United States Department of Agriculture

Before The Secretary of Agriculture

In re: [Docket No. 23-J-0067; AMS-DA-23-0031]

Milk in the Northeast and Other Marketing Areas

Hearing beginning August 23, 2023

Testimony In Support of Proposals #16, #17 and #18

Testimony Presented By:

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Edge Dairy Farmer Cooperative (Edge), based in Green Bay, Wis., is the third largest dairy cooperative in the country based on milk volume. In addition to milk verification services, Edge provides dairy farmers throughout the Midwest with a voice in Congress, with customers and within our communities. Our over 800 member farms are located in Illinois, Indiana, Iowa, Kansas, Minnesota, Nebraska, Ohio, South Dakota and Wisconsin. We represent farmers but not a specific product or set of products, as our farms ship to over 30 processors, making a wide variety of products.

I am Marin Bozic, President of Bozic LLC, and advisor to the Board of Directors of Edge Dairy Farmer Cooperative. I have already stated my credentials in the exhibit Edge-1. This testimony focuses on the topic of Base Class I Skim Milk Price, Proposals #16 and #17 submitted by Edge Dairy Farmer Cooperative. It also references components of Proposal #18, submitted by the American Farm Bureau Federation.

We stated it previously, but it bears repeating that Edge believes that risk management is critical for the success of our nation's dairy farmers and – particularly relevant for this topic – innovators in the fluid milk sector. You will also notice Edge has put forward two proposals that are mutually exclusive. Adopting proposal #16 would preclude proposal #17 from being implemented and vice versa. Our strong preference is for proposal #16 for the reasons I will elaborate on in this testimony.

How We Got Here

For many decades, per capita consumption of fluid milk was in decline, offset by population growth. Overall fluid milk sales were stable. Since 2010, total fluid milk sales have steadily declined. Difficulties with hedging under the previous "higher-of" system are well documented in academic literature. Newton and Thraen (2012) conclude: *"The basis exposure prevents class III and IV milk futures contracts from directly managing the milk price and limits potential risk reduction and revenue stability for fluid market participants. Removing these roadblocks to risk management would provide avenues for farm, processor, and retailer profitability in an increasing volatile market."*[1] In response to declining fluid milk sales and hurdles with Class I risk management, the National Milk Producers Federation (NMPF) and the International Dairy Foods Association (IDFA) reached a consensus in 2018 to update the formula for Base Class I Skim Milk price to facilitate easier hedging of milk costs for value-added fluid milk processors. Congress agreed with this proposal and passed it into law.

It is easy to Monday morning quarterback and criticize that 2018 agreement, but it is important to remember this was a good-faith negotiation. At the time when the arrangement was introduced, to my recollection, there was no widespread negative reaction by dairy producers, dairy press or academic researchers. Jordan Clark, today a very well-respected dairy economist, president of the Dairy Institute of California and Chair of the IDFA Economic Policy Committee, was at that time a master's student at the University of Minnesota, and I was his thesis supervisor. In his 2019 thesis, he concludes: *"This study quantifies the impact that the newly reformed pricing formula would have had on milk producer pay prices between 2000 and 2017 – the period that informed the design of the new pricing formula. This is the first study to quantify how the change of the pricing formula would have affected producer pay prices in different regions and the first to identify optimal hedging ratios of the reformed pricing formula. We find that between January 2000 to December 2017, average uniform prices for each federal milk marketing order would have differed by less than $0.01/cwt when comparing the previous and current Class I pricing formulas. We also find that that uniform prices are more volatile in federal milk marketing orders with the highest Class I utilizations and, had the newly reformed pricing formula been in place, would have reduced volatility in all FMMOs between 2000 and 2017. We also find that the basis risk of varying hedging strategies is significantly reduced under the reformed formula as compared to the previous formula."*[2] No one in the dairy industry had the foresight to anticipate the pandemic that would hit the dairy market just a year after the new Class I skim milk formula was introduced and the impact that the Farmers to Families Food Box Program would have on the spread between advanced Class III skim milk price and advanced Class IV skim milk price.

By 2021, it was clear something needed to be changed. National Milk Producers Federation contemplated a change that would modify the "adjuster" from the fixed 74 cents to a moving average but never formally requested a hearing to modify the 2019 formula. By 2023, the sentiment

[1] Newton, J. and C.S. Threan (2012) "Road Block to Risk Management — Investigating Class I Milk Cross-Hedging Opportunities." Applied Economics Perspectives and Policy, volume35, number3, pp.550–564, https://doi.org/10.1093/aepp/ppt017

[2] Clark, J. (2019). "Quantifying Impacts of Class I Milk Price Formula Reform: A Study of FMMO Uniform Milk Price Volatility and Class I Milk Hedging." URL: https://conservancy.umn.edu/handle/11299/243054

in the producer community has soured even further, and I believe that explains why the NMPF proposal seeks to abandon the 2018 reform in totality.

In retrospect, it is easy to see the essential problem with the 2018 Class I reform was the fixed adjuster. Had the Agriculture Improvement Act of 2018 included the mechanism to expedite convergence of the "average-of" method to revenue neutrality vs. "higher-of" even after large shocks such as COVID-19, it is much less likely that Topic 4 would be included in today's hearing.

Edge agrees there are problems we need to address but that we should not throw out the proverbial baby with the bath water.

Towards a New Policy Design

What facts, including learnings of the past four years, should drive policy design going forward? I would suggest there are six key points:

1) If the federal government should ever try to buy 'excess' nonfat dry milk powder, it would essentially try to lift the world price for milk powder, not just the US price. In the absence of the Dairy Product Price Support Program and due to the high importance of international trade, ad hoc federal government intervention in dairy markets in the face of major crises such as pandemics is likely to focus on perishable dairy products, such as fresh cheese and fluid milk. The Farmers to Families Food Box program may very well re-emerge in the future if another pandemic depresses domestic foodservice sales. It follows that in an extreme demand-shock situation, Class III price is likely to again exceed Class IV price.
2) Per pound of milk processed, milk-drying plants are cheaper to build than cheese plants. Cheese is a perishable product, while milk powder can be stored for up to two years. No manufacturer will intentionally build a new or expand an existing cheese plant to serve as a balancing plant. For this reason, when there is an unexpected increase in milk production, a reasonable expectation is that excess milk supply will be directed towards drying plants, putting downward pressure on Class IV prices and increasing the spread in favor of Class III milk prices.
3) Class III milk futures are much more liquid than Class IV milk futures contracts. For example, over Jan-Aug 2023, there have been 255,352 Class III milk futures contracts traded at the CME, while only 9,601 Class IV milk futures contracts traded in the same time period. Both Class III and IV milk futures are vastly more liquid than twenty years ago. In 2002, the total annual Class III trading volume was 102,504 contracts, and the total Class IV traded volume was 4,708 contracts. By 2022, the annual volume increased to 341,437 contracts for Class III futures and 28,877 for Class IV futures.
4) Class III milk price is typically higher than Class IV milk price. Since 2000, Class III milk price has exceeded Class IV milk price in 166 months, or 58.4% of the time. Since January 2000, the average of Class III and Class IV prices in months when Class IV price was higher than Class III price was $15.93/cwt. In contrast, the average of Class III and Class IV prices in months when Class III was higher than Class IV price was only $15.02.

Therefore, the inversion (Class IV price higher than Class III price) tends to occur when the dairy products supply is 'tight' and prices are higher than average.

5) While AMS Dairy Programs relies only on backward-looking information such as NDPSR to set prices, the Risk Management Agency regularly relies on futures and options markets directly for the crop insurance programs they supervise.
6) The use of advanced prices makes risk management for dairy farmers less effective. Sudden rallies in the market after the advanced prices have been released can reduce insurance indemnities or induce hedging losses (e.g., if a farmer sold a Class III or Class IV milk futures contract), while their milk check may not increase correspondingly due to negative producer price differentials.

Edge considered all these facts in the design of our contribution to the discussion on Base Class I Skim Milk Price. We believe the solution that best balances the interests of dairy farmers, fluid milk manufacturers and consumers of dairy products is Proposal #16.

Proposal #16 – Class III Plus

Under the "Class III Plus" proposal (#16):

1) If there is a demand shock such as COVID-19, and the spread between Class III milk and Class IV milk becomes strong and positive, the Base Class I Skim Milk Price would be at least as high as under the "higher-of" proposal.
2) If there is an inversion, i.e., Class IV milk price is higher than the Class III milk price, dairy farmers would be held harmless as the revenue shortfall would be distributed back to them over the next three years, as the annually recalculated adjustor becomes higher than average. Since Class IV is likely to be higher than Class III in years of high profitability (e.g., 2014 or 2022), transferring some revenue forward may also have tax benefits to dairy farmers.
3) Fluid milk innovators are fully supported in their pursuits to reinvigorate the fluid milk market. Risk management is easy to implement, execution of orders is cheap due to the high liquidity of Class III milk futures, and budgets for the forthcoming year can be made predictable, putting dairy on the same footing as plant-based beverages.

As with any good 'middle-of-the-road' solution, Class III Plus also has something each stakeholder group does *not* like. Dairy producers may prefer higher-of, without advanced prices, as their top choice, as it guarantees them real-time maximal income from Class I sales. Class III Plus does not offer that, instead balancing producer needs with the needs of dairy consumers and dairy processors. Dairy processors, as evidenced by the proposals brought forward by MIG and IDFA, would prefer not to abandon the outdated and unnecessary mechanism of advanced prices. Class III Plus is firm in the stance that advanced prices belong in a museum, not in regulation. Edge strives to see the world from the standpoint of our partners in the processing community. It is our hope the processing community can also recognize that it is only legitimate to ask that high priority be placed on the risk management needs of fluid milk innovators if processors are also willing to concede that advanced prices complicate risk management for producers and that other tools can be used to achieve the same.

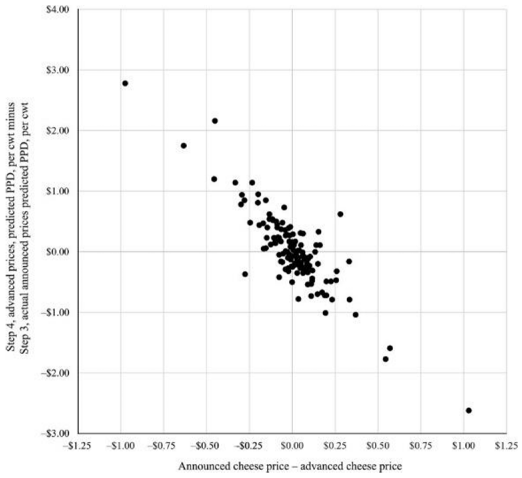
On Advanced Prices

Advanced prices are both antiquated and anti-competitive. Fluid bottlers may point out that in the absence of advanced prices, they would need to provide a price to their buyer without knowing precisely their inputs. Any dairy farmer in the country, and most dairy exporters, can reply: "Welcome to my world!" Dairy farmers must secure livestock feed, fuel and other supplies, make employment offers and invest in capital improvements to their operation, all without knowing with certainty what milk price they will receive. Dairy exporters regularly need to provide pricing offers for 3-6 months in the future. It is not a coincidence that beverage milk manufacturing, the sector most shielded from risk, is also the one with the lowest profit margins.[3] Fluid milk handlers have input costs that are fully transparent to their buyers, and it is not that hard to use economic engineering to infer the cost of bottling milk. It is comforting to know your competition must pay the same price for raw milk as you, but the price paid for that comfort is that negotiations with your buyer leave little scope to build a competitive advantage.

If there is a need for some form of "coordination mechanism," that can be easily solved by a new report that AMS Dairy Programs could introduce without any substantial costs. For example, AMS can observe daily settlement futures prices for the forthcoming month during the two-week period that is currently used for setting advanced prices and can then publish an "Indicative Class I Skim Milk Price" based on a simple average of those futures prices. Such an indicative price would not impact handlers' obligations to the pool (and, as such, is not a formal part of our proposal) but could be a useful third-party-provided reference price serving as a starting point in negotiations between Class I manufacturers and retailers. Once the indicative Class I price is accepted as a price by their buyer, a Class I handler can either passively build a rolling hedge (by buying Class III milk futures during the two-week window) or try to beat that benchmark through more assertive risk management that starts earlier. Less transparency (to fluid milk retail buyers) regarding Class I handler's actual costs (net of hedging) could stimulate Class I profit margins, which can lead to reinvestments and product innovation.

The impact of advanced prices on Producer Price Differentials (PPDs) is explored in Bozic and Wolf (2022). Figure 2 from their paper (Exhibit Edge-2 within this hearing) reprinted below, illustrates the impact on the Southwest FMMO.

[3] Blimling and Associates and Bozic, M. (2022) Modernizing US Milk Pricing: An Exploration, Slide 29. URL: https://www.idfa.org/wordpress/wp-content/uploads/2022/01/Modernizing_US_Milk_Pricing_Working_Paper_012522.pdf



When announced (final) prices exceed advanced prices, PPDs are reduced and may become negative. The Upper Midwest Federal Order experienced 33 months of negative PPDs from January 2000 through May 2019. In 29 of those months with negative PPDs, the maximum higher-of announced prices were greater than the maximum higher-of advanced prices. Negative PPDs induce depooling. When privately held processors depool, they are not obliged by any regulation to pay producers according to minimum FMMO prices. Producers need not even know if they are pooled or depooled and may be misled to believe the Federal Order negative PPD printed on their milk check reflects the actual cost to their milk buyer. As Class I utilization rates fall, the magnitude of the rally in announced prices (vs advanced prices) needed to induce depooling will also be reduced. With the current trend of declining Class I sales, I expect the continued use of advanced prices to create disorderly marketing conditions (e.g., opportunistic depooling and misleading milk check statements furnished to producers) at an increasing frequency. To prevent this, advanced prices should no longer be used in regulation.

Proposal #17

We would be remiss if we did not acknowledge that other major stakeholders representing dairy farmer interests are strongly in favor of the "higher-of" approach. NMPF's proposal 13 reverts the regulation to pre-2018 language. AFBF's proposal #18 eliminates the advanced prices but continues to use the higher-of Class III Skim Milk price and Class IV Skim Milk price. As we understand it, proposals 17 and 18 are identical.

It is understandable that dairy producers would be hesitant to, again, try out something new regarding the Class I mover when the previous "higher-of" system, in the minds of many, worked well for producers. To that end, the intent of Edge's proposal 17 is to illustrate the conditions under which the higher-of principle can still be used without the complications for risk management by fluid milk innovators.

In our opinion, CME Group hesitated to create a Class I futures contract in the past as there would be no clear arbitrage relationship between Class I and Class III and IV futures contracts. If the advanced prices are abolished, and final Class III and Class IV milk prices are used for setting base Class I price, then the no-arbitrage relationship would hold between Class I futures and Class III and IV futures:

Class I milk futures price = max(Class III milk futures price, Class IV milk futures price)

Market makers would have minimal risk in providing liquidity to Class I hedgers by taking a spread position between Class I and whichever class has the higher price at that time. Under such conditions, the CME Group's concerns about splintering hedging interest among too many contracts would be lower, and CME Group *might* be willing to finally create a Class I contract. Needless to say, Edge cannot guarantee that would happen. Even if it does happen, there are likely to be higher hedging execution costs than would be the case under Proposal 16 (Class III Plus). We believe Proposals 17 and 18 are superior to Proposal 13, but the solution that best balances the interests of all parties is Proposal 16 – Class III Plus.

Concluding comments

Edge recommends that USDA adopt proposal #16 as the proposal best suited to balance the interests of dairy producers, dairy processors and consumers of dairy products. Edge Dairy Farmer Cooperative thanks Secretary Vilsack and the Department for the opportunity to testify at the hearing on this topic.