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2014 Farm Bill: Key Factors to Consider with a California Federal Milk Marketing Order

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Key Findings

- The 2014 Farm Bill permits California producers to keep some form of their unique quota system if a Federal Milk Marketing Order is adopted. The value of the California quota state-wide is estimated to exceed $1 billion dollars and entitles California producers to as much as $1.70 per hundredweight in additional milk price revenue.
- Any gains in farm level milk prices due to the adoption of Federal Order classified prices in California would be dependent on the market-wide utilization of milk and may be offset if high value milk is consistently de-pooled.
- Current California state order pricing rules contribute to California's competitive position in the national cheese market. If Federal Milk Marketing Order provisions are adopted in California higher milk prices paid by California cheese makers may make them less competitive along the supply chain and could provide long-run incentives to shift processing capacity away from cheese into other dairy ingredient sectors.

Across the U.S, with California as a major exception, the USDA Federal Milk Marketing Order program (FMMO) ensures that participating dairy farmers receive a uniform price for their milk based on market prices for specific dairy products. This is accomplished through the use of end-product price formulas that convert wholesale dairy product prices into a farm-gate milk price, and formal discriminatory pricing (classified pricing) based on milk utilization. FMMOs also provide for revenue pooling, and other pricing functions such as plant auditing and milk testing (for details on FMMO functions see here and here). This classified pricing and revenue pooling system regulates prices paid by dairy processors and as a price discrimination scheme is designed to increase dairy farmer producer surplus.

California has regulated its dairy industry under their own milk pricing plans and revenue pooling arrangements and has remained autonomous from the rest of the U.S. and the FMMO program. Over time the FMMO classified milk prices and the California state order milk prices have been rather highly correlated, with the general feature that the California prices averaged a bit lower. This lower price gave California manufacturers a cost advantage and was justified as a way to encourage increased investment in manufacturing capacity for a State whose farmers found even these slightly lower prices to be a sufficient incentive to their own ongoing growth. However, since 2009 certain California and FMMO classified milk prices have shown a much wider divergence that at times has resulted in the Federal Order class III (milk used for cheese) exceeding the corresponding California class 4b prices by as much as $3 per hundredweight of milk. Inasmuch as the amount of milk used to make cheese in California has grown to be the single largest class use, the lower class 4b price has resulted in significantly lower average farm prices. In addition dairy producers in California have seen the cost of purchased feeds on the dairy increase dramatically. Lower milk prices and higher purchased feed costs have combined to squeeze the income-over-feed-cost margins in California and has contributed to the closure of more than 400 dairies over the last five years. As a result, the system of regulations setting minimum milk prices coupled with the rising expense of purchased feeds have been matters of great concern in California.

The 2014 Agricultural Act (2014 Farm Bill) addresses both of these concerns directly. With respect to California's state milk marketing order and it's method for milk pricing and revenue pooling the 2014 Farm Bill provides the authority for the entire state of California to abandon the existing state system and petition to join the FMMO program while keeping a form of their unique pool quota system. By adopting a FMMO in California dairy producers in the state hope to narrow the gap with FMMO farm level prices thereby increasing the overall milk price received on the farm. With respect to dairy farm profitability, the 2014 Farm Bill includes a dairy producer margin protection program. The margin program has been covered extensively here on *farmdoc daily* (December 17, 2013, December 19, 2013, and February 12, 2014). In today's article we will consider potential implications of a California FMMO, including how altering classified milk prices may change the competitive position of California cheese processing facilities, and if the financial returns from a California marketing order post quota and de-pooling could be lower than anticipated.

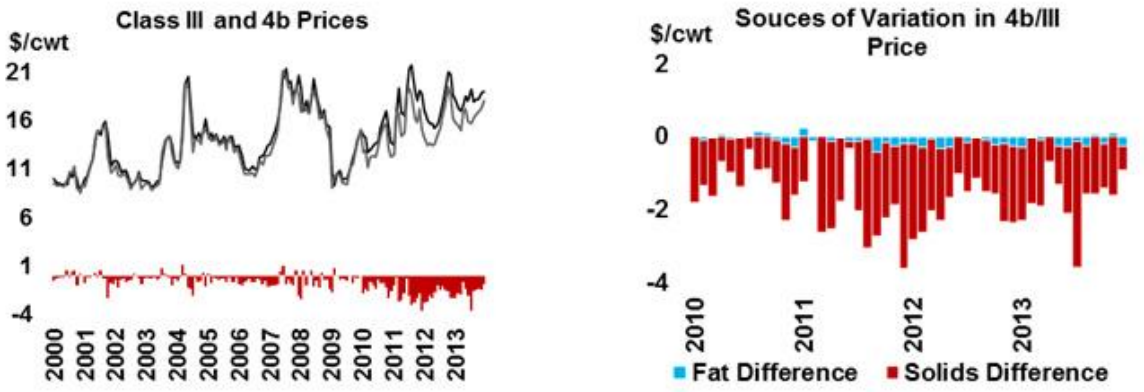
California's Competitive Position

California is the nation's largest dairy producing state, accounting for approximately 21% of U.S. milk production (41 billion pounds of milk) during both 2012 and 2013, and is a surplus milk production state. As a result of being long in milk a large portion of the farm milk produced is used to manufacture storable dairy commodities such as cheese, butter, and milk powders. Of the 41 billion pounds of milk produced in California each year approximately 44% goes into cheese and dry whey production. According to USDA data California accounted for 21% of U.S. cheese production in the U.S. during 2012 (excluding cottage cheese), and was second only to Wisconsin at 25%. The built-in price advantage associated with the California 4b price being lower than the FMMO class III price, combined with processing plant efficiency, has provided an opportunity for California produced cheese to compete with cheese produced elsewhere in the U.S. by partially offsetting the transportation and marketing costs needed to serve a national market.

Historically the FMMO classified prices and the California state order prices followed one another closely. The FMMO class IV price and the California 4a price (milk used to produce butter/powder) are highly correlated and have an average difference of only $0.31 per hundredweight over 2000-2013. However, in recent years the FMMO class III price and the California 4b price (milk used to produce cheese and whey) have begun to diverge, Figure 1. Prior to 2009 the per hundredweight difference in the two prices series averaged $0.42 and post-2009 this difference increased significantly, reaching a high of $3.63 in

December 2011, and averaged $1.43 from 2010 to 2013. These large differences are driven almost exclusively by the value of whey, a by-product of cheese production, in the price of solids-non-fat in the 4b formula.

Figure 1. Difference Between Federal Milk Marketing Order and California Milk Prices



Note: In panel 1 the black line represents the FMMO price, the grey line represents the California State order price, and the red bars represent the difference in the FMMO and California price series (California minus FMMO). Panel 2 identifies the sources of variation due to the fat and solids-non-fat values.

FMMOs incorporate wholesale whey product prices in the class III price formula directly while California indirectly incorporates the whey price per pound using a whey factor value formula. The formula is capped at $0.75 per hundredweight and makes the California price much less responsive to changes in whey prices. For example, under FMMOs the average whey value during 2013 was $0.59 per pound and contributed approximately $2.30 per hundredweight to the class III price. Meanwhile, a similar average whey price in California would contribute only $0.6875 per hundredweight to the 4b price. FMMO price formulas can be found here and California price formulas can be found here. At a time when whey has become a major value-added product in both domestic and international markets this large difference in the whey contribution to the milk price results in a lower regulated price per hundredweight for California dairy farmers and has caused many producers to re-evaluate the State system. What's commonly overlooked in the debate over the milk price divergence are the implications of imposing higher FMMO classified milk prices on California's competitive position in the dairy processing sector.

These differences in the classified prices, in addition to differences in product yields and processing costs, are longstanding and over the years have more than likely influenced optimal plant locations and product mix, not only in California, but across the U.S. Adopting FMMO provisions in California may significantly alter this existing price advantage. While higher FMMO classified prices may lift regulated farm level milk prices, it may adversely impact the value or frequency of premium payments to dairy farmers over and above the regulated minimum prices. Additionally, California cheese processors would have similar processing cost credits and pay similar classified prices as their out-of-state competitors while also paying transportation and marketing costs to meet the demands of long-distance customers. Thus, if higher prices paid by California cheese processors manifest along the supply chain cheese makers could become less competitive in milk procurement and product sales. Such a shift could provide long-run incentives to modify investment decisions and adjust processing capacity away from cheese into other dairy ingredients and alter the allocation of resources in the state's dairy processing sector.

What's Left After Quota and De-pooling?

Among the most important issues of a California FMMO is the ability of a FMMO to accommodate a quota system. The 2014 Farm Bill permits California producers to keep some form of their unique quota system if a FMMO is adopted. The California quota does not strictly limit production, as the long and impressive

growth record for the state attests. Rather, the quota provides a separate source of revenue for dairy producers in the state. Producers in the state are paid on the basis of their allocated quota, base, and over-base production at prices which reflect the utilization of milk in the California market (see here). One concept with respect to the operation of a California FMMO with quota is that the USDA would first estimate the market-wide pool value for California, then from this value deduct the quota value and transfer the monies to the California Dept. of Food and Agriculture for distribution to only producers holding quota (similar to the previous Oregon quota plan).The remaining dollars in the California FMMO pool would then be distributed according to the provisions of the order. Approximately 60% of California dairy farmers own quota and the value of the California quota state-wide is estimated to exceed $1 billion dollars, and entitles quota holding dairy farmers to as much as $1.70 per hundredweight in additional milk price revenue. In light of recent market difficulties in California, i.e. high purchased feed costs, the quota value is the only stable and sustained value on farm balance sheets.

Taking into account the large differences in the California 4b price and the FMMO class III price it is easy to envision a one-to-one financial return on the whey value from a California FMMO, e.g., $1.43 average price increase. However, a difficult issue arises in that FMMOs are built around qualification criteria and an ability to "de-pool" under highly specific conditions of exit and re-entry. Participation in the FMMO revenue pooling process is voluntary for milk in manufacturing classes. During the monthly pooling process and after the classified prices have been announced, any non-fluid plant may opt out of the pool and would not be subject to FMMO minimum price provisions. Opting out of the pool during a month may impact the ability to pool in future month(s). As such, de-pooling requires a multi-month cost benefit analysis. Through de-pooling the volume of milk pooled and total financial value of the market-wide pool is reduced. This is advantageous when the classified value of milk exceeds the anticipated uniform price and allows for the revenue from milk sales at this higher classified price to remain outside the pool. Failure to de-pool when manufacturing prices exceed the expected uniform price may result in a manufacturing plant paying into the pool, thus sharing the revenue from this higher valued milk, or not getting a pool draw.

The California state order does not permit de-pooling on a monthly basis. Rather, on an annual basis and prior to price announcements, any manufacturing plant can opt out of the pool. Any Grade A milk processor not opting out of the pool at the beginning of the year must pay minimum milk prices for the entire calendar year. As a result, if monthly de-pooling is permitted, the amount of milk pooled and total value of the milk in the pool would be conditional on the price relationships and the amount of milk de-pooled. Funding quota from a smaller pool of monies could diminish the market value of the pool and reduce the post-quota uniform milk price when compared to a price environment without monthly de-pooling incentives. Thus, with de-pooling, the financial returns from a FMMO pool may be diminished and the ability of a FMMO to facilitate the orderly and efficient marketing of milk is potentially weakened - especially considering the declining share of milk used to produce class I beverage products. Additionally, and importantly, any gains in farm level milk prices due to the adoption of FMMO classified prices in California would be dependent on the market-wide utilization of milk and would be offset if high value milk is consistently de-pooled.

During the rulemaking process the USDA Secretary of Agriculture would be provided the authority to determine the procedures for milk de-pooling and subsequent requalification of de-pooled milk and could include provisions to reduce de-pooling incentives if sufficient evidence is provided. Provisions may include limiting the amount of de-pooled milk that may be pooled in following month(s), and multi-month or annual pool participation commitments. Similar provisions limiting the amount of producer milk eligible to participate in the pool designed to discourage de-pooling already exist in several FMMOs (e.g. FMMO 33 limits producer milk to 115% to 120% of the prior month's producer milk receipts see §1033.13 here). Including provisions to reduce de-pooling incentives would help to ensure the integrity of the pool and prevent disorderly marketing conditions.

Summary

The Agricultural Act of 2014 permits California to join the FMMO system but the new order must encompass the entire state, and the new order may (not shall) use a quota plan to determine individual producer payments. The Agricultural Marketing Service of USDA would still have to receive a formal petition from California producers and conduct a promulgation hearing to collect evidence about the market and hear testimony on desired provisions. The basic design of a FMMO is the same across all

geographic orders, but there are numerous specific variations that are designed to serve the particular characteristics and needs of a marketing area. This would be an extensive and complex process.

In today's post we have presented several of the complex issues with respect to a California FMMO. Challenges with respect to milk pricing, the competitive position of California milk processing facilities under a FMMO, and the financial returns from a revenue sharing pool post quota and de-pooling are only a sample of the issues facing a California FMMO. Questions with respect to the effect of increasing milk prices on milk production, the value of fluid milk refortification, who is eligible to purchase quota, who is eligible to participate in the pool, dairy farmer ability to opt out of the pool through Grade B election, and the process for quota retirement or buyout remain.

The desire for California dairy farmers to join a FMMO comes at a time when members of the U.S. dairy industry, operating under FMMOs outside of California, are raising serious questions about the regulatory burden and market structure efficiency of FMMO provisions and are looking to simplify the pricing structure not make it more complex. Prior to formally requesting a California FMMO dairy farmers in the State should first carefully consider what the future of FMMOs may include. Draft proposals of the Farm Bill and in the USDA's Report of the Dairy Industry Advisory Committee (see here) recommended a review and potential overhaul of FMMO pooling and pricing provisions. If USDA, through a formal hearing process, alters the pricing and pooling provisions post California joining the program then the benefits from adopting a FMMO may not be as anticipated. Then again, one benefit of joining the FMMO program before price and pooling reform is California dairy producers (either through their bloc voting cooperative or individually) would have a voice through the hearing and referendum process to provide evidence and vote on any potential FMMO changes, and could terminate the order if the pricing and pooling changes were not satisfactory.

To support California dairy producers in their effort to consider a FMMO USDA recently released a working document highlighting questions and answers with respect to marketing order provisions and the rule making process see here. If a California FMMO is requested, and as the proposed regulations become known to us, we will provide more information and insight in future *farmdoc daily* articles.

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