



October 27, 2011

Following the Class 4a and 4b hearing held on June 30 and July 1, 2011, the Department reviewed the f.o.b. adjusters for Grade AA butter and Cheddar cheese. In the Panel Report, the Department focused on two topics: price volatility in the Cheddar cheese market, and differences in the Cheddar cheese and butter markets. As a result of this analysis, the Department recommended that stakeholder meetings be held to review the price data and methods used in the f.o.b. adjuster calculations.

During the October 5, 2011 Dairy Advisory Committee (DAC) meeting, one agenda item discussed was the creation of a working group, comprised of industry stakeholders and the Department, to examine the issue of how well the Chicago Mercantile Exchange (CME) Cheddar cheese prices and an f.o.b. adjuster estimate California Cheddar cheese prices. There was wide support for an examination of this issue in the form of a working group.

In order to set the stage for the first meeting of this working group, various industry stakeholders requested information regarding the scope of the issue to be considered, initial analysis of the issue, and other data related to important topics associated with the issue. This document contains the information requested at the DAC meeting.

What is the scope of the issue to be considered?

The current California Class 4b pricing formula combines CME Cheddar cheese prices and an f.o.b. adjuster in order to estimate California Cheddar cheese prices. Although the combination of CME Cheddar cheese prices and an f.o.b. adjuster as an estimator will not always approximate exactly the value of actual California cheese prices, the adequacy of this estimator can be examined by reviewing the magnitude and frequency of deviations from the actual observed values. There is evidence that suggests that this combination may not be an adequate estimator of actual Cheddar cheese prices of California plants.

The efforts of the working group should be focused on examining two issues. First, does the combination of CME Cheddar cheese prices and an f.o.b. adjuster adequately approximate actual California cheese prices? Second, if not, are there any modifications that could be made or substitutes available that could do a more adequate job? Potential modifications could include (but are not limited to) changing the methodology of how the cheese prices or f.o.b. adjusters are calculated, the time periods covered by each, the manner in which they are incorporated into the pricing formula, etc. Potential substitutes could be a different cheese price series, a different adjuster, a single factor that substitutes for the cheese price series and the adjuster, etc. Any other options the working group can develop to examine this issue should be considered.

Initial Analysis of the f.o.b. Adjusters

The charts and tables on the following pages highlight the relationship between CME prices, actual California sales, and associated f.o.b. adjusters for Cheddar cheese and Grade AA butter. The time period under consideration is January 2005 to August 2011 (80 months), which includes the most current California sales data for cheese and butter.

Figures 1 and 2 focus on the cheese market. **Figure 1** graphs the relationship between the California weighted average cheese price and the CME cheese price, on a monthly basis. Each bar represents one month of data (in chronological order). The length of each bar illustrates the spread between the California sales price and the CME price. A positive number indicates that the California sales price is higher than the CME price for that month, while a negative number indicates that the California sales price is lower. The spread between the two prices each month ranges from +\$0.1338 (in December 2008) to -\$0.2443 (in February 2011).

Figure 2 graphs the relationship between the California weighted average cheese price and the CME cheese price after subtracting the historic f.o.b. adjuster. The Class 4b formula uses the CME cheese price less an f.o.b. adjuster as a way to establish a California price. Therefore, the role of the f.o.b. adjuster is to make the CME price align more closely with actual California sales. Comparing **Figures 1 and 2**, it is difficult to see a significant improvement in the relationship between California sales and CME prices for cheese.

Figures 3 and 4 focus on the butter market. **Figure 3** graphs the relationship between the California weighted average butter price and the CME price, on a monthly basis. The spread between the two butter prices each month ranges from +\$0.0145 (in August 2007) to -\$0.1894 (in January 2011). **Figure 4** graphs the relationship between the California sales price for butter and the CME butter price after subtracting the historic f.o.b. adjuster used in the Class 4a formula. Comparing **Figures 3 and 4**, it is possible to see the improvement in the relationship between California sales and CME prices for butter. In addition, unlike the cheese market which appears inconsistent and volatile, the butter market follows a much more predictable trend.

Cheese Prices, January 2005 to August 2011

Figure 1: California Sales Price less CME Price of Cheddar Cheese

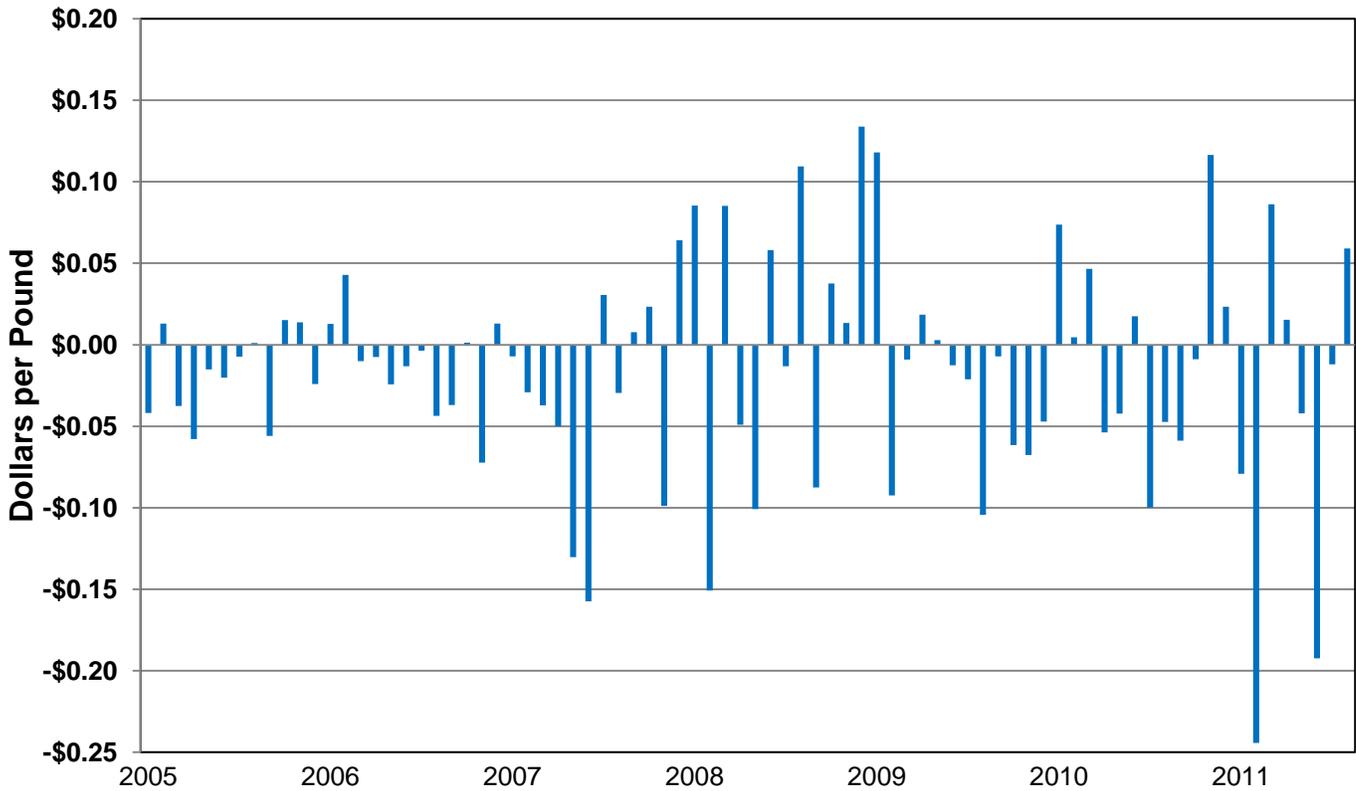
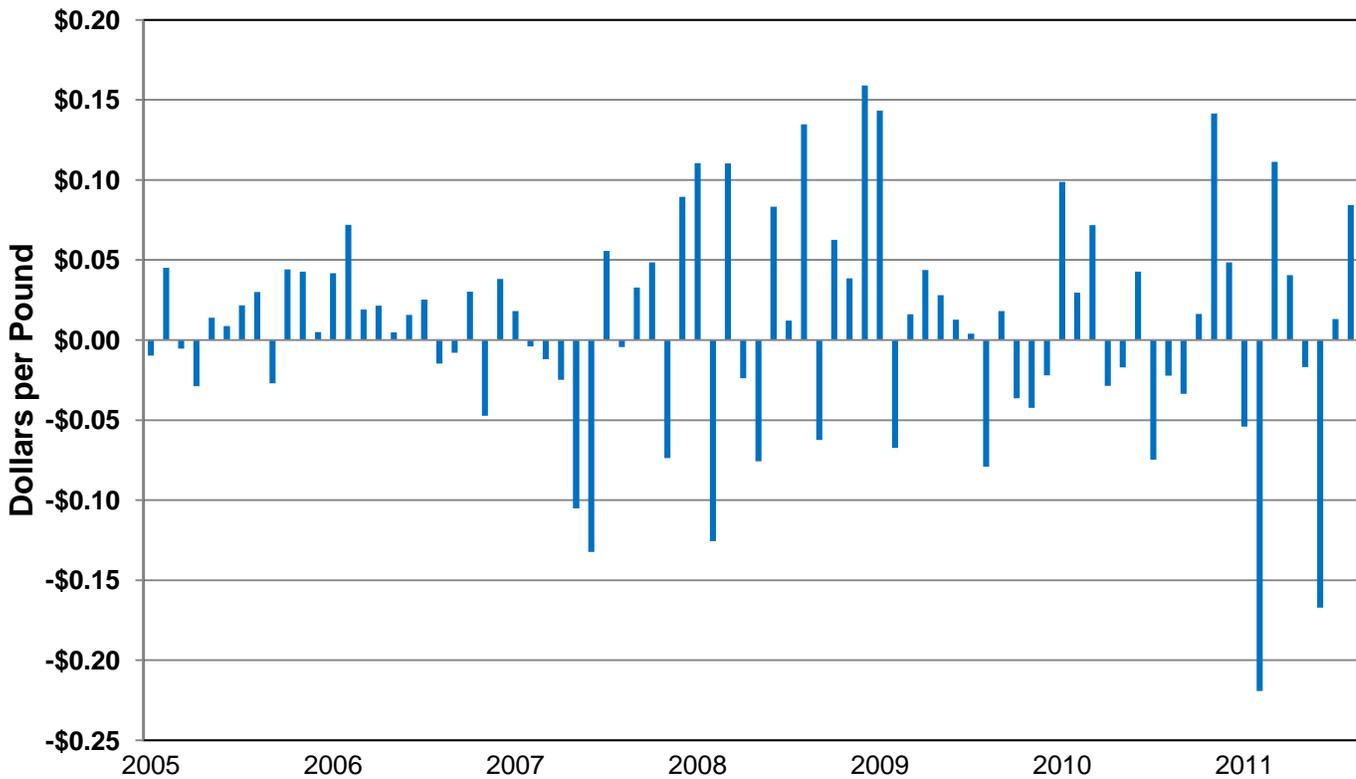


Figure 2: California Sales Price less CME Price of Cheddar Cheese (with historic f.o.b. Adjuster)



Butter Prices, January 2005 to August 2011

Figure 3: California Sales Price less CME Price of Grade AA Butter

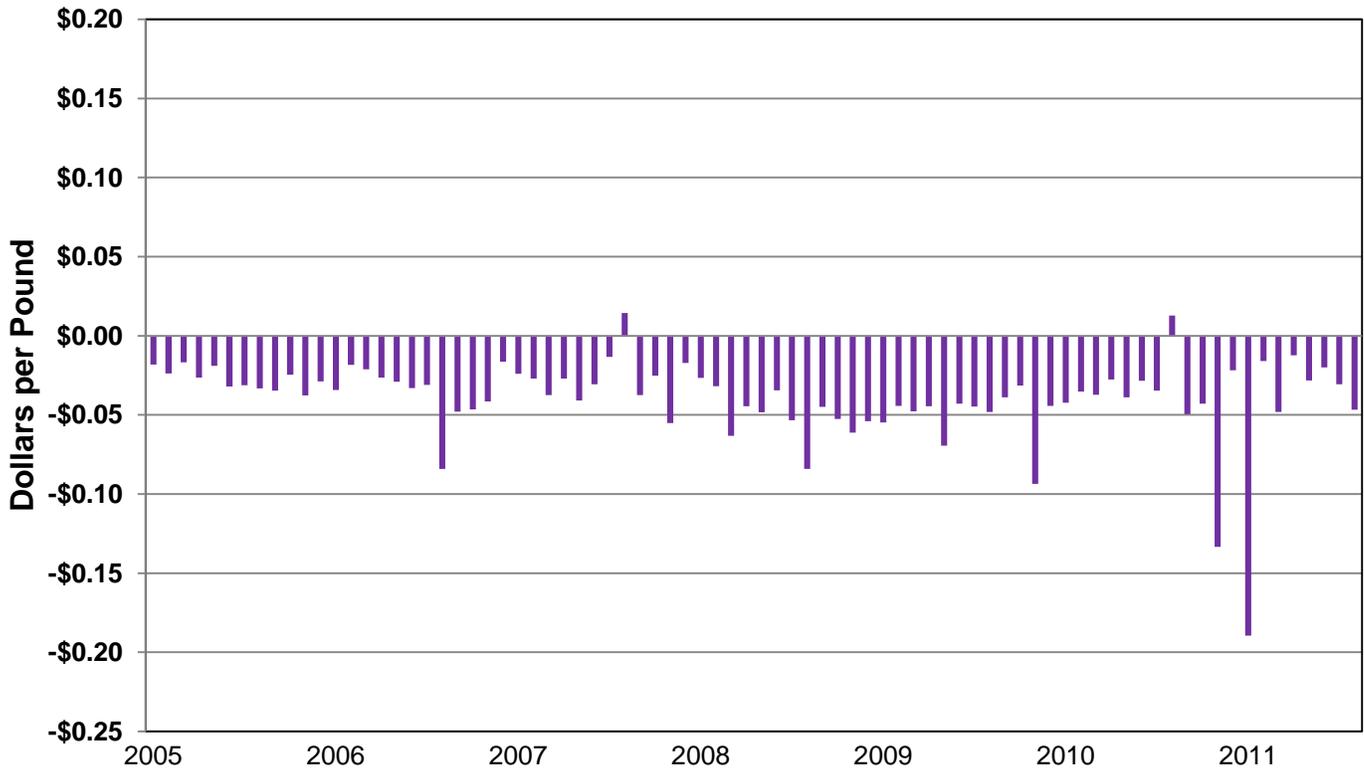
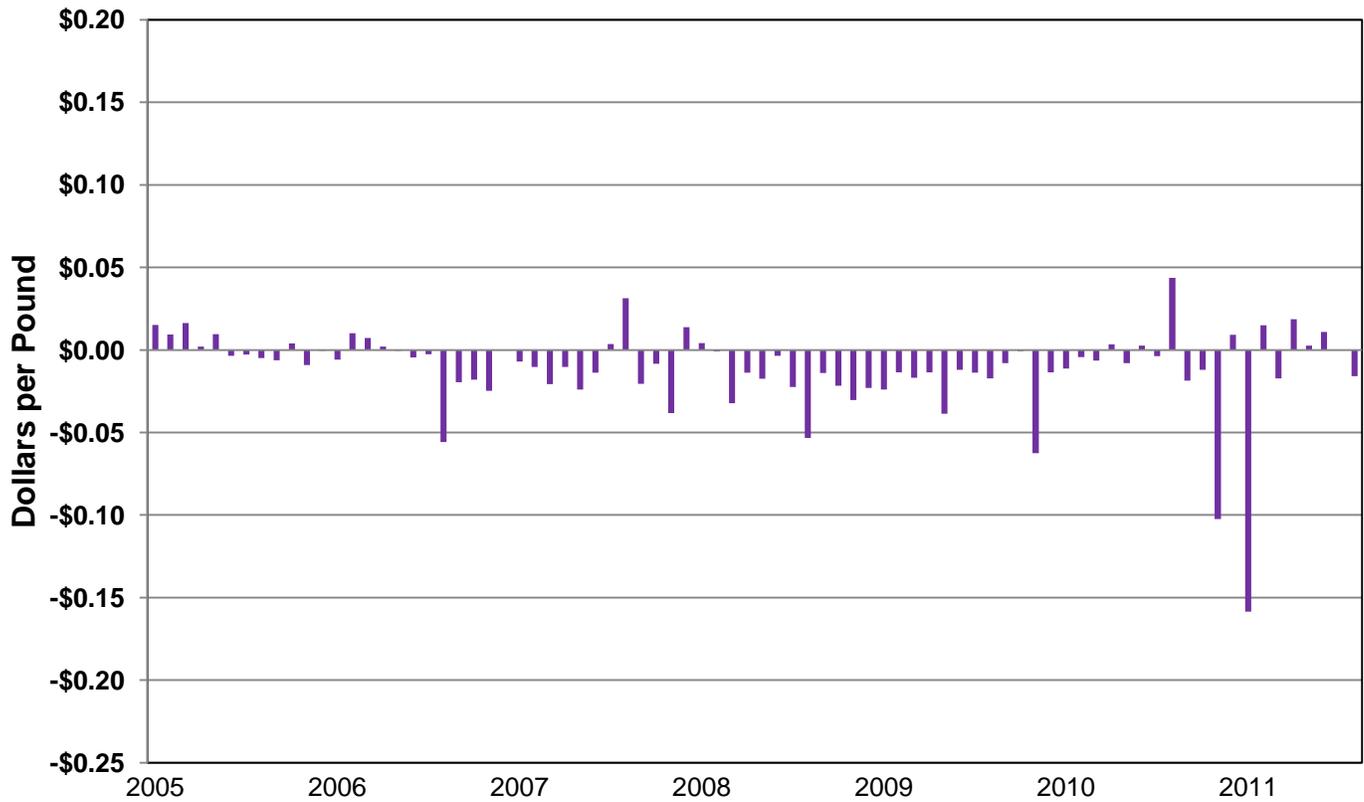


Figure 4: California Sales Price less CME Price of Grade AA Butter (with historic f.o.b. Adjuster)



The following tables present the same data from Figures 1 through 4. **Table 1** shows the number of months that the spread between California cheese sales and CME cheese prices (with and without an f.o.b. adjuster) falls within a certain range. **Table 2** presents the same information for butter. The spread is calculated as an absolute value, meaning that the tables show the magnitude of the spread, but they do not distinguish between positive and negative values.

The spread between California sales and CME prices for Cheddar cheese shows very little improvement when the historic f.o.b. adjuster is included. The number of months in which the spread is less than 1¢ actually decreases when including the f.o.b. adjuster. Alternatively, the spread between California sales and CME prices for butter improves when the historic f.o.b. adjuster is included.

Table 1: Spread Between California Cheese Sales and CME Cheese Prices, by Number of Months

Spread	California Sales Compared to CME Prices (# of Months)	California Sales Compared to CME Prices less the Historic f.o.b. Adjuster (# of Months)
≤ 1¢	13	9
> 1¢ and ≤ 5¢	36	44
> 5¢ and ≤ 10¢	20	15
> 10¢	11	12

Table 2: Spread Between California Butter Sales and CME Butter Prices, by Number of Months

Spread	California Sales Compared to CME Prices (# of Months)	California Sales Compared to CME Prices less the Historic f.o.b. Adjuster (# of Months)
≤ 1¢	0	34
> 1¢ and ≤ 5¢	67	41
> 5¢ and ≤ 10¢	11	3
> 10¢	2	2

Current Methodology for Establishing f.o.b. Adjusters

The California Class 4a and 4b pricing formulas attempt to establish a California price for Grade AA butter and Cheddar cheese each month by taking the CME price for each commodity and subtracting an f.o.b. adjuster.

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

The f.o.b. adjusters for butter and cheese are determined by taking the difference between the California weighted average sale price and the CME price for each month. The Department takes the simple average of these monthly differences using the most recent 24 months of available data to determine the f.o.b. adjuster for each commodity. The f.o.b. adjusters for butter and cheese remain constant in the formulas until they are updated through the hearing process.

The monthly CME butter and cheese commodity prices are determined by calculating the simple average of the daily price per pound of each commodity, as released by the CME, using the 26th of the prior month to the 25th of the current month. The California prices for butter and cheese represent the calendar monthly price per pound received by each California plant, and then weighted by sales volume. The butter price used is the Grade AA butter price, and the cheese price used is the 40-pound block Cheddar cheese price.

The Department releases the price comparisons of California sales and CME prices for butter and cheese once per year along with the Manufacturing Cost Study. This report can be found on the Dairy Marketing webpage at:

<http://cdfa.ca.gov/dairy/uploader/postings/manufacturingcost/>

Audit Process for California Sales

The Department collects calendar monthly California cheese and butter sales data from California plants making qualifying Cheddar cheese and bulk butter. These sales data are currently collected and audited annually in the fall of each year, which corresponds to the time period when the Department's Manufacturing Cost Studies are finalized. In 2006, the Department established its current, uniform policy and standardized procedure for auditing sales.

The Department collects data for all types of sales (spot, indexed, contracted, etc.) for 40-pound block mild Cheddar cheese aged up to 30 days and for 25kg and 30-pound bulk Grade AA butter. Inter-company sales, freight charges, and brokerage fees are excluded. In-plant audits are performed on sales of these qualifying products by the Department's auditors. Auditors randomly select three months of data out of the year and request all sales invoices for those months. The auditors then verify that all invoices

are accurately posted including type and size of the product, number of pounds sold, and the sales price.

NASS Sales Data and Reporting Criteria

The National Agricultural Statistics Service (NASS) reports weekly sales data for dry whey, Cheddar cheese, butter, and nonfat dry milk. NASS uses the same reporting procedures for all four commodities. Weekly sales data (from Sunday through Saturday), are announced the following Friday (a six-day time lag). NASS aims to capture the wholesale price of the commodities when they are shipped. Only sales shipped and transferred within 30 days are included in reporting. No re-sales are included.

For additional details about NASS product reporting and to view product reports for dry whey, cheese, butter, and nonfat dry milk, see Attachment A.

NASS began publishing sales data for Cheddar cheese in 1997 and for butter, nonfat dry milk, and dry whey in 1998. This information was collected on a voluntary basis until the Dairy Product Mandatory Reporting Program became effective in June 2008. Under this program, reporting to NASS became mandatory for plants producing and marketing more than 1 million pounds of qualified products annually. NASS conducts an annual validation survey to determine which plants are required to report. If a plant sells its product through a marketing firm, then the marketing firm, rather than each individual plant, submits the production numbers to NASS.

Currently, NASS collects and publishes sales data while the Agricultural Marketing Service (AMS) provides verification and enforcement. In 2010, USDA issued a proposed rule to establish mandatory electronic price reporting and to shift reporting duties from NASS to AMS. Public comments on the proposed rule were due by August 2011. Final implementation of the rule will occur once comments have been reviewed. This could be as early as the first quarter of 2012. A number of changes would take place when this occurs:

- **Timeliness of the report.** The switch to electronic reporting will speed up data collection and announcement times. Information obtained from the previous week will be announced on Wednesday, rather than Friday, of each week (reducing the time lag from six days to four).
- **Revisions.** Typically, revisions occur based on product or contract re-negotiations. In some cases, revisions can go back up to two years. Once AMS takes over reporting, revisions are expected to go back no more than 5 weeks. The purpose of the sales data is to set federal prices, so further revisions will not be necessary.

- **Frequency of data collection, data quality, reporting burden and cost to plants are expected to have little or no change.**

DMN Sales Data and Reporting Criteria

Dairy Market News (DMN) reports weekly price ranges for a number of commodities and regions, including a range for Western dry whey prices. The Western region includes 11 states: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. The Western dry whey report contains two price ranges. The nonhygroscopic price range represents the full range of sales prices for the week. The Mostly range represents the majority of sales/trades that occur within that range. Prices are based on the number of transactions rather than weighted by volume.

DMN prices are determined by voluntary telephone surveys of industry contacts. The list of contacts is not all-inclusive, but it includes those willing to provide information on a regular basis. Surveyed plants must be approved for grading service by USDA. These contacts represent all segments of the dairy trade including producers, processors, end users, buyers, brokers, etc. The diverse contact base allows reporters to cross-evaluate reported data.

DMN reporters aim to establish a price for spot sales in car lot/truckload quantities (first sale, FOB plant). No audits of sales records are performed. Re-sales are not included, but they are used for comment. The information from all contacts is analyzed, summarized, and released each week. If reporters are unable to confirm information with the buyer and seller that is not representative of the market, DMN is not obligated to use that information. The DMN price range is announced each Thursday, and it represents trades made Monday through Friday of the same week (no time lag).

For a more detailed description of DMN reporting, see Attachment B.