



Introduction:

My name is James De Jong and am currently the Dairy Policy and Economic Analyst for Hilmar Cheese Company (HCC), whom I am representing today. I have worked for HCC since April 2014. My main responsibilities include providing internal analysis on dairy markets, understanding dairy policy issues, and connecting the economic and policy side in a way that helps HCC make informed business decisions. Prior to that, I worked for Rabobank's Food and Agricultural Research and Advisory as an Agricultural Analyst for over 3 years. I specialized in California dairy industry economics, general California agricultural economics, economics of North American forest products, and US row crops.

As for the background on our company, HCC is a cheese, whey, and soon to be milk powder manufacturer with processing locations in California and in Texas, which operates under the Southwest Federal Milk Marketing Order (FMMO). Our primary product lines include natural hard American style cheeses, such as cheddar, Colby, and Monterey jack, while some of our main whey products include whey protein concentrate 80 (WPC-80), whey protein isolate (WPI), whey protein hydrolysate (WPH), different grades of edible lactose, and our new newest plant in Turlock will focus on making skim milk powder (SMP) for

international customers. The Turlock plant will begin operating late this year. We employ about 1,000 people in California and sell finished products domestically and internationally to over 50 countries around the world.

Hilmar Cheese Company was started in 1984 by a group of innovative and market orientated dairymen who wanted to maximize their return on their high quality milk. The company was founded on the idea that producers should receive a competitive price for their milk and one that is driven by actual market conditions. Milk producers continue to own the company and manage its business as active corporate board members.

Our Hilmar, California cheese and whey manufacturing site processes 12% of the state's milk which is purchased directly from over 200 independent dairies, most of whom are not affiliated with any cooperative. This represents the largest share of non-cooperative controlled milk in the state. Further, as HCC's processing volume has grown, owner-producers and non-owner producers have shared in growth opportunities. At the Hilmar plant, 18% of the milk supply is from producers who are owners in the company. The rest of our milk supply, 82%, is from non-owner independent dairymen. 80% of our volume contract increases went to non-owner dairymen over the last several years.

There is no disorderly marketing in California

There is no disorderly marketing. HCC is not having any trouble sourcing milk or fulfilling commitments in 2015 despite total state milk production being down in 2015. HCC's Hilmar milk supply is actually up again in 2015 YTD through August compared to 2014 (Figure 1), which was comparing against one of the most profitable years ever for California producers and a strong milk production year. Figure 1 also shows we have not had trouble sourcing milk in recent history for our Hilmar plant. However, HCC had to ship 400 loads out of state this spring because we were unable to find available processing capacity and willing buyers. Furthermore, a discussion with our milk procurement manager indicated we have had no instances where we were asked to give up milk for a fluid plant in recent memory, or had any indication of a fluid plant being short of milk.

The last major incidence of disorderly marketing, from HCC's business perspective, occurred in 2007 as a result of the California class 4b whey factor. At the time, the whey factor used in the 4b price was determined by taking the Dairy Market News (DMN) dry whey price, minus a \$0.267 per lb. make allowance, and

multiplied by a yield factor of 5.8. This resulted in a whey factor roughly in line with one currently used in the FMMO Class III formula.

When the price of dry whey rapidly increased from 2006 to 2007, HCC's Hilmar plant California class 4b pool obligation whey cost went up from a low of \$2 million per month to over \$12 million per month. Despite being on the forefront of whey processing technologies, having invested hundreds of millions of dollars to date, and operating in some of the highest price whey protein and lactose markets in recent memory, this aggressive whey factor caused substantial financial losses for our whey ingredients business¹.

While this period was difficult for HCC's whey ingredient business, the previous CDFA whey factor was also too aggressive before the dry whey price skyrocketed. In fact, prior to CDFA changing the 4b whey factor back to a fixed amount, HCC's ingredient business operated at a loss relative to the whey factor for nearly the previous 3 years straight prior to the hearing in 2007, again, despite the massive investments made to capture the value of whey¹.

At the same time, there were wide spread reports of milk supplies exceeding California plant capacity (or at least willing capacity) as milk was sold to calf

¹ <https://www.cdfa.ca.gov/dairy/pdf/hearings/2007/Class4ab/Food1010.pdf> - pages 205-214, testimony of John Jeter, former CEO, HCC

ranches, simply dumped, or shipped out of state to distant manufacturing plants.

HCC had to ship over 340 loads of milk at a weighted average discount below Class 4b of \$2.24 per cwt. Of these 340, 17 of those loads we had to sell at \$8.50 per cwt below 4b, with many more in the \$3-5 cwt range under 4b. Of course, transportation costs added to the discount price losses. Towards the end of this crisis, when our Texas plant began operating in September 2007, we began shipping our distressed loads there at great transportation cost. Also, hundreds of loads from California cooperatives were purchased by HCC's Dalhart ^{Texas} plant at steep discounts because California cooperatives were unable to sell milk below class in California. They were unable to sell this milk below class to our Hilmar plant, but they could sell it to our Texas facility. This benefited out of state processors and hurt California producers.

Fortunately, CDFA was able to hold a hearing on the issue in October 2007, where their panel recommended, based on the evidence brought forth, to reduce the whey factor down to a fixed \$.10 per cwt. Though the California secretary of agriculture ultimately decided to set a fixed factor of \$.25 per cwt, CDFA was able to address the problem.

HCC fears the whey factor in FMMO Class III will again substantially overvalue the whey product stream in California, overvalue the price of cheese versus prices we actually receive, and use a make allowance that does not cover our costs. This is expected to cause negative returns for our Hilmar plant and long-term marketing disorder of the kind we experienced in California during 2007. For example, this year the price of lactose, the largest part of our whey stream in terms of volume, has been at such low levels it does not cover the cost of production and we are losing money on every pound produced. The Class III "other solids" value does not recognize this because it is driven by dry whey. This will only encourage HCC to continue to push processing investment out of state, such as in our plant in Texas, due to the Southwest FMMO's ability to allow milk to escape the pool to clear market. In fact, since CDFA's recent temporary price increase to the whey factor in 4b this year, HCC has again decided to expand our Dalhart Texas facility by 20%, instead of directing those investments to our Hilmar facility or a new cheese facility in California. HCC will not invest in California cheese and whey processing if over aggressive milk pricing, and inability to provide a market clearing function with a reasonable return on investments, continue to present a danger. If minimum milk prices are set above market clearing levels for both our cheese/whey and our powder plant in California, and there is no escape valve

through depooling or other policy remedy, HCC would be forced to idle capacity to minimize business losses.

We believe 2015 milk production is down in California for reasons not related to 4b versus Class III pricing

All dairy commodity prices are significantly down from their 2014 highs, especially milk powders, which have a huge impact on California overbase prices due to their large portion of the milk pool². NFDm prices dropped to their lowest level ever this summer according to USDA price report survey data going back to 1998. This huge price crash was led by global demand disruptions and bountiful supplies worldwide of milk powder, which hit California 4a and overbase milk prices hard. Given that CA produces about 40% of all milk powder in the US³, while accounting for 20% of US milk production⁴, Class 4a plants utilize about 33% of all milk⁵, and the fact that NFDm is a pricing component in California Class 2 and 3 and sometimes 1 pricing⁶, it is not surprising minimum overbase prices would take a

² http://cdfa.ca.gov/dairy/uploader/docs/MilkProdPoolingData/July_2015_Pool_Data.pdf

³ <http://usda.mannlib.cornell.edu/usda/current/DairProd/DairProd-09-03-2015.pdf> & http://cdfa.ca.gov/dairy/uploader/docs/DataStatistics/July_2015.pdf

⁴ <http://usda.mannlib.cornell.edu/usda/current/MilkProd/MilkProd-08-19-2015.pdf>

⁵ http://www.cdfa.ca.gov/dairy/pdf/Annual/2014/2014_Statistics_Annual.pdf

⁶ <http://cdfa.ca.gov/dairy/pdf/DetailedInstructions.pdf>

large hit in the state. Therefore, California's recent milk production slowdown is an expected response given the global over supply of milk powder and lower California Class 4a price.

As other witnesses have noted, other factors such as drought, tighter environmental restrictions, and competition for land from lucrative alternative uses, including tree nuts, have put pressure on the industry that is not related to milk prices. These forces represent evolving structural changes in California's agricultural economy that have made alternative land uses increasingly attractive relative to dairy. If these structural changes continue on their present course, California milk supplies for manufacturing uses will move from surplus to deficit, thereby forcing plants to pay above California minimum prices to the extent supply and demand allow. This can happen more efficiently and effectively without regulatory involvement in minimum milk prices. However, there is a danger in setting mandatory minimum milk prices too high, resulting in above market clearing prices. In such instances, processing capacity can be needlessly shut down, resulting in loss of investment, lost jobs for plant workers, and lost avenues for dairymen to orderly and economically market their milk

Furthermore, producer consolidation in California is not unique, and reflective of the rest of the US and the world (Figures 2 & 3). California's percent change in the number of licensed dairies 2010 to 2014 ranks below the US average. Compared to other major dairy states, Texas, Minnesota, and Wisconsin all had higher rates of consolidation (loss in percentage of farms), despite all having growing milk production. According to CDFA 2014 fourth quarter cost of production feedback data⁷, similar type dairies (dairies in the north and south valley, fat test less than 3.9%, non-organic), show cost of production varies by about \$4 per cwt, with some dairies even beyond this range (Figure 4). Consolidation can therefore be expected to continue.

CDFA minimum prices are only minimums

Like in FMMOs, California minimum milk prices are only minimums, so cooperatives have the ability to ask for higher prices from their proprietary plant customers. Cooperative members can also expect cooperative plants to enhance producer revenue if the plants are market-oriented and well managed. Though the three cooperatives who are part of Proposal 1 report themselves to control

⁷ <http://cdfa.ca.gov/dairy/uploader/postings/copfeedback/>

over 75% of the state's milk supply, they have not disclosed premiums charged for milk or identified any disorderly practice that inhibits their ability to bargain for higher prices. In the last CDFA hearing in June 2015, Pete Garbani, VP of Member Relations for Land O' Lakes, when asked by CDFA what prevents them from getting what they think 4b milk is worth, he appropriately replied, "supply and demand"⁸.

Cheese processors already do pay premiums for milk over 4b minimums, with HCC paying over \$120 million over the last several years. These premiums are primarily based upon high component and high quality factors and are adjusted for market based factors including prices of CME block cheddar, lactose prices, and whey protein prices. These premiums are made to give our producers a milk price more representative of the value they create and the actual market place for our products. However, since CDFA has temporarily changed the 4b formula, our premiums for high component, high quality milk have gone down, while minimum prices for low test milk have gone up. In addition, the new temporary 4b minimum prices that are more linked to dry whey prices have damaged returns

⁸ <https://www.cdfa.ca.gov/dairy/uploader/docs/Transcripts%206.3.15%20Hearing.pdf> page 293

for our ingredient business and further disconnected our regulated milk price (and milk premiums) from our actual markets.

If cheese milk yielded significantly higher returns, as proponents of Proposal 1 have inferred, it is natural to assume cooperatives would have invested more in cheese processing compared to powder. However, the opposite has been true. Cooperatives today only have a very small footprint in California cheese making.

The following is a list of cooperative plant closings. All were cheese plants.

DFA Cheddar Cheese Plant, Petaluma - closed 5/2004

Golden Cheese (DFA), Corona - closed 12/2007

Land O' Lakes Cheese Plant, Tulare - closed 9/2010

Below is a list of cooperative plant openings or major expansions. All were butter powder plants

DFA butter/powder plant expansion, Hughson - 2008

CDI new butter/powder plant, Visalia - opened 2008

LOL butter/powder plant expansion, Tulare – 2009

Producer risk management is effective in California. Only using Class III is an outdated approach

Proponents of Proposal 1 have suggested risk management for California producers is ineffective because of the difference between the California 4b price and FMMO Class III. There are several issues with this claim. First, although using Class III futures to hedge producer blend price in California is not ideal, compared to other top dairy states California is neither the best nor the worst. Figure 5 shows the difference between the maximum and minimum price versus Class III from 2010 through 2015 H1 each year (2015 is weighted by half) then averaged for these years. In this example, California ranks 4th of 10 in basis risk (10 being the most risk). Using another measurement, Figure 6 shows that average spread between the California All Milk price and Class III over the same time period. In this measurement, California ranks 1st among the other top 10 dairy states. A third measure (Figure 7) is to take the R-squared coefficient between California mailbox prices and Class III over this same time period, which is meant to show how well California producer prices correlate to Class III. In this measurement

California ranked 6th of 9 (Idaho mailbox price was not available for this comparison of top dairy states).

The other major issue in claiming Class III futures are not effective in California is that cheese milk by itself is not representative of the entire California milk pool.

In rough terms, the California milk pool is represented by half cheese milk and half butter/powder milk. As such, it would make sense to manage risk for producers in way that reflects utilization of the milk pool. Even DFA recognizes this and offers their producers comprehensive tools that can target a blend price for a specific milk shed. DFA's website states:

"DFA Risk Management offers the Target Blend pricing product to allow members to manage the risk associated with the blend price received on your milk check. The Target Blend pricing product goes a step further than traditional Class III pricing products by utilizing a calculated blend price.

With the Target Blend pricing product, DFA members have the ability to contract beyond the traditional Class III or Class IV pricing product, reducing the price swings associated with major changes in the blend price basis"⁹

⁹ <http://www.dfariskmanagement.com/pricing-products>

This sort of approach offered by DFA is also available for producers at third party risk management firms, and may even be available by other cooperatives who are part of Proposal 1.

The effectiveness of adding a butter/powder influence into the California producer risk management equation is illustrated by adding a Class IV futures contract in combination with Class III. Using the same analysis as above, but using a 50/50 blend of Class III and IV, shows California's producer risk management effectiveness is substantially improved over only using Class III (Figures 8 through 10). Besides Class III and IV, risk management professionals can also use cheese, butter and powder futures to also target mailbox prices, as DFA is likely doing with their risk management program. Open interest in these futures contracts has increased dramatically in recent years (Figures 11 and 12).

Furthermore, one can argue that mandatory pooling makes basis risk harder for producers to manage compared to a plant that is not pooled. For example, in Texas we can develop any risk management mechanism we want as long as the producer agrees to it. In effect, this means the producer has zero basis risk versus the risk management mechanism. Milk pools introduce more variables into their

price that are harder to manage. Mandatory pooling will further limit risk management opportunities.

Producers in Federal Milk Marketing Orders do get paid below minimums

In order for milk to clear the market and find willing buyers, milk does sell below minimum prices in FMMOs. This typically happens as a result of distressed milk being sold on the spot market, cooperatives reblending losses to their producers (as happened to Darigold in the Pacific Northwest in 2014), milk that is contracted under class between non-pooled and another entity that is pooled, and non-pool plants buying milk directly from producers below class. Looking just at spot loads from November 2014 through May 2015 in the Dairy Market News (DMN) showed that the 28 editions during this time there were 25 editions that had examples where milk was sold under class. The amounts varied from barely under class, to \$10 per cwt under. In our Dalhart Texas facility, we have purchased many such distressed spot loads and have done so to help clear the market of milk.

Besides spot loads purchased under class at our Texas plant, billions of pounds of other milk has been purchased under Class III in the last 12 months alone. This is simply an economic reality of the milk shed. Despite having lower energy costs,

labor costs, development and regulatory costs, and receiving the Southwest's market's higher net cheese prices due to closer proximity to demand centers compared to Hilmar California, the Class III milk price is still not always the market clearing price in the Southwest. Combined with an outdated Class III make allowance, received cheese prices that have been below the NDPSR price, and the "other solids" value that is often disconnected and overvalues whey relative what we recover at our modern whey protein facility, it is difficult to consistently pay a Class III price at our Texas plant. Further, our field staff regularly monitors past producer pay prices of competitors in the region, including cooperatives, and find these are also often under Class III. Still, our Texas facility is extremely competitive with other players in the region. Most producers in the Texas Panhandle are now better off, not worse off, that HCC has invested there, and has been an underlying reason behind the rapid growth of the entire milk shed.

In addition to our own experience in Texas, there is also strong evidence of milk selling below Class III in New Mexico and Michigan (Figure 13). In this analysis the Class III price was calculated at test for each of the three states, the PPD for the respective FMMO was added to this amount, then compared this result to the state's NASS All Milk price. The results show Michigan, Texas, and New Mexico producers are being paid below Class III. These lower prices are not surprising

given the Southwest's large supply of milk and dairy products relative local demand, and Michigan's rapid escalation in milk production without corresponding processing investments. If there were no longer enough plants to take all the milk in California because of non-market clearing prices, it would be much worse than in Michigan because the discounts would be deeper and all plants would be accountable to the pool for the full class price. In this sense, Michigan would have a competitive advantage over a California FMMO with mandatory pooling.

Make allowances in Class III and IV are inadequate to cover manufacturing costs, as the last available audited CDFA manufacturing costs show

Current FMMO make allowances in the Class III and IV formulas were implemented in October 2008, over 7 years ago. Furthermore, the data used in these allowances came from a 2007 hearing, which relied on even older data. As such, the current data is getting close to a decade old and new cost studies are needed in the formula. HCC costs for cheese and our expected costs for milk powder are not covered by these make allowances, while dry whey is difficult to

judge because we make whey protein and lactose. Nonetheless, our lactose and whey protein ^{manufacturing} costs have gone up considerably over this time period.

Compounding the problem, if a California FMMO is created that has mandatory pooling, the need for updated make allowances, and ones that are updated often, is imperative because there is no way for HCC milk to clear the market below minimum costs. Other FMMOs can live with outdated make allowances because milk can clear the market outside the pool, realized manufactured product prices are often higher (such as the Upper Midwest which allows for more wiggle room by adjusting premiums), and cooperatives can simply reblend losses to producers. The fact the vast majority of cheese is being produced by proprietary processors in California means this regulated milk revenue cannot be reblended.

The ability of Darigold and Tillamook, operating primarily in Order 124, to navigate Class III and IV is enhanced by their ability to reblend losses to member producers, their smaller cheese production size versus their population compared to California (we estimate Oregon and Washington have a combined cheese production per capita of 38 pounds compared to 63 pounds in California), their heavy use of the Cooperative Working Together (CWT) program to subsidize exports which California proprietary cheese plants cannot use, and that Darigold

has historically depooled to help recover losses from their Class III and IV plants. In 2004 a witness for the Northwest Dairy Association (the cooperative which owns Darigold) testified that their depooling helped offset market place losses. This was summarized in the Federal Register Final Decision on September 13, 2006 [71 Fed. Reg. 54136, 54140 (September 13, 2006) (Final Decision, Upper Midwest Marketing Order)].

“The witness explained that NDA engages in the practice of de-pooling in other Federal orders as a way to recover costs in their manufacturing of butter and cheese because the Class III and IV make allowances do not adequately reflect such costs. The NDA witness was of the opinion that the practice of depooling should be addressed at a national hearing that would also consider other issues such as the make allowances used in the Class III and IV price formulas.”¹⁰

Darigold and its sister cooperative, Tillamook, continue to depool Class III milk when revenue opportunities arise. *In Exhibit 100* Attached are pages 1 and 7 from the Pacific Northwest Orders Compilation of Statistical Material for 2014, showing the pool status of cooperative plants, by month, and Class III producer milk, by month.

¹⁰ http://www.dairyprogramhearing.com/getfile74527452.pdf?dDocName=STELPRDC5057322_54140

Note on page 1 that in February, October, and November the cooperative plants shown as Tillamook, Darigold (Sunnyside), and Columbia River (a Tillamook plant) were not on the pool plant list. For April, two of the plants were off the list. On page 7, Class III pounds of producer milk for February, April, October and November dropped substantially. There are no milk order limitations in the Pacific Northwest, as there are in the Upper Midwest, to limit the volume of milk that may be depooled and repooled from month to month. Depooling also occurs in the Southwest and Arizona markets, where there are no depooling-repooling limits, as well as in the Upper Midwest, Central, and Mideast markets where repooling restrictions apply. The markets where depooling occurred during 2014 are identified on page 2 of the Southwest Market Administrator's Report published in April 2015, ^{See Exhibit 101} ~~which is also attached.~~ ^{11.390} ~~5.92~~ billion pounds were depooled in all markets.

CDI has testified in the recent past on the need for updated and accurate make allowances in the CDFA class prices, despite these prices already being inherently lower than FMMO class prices. In 2011, Dr. Eric Erba, representing CDI, filed a post hearing brief to CDFA that read:

“At the forefront of the information available is the manufacturing cost studies conducted by the Department, which have been the cornerstone of California’s milk pricing foundation. The cost studies have provided unparalleled credibility to the milk pricing system in California, and their importance to the milk pricing process is unquestioned.”¹¹

Again, in 2014, Dr. Eric Erba, representing CDI, filed a petition for a 4a hearing to update the make allowance. He stated in this petition that:

“As the largest butter and milk powder manufacturer in the state, we cannot simply ignore the fact that our processing costs are higher than the manufacturing cost allowances in the Class 4a formula might suggest. We cannot overlook the implications that the static manufacturing cost allowances have on all California Class 4a and 4b operations”¹²

Given the mandatory pooling requirements of the current California Order and Proposal 1, it makes the need for milk prices to be set at market clearing prices all the more imperative.

Cheddar cheese make allowance

¹¹ <https://www.cdfa.ca.gov/dairy/uploader/docs/CDI%207-11-2011.pdf>

¹² [https://www.cdfa.ca.gov/dairy/pdf/hearings/2014/CDI Petition Jun16-2014.pdf](https://www.cdfa.ca.gov/dairy/pdf/hearings/2014/CDI%20Petition%20Jun16-2014.pdf)

CDFA audited manufacturing costs for 2013 show the weighted average cost to produce one pound of cheddar cheese was \$0.2291¹³ versus \$0.2003 used in the Class III formula. Plugging this difference into the Class III formula represents \$0.28 per cwt in manufacturing costs that are not included in the current make allowance.

Dry whey make allowance

For dry whey, the last CDFA audited manufacturing cost in 2006 showed \$0.3099 per lb. for CA plants¹⁴, compared to \$0.1991 per lb. in the Class III formula. This discrepancy represents a spread of \$0.65 per cwt. If dry whey is continued to be used as a barometer for whey values (which does not track well with WPC and lactose), at a minimum a new dry whey cost study should be issued to find the actual cost. From HCC's experience manufacturing WPC-80, which is our largest whey protein product by volume, our manufacturing costs have increased nearly 40% per lb. from 2006-2014. Our other whey product manufacturing costs have also had large cost increases.

NFDM make allowance

¹³ <http://cdfa.ca.gov/dairy/uploader/docs/Exhibit.pdf>

¹⁴ <http://www.cdfa.ca.gov/dairy/pdf/ManufCostExhibit2006.pdf>

CDFA audited manufacturing costs for 2013 show the weighted average cost to manufacture NFDM to be \$0.1997 per lb. compared to \$0.1678 per lb. in FMMO Class IV¹⁴. This discrepancy represents \$0.27 per cwt in the Class IV formula that is not covered in the most recent CDFA cost study. Analysis of our new milk powder plants suggests our costs will be at least as high as the latest CDFA cost study.

Product prices in Class III and IV use higher levels than the market value received by California plants

The federal law which authorizes milk orders in section “(18) Milk Prices”, instructs the secretary to fix milk prices that he finds which will reflect, “economic conditions which reflect market supply and demand for milk and its products in the marketing area to which the contemplated [marketing order] relates.” (7 U.S.C Sec. 608c (18)). So estimation of the value of cheese, whey products, butter and NFDM in California is unavoidable to fix reasonable prices for milk used to produce these products.

Cheddar cheese prices

Based on HCC’s past experience, the total spread between our actual 40lb block sales reported to NDPSR versus the NDPSR block/barrel weighted average price averaged \$0.04 per lb. lower from 2010 through 2013. In the Class III formula,

this represents a discrepancy of about \$0.39 per cwt. Furthermore, comparing our NDPSR cheddar prices to the Minnesota-Wisconsin cheddar cheese price series, which was discontinued in 2012, our prices often averaged \$0.06 per lb. to \$0.09 per lb. from 2008 into 2012. This difference in cheese sales prices between regions is a function of the cost to move excess California cheese to population centers further east. California produces roughly twice as much cheese as it consumes based on a 2014 population value of 38.8 million, ERS estimates of cheese consumption per capita (34.2 lbs. per year 2014) and NASS California cheese production. A large majority of our cheese leaves the state for marketing to large population centers to the east. Higher transportation cost from California to market lowers the net value of cheese HCC sells relative to CME and NDPSR prices. This market reality has long been reflected in CDFA's class 4b prices for cheese F.O.B point of California origin.

Furthermore, the historic \$.04 per lb. price difference between HCC and the NDPSR is actually understated because our cheddar cheese is made to very demanding specifications, which increases its price and cost to manufacture versus regular cheddar. For example, our cheddar can be converted to a variety of difficult to process shapes, including ultra-thin slices, which require higher protein levels with lower moisture than typical cheddar, which increases our milk and

manufacturing costs. Our customers pay more for these quality attributes and this higher price is captured by the NDPSR, but the Class III formula does not account for these higher costs and lower yielding cheddar makes.

NFDM prices

For NFDM, CDFA audited data shows the California weighted average price, or CWAP, averaged \$0.0467 less per lb. less than the NDPSR weighted price from 2010 to mid-August 2015. This represents a \$0.40 per cwt overstatement of value in the Class IV formula if it were applied to California NFDM. Specifications for the types of NFDM reported to CWAP and NDPSR are similar, but not exact. For example, CWAP reports Extra Grade and Grade A low, medium, and high heat, while NDPSR excludes high heat from the reporting. Also, CWAP uses fixed price contract sales within 150 days from first "shipment" date, while the NDPSR limits this to less than 30 days.

Butter prices

For butter, current CDFA pricing formulas currently have a \$0.0485 F.O.B. adjuster below CME spot butter to reflect the value of commodity butter made in California plants. This has been supported by the cooperative CDI in CDFA hearings. Relative to NDPSR butter, this implies a \$.018 per lb. discount 2010 to

mid-August 2015. In the Class IV price, this amounts to \$0.08 per cwt below the current formula.

The most recent manufacturing plant cost studies and use of CDFA's and HCC's best estimate of product prices for values California manufactures actually receive, reveals a difference of \$1.31 per cwt for Class III and \$0.75 per cwt for Class IV. However, for Class III the dry whey make allowance needs to be updated with a new cost study, or better yet replaced with a new 'other solids' valuation factor that more accurately discovers whey value for cheese plants and allows for a return on investment.

Increasing minimum prices will make us less competitive in an already difficult global marketplace

The California market for milk and its products is uniquely dependent upon product exports. In recent years, nearly 30% of California milk solids have been exported, which means California processors and producers are highly dependent upon maintaining global competitiveness. HCC is no exception. Last year HCC exported nearly 10% of its cheese, 50% of its whey protein concentrates, and 95% of its lactose. HCC plans to export all of the SMP produced at the Turlock plant

that is nearing completion. However, mandatory US-centric milk pricing makes being a consistent global supplier problematic.

For the last 18 months, international prices of cheese and milk powder have not tracked favorably with US prices. The NDPSR cheddar cheese price has averaged higher than the DMN Oceania cheddar price 14 of the past 18 months, while the NDPSR NFDM prices have been higher than Global Dairy Trade (GDT) SMP prices 13 of the last 18 months (Figure 14 and 15). These are key export price benchmarks, especially for Asian markets. When US regulated milk prices are set too high and are mandatory, we have less wiggle room to withstand global market downturns and be a consistent supplier to our international customers. Margins for cheese, whey products, and milk powder are measured in mils and pennies, so even small changes in mandatory milk prices can have a huge impact to our business.

Even under the California order, HCC cheese export sales are down significantly year to date to avoid losses due to US-centric mandatory minimum milk prices. Sales of some cheese export products have decreased by 50% year-over-year from 2014 to 2015. To maintain a level of market share in today's market, we are selling some cheese and lactose below cost. Further, when our powder plant is

running, we anticipate we may have to switch from SMP to NFDM as a response to regulated prices. This would reduce international sales and increase domestic sales of NFDM, with a consequence of putting downward pressure in NFDM and Class IV prices.

This is problematic because our global customers are seeking a consistent supply from HCC, but mandatory US-centric milk pricing can force us out of a market and make regaining that business difficult. If market clearing milk prices are applied in California we can more readily remain a consistent supplier and simply blend gains or losses from exports relative domestic prices into our producer milk price. In all other major dairy exporting nations, processors are not regulated by mandatory minimum prices and instead blend their actual product revenue into their milk price while allowing for local competitive conditions. This is even true in other FMMOs where depooling is allowed. Mandatory Class III and IV prices that are not market clearing in California will create an export competitive disadvantage for HCC compared to our domestic and international competitors.

Class III 'other solids' value is not good measure to value whey stream

The product revenue we generate from our plants in Hilmar, CA and Dalhart, TX is not well correlated to dry whey and can at times greatly overvalue the whey

stream relative cheese milk prices. Figure 16 shows, on a protein adjusted basis that dry whey is a poor indicator of WPC values. If anything, NFDM now tracks closer to WPC-34, but again this not a strong correlation. The price spread between protein adjusted dry whey and WPC-34 has reached as high as \$0.50 per lb, making WPC production risky relative to regulated milk costs. Since milk powder prices have crashed this year, WPC prices have also dropped substantially, while dry whey prices lagged behind. Also, comparing dry whey to lactose (Figure 17), also shows a disconnect. Currently, lactose prices are below costs of production whereas the Class III 'other solids' value still implies that value is being created.

An argument that Hilmar Cheese Company could simply raise customer prices or move into specialty products to overcome higher FMMO Class prices is not accurate

HCC would have extremely limited ability to raise customer prices to overcome higher mandatory FMMO Class III and IV pricing for several reasons. First, the argument irrationally suggests that HCC is leaving money on the table by selling our products at prices less than the supply/demand equilibrium. Even without the possibility of higher milk costs, HCC is always evaluating supply and demand

for our products to see if there is more value to capture in the market place. One cooperative witness suggested cheese plants could simply switch to making higher value specialty cheeses. This is flawed reasoning because it fails to account for: 1) greatly higher make costs for specialty cheeses, 2) impact on specialty cheese prices if these markets are flooded with additional product, 3) the large investments required to retool and redesign plants to make these products and 4) massive marketing endeavor needed to bring these products to consumers.

Additionally, almost all of HCC's primary products are sold into commodity markets, including virtually all of our cheese, lactose, most of the volume of whey proteins, and soon our milk powders. Given the national and global scale of these commodity markets, there is very limited, if any, room to increase customer prices without losing substantial market share. For example, if a cheese price increase is pushed through to buyers that is not competitive with market conditions, the product will simply not clear the market and will remain in HCC's cold storage. Unsold product that has already been paid for through milk and manufacturing costs is lost revenue, as is the cost of storage. In the last 2015 CDFA hearing, Pacific Cheese Company, a large buyer of California hard cheeses, warned what could happen if costs from higher mandatory milk prices are pushed through in the form of higher cheese prices. They stated:

"If a large increase in the regulated milk price paid by cheese makers were to translate into an increase in the price that we have to pay to procure cheese, and we see that as a likely outcome of at least one of the proposals (the producer trade association proposal) under consideration at today's hearing, the competitive nature of our business would cause us to, in all likelihood, reduce our purchases of California cheese and increase purchases from high quality suppliers in other states."¹⁵

Furthermore, any price increases for cheddar cheese (our largest cheese product segment), NFDM, butter, or dry whey meeting NDPSR reporting specifications will feed back into the milk price and reverse some of the additional revenue gains.

One of the best analogies to this is a dog chasing its tail.

Finally, if HCC tried to throttle back production to meet lower demand due to increasing our product prices, this would result in large curtailments of our milk volume requirements, causing inefficient and costly movement of milk for producers and less revenue to pay dairy farmers. Even cutting one quarter of our Hilmar milk volume would cause 3% of California's milk to have to find a new

¹⁵ <https://www.cdfa.ca.gov/dairy/uploader/docs/Transcripts%206.3.15%20Hearing.pdf> page 161

home. This would cause widespread chaos and disorderly marketing. At the same time, by HCC throttling back capacity we would be running our plants at less than economies of scale, which increases fixed costs per unit of product and ultimately leads to more business losses. Our Hilmar facility is designed to be cost effective at very large volumes, and combining that with a Class III make allowance that does not cover our current costs would be extremely damaging.

Conclusion: HCC expects that the current FMMO Class III and IV pricing, if applied to a California marketing order, combined with mandatory pooling, will result in extended periods of net losses to California manufacturing plants and depressed prices for California milk producers

Based on internal analysis of Proposal 1, HCC believes our Hilmar site's total business costs will exceed total revenue for extended periods of time despite being extremely efficient, large scaled, and having some of the most advanced whey processing in the industry. This is a result of Class III and IV prices using unachievable commodity prices in California for commodity cheeses, milk powder and butter fat, while also using unachievable manufacturing costs for cheese, milk powder and whey products. Further, by increasing minimum prices it becomes much more difficult to manage margins for products that do not track the

commodities used in Class III and IV including whey protein, lactose, export cheese, and export skim milk powder. HCC would not be able to pass on losses to producers like a cooperative, or depool to offset non-market clearing milk prices like our counterparts in other FMMO markets, and in turn the processing environment in California would become very toxic.

The market valuation of plant processing assets would plummet as they would have inadequate income to justify their value. Banks would be on alert as to the value of their processing customer's collateral, and may degrade debt ratings that result in higher interest rates, or cut off processing customers altogether. Given that one of my prior duties at Rabobank was to help evaluate industry and company specific market risks, including for California milk processors, I would be raising red flags to the credit decision makers to closely watch the outcome of this hearing.

If there was a damaging recommended decision, and if there was unlikely to be a forthcoming policy remedy, HCC would be forced to idle some or all of its cheese, whey and powder capacity to stem losses. With the HCC Hilmar plant being the largest cheese plant in the world, and processing roughly 12% of all California's milk supply, statewide disorderly marketing would be expected to ensue. This

course of action would not be taken lightly and would be seen as a last resort.

However, unlike cooperatives, HCC cannot run plant assets at a loss or even low rates of return indefinitely. All losses would be focused on our dairymen owners as there is no alternative to escape the minimum prices.