Direct Testimony for Federal Milk Marketing Order Pricing Hearing

American Farm Bureau Federation

Category 4: Base Class I Skim Milk Price

Pre-submitted by September 8, 2023

The American Farm Bureau Federation (AFBF) has nearly 6 million members in all 50 states and Puerto Rico, including many thousands of cooperative and independent dairy farmers. Most of these dairy farmers are directly affected by the pricing provisions of the Federal Milk Marketing Orders (FMMOs).

These dairy farmers play a crucial role in the development of AFBF dairy policy. Every Farm Bureau position and proposal is based explicitly on that policy, developed through a grassroots process in which farmers make the decisions every step of the way.

AFBF submitted 9 proposals for consideration in this hearing and appreciates the opportunity to address the four that were accepted by USDA, as well as the clear direction on what may be needed to advance the rest.

A fundamental focus of AFBF's proposals is the reduction or elimination of negative producer price differentials and the de-pooling they cause. We believe that an orderly pool is the key to orderly marketing and ensuring Federal Milk Marketing Orders continue to benefit farmers, cooperatives, processors, and consumers. The key to an orderly pool, in turn, is, above all, the proper alignment of the four Class prices.

In addition to our own proposals, AFBF largely supports four of the five proposals submitted by the National Milk Producers Federation (NMPF). (These are proposals 1, 3, 13, and 19.) In the event that NMPF withdraws any of these proposals, wholly or in part, AFBF would ask that USDA consider such whole or partial proposal to be AFBF's proposal to represent. AFBF also supports Edge Dairy Farmer Cooperative proposal 17, in principle, which basically combines NMPF's proposal 13, a switch back to the "higher of" and AFBF proposal 18, using announced prices instead of advanced, which we will be testifying on today.

This statement covers AFBF proposal 18 under category four.

Proposal 18: <u>AFBF proposes to end the advanced pricing of Class II skim milk and components and Class I milk and components</u>

In AFBF proposal 18, the Class II skim milk price would be equal to the Class IV skim milk price plus the Class II differential. The Class II nonfat solids price would be equal to the Class IV nonfat solids price plus one-hundredth of the Class II differential. The Class I skim milk price would be the higher of the Class III or Class IV skim milk price plus the Class I differential. And the Class I butterfat price would be equal to the butterfat price plus one-hundredth of the Class I differential.

Under classified dairy pricing, handlers participating in an order have an obligation to the pooling function of federal orders based on how the milk is used (the Class price). In seven of the 11 federal orders dairy farmers are paid based on the component content of their milk via multiple component pricing. In this process the producer value of milk is determined monthly based on the cheese milk (Class III) component levels of fat, protein, and other solids. The difference between the total pooled revenue from what handlers pay for their allocated Class price values and the component value worth of producer's milk is denoted as the producer price differential. When the component value of milk in the pool is higher than revenue pooled from paid Class prices, deductions are applied

to farmers checks in the form of a negative producer price differential to represent the gap in pool value. Dairy farmers became accustomed to negative PPDs during 2020 and 2021 with average all-market PPDs reaching over -$7 per hundredweight – showing up as a massive deduction on milk checks.

According to the *Journal of Dairy Science* peer reviewed article titled *Negative producer price differentials in Federal Milk Marketing Orders: Explanations, implications, and policy options*[1], the most common factors that contribute to the existence of negative PPDs are: Class II milk value rising above the butter-powder (Class IV), changes in utilization rates of milk due to production changes in an order; the advanced prices for Class II skim and Class I milk lagging behind rising Class III component prices; and changes in utilization due to de-pooling by handlers deciding to not pool milk in an order for one or more months by which de-pooling leads to more de-pooling. AFBF's proposals and support for proposals from other stakeholders are intended to reduce the prevalence of PPDs by reducing the frequency of the previously listed occurrences, which in many cases have been found to contribute to disorderly marketing.

Currently, the classified prices for each month are announced at two different times. First, the advanced prices are announced by the 23rd day of the preceding month. For example, September's advanced prices are announced on or before August 23. Advanced minimum prices are announced for Class I, Class I skim, Class I butterfat, and Class II skim. By the fifth day of the following month, the Class II, Class II butterfat, Class III, Class III skim, Class III butterfat, Class IV, Class IV skim, and Class IV butterfat prices are announced. These prices for September are announced on or before October 5. This arrangement creates a long lag between when the advanced prices and current prices are announced for that same month and means that the advanced prices (Class II skim milk and components and Class I skim milk and butterfat) can be based on weekly data that is 25 to 40 days older, on average, than the basis for the "current" prices (Class II butterfat and all Class III and IV prices).

This means when market prices rally, announced (final) prices can be much higher than advanced prices, leading to low and negative PPDs. This creates an incentive to de-pool milk from the order to benefit from the non-pooled value of the recently elevated prices (without sharing that value with the pool), which further depresses the PPD, and undermines the FMMO principle of uniform pricing.

The impact of advanced pricing on orderly marketing of milk is not new to Federal Milk Marketing Order discussions. In fact, USDA has acknowledged the impact of lagged fluid and manufacturing Class pricing on orderly marketing of milk. I would like to present several quotes from the proposed rule published in Federal Register Volume 64, number 63, released on April 2, 1999.

On page 16102 USDA states,

"Since Class I handlers must compete with manufacturing plants for supply of milk, the Class I price must be related to the price of milk used for manufacturing.

It is apparent from the price patterns of a large part of 1998 that the current two-month lag between manufacturing and fluid pricing does not establish as close a relationship between the two price levels as is desirable. Indeed, from an analysis of the differences between prices generated by a six-month declining average and the current pricing system, it is clear that the current two-month lag does not accomplish any closer relationship between manufacturing and fluid prices than would the six-month declining average.

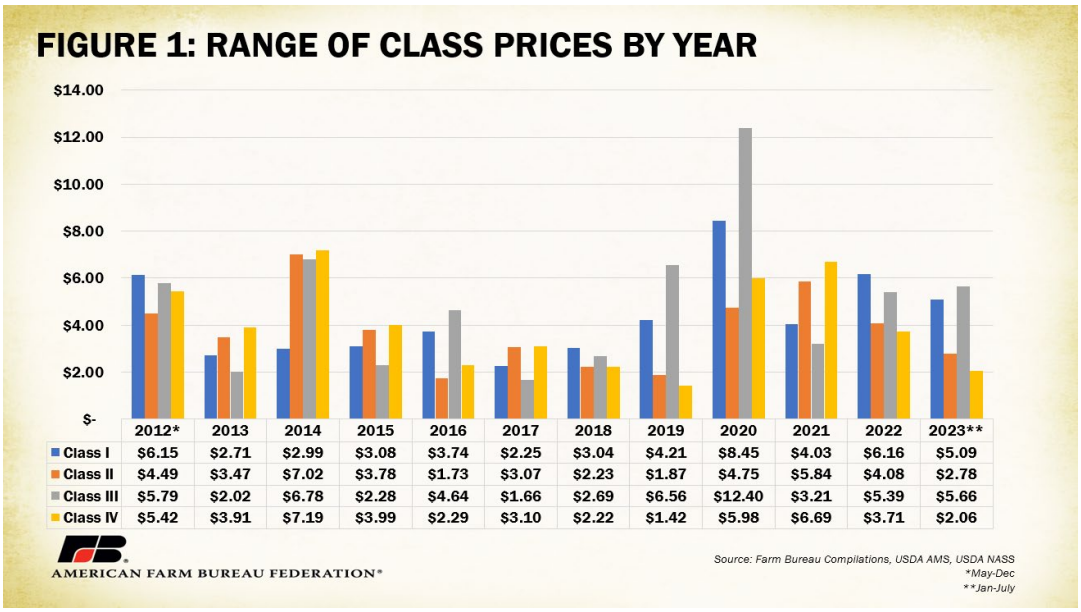
When manufactured dairy product prices are relatively stable the advance pricing of Class I milk works quite well. However, since 1988 the volatility in the manufactured dairy product market has caused problems with the advance pricing of Class I milk. The first problem is readily evident in class price relationships during the latter part of 1998. The frequent occurrence of price inversions during that period indicates that some alteration to both the

[1] Marin Bozic, Christopher A. Wolf, Negative producer price differentials in Federal Milk Marketing Orders: Explanations, implications, and policy options, Journal of Dairy Science, Volume 105, Issue 1, 2022, Pages 424-440, ISSN 0022-0302, https://doi.org/10.3168/jds.2021-20664.

proposed and current methods of computing and announcing Class I prices may be necessary. Class price inversion occurs when a market's regulated price for milk used in manufacturing exceeds the Class I (fluid) milk price in a given month and causes serious competitive inequities among dairy farmers and regulated handlers. Advanced pricing of Class I milk actually causes this situation when manufactured product prices are increasing rapidly.

Since the Class I price is announced in advance, in a rapidly changing market the Class I price may not reflect the value needed to compete for the necessary raw milk supply or the Class I price may be overvalued relative to the raw milk price. Undervaluing Class I milk is a particular problem since it reduces producers' pay prices at a time when the producers should be receiving a positive price signal."

The conditions USDA refers to from over 20 years ago related to price inversions, rapidly changing markets and resulting competitive inequalities among dairy farmers have continued. A range in a price series provides insights on how volatile a price is. Larger ranges in price indicate high volatility while a smaller range would indicate lower volatility. As displayed in Figure 1, the range in Class prices within a year has exceeded $4 per hundredweight frequently since 2012. For example, the annual range in Class I prices has exceeded $4 per hundredweight in six of the past 12 years. The annual range in Class II prices has exceeded $4 per hundredweight in five of the past 12 years. The annual range in Class III prices has exceeded $4 per hundredweight in seven of the past 12 years. And the annual range in Class IV prices has exceeded $4.00 per hundredweight in four of the past 12 years. The average annual range in prices has exceeded 20% of the average final Class price for all Classes of milk, with Class III ranges exceeding 28% of the average final Class III price since 2012. Dairy farmers have had to deal with wide and rapid spreads in prices that have contributed to income uncertainty and disruptions in their ability to manage risk.



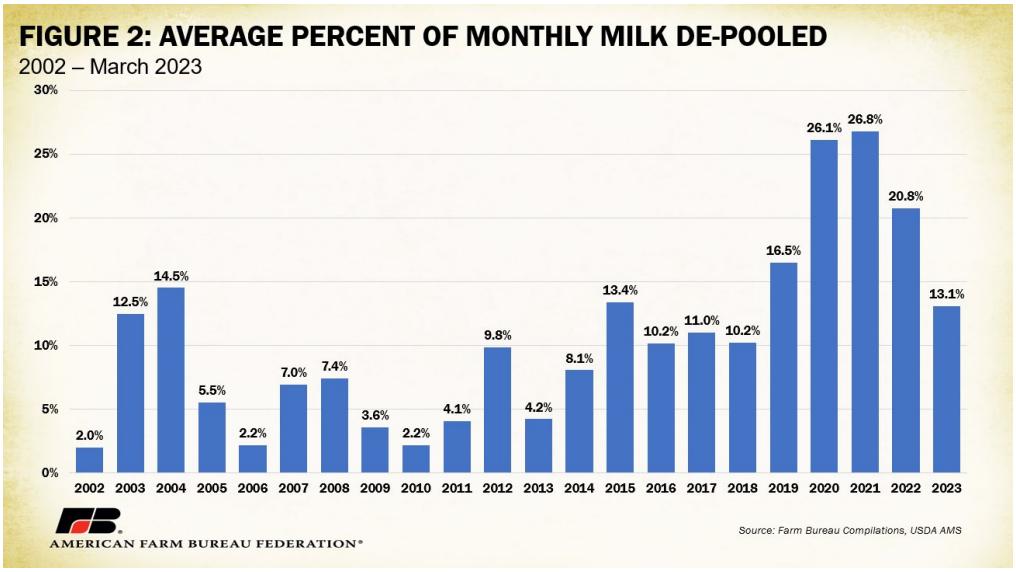
	2012*	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023**
Class I	$6.15	$2.71	$2.99	$3.08	$3.74	$2.25	$3.04	$4.21	$8.45	$4.03	$6.16	$5.09
Class II	$4.49	$3.47	$7.02	$3.78	$1.73	$3.07	$2.23	$1.87	$4.75	$5.84	$4.08	$2.78
Class III	$5.79	$2.02	$6.78	$2.28	$4.64	$1.66	$2.69	$6.56	$12.40	$3.21	$5.39	$5.66
Class IV	$5.42	$3.91	$7.19	$3.99	$2.29	$3.10	$2.22	$1.42	$5.98	$6.69	$3.71	$2.06

USDA continues in the same section on the issue of de-pooling:

"Milk used in Class I in Federal order markets must be pooled, but milk for manufacturing is pooled voluntarily and will not be pooled if the returns from manufacturing exceed the blend price of the market wide pool. Thus, an inequitable situation has developed where milk for manufacturing is pooled only when associating it with a market wide pool increase in returns. Illustrative of the worsening class price inversion problem are the growing volumes of milk that, while normally associated with Federal milk orders, are not being pooled due to price inversion problems."

Over the past 20 years the percentage of de-pooled milk has increased. Based on data from USDA exhibit 30, between 2007 and 2012 the average monthly percent of eligible milk that was de-pooled across all orders was

5.7%; between 2013 and 2018 this percentage increased to 9.5%. Between 2018 and 2023, this figure nearly doubled to an average of 18.9% of eligible milk being de-pooled each month. Handlers are de-pooling milk at higher volumes more frequently.



The increase in de-pooling has been correlated with the volatility in Class prices at varying levels with a higher positive correlation between wider Class I and Class III ranges and higher rates of de-pooling. More frequent de-pooling has also been positively correlated with lower and negative producer price differentials. These interactions are displayed in table 1.

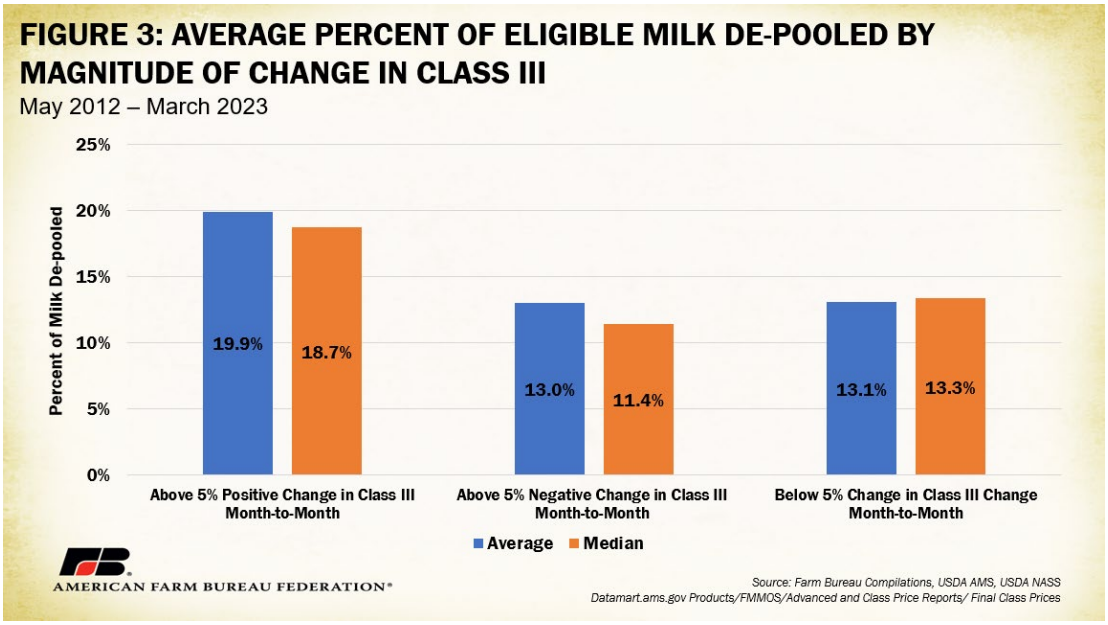
Based on AMS' final Class pricing data from May 2012 to July 2023, the range of Class prices (calculated by subtracting minimum Class price from the maximum price) for each year was compared to the average monthly percentage of milk de-pooled that year using Excel's CORREL function, which determines the correlation coefficient between two variables. The same was done comparing month-to-month percentages of pooled milk with the average all-order producer price differential. A positive correlation (between zero and one) indicates varying strengths of positive linear relationships between the two variables, while a negative correlation is reflected in a value between 0 and -1. For instance, the correlation coefficient of the annual range in Class I prices compared to rates of average annual rates of de-pooling is 0.62, indicating as the range of Class I prices was higher the rate of de-pooling was higher. Similarly, the correlation coefficient of the monthly all market combined PPD and monthly percent of pooled milk was also 0.62, indicating as the PPD increased the percent of monthly pooled milk also increased.

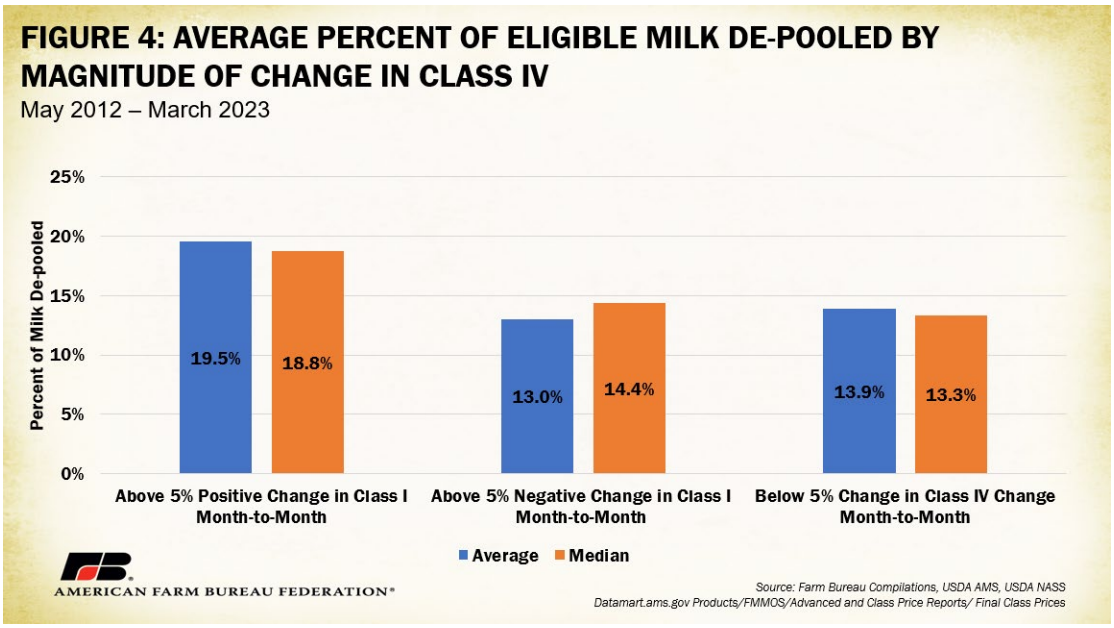
Table 1

Variables	Correlation Coefficient
Annual Range in Class I Prices vs. Annual Average Percentage of De-Pooled Milk	0.62
Annual Range in Class II Prices vs. Annual Average Percentage of De-Pooled Milk	0.27
Annual Range in Class III Prices vs. Annual Average Percentage of De-Pooled Milk	0.47
Annual Range in Class IV Prices vs. Annual Average Percentage of De-Pooled Milk	0.29
All Market Combined Monthly PPD vs. Monthly Percent of Pooled Milk	0.62

The inequitable situation that USDA described over 20 years ago has become increasingly present in today's dairy markets. Eligible processors pool milk when market-wide pool returns are expected to be positive compared to current manufactured Class prices but are likely to de-pool milk otherwise. This causes serious competitive inequities among dairy farmers, contrary to the intention of uniform prices.

Large ranges and rapid increases in Class prices contribute to, or at least are associated, with higher rates of de-pooling. Figures 3 and 4 compare the average percent of milk de-pooled across all markets within three different identified timeframes. The first timeframe isolates months in which the Class III price (for Figure 3) and the Class IV price (for Figure 4) rose positively more than 5%. The second timeframe isolates months in which the corresponding Class price declined more than 5%. The third timeframe isolates months in which the corresponding Class price was below 5%. Both the average and median percent of eligible milk de-pooled are displayed for the three different timeframes. For months where Class III prices increased more than 5% the amount of de-pooled milk from the market averaged 19.9%, while the percentage of milk de-pooled in months with more than a 5% decline or lower than a 5% change averaged 13% and 13.3%, respectively. Likewise for months where Class IV prices increased more than 5% the average amount of de-pooled milk from the market averaged 19.5%, while the percent of milk de-pooled in months with more than a 5% decline or lower than a 5% change averaged 13% and 13.9%, respectively. It is important to note that these values are averages across all orders, the impact of stricter pooling rules in certain orders is not accounted for. Since existing pooling rules limit the rate at which milk could be re-pooled it is likely that the full magnitude of Class price changes on de-pooling is more extreme than presented.





As mentioned previously, when market prices rally, announced (final) prices can be much higher than advanced prices, leading to low and negative PPDs. This creates an opportunity to de-pool milk from the order to benefit from the non-pooled value of the recently elevated prices reflected in available market information, further depressing the PPD. Producers who incur the additional costs of consistently servicing the Class I needs of the market receive a lower return than they would otherwise have received if they did not continue to service the Class I market. Prices received by dairy farmers who supplied the other milk needs of the market are not known. However, as USDA affirmed, "it is reasonable to conclude that prices received by dairy farmers were not equitable or uniform."

After their in-depth discussion, USDA ultimately decided to reduce the time lag between advanced and announced prices by 18 days with the intention that price inversions and associated de-pooling behavior would be avoided. USDA defended their decision with several important points. Firstly, the NDPSR, which includes statistics and pricing information used in the first step of establishing a minimum pay price are announced publicly every week. Therefore, as USDA puts it, "handlers can update formulas on a weekly basis to estimate what the Class I price will be before the price is announced."

Let's read through a quick example. Announced in late May, the Class I price for June 2020 was $14.24/cwt. During June there were five NDPSR releases: June 4, June 10, June 17, and June 24. Per these reports, the prices of the following products changed by the corresponding amounts between the first report and the last report.

- 40-pound cheddar blocks increased from $1.17/lb to $1.37/lb (+17%)
- 500-pound cheddar barrels increased from $1.13/lb to $1.45/lb (+28%)
- Butter increased from $1.13/lb to $1.43/lb (+28%)
- Whey increased from $0.378/lb to $0.384/lb (+1.7%)
- Nonfat dry milk decreased from $0.860/lb to $0.859/lb (-0.2%)

Announced in early July, the Class III price for June 2020 was $21.04. There were five releases of the NDPSR in July: July 1, July 8, July 15, July 22, and July 29. Per these reports, the prices of the following products changed by the corresponding amounts between the first report and the last report.

- 40-pound cheddar blocks increased from $1.61/lb to $2.53/lb (+57%)
- 500-pound cheddar barrels increased from $1.74/lb to $2.50/lb (+44%)

- Butter increased from $1.56/lb to $1.82/lb (+17%)
- Whey decreased from $0.382/lb to $0.365/lb (-4.4%)
- Nonfat dry milk increased from $0.846/lb to $0.959/lb (+13%)

The Class IV price formula does not include the commodity values of cheese in its calculation, instead relying on nonfat dry milk prices and butter prices in its formula. Given the above per-pound values, the spread between the Class III and IV price could be inferred before the announcement of monthly prices pooled manufacturers would have to pay are reported. This differs from the advanced price announced for Class I and II, which are based on different, previous values. This available information means that processors have enough information and enough time to de-pool milk when prices changes are clear and rapid. The presence and frequency of published commodity pricing data allow handlers to estimate price changes regardless of when a price is announced. Additionally, as more products are offered on the Chicago Mercantile Exchange (CME), handlers will continue to have access to the information needed to hedge and manage risk.

USDA agreed on this matter in their 1999 decision stating:

"Also, as more NASS product price survey observations become available, basis differences from earlier traded/ issued product price surveys such as those from the Chicago Mercantile Exchange or Dairy Market News will be more predictable and, therefore, should provide for more accurate predictions of future price levels. In addition, futures markets have been established for the four dairy products in the NASS price surveys. While trading to date in these contracts has not been large, interest in these markets may increase as the industry learns to use them as effective hedges to the component values determined under this final decision. These markets also will assist handlers in estimating the Class I price."

Additionally, AFBF is supportive of and engaged in the development of a Class I futures and options complex at the CME Group, to further assist fluid handlers in managing risk.

In conclusion, AFBF believes that disorderly marketing conditions are present when producers do not receive uniform prices because of frequent de-pooling. AFBF also believes the current system of advanced pricing contributes to the frequency and magnitude of de-pooling. Given the growing number of resources for data and market information, AFBF proposes a structure of announcing Class prices at the same time.

Language:

Amend the preamble to 1000.50 as follows:

> *Class prices per hundredweight of milk containing 3.5 percent butterfat, and component prices~~, and advanced pricing factors~~ shall be as follows. ~~The prices and pricing factors described in paragraphs (a), (b), (c), (e), (f), and (q) of this section shall be based on a weighted average of the most recent weekly prices announced by the National Agricultural Statistical Service (NASS) before the 24th day of the month. These prices shall be announced on or before the 23rd day of the month and shall apply to milk received during the following month.~~ The prices described in ~~paragraphs (g) through (p) of~~ this section shall be based on a weighted average for the preceding month of weekly prices announced by ~~NASS~~ AMS on or before the 5th day of the month and shall apply to milk received during the preceding month. ~~The price described in paragraph (d) of this section shall be derived from the Class II skim milk price announced on or before the 23rd day of the month preceding the month to which it applies and the butterfat price announced on or before the 5th day of the month following the month to which it applies.~~*

Strike 1000.50(q); amend 1000.50(b),(c), and (e), as follows:

(b) Class I skim milk price. The Class I skim milk price per hundredweight shall be the adjusted Class I differential specified in § 1000.52, plus the adjustment to Class I prices specified in §§ 1005.51(b), 1006.51(b) and 1007.51(b) of this chapter, plus the higher of the Class III skim milk price and the Class IV skim milk price ~~simple average of the advanced pricing factors computed in paragraph (q)(1) and (2) of this section rounded to the nearest cent, plus $0.74 per hundredweight~~.

(c) Class I butterfat price. The Class I butterfat price per pound shall be the adjusted Class I differential specified in § 1000.52 divided by 100, plus the adjustments to Class I prices specified in §§ 1005.51(b), 1006.51(b) and 1007.51(b) divided by 100, plus the ~~advanced~~ butterfat price computed in paragraph ~~(q)(3)~~ (l) of this section.

…

(e) Class II skim milk price. The Class II skim milk price per hundredweight shall be the ~~advanced~~ Class IV skim milk price ~~computed in paragraph (q)(2) of this section~~ plus 70 cents.