



**Testimony of Christopher A. Wolf, Ph.D.**  
**before the United States Senate Subcommittee on Livestock, Dairy, Poultry, Local Food**  
**Systems, and Food Safety & Security**  
**Hearing “Milk Pricing: Areas for Improvement and Reform”**

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Chairwoman Gillibrand, Ranking Member Hyde-Smith, and Members of the Committee, thank you for inviting me to be part of this hearing. I currently serve as the E.V. Baker Professor of Agricultural Economics in the Charles H. Dyson School of Applied Economics and Management at Cornell University where I have been a faculty member since 2019. Prior to 2019, I was on faculty at Michigan State University for about 22 years. My research and extension program focuses on dairy markets and policy as well as dairy farm business management where I provide education and information for decision-making and analysis for dairy industry stakeholders and policymakers.

The US dairy industry is a key agricultural sector producing more than 223 billion pounds of milk generating farm cash receipts exceeding \$40 billion in 2020. Major trends that have influenced the US dairy market include changing consumption patterns, the rise of international trade as a major outlet for US dairy products, and consolidation at all levels of the supply chain. With respect to consumption, beverage milk per capita consumption has trended downward on a per capita basis since the 1970's with the rate of decline increasing since 2010. Interestingly, the fluid milk consumption decline largely halted during the pandemic but recently has reverted to long-run trend declines with more people eating away from home. In contrast to beverage consumption, per capita cheese consumption has grown consistently for decades. Butter consumption recently reversed long-term per capita declines to grow as well. Total US dairy consumption per capita has largely increased consistently as dairy is considered a fundamental part of a balanced and healthy diet. At the same time, milk production growth has outstripped domestic dairy consumption in recent years. The rise of exports has coincided with the increase in milk production and the declining influence of the former Dairy Price Support Program. Since 2005, dairy exports have grown from accounting for about five percent of milk production to currently accounting for more than 16 percent. Export markets assist in balancing the production of butterfat and milk proteins. Because export markets are the marginal value of many US dairy products, there are farm milk price implications of the burgeoning dairy exports including the influence of international supply and demand as well as the political impact of trade.

The issues that motivate this hearing relate to farm milk pricing under the Federal Milk Marketing Orders. Federal Milk Marketing Orders (FMMOs) are one of the determinants of farm milk price. FMMOs have their origins in the Great Depression Era and have been reformed or updated periodically to reflect market and industry evolution. The primary functions of FMMOs include providing an adequate supply of consumer milk and promote orderly milk marketing. The most recent major FMMO reform was put in place in 2000. In recent years, there has been an underlying dissatisfaction with the farm milk price and this, along with the length of time since the last major revision of FMMOs, has focused attention on this set of policies. Part of the dissatisfaction with FMMO performance has to do with the shrinking influence of fluid milk revenues to be shared across the pool. The declining share of fluid milk is a consequence of both increasing consumption of cheese, butter and other dairy products as well as declining per capita consumption of fluid milk. When the FMMOs were created, the majority of milk in those Orders was used in fluid products. Shrinking relative share of Class I (fluid consumption) milk means that there is less money in the pool. This change, along with international markets, technology and other economic factors argues for a re-examination of FMMOs and their role.

It is often said that transparency is key for farm milk pricing. I would argue that FMMOs are, in fact, transparent in that they operate in a very deliberate and clearly defined manner. However, they are complicated and incomprehensible for many and, as such, are often misunderstood and the subject of blame. The process of moving from wholesale product prices to the FMMO pool price for a given Order and month farm prices involves many steps. The resulting farm price includes market and cooperative factors as well as farm specific aspects including quality and hauling. Understanding the drivers of farm milk price must consider all of these aspects. 2020 was a challenging year for many in the dairy industry. In particular, dairy farm financial outcomes were a function of (1) where and how farm milk was marketed including regional and cooperative issues; (2) farm risk management program participation—particularly what a given farm operation had in place entering 2020; and (3) government payments and programs for which the farm qualified and signed up including CFAP and PPP.

The dairy farm financial stress of 2020 was the result of farm milk price volatility and uncertainty. FMMO's in multiple component orders pay farms based on component value plus a value termed the Producer Price Differential (PPD) that reflects the pool revenue in excess of components valued using wholesale prices. In 2020, record low negative PPDs caused consternation and frustration among dairy farmers. These PPDs were not just abnormal in magnitude, they were unpredictable and greatly contributed to farm milk price volatility. Recent research shows that the large declines in PPDs were driven by a whole host of factors including: trends in utilization driven by consumption changes, trends in milk component production, the change in the Class I skim milk pricing mover from the higher of Class III and IV to the average, and depooling of milk by Class III processors. The impact of each of these factors varied both across Federal Milk Marketing Order and over time. The regional FMMO impacts depended on utilization, processing capacity, and other market factors. On average across FMMOs, the largest impact in contributing to negative PPDs in 2020 was due to depooling of milk while another significant impact was the Class I pricing change that went into effect in May 2019 (Bozic and Wolf, 2021). Both of these factors were exacerbated by the historically wide divergence in Class III and IV prices in 2020 due to the change in consumption from split between food at and away from home as well as government purchases of dairy products.

With this background in mind, I briefly address each of the issues raised by the Committee.

1. *Class I milk pricing* methods were changed in the 2018 Farm Bill and implemented in 2019 to make the Class I skim milk mover be the average of the Class III and IV advanced skim milk price plus a fixed \$0.74/cwt rather than the higher of those advanced prices. The \$0.74/cwt add on was chosen to be “revenue neutral” to farm milk price in the sense that it was set equal to the long-term difference between the average and higher of Class III and IV prices. One implication of this rule change is that when the difference between the Class III and IV advanced skim milk prices exceeds \$1.48/cwt the resulting Class I price built from this new formula is less than it would have been using the higher of the two prices. The pandemic in 2020 resulted in a wide and prolonged divergence in Class III and IV prices due to many factors including the increased production of butter to balance milk supplies that were formerly

consumed in restaurants as well as government purchases of cheese for donation (Wolf, Novakovic and Stephenson, 2021). This large divergence in butter and cheese prices, and resulting Class III and IV milk prices, meant that Class I milk prices were lower than they would have been under the former pricing rule. Many solutions have been discussed by the dairy industry including reverting to the old, higher of rule, as well as snubbing the difference to avoid effects of large price divergences. This is one potential pricing change that would almost universally help farm milk prices.

2. Pooling/depooling rules are unique to each FMMO depending on the utilization and qualification factors in that region. Class I fluid processors, with a few exceptions for very small processors, must participate in the Federal Milk Marketing Order while other processors can participate if they qualify. A primary motivation for FMMOs is to ensure availability of fluid milk for consumers. Thus, fluid processors do not have the choice of whether to participate. This also means that Class II, III and IV processors might choose not to participate (pool milk). One reason for non-fluid processors to participate in Federal Orders is to share in the revenues from Class I sales that allows a higher payment to farms from which they purchase milk. When Class III is the highest price, cheese processors would be paying into the FMMO revenue pool rather than drawing from it for that month. Cheese processors can choose to withdraw any or all milk from the pool for that month and pay farmers with that money instead of sending it to the FMMO. There is the potential that, after withdrawing, the cheese processor can pay their farmers more than they would have received from the FMMO while still paying less than the Class III price. In this case, the farmers selling milk to the cheese processor that depooled may receive a higher price, but farmers selling to other processors who are participating in the pool that month receive a lower price. One reason that processors may hesitate to withdraw from the pool is that in order to pool milk in future months, they must requalify that milk. The length of time it takes to requalify milk varies by FMMO. For example, the Northeast FMMO has rules that include many months to requalify while some other FMMOs are less stringent. The precise qualification and pooling rules have evolved across FMMOs based on utilization and specific market aspects.
3. Make allowances are the amount of the wholesale dairy product price that accounts for the manufacturing cost when calculating the component farm value of milk. All else equal, increasing the make allowance for a product means that the amount of the wholesale dairy product price that is passed on to farmers is less. Make allowances have been updated one time since the FMMO Reform in 2000 and that was more than a dozen years ago. It is not difficult to see that many costs have changed since that reform including energy and labor. The entire supply chain—from farmers to processors—must be healthy for a prosperous dairy industry. If make allowances are inadequate, then processors with higher costs will either be driven out or make up the difference elsewhere. One option might be to depool allowing more flexibility in pay price. Another potential impact of the make allowance is the incentive to invest in new

manufacturing capacity. If make allowances are not sufficient to provide a return to invested capital, then they may act as an impediment to investment. It is time to reconsider the costs of manufacturing dairy products used in FMMOs.

4. *The Farmers to Families Food Box Program* was implemented in 2020 to both assist needy families through product donation and backstop dairy product demand. The government intervened through the “Farmers to Families Food Box Program” which particularly increased domestic disappearance of American-style cheese and fluid milk and resulted in record high cheese prices as supply chain struggled to adjust to a shift in demand between cheese types. The onset of the Farmers to Families Food Box program coincided with record negative PPDs. In terms of the impact of the Farmers to Families Food Box Program the lesson is that the industry and markets function better without surprises which drive market volatility.
5. *The FMMO Hearing Process*. The Federal Milk Marketing Order Hearing Process is one area that is subject to “formal rulemaking.” Formal agency Rulemaking is time consuming but collects input from all interested parties and must weigh the interests of all involved parties (consumers as well as producers, cooperatives and processors). While it is clear that many in the dairy industry are unhappy with the length of time it takes to go through the formal rulemaking process, it is not clear that there are areas which can be sped up or what would be the potential consequences. Further, there are examples of changes made to FMMOs outside of this formal process that resulted in unintended consequences that required attention later. The strength of the current process is that it balances all interests and is less likely to result in adverse consequences.

Given the age of the FMMO system, length of time since the last major reform, and changes in the market from both the production and consumption side, it is likely time to re-examine many aspects of FMMOs including many issues that motivate this hearing. If we were to start over with US dairy policy, it seems unlikely we would arrive at the current system. However, there are legitimate reasons for making each of the previous policy revisions and choices. The current set of markets and institutions has evolved around the FMMO system as it is currently constituted and the ripple effects of reforms should be carefully considered. There may be lessons that could be found in the systems found in other countries. Any reform should balance the interests of all involved parties including equity as well as economic efficiency.

## References

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