



Dairy Market Outlook

January 19, 2018

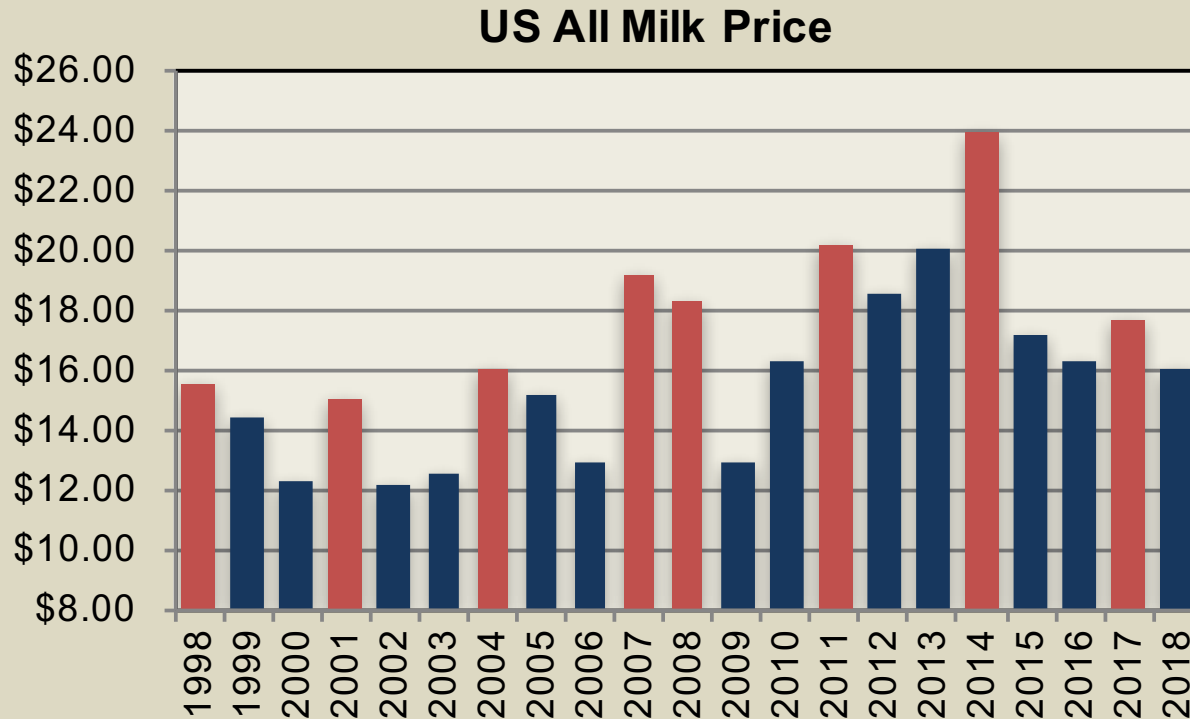
Dairy Market Outlook Summary

- ✓ Higher milk prices in 2017 resulted in an expansion phase in the milk cycle; milk production growth is expected to slow by mid-year
- ✓ Without a corresponding increase in demand, the additional supply has pressured dairy product and milk prices to multi-year lows
- ✓ US dairy farmers are the first to get the signal to slow production
- ✓ European milk production is the key to whether the market recovers in the 2nd half of 2018 – will milk prices drop and production growth slow?
- ✓ While most market factors are bearish, there are a few bullish factors
 - Oil prices are near \$60 which could lead to some commodity price inflation
 - Global economic growth of 4% this year
 - Drop in NZ milk production

Dairy Market Outlook

Milk Price Cycle

Over the past 20 years, US milk prices have exhibited a consistent 3-year cycle of highs and lows. The 2017 “high” was well below the last several cycle highs. This also points to stronger potential for lower prices in 2018 and 2019.

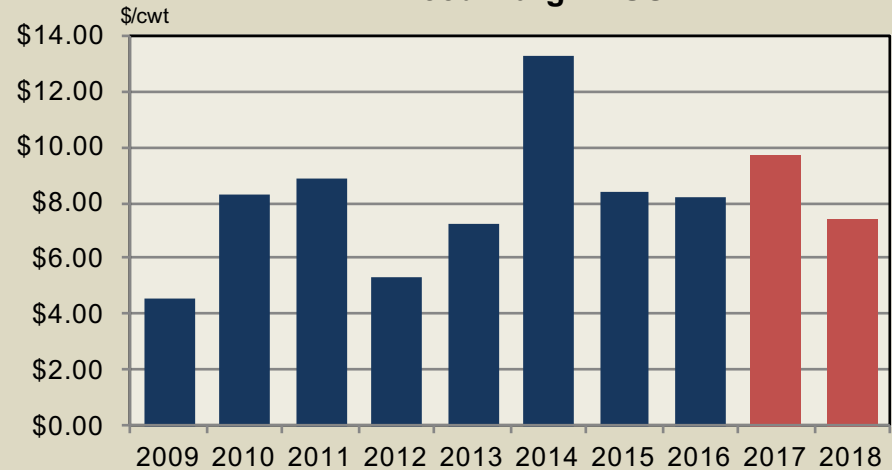


Dairy Market Outlook

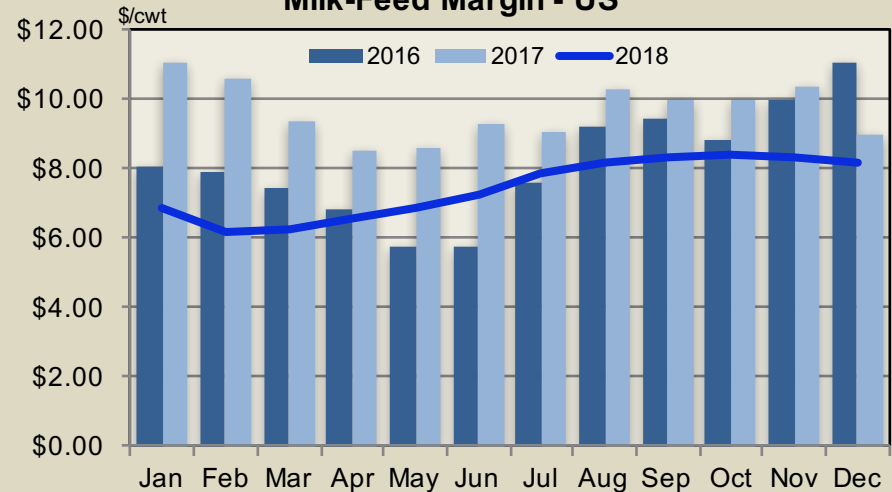
US Milk Production

- The MPP milk-feed margin in 2017 was the 2nd highest over the last decade.
- However, the 2018 average is currently projected to be \$2.25/cwt lower at \$7.45.
- Looking at the MPP margin monthly reveals a recovery in the 2nd half of the year after a 1st half that could be lower than the 1st half of 2016.

MPP Milk-Feed Margin - US



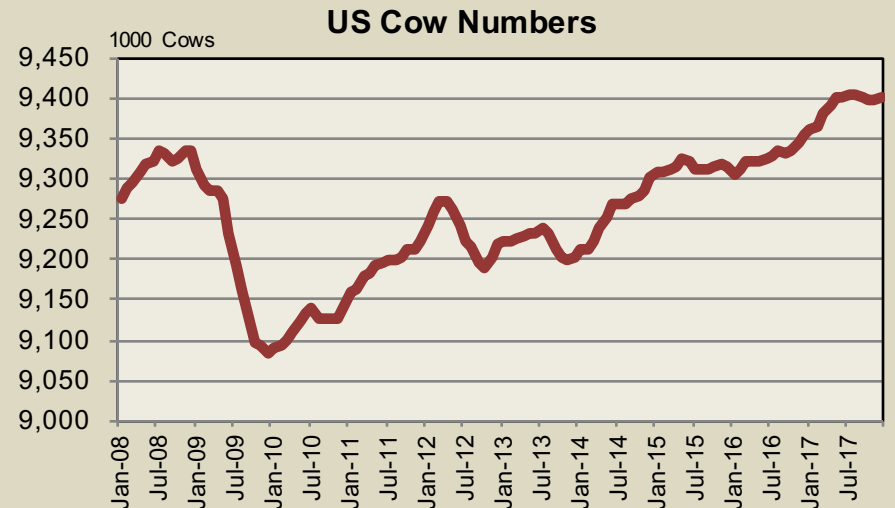
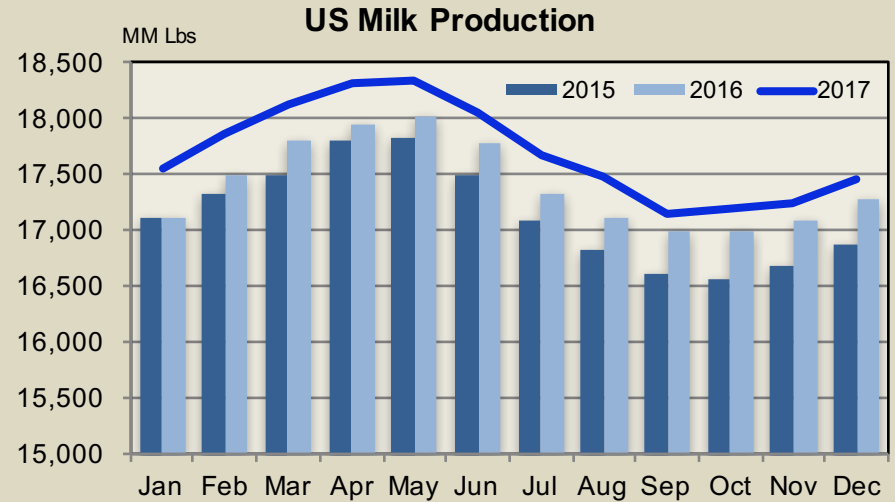
Milk-Feed Margin - US



Dairy Market Outlook

US Milk Production

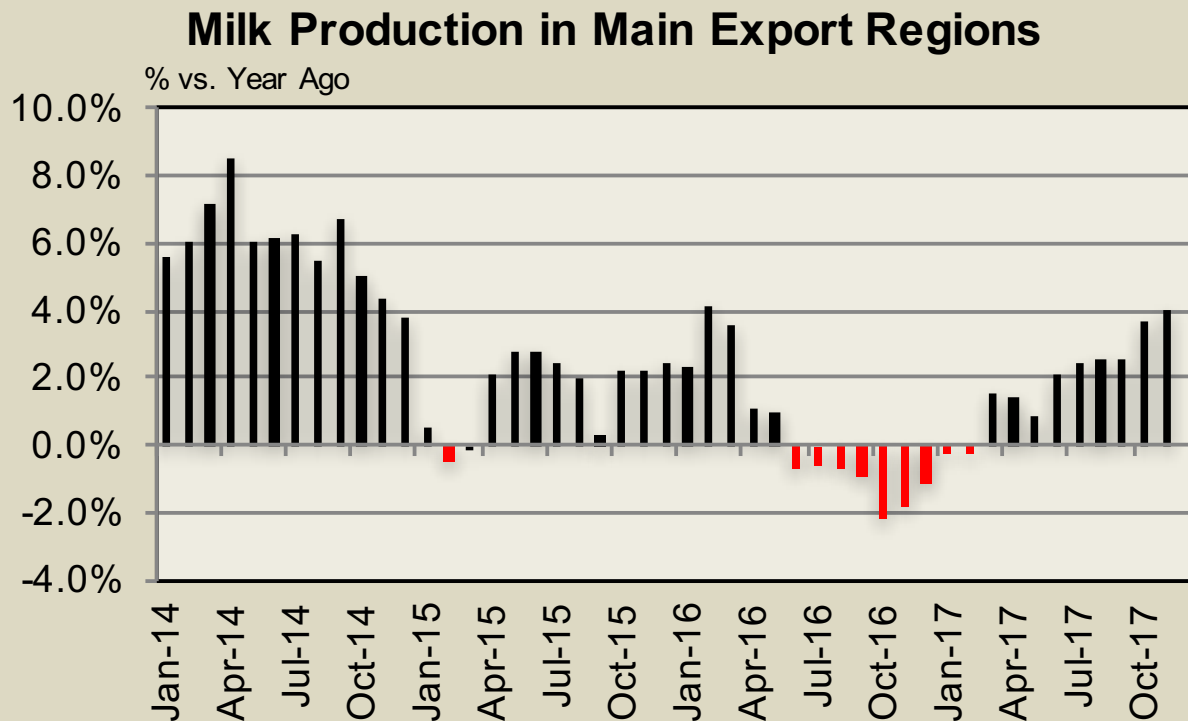
- The US dairy farmer is the first to feel the impact from lower dairy product prices
- US milk production growth has slowed to 1% over the last few months and is projected to see weak growth this year due to low farm margins
- Cow numbers are at a 21-year high, but slaughter and herd sell-outs are expected to increase in the 1st half of the year



Dairy Market Outlook

Global Market Conditions

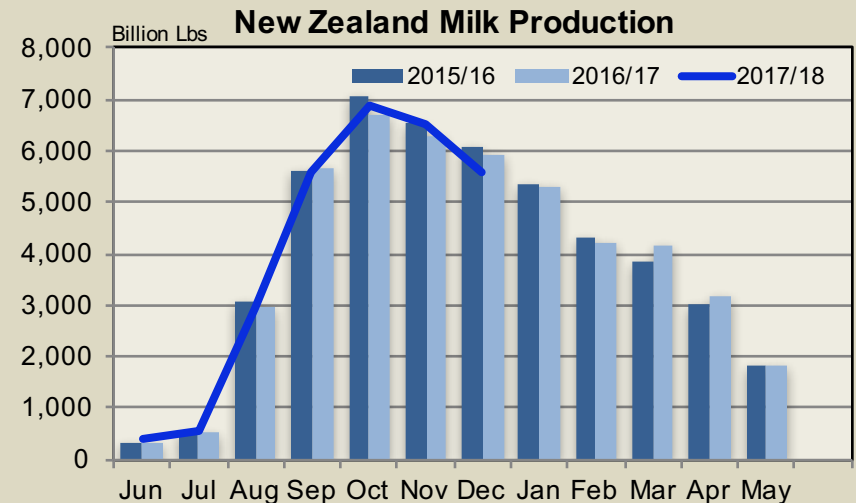
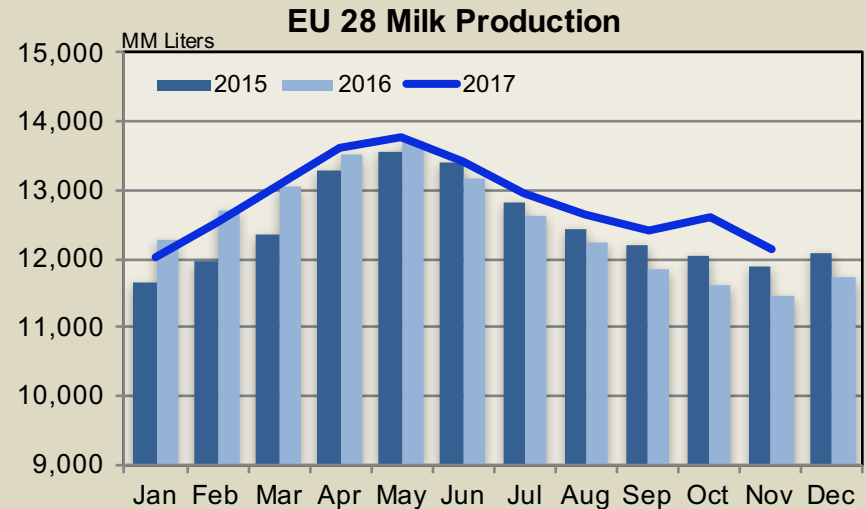
Milk production in the key exporting regions (EU, US, NZ, AU) has recovered after nearly a year of losses with continued growth projected in 2018



Dairy Market Outlook

Global Milk Production

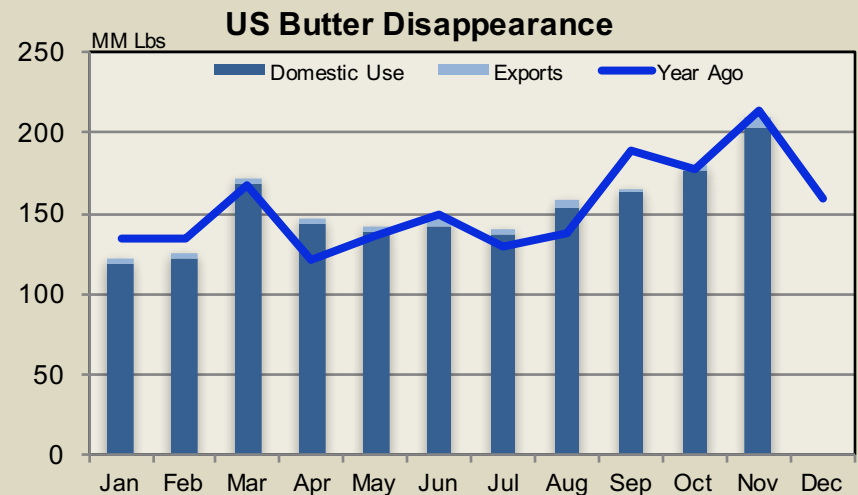
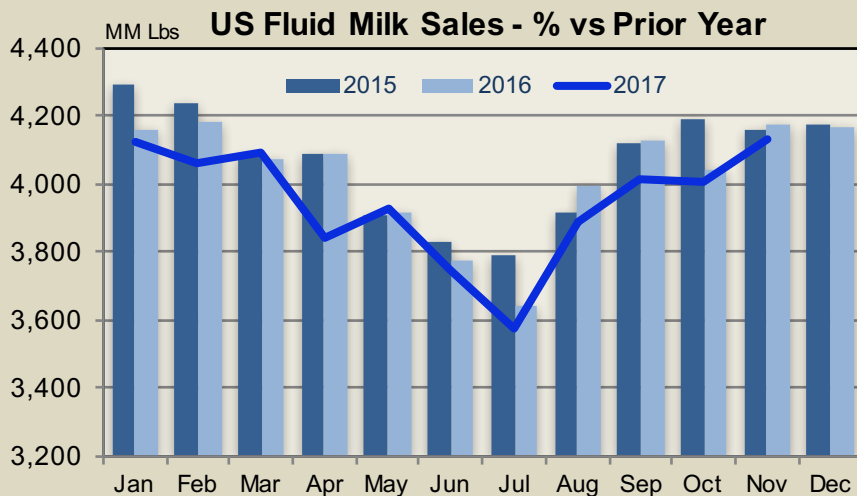
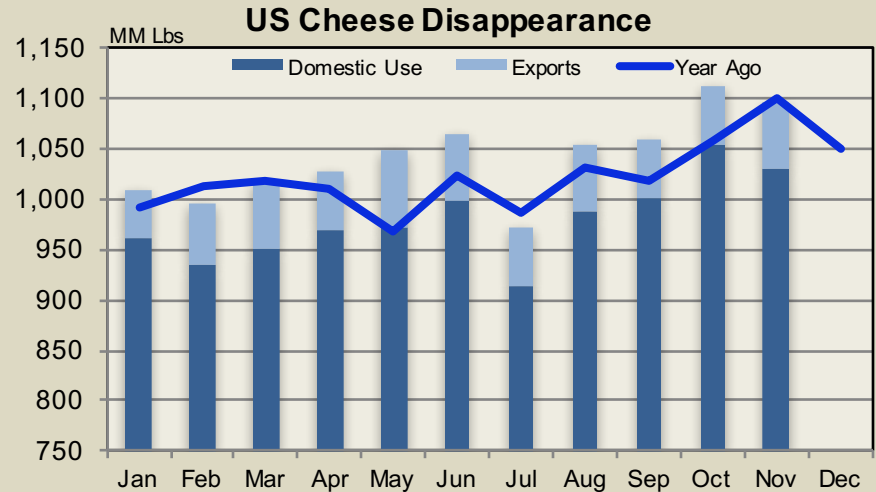
- Milk production in Europe is the key to dairy markets in 2018
- November production in the EU-28 was up 6.1% vs. prior year – this is the equivalent of the US growing over 9.5%
- In New Zealand, spring and summer weather has been less than optimal; December production was down 6% vs. prior year and Fonterra recently cut their forecast for the season from +1-2% to -4%



Dairy Market Outlook

US Dairy Product Demand

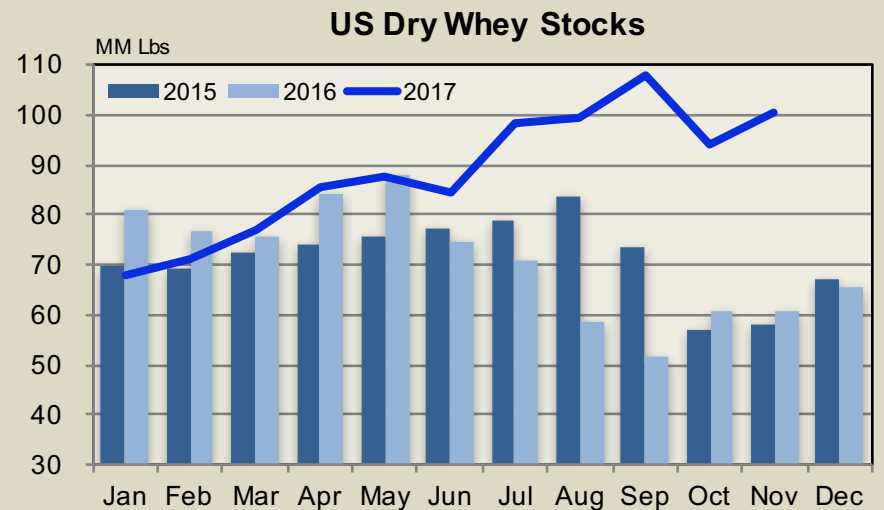
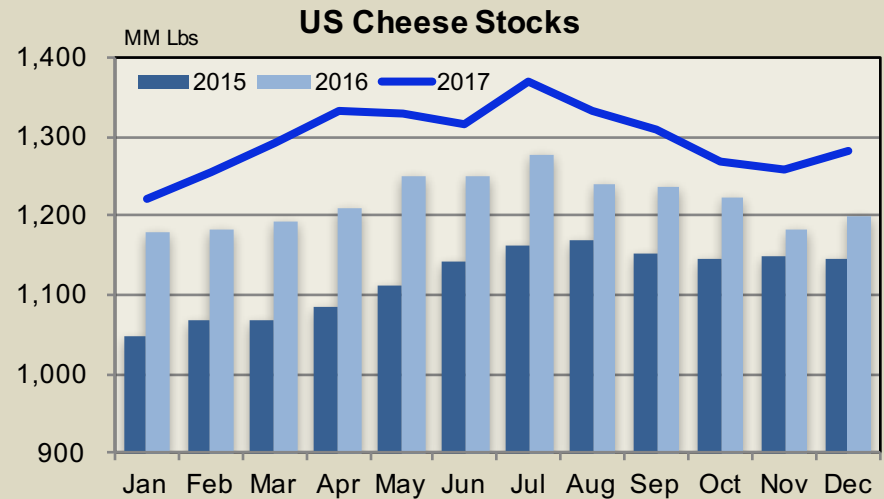
- US cheese demand was better than prior year as a stronger export pace offset weaker domestic usage
- US butter demand in 2017 was similar to 2016 with minimal exports
- Fluid milk sales continue to experience declines



Dairy Market Outlook

US Dairy Product Stocks

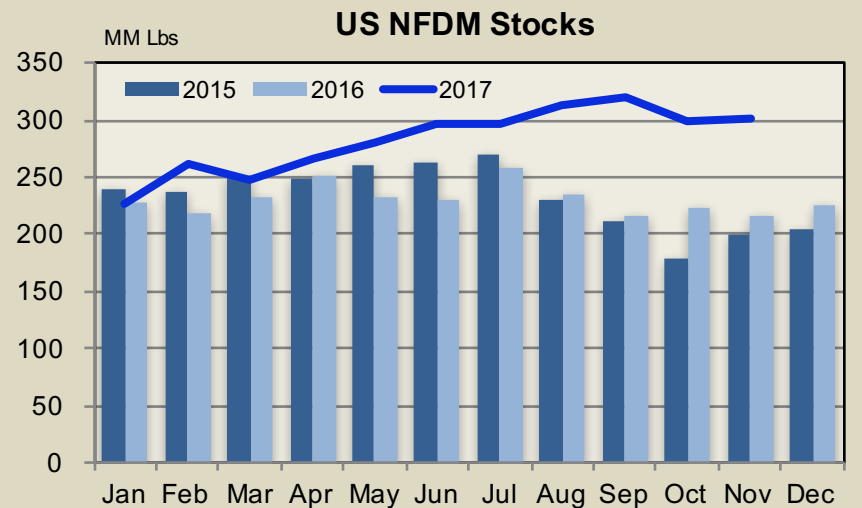
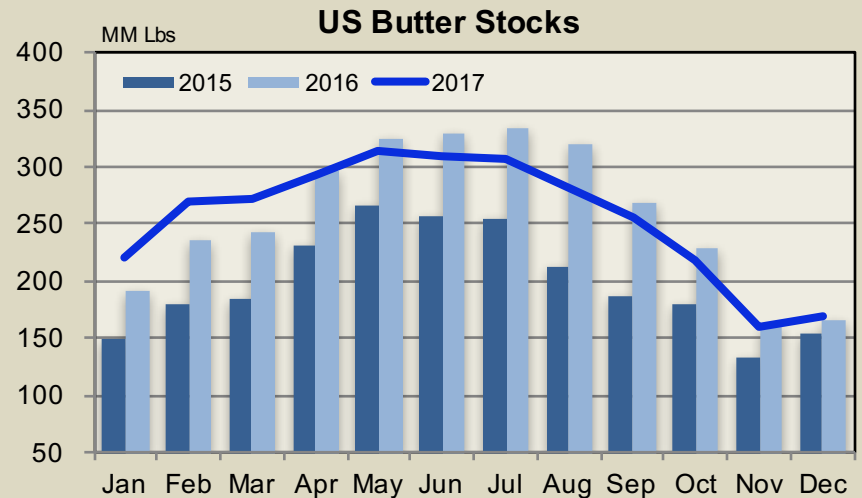
- US cheese stocks remain above year ago levels – not burdensome, but abundant; additional growth in cheese processing capacity could push stocks higher still
- Dry whey stocks on November 30 were 66% above prior year; stocks of nearly all whey products are at or near record-high levels
- Most of the increase in European milk production is ending up as cheese and whey



Dairy Market Outlook

US Dairy Product Stocks

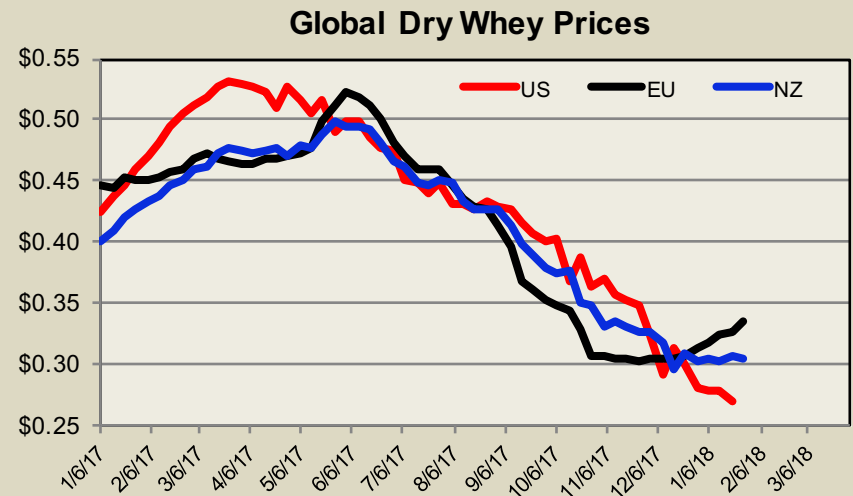
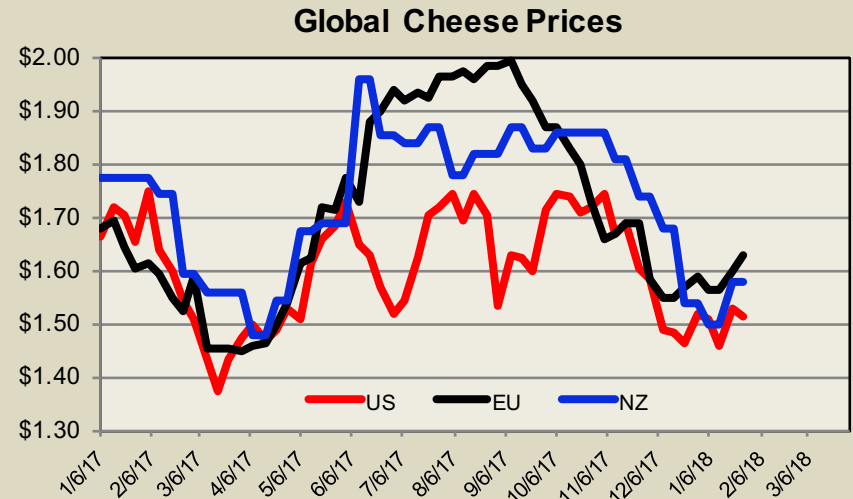
- US butter stocks finished 2017 just above prior year levels
- European butter stocks are low and need higher production to replenish them to average levels
- Milk powder stocks are high globally with US inventories of NFDM nearly 100 million lbs more than last year and the EU sitting on around 750 million lbs of SMP in the intervention program



Dairy Market Outlook

US Dairy Product Prices

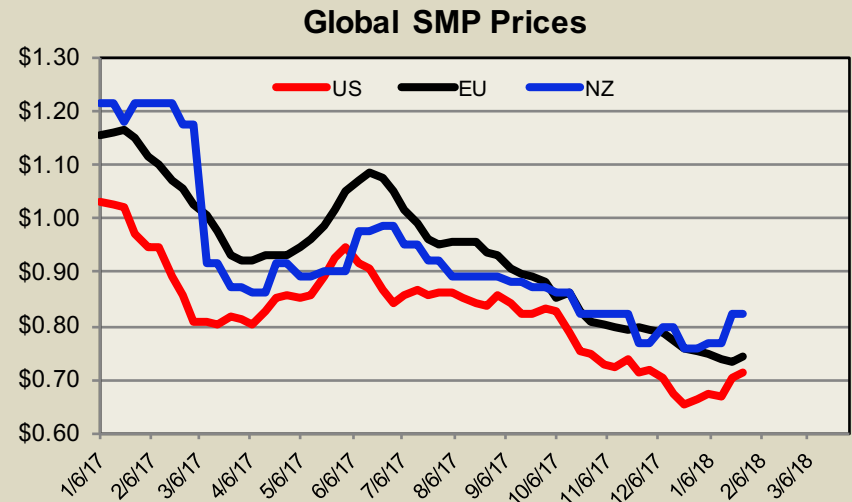
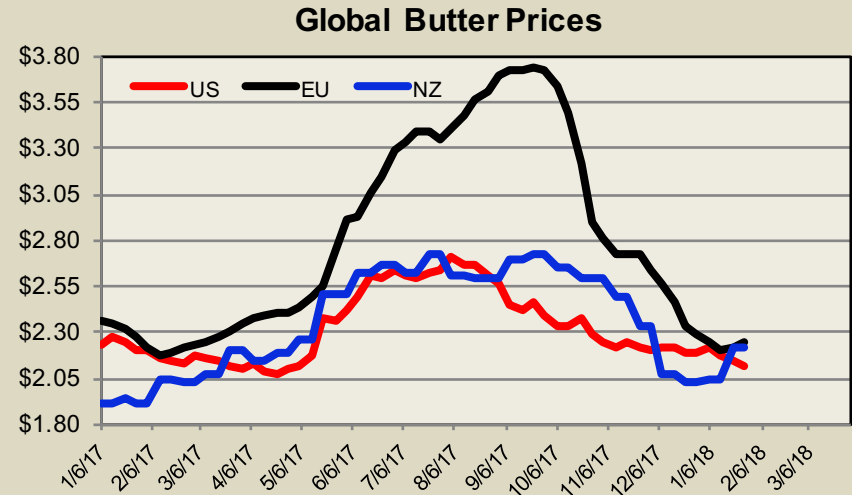
- US cheese prices have ranged from \$1.40-1.75 for over a year. However, CME barrel prices sank to \$1.21 in mid-January – the lowest price since July 2009.
- Dry whey prices have lost nearly half their value from last spring's highs. This decline has taken about \$1.50/cwt off the class 3 price.
- The outlook is for lower prices of both cheese and whey given strong milk production in Europe and continued growth in the US.



Dairy Market Outlook

US Dairy Product Prices

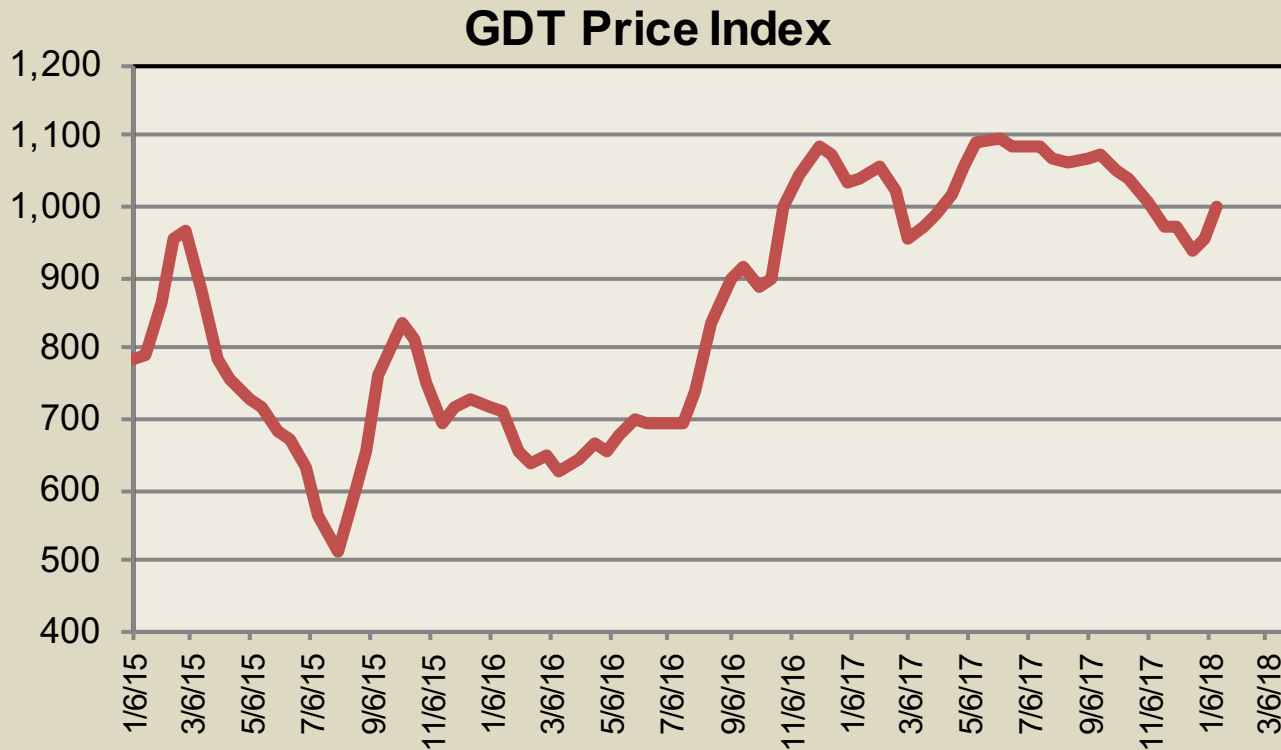
- Global butter and milk powder prices appear to be converging.
- US butter prices have remained around \$2.20 for the past several months, but slipped to near \$2.10. European butter prices have plunged from their all-time highs set a few months ago.
- US NFDMP prices hit a new all-time low last month, but have bounced higher on NZ news.
- EU intervention stocks of SMP continue to hang over the market.



Dairy Market Outlook

Global Market Conditions

The Global Dairy Trade (GDT) price index has been range bound for the past year or more. The index has rallied in the last month on dry weather and lower milk production in New Zealand.

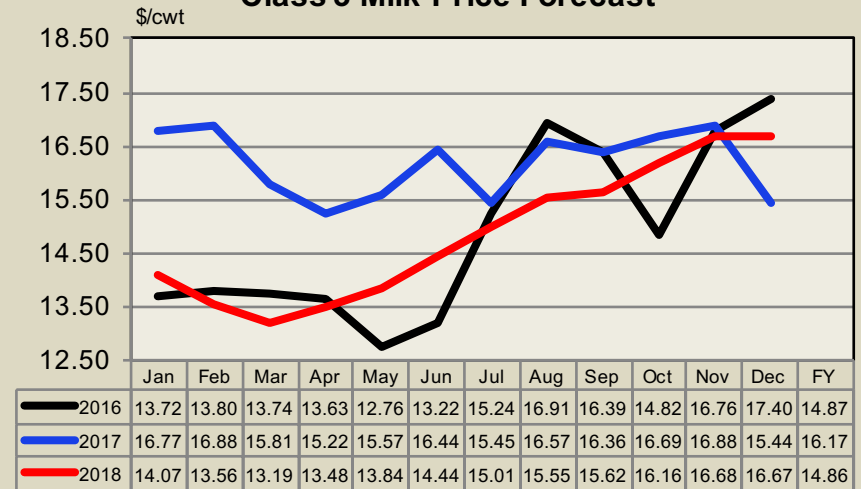


Dairy Market Outlook

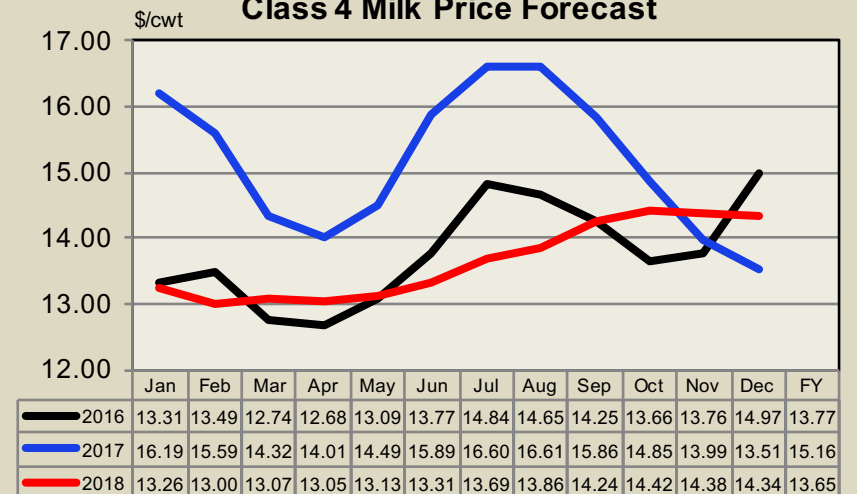
Price Forecasts

- With lower cheese and dry whey prices, the class 3 milk price is forecasted to average \$14.86/cwt vs. \$16.17 in 2017 – this would be the lowest annual average since 2010
- Similarly, lower butter and NFDM prices result in a class 4 price of \$13.65/cwt – the lowest average since 2009
- As a result, the US all-milk price is projected to average just under \$16.00 – the lowest price since 2009 (\$12.83) and about \$0.25 below 2010 and 2016

Class 3 Milk Price Forecast



Class 4 Milk Price Forecast



Dairy Market Outlook Watch-Outs

- Weather – crops/feed, US and NZ milk production
- Timing of lower prices and milk production in Europe
- Economic growth – global & US
- EU intervention program activities
- NAFTA renegotiation
- Free trade deals and GI's
- Milk processing capacity and surplus milk