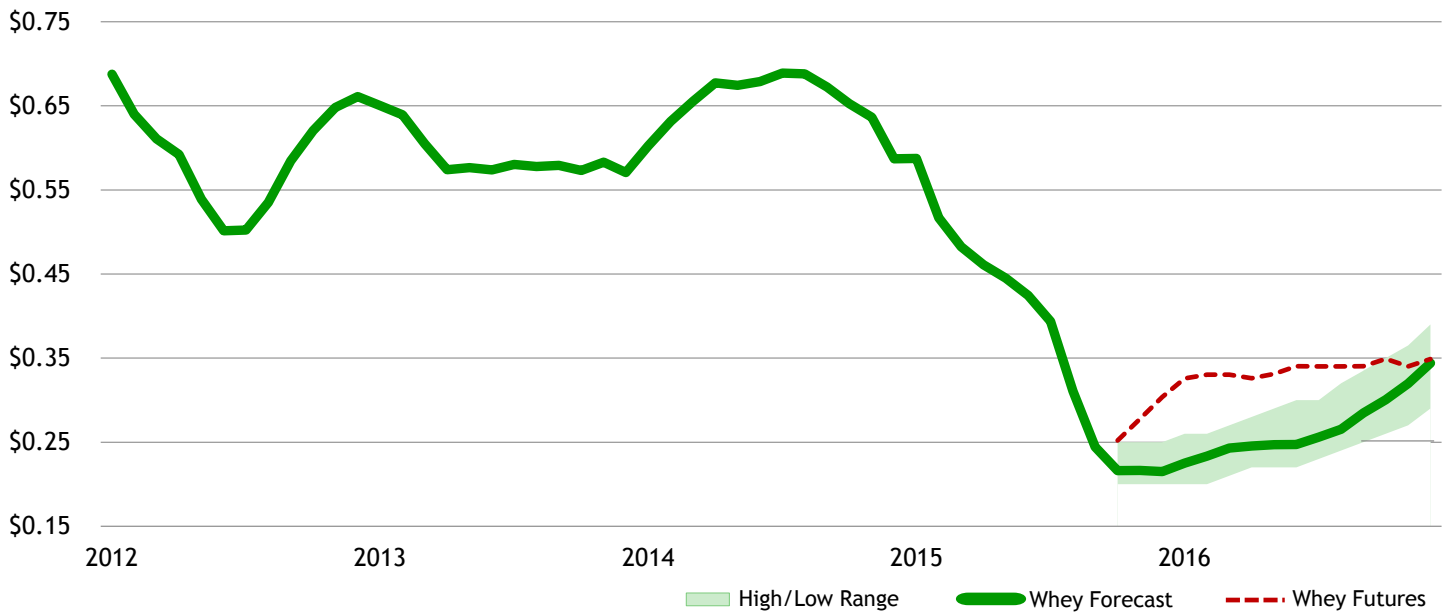
NDPSR NDM

Month	2011	2012	2013	2014	2015	2016	10-14 Avg
Jan	\$1.25	\$1.39	\$1.56	\$2.03	\$1.02	\$1.13	\$1.49
Feb	\$1.37	\$1.38	\$1.56	\$2.08	\$1.03	\$1.16	\$1.49
Mar	\$1.49	\$1.33	\$1.52	\$2.09	\$1.02	\$1.18	\$1.50
Apr	\$1.57	\$1.25	\$1.53	\$2.02	\$0.97	\$1.20	\$1.50
May	\$1.61	\$1.16	\$1.64	\$1.88	\$0.95	\$1.21	\$1.51
Jun	\$1.65	\$1.10	\$1.69	\$1.86	\$0.93	\$1.21	\$1.51
Jul	\$1.62	\$1.17	\$1.73	\$1.86	\$0.84	\$1.22	\$1.52
Aug	\$1.57	\$1.25	\$1.77	\$1.79	\$0.74	\$1.22	\$1.51
Sep	\$1.54	\$1.38	\$1.81	\$1.47	\$0.80	\$1.21	\$1.47
Oct	\$1.51	\$1.46	\$1.84	\$1.49	\$0.93	\$1.20	\$1.49
Nov	\$1.45	\$1.51	\$1.89	\$1.39	\$1.05	\$1.19	\$1.49
Dec	\$1.42	\$1.54	\$1.95	\$1.26	\$1.09	\$1.18	\$1.47
Avg	\$1.51	\$1.33	\$1.71	\$1.77	\$0.95	\$1.19	\$1.50

NDPSR NDM: Monthly



NDPSR Whey: Monthly



Bullish

- Inexpensive pricing versus Europe drives exports
- Prospects of prices under cost of production pushes manufacturers away from drying liquid whey
- Low protein prices fuel retail innovation, and therefore demand growth

Bearish

- High protein whey imports displace US sales, further expanding inventory levels and spurring more dry whey production
- Still strong milk production in the Midwest keeps cheese vats full

NDPSR Dry Whey

Month	2011	2012	2013	2014	2015	2016	10-14 Avg
Jan	\$0.39	\$0.69	\$0.65	\$0.60	\$0.59	\$0.23	\$0.54
Feb	\$0.42	\$0.64	\$0.64	\$0.63	\$0.52	\$0.23	\$0.55
Mar	\$0.46	\$0.61	\$0.60	\$0.66	\$0.48	\$0.24	\$0.54
Apr	\$0.48	\$0.59	\$0.57	\$0.68	\$0.46	\$0.25	\$0.54
May	\$0.49	\$0.54	\$0.58	\$0.67	\$0.45	\$0.25	\$0.53
Jun	\$0.52	\$0.50	\$0.57	\$0.68	\$0.42	\$0.25	\$0.53
Jul	\$0.55	\$0.50	\$0.58	\$0.69	\$0.39	\$0.26	\$0.54
Aug	\$0.57	\$0.54	\$0.58	\$0.69	\$0.31	\$0.27	\$0.55
Sep	\$0.59	\$0.58	\$0.58	\$0.67	\$0.24	\$0.28	\$0.56
Oct	\$0.62	\$0.62	\$0.57	\$0.65	\$0.22	\$0.30	\$0.57
Nov	\$0.64	\$0.65	\$0.58	\$0.64	\$0.22	\$0.32	\$0.58
Dec	\$0.65	\$0.66	\$0.57	\$0.59	\$0.22	\$0.34	\$0.57
Avg	\$0.53	\$0.59	\$0.59	\$0.65	\$0.38	\$0.27	\$0.55

We Believe...

- Heavy supplies continue to weigh down the whey market. Cheese output is up, meaning there's more whey to process. And, high protein whey markets are down, attracting more volume into products such as sweet whey. While domestic demand appears steady, exports are under siege, resulting in fuller warehouses at home. However, the strong forward curve in the futures market may add a level of support to prices heading into 2016.

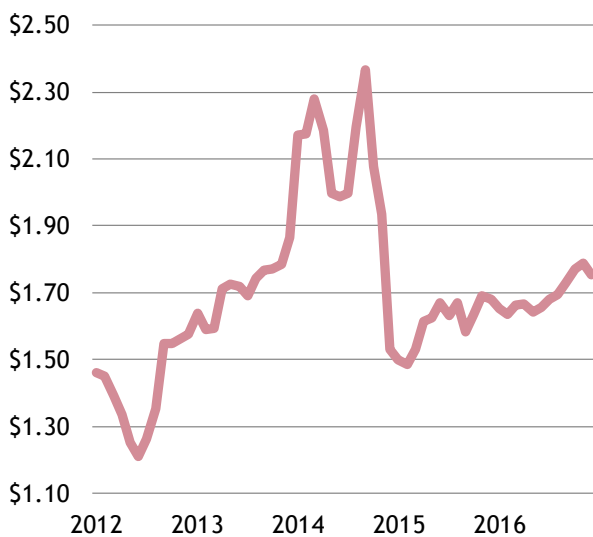
CME Barrel Cheddar Cheese

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
2010	\$ 1.47	\$ 1.42	\$ 1.28	\$ 1.39	\$ 1.42	\$ 1.36	\$ 1.52	\$ 1.60	\$ 1.71	\$ 1.71	\$ 1.45	\$ 1.38	\$ 1.47
2011	\$ 1.49	\$ 1.87	\$ 1.80	\$ 1.58	\$ 1.69	\$ 2.05	\$ 2.11	\$ 1.96	\$ 1.70	\$ 1.72	\$ 1.89	\$ 1.58	\$ 1.79
2012	\$ 1.54	\$ 1.48	\$ 1.51	\$ 1.45	\$ 1.47	\$ 1.59	\$ 1.68	\$ 1.79	\$ 1.88	\$ 2.02	\$ 1.84	\$ 1.66	\$ 1.66
2013	\$ 1.64	\$ 1.59	\$ 1.59	\$ 1.71	\$ 1.73	\$ 1.72	\$ 1.69	\$ 1.74	\$ 1.77	\$ 1.77	\$ 1.78	\$ 1.87	\$ 1.72
2014	\$ 2.17	\$ 2.18	\$ 2.28	\$ 2.18	\$ 2.00	\$ 1.99	\$ 2.00	\$ 2.20	\$ 2.37	\$ 2.08	\$ 1.93	\$ 1.53	\$ 2.07
2015	\$ 1.50	\$ 1.49	\$ 1.53	\$ 1.61	\$ 1.63	\$ 1.67	\$ 1.63	\$ 1.67	\$ 1.58	\$ 1.63	\$ 1.69	\$ 1.68	\$ 1.61
2016	\$ 1.65	\$ 1.64	\$ 1.66	\$ 1.67	\$ 1.64	\$ 1.66	\$ 1.68	\$ 1.70	\$ 1.73	\$ 1.77	\$ 1.79	\$ 1.75	\$ 1.69
10-14 Avg	\$ 1.66	\$ 1.71	\$ 1.69	\$ 1.66	\$ 1.66	\$ 1.74	\$ 1.80	\$ 1.86	\$ 1.89	\$ 1.86	\$ 1.78	\$ 1.60	\$ 1.74

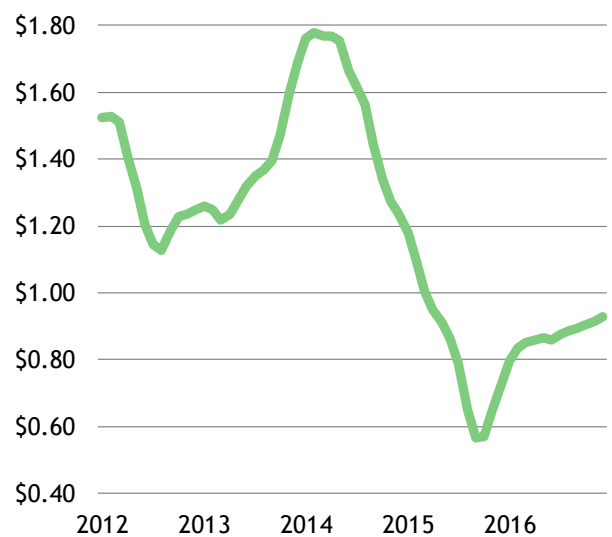
Whey Protein Concentrate (AMS Central and West)

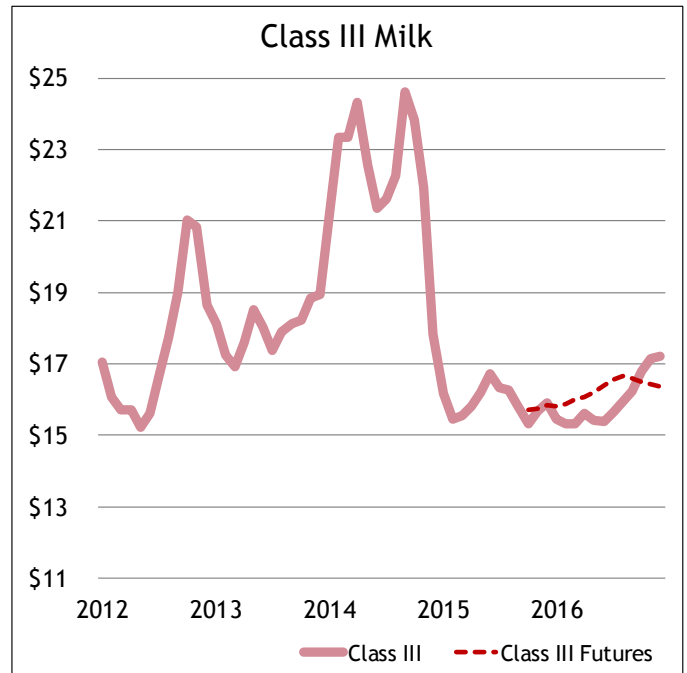
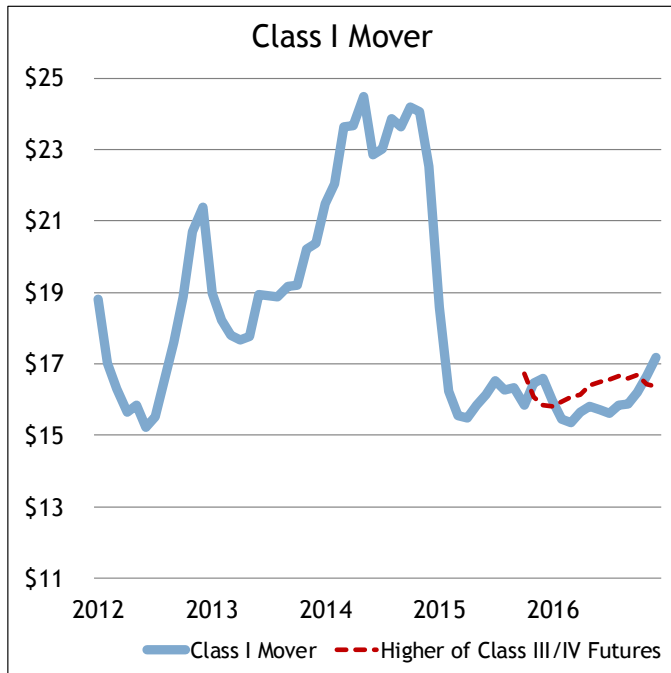
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
2010	\$ 0.92	\$ 0.93	\$ 0.91	\$ 0.91	\$ 0.92	\$ 0.94	\$ 0.94	\$ 0.96	\$ 0.96	\$ 0.98	\$ 1.00	\$ 1.00	\$ 0.95
2011	\$ 1.02	\$ 1.06	\$ 1.22	\$ 1.36	\$ 1.50	\$ 1.55	\$ 1.57	\$ 1.54	\$ 1.49	\$ 1.44	\$ 1.44	\$ 1.46	\$ 1.39
2012	\$ 1.52	\$ 1.53	\$ 1.51	\$ 1.41	\$ 1.31	\$ 1.21	\$ 1.14	\$ 1.13	\$ 1.19	\$ 1.23	\$ 1.23	\$ 1.25	\$ 1.30
2013	\$ 1.26	\$ 1.25	\$ 1.22	\$ 1.24	\$ 1.28	\$ 1.32	\$ 1.35	\$ 1.37	\$ 1.40	\$ 1.47	\$ 1.60	\$ 1.69	\$ 1.37
2014	\$ 1.76	\$ 1.78	\$ 1.77	\$ 1.77	\$ 1.75	\$ 1.66	\$ 1.61	\$ 1.56	\$ 1.44	\$ 1.34	\$ 1.27	\$ 1.23	\$ 1.58
2015	\$ 1.18	\$ 1.10	\$ 1.01	\$ 0.95	\$ 0.91	\$ 0.86	\$ 0.79	\$ 0.65	\$ 0.57	\$ 0.57	\$ 0.65	\$ 0.73	\$ 0.83
2016	\$ 0.80	\$ 0.83	\$ 0.85	\$ 0.86	\$ 0.86	\$ 0.86	\$ 0.88	\$ 0.89	\$ 0.90	\$ 0.90	\$ 0.91	\$ 0.93	\$ 0.87
10-14 Avg	\$ 1.30	\$ 1.31	\$ 1.33	\$ 1.34	\$ 1.35	\$ 1.34	\$ 1.32	\$ 1.31	\$ 1.30	\$ 1.29	\$ 1.31	\$ 1.33	\$ 1.32

CME Barrel Cheddar: Monthly



WPC: AMS Monthly





Class I Mover													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
2010	\$15.03	\$14.84	\$14.34	\$13.22	\$13.80	\$15.28	\$15.66	\$15.77	\$15.50	\$16.58	\$17.24	\$16.96	\$15.35
2011	\$15.20	\$15.89	\$18.23	\$19.43	\$19.75	\$20.32	\$21.03	\$21.43	\$21.78	\$19.56	\$18.45	\$18.47	\$19.13
2012	\$18.80	\$17.03	\$16.30	\$15.66	\$15.86	\$15.24	\$15.51	\$16.55	\$17.59	\$18.88	\$20.70	\$21.39	\$17.46
2013	\$18.97	\$18.21	\$17.80	\$17.66	\$17.76	\$18.93	\$18.91	\$18.88	\$19.16	\$19.20	\$20.20	\$20.37	\$18.84
2014	\$21.48	\$22.02	\$23.64	\$23.65	\$24.47	\$22.86	\$23.02	\$23.87	\$23.63	\$24.19	\$24.06	\$22.53	\$23.29
2015	\$18.58	\$16.24	\$15.56	\$15.50	\$15.83	\$16.14	\$16.53	\$16.28	\$16.34	\$15.84	\$16.47	\$16.59	\$16.33
2016	\$15.97	\$15.47	\$15.35	\$15.65	\$15.82	\$15.71	\$15.63	\$15.83	\$15.89	\$16.19	\$16.65	\$17.17	\$15.94
10-14 Avg	\$17.90	\$17.60	\$18.06	\$17.92	\$18.33	\$18.53	\$18.83	\$19.30	\$19.53	\$19.68	\$20.13	\$19.94	\$18.81

Class III Milk													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
2010	\$14.50	\$14.28	\$12.78	\$12.92	\$13.38	\$13.62	\$13.74	\$15.18	\$16.26	\$16.94	\$15.44	\$13.83	\$14.41
2011	\$13.48	\$17.00	\$19.40	\$16.87	\$16.52	\$19.11	\$21.39	\$21.67	\$19.07	\$18.03	\$19.07	\$18.77	\$18.37
2012	\$17.05	\$16.06	\$15.72	\$15.72	\$15.23	\$15.63	\$16.68	\$17.73	\$19.00	\$21.02	\$20.83	\$18.66	\$17.44
2013	\$18.14	\$17.25	\$16.93	\$17.59	\$18.52	\$18.02	\$17.38	\$17.91	\$18.14	\$18.22	\$18.83	\$18.95	\$17.99
2014	\$21.15	\$23.35	\$23.33	\$24.31	\$22.57	\$21.36	\$21.60	\$22.25	\$24.60	\$23.82	\$21.94	\$17.82	\$22.34
2015	\$16.18	\$15.46	\$15.56	\$15.81	\$16.19	\$16.72	\$16.33	\$16.27	\$15.82	\$15.34	\$15.68	\$15.91	\$15.94
2016	\$15.46	\$15.31	\$15.33	\$15.63	\$15.42	\$15.38	\$15.66	\$15.93	\$16.25	\$16.78	\$17.16	\$17.23	\$15.96
10-14 Avg	\$16.86	\$17.59	\$17.63	\$17.48	\$17.24	\$17.55	\$18.16	\$18.95	\$19.41	\$19.61	\$19.22	\$17.61	\$18.11

Class II Milk													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
2011	\$16.79	\$17.97	\$18.83	\$19.66	\$20.63	\$21.37	\$21.29	\$21.55	\$20.55	\$19.41	\$19.26	\$18.08	\$19.62
2012	\$17.67	\$16.94	\$16.59	\$16.20	\$15.19	\$14.32	\$14.51	\$15.64	\$17.04	\$18.44	\$18.81	\$18.30	\$16.64
2013	\$18.19	\$18.49	\$18.82	\$18.73	\$18.43	\$19.14	\$19.22	\$19.27	\$19.78	\$20.56	\$20.76	\$21.66	\$19.42
2014	\$22.21	\$23.73	\$24.21	\$24.74	\$24.44	\$23.94	\$24.41	\$25.34	\$26.11	\$21.93	\$19.91	\$19.09	\$23.34
2015	\$16.18	\$14.48	\$14.50	\$14.98	\$14.81	\$14.77	\$14.70	\$14.54	\$15.36	\$16.23	\$15.87	\$15.47	\$15.16
2016	\$15.48	\$15.71	\$16.12	\$16.36	\$16.32	\$16.36	\$16.40	\$16.61	\$16.65	\$16.73	\$16.68	\$16.28	\$16.31
10-14 Avg	\$18.01	\$18.56	\$18.58	\$18.62	\$18.72	\$18.95	\$19.31	\$19.76	\$20.22	\$19.58	\$19.19	\$18.58	\$19.01

Class IV Milk													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
2011	\$16.42	\$18.40	\$19.41	\$19.78	\$20.29	\$21.05	\$20.33	\$20.14	\$19.53	\$18.41	\$17.87	\$16.87	\$19.04
2012	\$16.56	\$15.92	\$15.35	\$14.79	\$13.55	\$13.24	\$14.45	\$15.76	\$17.41	\$18.54	\$18.66	\$17.83	\$16.01
2013	\$17.63	\$17.75	\$17.75	\$18.10	\$18.89	\$18.88	\$18.90	\$19.07	\$19.43	\$20.17	\$20.52	\$21.54	\$19.05
2014	\$22.29	\$23.46	\$23.66	\$23.34	\$22.65	\$23.13	\$23.78	\$23.89	\$22.58	\$21.35	\$18.21	\$16.70	\$22.09
2015	\$13.23	\$13.82	\$13.80	\$13.51	\$13.91	\$13.90	\$13.15	\$12.90	\$15.08	\$16.49	\$16.41	\$15.27	\$14.29
2016	\$15.12	\$15.28	\$15.64	\$15.82	\$15.71	\$15.68	\$15.84	\$15.88	\$15.89	\$15.89	\$15.85	\$15.52	\$15.68
10-14 Avg	\$17.35	\$17.69	\$17.82	\$17.95	\$18.13	\$18.35	\$18.64	\$18.89	\$19.14	\$19.12	\$18.39	\$17.59	\$18.26

California 4a Milk													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
2011	\$16.49	\$17.88	\$19.06	\$19.45	\$19.94	\$20.79	\$20.07	\$20.23	\$19.29	\$18.29	\$17.70	\$16.59	\$18.82
2012	\$16.18	\$15.51	\$15.33	\$14.72	\$13.45	\$13.17	\$13.50	\$15.40	\$16.62	\$17.96	\$18.27	\$17.47	\$15.63
2013	\$17.08	\$18.01	\$17.87	\$18.02	\$18.24	\$18.39	\$18.61	\$18.70	\$19.47	\$20.00	\$20.63	\$21.16	\$18.85
2014	\$22.13	\$23.08	\$23.37	\$23.31	\$22.57	\$23.19	\$23.58	\$23.83	\$22.72	\$21.51	\$18.14	\$16.57	\$22.00
2015	\$13.09	\$13.46	\$13.42	\$13.36	\$13.91	\$13.65	\$13.03	\$13.08	\$15.40	\$16.35	\$16.45	\$15.04	\$14.19
2016	\$15.14	\$15.23	\$15.65	\$15.70	\$15.62	\$15.56	\$15.75	\$15.75	\$15.77	\$15.72	\$15.67	\$15.32	\$15.57
10-14 Avg	\$17.13	\$17.46	\$17.69	\$17.80	\$17.63	\$18.16	\$18.28	\$18.77	\$18.94	\$18.88	\$18.22	\$17.29	\$18.02

California 4b Milk													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
2011	\$12.49	\$16.92	\$16.76	\$14.34	\$14.74	\$18.79	\$19.35	\$18.60	\$16.33	\$15.78	\$17.19	\$15.14	\$16.37
2012	\$14.23	\$13.42	\$13.67	\$13.43	\$13.56	\$14.65	\$15.18	\$16.57	\$17.50	\$19.43	\$18.48	\$16.30	\$15.54
2013	\$15.84	\$15.41	\$15.02	\$16.92	\$17.20	\$15.91	\$15.65	\$16.32	\$16.65	\$16.82	\$17.30	\$18.03	\$16.42
2014	\$20.31	\$21.14	\$22.16	\$21.73	\$19.34	\$19.07	\$18.69	\$19.96	\$22.39	\$20.94	\$18.70	\$14.78	\$19.93
2015	\$13.75	\$13.78	\$13.97	\$14.22	\$14.63	\$15.55	\$14.98	\$15.74	\$14.94	\$15.34	\$15.62	\$15.44	\$14.83
2016	\$15.07	\$15.02	\$15.22	\$15.33	\$15.05	\$15.17	\$15.39	\$15.51	\$15.76	\$16.27	\$16.51	\$16.35	\$15.55
10-14 Avg	\$15.12	\$15.97	\$15.75	\$15.75	\$15.45	\$16.13	\$16.45	\$17.17	\$17.67	\$17.73	\$16.96	\$15.29	\$16.29

NDPSR "All Cheese" Price

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
2011	\$ 1.41	\$ 1.74	\$ 1.97	\$ 1.70	\$ 1.65	\$ 1.90	\$ 2.12	\$ 2.14	\$ 1.86	\$ 1.75	\$ 1.84	\$ 1.81	\$ 1.82
2012	\$ 1.61	\$ 1.54	\$ 1.52	\$ 1.54	\$ 1.52	\$ 1.58	\$ 1.69	\$ 1.77	\$ 1.86	\$ 2.05	\$ 2.01	\$ 1.79	\$ 1.71
2013	\$ 1.75	\$ 1.66	\$ 1.65	\$ 1.73	\$ 1.83	\$ 1.78	\$ 1.71	\$ 1.77	\$ 1.80	\$ 1.80	\$ 1.86	\$ 1.88	\$ 1.77
2014	\$ 2.08	\$ 2.29	\$ 2.27	\$ 2.35	\$ 2.17	\$ 2.04	\$ 2.05	\$ 2.11	\$ 2.35	\$ 2.29	\$ 2.13	\$ 1.74	\$ 2.16
2015	\$ 1.58	\$ 1.54	\$ 1.58	\$ 1.61	\$ 1.66	\$ 1.72	\$ 1.70	\$ 1.74	\$ 1.71	\$ 1.68	\$ 1.73	\$ 1.76	\$ 1.67
2016	\$ 1.72	\$ 1.70	\$ 1.69	\$ 1.72	\$ 1.70	\$ 1.70	\$ 1.72	\$ 1.74	\$ 1.76	\$ 1.81	\$ 1.83	\$ 1.83	\$ 1.74
10-14 Avg	\$ 1.68	\$ 1.75	\$ 1.76	\$ 1.74	\$ 1.72	\$ 1.75	\$ 1.81	\$ 1.88	\$ 1.91	\$ 1.93	\$ 1.89	\$ 1.73	\$ 1.80

FMMO CLASS II Skim Price

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
2011	\$10.03	\$10.27	\$11.20	\$12.33	\$13.19	\$13.52	\$13.87	\$13.97	\$13.29	\$12.98	\$12.86	\$12.38	\$12.49
2012	\$12.05	\$11.82	\$11.62	\$11.09	\$10.47	\$ 9.42	\$ 9.01	\$ 9.53	\$10.36	\$11.42	\$12.13	\$12.67	\$10.97
2013	\$12.96	\$13.11	\$13.14	\$12.77	\$12.59	\$13.79	\$14.20	\$14.47	\$14.96	\$15.25	\$15.56	\$16.01	\$14.07
2014	\$16.51	\$17.27	\$17.66	\$17.92	\$17.06	\$15.93	\$15.71	\$15.92	\$15.26	\$12.36	\$12.62	\$12.14	\$15.53
2015	\$10.63	\$ 8.34	\$ 8.31	\$ 8.63	\$ 7.85	\$ 7.66	\$ 7.55	\$ 6.82	\$ 5.91	\$ 6.46	\$ 7.29	\$ 8.42	\$ 7.82
2016	\$ 8.93	\$ 9.26	\$ 9.49	\$ 9.73	\$ 9.87	\$ 9.96	\$ 9.93	\$10.09	\$10.07	\$10.03	\$ 9.91	\$ 9.77	\$ 9.75
10-14 Avg	\$12.41	\$12.69	\$12.60	\$12.53	\$12.51	\$12.59	\$12.72	\$12.82	\$12.67	\$12.27	\$12.57	\$12.60	\$12.58

NDPSR Butter Price

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
2011	\$ 1.84	\$ 2.07	\$ 2.06	\$ 2.00	\$ 2.03	\$ 2.13	\$ 2.03	\$ 2.07	\$ 1.99	\$ 1.79	\$ 1.78	\$ 1.61	\$ 1.95
2012	\$ 1.59	\$ 1.47	\$ 1.43	\$ 1.46	\$ 1.37	\$ 1.40	\$ 1.54	\$ 1.69	\$ 1.83	\$ 1.92	\$ 1.84	\$ 1.60	\$ 1.59
2013	\$ 1.51	\$ 1.54	\$ 1.61	\$ 1.68	\$ 1.65	\$ 1.54	\$ 1.47	\$ 1.42	\$ 1.43	\$ 1.55	\$ 1.52	\$ 1.63	\$ 1.55
2014	\$ 1.65	\$ 1.83	\$ 1.86	\$ 1.92	\$ 2.05	\$ 2.19	\$ 2.35	\$ 2.52	\$ 2.85	\$ 2.53	\$ 1.99	\$ 1.90	\$ 2.14
2015	\$ 1.56	\$ 1.68	\$ 1.69	\$ 1.74	\$ 1.87	\$ 1.91	\$ 1.92	\$ 2.04	\$ 2.44	\$ 2.53	\$ 2.25	\$ 1.90	\$ 1.96
2016	\$ 1.78	\$ 1.76	\$ 1.81	\$ 1.81	\$ 1.77	\$ 1.76	\$ 1.77	\$ 1.79	\$ 1.80	\$ 1.83	\$ 1.85	\$ 1.78	\$ 1.79
10-14 Avg	\$ 1.59	\$ 1.66	\$ 1.68	\$ 1.71	\$ 1.73	\$ 1.77	\$ 1.82	\$ 1.91	\$ 2.05	\$ 1.99	\$ 1.83	\$ 1.68	\$ 1.79

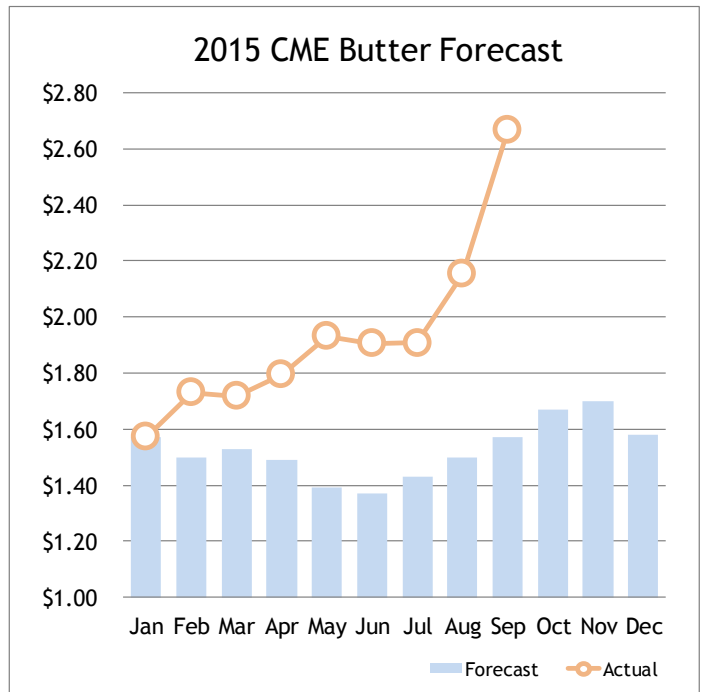
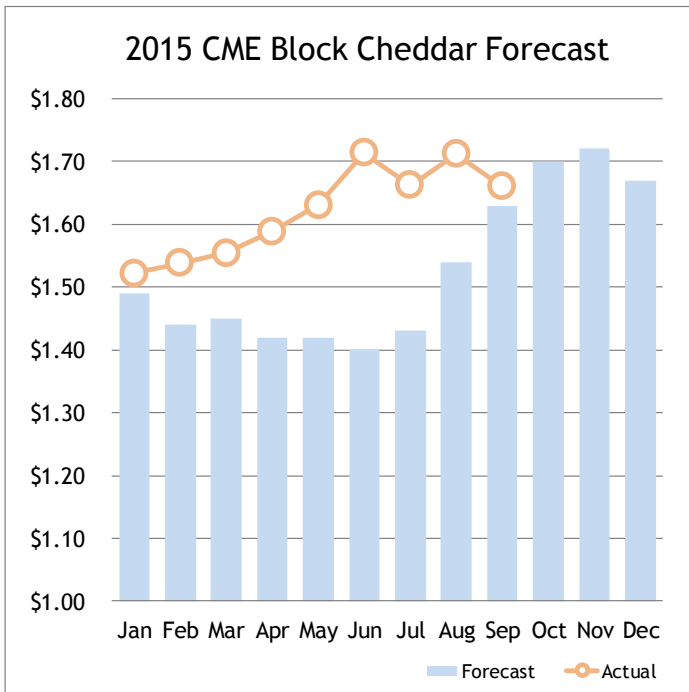
FMMO Butterfat Price

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
2011	\$ 2.02	\$ 2.30	\$ 2.29	\$ 2.21	\$ 2.25	\$ 2.37	\$ 2.25	\$ 2.30	\$ 2.20	\$ 1.96	\$ 1.95	\$ 1.74	\$ 2.15
2012	\$ 1.72	\$ 1.57	\$ 1.53	\$ 1.56	\$ 1.45	\$ 1.49	\$ 1.66	\$ 1.83	\$ 2.00	\$ 2.11	\$ 2.02	\$ 1.73	\$ 1.72
2013	\$ 1.62	\$ 1.66	\$ 1.75	\$ 1.82	\$ 1.79	\$ 1.66	\$ 1.57	\$ 1.51	\$ 1.52	\$ 1.66	\$ 1.63	\$ 1.77	\$ 1.66
2014	\$ 1.79	\$ 2.01	\$ 2.04	\$ 2.12	\$ 2.27	\$ 2.44	\$ 2.63	\$ 2.84	\$ 3.25	\$ 2.85	\$ 2.20	\$ 2.10	\$ 2.38
2015	\$ 1.69	\$ 1.83	\$ 1.84	\$ 1.89	\$ 2.06	\$ 2.10	\$ 2.11	\$ 2.27	\$ 2.75	\$ 2.85	\$ 2.52	\$ 2.09	\$ 2.17
2016	\$ 1.95	\$ 1.93	\$ 1.98	\$ 1.99	\$ 1.93	\$ 1.92	\$ 1.94	\$ 1.96	\$ 1.97	\$ 2.01	\$ 2.03	\$ 1.95	\$ 1.96
10-14 Avg	\$ 1.72	\$ 1.80	\$ 1.83	\$ 1.86	\$ 1.89	\$ 1.94	\$ 2.00	\$ 2.10	\$ 2.28	\$ 2.21	\$ 2.01	\$ 1.83	\$ 1.95

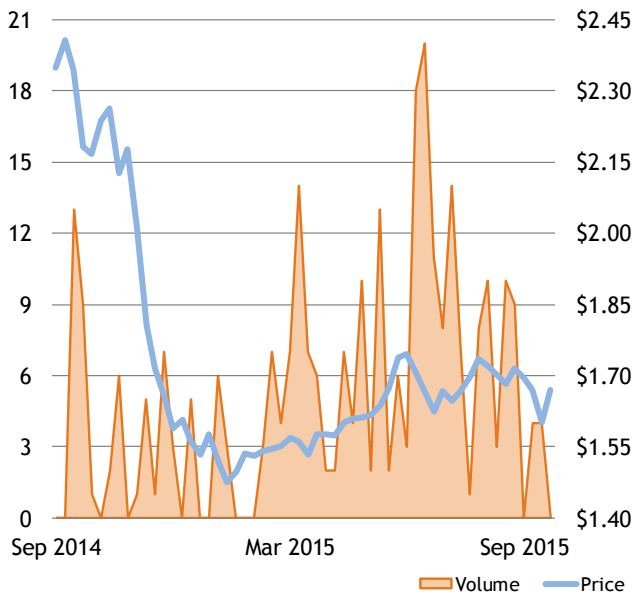
"Final" 2015 Price Forecast (as of December 31, 2014)

Month	Block Cheddar		Grade AA Butter		NDM (NDPSR)		Whey (NDPSR)	
	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual
Jan	\$ 1.49	\$ 1.52	\$ 1.57	\$ 1.57	\$ 1.12	\$1.02	\$ 0.54	\$0.59
Feb	\$ 1.44	\$ 1.54	\$ 1.50	\$ 1.73	\$ 1.07	\$1.03	\$ 0.53	\$0.52
Mar	\$ 1.45	\$ 1.55	\$ 1.53	\$ 1.72	\$ 1.04	\$1.02	\$ 0.52	\$0.48
Apr	\$ 1.42	\$ 1.59	\$ 1.49	\$ 1.79	\$ 1.02	\$0.97	\$ 0.50	\$0.46
May	\$ 1.42	\$ 1.63	\$ 1.39	\$ 1.93	\$ 1.01	\$0.95	\$ 0.48	\$0.45
Jun	\$ 1.40	\$ 1.71	\$ 1.37	\$ 1.91	\$ 1.00	\$0.93	\$ 0.47	\$0.42
Jul	\$ 1.43	\$ 1.66	\$ 1.43	\$ 1.91	\$ 0.98	\$0.84	\$ 0.50	\$0.39
Aug	\$ 1.54	\$ 1.71	\$ 1.50	\$ 2.15	\$ 1.02	\$0.74	\$ 0.53	\$0.31
Sep	\$ 1.63	\$ 1.66	\$ 1.57	\$ 2.67	\$ 1.05	\$0.80	\$ 0.54	\$0.24
Oct	\$ 1.70		\$ 1.67		\$ 1.08		\$ 0.55	
Nov	\$ 1.72		\$ 1.70		\$ 1.09		\$ 0.56	
Dec	\$ 1.67		\$ 1.58		\$ 1.11		\$ 0.56	
Avg	\$ 1.53		\$ 1.53		\$ 1.05		\$ 0.52	

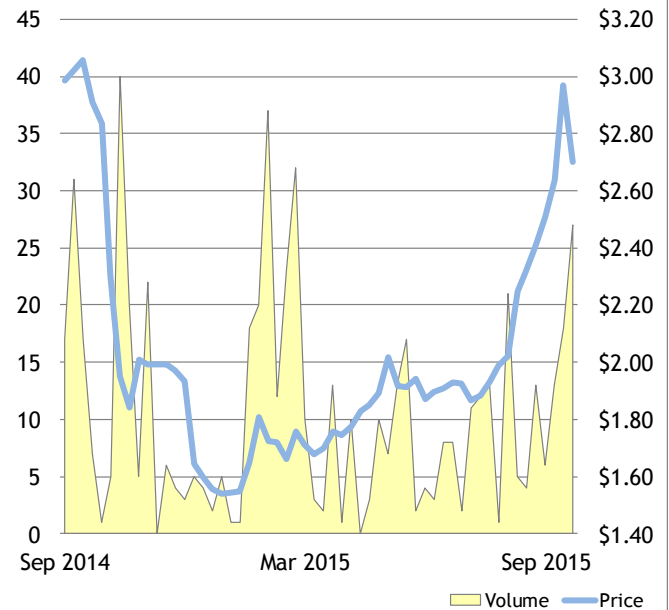
Month	Class I Mover		Class II Milk		Class III Milk		Class IV Milk	
	Forecast	Actual	Forecast	Actual	Forecast	Actual	Forecast	Actual
Jan	\$ 18.58	\$ 18.58	\$ 16.20	\$ 16.18	\$ 15.58	\$ 16.18	\$ 14.09	\$ 13.23
Feb	\$ 15.66	\$ 16.24	\$ 14.31	\$ 14.48	\$ 14.83	\$ 15.46	\$ 13.38	\$ 13.82
Mar	\$ 14.98	\$ 15.56	\$ 14.11	\$ 14.50	\$ 14.59	\$ 15.56	\$ 13.10	\$ 13.80
Apr	\$ 14.55	\$ 15.50	\$ 13.91	\$ 14.98	\$ 14.50	\$ 15.81	\$ 12.96	\$ 13.51
May	\$ 14.50	\$ 15.83	\$ 13.31	\$ 14.81	\$ 14.13	\$ 16.19	\$ 12.53	\$ 13.91
Jun	\$ 14.16	\$ 16.14	\$ 12.97	\$ 14.77	\$ 13.93	\$ 16.72	\$ 12.19	\$ 13.90
Jul	\$ 13.94	\$ 16.53	\$ 13.13	\$ 14.70	\$ 14.09	\$ 16.33	\$ 12.23	\$ 13.15
Aug	\$ 13.96	\$ 16.28	\$ 13.19	\$ 14.54	\$ 15.05	\$ 16.27	\$ 12.79	\$ 12.90
Sep	\$ 14.77	\$ 16.34	\$ 13.65	\$ 15.36	\$ 16.19	\$ 15.82	\$ 13.40	\$ 15.08
Oct	\$ 16.24	\$ 15.84	\$ 14.46		\$ 16.98		\$ 14.00	
Nov	\$ 16.84		\$ 14.98		\$ 17.68		\$ 14.38	
Dec	\$ 17.59		\$ 14.75		\$ 17.40		\$ 14.28	
Avg	\$ 15.48		\$ 14.08		\$ 15.41		\$ 13.28	



CME Block Cheddar Weekly Volume and Price



CME Butter Weekly Volume and Price



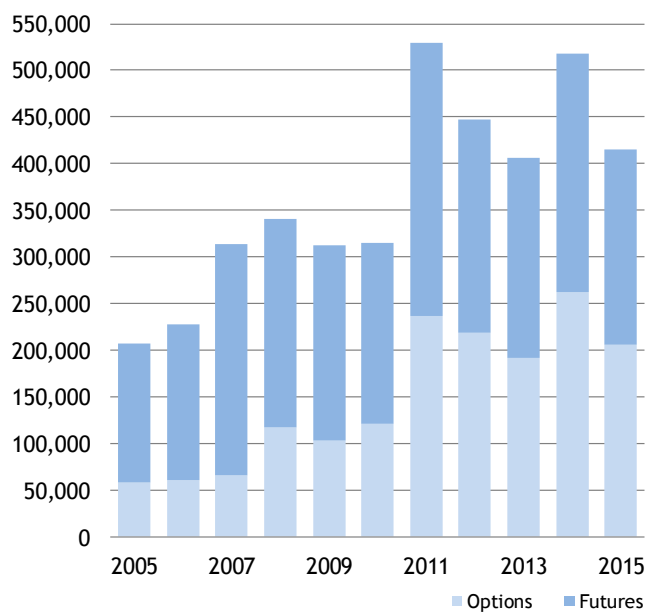
CME Cash Markets

	Block Cheddar				Barrel Cheddar		Grade AA Butter			
	Settle	Volume	Bids	Offers	Settle	Volume	Settle	Volume	Bids	Offers
31-Aug-15	\$ 1.7300	0	1	9	\$ 1.6100	0	\$ 2.3500	3	1	1
1-Sep-15	\$ 1.7500	1	2	0	\$ 1.6700	3	\$ 2.3600	0	1	1
2-Sep-15	\$ 1.7000	2	0	0	\$ 1.6700	0	\$ 2.4200	6	1	0
3-Sep-15	\$ 1.7000	5	1	0	\$ 1.6700	0	\$ 2.4500	4	1	0
4-Sep-15	\$ 1.6950	1	1	0	\$ 1.6700	0	\$ 2.4525	0	2	1
7-Sep-15										
8-Sep-15	\$ 1.6950	0	0	0	\$ 1.6700	0	\$ 2.4525	0	1	0
9-Sep-15	\$ 1.6950	0	0	0	\$ 1.6700	0	\$ 2.4725	0	1	0
10-Sep-15	\$ 1.6950	0	0	0	\$ 1.6550	0	\$ 2.5350	1	1	0
11-Sep-15	\$ 1.6950	0	0	0	\$ 1.5900	5	\$ 2.5650	5	1	0
14-Sep-15	\$ 1.6950	0	0	0	\$ 1.5825	0	\$ 2.5650	0	1	0
15-Sep-15	\$ 1.6950	0	0	0	\$ 1.5500	12	\$ 2.5950	1	1	0
16-Sep-15	\$ 1.6050	2	1	0	\$ 1.5400	10	\$ 2.6250	4	1	1
17-Sep-15	\$ 1.6600	2	1	0	\$ 1.5500	5	\$ 2.6825	6	1	0
18-Sep-15	\$ 1.6925	0	1	0	\$ 1.5425	0	\$ 2.7175	2	1	0
21-Sep-15	\$ 1.6425	0	0	1	\$ 1.5250	0	\$ 2.7550	5	1	0
22-Sep-15	\$ 1.5950	3	0	1	\$ 1.5100	5	\$ 2.8325	6	1	0
23-Sep-15	\$ 1.5900	1	0	1	\$ 1.4600	11	\$ 3.0250	1	1	0
24-Sep-15	\$ 1.5900	0	1	0	\$ 1.5500	17	\$ 3.1000	2	1	0
25-Sep-15	\$ 1.5900	0	0	0	\$ 1.5500	0	\$ 3.1350	4	1	0
28-Sep-15	\$ 1.5900	0	0	0	\$ 1.5275	5	\$ 3.0500	5	0	0
29-Sep-15	\$ 1.6300	0	1	0	\$ 1.5500	4	\$ 2.7500	1	0	0
30-Sep-15	\$ 1.6700	0	1	0	\$ 1.5625	2	\$ 2.5100	5	20	0
1-Oct-15	\$ 1.7125	0	2	0	\$ 1.5800	6	\$ 2.7000	5	1	0
2-Oct-15	\$ 1.7475	0	1	0	\$ 1.6175	6	\$ 2.5000	11	1	2

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
31-Aug-15	580	29,424	130	64,704	61	7,251	180	4,348	156	6,386	194	26,666
1-Sep-15	923	29,542	502	65,211	36	7,252	29	4,344	198	6,400	201	26,638
2-Sep-15	1,226	29,871	313	54,689	182	7,432	132	4,401	321	6,460	480	26,765
3-Sep-15	462	25,371	579	55,065	44	6,318	109	3,853	540	5,652	352	22,895
4-Sep-15	375	25,426	607	55,683	19	6,326	28	3,849	186	5,672	198	22,975
7-Sep-15												
8-Sep-15	724	25,538	111	55,972	56	6,348	65	3,820	196	5,701	504	23,116
9-Sep-15	354	25,612	181	56,203	184	6,433	31	3,812	168	5,764	100	23,140
10-Sep-15	654	25,688	198	56,233	117	6,478	164	3,876	191	5,762	296	23,194
11-Sep-15	800	25,944	377	56,390	57	6,483	43	3,886	192	5,787	379	23,299
14-Sep-15	1,243	26,338	96	56,476	17	6,492	47	3,885	100	5,782	342	23,362
15-Sep-15	1,072	26,635	320	56,804	17	6,488	46	3,895	86	5,776	364	23,490
16-Sep-15	1,452	26,631	292	57,088	115	6,449	78	3,894	287	5,746	726	23,735
17-Sep-15	1,429	26,575	699	57,943	66	6,450	66	3,886	212	5,744	361	23,799
18-Sep-15	550	26,649	150	58,148	125	6,446	54	3,890	89	5,734	158	23,888
21-Sep-15	1,116	26,890	98	58,226	61	6,427	35	3,886	223	5,832	492	24,081
22-Sep-15	1,393	27,318	450	59,486	140	6,424	58	3,888	348	5,846	715	24,273
23-Sep-15	1,318	27,539	1,079	60,375	106	6,412	85	3,894	207	5,852	575	24,472
24-Sep-15	1,026	27,521	1,023	61,334	76	6,437	50	3,892	180	5,866	562	24,577
25-Sep-15	601	27,656	117	61,726	97	6,458	67	3,907	179	5,951	438	24,687
28-Sep-15	1,029	27,754	162	61,843	102	6,459	99	3,914	154	5,959	749	24,869
29-Sep-15	958	27,890	272	62,203	259	6,427	67	3,922	389	6,211	1,082	25,164
30-Sep-15	1,247	29,173	413	51,958	151	6,612	68	3,983	347	6,437	858	25,477
1-Oct-15	1,101	23,922	327	52,232	140	5,533	49	3,298	409	5,508	552	22,020
2-Oct-15	439	24,006	126	52,370	55	5,534	155	3,323	172	5,536	152	22,090

September CME Class III Milk Volume



September CME Butter Futures Volume

