

Hearing Panel Report

*Based on a Public Hearing Held On
June 30 and July 1, 2011*

Addressing the Class 4a and 4b Pricing Formulas
Contained in the
Stabilization and Marketing Plans
for Market Milk for the
Northern and Southern California Marketing Areas

Hearing Panel Report

Addressing the Class 4a and 4b Pricing Formulas Based Upon a Public Hearing Held on June 30 and July 1, 2011

This Report of the Hearing Panel regarding proposed amendments to the Stabilization and Marketing Plans for Market Milk for Northern California and Southern California (Plans) is based on evidence received and entered into the Department of Food and Agriculture's hearing record. The evidence includes the Departmental exhibits, written statements and comments received from interested parties, written and oral testimony received at a public hearing held on June 30 and July 1, 2011, and written post-hearing briefs.

Table of Contents

Introduction/Witnesses	Page 3
Background: California's Dairy Landscape	Page 4
Summary of the Proposals	Page 6
Estimated Impacts of the Proposals on California Class and Pool Prices	Page 9
Previous and Current Economic Conditions Facing the California Dairy Industry	Page 10
Introduction and Proposed Changes to the Pricing Formulas	Page 13
Administrative Changes to the Stabilization and Marketing Plans	Page 14
f.o.b. California Price Adjusters	Page 15
Manufacturing Cost Allowances in Class 4a and 4b Pricing Formulas	Page 19
Whey Factor in the Class 4b Pricing Formula	Page 23
Appendix A: Summary of the Panel Recommendations	Page 34
Appendix B: Summary of Testimony and Post-Hearing Briefs	Page 35

INTRODUCTION/WITNESSES

California Food and Agricultural Code (Code) Section 61801, *et sec.*, provides the authority, procedures, and standards for establishing minimum prices by the California Department of Food and Agriculture for the various classes of milk that handlers must pay for milk purchased from producers. These statutes provide for the formulation and adoption of Stabilization and Marketing Plans for Market Milk.

Two petitions were submitted by:

1. California Dairies, Inc. (CDI)
2. Land O'Lakes, Inc. (LOL)

One Administrative Proposal was submitted by:

1. The California Department of Food and Agriculture (Department)

Two alternative proposals were submitted by:

2. Western United Dairymen (WUD)
3. Dairy Institute of California (DI)

A total of 25 witnesses testified including the Department's witness:

Amber Rankin, Department

*CDI, Dr. Eric Erba

LOL, Tom Wegner

*WUD, Michael Marsh

*DI, Dr. William Schiek

Gallo Cattle Company (Gallo), Joe E. Paris

Rumiano Cheese (Rumiano), Baird Rumiano

*Milk Producers Council (MPC), Rob Vandenheuvel

Nestlé, USA and Dreyer's Grand Ice Cream Holdings, Inc. (Nestlé), Steve Kluesner

*Farmdale Creamery, Inc. (Farmdale), Scott Hofferber

California Dairy Campaign (CDC), Kevin Abernathy

Commodity & Ingredient Hedging, Justin Freiberg

*Saputo Cheese USA, Inc. (Saputo), Greg Dryer

Challenge Dairy Products (Challenge), Irvin Holmes

*Hilmar Cheese Company (Hilmar), David Ahlem

Joey Airoso, Airoso Dairy

BESTWHEY, LLC, Barry Murphy

Farm Credit West, Tulare Dairy Center, Jonathan Kennedy

*Dairy Farmers of America, Inc. (DFA), Glenn Wallace

DairyAmerica, Inc., Rich Lewis

Xavier Avila, Dairy Producer

Kraft Foods (Kraft), Michael McCully

Marquez Brothers International, Inc. (Marquez), Jose T. Maldonado

*Leprino Foods Company (Leprino), Sue M. Taylor

*Pacific Gold Milk Producers, Leonard Vandenberg

Also entered into the hearing record were additional written comments submitted by:

Security Milk Producers Association

California Grain & Feed Association

Food & Water Watch, Western Region

Arthur Schuman, Inc.

* Indicates submission of a Post Hearing Brief

BACKGROUND: CALIFORNIA'S DAIRY LANDSCAPE

The following economic data and statistics reflect the California dairy situation at the time of the hearing and were considered when examining and evaluating the proposals and testimony submitted at the hearing.

Cost of Producing Milk

- For 2010, the cost of producing milk decreased in all four areas of the state when compared to the same period for the previous year, with statewide average costs at \$13.70 per hundredweight (cwt.) (down \$1.46/cwt. from 2009). When including return on investment and management, the cost of producing milk in 2010 was \$15.19/cwt. (down \$1.67/cwt. compared to 2009).
- For the first quarter of 2011, the statewide average cost of producing milk was \$14.79/cwt., up \$1.31/cwt. from 2010 first quarter costs of \$13.48/cwt.
- For the first quarter of 2011, total feed costs accounted for 61.1 percent of the total cost of production, compared to 56.8 percent for the same period in 2010.

Mailbox Milk Prices

- California mailbox milk prices for 2010 averaged \$14.37/cwt., an increase of \$3.35/cwt. compared to the average 2009 mailbox price of \$11.02/cwt.
- For the first three months of 2011, the mailbox milk prices averaged \$16.94/cwt., an increase of \$3.43 cwt. compared to the average mailbox milk price for the same time period in 2010 of \$13.51/cwt.

California Milk Production

- California's annual milk production has increased at an average annual rate of 2.3 percent over the last 10 years, compared to the 10-year U.S. average of 1.4 percent.
- For the twelve months ending May 2011, California milk production has shown a 3.6 percent increase over the same time period ending May 2010.

Milk Cows

- Annual California cow numbers have increased at an average rate of 1.4 percent over the last 10 years – while U.S. cow numbers have decreased 0.1 percent over the last 10 years.
- Most recent USDA cow number reports indicate that for May 2011 compared to May 2010, California reported an increase in the number of dairy cows by 17,000 head to a total of 1.77 million cows.

Class 1 Usage

- For 2010, 15.0 percent of California's total pooled milk production was used to produce packaged fluid milk.
- For June 2010-May 2011, Class 1 sales showed a decrease of 2.3 percent when compared to June 2009-May 2010.
- For the first five months of 2011, Class 1 sales have shown a decline of 1.7 percent compared to the same time period in 2010.

Cheese Production (Class 4b)

- In 2010, 41.0 percent of California's total milk production was used to produce Class 4b products.

- For January-May 2011, total cheese production was up 5.3 percent when compared to January-May 2010.
- For 2010, California cheese production increased to 2.2 billion pounds, a level not seen since 2007.

Butter and Nonfat Dry Milk (NFDM) Production (Class 4a)

- In 2010, 34.8 percent of California's total milk production was used to produce Class 4a products.
- For January-May 2011, total butter production was up 7.5 percent and total NFDM production was down 12.7 percent compared to January-May 2010.
- For 2010, California NFDM production totaled 877.4 million pounds and butter production totaled 557.1 million pounds – both record setting levels.

Cottage Cheese, Yogurt, Ice Cream, as well as other soft and frozen dairy products (Class 2 and 3)

- For 2010, 9.2 percent of California's total milk production was used to produce Class 2 and 3 products.
- For 2010 compared to 2009, frozen dairy product production showed a decrease of 4.2 percent to 170.0 million gallons, total cottage cheese production fell for the fifth straight year to 87.5 million pounds, and yogurt production increased to a record setting level of 649 million pounds.
- For January-May 2011 compared to January-May 2010, total frozen dairy product production was down 4.9 percent, total cottage cheese production was up 8.4 percent, and yogurt production was down 3.7 percent.

SUMMARY OF THE PROPOSALS

PETITIONS:

California Dairies, Inc.

In the Class 4a formula:

- Change the f.o.b. California price adjuster for butter from \$0.0309 to \$0.0485
- Change the butter manufacturing cost allowance from \$0.1560 to \$0.1811
- Change the nonfat dry milk manufacturing cost allowance from \$0.1698 to \$0.1984

Land O'Lakes, Inc.

In the Class 4b formula:

- Change the f.o.b. California price adjuster for cheese from \$0.0252 to \$0.0018
- Change the cheese manufacturing cost allowance from \$0.1988 to \$0.1966
- Maintain the fixed whey value of \$0.25 when the dry whey market value averages \$0.2449 or lower. When the dry whey market value is \$0.2450 and above, the value will be based on a table of sliding scale values:

Average monthly DMN Whey Prices Per Lb.:	Whey factor Per Cwt.:
Up to \$ 0.2449	\$0.25
\$0.245 to \$0.2549	\$0.30
\$0.255 to \$0.2649	\$0.35
\$0.265 to \$0.2749	\$0.40
\$0.275 to \$0.2849	\$0.45
\$0.285 to \$0.2949	\$0.50
\$0.295 to \$0.3049	\$0.55
\$0.305 to \$0.3149	\$0.60
\$0.315 to \$0.3249	\$0.65
\$0.325 to \$0.3349	\$0.70
\$0.335 to \$0.3449	\$0.75
\$0.345 to \$0.3549	\$0.80
\$0.355 to \$0.3649	\$0.85
\$0.365 to \$0.3749	\$0.90
\$0.375 to \$0.3849	\$0.95
\$0.385 or above	\$1.00

- The dry whey prices used to determine per cwt. whey values used in calculations shall be the simple average of the Dry Whey-West Mostly prices as published in Dairy Market News (DMN) between the period beginning the 26th day of the previous month and concluding the 25th day of the current month.
- In the event that the Dry Whey-West Mostly price is not available to determine the per cwt. whey values to calculate the Cheese hundredweight price, pursuant to Subparagraph (E)(1), then used in its place shall be the Dry Whey-West Mostly price used in the prior month's whey price to determine the per cwt. whey values to calculate the Cheese per hundredweight price.

ALTERNATIVE PROPOSALS:

California Department of Food and Agriculture

In the Class 4a and 4b formulas:

- The Department is proposing to make administrative changes to the Class 4a and 4b pricing formulas to include language to implement the collection of security charges provided by the Milk Producers Security Trust Fund (Fund) as found in Section 62561, Article 4, Chapter 2.5, Part 3, Division 21 of the Code. The Department was given the authority to collect Fund charges on all classes of milk, including Classes 4a and 4b, instead of just Classes 1, 2, and 3.

For any month in which the Secretary implements the collection of security Fund charges, the minimum Class 4a and 4b prices shall be increased by the following amounts:

- (a) For milk fat, three and two-tenths mils (\$0.0032) per pound.
- (b) For milk solids not fat, one and three-tenths mils (\$0.0013) per pound

Western United Dairymen

In the Class 4b formula:

- Change the f.o.b. California price adjuster for cheese from \$0.0252 to \$0.0018
- Change the cheese manufacturing cost allowance from \$0.1988 to \$0.1966
- Eliminate the \$0.25 fixed whey factor and change to:
 $80\% \times ((DMN \text{ Dry Whey West Price} - \$0.1991) \times 5.9318)$
- The Dry whey prices used in calculations shall be the simple average of the Dry Whey-West Mostly prices as published in Dairy Market News between the period beginning the 26th day of the previous month and concluding the 25th day of the current month.
- In the event the Dry Whey-West Mostly price is not available to determine the per hundredweight whey values to calculate the Cheese hundredweight price, pursuant to Subparagraph (E)(1), then used in its place shall be the Dry Whey-West Mostly price used in the prior month's whey price to determine the per hundredweight whey values to calculate the Cheese per hundredweight price.

Dairy Institute of California

In the Class 4b formula:

- The whey value will be based on the following schedule:

Average monthly NASS Whey prices Per Lb.:	Whey factor Per Cwt.:
< \$0.35	\$0.25
>=\$0.35 and <\$0.40	\$0.35
>=\$0.40 and <\$0.45	\$0.45
>=\$0.45 and <\$0.50	\$0.55
>=\$0.50 and <\$0.55	\$0.65
>=\$0.55	\$0.75

- The dry whey price used in the calculations shall be the weighted average of the most recent weekly United States dry whey prices, first published beginning the 26th day of the previous month and concluding the 25th day of the current month, as revised and reported as of the 25th day of the current month in the U.S. Department of Agriculture's *Dairy Product Prices* report compiled by the National Agricultural Statistics Service (NASS).

- In the event that the United States dry whey price reported by NASS is not available to calculate the Cheese hundredweight price pursuant to Subparagraph (E)(1), then used in its place shall be the United States dry whey price used in the prior month's calculation of the Cheese hundredweight price.

**ESTIMATED IMPACTS OF THE PROPOSALS
ON CALIFORNIA CLASS AND POOL PRICES**

- Table 1 shows the impacts of the petitions and alternative proposals on class and pool prices relative to current prices, from May 2006 through April 2011.
- The analysis assumes that the petition, alternative proposals and current formulas were in effect throughout that analysis period.
- Commodity prices used are historic prices in effect from May 2006 through April 2011.

**Table 1 - Estimated Impacts of the Proposals
On California Class and Pool Prices**

In Dollars per Hundredweight

CLASS 4a	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Average
CDI	-\$0.43	-\$0.43	-\$0.43	-\$0.43	-\$0.43	-\$0.43
CLASS 4b						
LOL	\$0.80	\$0.83	\$0.32	\$0.79	\$0.98	\$0.75
WUD	\$1.09	\$1.38	\$0.08	\$0.72	\$0.99	\$0.85
Institute	\$0.15	\$0.27	\$0.00	\$0.04	\$0.14	\$0.12
POOL PRICES: QUOTA & OVERBASE						
CDI	-\$0.15	-\$0.16	-\$0.18	-\$0.19	-\$0.18	-\$0.17
LOL	\$0.40	\$0.40	\$0.14	\$0.33	\$0.43	\$0.34
WUD	\$0.55	\$0.68	\$0.04	\$0.30	\$0.44	\$0.40
Institute	\$0.07	\$0.13	\$0.00	\$0.02	\$0.06	\$0.06

- With regards to the Department's administrative changes to the Class 4a and 4b pricing formulas, any month when the Fund charges are implemented, the Class 4a and 4b prices would increase by \$0.0225/cwt., but there would be no changes in the pool prices.

PREVIOUS AND CURRENT ECONOMIC CONDITIONS FACING THE CALIFORNIA DAIRY INDUSTRY

Prior to the review of the various proposals for changes in the Class 4a and 4b pricing formulas, a general overview is warranted of the economic conditions that have faced the California dairy industry from the prior Class 4a and 4b hearing in 2007 to the current hearing at hand.

PRIOR HEARING

Hearing Petition

The previous Class 4a and 4b pricing hearing, prior to the current hearing at hand, was held in October 2007. The petitioners of the October 2007 hearing were a group of small cheese processors that were experiencing financial difficulties as a result of the whey value incorporated in the Class 4b pricing formula. From 2003 to mid-2006, the dry whey commodity price ranged from \$0.13 per pound to \$0.35 per pound, which equated to a whey value in the Class 4b price of approximately -\$0.13/cwt. to \$0.88/cwt. However, from the end of 2006 through the hearing in 2007, the dry whey commodity price ranged from about \$0.35 per pound to \$0.82 per pound, which equated to a whey value in the Class 4b price of approximately \$0.88/cwt. to \$3.20/cwt. Because the petitioners did not manufacture any value added whey products from their operations and their whey stream was considered a 'cost center' of their operations, they asserted that the whey value portion of the Class 4b price reduced their margins to the point of financial distress.

Milk Production and Dairy Margins

During 2007, California was in the midst of a decade long expansion of milk production. In the ten years prior to 2007, California's growth in milk production was outpacing the milk production growth of each of the next largest nine milk production states, in absolute terms. From 2004 to 2007, milk production was increasing by more than 1 billion pounds each year, until it reached its peak in 2008 at approximately 41.2 billion pounds.

Milk production was fueled by positive, relative margins on the dairy. Department data show that 2004 and 2005 were years of positive, relative margins when comparing California mailbox prices and California cost of production. Although the margin did go negative for 2006, by 2007 it had returned to positive. The positive margin in 2007 was fueled by high milk prices caused by strong supply and demand conditions in international markets. International dairy product demand was increasing at a time when global milk supplies were decreasing, which caused higher dairy prices that the U.S. and California were able to take advantage of.

Milk Supply – Plant Capacity

During 2007, the milk supply in California was in a surplus condition relative to processing capacity due to continual milk production increases and the lack of corresponding increases in processing capacity. Both producer and processor groups acknowledged the imbalance between the state's milk supplies relative to the state's processing capacity. Because of this imbalance, the state's ability to effectively and efficiently process its milk supply was limited. During that time there was evidence that showed California had problems handling its milk supplies during the spring flush, had milk supplies that were being shipped large distances

outside the state at discount prices for processing, and had some milk that was leaving the farm but not being processed.

As a result of the milk supply imbalance, in 2008, cooperative organizations and proprietary processors placed restrictions or production bases on the amount of milk they were willing to receive from their producers. Some organizations simply capped the amount of milk they would accept and others implemented surcharges on the producers that exceeded their production bases. A few fluid milk processors even terminated the contracts of their shippers.

CURRENT HEARING

Hearing Petition

By May 2011, when two producer cooperative organizations petitioned the Department to hold a Class 4a and 4b hearing, about three and one half years had passed since the previous hearing. These organizations assert that, in these three and one half years conditions have changed that require the manufacturing cost allowances, f.o.b. adjusters, and the whey value in the Class 4b formula to be modified. These proposed changes are meant to update the pricing formulas to reflect the most current manufacturing costs and commodity prices California plants receive for their actual sales of dairy commodities. The proposed whey value change by the co-petitioner is meant to more equitably share whey values with producers.

Milk Production and Dairy Margins

After it reached its peak in 2008, California milk production then decreased in 2009 by 1.68 billion pounds. During the 19 months from October 2008 through April 2010, milk production decreased every month when compared to the same month in the previous year. This length of consecutive monthly decreases had not been experienced in California since the late 1970s. In 2010, milk production did increase once again to pre-2007 levels, and through June 2011, milk production is on pace to match California's all-time milk production record from 2008. In fact, monthly milk production reached an all-time high in May 2011.

Milk production waned in 2009 and began to recover in 2010, partly due to changing margins on the dairy. By the end of 2007 and the beginning of 2008, milk prices decreased in response to weakening international demand for dairy products and increasing international milk supplies. Milk prices decreased even more dramatically in 2009 when macroeconomic recession in the U.S. and across the majority of the world caused global incomes and demand to drop precipitously. As milk prices were dropping, the cost of production on the dairy was rising because of sharp increases in the cost of feed. Department data show that feed costs rose sharply above historic levels in 2008 and 2009. Although feed costs tempered somewhat in 2010, these costs have increased in the first quarter of 2011 and anecdotal evidence indicates that these costs will likely continue to increase throughout 2011.

Because of decreasing milk prices and increasing production costs, Department data show large negative, relative margins on the dairy from the end of 2008 through the beginning of 2010, which caused wide-scale financial distress on dairy farms. In 2010, milk prices began to increase as domestic and global markets recovered from macroeconomic recession. Demand for dairy products increased in both domestic and international markets, especially in Asia. Around the end of 2010 or the beginning of 2011, margins at the dairy changed as milk prices once again increased to levels matching or exceeding the cost of production.

Milk Supply – Plant Capacity

During 2011, it appears that California has been able to generally handle its milk supply, even during the spring flush. At present, there has not been a reoccurrence of the issue of handling the milk supply that occurred in 2007 and 2008. However, despite this, California does occasionally have supply imbalances. Department data show that milk does still leave the state, and the hearing record shows reports of milk leaving the state to meet both the needs of out-of-state processors and under distressed conditions.

In the three and one half years since the last hearing, two processing cooperatives have completed expansion of their butter/powder operations and a cheese plant has increased its capacity, which has added some processing capacity to the state. During the same time, Department data show that three small cheese plants have stopped producing cheese, fluid milk sales are down, and cheese production has dropped from its record levels in 2009. This information suggests that California may have manufacturing capacity available in the state that is not or may not be used in the future due to pricing, marketing, or other economic reasons.

Various organizations in the state continue to have their restrictions or production bases in place if they become necessary in the future. Because handling the milk supply is not as problematic presently compared to 2007 and 2008, the production bases do not appear to be currently enforced as strictly as the past. Although the milk supply and plant capacity imbalance is not currently troublesome, organizations have asserted they are mindful that production bases may need to be more strictly enforced in the future if this problem returns.

INTRODUCTION AND PROPOSED CHANGES TO THE PRICING FORMULAS

Each and every public hearing involving the milk pricing formulas can impact the economic interest of dairy producers, producer cooperative organizations, dairy processors, distributors, retailers, and consumers. The careful consideration of each pricing issue and the implementation of appropriate policy require impartial balancing of all interests involved. At the same time, the Panel believes it is important to set as accurate a pricing formula as possible that reflects full consideration of all the key economic factors impacting the California milk market. To achieve this, the Panel considered relevant economic factors, including statutory requirements, for all of the issues covered in the following sections, some of which are listed below:

- Milk production costs;
- Milk supply;
- Manufacturing costs;
- Product yields in converting bulk milk into finished products;
- Markets for California commodities;
- Transportation costs;
- Price volatility and lags in the release of different datasets;
- The competitiveness of California commodities compared to other major supply regions;
- The prices received by California processors for their finished commodities;
- The differences in the pool obligations for processors in the California order and the federal orders;
- The state's processing capacities;
- California's long-term history of milk expansion;
- Greater distance to domestic markets for finished dairy products compared to other regions;
- The relationship of California class prices and federal order class prices;
- The effectiveness of risk management tools;
- The supply/demand forces of the domestic and international markets;
- The reasonableness and economic soundness of market milk prices for all classes, giving consideration to combined income from those classes;
- Whether prices will insure an adequate and continuous supply, in relation to demand, of pure, fresh, wholesome market milk for all purposes, including manufacturing purposes, at prices to consumers which, when considered with relevant economic criteria, are fair and reasonable; and
- Whether prices for the various classes of market milk bear a reasonable and sound economic relationship to each other.

ADMINISTRATIVE CHANGES TO THE STABILIZATION AND MARKETING PLANS

Issue

Section 62561 of the California Food and Agricultural Code (Code) authorizes the Department to collect security charges on all classes of milk provided by the Milk Producers Security Trust Fund (Fund). The charges would take effect if the Fund goes below \$30 million. Originally, money collected for the Fund came from assessments on milk in Classes 1, 2, and 3. However, in 2006, A.B. 2343 (effective January 1, 2007) modified the Fund so that assessments from all classes of milk, including Classes 4a and 4b, are collected.

The recent financial evaluation of the Fund by an accounting firm (performed every two years) indicated that Section 62561 of the Code amended the authority of the Department. The Stabilization and Marketing Plans for Market Milk for Northern California and Southern California Marketing Areas (Plans) are now in conflict with the Code.

Review of Proposal

The Department proposed that new language be added to both the Class 4a and 4b pricing formulas in the Plans. The new language would allow the minimum Class 4a and 4b prices to increase for any month in which the Secretary implements the collection of security charges provided by the Fund.

Impact of Proposal

For any month that the security charges are in effect, the Class 4a and 4b milk fat prices will be increased by three and two-tenths mils (\$0.0032 per pound) and the Class 4a and 4b milk solids-not-fat prices will be increased by one and three-tenths mils (\$0.0013) per pound, which will increase the Class 4a and 4b prices by \$0.0225/cwt.

Discussion

The Department's proposal makes administrative changes to the Class 4a and 4b pricing formulas to align the language of the Plans with Section 62561 of the Code. All testimony addressing this issue at the hearing either supported implementation of the changes or was silent. There was no opposition expressed at the hearing.

Panel Recommendation

The Panel recommends including language in the Plans to implement the collection of security charges on Class 4a and 4b milk provided by the Fund, as found in Section 62561 of the Code.

f.o.b. CALIFORNIA PRICE ADJUSTERS

Issue

To calculate the monthly California Class 4a and 4b prices, the announced national prices for Cheddar cheese and butter established by the Chicago Mercantile Exchange (CME) are incorporated into the formulas. In the pricing formulas, f.o.b. price adjusters are subtracted from the CME monthly average prices to reflect the actual prices that California processors receive for the sale of their finished products.

California Price = CME Price – f.o.b. Price Adjuster

The Department typically reviews the f.o.b. adjusters whenever there is a hearing to consider adjustments in the Class 4a and 4b pricing formulas. Currently, \$0.0309 per pound is subtracted from the CME Grade AA butter price in the Class 4a formula, and \$0.0252 per pound is subtracted from the CME 40-pound block Cheddar cheese price in the Class 4b formula.

In November 2010, the Department released *Comparison: CME Butter Prices / Audited California Butter Sales* and *Comparison: CME Cheddar Cheese Prices / Audited California Cheddar Cheese Sales*. These reports reflected the differences between the actual prices that California plants received and the announced CME prices for both Grade AA butter and 40-pound block Cheddar cheese. The reports included sales data collected for the period July 2008 to June 2010. For the 24-month period, the simple average difference between California sales and the CME price of butter was \$0.0485 per pound, and the difference between California sales and the CME price of cheese was \$0.0018 per pound. Compared to the current f.o.b. adjusters, this is an increase in the difference of \$0.0176 per pound for butter and a decrease of \$0.0234 per pound for cheese.

Review of Proposals

The Department received one proposal for changes to the f.o.b. California price adjuster for butter and two proposals for changes to the f.o.b. adjuster for cheese. The CDI proposal would amend only the f.o.b. adjuster for butter while the LOL and WUD proposals would amend the f.o.b. adjuster for cheese (see Table 2). All three proposals based their changes on the report released by the Department in November 2010.

Table 2 - Summary of Proposed f.o.b. California Price Adjusters for Butter and Cheese

	Butter (\$/lb)	Cheese (\$/lb)
Current	\$0.0309	\$0.0252
CDI	\$0.0485	-
LOL and WUD	-	\$0.0018

Impact of Proposals

The Department analyzed the impact on the Class 4a and 4b pricing formulas and on pool prices of the proposed changes to the f.o.b. California price adjusters. Assuming that the proposals were in effect from May 2006 to April 2011 and that all other factors in the pricing formulas remained unchanged, the CDI proposal to update the f.o.b. adjuster for butter would have decreased the Class 4a price \$0.07/cwt., resulting in a \$0.03/cwt. decrease in the pool price; and the LOL and WUD proposals to update the f.o.b. adjuster for cheese would have increased the Class 4b price \$0.24/cwt., resulting in an increase of \$0.11/cwt. in the pool price.

Discussion

The Department determines the f.o.b. California price adjusters using the simple average difference between California prices received and announced CME prices for butter and Cheddar cheese, for the most recent available 24-month period. This method assumes that the relationship observed in the most recent period will be a reasonable indicator of the relationship in the future. In the case of butter, witnesses raised no concern regarding the use of this method for setting the f.o.b. adjuster, citing that the relationship between California sales and CME prices has been consistent over time. However, witnesses expressed concern as to the accuracy of this method for determining the f.o.b. adjuster for cheese. Two important discussions are relevant with respect to the f.o.b. California price adjusters:

- (1) Volatility in the Cheddar cheese market, and
- (2) Differences in the Cheddar cheese and butter markets.

Volatility in the Cheddar Cheese Market

DI testified that the f.o.b. adjuster as it is currently calculated is not appropriate for cheese, given the volatile relationship between California prices received and announced CME prices. In addition to price volatility, both DI and Leprino cited that the most recent 24 months under consideration included a large, rapid drop in prices at the end of 2008. Since California sale prices tend to lag CME prices, this resulted in elevated California prices during this period.

The Panel recognizes that the Cheddar cheese market is highly volatile, and this volatility has increased in the past few years. The hearing record contains monthly data based on the difference between California prices received and announced CME prices. The standard deviation of the difference between California cheese sales and CME prices highlights the variability in this relationship. The standard deviation shows the dispersion of the monthly differences between California sales and CME prices from the average difference; the more spread apart the data, the larger the deviation. For the period December 2007 to April 2011, which represents the most recent period since the last hearing to amend the cheese f.o.b. adjuster, the standard deviation of monthly California cheese sales less CME prices was \$0.0717 per pound. This compares to a standard deviation of \$0.0427 for the adjacent period of January 2005 through November 2007. The standard deviation increased by \$0.0290 per pound during the two periods, which is a considerable increase taking into account that the current f.o.b. adjuster for cheese is set at \$0.0252 per pound.

The change to the cheese f.o.b. adjuster as proposed by LOL and WUD represents a substantial reduction to the current f.o.b. adjuster. When considering a number of factors such as transportation costs and the ability of California manufacturers to compete in the

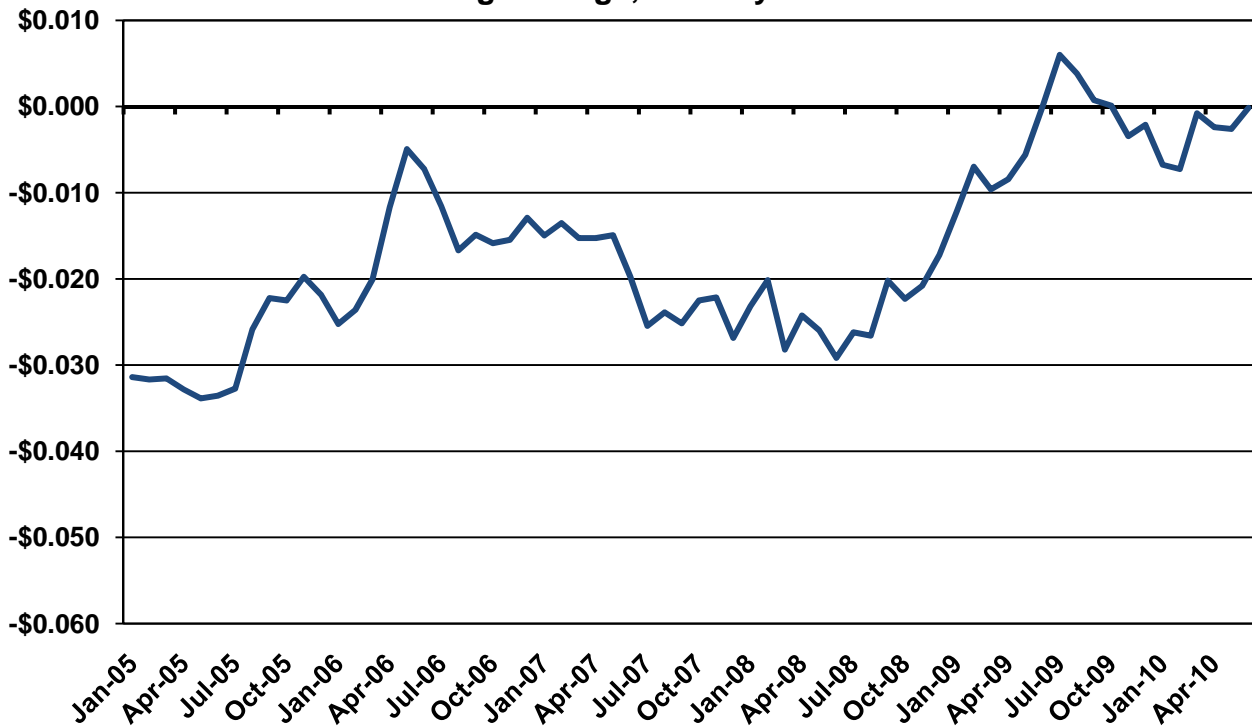
national market, it is difficult to explain this shift. Given the volatile nature of the Cheddar cheese market, it is not possible to determine with certainty that a smaller f.o.b. adjuster as calculated in the most recent manufacturing cost study is characteristic of a temporary phenomenon or a more permanent trend in the cheese market.

Differences in the Cheese and Butter Markets

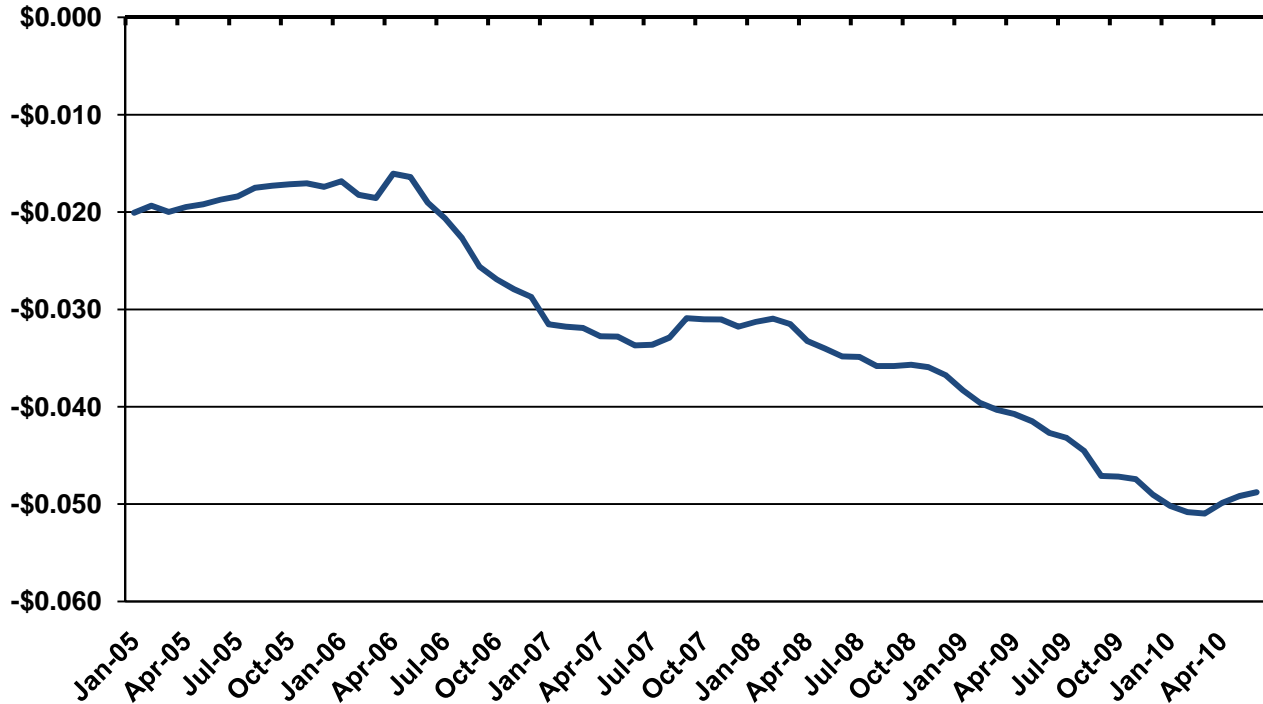
There is evidence that the butter market is less volatile than the cheese market and therefore behaves differently. Figures 1 and 2 show the difference between California sales and CME prices for cheese and butter, respectively, using a 24-month rolling average. The time period under consideration is January 2005 to June 2010 which includes the most current California sales data. The data point for each month represents the average of the 24 months immediately preceding it. The rolling average is meant to correct for short-term fluctuations in the difference between California sales and CME prices and usually will smooth out these fluctuations. The smoothing effect is apparent in the butter market, but not in the cheese market. Even after imposing a 24-month rolling average on the cheese market, the relationship between California sales and CME prices is erratic and volatile. The 24-month average for butter depicts a much more consistent trend in the relationship between California butter sales and the CME price.

For the period December 2007 to April 2011, the standard deviation of the monthly California butter sales less CME prices was \$0.0161 per pound. This compares to a standard deviation of \$0.0153 per pound of butter for the adjacent period of January 2005 through November 2007. Unlike the cheese market, the relationship between California butter sales and CME prices appears to exhibit a consistently low level of volatility over time.

*Figure 1 – California Cheese Sales Less CME Price (\$/lb)
24-Month Rolling Average, January 2005 – June 2010*



*Figure 2 – California Butter Sales Less CME Price (\$/lb)
24-Month Rolling Average, January 2005 – June 2010*



The hearing record reflects that the commercial markets for Cheddar cheese and butter are uniquely distinct. In the October 2007 hearing, it was the opinion of the Panel that the differences in the two markets may justify the use of separate methods for establishing the f.o.b. California price adjusters for Cheddar cheese and butter. The Panel maintains this opinion and believes that an investigation and review needs to be made of the methods used. This review should be made with the active participation of all stakeholders.

Stakeholder meetings should be held to review the price data and method used in the f.o.b. adjuster calculations. Based on the hearing record, topics of discussion could include volatility in the commodity markets, the lag in California sales price data with the CME, and reporting based on a weekly rather than monthly basis.

Given the above discussion, the Panel recommends no change to the f.o.b. adjuster for cheese at this time. Although the f.o.b. adjuster for cheese as calculated by the Department in its November 2010 report was smaller than the current f.o.b. adjuster, there are concerns that the fundamental relationship between California cheese sales and CME prices has not changed. Since the butter market exhibits a consistent trend in the relationship between California sales and CME prices, the Panel recommends updating the f.o.b. adjuster for butter to reflect the data released by the Department in November 2010.

Panel Recommendations

The Panel recommends increasing the f.o.b. California price adjuster for butter to \$0.0485 per pound. The Panel recommends no change to the f.o.b. California price adjuster for Cheddar cheese. The Panel recommends a stakeholder meeting should be held to review the methodology and parameters used in the calculation of the f.o.b. California Price Adjusters, especially for cheese.

MANUFACTURING COST ALLOWANCES IN CLASS 4A and 4B PRICING FORMULAS

Issue

California's end-product pricing formulas determine the value (price) of milk by subtracting a manufacturing cost allowance (MCA) from the wholesale commodity prices for Grade AA butter, NFDM, and Cheddar cheese. The MCA is meant to represent a reasonable cost to the processor of producing each commodity. To establish each MCA for the Class 4a and 4b pricing formulas, the Department considers the data compiled in the annual manufacturing cost studies for butter, NFDM, and Cheddar cheese in conjunction with all relevant economic factors. Once the Department establishes the MCA for each of the three commodities, they remain in the pricing formulas until amended by means of a new public hearing.

Review of Proposals

There were three formal proposals to adjust the MCA for butter, NFDM, and Cheddar cheese (see Table 3). CDI proposed increasing both the MCA for butter and the MCA for NFDM in the Class 4a pricing formula to match the 2009 weighted average manufacturing cost as released by the Department in November 2010. LOL and WUD proposed decreasing the MCA for Cheddar cheese in the Class 4b formula to match the 2009 weighted average cost.

*Table 3 - Proposed MCA for Butter, NFDM,
and Cheddar Cheese*

	Butter (\$/lb)	NFDM (\$/lb)	Cheese (\$/lb)
Current	0.1560	0.1698	0.1988
CDI	0.1811	0.1984	-
LOL and WUD	-	-	0.1966

Impact of Proposals

Table 4 provides a summary of the impacts of each individual MCA change on the class and pool prices. The MCA for butter and for NFDM proposed by CDI would both decrease the Class 4a and pool prices; the cheese MCA proposed by LOL and WUD would increase the Class 4b and pool prices.

**Table 4 - Impacts of MCA Proposals on California Class and Pool Prices,
Five-Year Averages, May 2006-April 2011**

Proposal	MCA Change	Class 4a ¹ (\$/cwt.)	Class 4b (\$/cwt.)	Pool ² (\$/cwt.)
CDI	Butter	-\$0.11	-	-\$0.05
CDI	NFDM	-\$0.25	-	-\$0.09
LOL and WUD	Cheese	-	+\$0.02	+\$0.01

¹ The price impact to Classes 2 and 3 will be the same as any price impact to Class 4a.

² The price impact to the pool includes changes to Classes 2 and 3 as a result of proposed 4a changes.

Discussion

Much of the testimony at the hearing suggested that the California dairy industry faces many uncertainties going into the future. There were a range of opinions expressed about whether or not the dairy landscape has changed since 2007, and to what degree. A number of witnesses including CDI, DI, Hilmar, and Kraft testified that plant capacity may be an issue if growth in the milk supply continues to exceed growth in plant capacity. Both DI and Hilmar noted that supply could surpass capacity as early as next spring. Others, including LOL and DFA, concluded that market conditions differ significantly from 2007 and 2008 as net plant capacity has increased and excess plant capacity is available.

The Panel is cognizant that there is a high degree of uncertainty in the dairy market. Milk production is increasing and production in the first half of 2011 exceeds the record levels set in 2008. However, both CDI and LOL noted in their testimony that within their memberships, some producers are in expansion mode while others are still struggling to regain equity lost in 2009 and 2010. Prices have strengthened since 2009, but variables such as international trade and domestic demand, weather, and other factors make prices difficult to forecast. At the same time, feed costs are high and future costs are unknown. Plant capacity could be an issue in the future as no new significant investments are scheduled and as production increases at a rate similar to 2008.

Leprino recently expanded its cheese production in California, and Gallo testified that it was able to increase its whey processing capacity and is currently growing its cheese operation. However, there are fewer cheese processors in existence as struggling plants have gone out of business and one large processing cooperative has significantly reduced its cheese production. In the June 2006 and October 2007 Class 4a and 4b hearings, the Panel was concerned with a trend of out-of-state, new cheese processing construction because other states appeared to offer better risk/reward opportunities for manufactured dairy products. Hilmar's testimony in the current hearing mentioned that the company decided to invest in a facility outside of California in 2007 partly because of constraints in regulated pricing, indicating that processors continue to acknowledge this trend.

The formulas for calculating the price of milk for manufactured dairy products in California were last updated in December 2007. Since then, the Department has released three additional manufacturing cost studies announcing the weighted average costs for processing butter, NFDM, and Cheddar cheese. During this time, the manufacturing costs for butter and NFDM have increased while the manufacturing cost for cheese has remained fairly steady

and even decreased slightly in 2009. Table 5 summarizes the weighted average costs from the manufacturing cost studies for the years 2006 to 2009. The 2006 data was available for the October 2007 Class 4a and 4b hearing.

**Table 5 – Weighted Average Costs for Butter, NFDM, and Cheese
2006-2009**

	Butter (\$/lb)	NFDM (\$/lb)	Cheese (\$/lb)
2006	0.1373	0.1664	0.1988
2007	0.1316	0.1568	0.2003
2008	0.1553	0.1931	0.2099
2009	0.1811	0.1984	0.1966

The Department has the responsibility and mandate to establish minimum prices that will encourage California’s milk production to be marketed. When establishing the MCA for each commodity, the Panel must consider all relevant economic factors influencing the state. The MCA must be set at a level that facilitates a milk price that balances supply and demand and allows the market to “clear.” A market that clears is in the economic interest of all industry stakeholders because it leads to orderly marketing of milk in the state. In addition, it is important to note that the price set by the Department is a minimum price. While plants can and do have the ability to pay producers above the regulated price, they cannot pay producers below the regulated price.

When reviewing the actual costs of individual plants in the state, the MCA should lead to an operating margin that is not so small that it does not cover the most efficient plants, but is not so large that it provides excessive profits to the most efficient plants. Many producer and processor organizations acknowledged this position in their testimony by suggesting that the Panel review the manufacturing cost studies and take into account excessive expenses and extraordinary circumstances that may have been present in the most recent studies.

The Panel must also consider the operating margin that each MCA provides for processing butter, NFDM, and cheese, as well as the operating margins provided by the various proposals. This involves analyzing the data not only at the aggregate level, but at the individual plant level to take into account efficiencies, differences and nuances among plants, and trends in the manufacturing cost. The respective operating margins should be in a reasonable relationship to each other so that there is an economic incentive to produce all three commodities and diversify processing in the state.

Other important economic variables that the Panel must consider include: preserving a reasonable relationship among all California prices, comparing farm costs to prices received, ensuring an adequate and continuous supply of milk at reasonable prices to consumers, and maintaining a reasonable relationship with national product values. Additionally, the Panel is aware that growing international demand for dairy products continues to play an influential role in California’s dairy industry and in the global economy.

Taking into consideration all relevant economic factors, the uncertainty present in the market, and the interests of producers, processors, retailers, consumers, and other stakeholders, the Panel recommends that the MCA for butter and for NFDM be increased. These two changes, along with a change to the f.o.b. price adjuster for butter, would impact the Class 4a as well as the Class 2 and 3 prices. The butter MCA should also be updated in the Class 4b Product

Value formula to be consistent with past policy. The Panel recommends no change to the MCA for cheese as the manufacturing cost for cheese has remained relatively flat in the past few years and other economic conditions do not indicate that a change is warranted.

Panel Recommendations

The Panel recommends that the MCA for butter be increased to \$0.1635 and the MCA for NFDM be increased to \$0.1763. The Panel recommends that no change be made to the MCA for Cheddar cheese.

WHEY FACTOR IN THE CLASS 4b PRICING FORMULA

Issue

Since the Department first developed a Class 4b pricing formula in the late 1980s, the appropriateness of the inclusion of a whey factor has been an issue. This has been especially true after the addition of a whey factor to the formula as a result of the January 2003 hearing. Producers view the cheese, the whey cream, and the wet-skimmed whey as legitimate sources of producer revenue under minimum pricing. Historically, processors view the wet-skimmed whey as a cost center rather than a source of revenue. Given the competing interests of producers and processors, it is difficult to establish a fair and reasonable value for whey in the Class 4b pricing formula.

The issue starts with the nature of cheese production. In the cheese making process, it is impossible to capture all the vat milk solids in the final cheese product. The residual milk solids are contained in the whey stream, which is the byproduct of making cheese. Other than whey cream, recovering these milk solids from the whey stream requires large capital investments and economies of scale.

Historically, cheese processors treated wet-skimmed whey as a waste disposal issue rather than taking the economic risk of attempting to recover the solids components. Very few cheese processors were willing to make the sizeable capital investment to recover what was then the relatively small value in the wet-skimmed whey. With increasing environmental regulations, the cost of disposing of the wet-skimmed whey grew considerably. Still, only larger cheese operations have been able to achieve the economies of scale necessary to make it economically feasible to recover the solids in the wet-skimmed whey. Department data show that in 2010, only 12 (of the larger processors) out of the 58 cheese processors in the state processed whey in any form.

Historically, producers have considered the whey stream to contain value that should be incorporated into the Class 4b pricing formula. In the Panel report from the October 2007 hearing, the Panel agreed that whey did have value and needed to provide some level of value in the formula. However, at that time, the Panel had concerns regarding the variable whey factor that was then found in the Class 4b pricing formula. Specifically, there were concerns with dry whey being the correct commodity to value the whey stream, the whey yield factor, and the ability of the Department to update the whey manufacturing cost allowance after 2007 when a whey manufacturing cost study was no longer going to be available. As a result, a fixed \$0.25/cwt. whey factor was implemented in the Class 4b pricing formula.

Review of Proposals

There were three proposals to change the value of whey incorporated in the Class 4b pricing formula. The specific construct of these proposals can be found at the beginning of this Panel report in the *“Summary of the Proposals”* section. LOL and DI proposed to replace the current fixed whey factor with sliding scales that would add a corresponding whey value, on a hundredweight basis, to the formula as the monthly average dry whey commodity price changes. Each proposal imposes both a floor and a cap on the whey value to be incorporated into the formula. Both proposals impose a \$0.25/cwt. floor, but the LOL proposal caps the whey value at \$1.00/cwt. and the DI proposal caps the whey value at \$0.75/cwt. LOL

proposed to use the DMN Dry Whey-West Mostly price series, while DI proposed to use the NASS dry whey price series.

WUD proposed to replace the current fixed whey factor with a variable factor similar to both the whey factor found in the federal order Class III formula and the previous whey factor that was found in the Class 4b formula from 2003 to 2007. The WUD proposal follows the construct of the typical end-product pricing factor that consists of a commodity price, a manufacturing cost allowance and a yield factor, but then also multiplies the resultant value by 80 percent.

Impact of Proposals

In order to estimate the impact to the Class 4b pricing formula and to pool prices of the proposed changes to only the whey factor, the Department analyzed all three proposals assuming that all other factors in the current pricing formula remain unchanged and that the proposals were in effect from May 2006 through April 2011. The five-year, monthly average change to the Class 4b price of the LOL, WUD and DI whey factor proposals are an increase of \$0.49/cwt., \$0.59/cwt., and \$0.12/cwt., respectively. The five-year, monthly average change to the pool price of the LOL, WUD and DI whey factor proposals are \$0.22/cwt., \$0.28/cwt., and \$0.06/cwt., respectively

Discussion

Price Alignment

Producer and processor representatives routinely debate the differences between California's Class 4a and 4b prices compared to federal order Class IV (milk used for butter/nonfat dry milk) and Class III (milk used for cheese) prices. In general, producer representatives advocate eliminating or narrowing the gap between the California and federal order prices for reasons of producer equity and processor representatives advocate maintaining or expanding the gap between the California and federal order prices for competitive reasons. The hearing record shows there was much debate regarding the Class 4b and Class III price alignment and how this alignment should be considered, especially with regards to the valuation of the whey component.

One concept associated with price alignment routinely debated during hearings is the interpretation of Section 62062 from the Code. This section states that California prices shall be in reasonable and sound economic relationship with the national value of manufactured milk products. This section also states that any relevant economic factors, including, but not limited to the ones cited by the section should be considered as well. Section 62062 references other Code sections that state the Director (Secretary): shall consider any relevant factors, such as product prices and yields, manufacturing costs, and market value of various products yielded from market milk (62076); promote, foster and encourage intelligent production and orderly marketing of market milk (61802(e)); determine minimum prices to be paid to producers for market milk which are necessary due to varying factors of cost of production, health regulations, transportation, and other factors of the state (61805); and is conferred powers by the Legislature that shall be liberally construed (61806). Ultimately, the Panel continues to believe that the Secretary has been given liberal powers and the mandate to consider any and all economic factors available in order to set minimum prices in California. Therefore, when examining the price alignment of California to federal orders, the Panel considered the factors cited previously in this Panel report in the *"Introduction and Proposed Changes to the Pricing Formulas"* section and analysis that follows in this section.

The Panel believes that there are a number of key differences between California and federal orders that must be considered when evaluating price alignment. The first is the ability of manufacturing processors (cheese and butter/nonfat dry milk plants) to de-pool in the federal system. Whenever the processing plants voluntarily elect to de-pool in the federal system, the plants are not required to pay the minimum Class III or IV prices established by the federal milk marketing order. Although there have been recent changes in the last few years that seek to limit de-pooling in federal orders, the fact de-pooling does exist provides a “safety value” (even temporarily) in situations where milk supplies need to be processed at lower prices. Additionally, there are situations where certain handler-to-handler transactions may occur (usually under temporary circumstances, such as over holiday weekends) when milk is sold below minimum class prices, as evidenced in the hearing record. Both of these situations allow for milk supplies to be processed when market conditions cause distressed milk that cannot find a home when valued at minimum prices.

California statutes provide no similar flexibility; all Grade “A” milk purchased by processors, whether the manufacturing plant operates within the pool or separately from the pool (de-pooled), must purchase the milk at state established minimum class prices. Because of this, California Class 4a and 4b prices have to be set at levels that will clear the market of all milk that has not been processed in the higher usage milk classes (1, 2 and 3). As a result of this difference, a strict comparison of the California Class 4b price to the federal order Class III, without considering other factors, is inappropriate if processors operating in federal orders are not strictly required to pay the federal order prices at all times. However, a comparison of these two prices can serve as a starting point to review how the two price series track over time and how their movements correspond to each other.

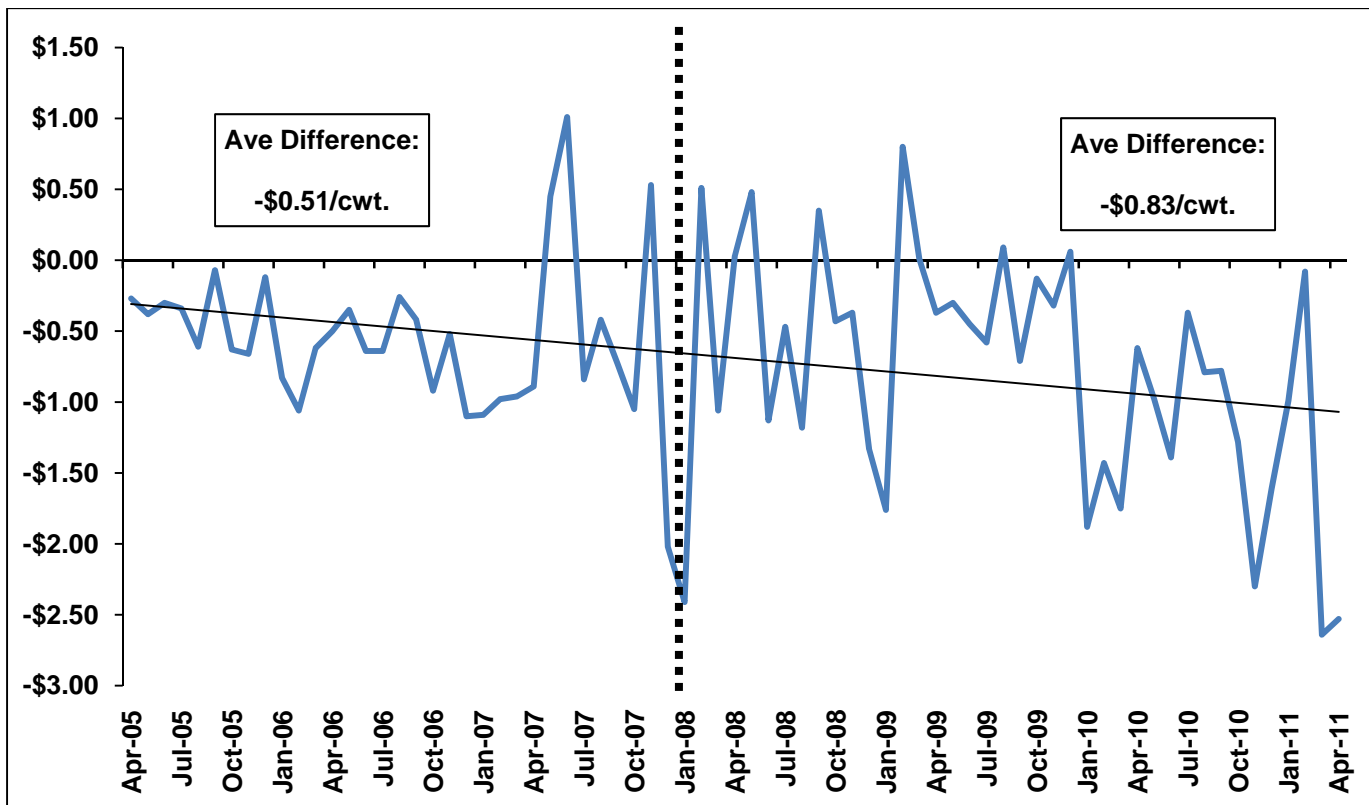
At the hearing, representatives of a cheese processor and a producer cooperative briefly mentioned the concept of establishing a pool credit that could serve as a way to relieve the financial burden that whey values impose on cheese processors that do not process whey or those that only process animal grade whey products. The pool credit would serve as an offset on a certain amount of milk used for Class 4b purposes and would favor smaller cheese processors that have not invested in or may not be able to invest in whey processing equipment. This concept was proposed during the October 2007 hearing and the Panel had concerns with implementing this type of proposal within the scope of the hearing process. Code Sections 62720 and 61931-61935 highlight the legislative intentions of equal raw product costs and defined classified prices that appear to conflict with a pool credit concept. The Department questions whether it has the statutory authority to handle this issue through the hearing process.

LOL, DI, and WUD proposed changes to the whey factor that increase whey values and thus increase Class 4b prices and alignment with federal order Class III. However, the LOL and DI proposals incorporate floors and caps that would keep the whey value in the Class 4b formula from reaching the same highs and lows as the whey value in the Class III formula. The WUD proposal includes an 80 percent factor that would reduce the proposed whey value in the Class 4b formula so that it would never reach the same level of highs or lows as the Class III formula either. Therefore, all these proposals suggest that an increase in whey values should be made to increase the Class 4b price in order to improve its alignment with the Class III price.

In order to review price alignment, historical Class 4b and Class III prices from April 2005 through April 2011 were examined. A proper examination of price alignment requires the comparison of two time periods of relatively similar length that are both long enough to

allow for fluctuations in the market. The two time periods under review here are; (1) April 2005 to November 2007 and (2) December 2007 to April 2011. The first time period commences with the effective date of a hearing that considered changes to the Class 4a and 4b pricing formulas. The latter time period commences when the variable whey factor was replaced by the \$0.25/cwt. fixed factor in the Class 4b formula. The following graph shows the difference between the Class 4b and Class III prices for the two periods. The average difference during the first period was $-\$0.51/\text{cwt.}$ and the average difference in the second period was $-\$0.83/\text{cwt.}$, which indicates that the difference between the Class 4b and Class III prices has grown by $\$0.32/\text{cwt.}$

**Figure 3 - CA Class 4b less FMMO Class III (\$/cwt)
(April 2005 – April 2011)**



The hearing record shows much discussion surrounding the differences in how California and federal orders establish the value of whey in their current formulas and how these differing methods contribute to the price alignment issue. Much of the discussion focused on how the fixed whey factor in the Class 4b formula compared to the Class III whey factor since the implementation of the fixed whey factor in December 2007. However, it is important to examine all the variables that contribute to differences in the Class 4b and Class III prices. In addition to whey value calculations, California uses CME block Cheddar cheese prices compared to federal order use of NASS block/barrel Cheddar cheese prices. Both class pricing formulas consist of different manufacturing cost allowances, yield factors, formula construct, time periods, etc. An examination of the contribution of these various factors to the differences in the class prices in both periods shows that the whey value comprises approximately one half of the difference in both of the time periods. Therefore, about $\$0.16/\text{cwt.}$ out of the $\$0.32/\text{cwt.}$ change in the price alignment between the two time periods is attributable to the whey factor value.

Market-Driven Factor vs. Fixed Factor

LOL, WUD, and DI all proposed changes to the whey factor so that the value attributed from the whey factor each month would be linked to the dry whey commodity price. The hearing record shows that these organizations favored a whey factor that would respond to the changes in the dry whey market so that the value of the whey factor would be market-driven. The majority of the other producer and processor organizations that provided testimony in favor of whey value changes seemed to favor a market-driven whey factor as well.

The fixed whey factor in the current Class 4b formula provides a steady, consistent value over time. However, it does not vary with changes in the markets for finished whey products. Both producer and processor representatives provided testimony advising that a whey factor that moves with the market would allow for a better link between the price of Class 4b milk and their business operations. Both producer and processor representatives asserted that the upward and downward movements in the whey value portion of the Class 4b formula would be more desirable than a fixed whey factor, even if both the market-driven and fixed whey factors yielded the same value over time. Therefore, it seems that a market-driven factor would be better suited for inclusion in the Class 4b formula compared to the current fixed factor.

Sliding Scale vs. Variable Factor

The three proposals to change the value of whey incorporated in the Class 4b pricing formula fall under two categories, a sliding scale and a variable factor. LOL and DI proposed to replace the current fixed whey factor with sliding scales that would add a corresponding whey value, on a hundredweight basis, to the formula as the monthly average dry whey commodity price changes. WUD proposed to replace the current fixed whey factor with a variable one that uses an end-product pricing construct.

First, we will discuss the variable whey factor based on end-product pricing. The intent of end-product pricing is to relate each component of the factor to actual manufacturing processes that occur in the processing plants in question. For example, the commodity used in the formula should be a product made in the state's plants and the manufacturing cost allowance and yield factor should be related to the actual costs and yields observed in the plants. However, this type of whey factor based on the end-product pricing construct is not a reasonable method of determining the value of whey in California. In the Panel report from the October 2007 hearing, the Panel explained why this type of whey factor was not sustainable. Specifically, the Department no longer performs manufacturing cost studies for dry whey because less than three plants make dry whey in the state, so developing an accurate manufacturing cost allowance based on actual plant costs is not possible. The yield of the previous factor was not representative of actual yields of whey products manufactured in California plants. Additionally, most California cheese plants do not process whey in any form, and those that do, make other types of whey products instead of dry whey. In essence, because of these reasons and other factors observable in 2007, the previous variable whey factor in the Class 4b formula was replaced by the fixed whey factor.

The WUD proposed variable whey factor follows the same construct of the previous whey factor that was replaced by the fixed whey factor. The issues with this factor highlighted above still concern the Panel today. The WUD proposed whey factor would use the same dry whey commodity price and a similar yield factor that were shown to be unsustainable

previously. In addition, the manufacturing cost allowance proposed by WUD is based on a dated cost study that, as testimony in the hearing record cites, was dominated by large cheese plants in concentrated cheese producing areas of the country that are much different than cheese producing conditions in California. Essentially, no component of an end-product pricing factor for dry whey would correlate well with actual California conditions. Therefore, the Panel has serious concerns with such a factor and would not recommend its re-implementation into the Class 4b formula.

A sliding scale, similar to the LOL or DI proposals, appears to have merit and could be a viable option to value whey. First, the sliding scale would allow the whey value incorporated in the Class 4b formula to be market-driven, so that the whey value would rise and fall as the price of whey rises and falls in its market. Second, such a sliding scale could be devised and updated, if need be, to better correspond with California conditions compared to an end-product pricing factor. Third, the rate at which the whey value increases in the sliding scale appears to be more gradual and less volatile compared to the end-product pricing factor. This type of whey valuation method appears to be desirable based on the needs of industry stakeholders. Testimony showed that producers desire higher whey values when the whey market rises, but cheese processors, especially those that do not process whey in any form and those that only process animal grade whey products, are financially burdened when the whey market price increases dramatically or reaches certain thresholds. Finally, the majority of both producer and processor witnesses favored using a sliding scale as a method to value whey.

Despite its positive merits, the Panel does have some concerns with the use of a sliding scale. First, the scale uses the price of dry whey as the basis of valuation. As mentioned previously, dry whey is not universally produced by the California cheese processors that do process their whey. If the price of dry whey does not move at the same time or in the same direction as the prices of the whey products that are made by California cheese processors, then the link between the whey values that would be incorporated in the Class 4b formula may not correspond well with the actual experience of California processors. Second, according to USDA and USDEC data, approximately one half of U.S. dry whey is exported to other countries. Since such a large percentage of the U.S. dry whey production is exported, the price of dry whey is strongly influenced by international market conditions, such as international milk supplies, income fluctuations and changes in demand in foreign countries, exchange rate fluctuations, etc. As a result, there are concerns that these international market influences may not correlate well with the manufacturing and marketing conditions of California cheese processors. Third, because the dry whey price is influenced heavily by international markets, it is very difficult to predict where dry whey prices are going to go in the future and whether or not the past prices of dry whey are a reasonable reflection of what the current or future market prices will be. Finally, California cheese processors that do not process whey or those that only process animal grade whey products would be financially stressed as whey values incorporated into the Class 4b price increase.

Both the LOL and DI whey proposals include the use of floors and caps to place limits on the value of whey. Both organizations proposed a \$0.25/cwt. floor on whey that would keep the value of whey from ever dropping below the current fixed factor in the formula. The floor would allow producers to always receive some whey value even if the dry whey commodity price were to drop to low levels. Both proposals also include a cap, albeit at different levels, to keep whey values incorporated in the Class 4b price from reaching too high of levels in an effort to limit the financial burden placed on cheese processors, especially those that do not process whey in any form and those that only process animal grade whey products. In both cases, producers and processors seemed to agree that a balance needs to be struck with

regards to whey valuation. Producers would receive higher whey values when the whey market rises and would have a guaranteed whey value due to the floor. Cheese processors would pay a more controlled, steady amount when the whey market rises and would have a limit on the maximum whey value due to the cap.

The DMN vs. NASS Dry Whey Price Series

LOL and WUD proposed using the DMN Dry Whey-West Mostly price series and DI proposed using the NASS dry whey price series. In each case a monthly average would be calculated, using the 26th of the prior month to the 25th of the current month, and used as the basis for establishing the whey value in the Class 4b formula.

When comparing the monthly average values for these two dry whey price series as proposed, the DMN is \$0.011/lb. higher over the time period April 2005 to April 2011. In general the prices series do track very well together, with some deviations occurring during time periods when dry whey prices are rising or falling rapidly. One cause of the deviation is the one week lag in the reporting of the prices, as NASS releases their weekly dairy commodity prices one week after the week in question.

Each price series has its strengths and weaknesses. The NASS price series is based on a survey of prices received by dry whey manufacturers throughout the nation, is audited, and is weighted by volume, whereas, the DMN price series is based on a telephone survey of participants located in the Western region of the U.S. and is not audited or weighted by volume. While the strength of the NASS series appears to be centered on it being audited and weighted by volume, the strength of the DMN series appears to be centered on the series reflecting the prices of the Western region of the U.S. of which California is a member, so the DMN price may be more representative of a California price. The NASS price series is released with a one-week lag, while DMN is a more current price because it is released at the end of the week in question.

A review of all the hearing records of Class 4b pricing formula hearings from April 2003 to the present show that there has not been much debate regarding the appropriate price series to be included in the Class 4b pricing formula. When the whey factor was first implemented in April 2003, both producer and processors proposed the DMN price series, which was adopted. At that time the characteristics of each series would have been known to the industry. At each hearing since April 2003, the hearing record is quite silent with regard to this issue. The testimony at this hearing shows that producer representatives favored the DMN series, while processors favored the NASS series.

The Panel believes that the DMN series has functioned well when it was a part of the pricing formula from April 2003 to November 2007 and would continue to function well if incorporated into the pricing formula again. Similarly, the NASS series would also function well if it were incorporated into the pricing formula. However, the Panel has a few administrative concerns regarding the NASS series. First, the NASS series is subject to revisions. If the NASS series were to be revised significantly after the Class 4b price were to be announced, the question of how the Department would consider this revision would be important. Second, in June 2011, USDA released a proposed rule in its Federal Register proposing to shift the responsibility of dairy price reporting from NASS to the Agricultural Marketing Service (AMS). Currently, NASS receives price report data from manufacturers and AMS performs the auditing function, however, the proposed rule will shift the responsibility of both to AMS. If AMS does in fact take over the responsibility to collect pricing data and audit it, then there is

the possibility that administrative changes regarding reporting protocol, timeliness, auditing procedures, revisions, etc. could also change. Because such changes could take place in a relatively short time frame after this hearing reaches completion, the Panel believes that the use of the NASS price series should not be adopted at present. However, since the Panel recommends that industry stakeholders should meet in the near future to discuss the issue of the cheese f.o.b. adjuster, they could also discuss how to handle revisions to and potential changes to the NASS dry whey price series as proposed by USDA in its Federal Register. Such an industry meeting would allow these issues to be addressed and understood fully by stakeholders in the industry, prior to its implementation.

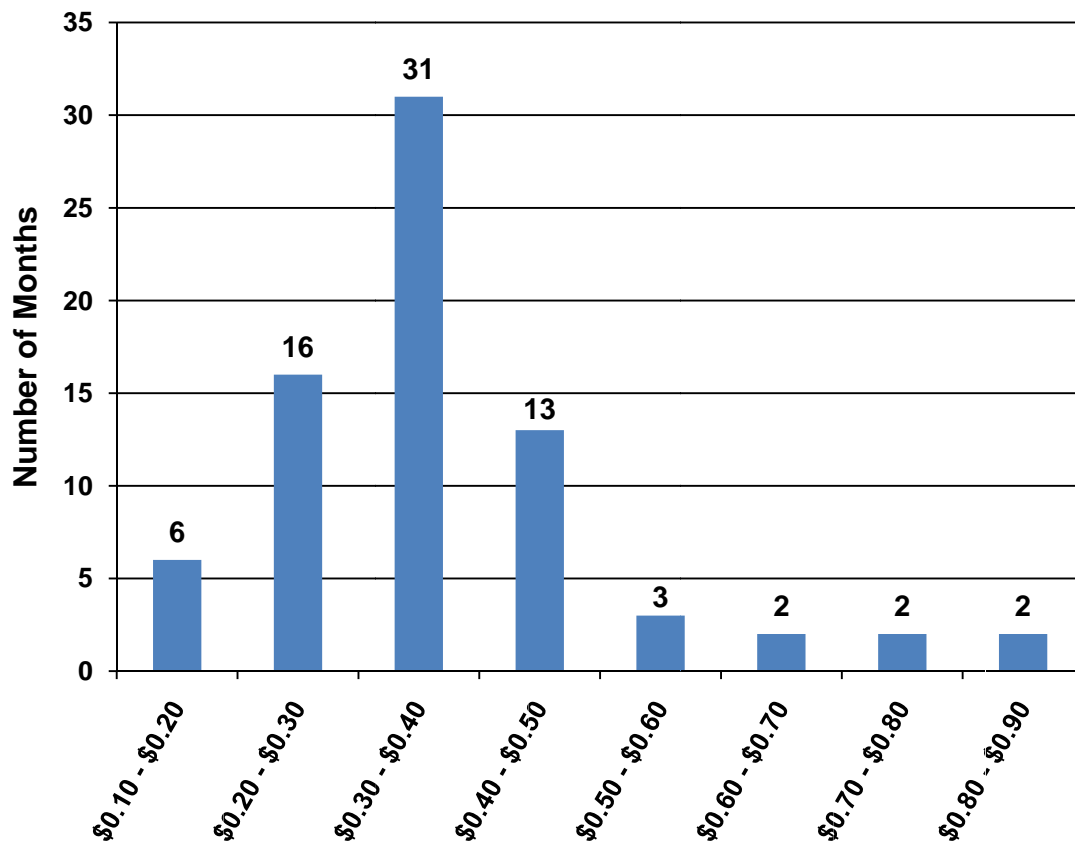
Replacing the Fixed Whey Factor with a Sliding Scale

After carefully weighing all relevant economic factors, analysis, information and testimony in the hearing record and after reviewing the recommended changes to the Class 4a pricing formula and the other components of the Class 4b formula found in this Panel report, the Panel believes that the \$0.25/cwt. fixed whey factor should be replaced with a new whey factor based on a sliding scale similar in concept to the LOL and DI proposals. Replacing the fixed factor with a sliding scale would allow whey values in the Class 4b pricing formula to be market-driven and would improve how the Class 4b pricing formula tracks with the Class III formula. This change would improve not only how whey values compare in the Class 4b and Class III formulas, but would also improve the portion of the price alignment issue that relates to how well the Class 4b and Class III prices compare on a month-to-month basis. It should also somewhat help both producers and processors to manage their operations with regards to hedging and estimating future prices.

The Panel agrees that a \$0.25/cwt. floor, which is based on the current fixed factor, should be implemented in the new whey factor as proposed by both LOL and DI. Although the Panel considered other options, including no floor, a \$0.25/cwt. floor seemed to balance the competing interests of producers and processors well. However, the Panel believes that the construct of the different dry whey commodity 'steps' in the sliding scale and the corresponding whey factor values to be input into the Class 4b formula need to be different from both the LOL and DI proposals. It is very difficult to foresee what the dry whey commodity price will be in the future, so a review of past dry whey prices is warranted in order to serve as a basis for creating the different 'steps' for the new sliding scale. Once the 'steps' are created, then the appropriate corresponding whey factor values can be created as well, so that the desired long-term effect of the new sliding scale on Class 4b prices could be crafted.

The following figure shows the distribution of the monthly average DMN dry whey prices from April 2005 to June 2011. The horizontal axis creates ranges of \$0.10/lb. in order to show how many of the 75 months in the time period fall into different price ranges. Analysis shows that for six consecutive months from October 2008 to March 2009, the average monthly dry whey prices were in the \$0.10/lb. - \$0.20/lb. price range and these values correspond to a period of time when commodity and milk prices were at extreme lows due to adverse global market conditions. Additionally, for six consecutive months from March 2007 to August 2007 the average monthly dry whey prices were in ranges starting at \$0.60/lb. and ending at \$0.90/lb., and these values correspond to a period of time when commodity and milk prices were at extreme highs due to favorable global marketing conditions. Although it is surely not impossible for similar conditions to occur again that could cause such low or high dry whey commodity prices, it is more likely for dry whey commodity prices to fluctuate within the ranges of \$0.20/lb. - \$0.60/lb. based on past experience highlighted in the figure below.

**Figure 4 - Distribution of Monthly DMN Dry Whey Price (\$/lb.),
By Specified Ranges, April 2005 - June 2011**



The ‘steps’ of the new sliding scale have been created so that extremely low and high prices should be floored and capped, respectively. The corresponding whey values of each step and the cap of the new sliding scale have been created to strike a reasonable balance between producers and processors, taking into consideration all the important factors previously mentioned. If the current pricing formula had been in place from May 2006 to April 2011, the monthly Class 4b price would have averaged \$0.146/cwt. higher over the course of the 60-month period if only the fixed whey factor were replaced by the new sliding scale whey factor listed below.

Panel Recommendations

The Panel recommends the current fixed whey factor be removed and replaced with a sliding scale with five cent ‘steps’ that floors whey values at \$0.25/cwt. and caps whey values at \$0.65/cwt. (shown in the following table), using the DMN dry whey commodity price series. The Panel recommends a stakeholder meeting should be held to review the use of the NASS dry whey commodity price series compared to the DMN dry whey commodity price series.

Table 6 – Whey Factor Sliding Scale

DMN Monthly Average Dry Whey Price (\$/lb)	Whey Factor in 4b Formula (\$/cwt.)
< 0.25	0.25
≥ 0.25 and < 0.30	0.30
≥ 0.30 and < 0.35	0.35
≥ 0.35 and < 0.40	0.40
≥ 0.40 and < 0.45	0.45
≥ 0.45 and < 0.50	0.50
≥ 0.50 and < 0.55	0.55
≥ 0.55 and < 0.60	0.60
≥ 0.60	0.65

This Hearing Panel Report has been prepared and submitted by:

Original Signed by

Candace Gates, Branch Chief

Original Signed by

Hyrum Eastman, Agricultural Economist

Original Signed by

Venetta Reed, Supervising Auditor

Summary of the Panel Recommendations

Panel Recommendations

- Implement the Department's administrative changes to the Class 4a and 4b formulas by including language to implement the collection of security charges provided by the Milk Producer Security Trust Fund as found in Code Section 62561.
- Increase the f.o.b. California Price Adjuster for butter from \$0.0309 per pound to \$0.0485 per pound.
- No change to the f.o.b. California Price Adjuster for cheese.
- Increase the manufacturing cost allowance for butter from \$0.1560 to \$0.1635.
- Increase the manufacturing cost allowance for NFDM from \$0.1698 to \$0.1763.
- No change to the manufacturing cost allowance for cheese.
- Replace the \$0.25/cwt. fixed whey factor with a sliding scale with five cent 'steps' that floors whey values at \$0.25/cwt. and caps whey values at \$0.65/cwt., using the DMN dry whey commodity price series
- Holding industry stakeholder meetings to review:
 - The methodology and parameters used in the calculation of the f.o.b. California Price Adjusters, especially for cheese
 - The use of the NASS dry whey commodity price series compared to the DMN dry whey commodity price series

Price Effects of Panel Recommendations

Had the Panel recommendations been in effect from May 2006 to April 2011, the five-year average annual impact would have been:

- \$0.162/cwt. decrease for Class 2/3/4a prices;
- \$0.149/cwt. increase for Class 4b prices; and
- \$0.000/cwt. for Quota and Overbase prices.

Note: The supply/demand conditions that existed during the 2006-2011 period may or may not be the same conditions that will occur in the future.

SUMMARY OF TESTIMONY AND POST HEARING BRIEFS

CALIFORNIA DAIRIES INC., Dr. Eric Erba

Testimony

- California could be near a point where milk production outpaces plant capacity.
- Since spring 2011, California milk is moving out of California for processing.
- Change the butter and nonfat dry milk cost allowances to the weighted average cost in the manufacturing cost studies released November 2010.
- Make allowance should be set so that the largest and most efficient plants are covered.
- Department has a history of using the results of the 24-months of pricing data collected for setting f.o.b. adjuster.
- Choosing manufacturing cost allowances using percent of volume covered is problematic partly because of the small number of plants involved in the cost studies.
- Support CDFA administrative changes.
- Support the review and updating of the cheese and butter f.o.b. adjuster based on the most current information available.
- Support LOL proposed changes to the Class 4b pricing formula – including whey sliding scale factor proposal.
- Fixed whey factor was supposed to be temporary, a placeholder. Industry spent considerable time on coming up with a solution – but was unable to.
- Introduction of a dry whey credit for small cheese processors was introduced in 2007 but not adopted.
- CDI maintains that no specific authorization is required to implement and administer a dry whey credit for smaller cheese plants.
- At peak of milk moving out of state, it amounted to about one million pounds per day.
- Close to the tipping point of not having enough plant capacity.
- CDI may have a little bit of capacity room right now, but milk comes in peaks and valleys, and we are one breakdown away from a possible major crisis – we are that tight.
- Do not believe that the CDI year-end payouts to members have anything to do as to whether or not to call a hearing to adjust the formulas. The history shows that the Department is petitioned for hearings when the costs aren't reflected in the make allowances.
- Start up costs and lower volumes happen with new plants but they wash out over time.
- CDI newer plants were very expensive to build and the depreciation costs, interest cost, and higher cost of building it will be a part of the overall costs.
- For the cost studies, we have plants that are above the weighted average and below the weighted average.
- You will see some dairy producers trending toward expansion and some just trying to hold on.
- Production based program adds a surcharge to producers if CDI is having to divert milk out of state. We haven't had to implement the surcharge since 2009.

Post Hearing Brief

- Hearing participants should have used the pre-hearing workshop arena for discussing any issues or concerns with Department data, reports, or analyses.

- There is no line item in the cost studies for start-up costs – they cannot be disentangled from all other costs.
- The first and second phases of the Visalia plant basically had no “start-up” costs included in the 2009 cost studies.
- Plant processing capacities fluctuate on a continual basis.
- Current make allowances for butter and powder and the butter f.o.b. adjuster do not reflect current dairy manufacturing sector conditions.
- A processor outside of California stated they had received 81 loads of milk and 12 loads of condensed milk from California in June.
- Reject any unsubstantiated concerns about the cost studies.

LAND O’LAKES, INC., Thomas Wegner

Testimony

- Fixed \$0.25 dry whey factor is in contrast to the federal order Class III formula that contains a variable, market-based, whey factor.
- LOL proposal would result in more equitable sharing of whey’s market value.
- LOL proposes to change the formula to approximate the value of whey based on the market value.
- Retain the \$0.25 cents per pound fixed whey value as a floor and increasing the whey value by five cent increments based on the Western Dry Whey Mostly.
- The \$1.00 cap limits the financial exposure to cheese plants.
- California Class 4b is out of alignment with federal order Class III.
- Previous hearing testimony asserted that cheese plants outside of California are able to buy milk below the federal order Class III price.
- LOL experience has been that in almost every case, prices charged for milk sold to unregulated cheese plants exceeds the federal order Class III minimum price.
- Federal order plants can depool milk, but the volume a handler chooses to depool directly limits the volume that they can depool in the following month.
- Proposed to change the cheese make allowance to mirror the manufacturing cost studies released in 2010.
- Adjust the f.o.b. adjuster to mirror the Department’s California/CME cheese sales data released in 2010.
- Large difference between federal order Class III and Class 4b prices prevents California dairy farmers from making effective use of Class III futures as a hedging tool.
- California dairy farmers are receiving far less from whey value than federal order dairy producers.
- All cheese plants, large and small, have benefitted from the fixed \$0.25 cent whey factor.
- The \$0.25 cent fixed whey factor has provided a huge incentive for small cheese makers to develop a whey business.
- LOL wants to know how small cheese processors manage to compete for milk supplies if they have no outlet for their whey.
- LOL reports that they have found an outlet for the whey from the Orland plant. Have established a relationship with a cheese manufacturer in California for their whey processing.
- LOL feels that California cheese plants have an advantage over cheese plants in the federal order because of the fixed whey factor.
- California has adequate plant capacity at this time, however this picture could change over a holiday or weekend or if a plant goes down for maintenance.

- California has experienced a net INCREASE in processing capacity of about 209 loads of milk per day since Fall 2007. LOL states that as of April 2011, the state has about 80-90 loads of milk per day excess capacity.
- LOL urges the Department to base manufacturing cost data on plants operating at full utilization and capacity - need to revisit the 2009 cost studies.
- LOL Tulare 2009 costs were hampered by start-up costs, reduced milk volumes through the plant and underutilization of plant capacities.
- Reminds the Department that the 2010 cost studies will be out in the next few months.
- Supports the CDI proposed f.o.b. adjuster for butter change.
- Support CDFA administrative changes.
- Maintains to continue to use the Dairy Market News Western Dry Whey Mostly Price Series.
- We do support the CDI f.o.b. adjuster proposal – we are raising concerns about the net efficient costs.
- LOL still has a base plan in place.
- We chose Dairy Market News price series because we thought the Department would prefer to have a California price and that would be more accurately representing the California price than NASS.
- We kept the \$0.25 floor because we thought it best retain it in case the whey drops again.
- Felt that it was important to limit ceiling at \$1.00.
- I feel LOL costs were higher with start-up costs – we were getting used to the efficiency of moving product through in a new system.
- Feel the cost studies represent plant costs when a plant is running at full capacity – especially the butter and powder studies.
- We asked for a reduction in cheese make allowance because the cost studies weren't affected by start-ups, weren't affected by throughput, and did represent where the costs are for the industry.
- The Class 4b formula changes we proposed will affect our Orland plant, but from the member-owner perspective the inequity between the Class III and Class 4b is very important.
- Due to price alignment issue, California cheese processors may have an advantage – but we have a very small footprint in cheese now and the lower Class 4b price over Class III has not been a big advantage.
- We focused on the whey factor because we believe that the bulk of the difference in the alignment is from whey.
- When milk is long or during the holidays – in the federal orders, we have had times when we had to sell less than the Class price in order to find a place for the milk.
- I feel that the sliding scale offers a clearer picture of where price is headed, tied to the market a little more.
- I feel the whey value should rise and fall with the market.
- Concerned about New Zealand milk coming back into the market and China deciding not to buy as much whole milk powder and skim milk powder. They all impact the butter/powder side.
- I don't see milk production expansion at this point.

WESTERN UNITED DAIRYMEN, Michael Marsh

Testimony

- Class 4b and federal Class III formulas are not in alignment.

- Differences in whey values in the formulas is the biggest reason for differences in Class 4b and Class III prices.
- Proposed to continue to use the Dairy Market News Dry Whey Mostly price series – want to avoid lag issues.
- Proposes that utilizing a dry whey factor that closely mirrors federal order Class III formula would eliminate price discrepancy between that and Class 4b.
- It will take a prolonged period of improved margins for dairy producers to recover losses and eroded equity from 2009.
- Rising feed costs continue to erode tight margins for dairy producers.
- Hedging has become necessary part of dairy operations management – allowing producers to secure prices months in advance.
- Hedging relies on the relationship between futures prices and cash prices. The futures contract most commonly used is tied to Class III.
- The whey factor should fluctuate as the whey product market prices fluctuate and producers need to be able to share in the portion of revenues generated from byproducts of their raw milk.
- DI proposed sliding scale falls short of providing enough revenue from whey.
- We recognize that California cheese processors need to stay competitive with the rest of the nation – the depooling advantage of the federal order plants is always an issue.
- WUD knows that plants need to have incentives to invest and operate and that 80% of the federal order whey value would be appropriate.
- Oppose DI whey sliding scale proposal as it is insufficient in bringing the Class 4b and Class III in alignment.
- Support LOL proposal to reduce cheese make allowance and f.o.b. adjuster and increase of the whey value.
- Do NOT support any increase in manufacturing cost allowances.
- Support adjustment of f.o.b. adjusters for butter and cheese.
- We looked at 80, 90, and 100 percent on the whey formula and chose 80 because we know they have competition for milk and good to have more plants competing for milk.
- We chose Dairy Market News because the Department has previously looked at Dairy Market News more favorably. It is more timely than NASS.
- We do not have a floor or ceiling in our whey formula proposed, but we also support LOL and they do have a floor and ceiling. We wanted a balance between making California producers competitive but also not putting processors at a disadvantage. The 80 percent was a way to limit the upward value.
- I prefer the two proposed sliding scales over the fixed factor.
- Do not have concerns that the factor we proposed is based on federal order conditions other than California specific conditions.

Post Hearing Brief

- California dairymen have lost much of their competitive position relative to the rest of the nation.
- Fixed whey factor makes hedging Class III futures a less effective risk management tool.
- Whey factor must fluctuate with market conditions.
- Dairy Farms included in the Condensed Statement of Dairy Farm Income and Costs are a total of 46 dairies: 11 in Southern California, 12 in Kern County, and 23 in the San Joaquin Valley.

DAIRY INSTITUTE OF CALIFORNIA, William Schiek

Testimony

- Producers will not be helped if Department sets prices so high that consumer demand is negatively impacted and investment in new plant capacity, technology, and market development is stifled.
- In contrast to federal orders, California regulated prices for manufactured products must clear the market.
- Milk in federal orders moves frequently at under-order prices when milk is long and needs to be cleared. California limitations on depooling and handler-to-handler transactions make it impossible to step out of the regulated pricing system.
- State's regulated prices must be market-clearing prices.
- Regulated pricing system must encourage plant investment that will increase the demand for California milk.
- The economic value for milk in California should be determined by California costs, yields and prices, as well as balance of milk supply and demand in the state – not values for milk in other states or regions.
- Regulated pricing formulas that shrink plant margins send a signal to processors to produce fewer dairy products.
- Current conditions are about right: milk production is increasing modestly and there seems to be adequate capacity to process the milk supply.
- If milk production grows at a 2 percent year-over-year rate, the state's production will exceed available capacity next spring.
- Expanding global demand for dairy products has led to higher dairy commodity prices and higher milk prices.
- DFA, LOL, and CDI have expanded their capacity to make dry milk powders.
- State's producer cooperatives have been divesting of their large cheese plants (DFA Corona, Petaluma, LOL Mozzarella in 2007 and Tulare plant not making Cheddar cheese in 2010).
- Seems like co-ops have found profitability of butter-powder plants greater than cheese plants.
- Plant capacity of smaller cheese plants may be needed in the future.
- The cheese make allowance and f.o.b. adjustor should not be changed.
- For f.o.b. adjuster, using monthly data is inappropriate and when added to the lag in the data, the average of 24-month price differences is unreliable.
- The butter price comparison does not show the same volatility as the cheese price comparison.
- Cheese manufacturing costs were higher than the make allowance during each year from 2004-2008 by an average of 1.59 cents per pound. The current difference is only 0.22 cents per pound.
- We expect costs to begin rising again in 2010 and new cost data will be available in October 2011.
- Majority of cheese plants in the State do not earn revenues from their whey operations to the reported prices for the various whey products. For whey protein concentrate and isolates, plant yields are lower and costs are higher.
- About 46 of the 58 cheese plants in California do not recover any revenue from whey.
- The current \$0.25 cent whey factor has provided more money than the older formula while not being a large burden to cheese plants when prices were high.
- The dry whey manufacturing cost employed in the federal order Class III price is not relevant in California.
- NASS survey price is audited and is a broader representation of dry whey prices – more appropriate than Dairy Market News price.

- DI cap of \$0.75 cents per hundredweight allows for additional revenue to pass through producers when whey prices rise, but attempt to limit damage such changes will do to cheese plants without whey processing.
- Important to retain the \$0.25 cent floor.
- LOL proposal puts too high a burden on small cheese plants and discourages investment.
- WUD proposal should be rejected – it has no cap and is based on federal order assumptions.
- DI encourages the Department to look at 2008 and 2009 butter and nonfat dry milk powder numbers to determine if any unreasonable expenses or extraordinary circumstances led to some of the increased manufacturing costs. These costs should be eliminated when establishing the make allowance.
- Supports cost justified make allowances – but has concerns of costs associated with difficult powder plant start-up in 2008 which could have inflated numbers and reduced volumes/lowered utilization in 2009.
- We have a growing milk supply and without additions to plant capacity we may run out of capacity. If we change the regulated pricing picture now options for plants to expand may go away.
- Concerned about manipulation of Dairy Market News price series.
- There were some of our board members who were concerned with changing the whey factor at all and to a sliding scale. There a lot of cheese plants that the DI proposal will be tough to handle. Board was trying to strike a balance of the needs of producers and processors.
- In drafting the DI proposal, we looked at 50¢, 75¢ and \$1.00 for the ceiling.
- I like the fixed factor and the sliding scale, but the sliding scale may have a little more flexibility if market dynamics change.

Post Hearing Brief

- DI plant capacity graph included in the hearing testimony was based on NASS daily milk production and plant capacity estimates were based on Dairy Market News stated effective capacity in 2006 of 110 million pounds per day.
- DI estimates that the net change in daily effective capacity since 2006 is +10.5 million pounds.
- Small to medium sized cheese plants that produce bulk or commodity type products operate on fairly thin margins.
- Attached excerpts from Fluid Milk and Cream Section of Dairy Market News as examples of transactions submitted in testimony concerning depooling and surplus milk.
- California market factors should determine state's regulated minimum prices, not regulated prices in federal orders.
- Code section requires formulas be in reasonable and sound economic relationship with national value of manufactured milk products.
- Domestic markets east of the Mississippi serve as destination of California's marginal cheese production.
- Current cheese transportation costs to the Midwest are around \$0.10/pound and are higher further east.
- Wisconsin and California cheese makers do not operate in the same conditions or dairy industry environment.

- Many of the 25 new cheese plants in Wisconsin reported in testimony at the hearing are farmstead operations, or goat or sheep operations – not a comparison to new cheese plants opening.
- Appendices were attached that outlined the ranking of states in order of advantageous place for business to operate.
- Narrowing/widening of difference between average monthly CME and California cheese prices is due to the lag structure impacting how CME price changes are reflected in California prices.
- The lag causes California cheese price changes occur later than they do for the CME.

**GALLO CATTLE COMPANY LP and WESTERN MARKETING & SALES, LLC,
Joe E. Paris**

Testimony

- Supports DI proposal.
- LOL and WUD proposals would dramatically increase cost of Class 4b milk and make cheese plants uncompetitive with cheese plants that process whey and eliminate investment capital.
- Numerous cheese plants that have no ability to process whey and must pay to dispose of it.
- Oppose LOL and WUD proposals and take no position on the CDI proposal.
- Support CDFA administrative changes.
- Note that one of the proponents of large increases in the Class 4b price through the whey stream income has divested themselves of a large amount of their cheese making capacity.
- We have increased the amount of whey processing since 2007 – the \$0.25 factor has been beneficial to us over the years.
- We have been approached about buying whey and we have gone out looking for whey to purchase.
- Purchased concentrated whey has to travel about 30-40 miles to get to us and sometimes from out of state.
- We are currently expanding our cheese operation by 20-25 percent and will need more protein plant capacity as well.
- The market has come up for whey protein isolate since 2006.

RUMIANO CHEESE, Blair Rumiano

Testimony

- Rumiano recently put in a WPC-80 drying facility at a cost of \$6 million. We make about 10 million pounds of cheese a year. This expenditure is very high compared to what we are going to get in return.
- You only get eight hundredth of one percent on the yield of WPC-80 (a thousand pounds of whey gets eight pounds of WPC).
- Without the \$0.25 fixed factor Rumiano would not have been able to do the expansion into WPC.
- Costs about \$250-300,000 per year to get rid of 98.9 percent liquid remaining by feeding back to cows and spreading on ground.
- Rumiano pays premium bonuses for clean milk and low somatic cell counts.
- Rumiano makes about 10 million pounds of cheese a year. I can't compete if the regulated price goes up \$1.00.

MILK PRODUCERS COUNCIL, Rob Vandenheuvel

Testimony

- Class 4b and federal order Class III price formulas are not in alignment and show no consistent relationship.
- Adjustment to the Class 4b price formula is needed to give dairy producers a more reasonable, reliable basis between Class 4b and Class III prices for the use of risk management tools.
- Supports the WUD proposal for the changes to the Class 4b formula.
- Supports the LOL proposal for the Class 4b formula as a “second” option if the WUD proposal is not adopted.
- Opposes the DI proposal.
- The smaller cheese plants are generating additional value for the cheese they are producing and selling.
- When looking at manufacturing cost studies for 2009 for setting the make allowances, the Department must also consider the cost of producing milk during that same time period. Setting the price is a balance of the two.
- Dairy industry needs the ability to take advantage of value-added products in generating much-needed additional revenue.
- Despite claiming the make allowances are too low, CDI was able to distribute more than \$0.39/cwt. in operation profits in 2010.
- Oppose the increases to the NFDM and butter make allowances.
- The 2010 manufacturing cost studies will be out in a few months – could discuss the make allowances at a later date.
- Oppose the proposed changes to the Class 4b make allowance.
- Supports the proposals to adjust the f.o.b. adjusters for butter and cheese.
- Supports both CDI and LOL proposals for the f.o.b. adjusters – opposing any adjustments to the make allowance.
- Submitting a chart that shows new specialty cheese making operations in Wisconsin since 2001. These were able to invest in the cheese industry paying the Class III price.
- There are milk markets outside of California that we do on occasion need to export milk to because there is a desire, they’re paying for that milk. It’s not always distressed milk.
- Being a low price leader in this high-cost environment is simply unsustainable.

Post Hearing Brief

- CDI noted that the production base program was still in effect, however, the letter attached to the post-hearing brief notes that CDI notified membership that they are allocating additional permanent production bases for members.

NESTLE USA and DRYER’S GRAND ICE CREAM HOLDINGS, Steve Kluesner

Testimony

- Supports the CDI proposal on the make allowances and f.o.b. adjuster.
- No position on the LOL proposal or alternative proposals as we do not manufacture cheese.
- Encourage the Department to consider the possible implications to ongoing plant capacity concerns and not set prices too high.
- Believe in low regulated prices with ample room for premiums to encourage logical allocation of milk and promote product innovation.

FARMDALE CREAMERY, INC., Scott Hofferber

Testimony

- Opposes CDI proposal to increase the Class 4a make allowance.
- Oppose the LOL proposal and WUD proposal to decrease the Class 4b make allowance and add a variable whey factor to the pricing structure.
- We are breaking ranks with Dairy Institute and opposing their proposed variable whey factor.
- Support “no-change” in the f.o.b. adjusters – agreeing with Dairy Institute.
- Farmdale was hurt by the variable whey factor of 2003 and 2007 and does not want to return to this type of formula.
- Since 2007, Class 4b utilization has declined 2.3 percent and the industry lost 3 cheese makers.
- Competition from out-of-state processors is intensifying.
- Changing to a variable whey factor would raise our raw product cost and that is not acceptable at this time.
- We propose that the Department exempt the first one million pounds of milk used for Class 4b processing per processing day from any whey factor, variable or fixed. This would affect all small cheese makers, including Farmdale and 47 other plants.
- The increase in the Class 4b make allowance is not justified – the processor community has not asked for higher make allowances due to the recent high producer costs.
- Once the 2010 cost studies are available, we will look to filing a petition to get the make allowances adjusted.
- The Class 4a cost studies are suspect because of the handling of facility start-up costs in 2008 and 2009.
- Farmdale has been giving away the liquid concentrate for animal feed but are able to get a minimal revenue from it when feed-corn prices are high.
- Farmdale’s best efforts is to make roller-dried popcorn whey for animal feed as the revenue from it defrays much of the costs of disposing of the whey stream but it is not profitable.
- Farmdale’s cheese is not of the specialty variety and is sold at prices closely tied to the commodity market used to set the milk price.
- When LOL was in the cheese making business, they argued against the variable whey factor.
- My proposal of eliminating the first one million pounds would cut out 47 cheese makers or 16.1 percent of the Class 4b milk – of any kind of whey factor. If you eliminated every one of the first million pounds, then 37.5 percent of the Class 4b milk would be excluded.

Post Hearing Brief

- The 40-month average market price for the dry whey supports the current \$0.25 rate.
- Sliding scale that would directly react to changes in the price levels over a fixed construct might be good alternative – but should not increase the value of the whey stream beyond what was transferred under the \$0.25 fixed factor.
- DI proposal raises our cost of raw product beyond our ability to recover that cost in the market place.
- Allow each manufacturer and supplier organization to negotiate premiums to producers as the market allows – not through changing the pricing formulas.
- Increasing the Class 4b formula will risk loss of cheese making capacity in California.

CALIFORNIA DAIRY CAMPAIGN, Kevin Abernathy

Testimony

- Support the LOL proposal to incorporate a higher value for whey in the Class 4b pricing formula and to decrease the make allowance for cheese.
- Oppose the CDI proposal to increase the Class 4a manufacturing cost allowance and the f.o.b. adjuster.
- Dairy processors should capture greater value from the market rather than raise make allowances and f.o.b. adjusters.
- Plants are able to cover their production costs while producers do not have that ability.
- Gap between farm price and retail price is at an all time high.
- Congress is looking at deregulating the Class III cheese price which could lower prices in federal orders and in turn could lower California prices.
- Support the LOL proposal to increase the amount producers are paid for the value of whey. Would make the formula more market oriented.
- Class 4b and Class III are not in alignment.
- The 2009 cost studies reflect higher costs than the actual costs to manufacture butter and powder. It was done when plants were not at capacity and costs are inflated.
- The question is raised how CDI can ask for raise in make allowance when they gave its producer members a substantial dividend last year.
- Urges the Department to remember that dairy producers are still trying to struggle to make up the losses of 2009.

COMMODITY & INGREDIENT HEDGING, Justin Freiberg

Testimony

- Dairymen need more effective tools to manage forward profit margins.
- Must be a correlation between Class 4b and Class III.
- Correlation between Class III and Class 4b was close to 96 percent between April 2005 to December 2007 – prior to the implementation of the fixed whey factor.

SAPUTO CHEESE USA INC., Greg Dryer

Testimony

- Oppose the LOL and WUD proposals.
- Support NO CHANGES in the Class 4b formula.
- For the last 42 months, 25 months found whey below \$0.25 and 17 months were above the \$0.25 fixed factor.
- The producers bear no risk of operating losses due to low markets or capital losses due to technical obsolescence. Whey processing requires massive capital investment and markets are rapidly evolving.
- Argues that many costs of cheese and whey production are joint costs and their allocation between the two processes is arbitrary, a change in that allocation results simply in reducing one cost while raising the other.
- USDA make allowance for whey is lower than California, but the cheese make allowance is higher than California.
- If the Department concludes that a change in the whey factor is justified, then Saputo supports the DI proposal.

- The free market will eventually correct imbalances – maybe just not in the timeline we would like.
- Milk production in California has resumed its steady rise, most recently, May rose five million pounds per day.
- How can processors who have left the cheese making business propose to lower the Class 4a prices and raise the Class 4b prices.
- The questions raised in 2007 on the valuation of the whey stream remain today.
- NASS price series seems to be more reliable since it is audited.
- Whey values have increased but also have costs such as transporting the product.

Post Hearing Brief

- In a study by American Dairy Products Institute on lactose, found a large volume not reported or represented by Dairy Market News (DMN), a wide variance from actual average prices, and substantial percentage of prices falling outside the mostly range.
- DMN has numerous flaws: voluntary participation; responses are susceptible to bias; no distinction between spot prices and long term market prices; prices are not weighted by volume; DMN personnel make subjective decisions regarding whether data is reliable or is an outlier; mostly range is undefined.
- NASS survey is mandatory and audited, better choice over DMN.
- With record milk prices now, raising prices paid to producers could lead back to production caps, insufficient capacity, no investment incentive.

CHALLENGE DAIRY PRODUCTS, INC., Ervin Holmes

Testimony

- Support the changes to the Class 4a formula.
- Our business volume has grown significantly in recent years to drive and accommodate the processing growth of CDI.
- This growth is dependent on being able to meet changing needs such as packaging requirements which differ in different parts of the country and global marketplace.
- The global market requires unique and dedicated capacity, testing, and quality control to meet international specifications.

HILMAR CHEESE, David Ahlem

Testimony

- Oppose the LOL and WUD proposals.
- Support DI proposal but concerned with any move towards more intrusive regulated pricing.
- This spring, processors were stretched to process the available milk. Hilmar shipped milk out of state during the spring flush due to limited available processing capacity.
- We predict that with no expansions in capacity, the supply will exceed capacity next spring if supply grows at the current rate.
- California prices must be low enough to allow surplus milk to clear the market.
- Hilmar pays on component yield formulas that result in value above the minimum price – yield, protein, milk quality.
- Increasing the whey factor will impact business decisions on investment.
- Outside of California, most cheese and whey processors operate or have the option to operate outside the federal price controls.

- Recommend that the Class 4b make allowance remain unchanged.
- Current manufacturing cost data is out of date – energy and raw material costs have risen since 2009.
- Hold any changes to the Class 4b make allowance until after new cost data is complete.
- End product pricing is being questioned and could change in the near future – Foundation for the Future proposing a competitive pay price.
- Do not have a production base program but do have contract caps on what we accept. We not accept milk over that cap.
- The Texas plant is not pooled.

Post Hearing Brief

- Reiterated that they do not support any move toward more intrusive regulated pricing.
- No fundamental shift in the pricing relationship between California and CME cheese price.
- Increase in whey factor is not necessarily the solution to the basis risk issue.
- Milk outside California is regularly purchased at values below class, sometimes for extended periods of time.
- Regulated minimum price must allow milk to clear the market.
- Hilmar's market based payments grow as the whey value grows.
- Proposed increase in the Class 4b price is a mistake in the wrong direction for both processors and producers.

Joseph D. Airoso – Dairy Producer

Testimony

- Producers are dealing with regulations and water, air, and animal wellness and other issues.
- Producers need to get paid at least what the producers in the Midwest are getting paid.
- Support LOL and WUD on the whey part of proposal.
- Our dairy lost a million dollars in 2009.
- I don't believe the dairy industry is going to have huge growth.

BESTWHEY, LLC, Barry Murphy

Testimony

- Opposes the LOL and WUD proposals.
- Supports the DI proposal, but believes the current Class 4b whey factor should remain unchanged.
- The impact of the Class 4b whey component pricing remains the same as 2007.
- More than 80 percent of California cheese manufacturers fall below the one million pounds per day of raw whey required to breakeven or get a modest return on investment.
- Whey disposal costs range from \$4.00-16.00/cwt. for smaller cheese plants.
- No plant would consider drying the bi-product, whey permeate or lactose (which represents 85 percent of whey solids) with less than 4-6 million pounds per day of whey, large investment and high risk.

- The current \$0.25 fixed whey factor is fair return to producers and is a reasonable price for small cheese processors who do not realize a return from whey, while providing a reasonable return on whey plant investment for large volume cheese makers.
- If LOL proposal was adopted, large scale new cheese project investments would no longer be financially attractive.
- I have managed over 5 complete projects in establishing processing plants.

FARM CREDIT WEST, Jonathan Kennedy

Testimony

- Producers are still trying to recuperate from the losses of 2008 and 2009.
- High feed costs are counteracting the higher prices paid to producers.
- Average dairy operation returned to profitability in 2010, but the financial duress continues.

DAIRY FARMERS OF AMERICA, INC., Glenn Wallace

Testimony

- Support the WUD, however, if that is not adopted, then we support the LOL proposal.
- Support Department administrative changes to formulas.
- Believe current \$0.25 fixed whey value undervalues the economic benefits derived from whey marketing and should be more reflective of value of whey.
- Feed costs have risen and represent 61 percent of total cost to produce milk.
- Concurs with LOL on current average available excess plant capacity of 80-90 loads per day.
- Section 62062 requires alignment – Class 4b is below a reasonable level.
- Support the reduction of the Class 4b make allowance and the change in the f.o.b. adjuster for cheese.
- Support the WUD proposal to use federal order make allowance. Using only 80% of the allowance allows for market variations.
- WUD proposed Class 4b formula tracks well with federal order Class III – better alignment.
- If WUD proposal is not adopted, then support the LOL proposal.
- Oppose the DI proposal – still creates too large a gap between Class 4b and Class III.
- Changes to the Class 4b formula will increase our cost in milk but we have a good market for our whey product and it is a profitable return.
- We have not moved any milk out of California as a result of any down time or capacity issues.
- If feed costs recede, factors affecting milk production could change.
- Our cheese plant is running at full capacity. Our butter and powder plant has run at capacity for the last 90 days – but the first part of the year was running at minimal levels.

Post Hearing Brief

- Current value of whey does not value whey competitively with the federal orders.
- Encourage CDFA to adopt a system that moves up and down as whey prices change.
- Support WUD proposal first, LOL second. Would support LOL bracket system over DI proposal.

- Would ask the Department to collect cost data for other value-added whey products produced in California to arrive at a composite conversion cost make allowance.

DAIRYAMERICA, INC., Rich Lewis

Testimony

- Support CDI proposed change to the Class 4a solids not fat make allowance.
- Providing for export market is important to dairy industry viability.
- Additional demands of international markets put added cost on plants that provide valuable function of balancing supply and demand of milk production.
- International markets often require different tests, specifications for packaging.

Xavier Avila – Dairy Producer

Testimony

- There are many people and businesses affected when the dairies are struggling to pay their bills and hang on to their dairy.
- Support the LOL proposal.
- Midwest small cheese companies are paying more for their milk and they don't have whey processing capabilities and they are doing fine.
- Dairy profitability is up, but the economic hole from 2009 is not filled up yet.
- Many dairies had to mortgage their herd to get through 2009.

KRAFT FOODS, Michael McCully

Testimony

- Opposes the LOL proposal and WUD proposal.
- Supports DI proposal – but have some policy concerns regarding it.
- California dairy industry must foster and build additional plant capacity.
- California regulated price system must foster development of new processing capacity.
- Department hearing panels have been recommending for years to remove the whey factor from the formulas.
- There is not one standard whey product to use in the formula.
- Whey Review Committee could not reach a consensus on a whey value.
- Even though Kraft has policy concerns, believes DI proposal strikes a balance between dairy producers and competitiveness of cheese makers in the state.
- California must embrace a more market-oriented policy, less restrictive regulatory environment.
- Kraft produces dry whey in California and in New Jersey.
- I do not generally like the Dairy Market News price surveys. A phone survey is not a robust indication of what the market is.
- There are more commercial transactions taking place off of the NASS reports.

MARQUEZ BROTHERS INTERNATIONAL, INC., Jose T. Maldonado

Testimony

- Supports maintaining the \$0.25 fixed dry whey factor.
- Opposes the LOL and WUD proposals.

- Oppose any changes to the Class 4b make allowance.
- Decision to invest in whey processing was because of the expense of disposing of the whey and its environmental concerns.
- Adopting LOL proposal will drive small cheese processors out of business.
- Whey disposal has been costing \$1.5 million per year for Marquez and there is no allowance in the formula to counteract that expense.
- Marquez does not dry the permeate fraction and don't have funds to invest \$35 million in permeate drying equipment.
- The milk cost should be based on cheese – not whey.
- Keeping the whey component price at the \$0.25 will provide margins for cheese makers to invest.
- California processor costs of energy, labor, resin, petroleum based packaging materials, and workers compensation make it costly to operate in California.
- The losses incurred the first four years the whey processing was in place, we have not recovered.

LEPRINO FOODS COMPANY, Sue M. Taylor

Testimony

- Supports the DI proposed changes to Class 4b formula.
- Oppose Class 4b changes proposed by LOL and WUD.
- Last 5 years data shows that the cheese make allowance has fallen short by \$1.59 per pound of cheese.
- Most recent 2009 cost studies show an average total cost increase of \$1.05 across the higher cost half of the study group.
- Oppose changing the cheese f.o.b. adjuster.
- The market price trend was down during the July 2008-June 2010 period used in the butter and cheese sales survey.
- Whey processing is not a viable option for smaller cheese operations.
- Only the recent strong whey market prices have pushed the whey values above the \$0.25 fixed whey factor.
- Support adopting the NASS whey price series for purpose of determining the whey value in the Class 4b formula.
- NASS whey price is more robust in volume and methodology.
- Finished product markets and the cost structure change on an ongoing basis.
- If you offered me a fixed factor of \$0.25 I would endorse that, but in the context of balancing the interests that are at play in this hearing, I am endorsing the DI sliding scale.
- If a fixed factor is set too high, then when the whey price lowers, it would place cheese manufacturers in an untenable financial position.
- I think there is a lot of risk setting the fixed factor above \$0.25.
- I don't think the market conditions that impact the policy decision-making have changed substantially during the last few years.

Post Hearing Brief

- Cornell cost study on make allowance was dominated by large plants in highly concentrated cheese manufacturing areas that consolidated whey from several cheese plants.
- Cost of condensing the whey at the originating plant and transportation costs were not included in Cornell cost studies.

- A fixed whey factor over \$0.25/cwt. overvalues whey for those high volume commodity manufacturers who operate on a slim margin.
- If Department decides to transfer further whey revenue to producers through the regulated milk price, the sliding scale as proposed by DI is preferred.
- Increasing the fixed factor is not supported by market history and places significant processing capacity at risk.
- Cost to transport cheese from California on refrigerated trucks: 9.1¢ per pound to Illinois; 14.6¢ per pound to New Jersey; 15.2¢ per pound to Florida.

PACIFIC GOLD MILK PRODUCERS, Leonard Vandenberg
Testimony

- Oppose the Class 4a increase in the make allowance.
- Support adjusting the whey factor but not necessarily as it is proposed.
- The real balance is between those that are processing it and demand and the supply that's out there and the cost of getting it done.
- Nonfat dry milk volumes are highest in the last week of the month. Wondering if we are funding a make allowance because of mismanagement.
- I will be silent on the f.o.b. adjuster for butter.
- Oppose the cheese make allowance change.

Post Hearing Brief

- Oppose Class 4a make allowance increase – non-CDI members do not benefit from an increase.
- Questions why powder price on CME, NASS and Western Mostly is higher than the CWAP.
- CDI premiums to their members should arrive from income other than make allowance – needs to be investigated.
- Supports LOL proposal to decrease Class 4b make allowance.
- Supports WUD whey proposal.

Written Testimony Received and Entered Into the Hearing Record

ARTHUR SHUMAN, INC., Ralph Hoffman
Testimony

- Oppose LOL and WUD Class 4b proposals.
- Consumers will not likely be willing to pay the higher costs for cheese that may result if the LOL and WUD whey proposals are adopted and the processor has to pass on the increased costs to the consumer.
- California will lose any competitive edge over other Western states.
- A \$0.07-\$0.10 increase in the cost of milk will result in direct losses of \$350,000 to \$450,000 per year on small cheese operations.

FOOD & WATER WATCH, Elanor Starmer
Testimony

- Oppose CDI proposal to increase the Class 4a make allowance.
- Gap between farm and retail prices is at an all time high.

CALIFORNIA GRAIN & FEED ASSOCIATION, Chris Zanobini

Testimony

- Supports LOL and WUD proposals to the Class 4b pricing formula.
- Fixed whey factor puts dairy producers at a disadvantage.
- Need to update the cheese make allowance and f.o.b. adjuster.
- Both LOL and WUD proposals offer better alignment.

SECURITY MILK PRODUCERS ASSOCIATION, Ed Haringa

Testimony

- Support LOL whey factor changes.
- Small cheese makers are making specialty cheeses that are not priced off the CME block cheese price.
- Current \$0.25 fixed whey factor is too different from the federal order formula.
- Current Class 4b formula not in relationship with national value.