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How the California Dairy Industry is Faring Under its New FMMO

By Annie AcMoody

Director of Economic Analysis, Western United Dairies

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Key Points:

- California adopted USDA's Federal Milk Marketing Order (FMMO) system of pricing and pooling milk on Nov. 1, 2018, resolving price disparities between California and the rest of the U.S.
- From 2010 until the FMMO implementation, California's equivalent to federal class III averaged $1.33 per cwt below the FMMO.
- The FMMO has not changed the underlying market forces that determine milk's value, but pushed the regulated price higher with safeguards in place if supply exceeds demand.
- The transportation allowance system was eliminated with the FMMO, and along with it went strong incentives to move milk to certain markets.
- California's quota system under the California Department of Food and Agriculture (CDFA) remains relatively intact, but faces uncertainty as some non-quota holders would like to see it go away.
- Many California dairy processors will pay more for milk under the FMMO which may change premium structures, and incentivize them to increase their sales price, and/or try to lower their cost of production.

Background

On Nov. 1, 2018, the U.S. Department of Agriculture (USDA) took over the role of managing California's milk pricing system from the California Department of Food and Agriculture (CDFA) when the Golden State became Order 51 in the Federal Milk Marketing Order (FMMO) system. California represents more than 18% of all U.S. milk production, and with this new Order, FMMOs regulate nearly 85% of the milk produced in the U.S.

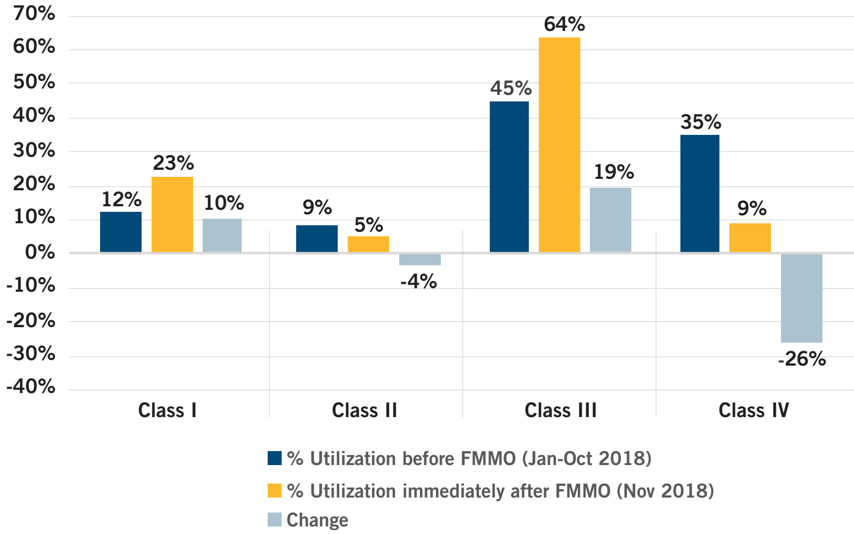
The California process officially started in February 2015 when the state's three largest dairy cooperatives (California Dairies, Inc., Dairy Farmers of America and Land O'Lakes) submitted a joint proposal for a FMMO. Producer-members were dissatisfied with the state's regulated pricing, in particular, discrepancies between California and FMMO prices. The cooperatives' proposal requested FMMO pricing while keeping many of the California system's features. Producers supported the cooperatives' efforts; non-cooperative processors submitted an alternative to USDA, which included lower regulated prices and very flexible pooling rules.

It took 40 days of hearings for all parties to present and cross examine testimony. USDA's final ruling came 2 1/2 years later on June 7, 2018. Producers (or their cooperatives, which could vote on behalf of their members) met the two-thirds threshold and approved USDA's proposed Order. While many had long hoped for the FMMO, the learning curve has been steep for producers and processors alike.

What has the adoption of FMMO meant for California's dairy industry?

The switch from the California system to its federal counterpart has meant more than just new formulas. While the California system was as inclusive as possible, the FMMO regulates class I plants (fluid milk), and everything else is optional. The California system required that virtually all grade A milk be included; the new FMMO requires only class I handlers to pool their milk and handlers for all other classes can decide whether to pool their milk.

EXHIBIT 1: California Pool Utilization, 2018



Sources: CDFA and USDA

Dairy product type	California state former classification, (pre-November 2018)	Federal classification
Fluid milk	Class 1	Class I
Yogurt, ice cream, sour cream	Class 2 & 3	Class II
Cheese and whey	Class 4b	Class III
Butter and powder	Class 4a	Class IV

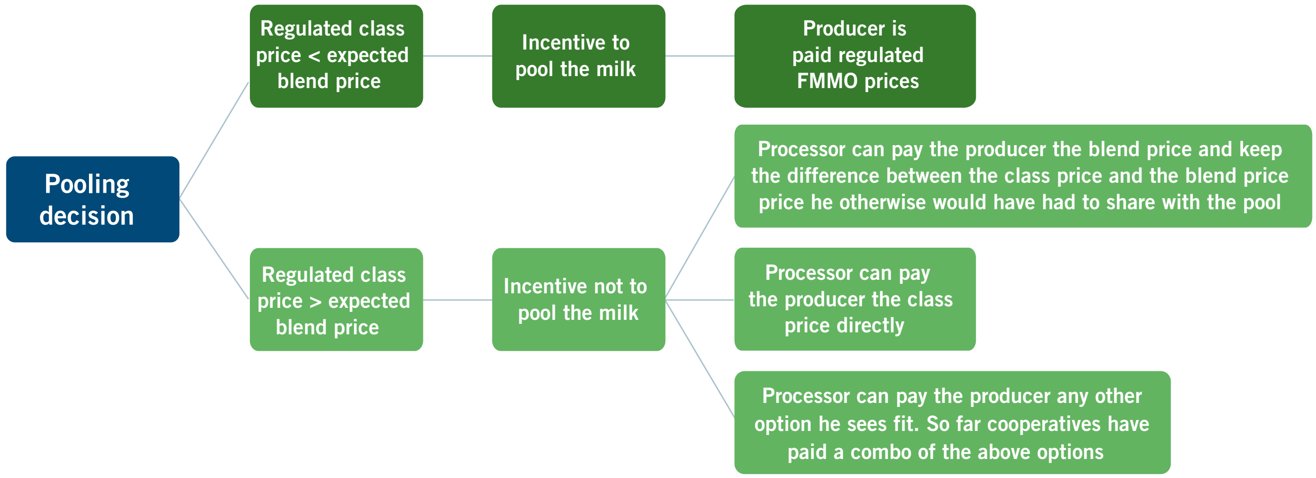
Before the FMMO, California had its own classification system. This table crosswalks the former California classes to the current, standard FMMO federal classes of dairy products.

During the last month (October 2018) under the California system, 94% of all the milk produced in the state was part of the pool. Fast-forward a month later to November 2018, when the FMMO took effect, and many industry participants were surprised to see processors pool 69% of the milk – 2.1 million pounds. In previous months, that figure was typically 3.1 million pounds. Production in the state did not suddenly disappear; rather, certain processors elected not to pool milk. For example, less class IV milk was pooled in the month of November than previous months *(Exhibit 1)*. The traditionally stable landscape of milk utilization in California has changed, and will keep changing as processors make monthly pooling decisions *(Exhibit 2)*.

These changes have led to some heartburn in the producer community and many animated coffee shop discussions. Whereas pricing in California before the FMMO was rather uniform and transparent, producers are now paid a wider range of prices under the FMMO.

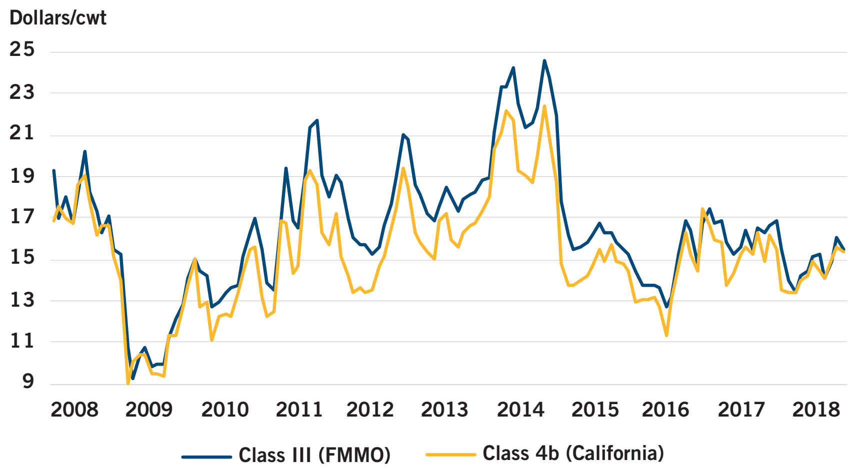
In addition to the mystery created by processors' new flexibility under the FMMO, the regulated system added a regional pricing component that did not exist in the California system. The one-state, one-minimum blend price was replaced by five pricing zones, which values milk based on where it is received. The highest price is in Southern California (base zone of Los Angeles) and the

EXHIBIT 2:



lowest is in the lower Central Valley (i.e. Tulare), 50 cents per hundredweight (cwt) below the base zone. This wide range has made statewide price forecasts a lot less valuable.

EXHIBIT 3: Cheese and Whey Price Difference Before FMMO



Sources: CDFA and USDA

Producers' financials must now be looked at individually, based on where their milk is delivered (both geographically and to which processor). Within those sub-groups, the amount of the pool benefit that stays with the producer versus its processor creates uncertainty every month. And outside the regulated system, some producers are now paid on contracts that use an entirely different formula. Those producers with formulas tied to the cheese price were in for a bad surprise the first few months after implementation when the cheese price underperformed regulated prices.

Has the CA FMMO solved the historical pricing discrepancy?

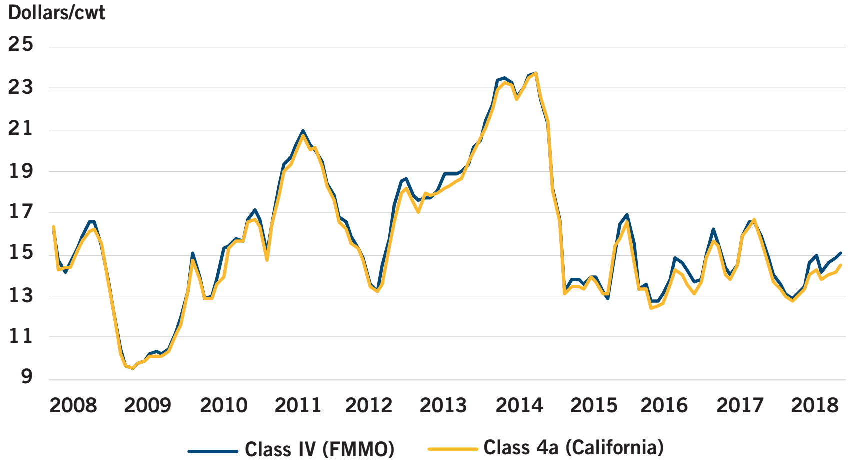
There are many differences between the California and FMMO systems, but none of them sparked interest in the latter more than the pricing discrepancy. In particular, the wide, unpredictable gap between California class 4b (cheese milk) and its federal counterpart, class III, has concerned the producer community since the divergence clearly emerged in 2010. At its worst for California producers, the class 4b averaged $2.41 per cwt lower than class III in 2014. From the beginning of 2010 until FMMO implementation, class 4b averaged $1.33 per cwt below class III *(Exhibit 3)*. For a class that represents over 40% of the milk utilization in the state, that is not an impact easily forgotten.

The second largest class by utilization was class 4a (butter and powder, the California equivalent of FMMO class IV), with an average of 35% in 2018. From 2010 until FMMO implementation, class 4a averaged 26 cents per cwt below class IV, a more palatable difference for producers but still another hit on California prices *(Exhibit 4)*. With both those classes covering close to 80% of the milk, the unpredictability and range of differences between the California order prices and FMMO prices added significant basis risk to any producer brave enough to try their hand at risk management options based on FMMO prices.

State-level attempts were made to fix the formula. These included legislation and a taskforce led by the CDFA secretary, as well as public hearings that finally led to some changes in 2015 and 2016. But it was too little too late. The FMMO ship had started its long journey by then.

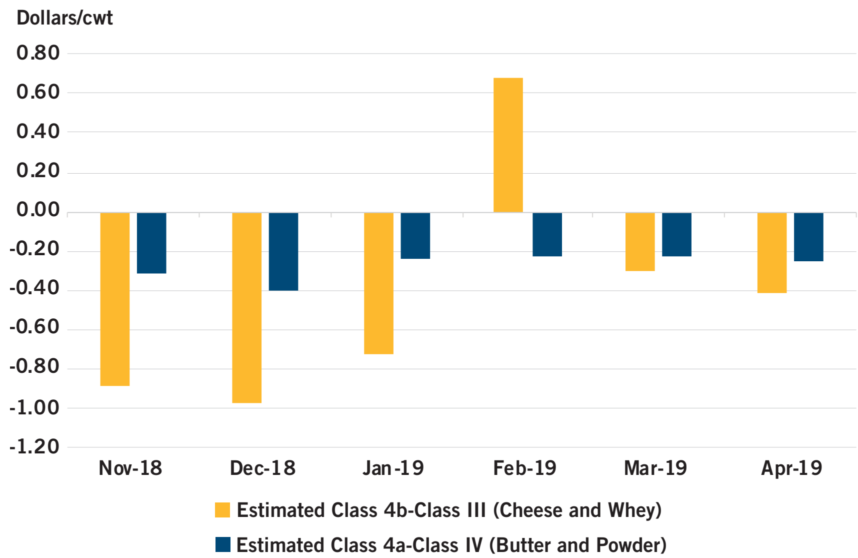
While the 2015-2016 fixes to the class 4b (cheese and whey) formula shrunk the difference between class 4b and class III, it did not stabilize or eliminate it. Comparing the first six months of FMMO prices with what would have been California state order prices shows that the wild gaps would still be around if the system change did not happen *(Exhibit 5)*. Now that California prices match other FMMOs, the historical price discrepancy is behind us. For most, this alone means the system conversion to FMMO is a success.

EXHIBIT 4: Butter and Powder Price Difference Before FMMO



Sources: CDFA and USDA

EXHIBIT 5: Estimated State Order Prices Minus Equivalent FMMO Class Prices

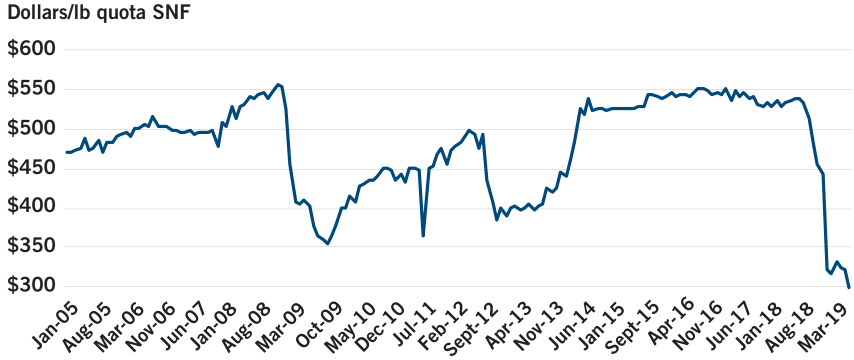


Sources: CDFA and USDA; Western United Dairymen calculations

In addition to solving the pricing discrepancies, the change shifted dollars across the market. In particular, with the elimination of the fortification allowance to meet California's higher standards, those dollars no longer come out of the pool, but rather from processors' costs. While this may have shifted about 1 cent to 2 cents per cwt back to producers, the elimination of the transportation allowance saved the pool closer to 10 cents per cwt.

The transportation allowance system was eliminated with the FMMO, and along with it the strong incentives to move milk to certain areas. While location differentials under the new FMMO set milk prices higher where it is most valuable (i.e., in high population areas where milk supply is low), they do not cover transportation costs entirely. The FMMO makes it less difficult to extract dollars from the market to cover the extra cost of moving the milk to Southern California. Customers paying more of that share means more dollars back into producers' pockets.

EXHIBIT 6: Average Quota Transfer Price, January 2005-June 2019



Source: CDFA

What other effects have resulted from the CA FMMO?

One unintended consequence of the system change is that the California quota is now in the spotlight because the quota deduction is now very visible on producers' milk checks. The result has divided segments of the dairy industry.

The California quota has existed since pooling was implemented in the 1960s. It is a tradeable asset. Since 1994, quota holders have received between $1.43 per cwt and $1.70 per cwt more for their milk, depending on location. Before the FMMO, the quota was funded through the California pool. Each month, around $12 million was distributed to quota holders before CDFA calculated the minimum pool price for the state. Throughout the FMMO hearing process, many industry participants testified to the importance of maintaining a quota system in a FMMO for California. USDA allowed the quota to continue, but did not include provisions for those funds to come out of the pool. Rather, USDA kicked the ball to CDFA, allowing them to collect funds from producers.

Through a lengthy review process, a group of producers nominated by industry and selected by the CDFA secretary developed a plan which was subsequently approved by producer referendum in the fall of 2017. Through the plan, CDFA each month collects quota dollars and redistributes it to quota holders. The amount of the assessment for each grade A milk producer was initially set at 38 cents per cwt (4.36 cents per lb of solids-not-fat). This brings in the near $12 million necessary to pay quota holders. While this is the exact same math as before the FMMO, the deduction is now very clear on producers' milk checks. This has led a group of producers to submit a petition to the CDFA secretary demanding the system be abolished.

As of June 2019, quota sold for $300 per lb. A year ago, prices hovered between $530 per lb and $550 per lb *(Exhibit 6)*. For those producers with significant quota on their balance sheet, this drop in value is certainly a concern, but not as much as the thought of potentially losing it outright. While we are not near that prospect yet, it remains a scary one for many. The CDFA secretary determined the petition was not valid because it did not include signatures from at least 25% of eligible producers, but a 2.0 version is already making its way around dairy barns. If the secretary accepts the petition, the CDFA Producer Review Board will need to review its merit and recommend to the secretary whether this should go to referendum. A producer referendum is the mechanism in place for substantial changes or cancellation of the quota plan. With a lot of emotions on both sides, the quota discussion is bound to remain a hot topic for at least the next year.

Conclusions

Many organizations have clients on both sides of the quota issue, whether they be trade associations, lending institutions or feed suppliers. Some stand to lose investment and income while others stand to gain an additional 38 cents per cwt each month. The transparency of the FMMO gives California producers hope that they are finally on a level playing field with the rest of the country. In the short term, it may appear so for many. In the long run, with additional transportation costs no longer subsidized under the CDFA pool, processors

will have incentives to move milk around differently, make different processing decisions or charge additional hauling costs. Dairies located in Southern California stand to maintain the highest prices. Processors who pay more than they would have under the California system may eventually change premium structures. Otherwise, facing higher costs, they either need to get a higher sales price and/or lower their cost of production.

Ultimately, the FMMO did not change the underlying market forces that determine what milk is worth. It only nudged the regulated price higher, with safety valves to pay milk under class prices if supply exceeds demand. With that reality, processors gained flexibility while producers gained access to higher regulated prices. Processors who can afford to pay competitive prices will continue to have access to a strong supply of milk, while those who don't may have to make tough decisions about how or if they will stay in the California dairy industry. Until USDA launches a national hearing to change the pricing formulas, both producers and processors now have a new system that gave them each something they were looking for.

CoBank's Knowledge Exchange Division welcomes readers' comments and suggestions. Please send them to KEDRESEARCH@cobank.com.