



2017 Dairy Situation & 2018 Outlook

Farm Credit East



THE UNIVERSITY
of WISCONSIN
MADISON

Mark Stephenson, Ph.D.
Director of Dairy Policy Analysis

Can I Be Forgiven?



MILK CHECK OUTLOOK

by Mark Stephenson

HOARD'S DAIRYMAN

The dog days are over

I DIDN'T realize that the "dog days of summer" was a real thing. Specifically, they extend from July 3 to August 11, and it's when Sirius, the Dog Star, rises at the same time as the sun. It is also typically the hottest stretch of the summer. Extreme heat has impacted cows and milk production in California and the Southwest this year and that was of interest to a visitor who recently stopped by my Madison-based office.



Stephenson

It's winter down under and a dairy producer from New Zealand stopped by the University of Wisconsin. He was almost dreading going back home. Not because it is winter there, but because calving season is just about to begin on his farm. They have had lots of rain and the pastures look good, but calving season is a very stressful time when your entire herd calves over the course of a few weeks.

In years past, this would have just been merely a social visit, but today, opportunities like this help to provide valuable information about the potential milk production in other countries.

Part of what he was doing was assessing the strengths and weaknesses of grass-based dairy systems, like theirs, versus the more intensive systems, such as ours. Part of what I

was doing was assessing the upcoming milk production potential in Oceania.

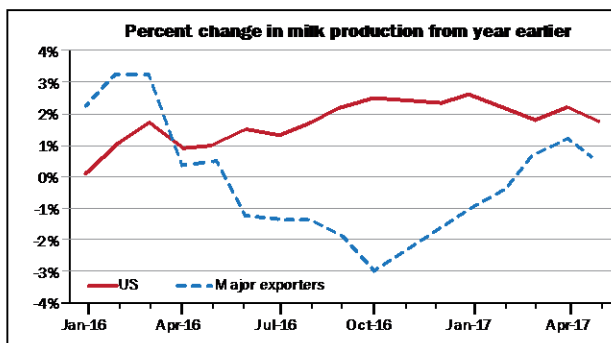
What do we know?

While 2017 isn't quite in the books, it's close enough to know that it was a significant recovery year for milk prices. It looks to me as though Class III may be up nearly \$1.40 above 2016 and Class IV about \$2.20 for a U.S. All-Milk price difference of \$1.50.

Much of the Midwest and the Northeast have had a difficult growing season. In many areas, corn was planted late and many acres will make pretty sketchy silage at best. The quality of alfalfa that has been put up is also questionable. Although it looks like there will be enough of a corn crop in the U.S. to keep concentrate prices in a good range, gains in production per cow are likely to be modest for the year ahead.

The U.S. milk production growth has been in a very normal range for us — somewhere between 1 to 2 percent — for the last year and a half. I don't think that milk prices and feed quality will let us get much beyond that for 2018. The other major exporters of the world have also not been overly eager to expand milk production. They have certainly recovered from the lows in the fourth quarter of 2016, but the most recent data shows that the recovery is modest and the appetite for significant expansion is meager.

Recently, Mexico has been back in the market for U.S. skim milk powder, and China has been buying record levels of products on the



world markets. Russia has looked interested in dairy products again, but may keep the embargo on EU- and U.S.-sourced products in place if our sanctions are ratcheted up as a result of policy disputes. Who knows where trade negotiations will take us in the year ahead.

Even with production gains being modest and export demand picking up a bit, we still have significant stocks of some dairy products on hand. U.S. stocks of skim milk powder have been creeping upward, and the large inventory of powder that the EU purchased within its borders under intervention hasn't budged. Butter stocks are clearly not a problem, and even U.S. cheese stocks, which had been growing, look like they will be under control soon.

What markets might hold

I think that we have to assemble all of these pieces and conclude that the forecast for milk prices is "cau-

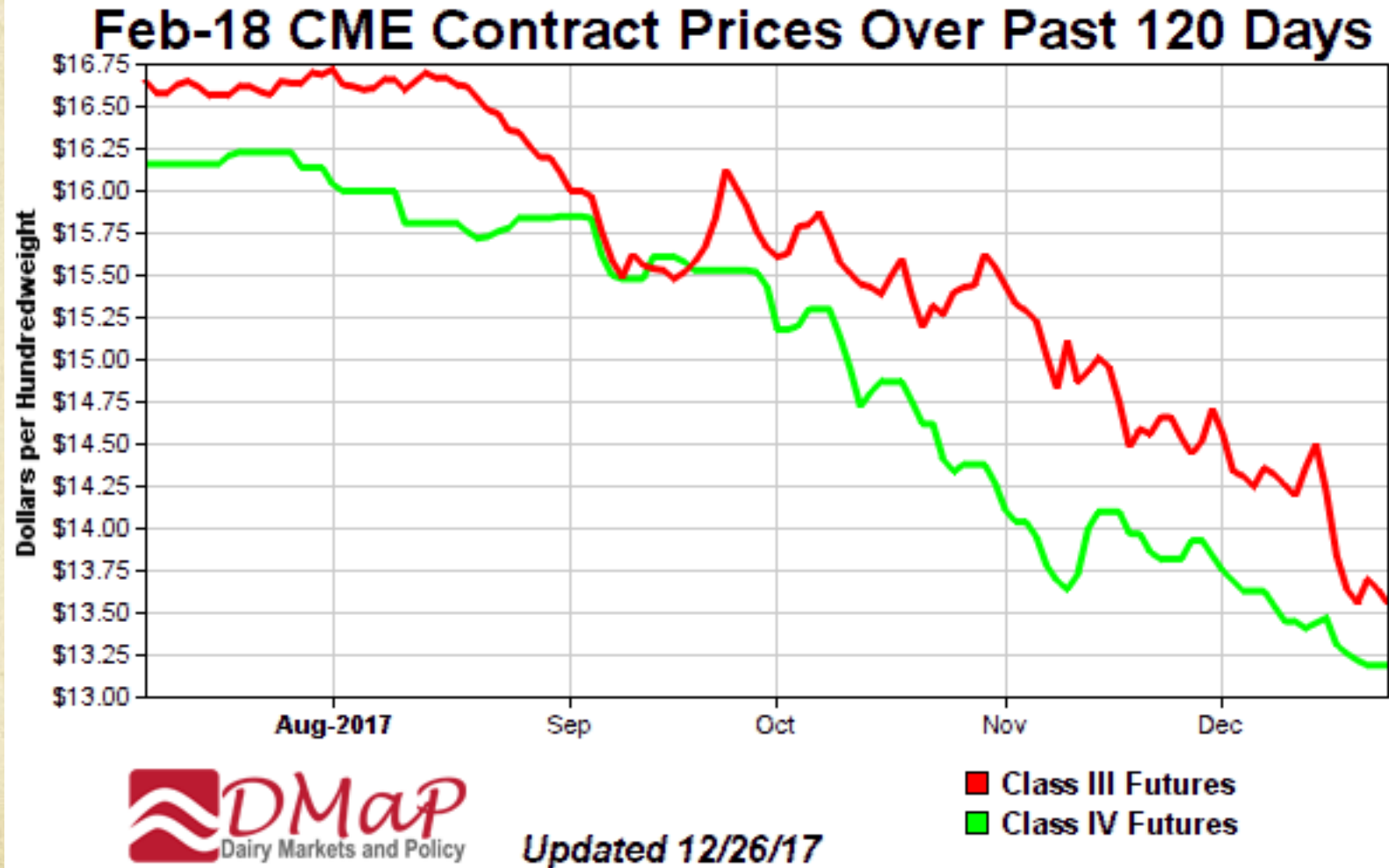
tiously optimistic." Which is to say that I think there is some more room for 2018 prices to improve over 2017 ... and those 2017 prices have been a pretty good improvement over 2016. I do think that butter prices will moderate somewhat, but skim milk powder prices are likely to improve and we will begin to work down those world stocks.

My forecast is for 2018 Class III prices to be up by about 50 cents and Class IV by almost 80 cents, making the U.S. All-Milk price about 50 cents higher.

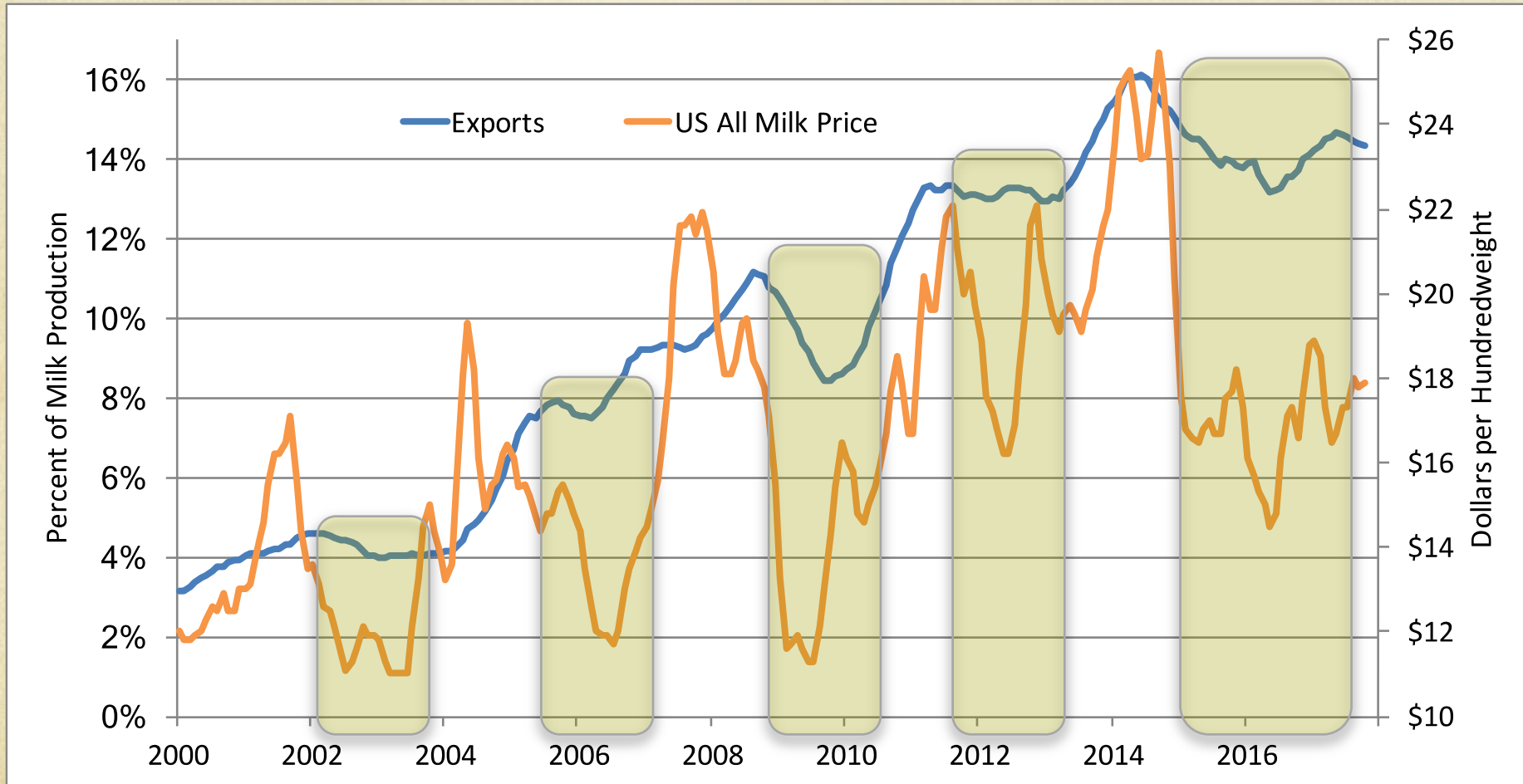
I can't put the All-Milk price up anymore than that because I don't think that premiums will improve until the world feels as though it's actually moving toward tightness in markets, and that isn't on the horizon.

The dog days of summer are over and the trough of the last milk price cycle is in the rearview mirror. Let's take a breath and enjoy what fall brings. 🐄

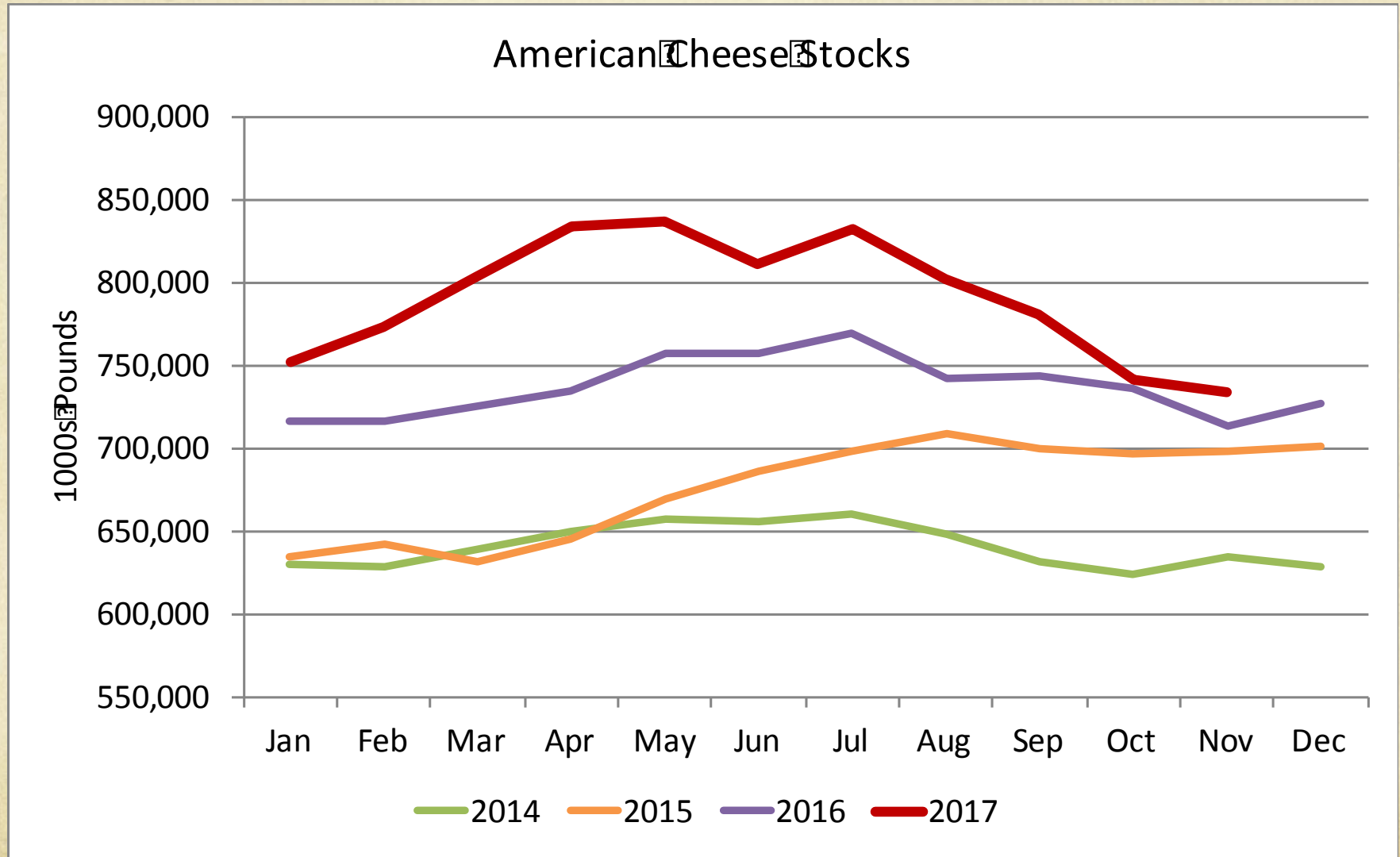
Can I Be Forgiven?



The Importance of Trade

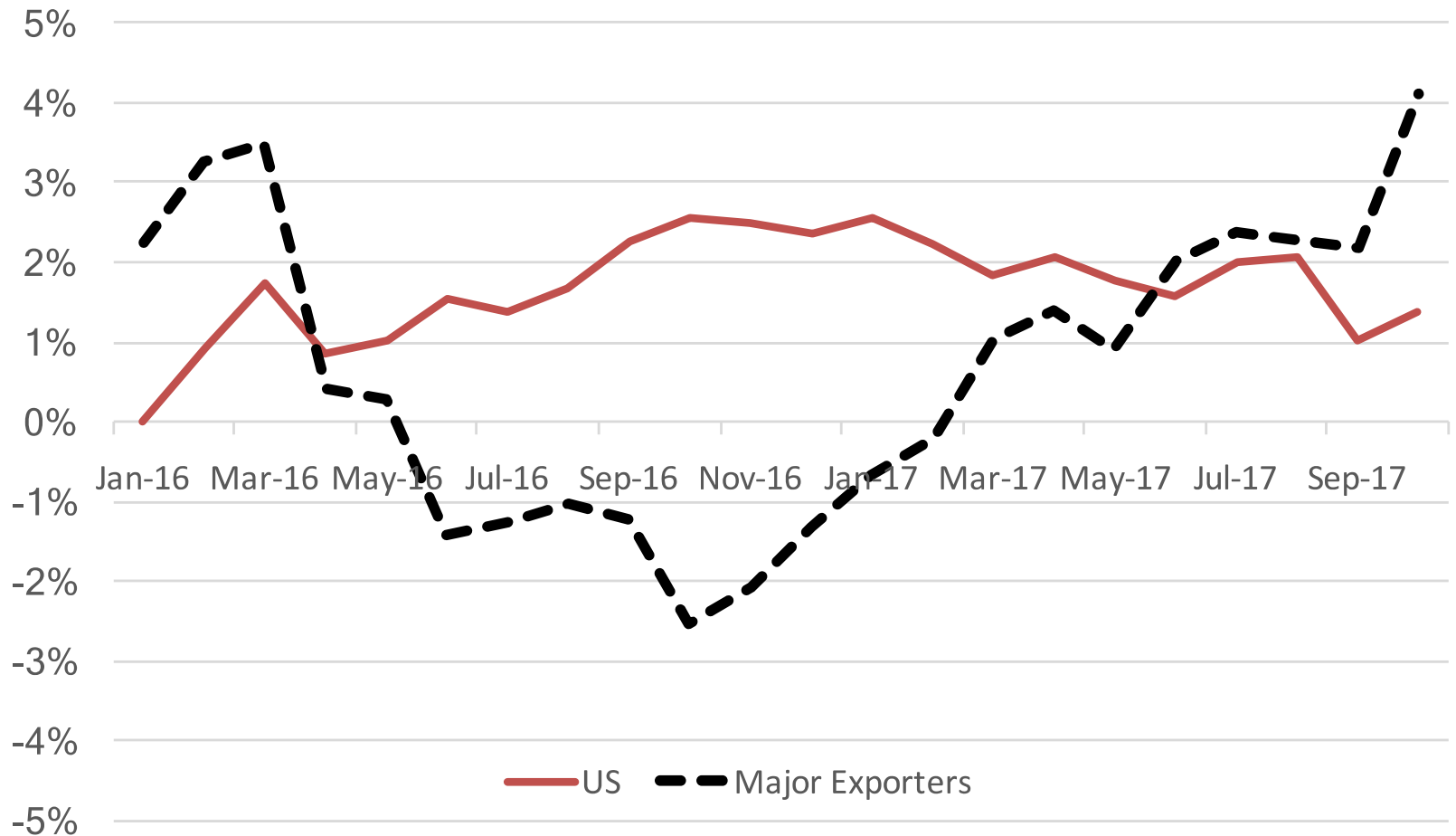


U.S. American Cheese Stocks

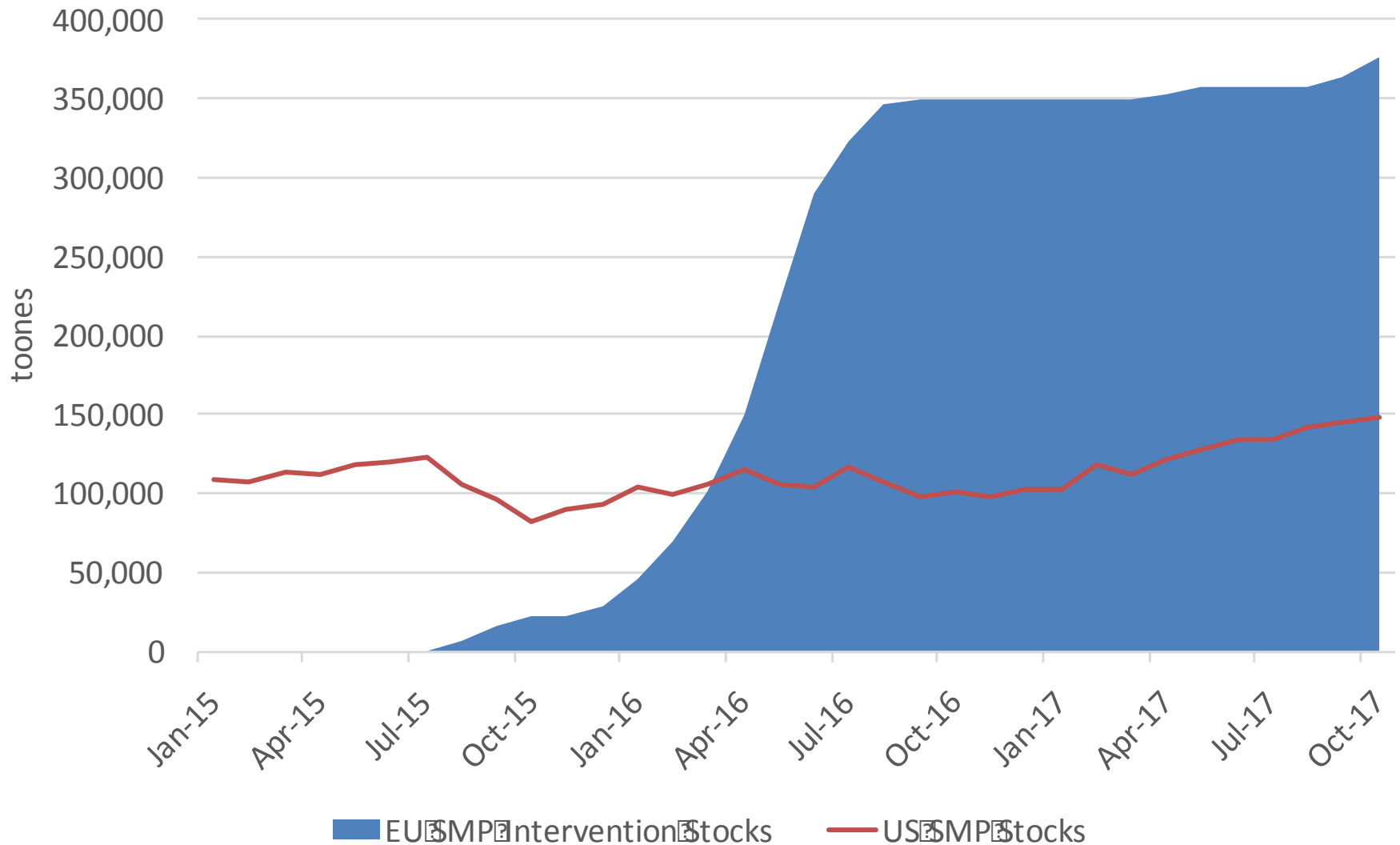


Why the Long Trough?

Percent Change in Milk Production from Year Earlier



Intervention Stocks Overhang Markets



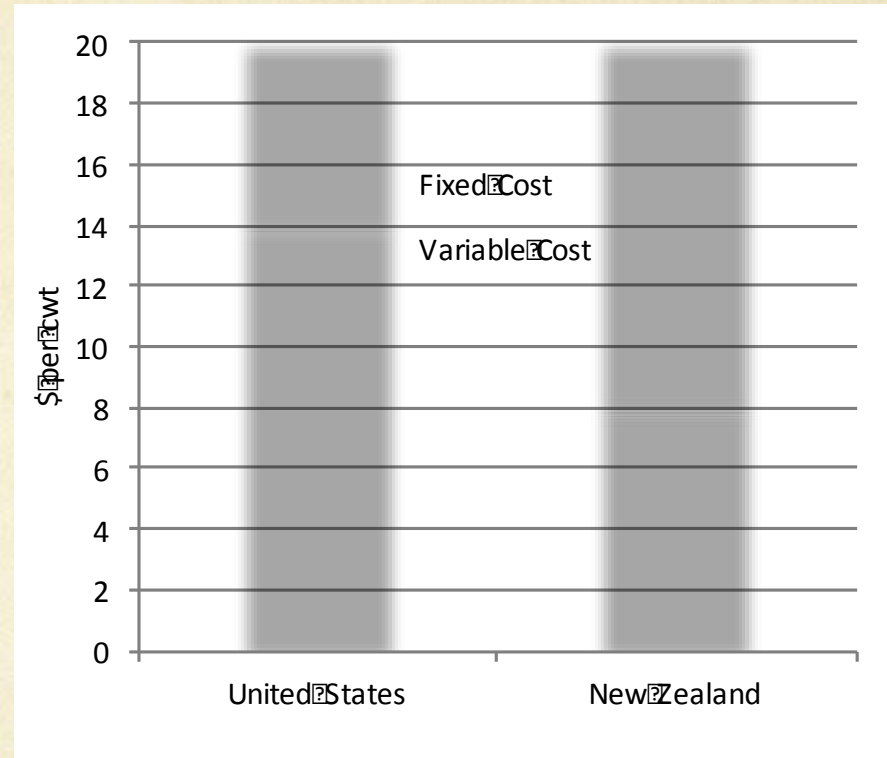
Nonfat Prices Have Declined

CME Spot Nonfat Dry Milk Price

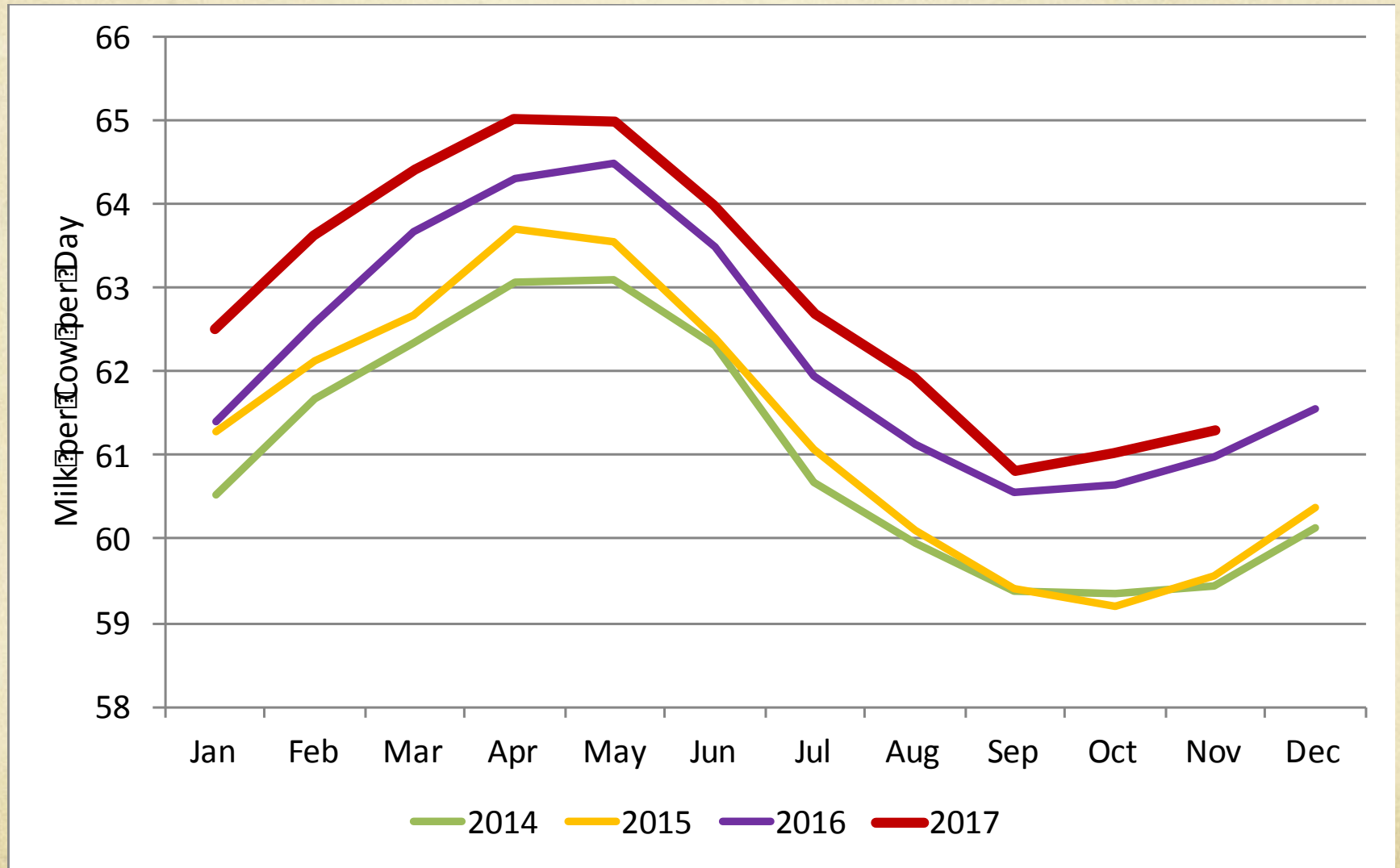


Why Do We Continue to Produce?

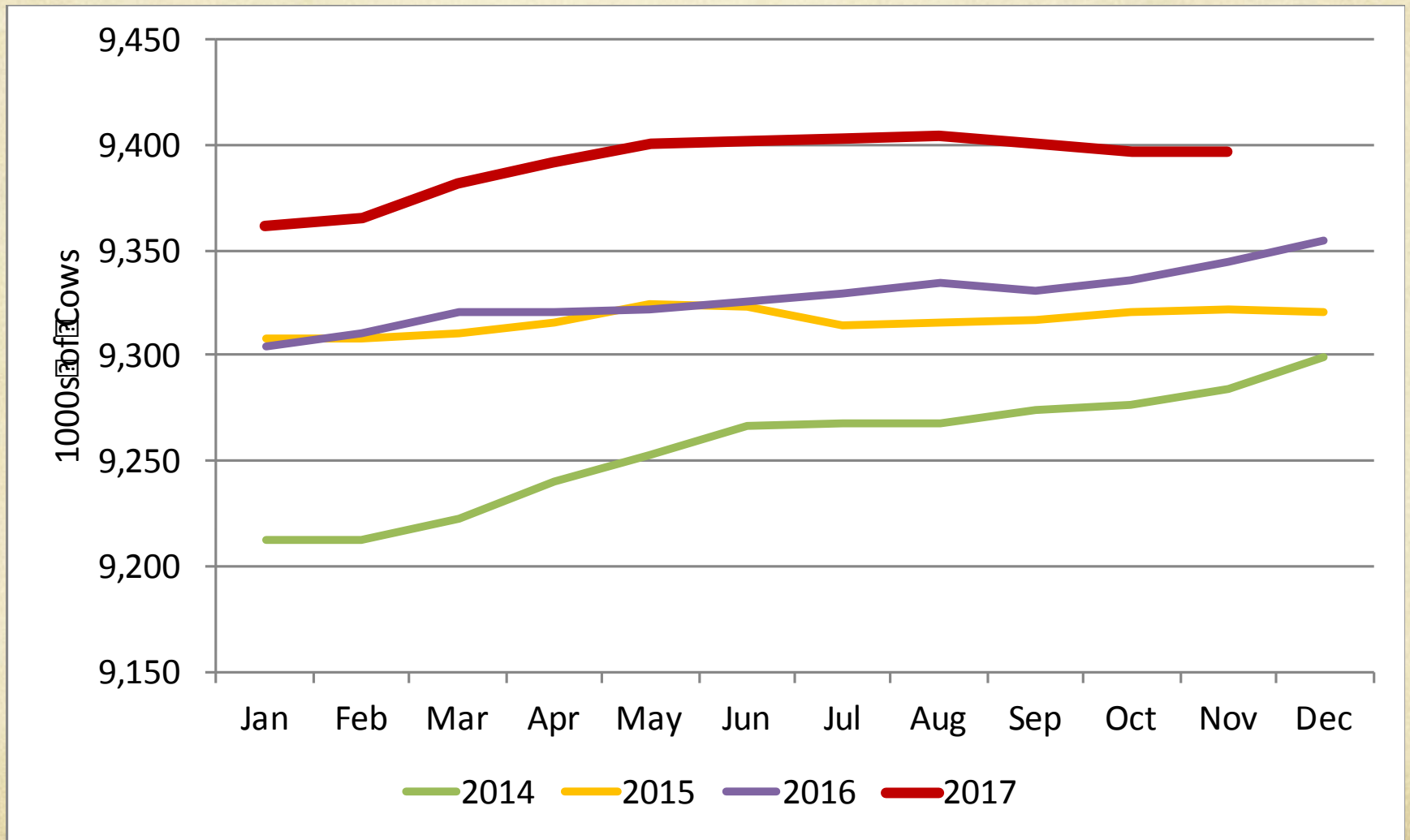
- Milk price hasn't dropped below the fixed portion of the cost of production
- Rather than the deep cut, this price trough is the long scrape
- We have been consuming capital now for close to three years
- Open accounts are growing



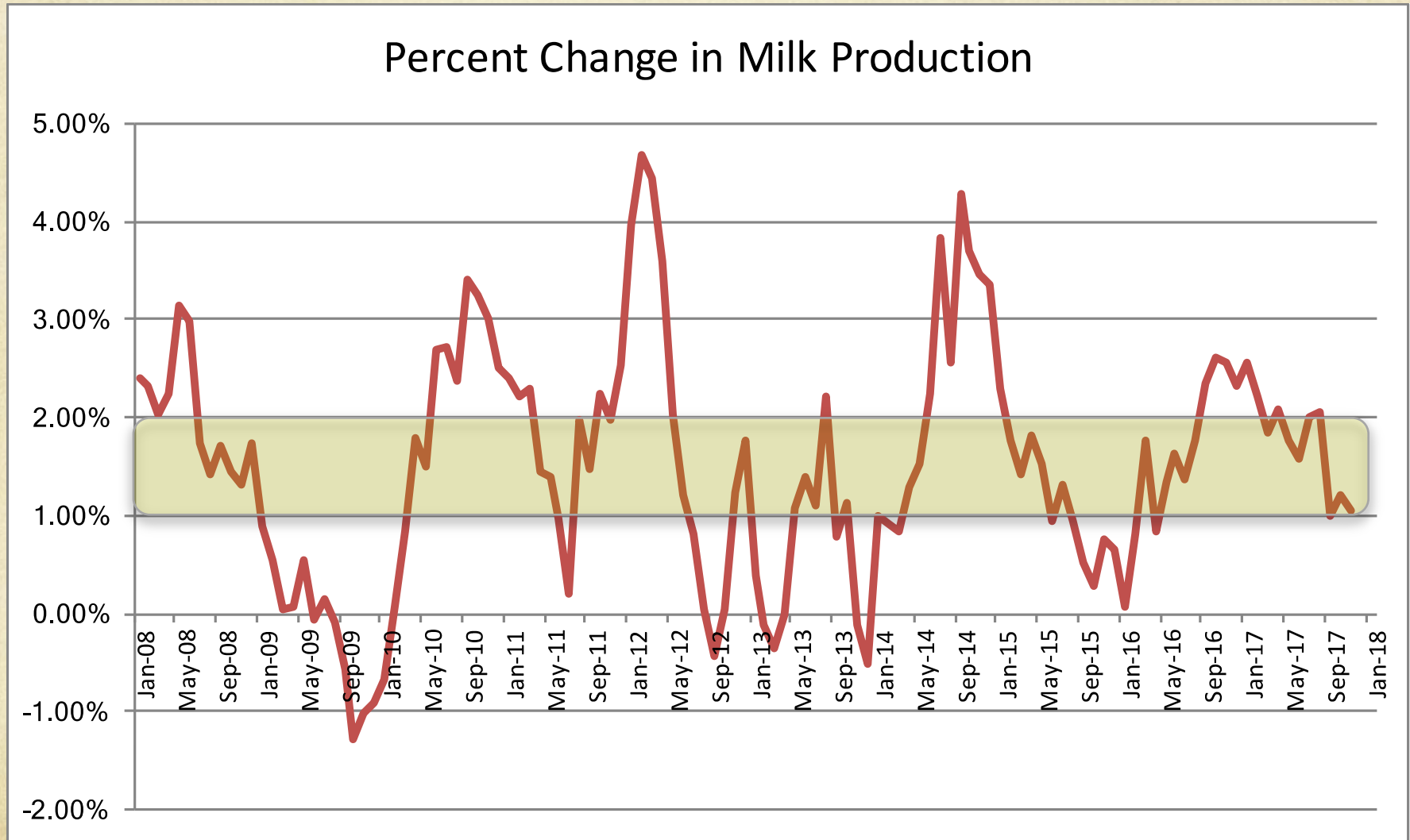
Milk per Cow per Day



Number of Cows

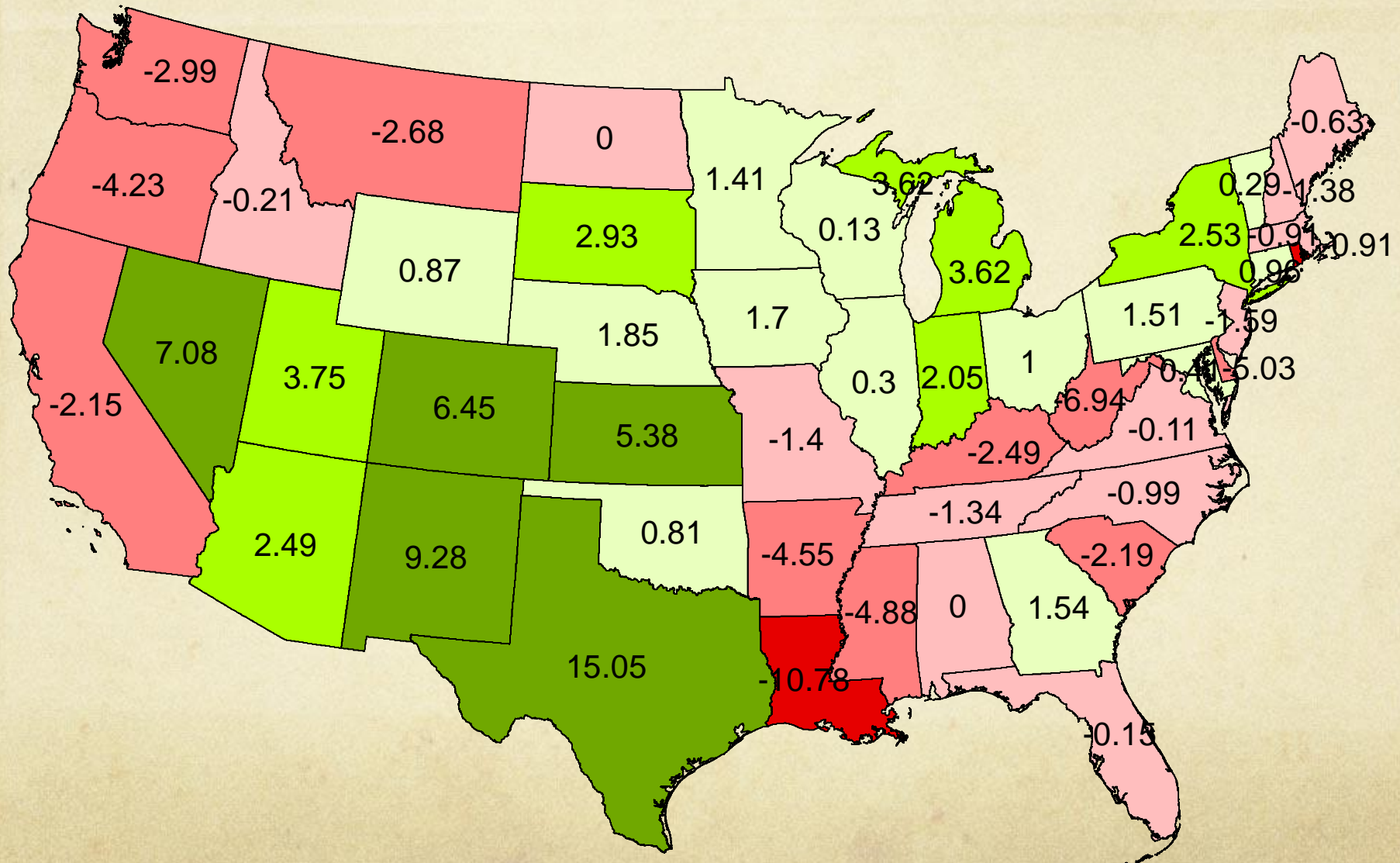


Percent Change in U.S. Milk Production



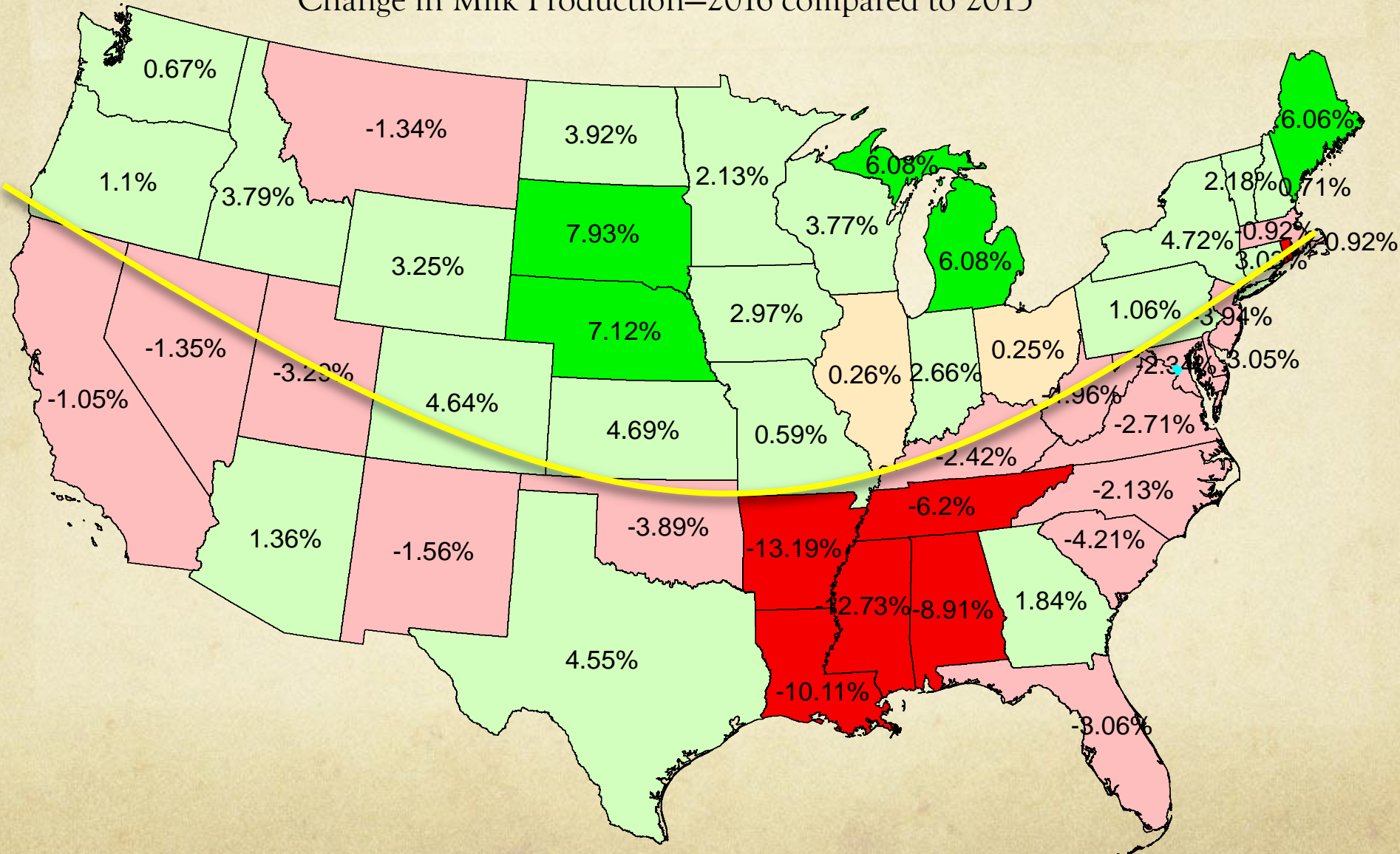
Regional Changes in Milk Production

Percent Change in Milk Production—first half of 2017 compared to 2016

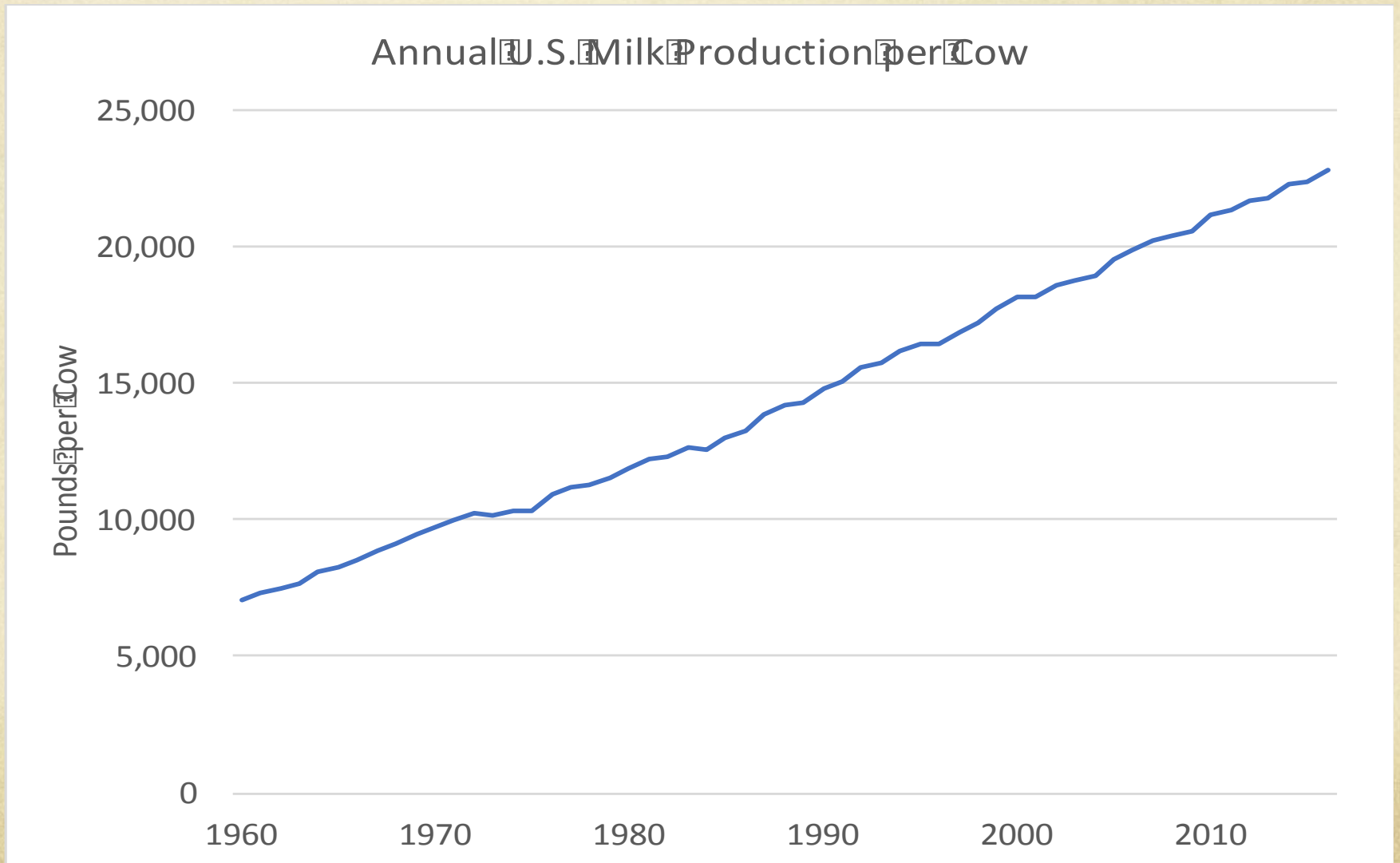


Northern States Making More Milk?

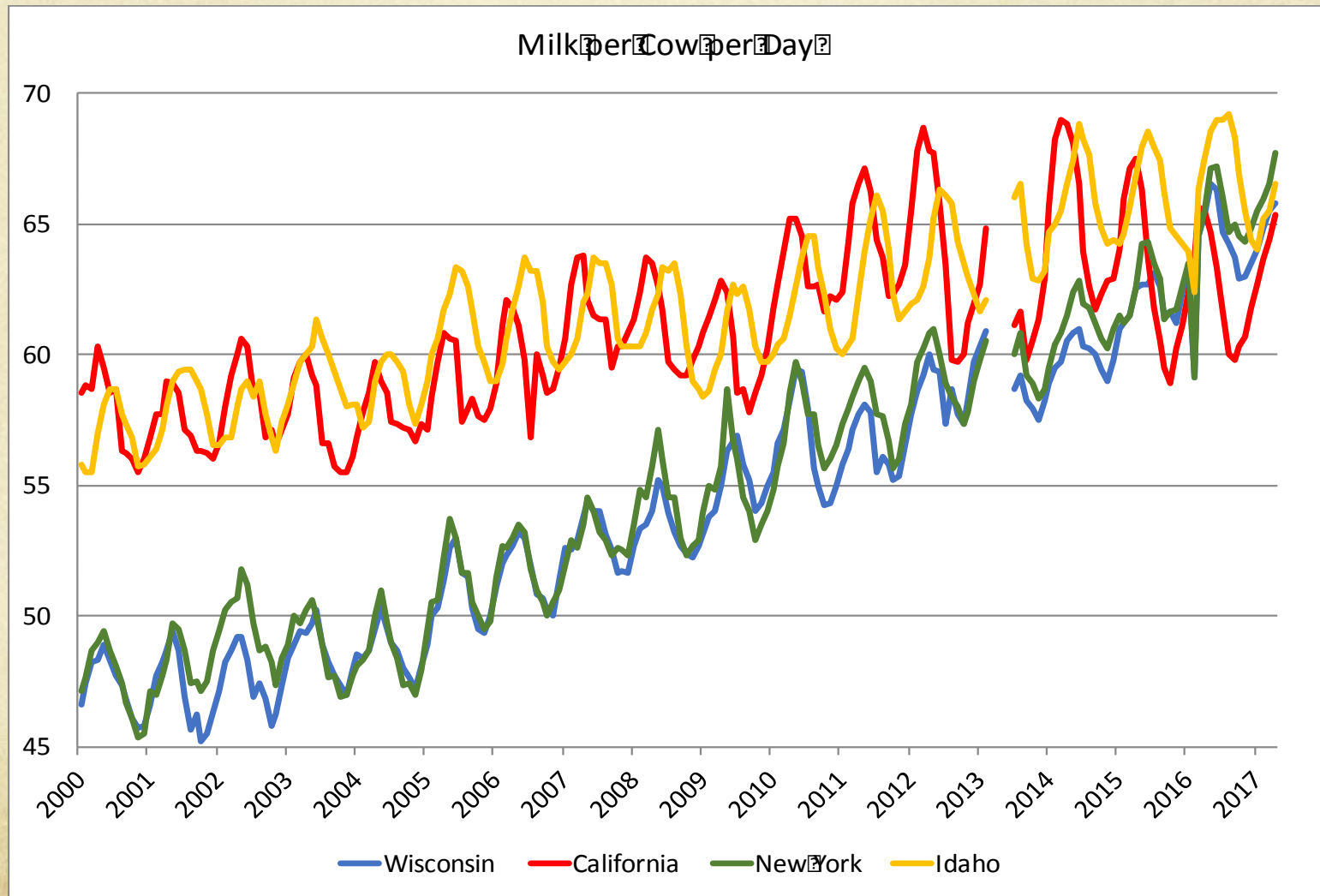
Change in Milk Production—2016 compared to 2015



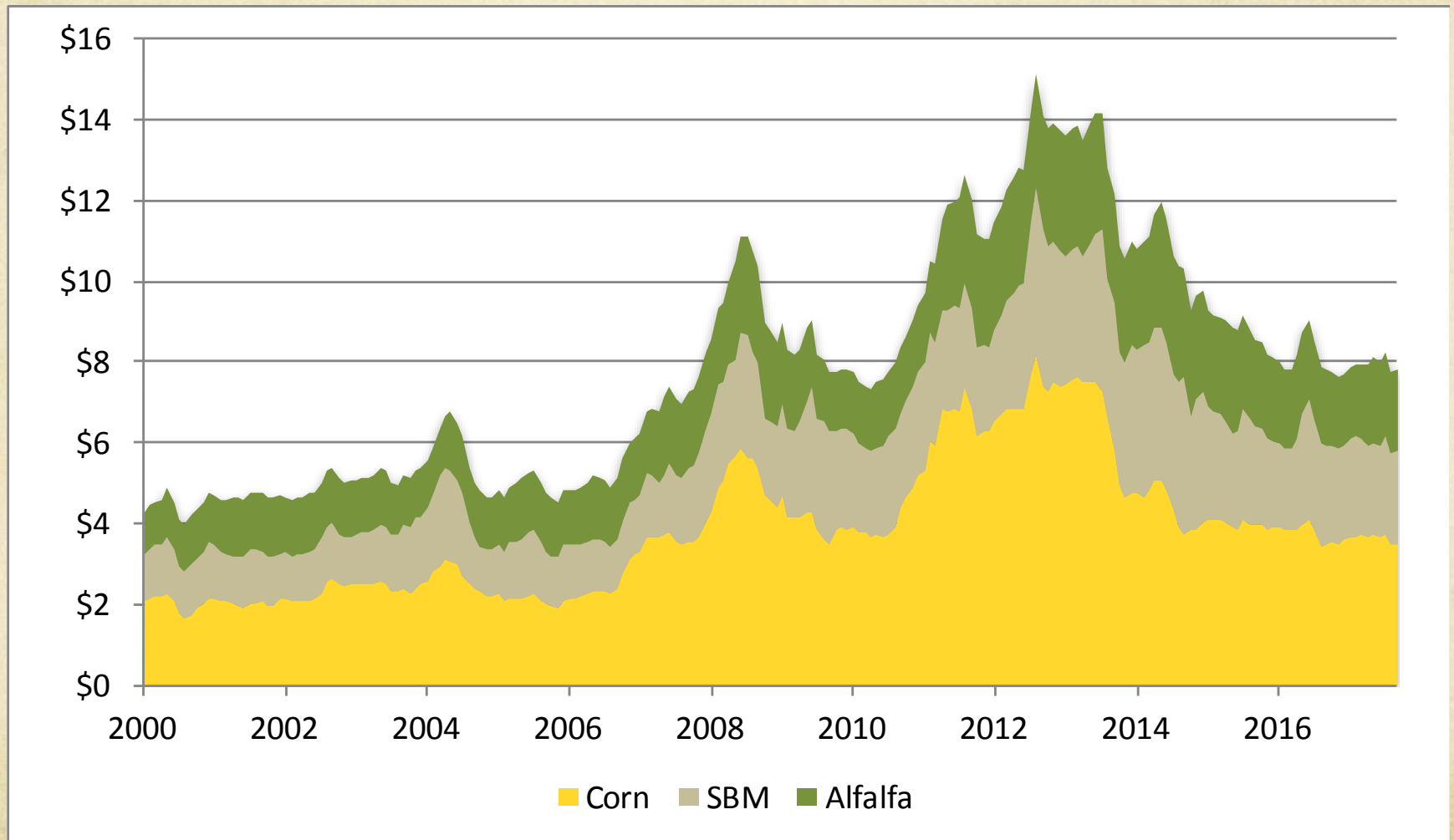
Improved efficiency



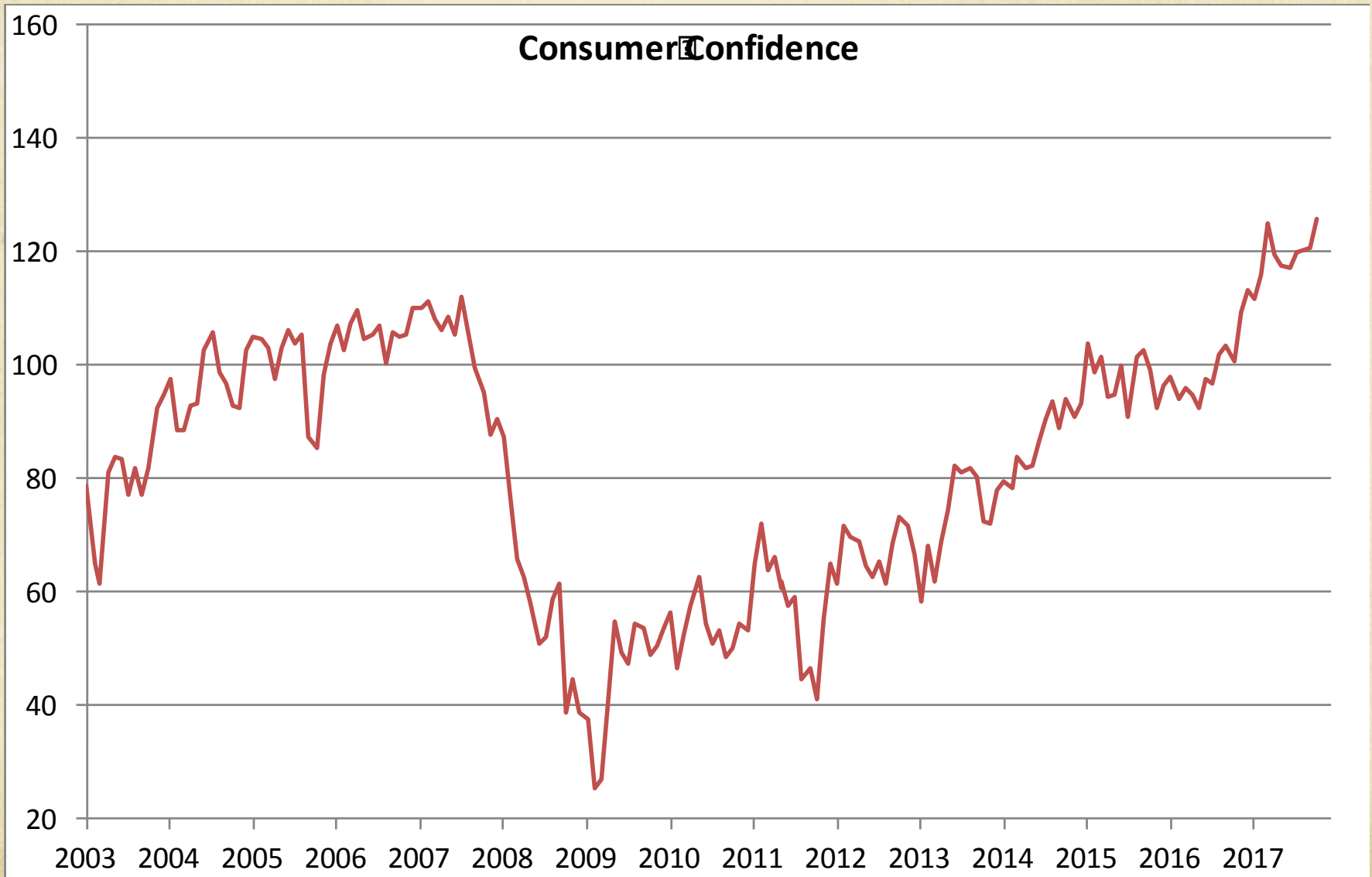
Consider trends in top four states



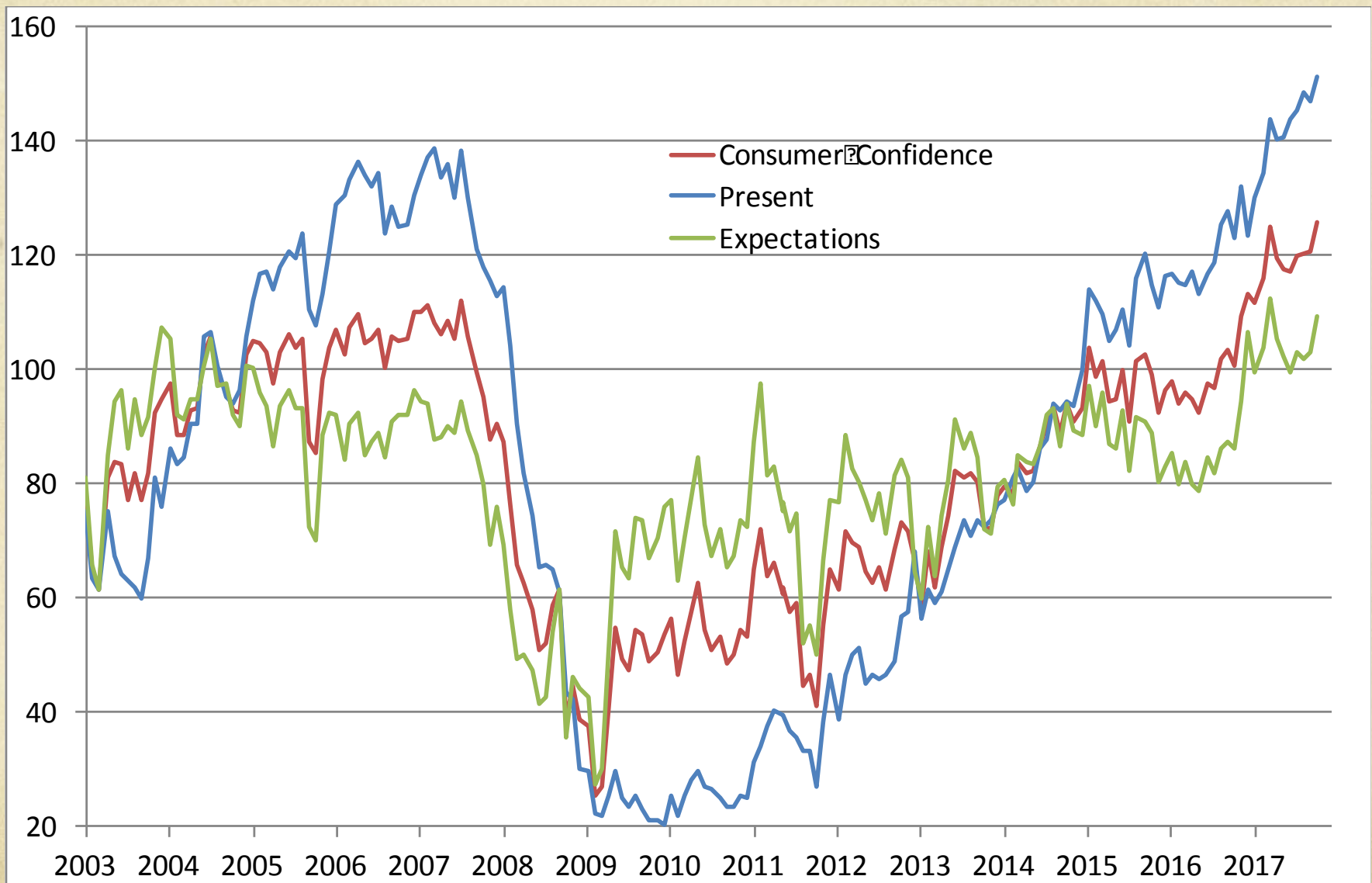
MPP Ration Value



Consumer Confidence

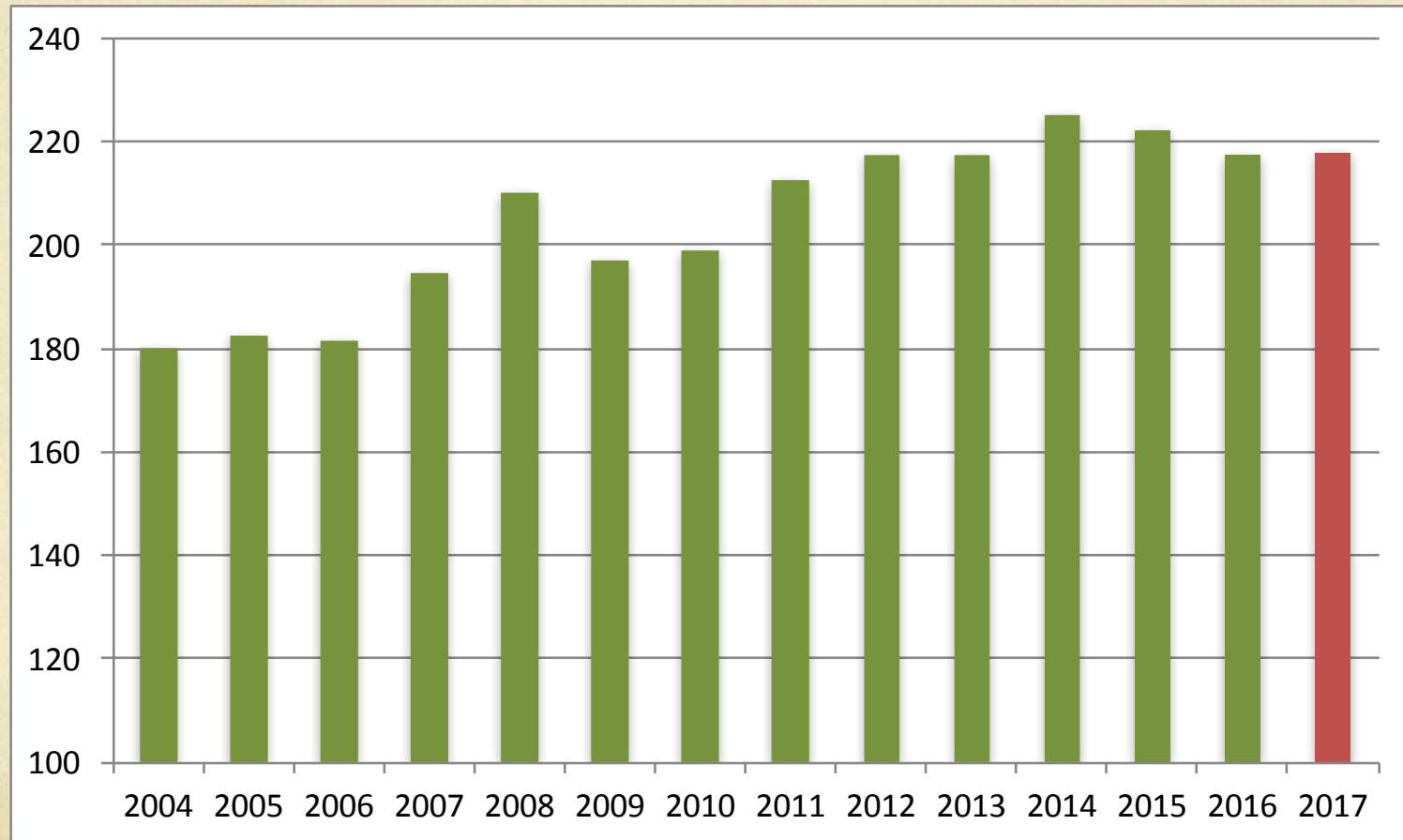


Consumer Confidence

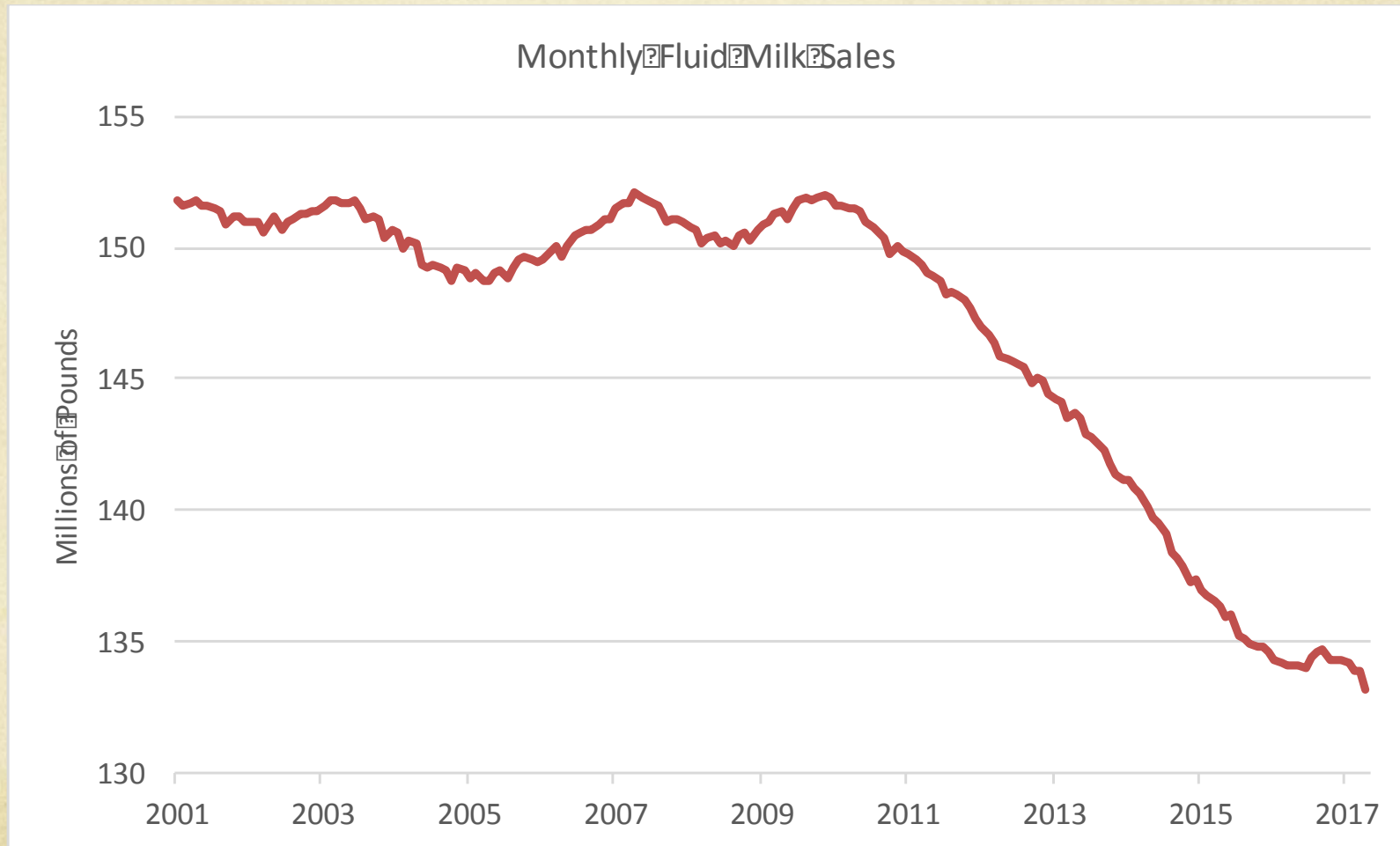


Dairy Products are a Good Buy

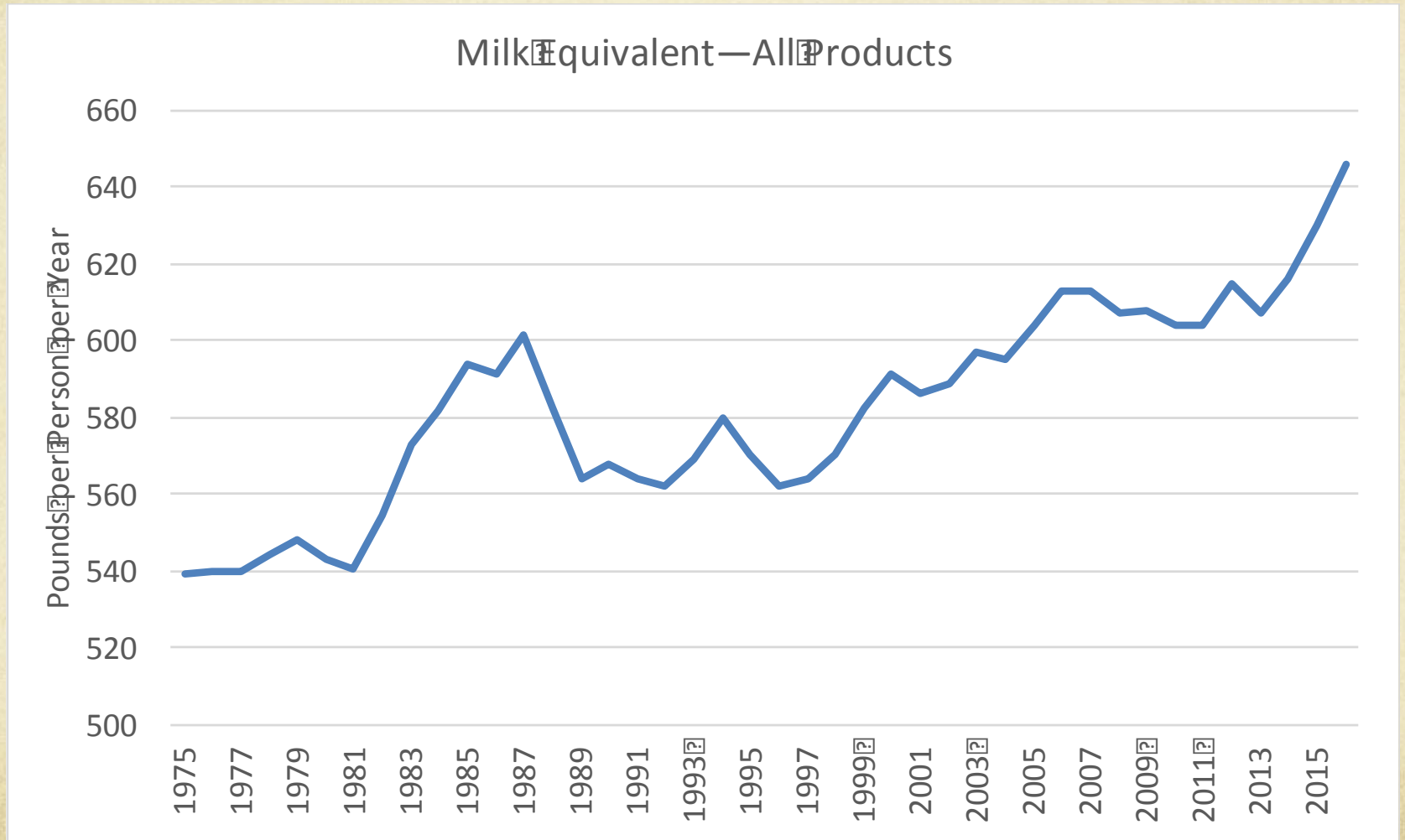
BLS –Dairy and Related Products



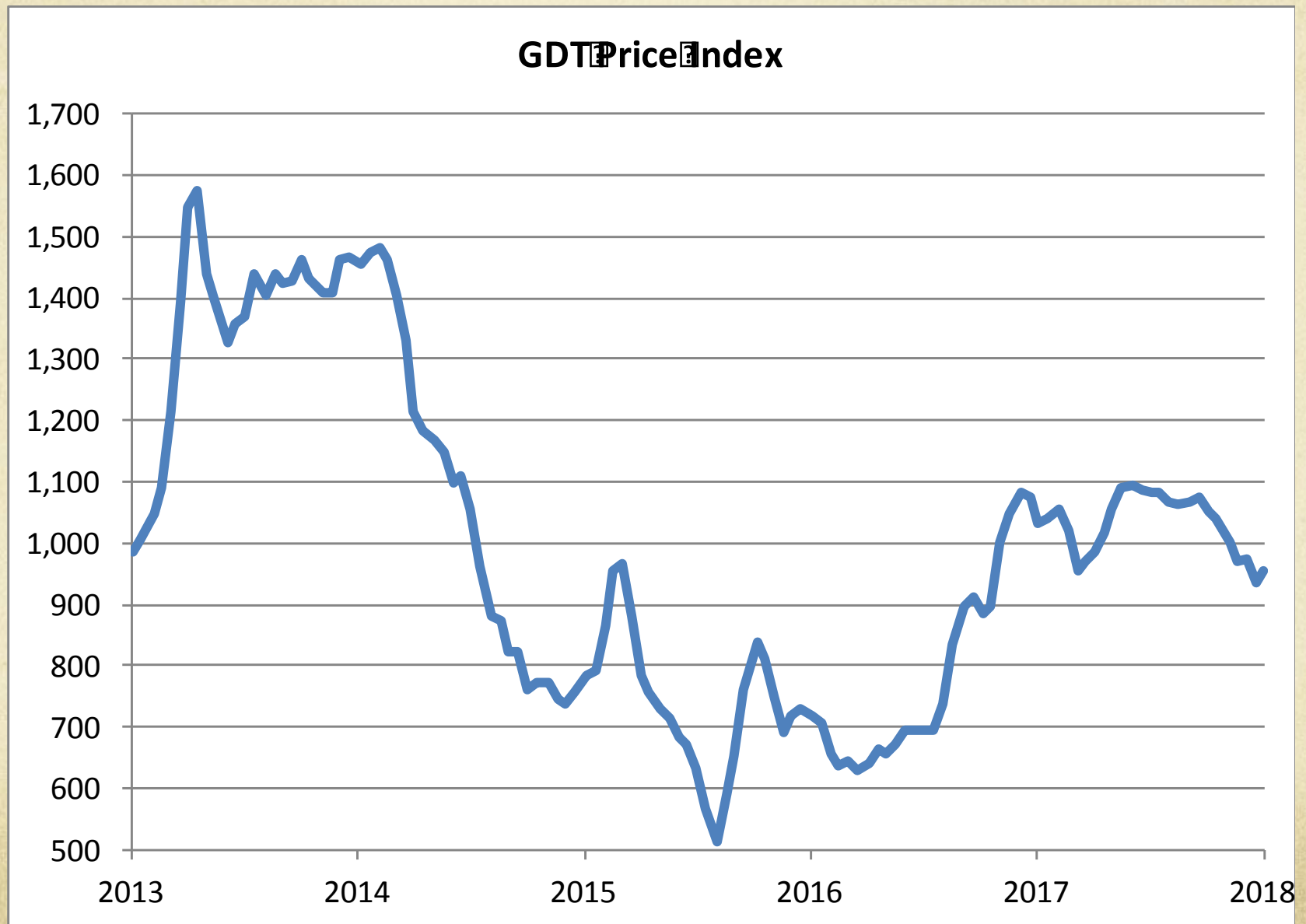
Fluid Milk Sales



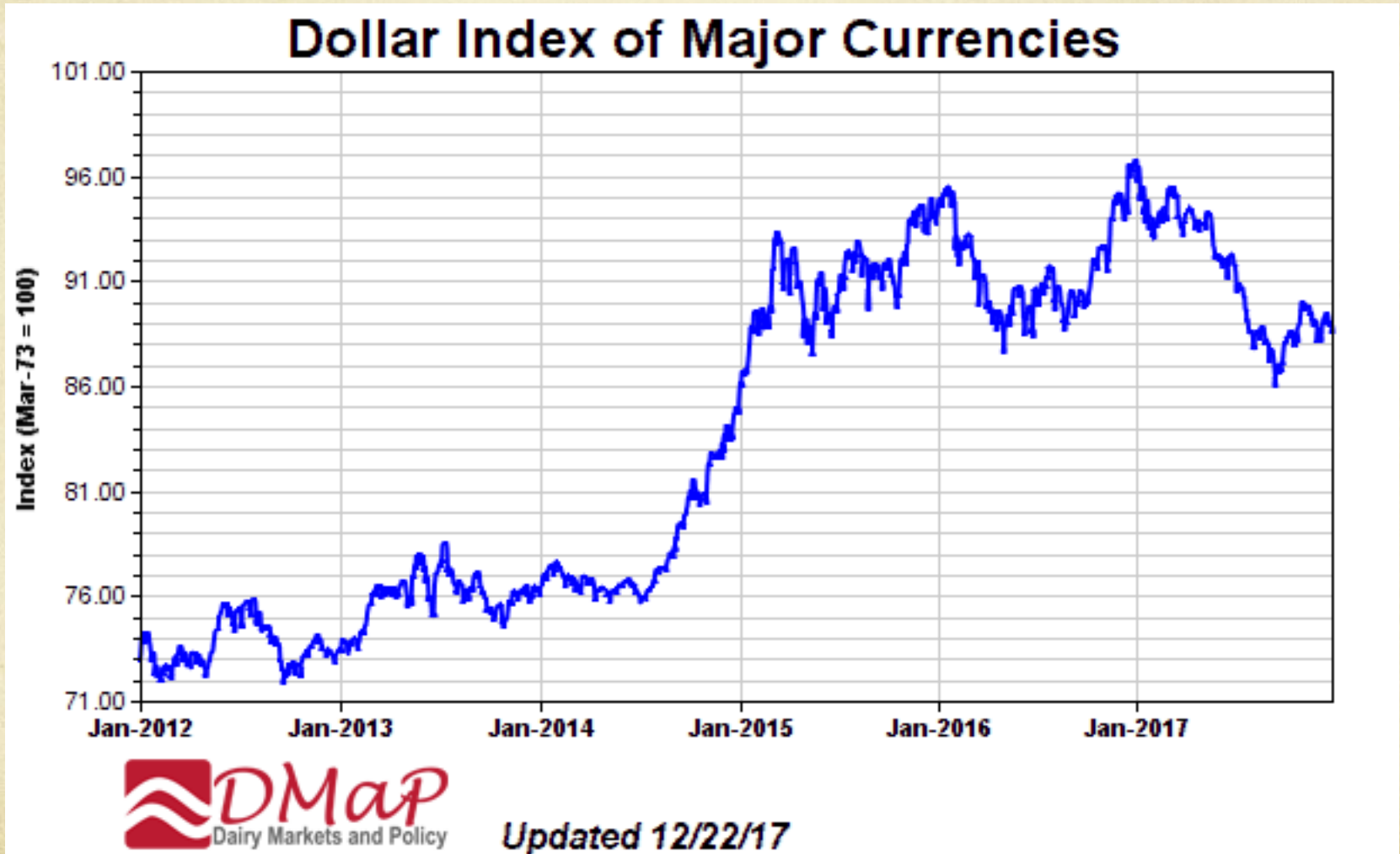
Per Capita Milk Equivalent



Global Dairy Trade Index

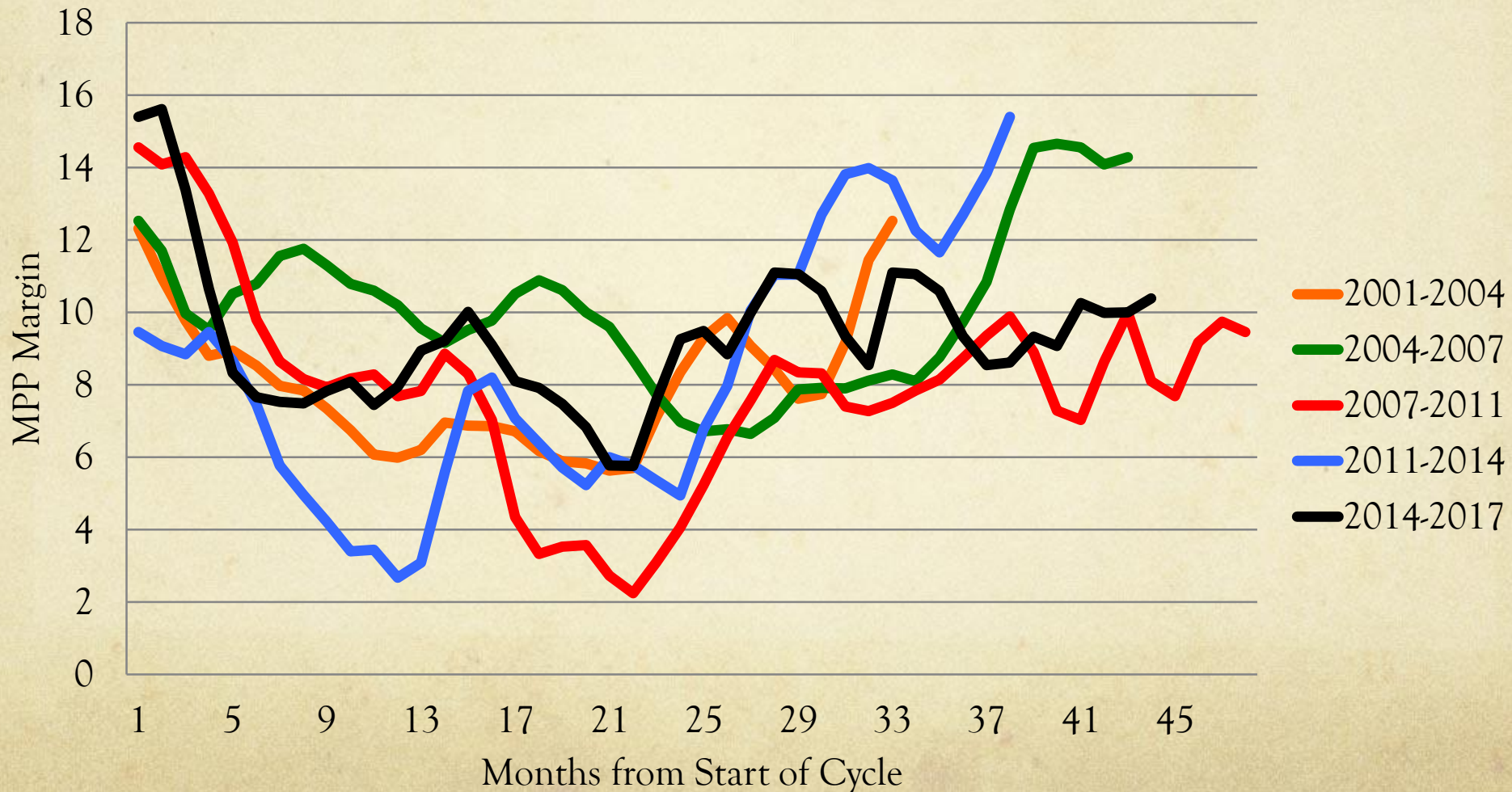


Other Factors



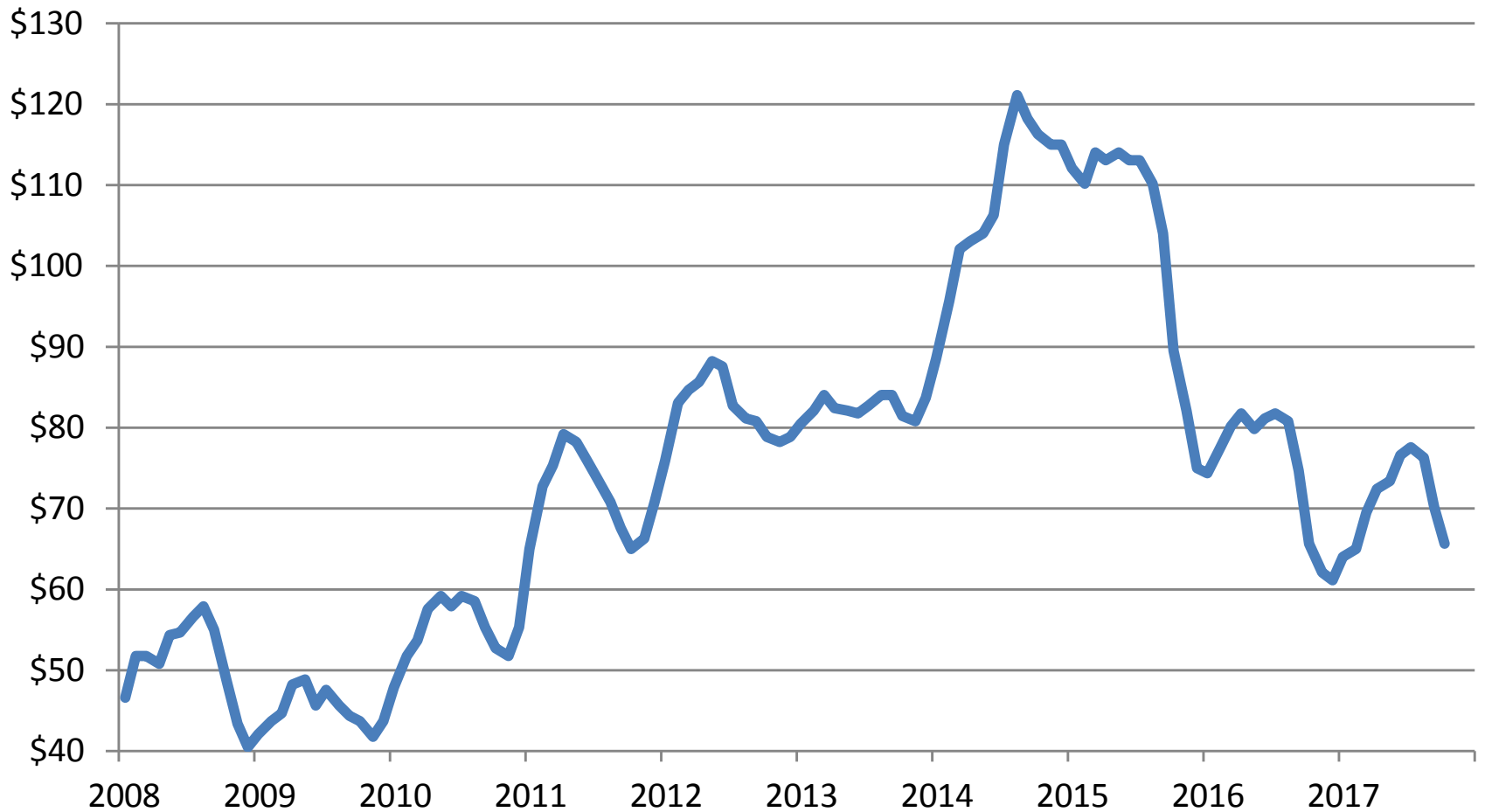
Price Cycles

MPP Margin of Recent Price Cycles



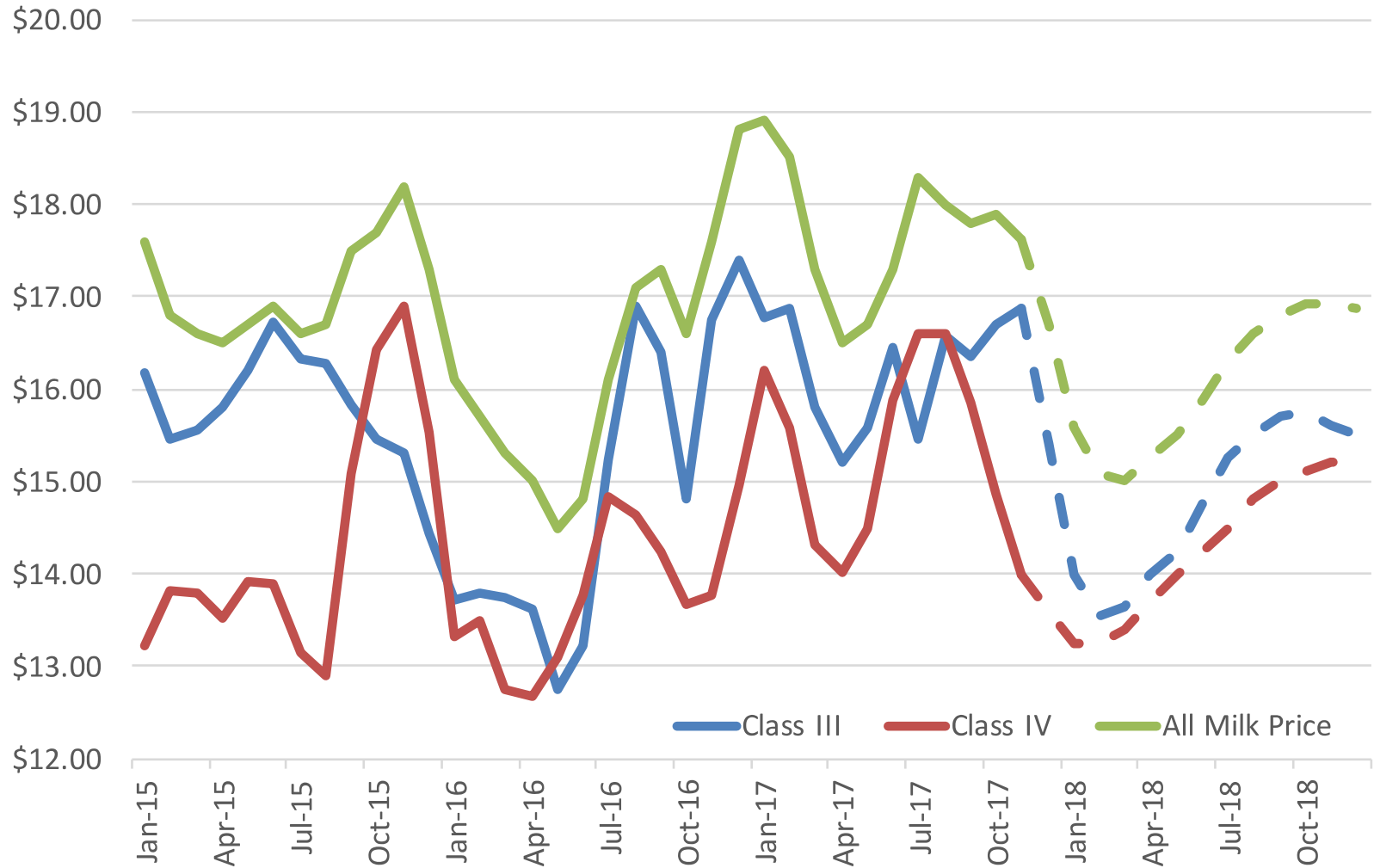
The Alternative to Producing Milk

Cull Cow Price



Price Forecasts

Actual and Forecast Milk Prices



My Forecast...

- Our relatively strong U.S. economy is helping consume dairy products
- World supply of milkfat is tight (milkfat is a luxury item)
- World supply of milk proteins is excessive
 - Either need to find new emergent economies (shift the demand curve) or need to explore current demand for skim milk powder (move down current demand curve)
- Southern hemisphere is half way through their production season
- Unless circumstances change significantly on the export side, it's hard to be very optimistic about milk prices in the short-run.
- I am forecasting 2018 Class III down by \$1.35, Class IV down by 85¢ and the All Milk Price down by about \$1.55 (reflects declining premiums)

Questions?