Farm Credit East

August 2016

Knowledge Exchange Report

Given the difficult conditions being experienced by dairy producers, Farm Credit East Knowledge Exchange is releasing this report to provide context and guidance to producers as they manage their businesses in these challenging conditions. The report represents a collaborative effort of Farm Credit East staff.

Dairy Industry Reset Post-2014: A Time for Dairy Producers to Take Bold Action

Executive Summary

Farm milk prices have fallen significantly since the record levels of 2014. This Farm Credit East Knowledge Exchange report looks at the current dynamics in dairy markets offering the view that the US dairy industry may be entering a new era of milk pricing, signaling an end to the three year milk price cycle the industry has experienced in recent decades.

The report describes three distinct eras since US milk prices were decoupled from the parity price concept in 1981, as defined by factors such as farm milk prices, net cost of production, industry production capacity and farm debt capacity.

- **The Post-Parity Era** (1981-1995), marked by a significant downsizing of the industry and a difficult period for many dairy producers.
- **The Market-Oriented Era** (1996-2006), a period where supply and demand were in better balance with improved returns compared to the Post-Parity Era.
- **The Dairy Export Takeoff Era** (2007-2014), years where with two exceptions, producers enjoyed excellent returns culminating in 2014 with one of the best years ever for dairy producers.

The report outlines a case that the market conditions in 2014 were not sustainable and that the US dairy industry is entering a new era, which may become known as the **Market Pricing Era – V2**. The report predicts that this new era will represent a reset of many factors, including a reduction in farm milk prices and margins, requiring bold action on the part of dairy producers.

Given the industry changes underway, the report includes 18 possible action steps from experienced Farm Credit East lenders and consultants to adjust operations during this industry reset. Farm Credit East recognizes that this market/industry reset is creating difficult circumstances for some producers and is ready to work with producers during this adjustment period.

The report concludes by observing that while many dairy farms will have to make major changes to their operations, many dairy farms are already well positioned for the dairy industry reset and that the long-term outlook for the Northeast dairy industry is bright. Regardless of which category a particular farm business falls in, continued success in the dairy industry following this reset will require bold action.

Introduction

Until recently, it was generally accepted that there was a three-year milk price cycle consisting of one year of moderate prices followed by a year of very strong prices and then a year of weak milk prices. The existence of the cycle was both intuitive and also generally confirmed by at least one rigorous academic study.[1]

Midway through 2016, this conventional wisdom has been broken. While 2014 was the most profitable year ever for dairy producers, farm milk prices broke sharply lower in 2015 and have drifted even lower in the first half of 2016. The world is awash in milk production, there is little evidence of supply correction in the US and most forecasters are unsure as to when significant price improvement might occur.

So what became of the three-year cycle? Even more importantly, how do dairy producers, their lenders and others plan for the future when this conventional rule of thumb no longer seems to apply, and farm milk prices are stuck at unprofitable levels for most Northeast producers?

It is human nature to seize upon trends and cycles, and count on them to continue even in the face of evidence to the contrary. A recent example is the 2005-08 residential mortgage bubble era and its accompanying subprime debt crisis. Another example is the common wisdom from the 1970s that the United States would always be petroleum deficit and that oil prices over time would systematically outpace general price inflation. The acceleration of Midwest farmland values in the late 70s/early 80s is yet another example.

In dairy, we now must challenge the conventional thinking that we are just a few months away from a return to the three-year cycle, and to much better farm prices. Indeed the industry may well be entering into a fundamentally different pricing and profitability era – in other words, what we are seeing now may be a market *reset*. Not only could the three-year cycle be a thing of the past, this reset might signal an extended period of restructuring of US dairy farming.

This report will discuss the last 35 years of dairy markets and farm business results to illustrate three distinct periods based upon:

- Producer returns
- Milk prices
- Net Cost of Production (NCOP)
- Dairy Production Capacity
- Implications for Farm Debt

The start of a different era sets the foundation for how dairy producers and the entire dairy supply chain conduct business and plan for the future. It is critical to understand and act on these changes in order to

[1] Nicholson, Charles F., and Mark W. Stephenson. "Milk Price Cycles in the U.S. Dairy Supply Chain and Their Management Implications." *Agribusiness: An International Journal*. Wiley Online Library, 09 Apr. 2015. Web. 01 Aug. 2016.

remain profitable and successful for the future. **We at Farm Credit East remain optimistic about the long-term success of the Northeast dairy industry relative to both the national and global market for high quality dairy products.**

No one, no matter how expert, can predict what will happen in dairy markets. However, there is now too much economic evidence of a disconnect from the recent past for producers and other stakeholders to ignore. **In order to effectively plan for long term profitability, manage risk and preserve wealth, producers will need to take bold actions.** Hoping for the three-year cycle to lift farm profits is not a viable business strategy.

Distinct Dairy Market Eras

Years	Era	Return on Equity (Average)
1981-1995	Post-Parity	0.7%
1996-2006	Market-Oriented	4.3%
2007-2014	Dairy Export Takeoff	6.8%
2015-future	Market-Pricing – V2	?

A review of **Northeast Dairy Farm Summary** (***DFS***) data since 1980 reveals three distinct eras of dairy farm profitability as measured by return on equity (ROE). (Figure 1) This is average ROE for all farms; Top 25% farms would have earned substantially above that and made expansion decisions accordingly.

In the 1949-81 era, US farm milk prices were largely determined by a federal support price program operated by the US Department of Agriculture (USDA), which pegged farm milk prices to inflation through the parity price concept. Because of productivity improvements, milk production cost per hundredweight (cwt) rose slower than the cost of inputs, making dairy production increasingly profitable, spurring increased production and ultimately requiring the federal government to buy large amounts of surplus dairy products in order to support the farm milk price at the targeted levels.

This all changed in 1981. By then, the support program had accumulated massive surpluses of USDA-purchased butter, cheese and nonfat dry milk. It was considered to be unduly expensive to operate and no longer necessary. Early that year, Congress passed and President Reagan signed legislation that discontinued parity pricing and began to ratchet down the Federal milk support price.

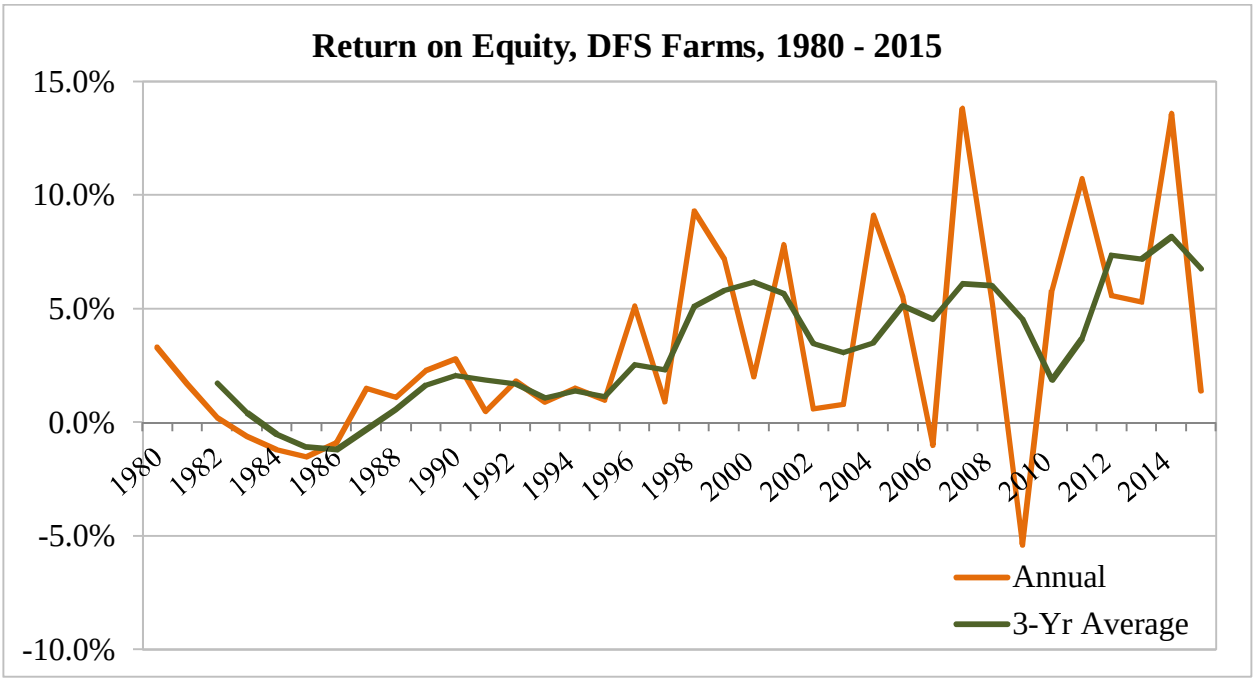

Figure 1: ROE average of all farms

Parity pricing had driven farm milk prices above market. Farmers and the industry responded, resulting in excess production capacity in terms of milk cows and farm numbers. It took nearly 15 (mostly difficult) years in the ***Post-Parity Era*** to adjust to a more market-oriented pricing regime, including achieving the very difficult reductions in productive capacity.

The weaning of farm milk prices from the parity concept, coupled with excess productive capacity, high inflation and high interest rates, led to sustained poor profitability for the average farm over the 1981-95 era – an average of 0.7 percent rate of return on equity across the 15 years.

As the ***Post-Parity Era*** concluded, in 1996, ROE spiked to 5.1 percent - the highest of any time since at least before 1980. During the next 11 years of the ***Market-Oriented Era***, ROE averaged a far more respectable 4.3 percent. Market-based pricing now prevailed, and productive capacity was far better aligned to commercial markets than during the parity pricing era. It was during this time that the three-year cycle began to emerge

In 2007, ROE spiked again to 13.8 percent. During the ***Dairy Export Takeoff Era,*** lasting the next eight years, ROE averaged 6.8 percent despite two very negative years (2006 and 2009). Economically, there was a lot going on during these years. The general economy went into recession in 2008, but US agriculture was enjoying a period of unusually strong prices across most major basic commodities.

By the end of 2008, as the Federal Reserve sought to boost the general economy, interest rates were reduced to historical lows where they still remain. Nonfarm inflation was also low by historical standards. Probably the most important driver of strong farm milk prices and returns, however, was the emergence of major export markets for US dairy products. China came into the market on several occasions as a major buyer of dry milk products, while other countries also continued to ramp up dairy product imports. At several points, New Zealand and other major export competitors had weather-

induced supply disruptions, creating export opportunities for US dairy products. We may someday look back at this as a ***Golden Era*** for US dairy farmers.

Many of the factors that drove the ***Dairy Export Takeoff Era*** have now shifted, raising questions as to the sustainability of prices and profitability from that time:

1. Since mid-2014, the value of the US dollar has substantially strengthened against most other currencies – by approximately 17 percent against a weighted basket of major currencies. This makes US dairy exports less affordable to buyers while conveying a significant price advantage to our exporting competitors.
2. China's well publicized economic challenges have restricted their appetite to aggressively import dairy products. China's long-term intent is to develop its own dairy industry in order to reduce its reliance on imports.
3. The European Union (EU) ended its long-standing system dairy production quotas in March 2015. Subsequently, the EU has increased production substantially, further driving down world dairy prices.
4. New Zealand's return to normal production, at least until its next weather event.

As markets and competitors move beyond the 2007-14 convergence, perhaps we have begun another era of market pricing that reflects a settling out of global markets and realignment of our domestic market. Shifts in the competitive landscape occur all the time in other industries, and indeed in the US and global economies. The dairy industry may have to navigate a reset to a new era of farm milk pricing.

Farm Milk Prices

Years	Era	Actual Milk Price	Milk Price in Today's Dollars*
1981-1995	Post-Parity Price	$13.62	$24.83
1996-2006	Market-Oriented	$14.73	$19.27
2007-2014	Dairy Export Takeoff	$19.25	$21.25
2015-future	Market-Pricing – V2	?	?

* 2015 dollars

Farm milk prices are the primary economic signal to individual farmers and the industry. (Figure 2) A longer view of farm milk price trends provides insight into what might be "normal" in the future. For most of the past 35 years, after-inflation farm milk prices ("real price") have trended downward. The ***Dairy Export Takeoff Era*** was a divergence in this trend as after-inflation farm milk prices actually increased.

During the ***Post-Parity Era***, the real farm milk price declined by an average of 79 cents per cwt. per year. In 1981, when parity pricing was permanently disconnected, the farm milk price was $31.68 in today's dollars. By 1995 it had reached $19.10, a decline of some 40 percent in real dollar terms. This adjustment was ultimately necessary to bring farm productive capacity back to a more market-oriented balance and, in so doing, get USDA out of the business of being a major buyer of surplus dairy products. While the price support program remained in operation, by 1995 it had become a safety net against very

depressed milk prices. This real price decline incented substantial numbers of producers and cows to leave the industry in order to restore the balance between market demand and industry capacity, helped along by the Dairy Termination Program of 1985-86.

In the ***Market-Oriented Era***, real milk prices continued to decline, but at a much slower rate of 37 cents per cwt. annually on average. The adjustment to the post-price support era had been completed and the industry was generally in a better supply/demand balance.

It was only in the ***Dairy Export Takeoff Era*** that real milk prices actually increased, and most of this was in 2014. With milk prices in the $17-18 range in 2015, 2016 and likely again in 2017, the current climate appears to be a return to the ***Market-Oriented Era***. This range of prices is probably the new norm until a future shift causes another realignment within the US dairy industry.

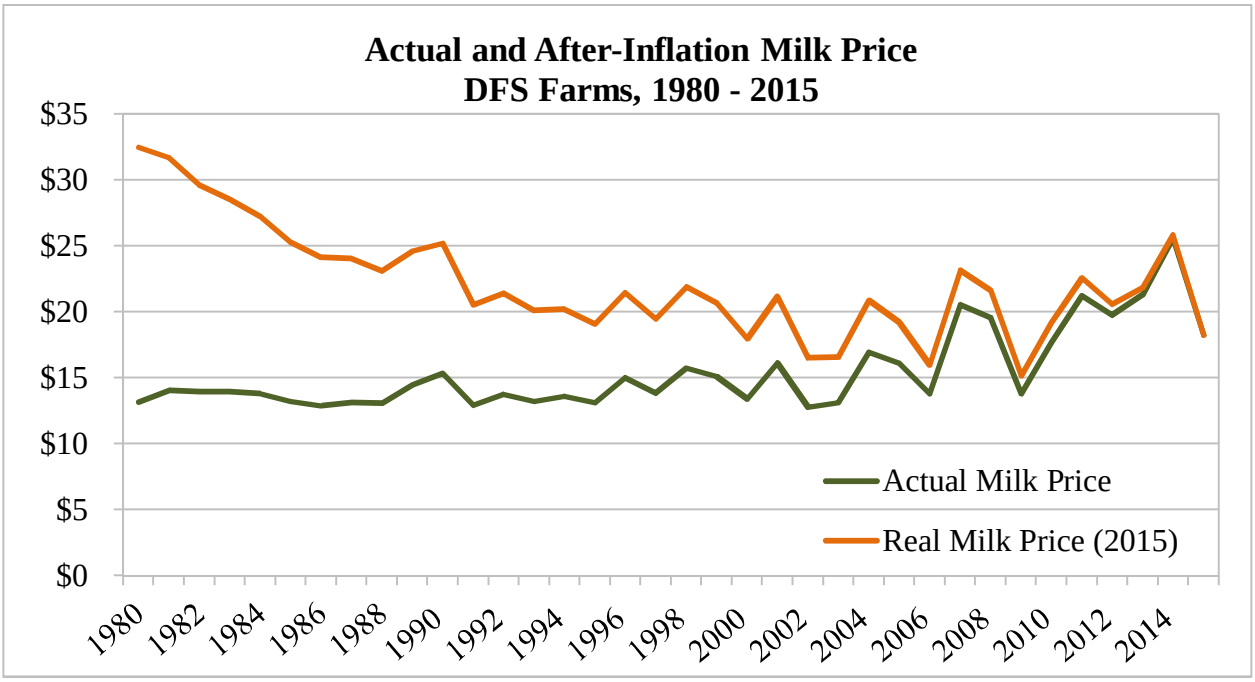

Figure 2: Dairy Farm Summary historical milk price

Net Cost of Production (NCOP): The Other Driver

Years	Era	Actual COP	NCOP in Today's Dollars*
1981-1995	Post-Parity	$13.88	$24.80
1996-2006	Market-Oriented	$14.06	$18.38
2007-2014	Dairy Export Takeoff	$18.32	$19.54
2015-future	Market-Pricing – V2	?	?

* 2015 dollars

Net cost of production per cwt. in real dollars trended sharply down during both the ***Post-Parity*** and ***Market-Oriented*** eras, see Figure 3:

- Sustained annual increases in production per cow of 1 to 2 percent per year helped reduce cost of production by spreading fixed costs over more units.
- Exit of high NCOP farms during this era, leaving a greater proportion of lower cost farms, thereby bringing down the average.
- Higher adoption of the most efficient dairy technology and management practices by surviving dairy farms.
- Introduction of new technology and knowledge in dairy farm management. While this includes dairy genetics, it also includes other cattle husbandry, agronomic and business management practices.
- Economies of scale with farms becoming larger, many of them related to new technology and management, all of which further reduced net cost of production.

Once again, the ***Dairy Export Takeoff Era*** stands out with real (after-inflation) cost of production having increased by more than a dollar per cwt. Why would this have occurred? One explanation is that corn, soybean and related commodity costs spiked above the rate of inflation in the 2007-13 period. Probably another reason is "because it could," i.e., higher real milk prices made it possible for producers to allow NCOP to drift upward. As part of this, higher capital spending in recent years has driven up the depreciation component of NCOP. Yet another reason for the increase in real NCOP during this period may have been the lower attrition of high cost farms out of the dairy industry because of less price/margin pressure to exit.

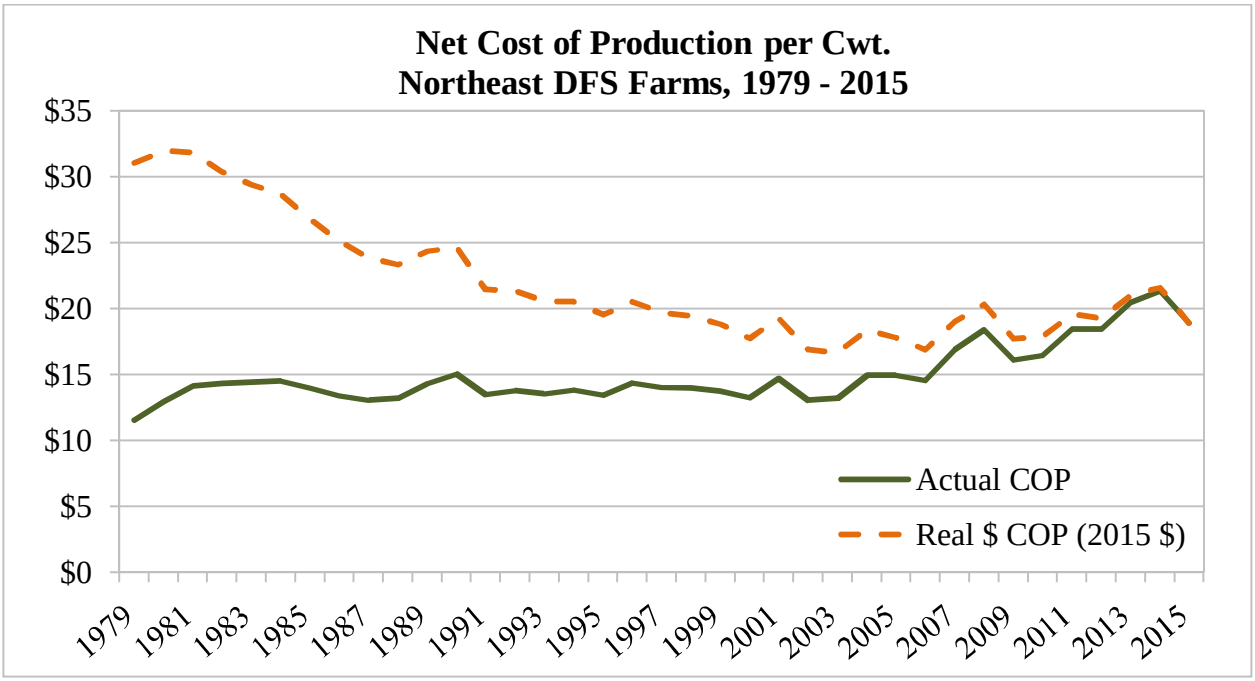

Figure 3: Dairy Farm Summary historical cost of production

As the industry moves into ***Market-Pricing – V2***, this pronounced pressure to reduce NCOP to be sustainable has been and will remain acute. Surviving farms will achieve this by becoming more efficient (often by increasing milk per cow within their current facilities), while exiting farms will generally be those with unsustainably high NCOP.

There is an incredibly strong correlation over time between farm milk prices and cost of production. Figure 4 shows the three-year average for farm milk prices and net cost of production from the ***Northeast Dairy Farm Summary***. Their correlation has been 98.5 percent for 1990-2015. The three-year average is important because the producer and market adjustments that cause this strong relationship tend to occur within about three years.

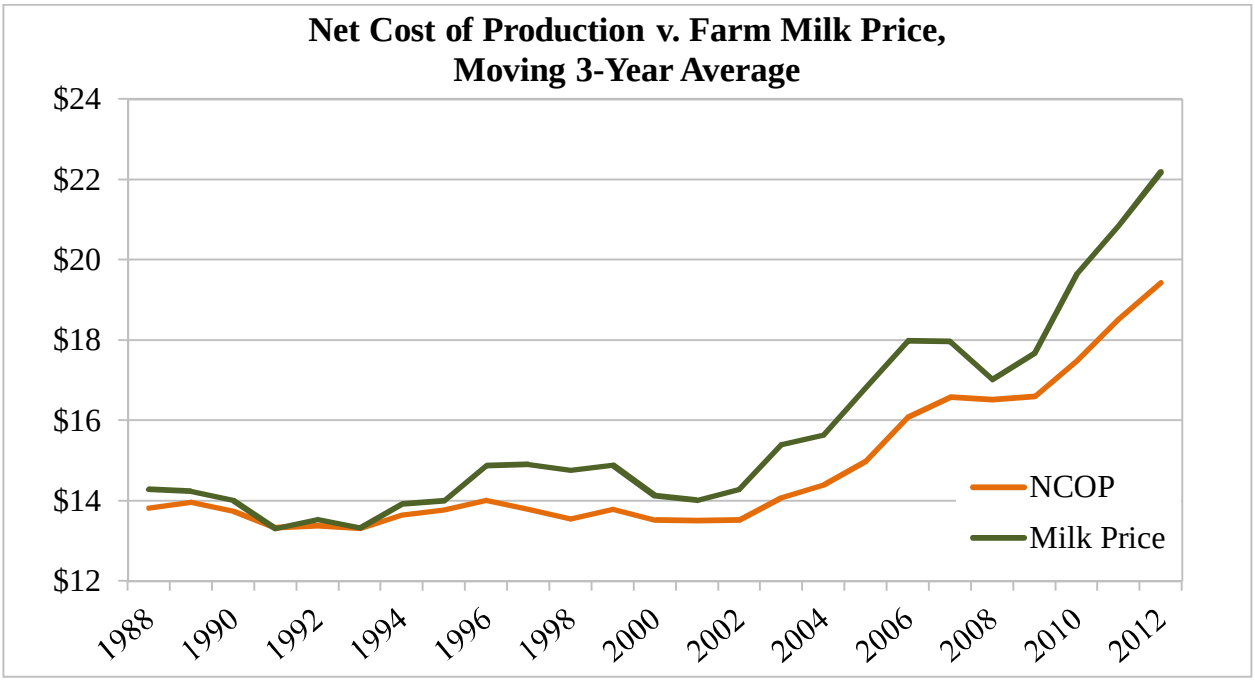

Figure 4: Strong correlation between farm milk prices and net cost of production over time

This strong statistical correlation is intuitively explainable:

- Producers are *price-takers* and thus adjust over time to changes in the farm milk price.
- When milk prices are strong relative to NCOP, producers are able to engage in more discretionary spending and NCOP tends to increase. When milk prices are weak relative to NCOP, producers engage more aggressively in cost control and intensify their efforts to produce more milk from the same amount of fixed resources (cows, facilities, land and management).
- When milk prices are strong relative to NCOP, this signals producers that expansion is favorable, and they tend to increase cow numbers and necessary facilities. This ultimately leads to more total milk produced and a market correction in the form of lower milk prices. Conversely when milk prices are weak compared to NCOP, this restrains expansion, ultimately leading to market correction as supply better aligns with demand.
- When milk prices are strong relative to NCOP, this dampens the rate of producer and cow exit from the industry. Conversely, periods in which milk prices are weak relative to NCOP accelerate the rate of exit and ultimately lead to a market correction. This of course takes time to occur and has been a major driver of the three-year cycle.

The strategic implication of the sustainable milk price concept is that with farm milk prices resetting to a substantially lower level during 2015-16 and perhaps beyond, NCOP will be forced to adjust in order to

get supply and demand back to some sort of more profitable balance. NCOP will realign through producers becoming more efficient (more milk per cow and more milk from the same labor, facility and land resources), as well as bold cost control on farms (reducing discretionary spending, culling unproductive resources, more effectively adopting available knowledge and technology, reducing family draws, etc.). Ultimately, the average NCOP will also fall as high cost producers exit the industry and thus are no longer raising the average.

US Milk Production Capacity

Years	Era	Average Ann. % Change US Dairy Herd (Cows)	Average Ann. % Change Milk per Cow (Lbs.)
1981-1995	Post-Parity	-1.0%	2.1%
1996-2006	Market-Oriented	-0.5%	1.8%
2007-2014	Dairy Export Takeoff	+0.1%	1.4%
2015-future	Market-Pricing – V2?	?	?

One of the givens of dairy industry economics has been the nearly constant long-term trend of increased production per cow, see Figure 5. In the 2000s, this has meant an average of 1.4 percent more milk annually from the same cow numbers industry-wide. This trend has been very good for controlling cost of production and for the success of individual dairy producers. From an industry vantage point, however, it means that the governing mechanism for the US supply of milk is the size of the national dairy herd.

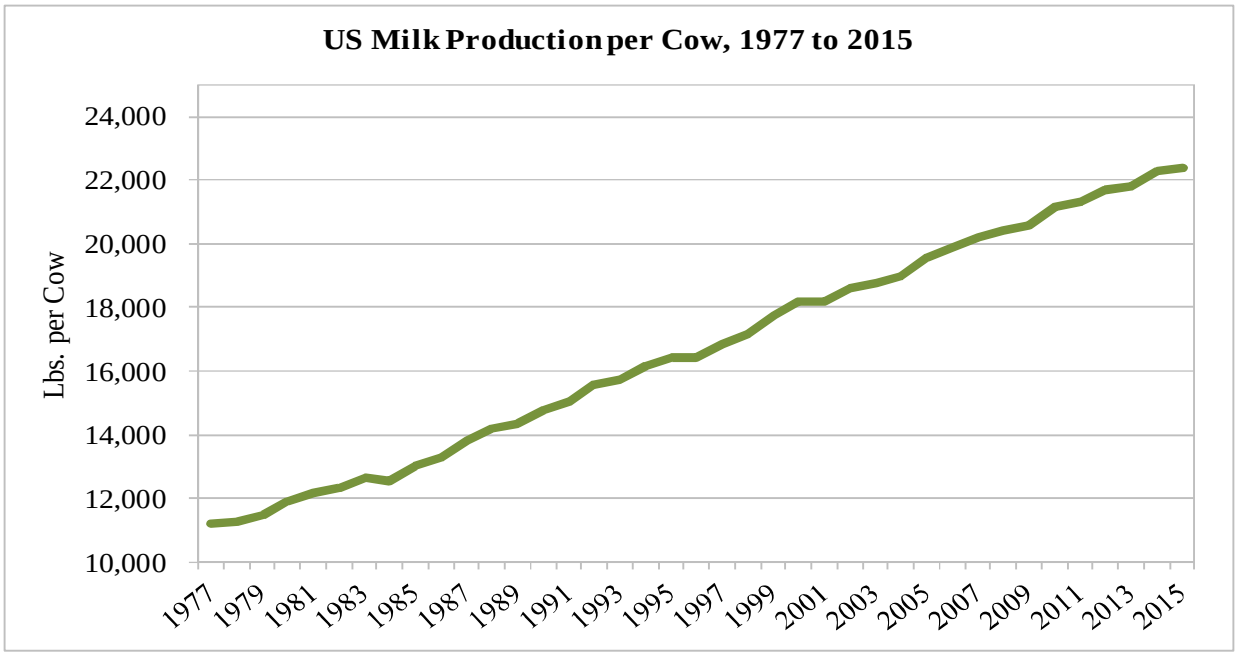

Figure 5: Historical dairy productivity

During the ***Post-Parity*** and ***Market-Oriented Eras***, the US dairy herd decreased from 11 million head in 1982 to slightly more than nine million by 2004, see Figure 6. While the relatively stable herd size of 9.2-9.3 million during the ***Dairy Export Takeoff Era*** might not seem noteworthy, it is both an anomaly

in the recent history of the US dairy industry and problematic in terms of the industry re-balancing its productive capacity to changing market conditions.

The concept of *elasticity of supply* is a basic economic concept that measures the responsiveness of a production sector to price changes. This concept has often been demonstrated in agriculture, including dairy. Simply put, higher prices/margins should induce producers to expand production, while conversely lower prices/margins should induce producers to reduce production, or to exit farming. (A common expression that illustrates this concept is "the best cure for high prices is high prices, and the best cure for low prices is low prices").

In the ***Dairy Export Takeoff Era,*** supply was quite elastic – strong prices motivated large increases in milk production. Since farm milk prices declined, however, we have seen virtually no supply response from the US dairy industry, indicating an inelastic downward supply response.

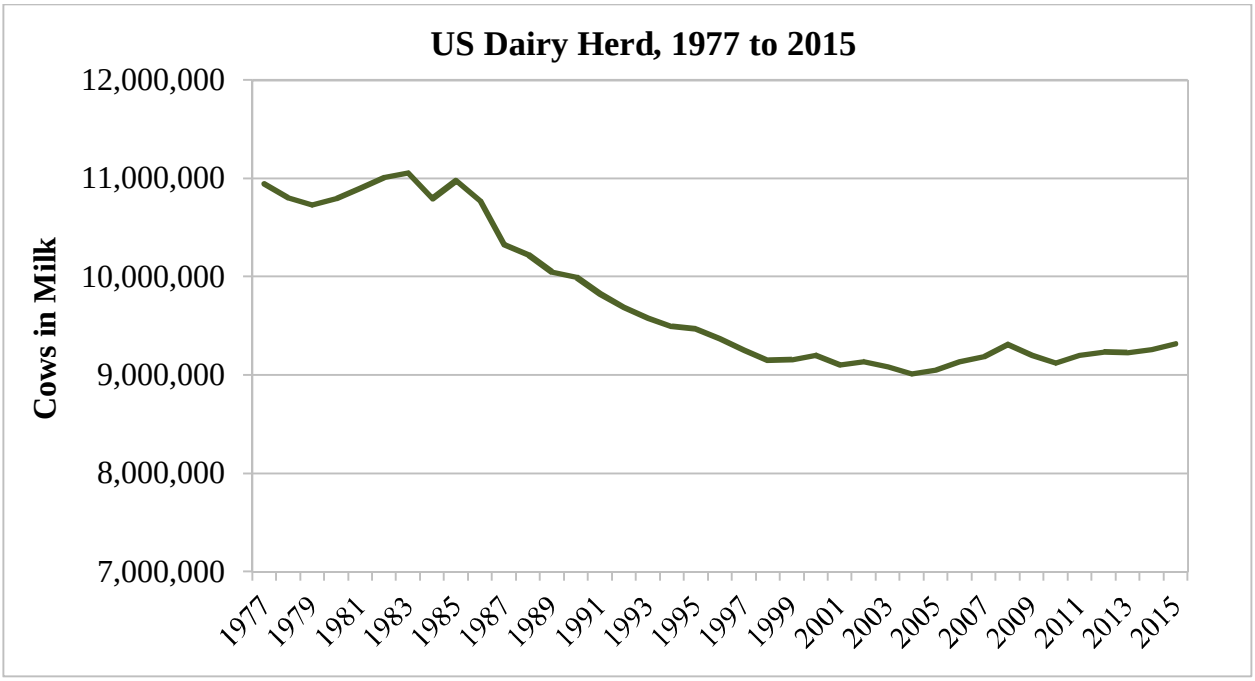

Figure 6: Historical herd size

Figure 7 compares the dairy downturns in 2015-16 and 2009. During the 2009 downturn, it took six months from the time that both farm milk prices and national dairy herd peaked before significant supply response occurred. Within 17 months, the national herd was reduced by about 150,000 cows (2.7%). It is true that the CWT (***Cooperatives Working Together***) program ran several herd buyout windows during this time which helped motivate herd sales, but the fact remains that national herd capacity was significantly reduced in less than 18 months and farm milk prices recovered.

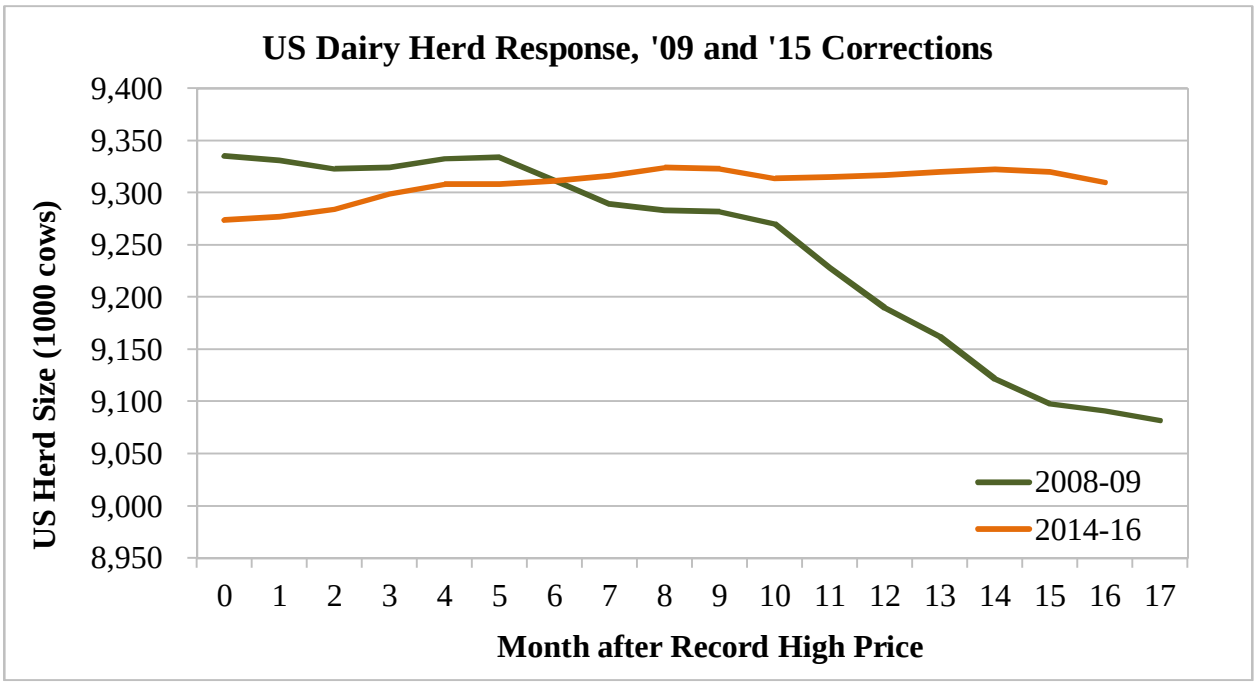

Figure 7: Comparison of the 2015-16 and the 2009 downturns

During the current 2015-16 downturn, some 20 months have elapsed since farm milk prices peaked in 2014. In that time, the national dairy herd has actually increased by 53,000 cows (0.6%). In economic terms, almost two years of greatly reduced farm milk prices have yet to generate any supply reduction.

This protracted supply response results from profound industry changes:

- This is clearly not the three-year cycle at work.
- The delay in supply reduction means a protracted return to better milk pricing.
- This delayed response indicates a wide range of NCOP within the US dairy industry, such that apparently there are many low-cost producers for whom expansion continues to be an option under current pricing, even while average and high-cost producers are struggling to remain viable. The wide range of NCOP around the $18.36 average within our **Northeast Dairy Farm Summary** sample is shown in Figure 8 – this is likely indicative of the US industry as well.
- The business structure, technology and scale of dairy farming have greatly changed in the past decade and more. Today's dairy businesses respond to downturns differently than they might have in the past.

The lack of supply elasticity after almost two years of sharply lower prices should cause producers, lenders and others to plan accordingly and to not rely on a return to 2007-14 pricing dynamics.

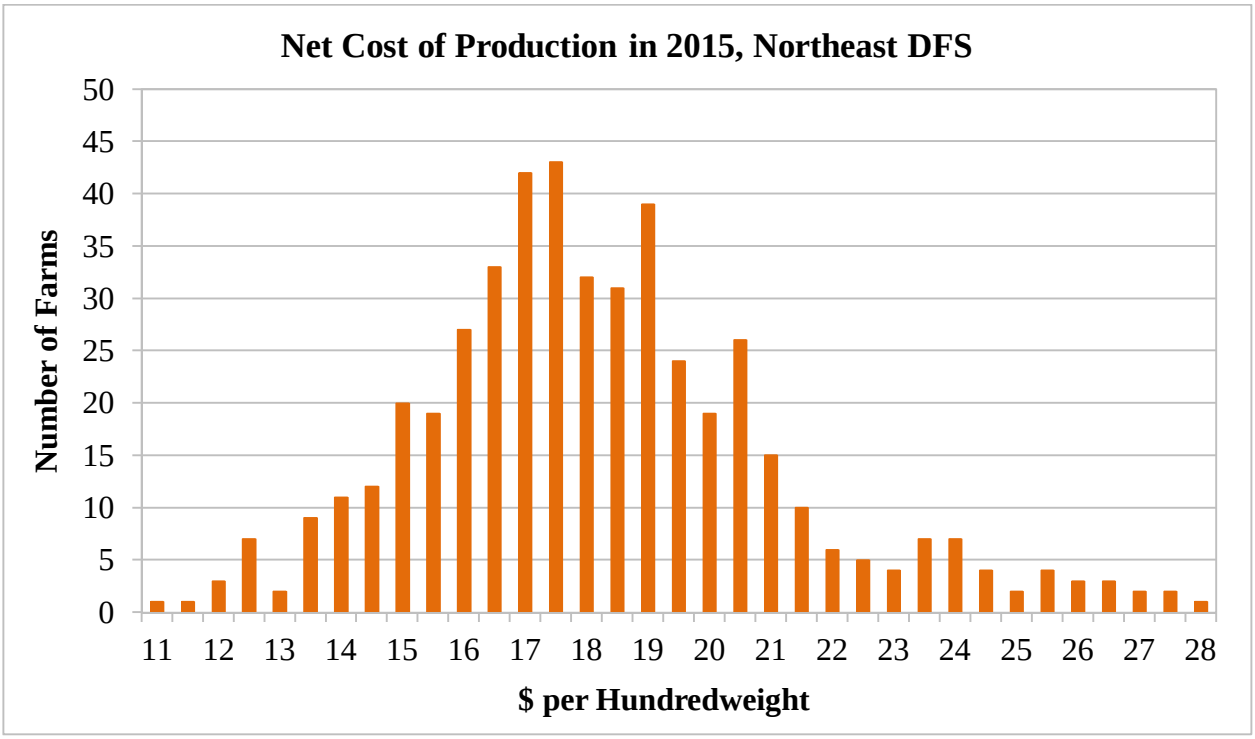

Figure 8: Net cost of production range, average of $18.36 for 2015, Northeast Dairy Farm Summary

Implications for Farm Debt

Years	Era	EBIDA per Cow	Debt per Cow	Debt to EBIDA* Ratio
1981-1995	Post-Parity	$637	$2,190	3.44
1996-2006	Market-Oriented	$760	$2,485	3.27
2007-2014	Dairy Export Takeoff	$973	$3,164	3.25
2015-future	Market-Pricing – V2	?	?	?

*EBIDA = Net Earnings + Interest + Depreciation + Amortization

Northeast dairy farm repayment capacity and debt per cow have been remarkably aligned over much of the past 35 years at a manageable ratio of between 3.25-3.50, see Figure 9. This reflects prudent decision-making by dairy farms and their lenders, balancing several factors:

- Year-to-year volatility in EBIDA such that in some years it would not be sufficient to meet scheduled debt payments. EBIDA is basically the annual cash flow available with which to make debt payments (interest + principal).
- The ever increasing need for dairy farmers to spend at least an amount equal to depreciation to avoid obsolescence and stay up to date with new technology.
- The need to maintain sufficient financial flexibility (reserve debt capacity) to not only survive industry downturns, but also other financial risks such as bad weather, poor crop quality, herd health issues, etc.
- Prudent use of debt such that the business is able to repay most or all of it based on earnings from the business versus having to liquidate assets.

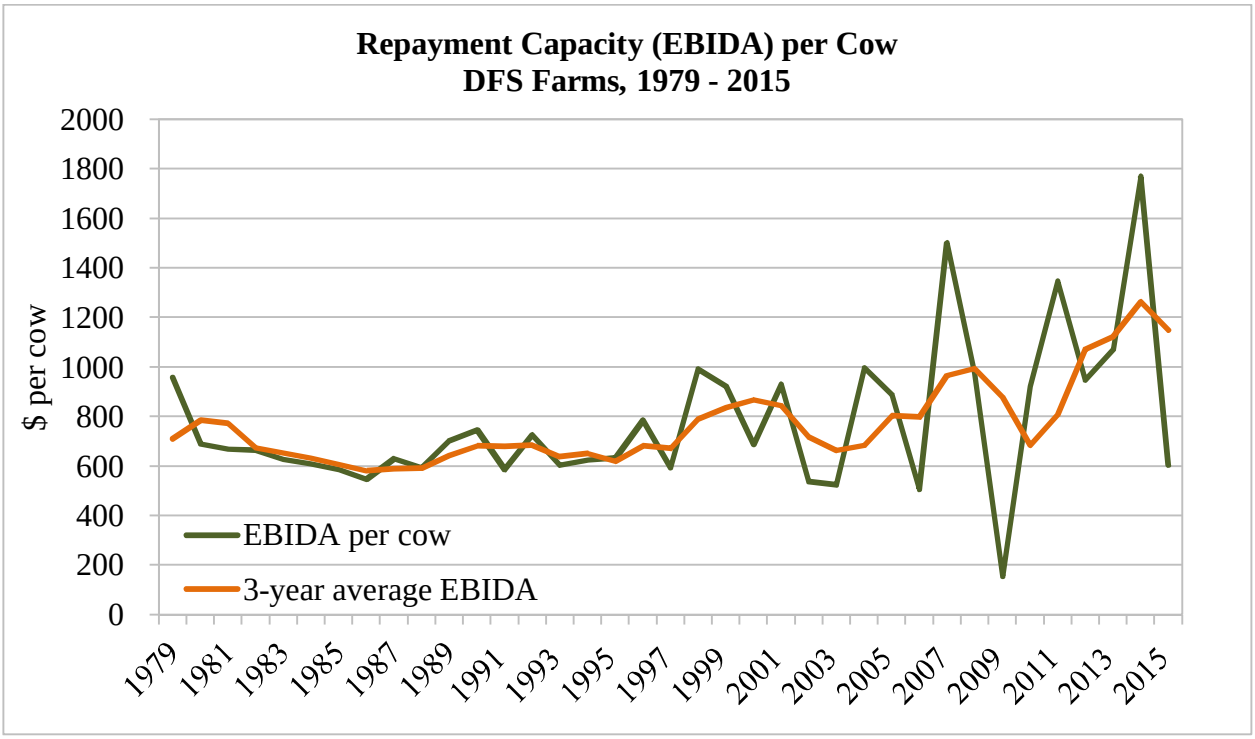

Figure 9: Dairy Farm Summary historical repayment capacity

The Debt to EBIDA ratio averaged 3.25x during the ***Dairy Export Takeoff Era,*** reflecting strong cash flows which supported $3,164 average debt per cow. With the likely return to lower milk prices/tighter margins, it will become prudent for dairy farms to reduce debt levels consistent with lower average EBIDA.

With 2015 EBIDA at $604 per cow and 2016 likely to be even lower, the three-year average EBIDA appears to be headed toward a more normal range of about $700 per cow in the coming years. This level of cash flow would equate to about $2,275 debt per cow for an EBIDA multiple of 3.25. Producer/lender implications are:

1. Those producers who currently have moderate debt per cow have a head start on repositioning their businesses during the industry reset.
2. Those who find themselves with historically high debt levels have added urgency to reduce debt in order to rebuild financial flexibility and keep up with normal capital spending. Since interest payments are included in NCOP, reducing debt will be critical to lowering NCOP.
3. Borrowing rules of thumb from recent years will need to be revised downward in order for dairy farms to be safely and soundly financed.

Taking Bold Action: Dairy Business Planning in Changing Times

In 2014, US milk production increased by five billion pounds, farm milk prices increased $4.00 per cwt. and farm profitability reached record highs. This highly improbable set of market events resulted from a one-time surge in China's demand for dry milk products coupled with a shortfall of exportable product from New Zealand. **2014 was a fluke year in the dairy market, and indeed the 2007-14 *Dairy Export Takeoff Era* was an unsustainable combination of market events**. The sooner the market/industry reset from this period is embraced, the better producers can adjust their businesses to changed realities and prepare for continuing success.

So how should producers plan in this new era? One reasonable approach is assuming a return to market dynamics more similar to those of 1996-2006, but with the most notable change being that nonfat component prices be largely driven by world markets. The butterfat component will probably continue to be more heavily driven by domestic supply and demand. Based on this rationale:

- Average Net Cost of Production (NCOP) for Northeast farms may well decline by another $1.00 to $2.00 per cwt below 2015 levels before the current industry correction phase plays out. This would return average NCOP to the long term trend underway until about 2010.

- Average farm milk prices would follow NCOP back to the pre-2007 era. Once the current industry correction completes itself, average farm milk prices would settle into the $17.50 to $18.50 range with strong years near $20.00 and weak years down into the $16.00 range as shown in the table below:

	2014 Actual	2015 Actual	2016 Forecast	2017 Forecast	Avg. Post Reset	Good Yr. Post Reset	Bad Yr. Post Reset
Price per cwt.	$25.58	$18.24	$17.40	17.75	$17.50-18.50	$20.00	$16.00

Farm Credit East strongly encourages dairy producers to plan and execute bold action for thriving under this scenario. There are some well-positioned producers whose NCOP and debt levels are already in profitable balance under this scenario. There are others, however, that will need to make substantial adjustments to their cost structure and/or substantially reduce debt levels in order to be sustainable in this fundamentally changed operating climate.

Dairy producers need to develop their own strategies and bold action plans for responding to this market/industry reset. We recently polled Farm Credit East's seasoned staff about how they are advising the producers with whom they work. Their feedback about managing and financing dairy farm businesses is presented in the next two sections. Some comments overlap, as farm management practices have implications for financing the business, and vice versa. An overarching theme is that waiting for a highly profitable year to recover finances is not a viable strategy.

Farm Management Talking Points: The Business Consultants

1. ***Understand and Manage your Net Cost of Production*.** The ***Northeast DFS*** reported an average NCOP of $18.36 per cwt. for 2015. However, more than half the farms had NCOP above this level and over 40 percent of the farms were in excess of $20 per cwt. The *current state of the art of dairy farming* confirms that $18/cwt. NCOP is achievable. Milk markets are inexorably driving producers to that level. Having the accurate financial records to calculate cost of production is paramount. Then benchmarking your NCOP against industry standards indicates areas for improvement.

2. ***Question "We've always done it that way."*** This is a good time to rethink some of the "sacred cows" within your business strategy. This may include evaluating the financial impact of raising every heifer calf to freshening, cropping distant fields just because they are available to rent, or feeding for maximum production rather than for optimal cost of production per cwt.

3. ***Make the Most of Underperforming Resources*.** Businesses often accumulate underperforming resources during periods of good profitability – it's just human nature. It makes sense to either enhance the performance of these resources or let them go in tougher times even though it may be emotionally difficult to do so. This may be rented crop land that made sense to operate when corn was $6 per bushel**.** It may be an employee or two that are nice to have during peak times, but increase labor cost per cwt. above the norm. It may be an employee who has struggled to meet established standards of productivity in your business or milking cows that are not pulling their weight within the herd.

4. ***Re-balance your dairy operation***. Many Northeast dairy operations have undertaken substantial expansion during the ***Dairy Export Takeoff Era***. Often, key resources can get out of balance due to the stepwise nature of expansion such that one or two resources may be in excess while others may be very limiting – cropland for both production and manure management, parlor capacity, milk cow barns, heifer barns, feed storage, heifers, etc. It is important to understand and manage any imbalance within your operation, even though the current climate precludes further expansion spending for some time. For example, maxing out current capacity to house, feed and milk cows within existing facilities is key to diluting fixed costs and enhancing cash flow.

5. ***Take Full Advantage of Outside Professional Advisors*.** There are many outside resources that are eager to assist you in taking bold action and achieving a more competitive cost of production – *Dairy Profit Teams* and *ProDairy* in New York State, your nutritionist and/or feed supplier, your vet, your agronomy supplier and Farm Credit East's team of financial experts including consultants and loan officers. We urge you to take full advantage of these professionals because they bring not only expertise, but perspective from working with similar farming businesses. Farm Credit East staff looks forward to being a member of your farm's "team of experts."

6. ***Essential vs. Nice to Have*** **Capital Spending.** Healthy profits and strong appetite for income tax management have spiked capital spending for replacement machinery and equipment during the

recent era. Many younger family members may not remember a time when the business needed to go on a disciplined capital spending diet and rely to a greater extent on "baling wire and twine" to get by. Farm Credit East recognizes that with today's level of mechanization and technology, there is almost always some essential capital spending required in dairy businesses. We strongly recommend setting a multi-year capital budget based on expected obsolescence and priorities, and then using it to maintain strong discipline when those *nice* opportunities crop up. For the average dairy farm in the ***DFS***, capital spending will need to be substantially reduced from the 2010-14 era.

7. ***Family Living Withdrawals from the Business***. Rightfully so, the good times allowed some farm owners to enhance their standard of living with larger draws than in the past. Those who did so may now need to reduce family living draws until prices and profitability re-balance.

8. ***Accurate, Real-Time Financial Records.*** This has been one of Farm Credit East's continuing recommendations. As we have observed the speed and success of dairy businesses in taking bold action, a common factor is good real-time financial information on a monthly and annual basis to be used for monitoring, benchmarking, partial budgeting and motivation. Not knowing cost of production and year-to-date results on a continuing basis is dangerous in the current challenging environment. This is a critical survival skill whether you use these services through Farm Credit East, another professional practitioner or someone within the management team who is focused on and responsible for good accounting.

9. ***Is Tax Management Driving the Bus?*** Heightened dairy farm profitability created the opportunity to use capital spending as a means for deferring income tax liability to some future time. This not only enabled more frequent replacement of machinery and equipment, but has likely encouraged expansion based on tax advantages. In the current dairy climate, producers and their tax advisors will be challenged to adjust their financial management to preserve cash flow, repayment capacity and debt capacity.

Financial & Credit Management Talking Points: The Loan Officers

1. ***Preserve Your Remaining Debt Capacity.*** Credit availability is a critical resource to help you through this cycle. Resist the temptation to use available lines of credit for anything other than essential replacement purchases and meeting current operating expenses. Be cautious about "deferred financing" or leasing of "nice to have" pieces of equipment.

2. ***De-lever your balance sheet.*** Most farms that currently have in excess of $3,500 debt per cow need to actively reduce their debt – not only to get through the current correction phase, but also for sustained success over the long term. The right amount of debt and leverage on the balance sheet is specific to each farm. Your Farm Credit East loan officer can help you analyze this. The next three strategies can assist in de-levering.

3. ***Defer "Nice to Have" Capital Spending***. Avoid replacing a key piece of equipment "just because" you like to replace it every three years. Think carefully about purchasing the 100-acre piece that you have rented for the last 20 years if you can continue to rent with an option to purchase, or building the next heifer barn because it will position you for the next round of expansion.

4. ***Sell Unproductive Assets***. Consider selling assets that are not essential to your operation:

   - Houses on farms that you have purchased over the years that could be sub-divided off without unduly impacting the cropland.
   - Heifers in excess of what you need to keep existing facilities in full production.
   - Cropland 15 miles away that you know is very expensive to operate.
   - Merchantable timber that the local logger has been soliciting.

5. ***Repayment: Time is not a "silver bullet."*** One way to reduce breakeven milk price would be to lengthen the debt term or to term out operating losses over an extended period. An operation places itself in an increasingly uncompetitive position if it is still making payments on fully depreciated assets when that cash flow is needed for future business opportunities. Needing to term out a current operating loss over an extended time (5 or more years) shows the business's lack of resilience and likely inability to weather future downturns.

6. ***Equity Investment***. Traditionally we have not seen much outside equity investment in Northeast agriculture. Today's farm entity structures may better facilitate outside equity than in the past, especially for more profitable farms that have a present need to reduce leverage. Equity might be invested by nonfarm relatives, friends or others who might be interested in a "patient capital" opportunity.

7. ***Keep in Mind "Doors Out."*** It's important to have a Plan B if bold actions do not result in sustainable profits. Being strategic and proactive about selling assets is important, especially if a prolonged downturn impairs asset values or the purchasing power of likely buyers. Options might include selling a satellite farm or the sale/leaseback of cropland, especially if it is less critical to CAFO permitting/nutrient management.

8. ***Is This the Right Time to Exit?*** Over many decades, thousands of farm families have determined that their best strategy was to make a planned exit from active farming in a manner that preserved their accumulated family wealth. Often this was, in effect, a retirement decision. Almost universally, these folks tell us later that they are glad that they made this decision and that life after active dairy farming was productive and enjoyable. Key to this decision is to <u>not</u> wait until equity is mostly gone and to sell assets in a manner that manages the income tax liability. Farm Credit East loan officers and tax consultants can help.

9. ***Talk Often with your Loan Officer***. Farm Credit East "gets it" as to the current challenges in the dairy industry. We have a shared interest and commitment to the future success of the Northeast

dairy industry. On-going, honest communication about plans, financial needs and outcomes is more critical than ever to provide good service to you. Farm Credit East professionals are eager to assist you in a variety of ways.

Call to Action

It seems likely for the next few years that farm milk prices will be consistently under much greater pressure than in the recent past. Farm business rates of return will be significantly lower during this adjustment period. Attrition of the national dairy herd and ultimately of farms will accelerate. There may be less opportunity for sharp price spikes such as 2014 and 2008. After the current industry correction completes, there will still be market cycles from weather disruptions and foreign trade events and probably a return to a more modest three-year cycle.

This market/industry reset is creating difficult circumstances for some producers. Farm Credit East's view is that the dairy industry reset will simply mark a return to conditions more like those prior to 2006. Low cost dairy producers will continue to make money, just not as much. Average dairy managers will be continually challenged, and high cost producers will be under even more intense pressure to either fundamentally improve or to exit the industry. Expansion will be more limited than in recent years.

This challenge also brings opportunity. Many dairy farms are already well positioned to succeed under the expected conditions of this dairy industry reset. Many others still have the opportunity to make adjustments that will help them succeed in this changing climate. The window of opportunity to make changes, however, will not remain open indefinitely. It's critical for dairy producers to proactively make an honest assessment of their operations and take necessary *bold action* for continued success.

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