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MCT COMPASS

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Milk's Boom and Bust Cycle

Recent research suggests that variation in farm level milk price rises and falls according to a 3.3-year bull and bear price cycle. If that's true, milk prices could remain low for another year. A 2014 working paper titled "Milk Price Cycles in the U.S. Dairy Supply Chain and Their Management Implications" by Charles Nicholson, agricultural economist at Pennsylvania State University, and Mark Stephenson, agricultural economist at the University of Wisconsin, shows that the key factors contributing to the 3.3-year milk price cycle that occurred between 1996 and 2014 were biology, investment, and inventory build and hold behavior.

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The biological factor in the dairy sector is the time it takes for a calf to become a milk-producing cow—typically 24 months. New investments, whether in new farm facilities or processing capacity, often require 24 months or longer to come to fruition. Supply-chain managers actively control inventory and are subject to the "Bullwhip Effect," which contributes to price volatility. The Bullwhip Effect is when small changes (often in demand) cause an alternating over-ordering or under-ordering on the part of supply-chain agents and the supply chain never stabilizes. For example, in periods of rapidly rising prices, supply-chain managers attempt to build inventory, which pushes prices higher. In periods of falling prices, supply-chain managers often reduce inventory and buy sparingly until a clearer market direction is determined. The 3.3-year milk price cycle is thus a function of both biological and human behavior.

It was only a couple of years ago that industry participants questioned how long milk prices could stay at above-average levels. Today many are asking just how long milk prices can remain below historical averages.

During the 10-year period from January 2005 to December 2015, the Class III milk price averaged $16.28/cwt. The latest bull cycle lasted 30 months, beginning in July 2012 and ending in December 2014. During that period, the Class III milk price peaked at $24.60 in September 2014, which was an amazing $8.32, or 51%, higher than the 10-year average Class III price. During the 30-month bull

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Ken's Corner

by Ken Meyers
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Thinking of dairy markets in terms of bull and bear cycles makes sense. All commodities have cycles, and milk is no exception.

As the dairy market becomes even more global, volatility will likely continue to increase over time. Both producers and processors would be wise to familiarize themselves with the boom and bust cycles of milk prices. For example, if one realizes that a milk price cycle lasts about three years, deciding to lock in a particular milk or dairy product price or a production cost for six months to a year becomes a bit easier.

Of course, as with equity markets, commodity markets can surprise. Price peaks and valleys occur within both bear and bull markets, making the starting and ending points of a cycle recognizable only in retrospect.

Even though each cycle has its own pattern and characteristics, paying attention to milk price cycles can help both processors and producers better manage their businesses. It also can help to reduce the emotional response that accompanies a quick market turnaround, particularly when everyone has been lulled into thinking that prices will always be low or always be high. Nothing lasts forever—not even low milk prices. **MCT**

Demand Lull to Weigh on Prices

CME spot dairy product prices continue to trade in a narrow range even now that spring holiday buy-ins are done. Ample milk supplies across the United States are keeping manufacturing facilities full and stocks are building. CME cash nonfat dry milk (NDM) prices are the weakest in the dairy complex. At 71.5 cents, the CME spot NDM price is trading near its historical low of 69 cents posted in fall 2015. CME block and barrel prices are expected to remain below $1.50 until summer demand kicks in. The CME spot butter market continues to trade at lofty levels but downward price pressure is anticipated after Passover and Orthodox Easter are celebrated. **MCT**

MCT Forecast

	Block*	Barrel*	Class III	Butter*	Class IV	Whey**	NFDM**
Mar	1.4875	1.4525	13.74	1.9595	12.74	0.2477	0.7522
Apr	1.4500	1.4250	13.65	1.9000	12.35	0.2550	0.7475
May	1.4750	1.4500	13.75	1.9500	12.50	0.2775	0.7575
June	1.5000	1.4800	13.95	1.9750	12.80	0.2850	0.7750
July	1.5750	1.5500	14.65	2.0000	13.40	0.2950	0.8300
Aug	1.6000	1.5750	15.20	2.0400	13.75	0.3000	0.8500

** CME prices.*
***NASS prices.*

...bear cycle could persist

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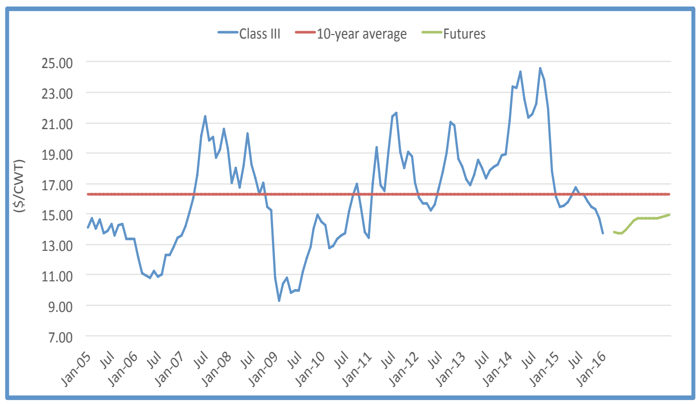
cycle, the Class III price averaged an impressive 22% higher than the 10-year average price of $16.28.

January 2015 ushered in lower-than-average Class III milk prices that have continued into 2016 and could persist into June 2017 if the bear cycle lasts as long as the previous bull cycle. The previous bear cycle lasted 27 months from November 2008 through January 2011. During that period, the Class III price averaged $13.09, or nearly 20% less than the historical average Class III price. The lowest Class III price in the past decade of $9.31 occurred in February 2009 and was 43% lower than the 10-year average (2005–2015) of $16.28. Granted, this comparison may unfairly overestimate the magnitude of the price trough as Class III milk prices moved significantly higher during the past five years. The Class III milk price during the 2000-2010 period averaged $13.28, which was still 30% greater than $9.31—the lowest Class III price of the decade.

To date, recent bearish Class III milk prices have not deviated as much from the mean as in the previous bear cycle. For example, the January 2016 Class III price of $13.72 was just 15.6% lower than the 10-year average Class III price. Keep in mind that the July 2012 to September 2014 bull cycle averaged 22% higher than the 10-year average Class III price. A similar 22% price decline in the current bear cycle would place the Class III price at $13.02. Moreover, the Class III price would have to fall to $7.96 in the current bear cycle to match the amplitude of the $24.60 peak reached in the last bull cycle. Current Class III futures do not foreshadow the same degree of price variation experienced in the last bull cycle.



In other words, the current low prices are not as low as the previous bull-cycle high prices. Then again, we are only midway through the current bear cycle. **MCT**

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