CERTIFIED TRANSCRIPT

NATIONAL FEDERAL MILK MARKETING ORDER

PRICING FORMULA HEARING

DOCKET NO.: 23-J-0067; AMS-DA-23-0031

Before the Honorable Channing D. Strother, Judge

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Carmel, Indiana

September 20, 2023

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Reported by:

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(Please note: Appearances for all parties are subject to change daily, and may not be reported or listed on subsequent days' transcripts.)

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M A S T E R I N D E X

SESSIONS

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M A S T E R I N D E X

WITNESSES IN CHRONOLOGICAL ORDER

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M A S T E R I N D E X

INDEX OF EXHIBITS

IN CHRONOLOGICAL ORDER:

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WEDNESDAY, SEPTEMBER 20, 2023 - - MORNING SESSION

THE COURT: On the record.

Let's resume the examination of this witness.

You are still under oath.

PETER VITALIANO,

Having been previously sworn, was examined and testified as follows:

CROSS-EXAMINATION

BY MR. ROSENBAUM:

Q. Steve Rosenbaum for the International Dairy Foods Association. I'd like to start by discussing the development of the current Class I mover, okay? The one that's based upon the average-of the Class III and IV price plus $0.74, all right? I'd like to start by showing you what I have marked as IDFA Exhibit 45.

MR. ROSENBAUM: Your Honor, could I have this marked with the next Hearing Exhibit number, please?

THE COURT: Yes, on the record.

Is the next number 232? All right. This Exhibit IDFA-45 will be marked for identification as Exhibit 232.

(Exhibit Number 232 was marked for identification.)

BY MR. ROSENBAUM:

Q. And, Dr. Vitaliano, Exhibit 232 is a September 29, 2017, e-mail from Dave Carlin.

You recognize him as an officer -- well, as an executive within the International Dairy Foods Association?

A. Yes.
Q. And it is an e-mail that is shown as going to Michael Dykes.
You understand him to be the CEO of IDFA?
A. Yes.
Q. And then also to Mr. Mulhern who -- tell me his exact title so I get it right, at that point in time.
A. He was president and chief executive officer, I believe.
Q. Of NMPF, correct?
A. Yes.
Q. The organization for which you work, correct?
A. Correct.
Q. And it shows a carbon copy to you, correct?
A. Yes.
Q. Do you recall receiving this e-mail on or about that date?
A. It's been a while, but it basically has this attachment, the NMPF and IDFA dairy price risk management -- yes, it looks familiar.
Q. Okay. And it's the attachment that perhaps is the more important part of the document.
Do you recall that back in 2017 -- this is something you talked about yesterday to a certain extent -- that NMPF and IDFA got together and made a joint proposal to Congress to replace the then-existing Class I skim mover, which was based upon the higher-of the Class III or IV price, with a new approach which would

take the average-of the Advanced Class III and Class IV announced prices and add to that $0.74, correct?
A. Yes.
Q. Okay. And can you confirm that the attachment to Hearing Exhibit 232 is, in fact, a -- the joint document that was developed by NMPF and IDFA?
A. I couldn't vouch for every piece in it from memory, but my memory is that this was drafted by IDFA and submitted to National Milk, and we agreed to it.
Q. All right. Thank you.
Now -- and were you personally involved in the review and approval of this document?
A. Of this document?
Q. Yes.
A. No, I was not.
Q. Who was?
A. I'm not sure who was at that time.
Q. So, some -- I mean, obviously --
A. Could have been the chief executive officer, who I believe was Mr. Jerry Kozak at that time, and probably our director of legislation.
Q. Okay. And in both cases you are referring to people who are executives within NMPF, correct?
A. Correct.
Q. All right. Now, the document states that the goal was to "provide tools needed to allow processors, cooperatives and dairy producers to better manage price risk on all Classes of milk regulated under" FMMOs,

correct?
A. That's what the document said. I would have characterized it slightly differently, because the producer interest in this agreement did not approach the agreement with any particular objective, other than to basically be open-minded to the desire of the processor representatives to be able to better hedge. Our position was, we were very happy with the higher-of. We had no -- National Milk and Dairy Producers and their cooperatives had no desire -- no particular need to make any change. It was strictly in the interest of accommodating a request from the processing sector for a change.
Q. Whatever the underlying motivation -- and I don't doubt that the idea came from the processor side, not the farmer side -- nonetheless, the document does recite, and I quote in the second paragraph, "Both IDFA and NMPF support changing the Class I mover from the higher-of Class III and Class IV to the simple average-of Class III and Class IV, with an adjustment in Class I differentials based on historical relationships between the current and proposed mover," end quote, correct?
A. That is correct.
Q. And you did not respond to this e-mail from Mr. Carlin, you know, with an e-mail that said, "don't you dare say that," or anything along those lines, did you?
A. No.
Q. And the -- and the reference to the historical relationship, that is later described as being the $0.74

per hundredweight, correct?
Do you see that later in this document?
A. When you say the "historic relationship," between the two movers, right?
Q. Yes.
A. The average-of and the higher-of, yes.
Q. Okay. So just to -- I mean, this -- this document is describing what, in fact, ended up being the Class I skim mover that is now in effect, correct?
A. That is correct.
Q. Okay. And -- and the document identifies the reasons for the proposal, and there are several bullet points, quote, "Changing the Class I mover to the above referenced price format," and that's a reference to using the average-of Class III and IV plus $0.74, correct?
A. Correct.
Q. "Would" -- these are bullet points -- "balance processor desire for better price risk hedging with cooperative and dairy producer desire to maintain FMMO integrity."
Next bullet: "Eliminate the uncertain basis that occurs when a mover shifts between Class III and Class IV."
Next bullet: "Allow the use of existing Class III and Class IV futures and options to manage Class I price risk with minimal changes to the FMMO system."
Next bullet: "Provide several benefits that can result from the ability to hedge longer-term costs for

fluid milk products."

Next bullet: "Allow processors to manage price risk for dairy beverage ingredients as they currently can for non-dairy ingredients."

Next bullet: "Allow dairy producers to effectively hedge the Class I portion of their producer milk payments as they currently can for the other portions of their payment."

Next bullet: "Encourage and promote the use of dairy ingredients in new fluid milk and dairy-based beverages that meet Class I specifications."

Did I quote those correctly?

A. You quoted them correctly from the memo, yes.

Q. Okay. And, once again, you did not respond to this e-mail with a response saying, "don't say those things," did you?

A. I did not respond to this e-mail.

Q. Okay. And did anyone from National Milk -- I mean, let me strike that.

As you can see from the first page, Mr. Carlin is stating that this is a document that's going to be provided to House and Senate staff, correct?

A. Yes.

Q. And -- and obviously, a recipient of this in the House or the Senate, or their staff members, would interpret the attachment to be that both National Milk Producers Federation and International Dairy Foods Association supported this change, correct?

A. They did.
Q. And, once again, you did not respond to Mr. Carlin telling him, "don't provide this memo to the House and the Senate," did you?
A. No. If there was any concern -- I did not. And if there was any concern on behalf of National Milk, Mr. Mulhern, who was I guess then the CEO, would have been the one to -- to make any response --
Q. Okay.
A. -- to Mr. Dykes.
Q. And you don't recall having seen any e-mail from Mr. Mulhern to either Mr. Dykes or Mr. Carlin indicating that National Milk did not want this memo to be provided to Congress?
A. I did not see any such e-mail.
Q. Okay. Now, obviously -- yesterday you recited certain statements made by USDA in the 2000 Order Reform decision, correct?
A. That's correct.
Q. Where they described their reasons behind adopting the higher-of, correct?
A. Correct.
Q. Which is the Class I skim mover that this document, Hearing Exhibit 232, was proposing to replace and which, in fact, did get replaced, correct?
A. Correct.
Q. And, now, we've recited the reasons set forth in the memorandum why that change was desirable.

And would you agree with me that some of these, maybe most of these, related to the desire to facilitate risk management? Just characterizing the bullet points, is that a fair way to summarize it?
A. That whole discussion was about being better able to manage risk.
Q. And is it fair to say that 18 years earlier when USDA had come up with its 2000 Order Reform decision, risk management was not, fair to say, top of mind?
A. It was less prevalent.
Q. I mean, would it surprise you to know -- and I checked -- that the term "risk management" doesn't appear at all in the April 2nd, 1999, decision that put --
A. I have not encountered it in that document.
Q. Okay. But, I mean, National Milk surely was at some level aware of the considerations that had led USDA in 1999 to impose the higher-of, correct?
A. Yes.
Q. And essentially, is it fair to say that National Milk felt that if you weighed the rationales given by USDA back in 1999 and the advantages as set forth in the document that's attached to Hearing Exhibit 232 of switching over to what is now the Class I skim milk mover, that, on balance, National Milk supported the change?
A. National Milk supported the change, and I do not dispute the veracity of the memorandum that was, as I recall, drafted by IDFA.
But I will repeat, National Milk was -- at the

beginning of Federal Order Reform and all the way up through 2017 when we were approached by the processors, National Milk was perfectly happy with the previous higher-of mover. We had not had any of our membership express a desire for better being able to hedge Class I prices. The growing use of risk management amongst producers was not really focusing that much on Class I.

And so we -- we had no interest in making a change, other than a very sincere willingness to work with the processor community to achieve an objective that they very clearly came to us and requested and which we were very open to, with the understanding that it would be revenue neutral.

Q. Okay. And -- and you did that with full knowledge of what benefits purportedly adhered to the higher-of approach, correct?

A. Right. We were aware that we would, in effect, be asked to give up something that we were -- that we were very pleased with.

Q. I mean, it is true that -- okay. So let me just follow up directly on that.

I mean, in essence, you looked at this, and for whatever precise thought process you all went through, which may well have been including accommodating your customers, who are my clients --

A. Yes.

Q. -- you thought, okay, on balance, this makes sense, and these advantages make it worthwhile to switch

over, correct?
A. Yes. And it was with the understanding that we could trust the historic record to be a reasonable guide to the future.
Q. And I -- and then the $0.74 add-on was based upon an analysis of what the historical gap had been between the Class III and Class -- no, let me -- that didn't --
A. Between the average-of and the higher-of.
Q. Yes, exactly.
You did a historical -- you -- I mean you -- both National Milk and IDFA, presumably, did an analysis of what the difference was between -- the average between Class III and Class IV and the higher-of Class III and Class IV in coming up with the $0.74 adder that would be added on top of the average-of the Class III and Class IV, correct?
A. Yes. "You" -- "you" is correct. I did that analysis.
Q. Okay. Good.
And I -- and I assume people on IDFA side did the analysis, too. You may have been the first one.
A. Mike Brown and I were delegated to do the analysis.
Q. Okay. And --
A. I volunteered to run the numbers working closely with Mike.
Q. Okay. And just to sort of be more precise, Mike did not work for IDFA yet at that point, but he was

involved in the process?
A. He was on the IDFA side of the negotiations, the discussions.
Q. Okay. And -- and the -- and the goal -- the belief was that the new methodology would not, month-to-month, come up with the same mover as the old methodology, but that over time it would be revenue neutral, correct?
A. Yes. There was a discussion at one point in the broader meetings that one of the National Milk representatives suggested that there was -- with kind of an instinct, that National Milk would have been giving up something that had a certain assuredness to us at the higher-of, and that perhaps some sort of an additional premium may need to be added to -- you know, to whatever was agreed to, to sort of compensate for that risk. But the response was, no, it had to be strictly arithmetically revenue neutral, and we did -- National Milk side did not push back against that.
Q. You could have walked away, but you didn't?
A. That's correct.
Q. Okay. All right. Now -- and this new approach went into effect, what was it, May 2019; is that correct?
A. That's correct.
Q. And by that, I mean that's when the Class I skim milk mover became the average-of Class III -- Advanced Class III and IV plus $0.74, correct?
A. That's correct.

Q. Now -- and I think you testified yesterday that at first things went pretty well, correct?
A. Yes.
Q. And, in fact, for the first number of months, dairy farmers were actually being paid more under the 70 -- under the average-of plus $0.74 mover than they would have been under the higher-of, correct?
A. Correct. We recognized that -- that since the $0.74 was an average, that sometimes the new mover could be higher than the old mover, and sometimes it could be lower.
Q. And I mean -- and I'm just looking at your chart that's been marked as Hearing Exhibit 230. I mean, if we look at just say the period through -- through the -- I mean, the first one -- the first six months farmers were paid $100 million more than they otherwise would have been; is that right?
A. At the peak of three or four months in, yes.
Q. And I'm just -- I'm looking -- to be clear about this, I'm looking at page 2 of 2, the very last column called "All Markets." And the $24.8 million, for example, that's listed for May 2019, that's how much more farmers were paid under the new average of Class III and IV plus $0.74.
A. What document are you referring to?
Q. I'm sorry, this is Exhibit 330 (sic).
A. Oh, yeah.
Q. National Milk Producer Federation Exhibit 30-A,

and I'm looking at the back page. Let me start my question again, because you obviously didn't have it in front of you yet.

In May 2019, which is the very first month the new formula went into effect, farmers were paid $24.8 million more than they would have been paid under the old higher of formula, correct?

A. That's correct.

Q. And if you just -- I'm just adding roughly as I look at it, so don't hold me to it, but if you look at the first five months, you have got basically a hundred million dollars more paid to farmers in the form of minimum Class I milk prices than they would have been paid under the higher-of formula?

A. Yes. And this was, again, a simple arithmetic computation that does not adjust for possible depooling under the alternative scenarios. But if you -- if you refer to Figure 1 on page 7 of Exhibit NMPF-30, that sort of does a running sum of that column on the right side of Exhibit NMPF-30A, where it does -- it does reach about a maximum of about $100 million plus.

Q. To the benefit of dairy farmers?

A. Correct.

Q. Now -- all right. And then -- and then along came -- and then it did -- I mean, then it did turn negative, so to speak, for a few months at the end of 2019 and into January 2020, correct?

A. Yes. It came back down to about zero cumulative.

Q. And then it went back up again through June of through April of 2020, it was -- well, never mind.

I'm sorry, for February and March and April -- for February, March, April, May -- sorry, February, March -- let me start that again.

For February, March, April, once again, it turned back in the other direction and became positive for dairy farmers; is that correct?

A. That's correct.

Q. Between those three months. Okay.

And of course along came COVID, correct?

And so -- and -- and along came a government response to COVID, correct?

A. Correct.

Q. And -- and part of that response was the Families Food Box Program, correct?

A. Farmers to Families Food Box Program, as I recall.

Q. You are quite right. I didn't read that correctly.

A. I struggle with that, too.

Q. So part of the response was the USDA Farmers to Families Food Box Program, correct?

A. That's correct.

Q. All right. Let me just provide you a description of that program from the USDA website.

MR. ROSENBAUM: Your Honor, I would ask that this be marked with the next Hearing Exhibit number, please.

THE COURT: Yes. This will be marked -- well, what's a good title? USDA Farmers to Families Food Box in the colorful header, so it will be marked Exhibit 233 for identification.

(Exhibit Number 233 was marked for identification.)

BY MR. ROSENBAUM:

Q. So you're obviously familiar with that program, I'm sure, Dr. Vitaliano. Very intimate -- very familiar with it, I'm sure.

A. Yes.

Q. And the -- the USDA website states -- and I will provide the URL before I finish -- that that program began in May of 2020 and ended in May of 2021, and distributed more than 173 million food boxes of fresh produce, milk, dairy, cooked meats, and seafood worth over $5 billion to Americans across the country.

Is that consistent with your recollection of how the program worked?

A. Yes. The program had two particularly strong peaks, one shortly after the May 2020 initiation of the program and another one in November.

Q. Okay.

A. And you can see that reflected in the divergence of the two movers very clearly.

Q. Okay. And -- and that's, of course, what I'm ultimately getting to, which is cheese was a major participant in this program, correct?

A. Yes.

Q. And that is to say these food boxes had cheese in them, correct?
A. That's correct.
Q. And that caused an unexpected increase in the demand for cheese, correct?
A. In the consumption of cheese.
Q. In the consumption of cheese, right.
And that caused a spike in cheese prices; is that right?
A. Yes. That was the main explanation for why cheese prices escalated considerably with respect to nonfat dry milk prices leading to a great divergence, historically wide divergence between Class III and Class IV skim.
Q. Okay. So -- and that's -- that's what leads to the divergence that we see on your chart, that's the second page of Hearing Exhibit 230, the divergence between the Class III and Class IV price, correct?
A. Seemed to have been a major -- the major causative factor, correct.
Q. And that's what caused the new formula which averaged the Class III and Class IV prices adding $0.74 to be lower than what the mover would have been under the old approach, which was based upon the higher-of Class III or Class IV, correct?
A. Right. As I testified yesterday, whenever Class III and Class IV advanced pricing factors diverged by more than $1.48 per hundredweight, the average-of base mover will fall below the former higher of.

Q. So that's why we, in July 2020, looking at your chart, start to see a $2.66 difference between what the new mover is and what the mover would have been under the higher-of approach?
A. That was -- yes. That's -- that -- that was probably the primary causative factor for that significant and historically largest divergence between the two movers.
Q. Okay. And that divergence continues well through essentially through the end of the 2020, correct?
A. That's correct.
Q. But I mean -- okay. So absent COVID and absent the government's response to COVID, which we certainly are not in any way, shape, or form criticizing, these -- this spike would never have happened, correct? At least not at this level, correct?
A. Yes. Let me --
Q. No, I'm asking questions. So you can --
A. But I want to answer your questions.
Q. Just that one. That this spike -- my question simply is, absent COVID and the government response to COVID, which I'm not in any way suggesting was wrong, but absent those things, the kinds of spikes you see here during the period from August through December 2020, in terms of divergence between how the old formula would have worked and how the new formula actually worked, you know, that would not have happened absent COVID --
A. No, that was a --

Q. -- and the response?
A. That was a historically large divergence in Class III and Class IV prices.
Q. Okay. So -- and so I mean, when, under normal conditions that we would not have seen that spike, correct?
A. Could you define "normal conditions"?
Q. Just absent COVID. Absent COVID and absent the government response to COVID, which obviously wouldn't have happened without COVID.
A. Let me answer your question as following. You go back to the history of how the agreement was made. I looked -- I did the analysis working closely with Mr. Mike Brown, led to the $0.74. I looked at how could you choose a period to make that average, and I quickly came to the conclusion that the only possible way was to go back and use the full set of numbers going all the way back to the inception of the Class III and IV prices, January 2000, and go all the way up to August of 2017. And that period included a time when the Dairy Price Support Program was -- was keeping the price of nonfat dry milk unusually high and, therefore, boosting Class IV.
And I decided that -- that -- with Mike Brown's concurrence, that that full historic record, including all the different market variations, including government intervention, because I worked for an organization that lobbies the government, and the government will intervene. You can't predict how it will intervene, particularly with

something like the Food Box Program. But intentionally that $0.74 analysis was done incorporating periods of government intervention anticipating that those periods would continue in the future.

What we could not foresee was a government intervention of the magnitude of the Food Box Program. But we did not -- we intentionally designed the $0.74 to encompass government action, among many other market -- you know, combinations of marketing circumstances, because this industry is affected by very, very many influences operating on it.

Q. I mean, it's -- is it fair to say that absence the extraordinary event of COVID, and the extraordinary response that the government felt it should make to COVID, the kinds of divergences between the old Class I skim milk mover formula and the new Class I skim milk mover formula would not have been experienced?

A. The second half of 2020 opened our eyes very, very abruptly to the fact that -- that government action, among other activities, could basically realize the downside asymmetric risk that the new average-of mover had.

And you will notice I pointed out in my testimony, that there have been three such downside episodes so far, and we expect them to continue. And they exhibit a ratcheting downward, so to speak, of these cumulative losses, as expressed in Figure 1.

Q. And just to be clear, we'll get to it in a minute, but IDFA -- I'm not standing here, nor is IDFA standing,

for the preservation of the current formula. You understand that?
A. Yes, I understand that.
Q. But, you know, when -- when you say -- when people say things like, farmers lost a billion dollars, this number here is $941 million, I mean, they -- that's not money they would have gotten under normal conditions, correct? I mean, that's extra money they would get only because the government intervention with respect to COVID, which as I say, we are not criticizing, had the effect of raising the Class III price far higher than it otherwise would have been. Isn't that fair?
A. Well, you are suggesting that somehow this is -- would have been ill-gotten money?
Q. I think it would have been an unexpected -- you know, an unexpected result of a government intervention, that was not --
A. Well, dairy farmers looked at it as if this is money we would have gotten if we had not made the agreement at the request of the processors to change the mover. And it was a very traumatic lesson imposed by the market, in its infinite wisdom, you might say, very short ly after the agreement was made to surrender the higher-of mover.
Q. But you agree with me, you could look at that as you -- as you would -- as some might say, from the other side of the telescope, and conclude that, well, this is money they would never have received under normal supply

and demand conditions, this is only money they would have received, A, had we not changed the formula; and B, given the fact that the government engaged in this extraordinary activity to deal with an extraordinary problem.

Isn't that a reasonable way to think it of as well?

A. Economists are very skilled at looking at things from many angles.

But -- but to sort of characterize it, again, we look -- in looking -- in researching the $0.74, we explicitly took government action into account as a legitimate data source for researching the historic record between the average-of and the higher-of Class III and IV. We anticipated future government action would affect market prices, and that was a reasonable assumption. And I think we're going to continue to see that going forward.

So to characterize the -- the extraordinary -- admittedly extraordinary divergence during the second half of 2020 does not mean that we consider that a one-off, black swan, never-to-happen-again anomaly. That is part of the business of the environment in which the dairy industry operates.

Q. And -- and of course there's another part of that environment, which is that USDA will step in to help dairy farmers directly when they feel there's a need to do so, correct?

A. This is a history of the government providing direct assistance to farmers of all sorts.

Q. Okay.
A. Like during the -- shortly before the pandemic, the -- there was an adjustment for some trade issues, trade mitigation payments as I recall.
Q. Well, let's talk about what the government did to benefit dairy farmers directly as a result of COVID and the things that happened.
Now, yesterday, Ms. Vulin showed you, and marked as Hearing Exhibit 231, a document indicating that the government had paid $360 million to dairy farmers as a direct result of the impact of COVID.
Is that -- do you recall seeing that --
A. Yes.
Q. -- document? All right.
Let me -- let me mark another USDA document.
MR. ROSENBAUM: Your Honor, I would ask this document be marked with the next exhibit number.
THE COURT: Yes, document first line, "USDA Announces Improvements to the Dairy Safety Net," I won't read the whole sentence, it is marked Exhibit 233 for identification --
MR. ROSENBAUM: 234 --
THE COURT: I'm sorry. Yes, correction. That afore-described exhibit is marked 234 for identification.
(Exhibit Number 234 was marked for identification.)
BY MR. ROSENBAUM:
Q. Now, this document is a press release by the U.S.

Department of Agriculture, August 19, 2021, entitled, "USDA Announces Improvements to the Dairy Safety Net and New Pandemic Market Volatility Assistance Program."
Do you see that?
A. Yes, I see this.
Q. And do you see that in this two-page press release, USDA states that -- I'm looking at the second paragraph, quote, "This targeted assistance is the first step in USDA's comprehensive approach that will total over $2 billion to help the dairy industry recover from the pandemic and be more resilient to future challenges for generations to come."
Do you see that?
A. Yes.
Q. And so in addition to the $360 million payment that we have already covered, am I correct that the government engaged in something called the Dairy Donation Program?
A. Yes. I'm not aware that an awful lot of product is moved through that program.
Q. If I said it was $400 million, would you dispute that?
A. I'm not sure -- I don't follow these programs as actively as other members of National Milk staff, but I don't -- I think the 400 million is basically money that was earmarked. I'm not sure that that was actually spent.
Q. Okay. Let me go to something that you may follow more closely.

Are you aware that USDA expanded the scope of the Dairy Margin Coverage Program by changing either the volume or the price at which that coverage would apply?
A. The Dairy Margin Coverage Program improvements that I'm aware of were primarily lowering of the premiums for coverage Tier 1 coverage.
Q. And if I were to say that the value of that was on the order of $580 million?
A. Yes, that program has been valuable. But that was not a pandemic-related program. That was basically dairy's Title 1 safety net that was originated in the 2014 Farm Bill as the Margin Protection Program.
Q. Right. But are you aware that they made it more valuable by changing certain of the requirements for coverage?
A. Yes, but I recall that that was done in the 2018 Farm Bill. I believe -- I don't consider the changes in the Margin -- the Dairy Margin Coverage Program to be pandemic related.
Q. Well, are you aware that there was a retroactive adjustment to the Dairy Margin Coverage Program?
A. Yes. I can't recall the details. But, yes.
Q. And that that specifically covered the period 2020 and 2021?
A. I can't recall those details. But, yes, there was a retroactive.
Q. And that ended up being worth $100 million. Does that sound right?

A. I would trust the figures in the USDA press release.
Q. Okay. Well, I'm not saying that figure's in this press release. I don't want to mislead you -- oh, no, I take it back. I'm sorry, it is there.
A. It is there.
Q. I'm sorry. So do you see -- okay. The very last paragraph in the document, "Outside the pandemic assistance, USDA will also make improvements to the Dairy Margin Coverage Safety Net Program, updating the feed cost formula to better reflect the actual cost dairy farmers pay for high quality alfalfa." And that that change was made retroactive to January 2020 and would result in extra payments of hundred million dollars, correct?
A. That's correct.
Q. And that USDA estimated that going forward this would, over the next ten years, result in an additional $800 million of payments to dairy farmers.
Do those numbers appear correct to you?
A. Oh, okay. I'm sorry. I wasn't aware you were asking a question.
Q. Yes.
A. Those are the numbers that are in this press release, yes.
Q. Do you have any reason to question those as being accurate?
A. No. They are forecasts. I make forecasts all the time, so...

Q. Well, and, in fact, do you question whether, in fact, these changes have resulted in payments of $80 million a year?
A. I don't question that, and I appreciate USDA's assistance to dairy farmers.
Q. So let's now move on to the proposals to change the Class I skim milk mover.
A. Uh-huh.
Q. And I'll ask that -- I'll now distribute a document I have marked as IDFA Exhibit 46.
MR. ROSENBAUM: Your Honor, if I could have that marked the next hearing number.
THE COURT: Exhibit IDFA 46 is marked as Exhibit Number 235.
(Exhibit Number 235 was marked for identification.)
BY MR. ROSENBAUM:
Q. Exhibit 235 is a memorandum to Michael Dykes of IDFA from Jim Mulhern of the National Milk Producers Federation, correct?
A. That's correct.
Q. And I assume you are familiar with that document?
A. Yes.
Q. Did you play a role in drafting this document?
A. I produced the chart on page 2 of this document.
Q. All right. And Mr. Mulhern was the senior -- most senior executive within National Milk --
A. Yes, he was.

Q. -- at this time, and Mr. Dykes was the most senior executive within the IDFA at that time, correct?
A. Correct.
Q. All right. And this memorandum addresses the question of what should be done from National Milk's perspective with regarding the Class I skim milk mover, correct?
A. That's correct.
Q. And Mr. Mulhern recites that when National Milk and IDFA had reached agreement to seek, ultimately successfully, legislation to replace the higher-of mover with the average-of plus $0.74 mover, the expectation was, both sides, that it would basically be revenue neutral. I'm not sure he uses the term revenue neutral, but I think that's what he's saying.
Do you agree with that characterization?
A. Yes, the expectation in the agreement was that the change would be revenue neutral.
Q. And -- and he recites that that did not turn out to be the case. I'm talking about Mr. Mulhern. Correct?
A. That's correct.
Q. And then on page 2 he sets forth a couple of ways to address the situation, correct?
A. Correct.
Q. And he says -- first of all, he references this matter as having been addressed by the NMPF economic policy committee, correct?
A. Correct.

Q. And there are various references to the committee in the document, and these are all references to that NMPF economic policy committee; is that correct?
A. Correct.
Q. And tell me who is on that committee. I don't necessarily mean the names, but I am just -- are they representatives from your members, or who is it?
A. They are representatives from our member cooperatives, both executives and dairy producers.
Q. Okay. And are you -- what's your role with respect to that committee?
A. We don't have formal staff liaisons, but I work very actively with that committee, because it involves economic policy, and my title is vice president for economic policy market research.
Q. Okay. And this is the economic policy committee, correct?
A. Yes, it is.
Q. All right. So in the second paragraph on page 2, you stated as follows, and I quote, "Two basic approaches to adjusting the $0.74 per hundredweight increment were considered."
I assume that means considered by the committee; is that right?
A. Yes. It was basically, you know, staff, you know, working together with some of our, you know, counterparts amongst our member cooperatives worked on this and presented the recommendation to the economic policy

committee, which is the first step in our adopting policy positions.

Q. Okay. And so let me just finish the reading, and then I'll have follow-up questions about what you just said.

But let me start because I only read the first sentence and interrupted myself, quote: "Two basic approaches to adjusting the $0.74 per hundredweight increment were considered. The first would adjust the increment based on a moving average of the difference between the average-of and the higher-of the Advanced Class III and Class IV skim milk pricing factors, with adjustments made quarterly.

"The second approach would adjust the increment only once every two years based on the same difference over the past 24 months of May through April, with adjustments taking effect for the following 24 months of May through April. The increment would not be set below $0.74 per hundredweight, nor would it be increased if the calculated adjustment were nominal, e.g., less than $0.05 per hundredweight.

"The NMPF executive committee reviewed the discussion of the economic policy committee and concurred that the biennial adjustment mechanism would be the most balanced approach to address the existing disparities," end quote.

Do you see that?

A. Yes.

Q. Okay. So obviously, this proposal went through review and approval by the NMPF economic policy committee in the first instance, correct?
A. Correct.
Q. And how does that committee govern itself? Is it a majority vote? Is it a super majority? How does it work? Consensus?
A. Technically it is a majority vote committee, but when there's a close majority vote, that is not practically considered to be strong enough. It usually operates by -- by consensus. Not always, but it's -- National Milk's had a pretty good track record of getting unanimous agreement amongst its decision-making bodies, which it has, for example, for the package of Federal Order modernization proposals, that five of which we are bringing to this hearing.
Q. Back on February 1, 2021, had the National Milk Producers Federation economic policy committee reached consensus that the second approach was the appropriate way, quote, "the most balanced approach to address the existing disparities," end quote?
A. I cannot recall whether it was unanimous, but it was, yes, generally agreed. I don't recall. And, again, I would point out that this was very quickly in the wake of the shocking events of the second half of 2020, when producers and National Milk was reeling, I would say, from those events, and we were very quickly looking for ways to make changes.

Q. Okay.
A. We continued to -- as I mentioned yesterday, we continued to adhere to the average-of base mover and focused our attention at that time on improving the average-of base mover with a focus on producer revenue.
Q. And -- and you -- the committee concluded that under this approach, the biennial moving average approach, that that approach would gradually recoup -- well, let me -- let me go to something else.
Let me focus more on the -- the statement that the NMPF executive committee reviewed the discussions of the economic policy committee and concurred that the biennial adjustment mechanism would be the most balanced approach to address the existing disparities.
What is the -- who is on the NMPF executive committee? Once again, I'm not asking you for specific names.
A. Similar to our economic policy committee, the executive committee probably has a larger proportion of dairy farmers, board members of our member cooperatives. The economic policy committee, a little bit more of a technical leadership group that probably has more staff -- cooperative staff executives on it.
Q. Okay. Is the executive committee -- I mean, are the executives -- do they tend to be, like, the presidents, if you will, of the various cooperatives?
A. They would tend to be the elected farmer chairperson or the CEO general manager.

Q. Okay. And can a co-op have more than one member or is it one member per co-op?

A. The executive committee, I think, can have proportionate representation. We have only recently reinstated an executive committee. Our ultimate decision-making body is our Board of Directors, and that membership in the Board of Directors is -- in terms of numbers of individual representatives is proportionate to the milk volume that our members have. And the executive committee mirrors that a little bit to some extent.

Q. How many members were there of the executive committee of as of February 1, 2021?

A. I can't remember, somewhere in the 20s or 30s, I believe, but I can't answer that definitively.

Q. And did -- was there an -- and what is their mechanism for approving things? Is it majority vote? Is it super majority? Is it consensus?

A. Somewhere in between. It's technically majority vote, but when there is a bare majority vote, things are looked at to see how that vote can be improved.

Q. I mean, you agree with me that, with some nuances, IDFA Proposal 14 and MIG Proposal 15 are essentially what you have laid -- laid out here?

A. They are very similar. But you recall, when, again, reeling from the events of the second half of 2020, we came back to the IDFA in the same spirit that IDFA processor representatives approached National Milk for assistance with changing the mover to make it more

hedgeable. National Milk came back to IDFA saying, we have a problem, and we need -- this is our suggested solution. And we proposed something very similar to IDFA proposal -- was it 15 you say?
Q. IDFA is 14.
A. 14.
Q. MIG is 15.
A. And we were very distinctly rebuffed.
Q. All right.
A. We were told we made an agreement; an agreement is an agreement; we are basically not going to react to your concerns that you are bringing to us.
Q. When did that happen as compared to February 1, 2021? Do you know?
A. I don't recall when that meeting was. I was on it. But I recall either late -- it must have been after this, because this is when we formally announced. But basically it was -- it was shortly around the turn of the year 2020 to 2021, give or take a few months.
Q. All right.
A. We came to IDFA fairly quickly, and we started our investigation of how to change the mover, coming -- ultimately coming up with those two recommendations that were later narrowed to one. We developed that even before the end of 2020, before the last December, you know, very strong divergence. So we got to work on this very quickly as soon as it became obvious what was happening in the second half of 2020.

Q. But just to be clear, the proposal in Hearing Exhibit 235, this is a proposal that was developed internally within National Milk, correct?
A. That's correct.
Q. All right. Let me mark as the next exhibit a document from the National Milk Producers Federation website. It is not there anymore. It used to be.
MR. ROSENBAUM: Your Honor, I ask that this document be marked with the next Hearing Exhibit number, please.
THE COURT: Yes. This document which has got a bold heading, "Class I Mover," will be marked Exhibit 236 for identification.
(Exhibit Number 236 was marked for identification.)
BY MR. ROSENBAUM:
Q. All right. So I'm showing you a document that's marked as Hearing Exhibit 236.
So are you -- are you familiar with what's called the "Wayback Machine"?
A. No, I don't --
Q. Okay. It's pretty neat.
So what the Wayback Machine does, it takes a picture of the entire Internet and saves it at various points in time.
A. Syncs it?
Q. Saves it.
A. Saves it.

Q. Saves it. Saves a copy.
And so you can search for materials that don't appear as of today. Okay?
A. Is this document a result of that technology in operation?
Q. Exactly it is. In fact, if you look at the very last page of the document, one of the -- one of the aspects of the Wayback Machine is it will tell you the date on which it copied a particular web page, okay? So if you look at the upper right-hand corner, you see December 13, 2021, in the -- I'm sorry, you have to turn it sideways.
A. Is that this page?
Q. Yes. And if you turn it horizontally, can you see the date December 13, 2021?
A. Oh, yeah.
Q. So that's the date it took the picture, but you can -- you can look it up today and see it if you go to the Wayback Machine website, which is on the very top of the first page. Okay?
So this is -- this is a document obtained yesterday, on September 19, 2023, by going to the Wayback Machine archives -- that's what they call it, the web archive -- and then search for certain things.
And my -- and can you confirm for me that the Class I mover proposal set forth on the National Milk Producers Federation website, as displayed here, is in fact, the -- what we'll call the 24-month lookback and

make whole approach that had been described in Hearing Exhibit 235 as, quote, "the most balanced approach to address the existing disparities," end quote?
A. Yes. I testified yesterday that throughout the spring of 2021, and you will see in pages 2 and 3, many pictures here, from the -- Wayback Machine, did you say?
Q. Yes.
A. -- with dates of April and May, and for example, April 23 and May 4th, "dairy farmers to seek emergency USDA hearing on Class I mover reform."
We were translating that proposal you -- that the memo marked Exhibit 235 described, we were seeking to petition USDA for an emergency hearing to hear that, but then received word that the Secretary was -- was hesitant to -- to -- we did not submit it formally, but we floated a draft through USDA staff. And we got word back that the Secretary was not eager to hold a hearing on that precisely because of opposition from IDFA, is how we read the read that opposition, and instead was going to seek Congressional funding to make some restitutions, that were ultimate ly turned into the PMVAP program payments.
Q. So the Secretary ultimately approved the -- some of the payments to dairy farmers that we have been talking about this morning, correct?
A. Yes.
Q. That's what he did as a substitute for taking action on this proposal, correct?
A. Right.

Q. And do you agree, as the Wayback Machine tells us, that at least as late as December 13, 2021, this was still posted by National Milk Producers Federation on their public website as their proposal for what to do with the Class I mover?
A. We did not formally change our -- you know, withdraw our support for this mover because by the time -- by the end of December 2021, we had started the current process that I described in my testimony, put into the record -- read into the record on Proposal 1, the -- what we call the NMPF Task Force Process, that led to, you know, our current position on Federal Order Milk Marketing Order modernization.
And as I described yesterday, we maintained throughout that process, up until October 2022, the option of a retaining an average-of based mover. We made changes through that task force -- the task -- the current task force process was not in place during the spring of 2021 when we adopted the 24-month lookback mover documented in Exhibit 235. We modified that to a -- to an annual reset, but with the same basic mechanism, but also with an updating adjustment to the $0.74 floor.
But we retained some form of a lookback and recoup option to retain the average-of based mover right up until our economic policy committee, executive committee, and board voted on the final recommendations and proposals.
Q. So -- I mean, so --
A. We did not -- we did not formally abandon an

average-of based mover until October 2022.
Q. Okay. So did -- and that proposal as -- once again, is quite similar to IDFA Proposal 14 and MIG Proposal 15, correct?
A. It is.
Q. Okay. And so did the economic policy committee itself vote against that proposal or for that proposal?
A. For which proposal?
Q. The -- it was the continued use of average-of Advanced Class III and Class IV, plus some amount with a lookback make whole.
A. The task force, dutifully, on its own initiative, and under the direction of our decision-making bodies, maintained in parallel on the issue of the Class I mover, one, retaining some version, which we call the best possible average-of based mover, and returning to the higher-of. That committee -- that task force did not make a recommendation. It presented both to the economic policy committee. The economic policy committee decisively rejected the average. There was no support, zero support, for maintaining any version of the average-of.
By that time, dairy farmers had had an entire year to make their executives, cooperative executives, aware of how they felt about it, and the feeling in the room, where I was present, was nothing besides the returning to the higher-of would even be entertained to be -- you know, from then on, from thence forward.

Q. Did the professional staff of National Milk itself take a position one way or the other?
A. No. We presented both options. What we did say was, this is our best recommendation -- if you wish to retain the average-of based fundamental mechanism, this is our recommendation for the best way to do that.
Q. Now, are you aware that IDFA -- I assume you have read the IDFA proposal, correct? Let me start the question again.
A. Yes.
Q. You have read the IDFA proposal.
And are you aware that the IDFA proposal starts out with the current approach of basing the skim milk mover on the average-of the Advanced Class III and IV prices but has a two-year lookback such that if it turns out farmers would have received more had the higher-of been in place, then that delta will be made up in further payments?
A. I found it very interesting that an approach that IDFA decisively rejected in early 2021 would resurface in an IDFA proposal for this hearing. By the time I saw the IDFA Proposal 14 and the MIG Proposal 15, we had long since crossed that bridge and come down decisively in favor of returning to the higher-of and no longer was were considering in any way, shape, or form retaining any version of the average-of based mover.
Q. But that -- that was, as you have said already, an approach that National Milk itself had developed?

A. Yes.
Q. And indeed had not only developed but maintained it as its proposal for at least a year --
A. Yes.
Q. -- correct?
A. We hung on to it as long as -- until the time in which our decision-making bodies needed to make a decision for how we were going to go forward.
Q. Let's go back, if we could, to the document we started out with, which is the joint IDFA National Milk Producer Federation recommendation to Congress, correct?
A. Yep. Yes.
Q. And that document on page 2 is listing what National Milk and IDFA both were telling Congress would be the advantages of moving away from the higher-of approach, correct?
A. Yes.
Q. Is it fair to say that your -- well, strike that.
Obviously, right now, your proposal is just to go back to the higher-of approach, correct?
A. Yes.
Q. Okay. And to walk away from the these advantages, correct?
A. Yes. Because we have seen, both in the second half of 2020, when we immediately decided that this document, the original average-of based mover with the fixed $0.74, we quickly came to the conclusion, even before 2020 came to an end, that was no good anymore. So

technically that invalidated the letter of this agreement.
Q. Well, it didn't --
A. But we continued to try to preserve the average-of based mover with this recoup provision, and we looked at various versions as the February memo that you gave out, as Exhibit 235 states.
Q. But -- well, but you no longer do. You're no longer preserving that as an option, right?
A. No.
Q. You are not --
A. The economic policy committee, in its recommendations that were approved up the line to the Board of Directors, decisively, finally, in late 2022, abandoned any support for the average-of based mover, but it -- it retained that support as long as was possible until a time to make decisions came.
Q. For my questions right now I just want to focus on your Proposal 13. Okay?
A. Yes.
Q. As it is now.
A. Right.
Q. Your Proposal 13 is to go back to the higher-of, correct?
A. Yes.
Q. And this document Exhibit 232, is the document that contains IDFA's and National Milk's joint rationales for why the higher-of is not the better approach, correct?
A. Yes. We have changed -- we have changed our mind

on the higher-of -- or on moving to an average-of based mover, just like IDFA has changed its mind on the average-of based mover from early 2021 of decisively rejecting it to embracing it in Proposal 14.

Q. As an example, if you look at the bullet points of advantages that were set forth in the joint National Milk/ IDFA statement that's on the second page of Hearing Exhibit 232, one of them is, quote, "allow the use of existing Class III and Class IV futures and options to manage Class I price risk with minimal change to the FMMO system," correct?

A. Yes. That's right part of this.

Q. And that statement was made as an advantage of the then proposed, now actual, average-of Class III and IV plus $0.74 over the then existing higher-of, correct?

A. Yes. This document, though, was made in 2017, shortly after the agreement, long before the pandemic, long before it -- the change was implemented, in the first flush of -- of coming to an agreement with members of -- between members -- between NMPF and IDFA, following -- if I can be candid -- sort of a long stretch where relations between the two groups were not as productive as they could have been. We were very pleased to have reached agreement on something that we thought we were giving up but that we -- that it was worth it. We -- we basically had confidence in the revenue neutrality of it, and we were very pleased that the very process of coming to an agreement with IDFA, wad a very positive thing.

And we still continue to feel that way about many things, including the recent agreement between National Milk, IDFA, and American Farm Bureau on the legislative language for the mandatory cost study. Very pleased with that.

But this was all before the events depicted in Figure 1 on page 7 of Exhibit NMPF-30.

Q. My question was narrower.

Do you agree with me that going back to the higher-of would eliminate the advantage set forth that I just read into the record, namely, that going away from the higher-of would, quote, "allow the use of existing Class III and Class IV futures and options to manage Class I price risk," that that will be -- that will be abandoned if your proposal is accepted?

A. We have --

Q. I'm not asking you whether on balance you think that's a price worth paying. I'm just asking you whether that's a price --

A. I'm not going to answer that question because I'm not that much of an expert on risk management. We have witnesses who will testify to exactly your -- the point you are making.

Q. And do you similarly -- you see the next bullet point, that going from the higher-of to an average plus $0.74 would, quote, "provide several benefits that can result from the ability to hedge longer-term costs for fluid milk products," end quote.

Do you agree with that will be lost if your proposal is --
A. Yes. This document laid out the reasons for coming to an agreement. This document does not have the benefit of the experience that we have seen since 2020 in the downsides to the agreement.
Q. And I am not asking you whether, in your view, how the downsides and upsides weigh against each other. Obviously your proposal reflects that.
What I --
A. Yes.
Q. I understand that you don't see the downsides and upsides the way you did before. But I'm just trying to see whether, in fact, you would agree with me that the return to the higher-of would result in the loss of the advantages that had been identified in -- here in Exhibit 232?
A. But in Exhibit 232, these are general statements that are not data-backed. We do not disagree that -- that the current mover is more hedgeable, to some extent, how widely it is used, how much the benefit is, compared to what has subsequently emerged as the significant downsides for the producer community. That's a -- that's a calculus that we now are weighing and have decided, as -- as contained in Proposal 13.
Q. And once again, I'm not asking you to accept my view of how they should be weighted. You have made your decisions on that.

A. Yes.
Q. What I am asking you, though, is to -- is to --
A. There were some benefits of making the change. Otherwise, we wouldn't have agreed to it.
Q. Exactly.
A. We basically accepted the processors' need to hedge and basically practice risk management for Class I, as they came and requested it. We did not question that.
Q. And -- okay. And -- okay.
And so you do not question that the return to the higher-of would make it extremely difficult to hedge Class I because you don't know -- if you are a processor, because you don't know whether the Class I price is going to be set on the Class III price or the Class IV price?
A. I can't agree with that statement with the word "extremely difficult" in it. It would make it -- let's -- presumably, from what I understand about risk management, it would make it somewhat more difficult. How much more is something I cannot -- I cannot evaluate. There are others who know more about risk management than I do.
Q. And presumably, the Class I handlers who actually engaged in it since the change was made in May 2019 would have a view about that, too.
A. I have read all of the testimony on this issue that's been submitted so far, and I have not seen very much, other than qualitative statements, talking about the value in terms of volumes hedged, growth of volumes hedged, value to processors, and their customers of that

hedging ability. I would love to see that kind of information in the record.

MR. ROSENBAUM: That's all I have at this time. Thank you.

THE COURT: Okay. We have been going for about an hour and a half. Should we take a break?

Let's come back at 9:35.

(Whereupon, a break was taken.)

THE COURT: Back on the record.

Mr. Rosenbaum.

MR. ROSENBAUM: Your Honor, during my questioning I represented I would provide the URLs for a couple of the documents that I used, and so I would like to do that, if I could.

THE COURT: Yes.

MR. ROSENBAUM: Hearing Exhibit 233, which is the document -- USDA document entitled "USDA Farmers to Families Food Box," that is found at https://www.ams.usda.gov/ -- and then I'll read out the words, there's a hyphen between each of these words -- selling-food-to-USDA/farmers-to-families-food-box.

And then, for Hearing Exhibit 234, which is the USDA press release, that can be found at https://www.usda.gov/media/press-releases/2021/08/09 -- and then there's a series of words, there's a hyphen between each one -- USDA-announces-improvements-dairy-safety-net-and-new-pandemic.

And, your Honor, at this point I would like to move Hearing Exhibits 232, 233, 234, 235, and 236 into evidence.

THE COURT: Any objections?

No objections, so those exhibits -- that was 232 through 236, right?

MR. ROSENBAUM: 232 to 236, your Honor.

THE COURT: Those exhibits are entered into the record.

(Exhibit Numbers 232, 233, 234, 235, and 236, were received into evidence.)

THE COURT: Okay. Who is next with this witness?

MR. MILTNER: Ryan Miltner representing Select Milk Producers.

CROSS-EXAMINATION

BY MR. MILTNER:

Q. Good morning, Dr. Vitaliano.

A. Good morning, Mr. Miltner.

Q. Are you familiar with the concept of a black swan event?

A. Yes.

Q. And to your understanding, what does a -- what is a black swan event, so make sure we have the same understanding.

A. It means sort of a once -- once-only, one-off, unusual event, unexpected, usually with serious consequences. That's just off the top of my head.

Q. I would -- the similar characterizations I would

have in my mind, so that will help us with the next few questions.
Would the COVID-19 pandemic be a black swan event in your understanding of that phrase?
A. So far, since we have not had a worldwide pandemic in my memory, they say that this may happen more in the future, which case, maybe it won't be so black when the next one happens.
Q. But as to that one?
A. As of right now, that is a one-off in the sense that it was an international pandemic.
Q. So when -- and now were you part of the team at National Milk that helped to develop and analyze what is the current Class I mover calculation?
A. Could you restate that in terms of the timing? Yes, I have been involved in the Class I mover analysis since 2017.
Q. So you -- you were involved with the -- the evaluation of moving from the higher-of to the current average plus $0.74?
A. Yes.
Q. And you did some -- did you do some modeling during that analysis?
A. I did some calculation. I wouldn't call it economic modeling.
Q. During the discussions and the work that you did, how much attention was given to the possibility of a massive disruptive event, black swan event?

A. There was not so much a specific analysis on unusual events. We knew that dairy markets can -- are capable of continuing to throw surprises at us. As I mentioned, during the negotiations there was a suggestion that -- that in giving up the higher-of at the request of moving to something more hedgeable, at the request of the fluid milk processors, that we were -- again, we did not have any need or any desire to give up the higher-of, but we were willing to consider an alternative if we were comfortable enough, what we knew at the time, of the trade-off.

And it was suggested at one point, well, we're giving up something with a higher degree of assurance than an average-of, which tied -- the advantage of the higher-of, as pointed out in USDA's, you know, Federal Order Reform decision, is that it -- it moves the Class I price independently by Class IV products supply/demand conditions versus Class III.

My moving to an average-of, those two are tied together, and it's giving up some flexibility. And it was recognized that that was a trade-off with a potential downside. But the agreement was made that sort of an arithmetic revenue neutrality based on the available historic record would be the basis for the decision.

Q. And I think maybe your answer there helps kind of drive toward the point I would like to ask about. And that is that using the higher-of Classes III and IV allows the Class I price to better respond to those market shock

events, those black swan events, or other substantial disruptions, doesn't it?
A. Yes. By definition, it can insulate against a negative shock to one of those major manufacturing segments that would -- that would drop the Class III or Class IV price if it did not affect the other.
Q. Now, despite what other merits or disadvantages the alternative proposals to Proposal 13 might have, do you believe that Proposal 13 best protects producers against the effects of a market shock, like a black swan event?
A. To the extent that that it does not protect them completely. A market shock could drop Class III and Class IV together. But given the -- given the alternatives, we are satisfied that the higher-of would -- would continue to perform acceptably, as it had, you know, from 2000 to 2017. And had it continued through the pandemic, had this agreement not been made, we would have definitely become convinced that the higher-of -- given the events of the second half of 2020, we would have been convinced that the higher-of was the best possible average -- best possible Class I skim milk price mover, even if we were not convinced beforehand.
Q. Thank you.
Now, do you have Exhibit 230 in front of you? That's your data table?
A. Are you talking about 230-A? The one-page thing or the testimony?

Q. It is NMPF-30A.
A. Yes.
Q. And I believe that's Hearing Exhibit 230, but --
THE COURT: It is.
MR. MILTNER: Okay. Thank you, your Honor.
BY MR. MILTNER:
Q. Now, I'm looking at the -- what at least I think is the second page of it. It's the one that lists the monetary impacts on the right-hand column?
A. Yep. Yes.
Q. Put aside the issues that occurred in the second half of 2020, and maybe just look at 2021 through the present. The overall impacts to producers, it's still a substantial lower price than what producers would have realized under the higher-of; is that correct?
A. Yes.
Q. Does that suggest to you that even putting aside these substantially disruptive market events, that the current mover, the average mover, is not performing as NMPF and its members intended?
A. That's correct.
Q. So even if there were no Pandemic Market Volatility Assistance Payments, or Food Box Programs, or anything related to COVID, and the government response, the reality for National Milk is that the change has not performed as intended, correct?
A. Yes. And as I testified, there have been two subsequent episodes of divergence of -- between the two

movers that is more than the $0.74 maximum advantage that the current mover has over the previous higher-of. And we can expect such called down-ratcheting episodes to continue in the future.

Q. And I think this has been stated in the record, it's probably in your testimony. But the move to an average-of III and IV, that was a directive in the Farm Bill, a Congressional directive, correct?

A. Yes.

Q. One that was supported by National Milk, though, correct?

A. Yes.

Q. Now, that Congressional directive also -- it locked the industry into that particular Class I mover for a period of two years, did it not?

A. Yes, it did.

Q. But by locking in for two years, it gave the industry an opportunity to see how this change performed, did it not?

A. That's correct.

Q. And then opened up the opportunity for the industry to move back to where we were or adopt a completely different option if it turned out that the 2018 Farm Bill mechanism didn't perform as expected?

A. That's correct.

Q. So Congress clearly contemplated that this might or might not be the best solution, correct?

A. That's correct. I doubt that we would have supported the legislation if it had not had that reversion after two years to the ability to change through the normal Federal Order hearing process.

Q. Okay. So, secondary, I wanted to ask you about related to -- or relates to your questions and answers yesterday with Ms. Vulin, and particularly your exchanges regarding pooling of milk and depooling of milk.

Do you recall those questions?

A. Yes.

Q. Okay. I recall the questions, and I'm having a hard time synthesizing all the answers into a position.

A. Okay.

Q. So what is National Milk's position -- or if it's not National Milk position, your opinion -- on when depooled milk represents disorderly marketing?

A. We don't have a position on the issue of depooling. We feel that that is a matter for individual orders and individual members of National Milk to decide whether they want to have strong depooling rules, like in Order 1, or, you know, less strong ones, and that the decisions to depool milk are individual, you know, decisions to be made by those who participate in those pools.

They can become destabilizing when, for example -- and we'll have -- we'll have witnesses testify on that -- when dairy farmers within the same cooperative or different cooperatives who are close to each other but pooling on different orders, experience significantly different prices, because milk is depooled in one order and not in another order.

So, you know, it's a -- it is a fine line as to when it becomes disorderly. But when milk is routinely depooled and causes disparities, particularly between producers -- we represent dairy farmers and so we're particularly sensitive to those -- that then becomes disorderly.

Q. So it would -- there would be market disorder if producers in the same co-op in different marketing areas receive different prices because one order was pooled and one was depooled; is that -- did I get that correct?

A. Yes, that would -- that would -- that occurs and is distressing to dairy farmer members of our member dairy cooperatives and the leaders of those cooperatives who have to deal with the unhappiness that that generates amongst producers.

Q. If that depooling were the result of that cooperative's business decision to maximize returns to its overall membership, would that still be disorderly?

A. Our members are free to make those decisions, and they make those decisions in the best interest of their members. We would be loathe to characterize a decision made freely by any of our member cooperatives in the interest of its own members. But when the collective behavior of the various cooperatives and non-cooperative actors in the -- you know, in Federal Order pools creates that kind of disruption, then objectively, it would be

disorderly. But we are not pointing the finger at any one actor. They are just acting rationally.
Q. And I'm not trying to point fingers either. I'm trying to come up with scenarios to get a handle on your opinion on these issues. So I didn't want that to come across that way.
A. Yeah.
Q. If -- now, the decision as to whether milk gets pooled, sometimes that's a decision for the supplying cooperative, and sometimes that's a decision by the purchasing handler, correct?
A. I don't know how those decisions are made.
Q. Let me ask you about a scenario that's not involving a cooperative necessarily. But if there were an independent producer who supplied milk to a cheese plant, an independent cheese plant, proprietary cheese plant, and that farmer was paid by contract the uniform price for that order, and the proprietary cheese plant chose to depool and kept all that revenue for itself and did not share it with its supplying patron, but in full -- you know, in full compliance with its contractual obligations, would that be disorder ly?
A. I would assume that if the producer knew the facts, that producer would be unhappy with that. And I would recommend if I were chosen to advise that producer, he should join a cooperative, he or she should join a cooperative.
Q. If there were -- a different scenario now. If

there were two producers, both members of the same cooperative, in the same marketing order, and one of those producers was able to qualify all of its production as producer milk, and the other, because of the terms of the order, could not qualify their milk, and therefore, it was not pooled, would that be disorderly?

A. Well, from -- I would say it would depend on the prices that the two producers would receive, and the extent to which they are approximate to each other and compare milk checks.

Q. Let's assume that the prices they receive are different and that they are supplying milk to the same plant in the same order, but one is able to get their milk pooled and one can not.

A. That would be disruptive whether -- again, we keep talking about disorderly marketing, and it would be good to get a more precise definition of that. But this hearing -- this whole entire hearing is not really to discuss pooling regulations.

What we are seeking to do, including on -- in Proposal 13, is to find ways in the interest -- in the -- in connection with modernizing the provisions of the Federal Order program, particularly the product price formulas, that will increase the distance between Class I prices and the manufacturing grade prices, which is a fundamental feature of Federal Orders. And by so doing, we would reduce the incentives -- or reduce the number of occurrences in which depooling is profitable to somebody in a Federal Order pool.

That's what we can address in this hearing without getting into the business of judging whether depooling is right or wrong, or disruptive or not. We believe that the Federal Order system would be best served if depooling were less frequent.

Q. And so you probably are -- somehow you knew where I was headed. Because my next question was going to be how does this concept and this discussion about depooling really tie back to the Proposal 13, and I think you -- you pretty well answered that.

But if I could summarize and you can correct me where I'm wrong: Proposal 13 in National Milk's opinion, will decrease the occurrence of depooled milk which will contribute to more orderly marketing; is that correct?

A. Yes. I'm pleased that I'm developing the ability to read your mind. And you -- you're -- I agree with it.

Q. And I'm disturbed by it but -- and not because it's you. I just don't like letting other folks in there.

A. I will not abuse the privilege.

MR. MILTNER: Thank you very much. I don't have anything else.

THE COURT: Further questions for this witness?

Dr. Cryan.

CROSS-EXAMINATION

BY DR. CRYAN:

Q. Good morning, Dr. Vitaliano.

I am Roger Cryan for the American Farm Bureau

Federation.
A. Good morning, Dr. Cryan.
Q. You have talked about -- in your colloquy with Mr. Rosenbaum, you talked about market conditions changing and that leading, in some part, to a rethinking of the Class I mover. And they have been changing for some time. There's been increasing volatility over the last 30 years.
Is that one of the considerations?
A. Yes. The markets are changing. They generally seem to become more volatile. They continue to throw us surprises. And as I have testified before, the basic foundation for what -- for National Milk's package of proposals at this hearing is to update the Federal Order formulas that were in many cases fixed in place in 2000 so they would be able to catch -- keep up and keep keeping up in the future with the changes the industry is bringing to us.
Q. And one the challenges of Class I pricing that has changed, another one the marketing conditions that has changed, has been the smaller Class I volume which leads to a need to have more -- more closely aligned prices?
A. Yes. The declining utilizations of Class I in Federal Orders is making their operation more challenging.
Q. And one of your objectives here is to try to get -- with the higher-of, to get the Class I in better alignment?
A. To the extent that it's possible with that mechanism.

Q. And in -- when you think about disorderly marketing, there was some questions that tried to -- to get you to say that just the prices going up and down. But really the concern is a predictable relationship within the Federal Order system.
A. Yes.
Q. And I guess another thing I'd ask is that ultimately -- you represent cooperatives. They represent farmers who ultimately represent farmers. And they have pretty consistently concluded that the higher-of is their preference; is that correct?
A. They have emphatically concluded that, yes.
Q. And there was discussion about that returning to the higher-of would eliminate the opportunity to hedge Class I milk on the existing contracts on the Chicago Mercantile Exchange, what used to be called the Chicago Mercantile Exchange. But if the -- if there was a return to higher-of, it certainly would be a possibility for the CME, or for another exchange, to institute a Class I futures and options complex; is that right?
A. Yeah. I'm not a risk management expert, but my -- my experience has been, when there's a perceived need within the industry, the industry is inventive enough to find solutions to that.
Q. And do you think it's appropriate for CME policy to dictate USDA policy?
A. I'm not aware that they are dictating policy.
Q. Well, in the sense that if there's not a Class I

futures contract, we should, therefore, just, you know, dismiss the possibility of going back to the higher-of?
A. I don't think in any case the possibility of reverting to the higher-of should be dismissed for any grounds.
Q. Very good. Thank you.
I don't want to ask questions I don't need to ask, so give me a moment while I -- okay.
So COVID had an impact. But is it your understanding that even leading into COVID there were growing gaps between block and barrel prices?
A. Yes. Something was causing barrel and block prices to diverge markedly starting in 2017 from the previous 16 years under -- of Federal Order Reform. Something was changing in the supply/demand relations affecting those two types of cheese, effectively making those two markets become separate markets. And we testified to that effect on Proposal 3.
Q. Right. And so the COVID exacerbated the problem, it wasn't the entire cause of the problem?
A. Seems to be. I think one of the early COVID years was the widest divergence.
Q. And would you say another problem that is -- or another phenomenon that has developed is the larger gaps between -- well, the growing tendency -- recent tendency for powder prices -- powder buttermilk prices -- values to be above the cheese and milk values?
A. Yes. Whether that's a permanent feature is hard

to say. But as I pointed out in my testimony in Exhibit NMPF-30, there were two recent instances in which the current Class I mover underperformed the higher-of and resulted in a further down-ratcheting of this Class I skim milk revenue to producers, in this arithmetic sense of my analysis, are due to imbalances between supply and demand for cheese versus butter/powder -- cheese and whey versus butter/powder.

Q. And when Class IV prices go above Class I, and presumably as a result go above uniform prices, that also creates the disorderly marketing through the depooling of Class IV milk; is that correct?

A. Yes.

Q. And the point of returning to the higher-of, as I understand it, just to clarify, is to limit the farmers' -- the farmers' downside from that change in the formula?

A. To eliminate that asymmetric risk that is inherent in the -- an average-of based mover, even with a recoup fe- -- revenue recouping feature.

Q. And that becomes worse as markets become more unpredictable and prices diverge more than they have in the past?

A. Anything that diverges Class III and Class IV worsens the average compared to the higher-of.

Q. And -- and, again, I guess this is -- so your concerns about misalignment are for both the alignment of Class I with Class III and the alignment Class I with

Class IV?
A. That's correct.
DR. CRYAN: That's all I have. Thank you very much.
THE COURT: Further questions of this witness, aside from AMS?
Seeing none, Ms. Taylor.

CROSS-EXAMINATION

BY MS. TAYLOR:
Q. Good morning.
A. Good morning.
Q. Hard to believe I have anything left to ask you after all this time. Just a few questions.
So first question, when -- when National Milk decided to push for the change to the Class I mover, besides the goal of risk management, did National Milk recognize that any of the other three purposes of the higher-of -- and those would be providing a good incentive to attract milk supplies away from manufacturing, reducing Class I volatility, and then minimizing price inversions, and those were listed as reasons we adopted the higher-of in reform -- did you look to see if any of those three things could be negatively impacted by the change at the time you were conducting that?
A. If we had -- if we had announced a surprise quiz for any of our decision-makers whether they could name those provisions, I'm not sure I could guarantee what the answers would be.

There was a general understanding up until that time that we were very happy with the higher-of mover. We recognized on some intuitive level, probably varying degrees -- I'm not sure that any of us could have recited all three of those at that time -- but there was a general awareness that separating -- allowing Class III and Class IV prices to independently move the Class I skim milk price was -- had a lot of benefits. And it was, you know, simply because the higher-of intuitively made good sense.

Whether they -- and I think there probably was an intuitive understanding that it would help reduce instances of depooling and decouple the Class I price from -- from, you know, a Class III or Class IV market that was being negatively impacted by supply/demand imbalances, whereas the other was -- was -- was not so impacted. There were -- all of those provisions were intuitively understood. Whether they could have been so completely articulated is another issue. But there was a great appreciation and great support for the higher-of.

Q. Okay.

A. There was no dissatisfaction with that mover on behalf of National Milk up until the time of that agreement.

Q. Okay. On page 6 where you talk about the asymmetric impact and the asymmetric risk to producers, I think we at USDA just want to make sure we are very clear on what that means. We have heard that many times, even

before this hearing.
And so I want to understand if I can summarize, the risk is -- as you see the risk, is the upside to producers is capped --
A. Yes.
Q. -- at a buck 48. If the difference is more than a buck 48, kind of your --
A. The upside is capped at -- the mover is at $0.74, half of $1.48.
Q. Half of $1.48.
But on the downside, risk to producers is much greater?
A. Yes. It's -- it's -- I wouldn't call it unlimited because the movers -- neither Class I -- III or Class IV is ever going to go to zero, but it -- as I say, the highest we saw was the movers diverged by, I think $5.16, when the II, III, and IV differed by over $11, or close to $11 I believe it would have been, which is -- you know, $5.16 to the negative is asymmetric when you consider a maximum of $0.74 positive.
Q. All right. Thank you for that.
Does National Milk plan to -- or does National Milk have any evidence on whether Class I handlers actually use the risk management tools available to them after this change?
A. I would say that the maximum evidence that I have seen would have been reading through the IDFA and the MIG testimonies on -- on this segment of the hearing, where

some -- some processors have testified that they have been using it. I have not seen very much quantitative data of volumes of product that are hedged with the help of the average-of mover or -- or an economic value on having that ability compared to the abilities to hedge admittedly more limited ones under the higher-of. We have not seen that kind of data.

Q. And so you are not sure -- or National Milk doesn't have upcoming testimony on -- for your members that do have Class I plants, whether they are able to --

A. We're going to have some testimony from Class I -- our members that have Class I plants --

Q. Okay.

A. -- on that issue.

Q. And so when you were evaluating the new mover back in 2017, 2018, did National Milk ever kind of -- you did a -- you know, you did a lookback analysis to determine the benefit of the higher-of to producers, and that's how you came to the $0.74. So you kind of did a lookback on the -- how the change could impact producers under, at that time, normal circumstances.

A. Yes.

Q. Did you ever do a lookback analysis so see if, in fact, you know, the Class I processors did use the futures market, would they have benefitted from the change?

A. We did not have information at that time of any risk management hedging activity by processors. They came to us and said that they were unable to do it under the current mover, so the assumption was that very little was being done.

Q. Okay.

A. I would add that Dr. Scott Brown is going to later testify on analysis -- economic analysis he's done on our proposals. He will have more information on the mechanics -- the arithmetic of the higher-of versus the average-of mover.

Q. All right. Thank you.

And on page 9 you talk -- you have a statement where you are describing the IDFA and the MIG proposals, "all effectively adopt the higher-of as the standard for generating the Class I skim milk price revenue to dairy farmers through Federal Order pools."

Just I want to see if you could make clear for the record what you mean by that.

A. Well, as you have seen in those two proposals, as with the average-of -- the modified average-of movers that National Milk has looked at, as we discussed in the cross-examination by Mr. Rosenbaum, they all adopt the higher-of and the lookback difference between the higher-of and the average-of Class III and IV -- as you know, determining on a moveable, adjustable, updatable basis.

So just as the $0.74 was frozen in time, all of these modified average-of proposals -- proposals, including the two from MIF and MIG, adopt the higher-of as the standard against which to judge how far historically in a lookback the average-of has fallen below that, and they have taken that difference as an adjustable mover in a way to effectively emulate the income level of the higher-of. So in that sense, the higher-of remains a shadow standard against which all future movers have been -- have been evaluated so far, and probably will continue to be so.

MS. TAYLOR: Okay. I think that's it from AMS. Thank you.

THE COURT: Other questions?

Redirect.

REDIRECT EXAMINATION

BY MS. HANCOCK:

Q. Okay. Dr. Vitaliano, I just want to see if I can summarize a couple of things and make sure that we're clear on what's transpired in your testimony throughout yesterday afternoon and this morning.

But this morning in particular, Mr. Rosenbaum spent a considerable amount of time walking through kind of the historical events that led us here from Order Reform all the way up until today. Is that fair?

A. Yes.

Q. Okay. And I want to see if I can just summarize it so I can make sure I understand what happened.

So we start with Order Reform. We have the mover is the higher-of. That's where it originated?

A. Yes.

Q. And then in 2017, IDFA approached National Milk

and said that they were having some risk management challenges and asked if National Milk would support a move of the mover to the average-of?
A. The original request did not specify an average-of, but move to something from the higher -- move from the higher-of to something that the two sides could agree would have been more hedgeable.
Q. Okay. And ultimately that discussion became the higher-of -- or I'm sorry -- ultimately that discussion became the average-of?
A. Fairly quickly that discussion settled on the average-of as the alternative mechanism.
Q. And just for my chronology, I just want to clarify, it was around 2017 and at the initiation of IDFA?
A. That's correct.
Q. And the goal at that time was to solve for risk management challenges that they were having?
A. Yes. To make Class I prices more hedgeable.
Q. And a key consideration from National Milk's perspective was the fact that it would be revenue neutral?
A. Yes. We --
Q. Meaning revenue neutral with respect to the impact on the dairy producers?
A. Yes. The producers would not lose any net -- any revenue from Class I skim milk pool values.
Q. And so National Milk agreed, on behalf of its members, to support what was initiated by IDFA in order to assist them with their risk management and hedging tools,

on the condition that it was understood to be risk neutral?
A. Revenue neutral, yes.
Q. Revenue neutral I should have said.
A. That's correct.
Q. And ultimately that was accomplished through some legislative changes?
A. Yes.
Q. And there was a two-year trial period that was put in place to make sure that everybody had a window of time within which they could see how it played out.
A. Yes. There were precedents for that.
Q. Okay. And then -- and at the end of that trial period, and in particular when the pandemic hit in 2020, it allowed you to see in realtime that there were some unintended consequences to having the average-of be the mover?
A. That's correct. Shortly -- not much longer than a year after the change, the market taught the industry a very severe lesson on its unpredictability.
Q. And is it fair to say that your producers were -- were very unhappy with how the real world had taught them that lesson?
A. That is an understatement.
Q. Okay. And -- and so you come up with a proposal that was presented to IDFA sometime on or before February of 2021 that suggested, hey, if we're going to keep this average-of, can we have a new updated system that would

allow for a true-up or something that would get us to where we were in the higher-of, because that's what was intended all along is that this was revenue neutral?

A. Sometime around early 2021 we presented to IDFA something substantially similar to IDFA Proposal 14.

Q. Okay. And Mr. Rosenbaum gave you Exhibit 235, which was that memorandum that was sent to IDFA, Michael Dykes, from National Milk, Jim Mulhern; is that right?

A. Yes. Describing the proposal that was adopted by our executive committee.

Q. And this was intended for National Milk to say, hey, this didn't work out like we all thought it would have worked out, let's revisit this the same way that we had talked about previously?

A. Yes. You came to us with an express need. We -- we accommodated that request. We are now coming to you in turn with a need, and we ask, you know, your support to accommodate our issues.

Q. And the letter in Exhibit -- or the memo in Exhibit 235, at that point in time, by February of 2021, you had estimated a cumulative loss of $725 million in revenue that the producers have lost as a result of this change. Is that accurate?

A. Yes. You can -- you can kind of see that intuitively in my testimony. Figure 1, if you look right about the end of 2020, you see that it had reached 700 -- that cumulative losses had reached a little more than negative $700 million.

Q. And just so our record is clear, this is your testimony in Exhibit 229 on page 7?

A. Yes. In Exhibit 235, that red line, up until where the blue line diverges from it, was effectively an early version of Figure 1 on page 7.

Q. Okay.

A. If you compare those, you will see they are very similar. They graph the same thing. Figure 1 has several more years of data in it.

Q. Okay. On Exhibit 235, on that first page, in your next to the last paragraph on that page, you say, "These price disparities have resulted in a cumulative loss of about $725 million in Class I skim milk revenues to dairy farmers during these six months."

Do you see that?

A. Yes. And I believe the 725 refers to just the six months, not the cumulative going back to May 2019.

Q. Okay. And then the graph that you had referenced that you included in your memo to -- or in National Milk's memo to IDFA, that showed the cumulative loss that had occurred at -- throughout the course of that average-of mover?

A. Yes, up until that time.

Q. And you even show in there that there was an initial time period where it performed better than the higher-of is that fair?

A. That's fair.

Q. You weren't trying to hide the ball or anything,

were you?
A. No. And if you look at Figure 1 in my testimony, you will see that after that second half of 2020, there was another period of sort of net recovery, modest, kind of almost mirroring the first year or so in 2019, 2020, where the net result was positive. There -- as I characterize it in the testimony, the performance since then has basically consisted of periods of modest recovery and then a significant down-ratcheting without a full recovery from those increasingly lower -- lower levels.
Q. Okay. So then in response to National Milk's attempt to get IDFA to work together to get back to what was intended, which was revenue neutrality in the mover, what IDFA responded, and I think when you were talking with Mr. Rosenbaum, you said IDFA rebuffed National Milk?
A. That is correct.
Q. What did IDFA do?
A. They said they were going to study the issue, but they did not -- unlike the way National Milk reacted to the original request from IDFA to accommodate their interest in getting a mover that was more hedgeable, they gave absolutely no indication that they would support this.
And they must have communicated to the Secretary of Agriculture that they, you know, would -- would not support that, to the extent that when we developed a request for an emergency hearing on the issue in the spring of 2021, we were given feedback that the Secretary,

quite understandably, did not want to hold a hearing on something that was as divisive as apparently that issue would have been.

Q. Okay. So it was your understanding that IDFA thwarted National Milk's attempts to work with the USDA to have an emergency hearing?

A. Yes. To institute an early version of IDFA Proposal 14.

Q. And then it looks like following that time period, if I look at Exhibit 230, beginning on or around February of 2022, there's another period of time that has a considerable drop in the comparison between higher-of and average-of performance?

A. Yes. This second one was later in 2022. If you look at Exhibit NMPF-30A, that's Hearing Exhibit 230, yes, you are right. On page 2 you will see that August -- from August '22 through November '22, those four months, we had four months in which the current mover was basically a dollar or more, one of the lowest was $0.98 in November. But those -- those four months, the negative -- you know, the shortfall of the current mover against the higher-of was greater than the $0.74 positive, which was the maximum possible increase the current mover could have over the higher-of.

Q. And -- and if we look at -- if I look, for example, at May of 2019, it looks like there was a positive impact of having the average-of at $24.8 million; is that right?

A. Yes.
Q. And is that reflective of pretty close to that $0.74 cap that you had talked about?
A. The difference -- well, as I said, the difference in the two movers was $0.68 to the benefit of the current average-of based mover plus $0.74. The maximum possible difference between the Class III and Class IV price for the current mover to be higher than the higher-of is $1.48 in either direction.
Q. Okay. I was just wondering --
A. So when it's below $1.48, the number on the right column, the monthly number, will be positive on page 2 of Exhibit 230, and whenever -- whenever the two -- Class III and Class IV advance skim milk price movers are above $1.48, the number in that column will be negative.
Q. Okay. So it looks like, if I'm looking up and down this column, the highest number that I can find in a positive direction, meaning that the average-of performed better than the higher-of, was around this 24.8 number, which occurred in May of 2019?
A. Yeah, if you go to October '21, you will find the difference is $0.73. That's $0.01 short of the maximum possible.
Q. Okay.
A. The -- the two Class III and Class IV fact- -- skim milk price factors were almost the same, and that gave 25.5, so that's pretty close to the maximum, let's say 25.8. And, again, that varies with the -- with the

volume of pooled skim milk, which has been dropping every month, year to year.

Q. And if we look at October of 2022, the other end the spectrum, it looks like that one is a negative 70.1 million?

A. Yes.

Q. And we can see that it went even higher during the pandemic at almost 200 million at times?

A. That's correct. If you go back to December 20th, that is the maximum, the $5.19 -- I was referring from memory to $5.16 -- $5.19 was the greatest difference in the two movers to the negative of the current one, and that was $193 million per month loss.

Q. And does that --

A. Arithmetically calculated.

Q. Okay. So does that arithmetically exemplify that asymmetrical discussion that you had with Ms. Taylor, showing -- quantifying what can happen, that the downside is so significant --

A. Yes.

Q. -- compared to the upside potential?

A. Right. The maximum positive number in that right-hand column is going to be 25 plus some -- maybe call it 26.

Q. And -- I'm sorry.

A. Go ahead.

Q. And so this time period when there continue to be some unintended consequences of moving to the average-of mover, this continued to occur even after your February 1st, 2021, memo to IDFA in Exhibit 235; is that fair?

A. That's correct.

Q. And if IDFA said that they were going to do some further economic analysis and then maybe thwarted your efforts to try and get the emergency hearing, did they then come back to you and say, we're willing to consider this at this time because it seems to be continuing?

A. I did not see any IDFA -- I do not recall that IDFA came back to us with any conclusion or data or evidence on their examination of alternative movers.

Q. And now that we have National Milk's proposal at this hearing, which reverts to the higher-of, it's your understanding that IDFA would like to now go back and reconsider the offer that National Milk had made to -- to have a compromise position in February of 2021; is that right?

A. That's how I would interpret IDFA Proposal 14 and MIG Proposal 15.

Q. Okay. We've heard lots of questions about, but there was government assistance and -- either through the Pandemic Relief or otherwise, that might have offset some of the losses that -- that the producers felt by moving to the average-of.

Do you know whether the producers have been made whole for the differences that they have experienced in the prices they have received?

A. They have not.
Q. And is it National Milk's position that producers should rely on government subsidies in order to make themselves whole?
A. We don't think it is appropriate. We appreciate the assistance when -- when it was needed, but we don't think it's appropriate for the Federal Order program to rely on appropriated funds spent by the Secretary to make -- make whole problems with the class price formulas, when changes to those formulas can be made regulatorily to fix those problems. And that's what we're proposing now.
Q. All right.
MS. HANCOCK: Your Honor, that's all the questions I have. We would move the admission of 229 and 230.
THE COURT: Mr. Rosenbaum rises.
MR. ROSENBAUM: No objection to the admission, but this triggered questions.
THE COURT: You want to go ahead and put them in? All right.
Seeing no objections, Exhibits 229 and 230 are admitted into the record.
(Exhibit Numbers 229 and 230 were received into evidence.)
THE COURT: Mr. Rosenbaum contends the doors were open on redirect.
MR. ROSENBAUM: Yes.

RECROSS-EXAMINATION

BY MR. ROSENBAUM:

Q. First of all, you do -- do you acknowledge that IDFA Proposal 14 would achieve the revenue neutrality that was the initial intent of the move from the higher-of to the average plus $0.74?
A. Over a span of time with a -- with a lag.
Q. And second, I don't want to get -- it is true that before proposals were submitted that led to these hearings, there were discussions between National Milk and IDFA, at which Proposal 14, or something along those lines, was raised in an effort to reach a compromise position, correct?
A. Yes, we had some discussions on that.
Q. So it's not -- okay. But in the end, the gap between the two entities' positions was not --
A. I'm recalling --
Q. -- unsurmountable?
A. Yeah. I recall most of those discussions occurred after the National Milk board had decisively adopted what became Proposal 13.
Q. Some of the proposals -- some of the discussions had already occurred; is that right?
A. I believe the discussions occurred after the decision -- after National Milk's board adopted Proposal -- basically the Proposal 13, and that -- that was our policy. And the discussions, as I recall, were are we willing to rethink that policy? And the answer was, no, we were not willing to -- we -- we talked -- we engaged in discussions, but we did not make any change in

our policy based on them.
Q. Is it fair to say that there were discussions between National Milk and IDFA regarding a broader set of issues, not just the mover --
A. Yes.
Q. -- and in the end, the parties simply could not reach an --
A. Yes.
Q. -- agreement?
A. I remember those broader discussions more vividly. There was one virtual meeting in which, you know, a -- some final discussions and decisions were made -- were to be made, and after 12 minutes the meeting was adjourned as being very clearly recognized on both sides as unlikely to reach any agreement.
Q. Okay. But that -- there were actually meetings before that meeting, correct?
A. Yes. Yes.
Q. Okay. Now --
A. We -- we engaged in good faith, but to a great extent, our policy on many of these issues were -- was already decided by our Board of Directors.
Q. All right. Now, in terms of the calculation of farmer losses, if you want to use that term, we have already discussed the question of whether those are true losses or not --
A. Yes.
Q. -- and I'm not going to rehearse that again. And

we have talked about the government programs; not going to talk about that again.
A. Yes.
Q. But two other issues that I don't think have been raised, and I want to check whether or not your calculations reflect that.
First of all, cheese manufacturers made additional sales as a result of USDA program, correct?
A. Yes. Those were commercial sales paid for by -- by government funds.
Q. Okay. And to the extent that -- strike that.
And both proprietary and co-op cheddar cheese manufacturers were sellers of cheese through that program, to the government, correct?
A. That's correct.
Q. And as the tracking of Class III minimum prices indicates, the selling price of cheese during that time period went up, correct?
A. That's correct.
Q. That's why the Class III price went up because, of course, the Class III price is the -- calculated, as we have been talking about for days now, based upon the sales price of cheese minus the Make Allowance, correct?
A. Correct.
Q. And so to the extent that those were sales that were made by cooperative cheese manufacturers, the value of that is not reflected in your calculation of losses, correct?

A. And appropriately so. Because don't forget, we were in a pandemic where people were losing their employment and were losing their ability to commercially buy cheese and other dairy products and other food products. So the true, what we would call economic baseline against which to evaluate whether those were additional sales would be what would have happened without the pandemic.

The Food Box Program -- but I can't give an exact number, but the Food Box government-funded purchases of dairy products was intended to replace lost commercial sales. So it was not a complete gain, it was a replacement through non-commercial channels, so to speak, of what would have been commercial sales if the economy had continued normal and employment had continued normal and had not been affected by the pandemic.

Q. But the fact that the Class III milk price went up so materially was an indication that during the -- certainly during the key months that that program was in effect, it -- it had a positive effect on sales prices, correct?

A. Compared to what actually happened. Comparing it to what would have happened without the pandemic is the question economists would really look at.

Q. Compared to what had happened --

A. Yeah.

Q. -- over the previous 12 months in terms of cheese prices, correct?

A. It was better for milk prices than if no purchases had taken place, given the pandemic.
Q. Well, it was better than what the -- what the cheese price had been --
A. Yes.
Q. -- without any pandemic whatsoever, correct?
A. No question.
Q. All right. And then similarly, if you were a -- let me back up and start the question over again.
For many cheese -- start that one more time.
Obviously there are proprietary plants that make Class -- start that one more time.
Obviously there are many proprietary plants that make cheddar cheese, correct?
A. Correct.
Q. And they can either themselves pool the plant or -- correct? They can pool their own plant, right?
A. Or depool their own plant.
Q. Yeah. I mean, or they can simply have a cooperative be the pooling entity and then sell the milk to them, correct?
A. Yes. The cooperative or a proprietary have the ability to depool Class II, III, and IV milk.
Q. I mean, a number of proprietary plants don't themselves pool, but what they do is they have a cooperative sell them the milk and -- to be used for Class III purposes, and the co-op is the one that's -- that's the fueling entity?

A. Yes. I'm not that familiar with the actual workings of the orders, but whoever is responsible for the pooling decision is able to make that decision if it's not Class I milk.
Q. Okay. And obviously the Class III price went up, we have seen that.
A. Very clearly.
Q. And to the extent that there were cooperatives that were selling Class III milk at the Class III price to proprietary cheese plants, they benefitted from the higher Class III price, correct?
A. Yes.
Q. And that, once again, is not reflected in your calculation of losses, correct?
A. No. Right. The contribution of the Food Box Program to improving Class III prices and its effect on improving all milk -- you know, prices received for milk by dairy farmers is acknowledged. The analysis is not intended to look at the overall change on milk prices, but specifically the decision to change from the Class I movers. It is clearly indicated. Figure 3 is labeled "Cumulative Producer Losses Due to Change in Class I Movers," not due to pandemic activities overall.
Q. And I'm not suggesting you have misled us. I'm just asking whether or not the $951 million of losses here does not reflect the -- the money made by cooperatives --
A. Yes.
Q. -- in selling Class III milk to proprietary

handlers?
A. Yes. You have correctly characterized what I have analyzed here.
MR. ROSENBAUM: That's all I have. Thank you.
THE COURT: Any further re-cross or before we wrap it up with -- no?
Redirect.

REDIRECT EXAMINATION

BY MS. HANCOCK:
Q. Dr. Vitaliano, when the board for National Milk voted and approved the decision of National Milk to proceed forward with seeking to change the mover to the higher-of, did you have members on your board that are also members of IDFA?
A. Yes.
Q. So when IDFA did come back to National Milk after you had approved the decision to go to higher-of, you understood that they were already aware you would have made that approval; is that fair?
A. Yes.
Q. And then, during the pandemic, do you recall that -- that in the early part of the pandemic that there was milk that had been dumped?
A. Yes. There was dumped milk in the very beginning of the pandemic. We have talked about that at other testimonies. The cooperatives, between the months of March and May 2000, beginning of the pandemic, quickly adopted standby mechanisms that they have always had and

put them in place in a very unified fashion, unusually so, to discourage excess production of milk, that could -- temporarily could not find a productive use as the supply chains radically shifted from foodservice to retail. It was an enormous adjustment the industry made, and the fact that they made it so quickly is a testament to the flexibility of the industry. But it was not instantaneous.

Q. Okay. Thank you.

MS. HANCOCK: I have no further questions.

THE COURT: Seeing nothing else, thank you, Dr. Vitaliano. You may step down from the stand.

We have been going about an hour and ten minutes. Is now -- yeah, we would like to take a ten-minute break. Let's come back at 11:00.

(Whereupon, a break was taken.)

ROB VANDENHEUVEL,

Being first duly sworn, was examined and testified as follows:

THE COURT: Ms. Hancock.

MS. HANCOCK: Thank you.

DIRECT EXAMINATION

BY MS. HANCOCK:

Q. Good morning, Mr. Vandenheuvel. Thank you for returning to the stand.

Did you prepare Exhibit NMPF-102 in support of your testimony today?

A. Yes.

MS. HANCOCK: Your Honor, I don't remember where we're at in the exhibits.

THE COURT: I have got what would be a comprehensive list. Let me just go down to the bottom. NMPF-102 will be marked 237.

(Exhibit Number 237 was marked for identification.)

MS. HANCOCK: Thank you.

BY MS. HANCOCK:

Q. Mr. Vandenheuvel, would you proceed in offering your testimony in Exhibit 237, please?

A. Yes. Thank you.

This testimony is presented on behalf of California Dairies, Inc., hereafter CDI, and is submitted in opposition of Proposal Numbers 10, 11, and 12.

I'll skip down because I have already introduced CDI in previous testimony.

CDI strongly supports a thorough examination of all elements of the Class III and IV formulas, including the various price discovery mechanisms, Make Allowances, and product yields. National Milk's economic policy committee discussed all three of these items in the exhaustive work done over the past two years to compile our comprehensive set of proposals being considered at this hearing.

Unfortunately, in the absence of broad-based, industrywide data in the area of product yields, we did not pursue an update to any of the product yields as part of our comprehensive package. Realizing that there were likely yield improvements that could be considered once that broad based industrywide data was available, National Milk opted instead to take a more tempered approach to the long overdue Make Allowance adjustments that was included in our proposal.

As I stated in my earlier testimony regarding the Make Allowance levels in Proposal Number 7, the lack of available data on product yields is one of the few specific reasons CDI is supporting a tempered Make Allowance adjustment in this hearing that is less than what the available data indicates the cost of processing could be, as estimated by Drs. Mark Stephenson and Bill Schiek.

Select Milk Producers, Inc., hereafter Select, has done a laudable job in their submittal of Proposals 10, 11, and 12 to create a preliminary dataset in the area of yields. But given limitations in this dataset, which I will discuss in more detail in this testimony, it is the position of CDI and National Milk that this issue is best addressed in the context of a comprehensive review of Make Allowances and yields following the collection of mandatory manufacturing cost and yield data, under authority being pursued in the current Farm Bill.

Proposal Number 10: Butterfat Recovery.

CDI is not correctly engaged in the manufacturing of cheese, so I'm not prepared to provide technical testimony on this proposal. I would merely comment that in the absence of broad-based, validated data from a mandatory plant cost and yield study, National Milk has indirectly addressed this potential yield improvement by proposing a tempered adjustment to Make Allowances.

Proposal 11: Form-to-Plant Shrink.

The Federal Order regulations require handlers to account to producers and the pool on the basis of farm bulk tank weights and tests. As such, it is appropriate to account for reasonable variances between milk weights at the farm and what is physically received at the plants. While the information presented in this hearing by Select provides interesting insight into how a cooperative of their size and profile has been able to manage those farm-to-plant variances, CDI has concerns with Proposal 11's intent to completely eliminate any accounting for farm-to-plant shrink in establishing product yields in the Class III and IV formulas.

Select is in a unique position in the marketplace. The combination of full load pickups at the farm, typically measured by an on-farm scale, and at least occasionally transported in super tankers, certainly has the potential of reducing the long-term gap between weights measured at the farm compared to weights received at the plant.

However, even with Select's near optimal structure, given testimony by Cheslie Stehouwer on behalf of Select, testimony given on behalf of Select noted that over the course of a year, deliveries from their own member farms to their Michigan facility saw plant weights that on a weighted-average basis were 0.20% below reported farm weights. And that's from page 4 of Select Exhibit 4, or Hearing Exhibit 218.

Further, that same table indicates that according to Select's records, receipts of milk to their Michigan facility supplied by other cooperatives saw variances in plant weights that on a weighted-average basis were as much as 0.32% below reported farm weights.

Further, on the issue of whether the additional butterfat yield adjustment of 0.0150 pounds of butterfat per hundredweight of milk, Select provides no direct data comparing farm-to-plant butterfat shrink in their testimony other than the general statement that, quote, "to the extent that butterfat losses occur, they do not occur at a rate greater than overall solids loss," end quote.

I believe the rebuttal testimony of Alison Krebs of Leprino Foods yesterday provided a fair assessment of the potential additional butterfat losses that can occur, as butterfat clings to the walls of both the farm tank and/or the milk tankers in the process of loading and unloading tankers at the farm as well as at the plant.

Select's population of member farms may have unique characteristics that mitigate some of this risk of milk and component shrink, but it is the position of CDI and National Milk that a change to the current farm-to-plant shrink calculations should not be adjusted based on a single -- based on single source data.

Select's testimony also claims that "the vast majority of milk produced in the United States is produced on farms with sufficient cows to produce a full tanker load at each pickup." In attempting to substantiate this claim, Select's testimony notes that "assuming every-other-day pickups, a farm milking 375 or more cows will fill a full 50,000-pound tanker."

There are some issues with this analysis. First, in order for a farm to facilitate every-other-day pickups, the farm must have the available milk storage capacity to hold 48 hours of production.

Second, to achieve the intended efficiencies, that on-farm milk storage must include at least one tank or silo that is capable of holding enough volume to completely fill a milk tanker. To illustrate this point, I would like to explore a sample herd with 375 milk cows, producing an average of 67 pounds per day as referenced in Select's testimony. Select Exhibit 1, or Exhibit 216 overall.

That dairy, producing an average of 25,000 pounds per day, may currently have on-farm capacity holding 30 to 35,000 pounds in order to handle the seasonal ebbs and flows of their daily milk production. Accordingly, the idea of every-other-day pickups would not work in this case without additional investment on the farm.

For the sake of this example, I will assume that there is adequate space within the milk house to add additional on-farm capacity. Adding another tank that could hold 30 to 35,000 pounds or a second day of milk production, and may allow for better hauling efficiencies -- may allow for better hauling efficiencies as a truck could fully load their tanker in a single stop.

However, such an investment by the farm would do nothing to improve the farm-to-plant shrink as unloading two separate on-farm tanks back to back would likely have no improvement to shrink compared to unloading one of those tanks each day. Instead, the farm would need to replace their current on-farm holding tank with a tank or silo that could hold at least 50,000 pounds or larger in order to handle the seasonal swings in milk production. Only then, with a single hose used to completely unload the tank into the milk tanker, could the improvement in farm-to-plant shrink be realized.

Beyond the detailed logistics of holding up to 48 hours of milk, there are also other considerations that must be taken into account. Every-other-day pickups mean that some of the milk in that tank may be up to 47 hours old at the time of pickup. While that may still meet Grade A requirements, it adds additional cost and risk to the farm. First, that milk must be held at 45 degrees or colder for up to 47 hours, resulting in higher cooling costs. Second, the longer the time between milk production and pickup, the more opportunity for any bacteria present in that milk to grow.

This exploration is not intended to disparage efforts to improve on-farm infrastructure in order to facilitate supply chain efficiencies. CDI has recognized this opportunity and several years ago implemented a stop charge in the hauling expense charged each month to our member farms for their on-farm pickups. This stop charge applies every time a truck must arrive at the dairy to pick up milk, which in turn, directly incentivizes our milk -- our member farms to build full loads of milk and minimize the number of times the truck must stop at their farm.

CDI recognizes that our member farms are generally larger than the average U.S. dairy farm with a weighted average of about 2,000 milking cows per facility. However, even with that profile, and a direct financial incentive created by CDI to build full loads, an analysis of all milk pickups in 2022 indicated that only 73% of our milk pickups were full load pickups. This is despite the fact that 99% of CDI's member milk supply is produced on member farms, producing at least 25,000 pounds of milk per day or enough to build a full 50,000-pound load at least every 48 hours.

Incentives and Disincentives.

Chris Allen's testimony on behalf of Select stated that, quote, "achievable efficiencies should be promoted rather than discouraged," end quote. CDI agrees that the construct of Federal Order formulas can play a role in incentivizing or disincentivizing participant behavior.

However, in this particular case, it should be noted that an elimination of the accounting for farm-to-plant shrink in the formula, as proposed, would place an added cost on the cooperative and other buyers of milk while the ability to improve the farm-to-plant shrink is firmly in the hands of the producer on the farm.

Buyers of raw milk already have an inherent incentive to minimize farm-to-plant shrink as payments to farmers are based on farm weights, so any variance between farm and plant weights contributes to plant loss. However, some of the efficiencies on farm, such as investing in an on-farm scale or flowmeters, are essentially asking for the dairy to absorb at least some of the farm-to-plant shrink rather than that burden falling on the plant.

If Proposal Number 11 were in place, the producer would be paid as if 100% of the milk in their farm tank is delivered to the plant, whether they make that investment or not.

The Select witness noted that USDA could decide to modify, rather than eliminate, the current farm-to-plant shrink factors built into the Class III and IV yield factors. However, it is the position of CDI and National Milk that due to the lack of broad-based, industrywide data to support such a change, and our approach to propose a comprehensive package that takes a balanced and tempered approach in light of that available data, Proposal Number 11 should be rejected.

Proposal Number 12: Class IV Solids Nonfat Yield.

As proposed earlier -- as stated earlier in this testimony, National Milk shares an interest in a robust evaluation of all factors in the Class IV formula, including the assumed solids nonfat, or SNF, yield. However, as also noted earlier in this testimony, National Milk believes that such a reevaluation is best conducted following the collection of broad-based, validated data from a mandatory plant cost and yield study conducted by USDA.

The current Make Allowance and yield in the Class IV solids nonfat formula is based on nonfat dry milk, or NFDM. As noted in Select's testimony, this yield factor does not include an adjustment for buttermilk powder, a byproduct of the butter churning process that has different uses in the market, different costs of manufacturing, and different price points from NFDM.

Select went further in their testimony, stating that USDA's policy decision in the 2002 Final Decision was erroneous in opting to not adjust the product yield factors to include the solids that end up in buttermilk powder. However, there are multiple reasons why a more cautious approach was, and continues to be, warranted in the absence of additional data.

Despite both products being processed through a similar drying process, buttermilk and nonfat dry milk are two separate products, both in their component composition and their utilization in the marketplace.

With regard to component composition, nonfat dry milk may have no more -- that should say, no more than 1.25% butterfat, while buttermilk powder may have no less than 4.5% butterfat. Given this difference, the products are not interchangeable and have different demand and customer profiles. Buttermilk powder tends to be purchased for cake mixes, bakery pre-mixes, while nonfat dry milk tends to be purchased as a protein source in cheese making, confectionary, and nutrition purposes.

Select has testified as to the price alignments between buttermilk powder and nonfat dry milk in their experience as a marketer of both products. They have also conducted an analysis of results from Dairy Market News, a weekly publication of USDA's Ag Marketing Services.

While this serves as an interesting starting point for data collection in this area, there are important limitations to this data. First off, Select's own data is limited by their sample size -- by the sample size of their transactions. While Select's witness did not state the total production of butter or buttermilk powder, their data is nonetheless a single source that, based on testimony, includes some months where no buttermilk is dried due to the lack of butter churn activity.

Further, while Dairy Market News has its place in the market as a market information source, it falls well short of the standards set by the National Dairy Product Sales Report as a broad-based, volume-weighted, and validated source of price discovery for buttermilk powder. Weekly Dairy Market News price ranges are unaudited, unweighted, and limited to those market participants who choose to participate in direct communications with USDA staff compiling those weekly reports.

There are no reporting standards, such as restrictions on the fixed price contracts, or specification details that would differentiate bulk milk -- bulk buttermilk powder sold for traditional bakery utilization versus buttermilk powder with a higher specification, sold for use in infant formula, as Select noted is their market of choice for their buttermilk powder.

These comments are not intended to disparage the Dairy Market News, which provides a good summary of market status and trends. It is simply a recognition of the limitations of this dataset.

Lack of Validated Processing Cost Data.

References to manufacturing costs for buttermilk powder, both in previous hearing records and in this hearing record, have been general at best. Select's testimony has referenced a previous estimate dating back to the 2002 Final Decision that the cost of producing buttermilk powder is $0.02 higher than the cost of producing nonfat dry milk. However, for multiple reasons, this is not an adequate data point to justify a change in the Class IV solids nonfat calculation as a result of this hearing.

First, a more thorough review of the 2002 Final Decision indicates that the concept of a buttermilk powder make cost equal to nonfat dry milk make cost plus $0.02 was not universally accepted. The Final Decision includes references to testimony of buttermilk powder processing costs up to $0.03 higher than nonfat dry milk processing costs at the time.

Further, those references are now more than 20 years old. Testimony provided by Select's witness, Steve Cooper, indicated that there are multiple efficiency losses associated with drying buttermilk when compared to the process of drying nonfat dry milk. The first is the need for additional purge time, as he stated, as a clean break is needed on those dryers that are processing both buttermilk powder and nonfat dry milk.

In addition, with buttermilk powder having more than three times the amount of butterfat as nonfat dry milk, Mr. Cooper noted that the need to run the dryer -- noted the need to run the dryer at a slower speed. This would not -- this not only would result in higher utility costs, as noted by Mr. Cooper, which can vary from region to region, with my home state of California likely on the higher end of that cost spectrum, but also would result in other manufacturing costs, such as processing labor, increasing on a per-unit basis, as it is spread out over a smaller volume of processed milk solids per hour.

Minimum Prices and Other Formula Considerations.

It should not be ignored that we are setting a minimum price and that the largest handler impacts of these proposals would be felt by manufacturing cooperatives that operate Class IV plants largely for balancing purposes. These plants play a critical role in orderly milk marketing as they unlock the potential for proprietary manufacturers to purchase milk as needed for optimal manufacturing and marketing efficiencies. However, the formulas include no specific accommodation for those balancing costs.

Despite this reality facing CDI and other cooperative members of National Milk, we are still collectively taking a tempered and balanced approach when it comes to adjustments to the manufacturing milk price formulas. This is intentionally done as we believe that while some adjustment to those calculated milk prices is warranted in the near term, given the challenges and cost structure over the past 15 years, a more substantial adjustment to all elements of the formula, including Make Allowances and yields, is best done with a backdrop of broad-based, industrywide, validated cost and yield data.

Additional considerations: All Milk Solids Are Subject to Class IV Component Prices.

When milk is purchased -- or more appropriately, when butterfat and solids nonfat is purchased -- for Class IV use, the handler must account for all solids purchased, not just those solids that are ultimately converted into butter or nonfat dry milk. A reasonable debate on how to properly structure the Class IV component formula is a fair exercise, particularly if additional data is secured that could provide an updated industrywide validated perspective on market prices, manufacturing costs, or yield changes.

However, claims that the manufacturing of buttermilk powder represents, quote, "pure profits," end quote, since buttermilk powder is not explicitly referenced in the Class IV solids nonfat calculation, as referenced on at least one occasion during the examination of Select witnesses, is unfounded in light of the fact that all milk solids are purchased at the Class IV component price.

Also, during the redirect of Steve Copper, Select's counsel posed a question to the witness relating to the current yield factor of 0.99 in the Class IV solids nonfat formula. The question led the witness to answer that 1 pound of solids nonfat should be able to produce 1.02 pounds of nonfat dry milk since nonfat dry milk has certain volume of moisture.

However, it should be noted for the record that the 0.99 yield factor is not applied to the Class IV solids nonfat price, but instead, to the nonfat dry milk price net of the Make Allowance. In other words, the formula does not purport to assume that 1 pound of Class IV solids nonfat would make 0.99 pounds of nonfat dry milk. But instead, that 1 pound of nonfat dry milk can be made from 0.99 pound of solids nonfat.

As stated earlier, a reasonable debate about yield factors is fine, including, if and how to account for buttermilk powder in a regulated formula. But I do not believe Select intended to enter into the record that when looking specifically at the production of nonfat dry milk, that it would take 1.02 pounds of solids nonfat to make 1 pound of nonfat dry milk.

In conclusion, National Milk has proposed five updates to the Federal Order milk pricing formulas for this hearing, in addition to our -- in addition to our focused effort to authorize USDA to conduct mandatory plant costs and yield studies. That comprehensive package was carefully crafted as a balanced approach, taking into account the industrywide data that we have, while also being mindful of the industrywide data that we currently lack. It is the net results of that package rather than the individual proposals themselves that garnered unanimous support from National Milk's Board of Directors. Thank you.

Q. Thank you, Mr. Vandenheuvel.

One of the -- one of the issues that you raise in your Exhibit 237 testimony is that the proposals by Select lacks sufficient data input; is that fair?

A. Yes.

Q. And it is true that you on behalf of CDI could have put some additional data into the record with respect to just CDI's experiences?

A. Correct.

Q. Would that have solved the concerns that you have and that you have raised in your Exhibit 237, if you and even if the rest of just National Milk's members had put that data into the record?

A. It would have provided a more robust dataset. It still would have had limitations in is it truly representing what's going on industrywide, is it validated, is it being measured across the consistent set of reporting requirements. So it would not have resolved the issues that we have, which is why we took the more comprehensive approach that we did to the whole tempered balanced proposal.

Q. And similar to National Milk's position with respect to Make Allowance, it does not want to get the number wrong, and so it's requested its proposals dependent on and conditioned on a future adoption of a mandatory audited cost survey; is that right?

A. Correct.

Q. And National Milk supports in that request for an audited mandatory cost survey, that it would also include yield data as well?

A. Absolutely.

Q. And then once we have that comprehensive and complete information that is verifiable through the audited the process, and mandatory, meaning that it would include everyone's responses that has reportable products, that would alleviate the concerns that you have raised in Exhibit 237 with respect to the dataset?

A. Yes.

Q. Okay.

MS. HANCOCK: That's all I have, your Honor. We make him available for cross-examination.

THE COURT: Questions for this witness other than from AMS?

CROSS-EXAMINATION

BY MR. MILTNER:

Q. Good morning, Mr. Vandenheuvel.

A. Hello.

Q. I'm Ryan Miltner, I represent Select Milk Producers.

Did -- in preparing your testimony, did you read all of USDA's discussion of the testimony, the rationale, and the conclusions from the 2002 Final Decision on this issue?

A. Read through it. Would not like to be quizzed on remembering everything I read. But, yes.

Q. So in -- in broad terms, is it -- is it correct to state National Milk's position on Proposals 10, 11, and 12 as not appropriate for consideration because they were not vetted through a -- what I would classify as an audited census of yields?

A. I would say in isolation, that would be correct. In evaluating the proposals individually or as a collection of three proposals, the lack of data provided provides concern.

You asked about a broader National Milk position. Our broader position is that we acknowledge there are likely valid changes to the yields that would make sense, but in the absence of that data, decided to approach it more holistically in the basket of five proposals we put forth.

Q. And that does bring me to one of the questions here. In the basket of five proposals that National Milk has, do any of them address yield factors at all?

A. Not directly, no.

Q. In fact, on page 1 of your statement, you state that, "In the absence of broad-based, industrywide data in the area of product yields, we did not pursue an update to any of the product yields as part of our comprehensive package."

That's -- that's an accurate statement of National Milk's process on this issue; is that right?

A. Yes. During the course of that process, we had discussions of yields. I believe we inquired of Dr. Stephenson whether his analysis included yield data or could include yield data. We were not able to develop what we thought was an industrywide dataset on yields, and that led to that statement in the testimony.

Q. And you stated that in the absence of that comprehensive census or survey, that you did not think that CDI's data in particular would resolve your concerns about the data that Select has presented, correct?

A. Correct.

Q. So CDI does not intend to introduce any data on the farm-to-plant shrink of shipments from your cooperative, do you?

A. That's correct.
Q. Do you -- do you maintain that data?
A. We maintain -- yeah, we maintain general data on farm weights and how they compare to scale weights. We have the same limitations that Select witnesses testified to. Not every customer plant provides plant weights. But for -- for plants that do scale, we have that dataset.
Q. For CDI's plants would you be able to do a similar analysis to look at the plant side of that equation and see, for milk coming into your plants, what the difference between farm weights and plant weights would be?
A. A vast majority of the milk coming into CDI's plants is from our own members, so we would have clear visibility there. And a little more difficult to pull some of the non-member milk data, but not impossible.
Q. That did lead to one of the questions I had a little later, so we'll take it now.
CDI does purchase some outside milk for processing at its facilities?
A. We have some limited balancing agreements with fellow cooperatives, and then some limited spot purchases throughout the year.
Q. So on page 2 of your statement where you are talking now about, instead of general concerns about addressing yields now, about the specific proposals Select has put forth, and in Proposal 10 you state that "National Milk has indirectly addressed this potential yield improvement by proposing a tempered adjustment to

Make Allowances."

And I wonder if you could expand on how a tempered adjustment to Make Allowances addresses yield concerns.

A. When you are looking at the manufactured class formulas, yield and Make Allowances are two sides of the same coin. They adjust -- they are adjustments off of a product value to ultimately generate a milk value. And that's the ultimate goal here is what is the milk value, what's the value of milk sold -- the milk purchased by the -- from the farm, milk sold by the dairy.

When you look at the data that is out there on Make Allowances, with all the limitations that we have talked about -- or that I should say on processing costs, the data all leads to a possible conclusion that costs have gone up more substantially than what National Milk is proposing.

There's challenges in evaluating that data, and we have -- in discussion of Proposal 7 I went through that in more detail as to why there are a number of questions around that data that should be cleared up with a mandatory study.

But in setting those Make Allowances for Proposal 7, National Milk intentionally took a more conservative approach, recognizing that yields, also in the formula, also valid things to look at, we did not have data. So that and some of the questions around the -- the cost study, the processing cost study we had, led us to a proposed Make Allowance that was more conservative in terms of a change than what we would have done if we had perfect data on yields.

Q. So when you say that Make Allowances and yields are two sides of the same coin, I think what you are conveying is that increasing the Make Allowance would decrease the resulting price in the formula; similarly, adjusting yields upward would increase the resulting price in the formula. Is that correct?

A. That's correct.

Q. And so then further what I think you are saying is that there -- there are certainly arguments from IDFA and Wisconsin Cheese Makers that the Make Allowance adjustments should be greater than those proposed by National Milk, correct?

A. Correct.

Q. Which would result in a lower price from the formula, correct?

A. Yes.

Q. And that National Milk's approach, to the extent it results in a higher output price, might also be incorporating some upward yield adjustments.

Does that accurately capture what you are conveying or trying to convey?

A. Yeah, I think that's a good summary. We've got a mix of science and art in this process. And -- and I would say we made judgment calls in the interest of the art portion, where the science wasn't there, to accommodate these considerations, when our ultimate goal and USDA's ultimate goal is to establish a value for the milk, with these various levers being the things they can pull.

Q. Now, you have -- I think you have explicitly stated it, I hope I'm not misstating that -- this -- but there's an acknowledgement by National Milk that there are likely adjustments to the yields that could be made to make the formulas more precise; is that correct?

A. I would agree.

Q. So if that has been acknowledged, if USDA were to adopt IDFA's higher Make Allowances and there were no adjustment to yields, that would be -- that would leave the formulas rather imprecise as to the output number, wouldn't it?

A. It would be an interpretation of the appropriate changes coming out of this hearing, different from what National Milk's membership collectively thinks is appropriate. I'm challenged to use the word accurate in this case. That's the art part rather than the science part. But it certainly would be an interpretation of the data different than the way National Milk collectively sees the information in front of us.

Q. So moving on to your comments on Proposal 11. Are you familiar with the farm-to-plant shrink presumptions that are incorporated into the current formulas?

A. Generally speaking.

Q. Would you agree that they assume a quarter of a percent of all solids are lost, plus an additional

0.15 pounds of butterfat per hundredweight?
A. Per hundredweight of milk? Yes.
Q. Okay. And so you state that, in the middle of the second paragraph addressing Proposal 11, Cheslie Stehouwer noted that over the course of a year, deliveries from their own member farms to their Michigan facility saw plant weights that on a weighted average basis were 0.2% below reported farm weights?
A. Yes.
Q. And would you agree that that 0.2% is far less than what's presumed in the current formulas?
A. It's 0.20 versus .25?
Q. Plus the butterfat adjustment.
A. Plus the butterfat adjustment, which that data didn't have butterfat. That was just looking straight weights. But, yes.
Q. Well, I don't think that's the correct characterization. They said that they were looking at all the solids from farm-to-plant, and they -- they -- the butterfat losses were consistent with all solids.
A. That was a separate statement. I was just analyzing the table. But I referenced in the testimony that you also -- your witness also made that statement, correct.
Q. Are you asking me to answer a question?
A. Nope, I'm saying that is correct. Sorry.
Q. So --
A. Questions go one way, I think.

Q. Generally.
And you would -- I always feel silly asking people to acknowledge testimony that's in the record, but --
A. I just say yes.
Q. Yeah, you can go ahead and say yes.
Ms. Stehouwer also noted that for the plant as a whole, they realized farm-to-plant losses less than that for just Select's farms.
Do you remember that testimony?
A. I do.
Q. You agree with that?
And so as a plant, their tracked recognized losses would be less -- we can just -- less than what's in the presumed formula, correct?
A. I would agree, based on the testimony.
Q. So you also call out a cooperative that had 0.32% losses.
Again, that's still less than what's presumed in the formula today, is it not?
A. It's less if you include the butterfat without knowing all the details of that table. It's -- it's -- it's less than the .625 that is accounted for if you include the butterfat.
Q. Does CDI know what the farm-to-plant shrink is for its plants?
A. CDI as an entity knows it, has that data. I don't have it here with me today.
Q. If you had called or e-mailed, you could have

requested that data to have, and CDI could have presented that at the hearing, correct?
A. Yep. Yes.
Q. Yep's fine.
On page 3 you're discussing some of the theoretical and nontheoretical issues with a farm that produces between 25,000 and 50,000 pounds per day.
Do any of CDI's producers direct load?
A. Yes.
Q. And that would be an option for the farm you describe here as well, right? They could go to a direct load setup, couldn't they?
A. Yes. I would -- I would argue that in most cases that would be a better option than trying to retrofit a very old milk house.
Q. And when you say "a better option," much more cost efficient?
A. Correct. It has its own downsides as well. Ties up a tanker for longer periods of time, requires more CIP of that tanker than just a tanker used to drive from dairy to dairy. So it's not the perfect solution, but it is -- it is an option.
Q. What percentage of CDI's farms produce more than 50,000 pounds a day?
A. I don't -- I don't have that data. What's the data that I cited?
Q. You cited --
A. 99% have at least 25,000 pounds per day.

Q. I mean, are the majority of your -- your loads of milk are full loads, single-farm pickups, right?

A. If I had to -- if I had to give a guess, and this would be a rough estimate, in terms of our number of farms, I would say that probably 80% of them are larger than 700 cows. But we still have farms in parts of the state where they are older, smaller farms, might have 600, 500 cows.

In terms of the percentage of milk, that's a much -- it's more than 80% of the milk that is produced, of course, by farms greater than a load a day.

Q. And when you are trying to figure out and minimize farm-to-plant shrink, isn't it really the number of loads that are single-farm full load pickups rather than the number of farms that may fall into a category that is most meaningful?

A. It is, but we see that even in cases where a dairy can produce one full load or more per day, we have occasional partial load pickups. Dairy is not a perfect science. Cows do not produce exactly the same amount of milk.

So as an example, and I see this is not occasional, this is a common occurrence, a dairy will fill a tank, on-farm tank, 63, 6400 gallons of milk. And the truck comes in, it can't fit 6400 gallons of milk, and so it will fit 6100 gallons of milk, and it will leave some milk in that tank, and the next truck will have to pick that up.

So you try to build full loads every time you can. We recreate a financial incentive to do so. And even with that financial incentive to minimize the number of stops, we have 73 -- so we have, inversely, 27% of our milk pickups had some level of partial load aspect to it.
Q. How long have you worked for CDI now?
A. Seven years.
Q. Do you have any knowledge, generally or specifically, about the makeup of CDI's membership prior to your hire?
A. General, not specific.
Q. So generally, would you have expected that there are more single-farm full load pickups from your membership now than in 2000?
A. Absolutely.
Q. And probably the same from 2007?
A. Absolutely.
Q. Do you know if any National Milk witness will offer additional data points on the issue of farm-to-plant shrink?
A. I don't believe any additional witnesses are scheduled on this issue.
Q. Now, I want to talk about the Proposal 12, the yield for nonfat dry milk.
And are you familiar with -- with this page?
A. Looks like a cite I might have seen on the web.
Q. Okay. This is -- what I have in my hand is a document that USDA provided at the beginning of this

hearing on the table out there, and it's titled calculating the Class IV price. It's posted on USDA's website. I don't think it's necessary to put this in as an exhibit, and quite honestly, I'd only have one copy because the copies on the table have been exhausted.

THE COURT: Anybody have any objections to that -- I'm -- I guess we deem it -- take official notice of it.

MR. MILTNER: Thank you, your Honor.

THE COURT: You did read the title of it in.

MR. MILTNER: I did. And for the record, the website www.ams.usda.gov/sites/default/files/media/classivworksheetfinal.pdf.

THE COURT: And to be clear, I guess if I take official notice of something, I'm supposed to give notice and see if there's any objections.

Anybody have any objections or want additional time to consider it?

Seeing none, official notice is taken of that document. Thank you.

MR. MILTNER: Thank you, your Honor.

BY MR. MILTNER:

Q. So, Mr. Vandenheuvel, I'm looking at what is labeled as 2 in that document where we calculate a nonfat solids price.

A. Uh-huh.

Q. And so based on that articulation of USDA's formula, how many pounds of nonfat solids come from a

pound of nonfat dry milk?
A. You asked from -- can you repeat that? How many pounds of nonfat -- sorry.
Q. How many pounds of nonfat dry milk are produced from a pound of nonfat solids?
A. That number is not reflected on this sheet.
Q. It's not reflected where it says yield?
A. That yield says how many pounds of nonfat solids it takes to make a single pound of nonfat dry milk.
Q. It doesn't -- to you, you do not interpret that as .99 pounds of nonfat dry milk per pound of nonfat solids?
A. No.
Q. Okay. Now, you stated that you had read the 2002 Final Decision and its discussion -- well, did you read the discussion about how the solids contained in buttermilk were adjusted?
A. In the 2002 decision?
Q. Correct.
A. Yes.
Q. Would you agree that the value of those solids that are contained in buttermilk were removed from the calculation of the Class IV price?
A. They were -- yes, they were not included.
Q. And do you recall that the rationale for doing so was that those solids were of negligible impact to the Class IV price?
A. I believe I recall seeing those -- that -- those words used, yes.

Q. And I think I asked you this when you were on the stand before. I don't recall the answer.
Does CDI produce buttermilk powder at any of its facilities?
A. Yes.
Q. So if the value of the buttermilk solids had been removed from the formula, yet CDI is producing buttermilk powder, what is your raw material cost for that buttermilk powder?
A. Our raw material cost is based on the Class IV solids nonfat price and the Class IV butterfat price for the milk components in that buttermilk powder.
Q. And the components in the buttermilk powder are not priced, correct?
A. They are -- repeat that question?
Q. The components that are in your buttermilk powder have been excluded from the formula, so they are not priced, are they?
A. They are -- they are -- we must buy all solids, whether they end up in butter, cream, nonfat dry milk, buttermilk powder, any milk protein concentrate, milk protein isolate. Regardless of what we make, we have to pay the Class IV solids nonfat and the Class IV butterfat price for every pound of solids we use.
Q. For every hundredweight of milk, raw milk received by a CDI butter/powder plant, how many pounds of nonfat dry milk and buttermilk powder come out the door?
A. I mean, you are talking about a mass balance type

of calculation or more general? You said for every 1 pound of milk?
Q. For every hundred pounds.
A. Hundred pounds of milk?
Q. Yeah.
A. Use a rough estimate of 4 pounds of butter and 9 pounds of solids -- of nonfat dry milk, if you are just using rough numbers without an Excel mass balance.
Q. And buttermilk powder?
A. I don't have that information offhand. It's not a big-picture number I often throw out.
Q. So your further criticisms of Proposal 14 about the price -- establishing or finding data on the price of buttermilk powder, you are approaching this as if it were going to be a surveyed product in the NDPSR almost, aren't you?
A. Well, what I'm pointing out for Proposal 12 is that -- is that it's not the same product as nonfat dry milk. So in that paper that you handed me about calculating the Class IV price, everything refers back to nonfat dry milk.
What you are proposing, what Select is proposing in Proposal Number 12, is to adjust a nonfat dry milk yield based on what is perceived to be happening with buttermilk powder. So it's not a dry -- nonfat dry milk yield anymore, it's a buttermilk powder yield if Proposal 12 were accepted.
And so your question about NDPSR, we would be --

CDI would be supportive of collecting data on Class IV products, including byproducts, buttermilk powder being one of them. And so if that was an opportunity to collect yield and manufacturing data on buttermilk powder, we would be supportive of that. And then we would have specific costs and yield data for that product rather than trying to blend it into a nonfat dry milk yield and cost.

Q. And since you read the 2002 Final Decision, you would agree that USDA went through a similar yield adjustment for buttermilk powder to remove it from the formula, would you? Do you agree with that?

A. I recall seeing a description in the Final Decision, yes.

Q. Now, with respect to a $0.02 difference between the manufacturing costs for nonfat dry milk and buttermilk powder, are you -- are you testifying that a $0.02 difference is an inadequate spread?

A. I'm testifying that 20 years ago there was debate about whether $0.02 was correct. $0.03 was referenced in the Final Decision discussion as part of the testimony. USDA, at that time, accepted that a $0.02 difference sounded reasonable 20 years ago. That may or may not be the case today.

At that time, the overall cost of making nonfat dry milk was estimated to be quite smaller than what it is today. So there's been changes in the past 20 years.

Q. So in 2002, USDA relied upon a USDA dataset to gauge the value of buttermilk powder, and testimony from

individual hearing participants to gauge the cost of turning wet buttermilk into buttermilk powder, correct?
A. Correct.
Q. Do you believe that was adequate evidence at that time for USDA to make those conclusions?
A. I believe USDA felt it was adequate, and I'm not here to second guess whether they thought -- they should have had more or less data to make their ultimate decision.
Q. So on yields, you are -- again, the primary concern is that there's not a comprehensive census or comprehensive survey for the yield numbers, correct? That that's National Milk's primary concern about adjusting yields?
A. Correct.
Q. And yet National Milk's Make Allowance proposals, even though you want the same thing, you want to adjust the Make Allowances based on the data that you do have, correct?
A. Well, we don't have what we would call validated processing cost data, which is what we're seeking. We do have industrywide, broad-based indications that costs have gone up since the last reset. And so in my testimony I talk about industrywide, broad-based, and validated data in some cases. With yields, we don't have industrywide, broad-based, or validated data on some of these yields.
Q. Are you characterizing the data National Milk used to set its Make Allowances as validated?

A. The data that -- can you repeat the question?
Q. Yeah. The data National Milk relied upon to -- for its proposal on Make Allowances, was that data validated, in your opinion?
A. There was a host of considerations going into that. I can speak specifically about CDI and how we approached Make Allowances. I did that in my testimony for Proposal 7. And I used Dr. Stephenson figures for butter and nonfat dry milk in that case. I don't believe it's validated in the sense that there was an active audit process, but it was industrywide and broad-based enough that we thought it was worth using as a baseline but tempered for all the reasons I have discussed in this hearing -- or this testimony and in previous testimony.
Q. And so in the -- but in the absence of the ideal census that I think everybody wants, it's appropriate and in CDI's opinion and National Milk to adjust Make Allowances in the most appropriate manner that you can establish; is that correct?
A. We believe that it is appropriate to make adjustments to the ultimate price of butterfat and solids nonfat for Class IV and the appropriate components for Class III.
We have used Make Allowance as the adjustment to achieve those prices. As I said earlier, this is as much art as it is science. We believe that the current prices are overstated based on what has occurred over the last 15 years, the current milk prices are overstated. They need

to be adjusted. There's data that says they should be adjusted significantly lower based on work done by Dr. Stephenson.

We don't -- we are not willing to propose making an adjustment of 100% of what that information would show, but we do think that a change is warranted.

And part of the reason that we are not advocating for a 100% adjustment is the yield data we're having that we would very much like to get better information about.

Q. Now, Select Milk Producers is not a member of National Milk right now, are they?

A. "Right now" being the operative word. They have been, but have not during the course of this USDA or Federal Order exploration project.

Q. And so Select was not part of the task force or committee that helped to develop National Milk's five proposals, correct?

A. Correct.

Q. Now, I think you also said in response to a question from your counsel, that if CDI and all of National Milk's members were to put data into the record on yields, it would not resolve your concerns about adjusting yields. Was that correct?

A. Correct.

Q. And those same National Milk members put data into your committee process or your working group process, to come up with a change to Make Allowances, correct?

A. That is how some cooperatives approached it. I explained how CDI approached our support for the National Milk proposal, but every cooperative had to address it in their own way. I used industrywide data, Dr. Stephenson, as I explained in my earlier testimony.

Q. It's -- does it seem incongruous to you at all that you're willing to take less than your ideal dataset to change Make Allowances and lower producer income, but you are not willing to address less than ideal information on yields that would perhaps enhance producer income?

A. I think that is one interpretation of what we're doing. I don't believe it's an accurate interpretation.

I believe a more accurate interpretation of the broader scope of what we're doing is we're recognizing we need better information on everything. We could go try to propose changes to yields and to Make Allowances, but in all fairness, we actually have more information on processing costs than we did have on yields at the time. We didn't have the benefit of Select's information presented at this hearing, and so we made a decision to move forward with a proposal that addressed manufacturing cost allowances, or Make Allowances, but did so in a way that we thought indirectly accounted for some of these other things that would offset a Make Allowance adjustment. An increase in yields would offset the impacts on a -- of a Make Allowance increase when it come -- when you look at the overall milk price that results.

And so we believe, and I continue to believe, that we have indirectly accounted for the fact that there are probably yield adjustments warranted once we have that available data. We see this as a step in a longer process of having better data and more robust discussions at hearings like this based on validated industrywide information on how to appropriately value milk.

We are, admittedly, more art than science. We would like to get to more science than art in the future.

But for this proposal today, I would not agree with the observation that we are ignoring yields. In fact, we are explicitly addressing yields as a specific reason why we think a more tempered Make Allowance is warranted, even though our colleagues at IDFA and Wisconsin Cheese Makers have advocated strongly for their position that a more aggressive Make Allowance is warranted.

Q. Thanks.

MR. MILTNER: That's all I have.

THE WITNESS: Thanks.

THE COURT: Off the record.

(An off-the-record discussion took place.)

CROSS-EXAMINATION

BY MR. ENGLISH:

Q. CDI makes butter -- Grade AA butter that's reported to the NDPSR, correct?

A. Yes.

Q. You do not use whey cream to make that product, do you?

A. That's correct.

Q. And you don't because the regulations wouldn't permit it, correct?

A. I believe that's correct.

Q. Do you buy whey cream from California cheese processors?

A. We do not.

MR. ENGLISH: I'm done.

THE COURT: Okay. So no objection to doing lunch. We'll be back -- let's come back at 1:15.

(Whereupon, a luncheon break was taken.)

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WEDNESDAY, SEPTEMBER 20, 2023 - - AFTERNOON SESSION
THE COURT: Let's get started. On the record.
Let's continue with this witness. We had finished Mr. English, I think. Anyone before AMS have questions for this witness?
Seeing none, your witness, AMS.
CROSS-EXAMINATION
BY MS. TAYLOR:
Q. Good afternoon.
A. Good afternoon.
Q. Just have a couple of questions.
I know you mentioned in cross-examination that CDI doesn't have data to put on the record in regards to your own plant farm-to-plant shrink?
A. Correct.
Q. I'm wondering if you could still just talk a little bit about, I don't know, its prevalence. I'm -- does it still occur? You might not have data to put on there, but do you --
A. So we -- we don't -- we don't look at it as a -- as a regular course of business from a percentage basis. What we do is -- is -- whether it's with our customers or in the milk coming into our own plants, we do evaluate other variances between the farm ticket and what the plant scale is, and we see variances on virtually every load. It'd be a very, very rare circumstance where you would have exactly the same amount of milk measured at the farm and at the plant.

Within 250 pounds, plus or minus, we -- you know, the pluses equal out the minuses or, you know, it's close enough. When it gets outside of that range, you start to take a look at it and see. You know, what we do is we'll analyze, is there some reason to believe -- the farm weight is the truth that we operate under, but is there some reason to believe there might have been a problem with the measurement at the plant? I mean, starting with the plant, and then a measurement at the farm. And we just look at both ends of the spectrum.

And things can happen. At the plant, maybe you -- you know, not all four tires are on the scale perfectly, and so you will have a variance there.

At the farm, maybe that dipstick, you know, wasn't easy to read or maybe the chart, they moved from one line to the other.

So it's certainly something that our member payroll team regularly looks at as they reconcile any differences that are more than the 250 pounds. But I don't -- - you know, offhand I don't have information as to where we would fall in the 0.25% spectrum.

Q. But you do have a threshold, and you investigate the outliers, basically?

A. That's right.

Q. Okay. And you talked about, a little bit -- I'm on page 4 under Incentives and Decentives (sic). And you say under the first paragraph, Elimination of the accounting for farm-to-plant shrink, as proposed, would place an added cost on the cooperative or other buyers of milk, while the ability to improve the farm-to-plant shrink is firmly in the hands of the producer.

Just wondering if you could elaborate on that a little more. And also curious is, does the hauler fit into this equation somewhere that isn't discussed?

A. Well, I'll start with the second part. The hauler is an important part of the process, and we place a lot of faith as an industry into that hauler's ability to properly measure the milk at the farm, to properly take a vial, two-ounce vial of milk for, you know, sampling and composition testing. So they play a role.

In terms of this specific farm-to-plant loss, most of the measures that were discussed in Select's testimony and most of the measures that we see in our own situation that would alleviate or mitigate against some of that shrink are things that the farm can do on their side. Some of those are structural. They can build full loads on the farm and minimize the amount of transfers and transfer hoses that Select testified on. But some of it is frankly passing the -- or absorbing on the farm some of that shrink.

You think about a scale dairy. The reason a scale measurement versus a, you know, dipstick measurement or site tube measurement on the farm tank, the reason the scale will have less shrink is because you are measuring the milk further along in the supply chain. You are not measuring it in the farm tank. Now you are measuring it once it is already loaded. So you have taken any shrink between the farm tank and the truck, and you have put that on the farmer. They are not going to get paid based on what's in the tank on the farm, they are going to get paid based on what's in the truck.

So the disincentives and incentives that I reference there are, you know, the cost of if you eliminate any accounting for farm-to-plant shrink, the cost of anyone buying milk -- and granted, we are farmer-owned, so kind of got two hats, we're the farmer and we're the cooperative -- but just looking as a buyer of milk, that's now saying, if there's no accounting for shrink, you are going to pay as if 100% of the milk in the farm tank is there.

Some of the things that the farmer could do, and some of our members do with the scale, they're voluntarily taking some of that shrink on their own part, but it is a bit of a perverse incentive. Because, you know, if you get rid of the shrink factor, they are going to get paid as if it is all ending up on a truck. Why wouldn't they measure it at the farm tank? Why would they take the proactive step of measuring on a scale? The scale is often done out of convenience, not to impact the shrink. But that was what I was alluding to there.

Some of the levers to pull are not at the plant level. We can incentivize it, as CDI does, we incentivize building full loads, and I guess we could create requirements to measure by scale weight. But absent a mandate like that, there's not really a direct incentive for the farm to do it.

Q. Okay. And then on Proposal 12, I think through the cross from Mr. Miltner what I gathered from that is CDI is not opposed to including buttermilk powder, just that if it would be done in the future, it needs to be done on a more comprehensive set of data?

A. We think that it's a -- it's a bigger issue than a mere change in the yield factor. Buttermilk powder is not nonfat dry milk. And so I think a discussion, when we have industrywide data to evaluate, is should we treat it as if it's just an add-on to nonfat dry milk, or maybe more appropriately should we treat it like we treat dry whey in the Class III formula, with its own yields, its own product costs, and its own manufacturing cost.

So I think you -- what we are open to and believe is an appropriate conversation is, is what is that structure -- as our ultimate goal is to determine a value of milk. But what is that structure that makes sense, and then what are the factors going into that structure that makes sense?

But I think our position is at this point, a simple tweaking of the yield factor to nonfat dry milk, a separate product with its own cost and its own price discovery mechanism, we did not believe it was adequate data to support that change in light of all other things I testified about.

Q. Okay. On page 6 you talk about, under the header

"Minimum Prices and Other Formula Considerations," you talk about how the largest impacts of these proposals would be felt by manufacturing co-ops that operate Class IV plants largely for balancing.

And I'm just wondering if you could expand on that a little more. I don't think anyone's asked you a question on that piece.

A. Well, looking at the -- the results of these changes as presented by Select, going off of memory, which is a little dangerous, but I believe the Class IV impact would have been somewhere around $0.42, $0.43 per hundredweight increase in the Class IV price between largely Proposal 10 and 12 -- I think I have those right -- the farm-to-plant shrink and the Class IV solids nonfat shrink would collectively raise the price by $0.40-some-odd cents. The Class III impact was something significantly less. It would be somewhere in the teens, 10, 15, $0.17, something like that.

So a larger impact on Class IV prices. This is an increase -- this would be an increase to the Class IV price, at the same time that we're talking about a Make Allowance adjustment that would decrease the Class IV price. But taken on its own, this would be an increase on Class IV prices.

And predominantly across the country, Class IV is managed by farmer-owned cooperatives, and it's -- while I won't say its exclusive use in the marketplace, but a very significant use is for balancing purposes. Those plants are not always run at optimal efficiencies. And I talked in my previous testimony about some of the swing, seasonal swing, that we see at CDI about 25% swing in milk volumes coming to our plants in the spring versus the fall. We're not here seeking an adjustment for balancing costs.

But what this -- this was intended to -- what this was intended to at least include as a reference in the record is that -- I talked about earlier art and science. Part of the art here is that you are not going to capture every single element. You are not going to follow every molecule of milk through the system. And we would believe that in some cases, that's okay, because there's other factors that are less easy to quantify, but they're important factors nonetheless. And in this case the fact that it's Class IV, it's farmer-owned assets largely, it's balancing assets, we think that that adds some reason for why fine tuning this thing at this point in the game with less than ideal data has validity.

Q. Okay. I think you sort of answered this question, but I'll kind of pose it anyways in case you want to elaborate.

I think what I heard from you is when -- and my question is -- my previous question about whether you oppose the use of -- the inclusion of buttermilk powder at this point or not, and I recollect what your answer was that -- from that.

So the original question was, can you speak to whether or not the formulas should consider every product, for example, that could be made from milk going into Class IV?

And I think through your other answer I kind of heard, if we're going to look at other products, we should do it in the realm of dry whey where there's a separate kind of calculation and yield and make applicable to that product.

Would that be kind of an accurate depiction and --

A. We -- yeah. I mean, not having a proposal that's structured like that to look at, it's a little bit more theoretical. But -- but, yeah, you know.

The selection of which products to use in determining a minimum price calculation is not an easy one. We have spent a lot of time at this hearing talking about should it include this product or that product, should we divide out the products, should we have only a singular product. And so there's not one cut and dry answer that -- that answers all those issues.

But -- but we certainly believe that at this point, previous determinations by the Department that buttermilk should not have its own factor in this formula, that the marketplace -- market price and cost data did not warrant having a Class IV formula that included something other than butter and nonfat dry milk, we think that that's appropriate at this juncture.

We won't acknowledge -- we won't state that that's always going to be the case. We want to collect more data. We have an interest in -- in these formulas representing the best available information and the best available assumptions going into that.

But at this point in history, we believe that the appropriate approach is to make more modest adjustments to the Make Allowance, to make no adjustments to the yield in light of the fact that we're making some of those -- you know, we're injecting some conservatism into the Make Allowance, and build better data for a long-term improvement to the structure.

MS. TAYLOR: Okay. That's it from AMS. Thanks.

THE COURT: Redirect.

REDIRECT EXAMINATION

BY MS. HANCOCK:

Q. Mr. Vandenheuvel, thank you so much for your time.

You previously talked about, on page 6 of your testimony, the nonfat dry milk yield versus the solids nonfat yield. I'm wondering if you have anything to update us on that section of your testimony.

A. I do. And Mr. Miltner provided a document, which we went through during his cross-examination of me. And I will say, you look at these formulas in Federal Order regulations enough, you will be humbled at one point or another.

So I would like to correct -- correct previous comments. And frankly, that section starting on page 6 and into page 7, it is true that out of a pound of solids nonfat, you will make more than 1 pound of nonfat dry milk.

The reason for a .99 instead of a number larger than 1, to factor in the moisture, is not because you're looking at it the other way, which is what I had indicated in previous testimony. The reason is because not all of the solids nonfat in a hundredweight of milk is available to be turned into nonfat dry milk. About 5% of the solids nonfat ends up in the cream when you are separating the cream and the skim.

We have had a lot of discussion about the solids, the solids nonfat that are in that cream that turn into buttermilk eventually, whether that should be part of this. And I won't -- it doesn't -- none of this changes my testimony and CDI's position on that issue.

But it -- I wanted to correct the record that the .99 is not because of what I had stated earlier that somehow it was the pounds of solid nonfat needing to make butter. It was -- it is, instead, a reflection of the fact that not all solids nonfat are available to be turned into nonfat dry milk.

So I guess the only correction to prior testimony in there that would have been warranted as opposed to language in my testimony is .99 is not USDA's way in this formula of saying that 1 pound of solids nonfat makes less than 1 pound of nonfat dry milk. Instead, it's saying 1 pound of solid nonfat in raw milk from the farm turns into .99 pounds of nonfat dry milk, because there is a portion of that solids nonfat that ends up in the cream and is, therefore, not available to be converted into

nonfat dry milk.
Q. Thank you for that. I appreciate your insurance that we have an accurate record.
MS. HANCOCK: Your Honor, I don't know if that opens up any further examination.
THE COURT: I think Mr. Miltner has a question. Or more than one.
THE WITNESS: Five?
THE COURT: Not critical at all. I don't know what that looks like on the transcript.
MR. MILTNER: I don't know that I'll limit it to five, but I'll limit it to as few as I can manage.

RECROSS-EXAMINATION

BY MR. MILTNER:
Q. So, Mr. Vandenheuvel, I appreciate you checking on that, because I was doing the same thing, and was more concerned that Mr. Cooper had gotten something wrong as well. So -- they are -- you can look at these formulas for years, and then sometimes something looks a little different than you first thought, so I appreciate that.
So I think your characterization is also correct that the yield factor in the Class IV price reflects USDA's assumption that some solids don't make it to nonfat dry milk.
And I think that's what you testified to just now; is that correct?
A. Correct.
Q. So some of those solids are incorporated in what

is right now a farm-to-plant shrink assumption, correct?
A. Correct.
Q. And then some of those solids are, as USDA explained in the 2002 Final Decision, captured in buttermilk, correct?
A. Correct.
Q. Now, if those solids, including those for buttermilk, are not included in this yield factor, does that change your statement that CDI and other butter manufacturers pay for the solids that end up in their buttermilk?
A. My answer is unchanged. Every pound of solids that come in our front door is paid for.
What you are referencing, if I'm understanding the question, is how USDA is determining that price, and that that price is, in your opinion, artificially lower because they are not accounting for buttermilk powder value or buttermilk value. But it would be -- we do not accept the premise that we don't pay for those solids, because we account for every pound of solids nonfat, every pound of butterfat that is received at our plants, and pay according to the Federal Order price.
Q. Would it then be correct to say that while you account for all the solids and they all end up in products, USDA's formulas assume that you're receiving a lower number of solids, lower quantity of solids than what you are actually accounting for?
A. They -- USDA's formula doesn't have any bearing on

the number of solids that we're receiving at the plant. They are establishing a value, a price per pound of butterfat and solid nonfat. There's a methodology of calculating that. But once that is an announced price, 100% of the solids, whether they end up in butter, nonfat dry milk, milk protein concentrate, butter/powder, or down the drain, we must pay for 100% of those.

MR. MILTNER: Thank you.

THE WITNESS: Thanks.

MS. HANCOCK: Your Honor, at this time we would move for admission of Exhibit 237.

THE COURT: Objections?

Seeing none, Exhibit 237 is admitted into the record.

(Exhibit Number 237 was received into evidence.)

MS. HANCOCK: At this time we'll call Sara Dorland. And we'll just need a moment to get her computer set up.

THE COURT: Very well.

Off the record.

(An off-the-record discussion took place.)

THE COURT: On the record.

In an off-the-record discussion, we labeled the next four exhibits, 238, 239, and 240, and 241.

Marked for identification 238 is Exhibit NMPF-32, which is this witness Dorland's, basically, statement, narrative testimony with some charts.

Marked 239 for identification is NMPF-32A, the A doesn't appear in the hard copies distributed, but it is so marked as 32A on the website. This is basically a spreadsheet that's marked 239 for identification.

We have an oversized exhibit, which, again, was not marked with a B on the handout, but is NMPF-32B on the web page. It is oversized. It will be marked for identification 240.

And then we have what has been marked in the top right-hand corner as Exhibit NMPF-103, that will be marked as Exhibit 241 for identification.

(Exhibit Numbers 238, 239, 240, and 241, were marked for identification.)

THE COURT: Ms. Dorland, welcome. Raise your right hand, please.

SARA DORLAND,

Being first duly sworn, was examined and testified as follows:

THE COURT: Your witness.

DIRECT EXAMINATION

BY MS. HANCOCK:

Q. Good afternoon, Ms. Dorland.

I'd like to start by having you state and spell your name for the record.

A. Sure. First name is Sara, S-A-R-A. Last name is Dorland, D-O-R-L-A-N-D.

Q. And what is your business address?

A. I have to look at that.

360 East Avenue, Number 300, Ketchum, Idaho.

Q. Okay. And you are here to testify today on behalf of National Milk; is that right?

A. That is correct.

Q. I'd like to start by asking you to provide us with an overview of your education and professional background.

A. Sure. So my education, I graduated from the University of Washington Business School. I received my Master's of Business Administration, or MBA, from Seattle University. I did a certificate program on strategic studies under Professor Michael Porter at Harvard -- the Harvard Business School. I think that pretty well covers that, and there's a few other little certificates here and there.

Professionally, I actually started in dairy in 1999 with a dairy co-op in the Pacific Northwest, Darigold. I was there for about ten years. Half that time I was in charge of the finance and accounting for their ingredients division, so understanding budgets, plant accounting, all sorts of fun things like that.

And then about halfway through my tenure, I switched to managing their entire risk management program. So that was everything from farm programs, all the way to working with customers. Along the way, dealt with producer payroll, equity, kind of -- you name it, I did quite a bit there.

In 2009, I started my company, Ceres Dairy Risk Management, LLC. Since that time I worked with dairy producers, cooperatives, processors, consumer products companies, pretty much everybody in the dairy supply chain, helping them understand markets, risk management, milk procurement, pretty much -- Federal Orders to the degree that they have got questions about regulation, things of that nature. So I have helped with that.

Wrote an industry paper commissioned by, I think it was the U.S. Dairy Export Council on Dodd-Frank and the impact to dairy derivatives and the markets that we operate under today.

I have done some trade missions with the Dairy Export Council to China and South Korea. I did a reverse trade mission in San Francisco. And then have had a variety of speaking engagements, papers, things of that nature, over the last 20-some years.

Q. Okay. And throughout the course of your professional career you have worked in milk pricing, procurement, and risk management, in all those roles that we were just talking about?

A. That's correct.

MS. HANCOCK: Your Honor, we would offer Ms. Dorland as an expert in milk pricing, milk procurement, and risk management.

THE COURT: No objections?

Yes. I find that she is qualified to testify as an expert witness on those subjects.

BY MS. HANCOCK:

Q. Okay. And you're prepared with a presentation,

and that offers maybe an executive summary and discussion of the more robust details that you have included in Exhibit 238, your written testimony; is that right?
A. Correct. I was just going to read the introduction from the written and then switch over to the presentation, if that works.
Q. Yeah. And the presentation is what we have marked as Exhibit 241; is that right?
A. I believe so.
Q. Okay. I just say that just so our record is very clear of the two documents that we're looking at together.
Would you please proceed with your introduction, and then, and then we'll take your presentation as it goes.
A. Sure.
My name is Sara Dorland. My business address is 360 East Avenue, Number 300, Ketchum, Idaho. I run Ceres Dairy Risk Management, LLC, which advises dairy industry clients --
Q. I'm so sorry, Ms. Dorland, I forgot to remind you. So you speak very fast normally. So even when you are just talking, if you could just be mindful of your speed. But it's especially true when it comes to when you are reading, too.
A. Yes. I have had a couple of cups of coffee, so I'll slow down.
Q. Like to 50%.
A. Okay. Since 2009, I have provided consulting

services throughout the U.S. dairy supply chain, working with dairy producers and multi-national corporations, advising on topics ranging from federal and state milk marketing orders, markets, risk management, procurement and finance. I have attached my CV here, Dorland Exhibit 1.

Today I'm testifying to support returning to the higher-of the Advanced Class III or Class IV skim milk price to establish the Advanced Class I skim price, Proposal 13. I have reviewed and analyzed data related to the current calculation versus the proposed Class I skim milk price methodologies, and the impact on producers, processors, and retailers regarding milk pricing, depooling, and risk management.

The data I have been able to review indicates that the higher-of the Class III or IV skim pricing scheme (higher-of) is more effective compared to the current average-of the Class III and IV skim plus $0.74 a hundredweight pricing methodology (average-of) for several reasons, including: One, it transmits market signals in real time; two, it doesn't detract from Class I hedging; three, it avoids the unnecessary complication of reimbursements that could disadvantage small to midsize dairy producers and further distort price signals; and four, it is designed to work within the current Federal Milk Marketing Order (FMMO) pricing, and avoid pitfalls of prolonged periods of depooling that can cause disorderly marketing.

I have also reviewed other proposals, including Proposals 14, 15, 16, 17, and 18, that seek to replace the current average-of with the higher-of the announced Class III or IV milk price, or Class III plus a differential or elimination of advanced pricing. Unfortunately, these price alternatives do not improve upon the current average-of price with each having idiosyncrasies falling well short of the higher-of achievements and the FMMO objectives.

Q. Okay. And I think at this point we are going to turn to your presentation in Exhibit 241; is that right?

A. That's correct.

Q. And we're going to do our best -- for the audience who is listening and watching, we're going to do our best to kind of track your written statement in Exhibit 238 with the summary that you are providing in 241. So we'll stop along the way, and I think hopefully this will result in us not talking too fast, too.

Okay. Want to kick us off? You are on slide 1 now in Exhibit 241?

A. Sure.

Evaluating the proposals against the FMMO --

(Court Reporter clarification.)

(An off-the-record discussion took place.)

THE COURT: Back on the record.

THE WITNESS: Evaluating the proposals against the FMMO purpose.

The FMMO classified pricing system has the precision of a Swiss watch movement. It is intricate, but that complication is necessary to regulate a diverse system of dairy producers, processors, and consumers to avoid market disruption events caused by disorderly marketing. Times are changing, markets are moving faster, and dairies are consolidating and are different from their predecessors in size and scope.

Fast approaching its hundredth anniversary, the FMMO system has witnessed extraordinary change, but the most basic justifications for that system persist today. The FMMO objectives are met by encouraging pool participation and using minimum and classified prices.

Q. And then on the right-hand side you have justifications for the FMMO system.

Do you want to cover that side as well?

A. Sure.

Milk is highly perishable. There is no distinct harvest or season compared to field crops. Production and demand have noticeable seasonal patterns. Fluid milk demand is more inelastic relative to other dairy products. Excess milk must move to longer shelf life products like nonfat dry (NDM), cheese, butter, yogurt, etcetera. The dairy industry has high fixed costs from farms to processing facilities.

And the source of this was a Congressional Research Service report that was updated June 15th of last year.

Q. Okay. And this is just a backdrop against which you were looking at and evaluating whether the different systems we're going to talk about today match up with the goals of the Federal Milk Marketing Order system?

A. Correct. While we look at modernization in dairy, a lot of the things that justified the system a hundred years ago still persist today because it's based in nature.

Q. Okay. And I know that everybody likes to simplify things as much as possible.

Do you think that it's -- this is a system that can be simplified even further than what it is now?

A. We're going to compromise something, and in doing so, it could be something that's pretty significant.

When we start looking at making modifications to this system, like today we're talking about what the -- how the Class I price should function, when we look at that, changes to the Class I price don't stay within -- contained within changes to the Class I price, because it's a system or a network. Like the Swiss watch analogy, it has a way of migrating through the entire system. So a change here can actually impact what happens in Class II, III, and IV products, well beyond what any of the discussions today might contemplate, but, in fact, something that's profound about this network.

Q. Okay.

A. On slide 2, the Class I primacy is vital to the FMMO system function. A higher Class I milk price relative to other milk -- other class prices sends signals throughout the market to move milk to and from surplus and deficit regions to ensure adequate fluid milk supplies for the market. It acts as a governor or control.

Class I primacy is necessary to support the current FMMO system design and reduce instances of disorderly marketing. When depooling is allowed to persist, more than one price exists in the pool, creating an incentive for supply plants to disassociate from the order affecting Class I handlers and dairy producers.

Although Class I use has declined due to rising milk production and lower per capita consumption of bottled milk, Class I's ability to attract milk to the pool, one of its primary purposes, remains intact.

And on the right side of the slide, it's just one of the charts that I placed in the earlier report, where it tracks from 2000 all the way through last year, and the percentage of milk that's been pooled on the order, according to AMS.

Q. So one of the questions -- we might talk about this in further detail, but one of the questions that's come up is, what does it mean to you to have a disorderly market condition?

A. Disorderly markets, if we look at it from a trading perspective, that means that we have sudden bursts of unexplained volatility. Markets change, things happen, but there's not necessarily some event that we can tie it to. There's no -- no -- nothing happening.

That has some translation into the FMMO system, specifically when we look at things like depooling. While that is a part of our system and can be codified differently by the various FMMOs, it's something that historically has been contained until the market can self-calibrate and the Class I can resume its top spot. Depooling can exist.

What we've found since 2019 is it can persist in perpetuity because there's no guarantee that the average of the two manufacturing classes will actually exceed any one of those prices over time, and that can create a little bit of chaos and disorder, which has implications for all classes of milk, not just Class I.

Q. Okay. When you say that you can codify it within the orders, are you referring to each order having the ability to make its own pooling and depooling regulations as to when -- when plants can pool or depool?

A. That's correct. So when we look at how the orders work, one function is the price that we're talking about today, but each of those orders also has rules as it relates to diversions and qualifications, and those vary across the system, making it either strict and difficult to depool, or where maybe we have got more manufacturing milk, it's a little bit more lax and easier to pool and depool at any given time.

Q. Do you believe that depooling by itself is a disorderly market condition?

A. I wouldn't necessarily say -- depooling, when it's contained to a number of months, we can see that coming, we understand it. When it suddenly happens for prolonged periods of time, that can be more disruptive. Suddenly a bottling plant may have to compete with an international buyer of milk powder for milk. That wasn't really what the system was conceived to do, and that can create some disorder.

Q. Okay. So if I'm understanding you correctly, in isolation, depooling can provide somewhat of a relief valve for short-term conditions, but if it seems to persist, then that can result in disorderly market conditions?

A. That is correct.

Q. And that's some of what you said that you have observed since 2019 in the market itself?

A. That's correct.

Q. And can you elaborate on that?

A. Well, one thing that I have spent my career doing is trying to work with dairy producers to help them understand risk management, why it's valuable, what it can do if done in conjunction with buying feed, managing margins. It -- it ensures that they buffer their business from outside externalities that they can't control.

In 2020, and again in last year, what we did see is, through periods of prolonged depooling, the folks that did the right thing were actually penalized.

So typically what we expect to see when we do risk management on milk is, you know, a drop in the milk price could result in a futures gain, and on the same side, an increase might result in a lower milk price. And those two things offset.

In depooling, losses in futures aren't necessarily offset by gains on milk. It just vanishes from the system, so the farm has a compounding loss.

Q. And when you are talking about the effect in the utilization of risk management tools, you are not saying that disorderly market conditions are only measured by how it affects risk management, are you?

A. No. But that's one of the effects that we tend to see. It also can drive competition. It can create issues for dairy producers where they just choose to exit the system completely.

Q. Okay.

A. The next slide was to discuss what the average-of was to accomplish. The objectives: One, the difference would be shared equally between dairy producers and processors over time; two, more stable Class I milk prices could slow bottled milk per capita consumption losses; and three, dairy producers and processors have access to Class I risk management.

And on the right side it's just a depiction of some of the data provided in some of those larger spreadsheets. It's just showing the price change in three -- price change in Class I milk adjusted to 3.25% butterfat, and the retail change in the whole milk price reported by the USDA.

And what we can see is the change in the Class I price is not necessarily reflected on the shelf to consumers. And that's important because a lot of the discussion about the average-of, or proposals like that, they are looking specifically at not only risk management, but the cause and effect with what it could do for launching new products, increasing consumer demand, or slowing losses.

And that -- this is just quickly showing that that doesn't -- the change in our Class I price doesn't necessarily fully translate to the retail shelf for consumers.

Q. Okay. And so the orange line on your slide 3, that's the retail market showing that there is some movement, but nowhere near the extreme spikes that we're seeing as the Class I price changes?

A. That's correct.

Q. Okay.

A. Slide 4, when the differences are out of sync with the market, it penalizes dairy producers.

An analogy for the average-of versus the higher-of, in 2022, Dallas, Texas had an average temperature of 68.2 degrees Farenheit, according to the National Oceanic and Atmospheric Administration. If contractors built homes for the annual average temperature, it could be catastrophic for the city when low temperatures reach 45.8 degrees Farenheit or high temperatures top 91.8 degrees Farenheit.

Q. I'm going to pause you right there.

A. Yes.

Q. So you are reading it, and I think when you read it, sometimes we kind of can lose the message.

So you are just, at this point, providing an example of a contractor building a house in Texas and creating a thermostat that can address the temperature ranges in Dallas, as an example, to replicate what we're talking about when we do the average-of for the milk prices?

A. That's correct. Yes. Basically, averages are important. They help us simplify very complicated topics, but you have to recognize the limitation of averages.

If we built homes in Texas for the average temperature, and didn't put insulation in them, that home would be rather uncomfortable in the winter and pretty uncomfortable in the summer. And that's really what we're looking at it is it doesn't -- averages don't deal with or address extremes.

Q. Okay.

A. That example, like the average-of, highlights the flaw of averages. Plans based on assumptions about average conditions usually go wrong.

And that was from the Harvard Business Review, The Flaw of Averages, an article published in November of 2002.

This formula limitation resulted in dairy producers forfeiting more higher-of to the average-of benefit compared to processors' contributions, contrary to the assumption, and most notably, during periods of greater volatility or demand resulting in distorted market signals that may have worsened rather than alleviated supply/demand imbalances in the fluid milk market.

Simply, average-of based formulas that anchor the calculation to the higher-of skim price have an inferior performance as they can only communicate what happened in past periods, not what is happening today by -- and failing to account for extremes.

And then on the right side is just, again, it's a -- one of the charts that was presented as an exhibit. It just details the observations on the differences between the higher-of and the average-of from January 2000 through August 2017. Even at that time, it indicated that there could be periods where, to the point that Peter made, that difference could be more than $1.48.

Q. So then you are just measuring, in that first column, which is zero to $0.35, you have, I don't know, 64 or 65 observations, somewhere in there?

A. That's correct.

Q. Okay. And so you are just charting the number of incidents when it landed within each one of those ranges?

A. Correct.

And that's the challenge, is when we look at these, we have a high instance of things where, you know, averages will work. It's those extreme points, that's the part where people get hurt, people go out of business, costs increase when we're in those extremes, and that's typically what we are looking to manage against.

Past performance is no guarantee of future outcomes. A review of the average-of results since implementation, May 2019 through June 2023, exposed that the primary assumption was invalid, that the status quo would prevail in future years. Instead, underlying market conditions changed, altering the -- let's see -- altering average-of dairy producer and processor contribution outcome because the higher-of versus the average-of benefit exceeded the codified $0.74 a hundredweight historical average.

Between May 2019 and June 2023, the mean increased from $0.74 a hundredweight to $1.26, and the standard deviation was $1.375 cents, reflecting a significant spread.

Average-of formulas have limited ability to inform the market about the future Class III and IV skim milk price relationships, meaning that the January 2000 to August 2017 average-of and higher-of difference would not properly reflect the future without an understanding of the underlying market drivers of Class III and Class IV skim prices that could cause prices to change over time.

Finally, that is not isolated to 2007 and 2017 period. It will repeat as averages of milk prices will underestimate the potential for extreme events. That could be detrimental to dairy producers and processors.

So similar to the previous right-side chart, this is just calculating the observations, again, since the implementation of the average-of price through June of this year.

Slide 6, no mechanism relates Class III and Class IV skim milk. Some aspects of the FMMO formulas have predictive validity. For instance, with a high degree of certainty, the daily spot CME butter price informs market participants about the National Dairy Product Sales Report (NDPSR) butter price and, ultimately, the Class III and IV butterfat values.

Market participants can rely on the relationship between the price series for evaluation, risk management, buy-sell decisions, etcetera. The same applies to products like cheese, whey, and nonfat dry milk (NDM) and their impact on Class III and IV milk prices because the FMMO end product pricing and classified price formulas, well defined relationships exist.

The interplay between the Class III and IV skim milk value is more complicated. No formula or stipulation relates or binds the Class III and IV skim milk price relationship, rather a series of market drivers, like global supply/demand, stocks, policy, trade, etcetera, change the underlying commodity value.

That poses an issue for the Class I formula proposals that arbitrarily codify a relationship between Class III and IV skim, when one may not exist. These are two independent variables that have limited cause and effect.

And here, I'm just plotting on the right side, the monthly change in the Advanced Class III and IV skim prices, and we can clearly see that the change in one doesn't necessarily mimic the change in the other. We have just linked the two together.

Q. Related to those -- related to those -- those -- those drivers for changes in the price value, we heard some discussion earlier about how the pandemic was somewhat of an anomaly that impacted the prices in that 2020, 2021 timeframe.

Do you remember that testimony?

A. Yes.

Q. And so when -- when -- when -- and I think Dr. Vitaliano talked about when they were looking back over the historical pricing, there were some anomalies that they had witnessed or observed earlier on, and they decided to build those into the averages because they felt confident that there would always be new anomalies coming in the future.

Do you recall him talking about that?

A. I do.

Q. I am wondering if -- and I think in your testimony, on page 7 of your testimony, so it's Exhibit 238, you have talked about some other events that have happened, and I'm wondering if you could elaborate on some of the anomalies that you have observed and whether you believe that that should be priced into -- or taken into consideration.

A. That's one of the challenges with averages, is we have to start determining what's an anomaly. So if 2020 was an anomaly, was the financial collapse in 2009 equally an anomaly? Was the Chinese buying of milk powder in 2013 and 2014 an anomaly? The end of quota in Europe. We have got water restrictions, climate initiatives. The list goes on and on. That once we start listing out all of the anomalies and the exclusions, we have -- we have seriously limited our dataset, which then, on its own, begins to question the validity of the analysis.

Q. And each one of these anomalies that you talk about, do they affect Class III and Class IV differently?

A. They do. They do. And largely today Class III is still a domestic product. Most of our product is -- or cheese is consumed domestically. And then when we look at our powder, most of that product is exported. We're in the 60 to 70% of that on an annual basis tends to get exported.

So when we look at it, I like to say that the Class III is a reflection of domestic manufacturing, and Class IV tends to be a reflection of the international market in our milk prices.

Q. Okay. And then in 2022 we saw another -- at least in the -- in the -- in the -- delta -- in the net delta of what would have happened under the average-of versus the higher-of, we saw that there was some anomalies that -- at least in the pricing -- maybe I shouldn't have used the word anomalies -- but we saw that there's some differences in the pricing there.

Is there an anomaly to explain that even in 2022?

A. We have got things like Russia invading Ukraine, higher grain markets, financialization of markets. All sorts of things happen that cause those prices to move.

Like I said, I don't know that these are anomalies, more so than that's the operating environment we live in today. We have to consider geopolitical impact on dairy, climate, environmental change, droughts, demand shifts. All of those things find their way into our markets every day.

Slide 7 -- try to keep my pace. Average-of may undermine risk management. Realtime data, spot markets, and transparency are hallmarks of efficient markets, permitting futures markets to attract buyers and sellers, providing a marketplace an opportunity to manage risk.

The proposals' steps to recalibrate Class I prices disrupt the timely communication of market signals to participants as the information would be years in arrears. The new methodologies offer 24- to 36-month lookbacks to determine the adjustments that should be incorporated into the Class I skim calculation, a conflict with basic risk management tenets, accurate and timely data.

Historically, commodity markets have allowed producers, farmers, and buyers to exchange risk at a centralized market, but since the early 2000s, the impact of outside money has been present in the dairy markets due to financialization, albeit on a smaller scale.

The last time there was a national FMMO hearing, the CME Class III futures and options markets were considerably smaller than today, approximately 36,631 contracts on December 26, 2006, according to the CFTC.gov, compared to 59,347 contracts on December 27th, 2022, same website.

While there is a desire to evaluate dairy risk management under a pre-2006 backdrop, given the financialization of all commodity markets, including dairy, it could lead to inaccurate conclusions.

CME dairy futures operate in a smaller microcosm than larger commodity markets like oil, corn, and wheat. However, the concept that futures prices represent the strength of the global economy, or in the case of dairy, global demand has a profound impact on domestic pricing and policy decisions that should not be discounted when reviewing the Class I skim higher-of versus average-of pricing. Further, while this conversation focuses on Class I, modification to the system could have consequential impacts throughout the FMMO system and related risk management activity for other products.

The colorful chart on the right is what we typically look at. It's a commitment of traders, in this case, on the Class III contracts, from 2006 to 2022.

And what we can see is that blue that's on the front, the lighter of the two, represents what we would tend to say are commercials, the dairy producers, processors, co-ops, the folks that are in the industry managing risk.

The other colors that we're seeing, we're seeing more influence from swap dealers, and that may be related to Dodd-Frank and required reporting. But we're seeing more managed money, other reporters, which can be those categories. It's just the CFTC doesn't have a good bucket to put them in. But what we can see is the composition of our market has changed.

Q.   Okay. So is the takeaway from this that while the goal of changing from higher-of to average-of as the mover was intended to allow for greater risk management tools or the utilization of risk management tools, that that actually hasn't been what played out after the average-of was implemented?

A.   In part, that might be. And that's -- it's a bit more difficult to ascertain who is doing risk management. All we can go off is some general write-ups that say, yes, they are doing risk management.

What this is really to say is sometimes our markets move, not because of what's happening in dairy, but because of financialization. People are using these as investment tools and vehicles to, you know, increase 401Ks or hedge fund returns, and that is in our markets today.

Q.   Okay. People from even outside of the dairy industry?

A.   People from outside the dairy industry are trading our markets.

Q.   Okay. And as we look at what drives consumer behavior at the tail end of the supply chain, if processors are managing risk and -- in an attempt to -- to present more of a stabilized price to consumers, is there any indication that there's a driving force in consumer decision-making based on these risk management tools?

A. Not necessarily. And I referenced a USDA study that was released, I want to say it was October of last year, maybe the year before. And it was an excellent study on what -- basically why is Class I consumption -- why is bottled milk consumption declining.

In part, they related it to school milk and the Healthy, Hunger-Free Kids Act, that somewhat changed how kids drink milk, or whether they drink milk in schools.

But also, they talked about other things: Attributes of products, high protein, low lactose, package size, convenience, lifestyle. Those are all things that also impact consumer decision-making.

So, yes, what the price point is, is one aspect of consumer price decisions and whether they are going to buy that product, but it's these other attributes that also carry potentially more weight.

Q. Okay. And do you have -- do you have your Exhibit Number 9 on page 33 of your statement? Is that --

A. Yes. So similar to what I showed earlier in the presentation, these are things where, even if you are managing risk, we don't necessarily know that there is a relationship between what a processor is doing and how a retailer is marketing that product on the shelf. It's a pretty good size leap to say, if I make sure that I sell this product at a fixed price, that the retailer will follow in suit, and also the consumer will respond positively to that. It's a -- it's a long list of ifs and hopes to get that to happen. And there are other things -- basically USDA concluded there's other things that are motivating that purchase.

Q.   And I think on page 31 of your written statement you have a list of consumer products that are there in Exhibit 238. It -- how does that play into your testimony here?

A.   So when we sit down and take a look at this, there are all sorts of pricing strategies. There's national pricing strategies. There is, you know, cost per unit strategies, all sorts of things.

But one thing that we do notice is, some of the categories that are growing rather fast, on the next page, page 32, when we take those unit prices that I observed online and convert that to a per gallon basis, consumers are actually paying quite a bit for these dairy products. And so that's -- so, again, it kind of goes back to the discussion of price, and some of the faster growing categories, people are willing to spend quite a bit on a per-gallon equivalent.

Q.   Would you say that that is an indication that consumers are actually looking for value add components, like protein, for example, in their Class I products?

A.   It would. I am a consumer of Fairlife. We have

it in our fridge all the time. I buy that product because it has higher protein, less lactose. I like the flavor. I like the shelf life. I like the consistency. That is not -- you know, if somebody runs a two for $2 over here on a different product, that's not necessarily going to cause me to switch. It's not the price, it's the attributes of the product --
Q. And the attributes -- I'm sorry.
A. -- and the quality. Go ahead.
Q. Those attributes include the milk components such as protein.
A. Yes.
Q. And I took you a little bit off. I think we're moving to slide 8.
A. Yes.
Dairy producers are less likely to hedge Class I. While the proposal suggests that dairies have equal opportunities to manage Class I risk, the data does not bear out that assertion. Dairies should undertake Class I hedging to the degree it impacts their milk price. Meaning, if Class I utilization is 30% of the uniform price, as that is the basis of payment for the dairy, it should avoid hedging more than 30% of its milk price as Class I, otherwise risk may be created.
Based on the number of cows needed to hedge Class I milk and USDA-ERS, "Consolidation in United States Dairy Farming," in 2017, that would have eliminated 87% of the nation's dairies from accessing hedge one -- excuse

me -- Class I hedging, contrary to several Class I formula proposals.

The change to the average-of price methodology was done to further risk management efforts. Unfortunately, it created a systematic risk that caused dairy producers to step back from all risk management or employ less effective tools in response to the losses that resulted from depooling. Most of the market's sell-side liquidity still comes from producers, suggesting changes that would cause dairy producers to reduce hedging activity across all classes of milk could be detrimental to markets.

And, again, this is just the other side of the chart. So we typically show the buying side activity, and we show the selling activity. Unlike the previous chart, the light blue here, where it's -- the commercial is the folks that are in the industry, that's still predominantly made up of that group, and it's pretty consistent with what we have seen throughout history.

So what that would say is dairy producers, cooperatives, and others are still very instrumental in -- in that sell-side liquidity that our markets crave in order to function properly.

The issue is, is when we have depooling that can last in perpetuity, it hurt dairy producers. Their hedging was far less effective, and they stepped away from it.

So I think what folks have to understand is, we're not talking about just providing folks access to potentially Class I hedging. It's if we disrupt that Class I price, the mechanism that keeps our entire system functioning, we run the risk that we could lose that sell-side liquidity in our markets for cheese, nonfat, butter, Class III, and Class IV milk.

Q. So while there are proposals that discuss Class I risk management, is that something that you look at in isolation or are there implications for other dairy products when you are using the risk management tools?

A. I don't think you can look at anything in our Federal Order system in isolation. It's -- it's a system. It's a network that the whole thing functions together. And when we make a change in one area, it has an impact somewhere else.

And that's where access to Class I risk management for dairy producers, my math says most dairy producers aren't going to entertain that because it's -- they just don't have the milk to be able to do it, when we -- and I have got a detailed example of that.

But on the flip side, if we allow disorderly marketing, potentially higher instances of depooling, for longer periods of time, if dairy producers start to lose money on that risk management activity, they could step away from not only hedging Class I, but Class III, Class IV, all of the other related products. And that is problematic to the entire industry.

Q. And so when you are talking about hedging and risk management, do you use those terms as interchangeable?

A. Typically, no. Risk management is kind of a general assessment of risk. It's -- it's almost like an insurance agent. We would look at different types of risk: Collateral risk, counterparty risk, market risk or price risk, liquidity risk.

When we talk about hedging, oftentimes -- my background is accounting and finance. I have been trained by the account -- you know, the CPAs. That has a very specific connotation. So when we talk about hedging, that actually has a very rigorous, disciplined approach that translates into realization of gains and losses on financial statements.

Risk management is more of a concept and trying to trade out of risks for an organization.

Q. Okay.

A. There are many classifications of Class I hedging, proposals highlight one, raw milk.

Hedging Class I milk is like saying Ford makes trucks. Within the truck category, Ford has more than ten models, each with different engines, features, market share, etcetera.

Market participants would approach Class I risk management differently, suggesting use and efficacy of Class I risk management would have varying impacts on those business categories.

Most of the examples provided involve a processor buying raw milk from a dairy or a cooperative and the steps taken to mitigate risk.

However, the discussion fails to address all categories of Class I risk management that may lend themselves to over-the-counter or custom solutions.

Additionally, the data suggests that the higher-of or average-of risk management performance is relatively similar, meaning either can be used to mitigate risk.

And on the right-hand side, these are effectiveness, or regressions, of how well the Class III milk price, futures contracts, would mitigate risk under both the average-of and the higher-of scenarios. The average-of was at about 88% R-squared, and the higher-of was 91.8. I would say those two are pretty comparable results.

Q. And what's the time period that you are charting there?

A. I have to look at the details. I can get that back, but I'm going to have to switch off the presentation, but I'll get that for you.

Q. Okay.

A. Actually, I'm pretty certain I did almost everything under -- since implementation, so May 2019 to present.

Q. Okay.

A. Would you like me to move to slide 10?

Q. Yes.

A. Okay. Most proposals do not solve the current average-of shortcomings.

At its most basic, every proposal concedes that the Class III Plus or average-of: One, cannot adequately replicate the higher-of price in future periods; and two, is not shared equally among dairy producers and others, necessitating a periodic recalibration.

Rather than recognizing the limitations of the average-of formula and what prevents the price from imitating the higher-of performance, these proposals suggest additional steps to align the average-of and higher-of formulas and distribute costs between processors and producers.

Absent a defined relationship between the Advanced Class III and IV skim milk prices, any variant of the average-of Class III plus formula will struggle to replicate the higher-of performance, resulting in a disproportionate cost to the dairy producers and the like -- and higher -- and the higher likelihood of disorderly marketing conditions.

And then the calculated average-of Class III and higher-of differences, this is just a summation of one of the exhibits I provided with all the details. It just demonstrates what the prices -- the differences would look like over time.

Class I would reflect echoes of past markets.

Assuming static market conditions highlighted an idealistic but unrealistic expectation of the average-of formula. A fundamental weakness of the average-of formula is that it is backward looking. It can only communicate to the market an echo of past events that influence the price, but it fails to accommodate the rapid transmission of data needed in fast moving markets -- fast moving global markets. Ultimately, the average-of formula is incapable of conveying current information about the market to facilitate the movement of milk from surplus regions to deficit regions as intended, because it is grounded in historical, rather than contemporaneous, price relationships.

Further, every period would impact two to three years of future adjustments. For instance, January 2022, would influence Proposal 14's adder calculation in 2023 and 2024. That could obscure market signals, as past market conditions would influence current prices, making the price haphazard and potentially irrelevant, contrary to efficient markets and USDA's position on timely data.

In the adjacent chart, the higher 2022 and 2023 Proposal 14 and 15 performance, results from including 2020 and 2022 data in current Class I prices.

Q. So do you believe that the change going back to the higher-of would result in losing the benefits that you had talked about in the beginning of your proposal?

A. I think switching back to the higher-of would actually cause the system to function more reliably and predictably, that would actually allow for greater risk management.

Q. And on the right-hand chart here, you just charted the comparison between the different proposals based on

the time periods noted there?
A. Correct.
Q. And in some instances, National Milk's proposal would be less beneficial than some of the other proposals; is that fair?
A. That's fair. Especially in, let's say 2022 and 2023. But, again, Class I primacy is important when we're looking at the contemporary prices, the Class II, III, and IV prices at that time.
These prices are higher because in 2020 and 2022, the prices were higher, and that's being reflected today, which arguably would send misinformation to the market and cause disorderly marketing.
Q. Okay.
A. Make whole efforts are flawed.
The FMMO system is incapable of restitution to the affected parties for market inefficiencies, suggesting that for Proposals 14, 15, and 16, there is a must-be-present-to-win methodology. In other words, the dairy producer adversely impacted in the two prior 12-month periods from August through July must still be in business in the current period to receive the adder.
USDA reported that between 2020 and 2022 there were 3,720 fewer dairies. Under the higher-of formula, these dairy producers would have received timely Class I milk payments for those years. For some, it may have made a difference. Under Proposals 14, 15, and 16, different dairies would benefit from recalibration as those years

would not impact Class I prices until 24 to 36 months later. That undermines the made whole assertion expressly stated in all of the proposals.

The cost misallocation between periods is not limited to dairy producers, it can also spread between orders and processors.

For demonstration purposes, assume the average-of payment in the previous 12 months resulted in an adjuster. Consider that in the current period, a dairy plant closed. In that FMMO, the Class I utilization could decline should no other facilities absorb the lost processing capacity. As a result, dairy producers in that FMMO would have lower Class I utilization in the adjuster period than in the affected period, another made whole failure.

Similarly, if a bottling plant opened, the FMMO could experience a Class I utilization increase. If the adjuster or adder reflected a higher adjustment due to prices from several years ago, all else being equal, dairy producers in this order would disproportionately benefit from a disadvantage that may not have existed in the affected period. A new processor would be obligated to the producer settlement fund at a higher rate for which they receive no beneficial offset in a prior period resulting in market inequity.

Q. You want to talk about your graph on the second half?

A. It's a pretty simple chart. It just shows from 2000 to present, the number of dairy operations, according to NASS and the milk production report, and where they were last year.

The idea here is that something that happened two years ago will make whole all of the dairy producers. And it really needs to be clarified. Will make whole the folks that are still around, but you aren't necessarily making whole anybody who was there if they went out of business in that time.

Q. And do you believe that any kind of delayed payment to make somebody whole could influence or affect their ability to stay in business in current times?

A. No.

Q. You want to go on to 13?

A. Sure. Summation.

The Class I milk price is the power source of the current FMMO system, the mechanism that keeps the system functioning, implying changes to the Class I milk price should be done infrequent and done with the utmost care.

If the Class I milk price does not establish the price correctly, the system begins to malfunction. Hindsight being 20/20, the industry found the average-of Advanced Class III and IV skim milk prices plus $0.74 per hundredweight and the higher-of the Advanced Class III or IV skim milk prices are not the same.

They do not function the same, and the changing -- and changing the mechanism has caused the system to stop working properly and efficiently since May 2019 -- since the May 2019 implementation, which has affected all aspects of dairy producer risk management, without achieving the three goals justifying the change.

And on the right side I just restated the objectives again.

Q. Okay. And, again, just to reiterate, a move back to the higher-of mover, do you believe that it would defeat these goals that are outlined here?

A. No, I don't. I -- I -- I actually think it would be better. The system would function more efficiently. Depooling would be more managed. The producer sell-side liquidity that the system needs would be present because they would have confidence in the risk management tools that they use, that they wouldn't be penalized for doing the right thing.

Q. Do you believe that a move back to the higher-of system would make the mover more accurately reflect the current market conditions?

A. I do.

Q. Okay.

MS. HANCOCK: Your Honor, at this time we would make Ms. Dorland available for cross-examination.

THE COURT: Dr. Bozic.

MR. HILL: Your Honor, I think this might be a good time to take a break. It's been about an hour and 25 minutes.

THE COURT: How long has it been?

MR. HILL: An hour and 25 minutes.

THE COURT: Oh, I see. Yes, you are right. Good time for a break. All right. Time flies. Let's come back at 2:50.

(Whereupon, a break was taken.)

THE COURT: On the record. The witness is yours, Dr. Bozic.

CROSS-EXAMINATION

BY DR. BOZIC:

Q. Good afternoon. Marin Bozic for Edge Dairy Farm Cooperative.

Sara, how are you?

A. Good. Thank you.

Q. Good to see you.

A. Nice to see you.

Q. I thought we could start Mr. Rosenbaum style, "can we agree."

Can we agree that we are both here representing --

(Court Reporter interjection.)

BY DR. BOZIC:

Q. Can we agree that we are both here representing organizations that advocate for dairy producers?

A. I believe so.

Q. Can we agree that both National Milk and Edge are disgruntled to the current system for Class I mover?

A. That, I don't know personally.

Q. Do you know for National Milk?

A. I believe they have a new -- an alternative proposal to the current pricing scheme. So, yes, that's correct.

Q. Can we agree that we both tend to speak fast?
A. Yes.
DR. BOZIC: So we should -- your Honor, with your permission, I would like to insert a little bit of levity and ask madame court reporter at the end who spoke slower, and whoever did wins the race.
Now for the more serious part.
BY DR. BOZIC:
Q. If you could please turn to page 13 in your written testimony.
The last sentence on the page reads, "Fundamental to risk management, changes in the hedge price" -- excuse me -- "hedged item (milk price) should be offset by the derivative and vice versa."
Could we -- could you please clarify what you mean by change in the "hedged item (milk price)"?
A. Sure. So when we look at hedging milk, or any products, what we would expect to see is a -- is a correlation, a positively correlated event, which means if I start to make money on my milk price because the milk price has gone up, if I have, let's say, as a dairy producer, sold a futures contract against that milk, I would expect that a higher price would result in a loss. And those two things should be largely offsetting.
Q. So if you are hedging June 2020 milk price, would you look at a change June 2020 versus June 2019 or June 2020 versus April 2020? What change are we looking at?

A. We're actually looking within that period. So these are two events that happened. So I - typically, when I look at hedging, there's two things that happen: There's a cash transaction and a derivative transaction.
Q. Uh-huh.
A. So if I'm trying to achieve, let's say, $18 milk, and I sell a Class III futures for $18, then if the milk price goes to 20, what I would expect to see is on my brokerage statement from -- from -- for my futures contract, I'll have an $18 sale, $20 market settlement, I'll lose $2.
But the offset to that is, I wanted to make $18, and my milk price went to 20, so in the end I have a positive $2 on my cash transaction. In the end, I wound up exactly where I wanted to be.
Q. So the change would be the actual versus projected or expected for that same month?
A. That's correct.
Q. So in case of June 2020, if you initiated your hedge, let's say in January, in January you would project what June 2020 would be, you would measure what June 2020 ended up being, that's the change you're referring to?
A. That's the change against the cash, yes.
Q. Okay. That's good. Okay. Thank you for clarifying. That's also my understanding of hedging works.
On page 10 you discuss the generally accepted accounting principles. You state -- this is about -- this

is the middle paragraph of the page. You state that, "To address that, GAAP requires prospective and retrospective testing to validate the derivative's effectiveness to offset the identified risk, and number two, the correlation between the derivative and the underlying risk must be highly correlated, defined as 80% to 125%."

I have a couple of questions regarding this paragraph. Have you -- do you -- you have extensive experience working with U.S. dairy supply chain as a risk management consultant. Have you ever helped a client achieve a hedge accounting status for their hedging program?

A. Yes.

Q. Have you ever helped a Class I handler achieve a hedge accounting status for their hedging program?

A. Yes.

Q. How long does that usually take?

A. To achieve hedge accounting status?

Q. From the first call, "Hey, Sara, can you help us," to, you know, them calling you back, "everything is approved, we have a hedge accounting status."

A. It depends on the organization and what they have in place. Some organizations don't have any risk policies, anything of that nature, so you need to start getting those in place.

But the actual correlations and things, that's just based on their historical milk pricing, so that typically companies can provide in pretty short order.

Q. But the full setting up of the policies, approvals, authorized signers, external auditors being located, how long is that process, all of that?
A. It depends. There's no cookie-cutter answer to that. Everybody's a little different. If somebody's highly motivated, we can see it done within weeks. Some groups, they can take years. It just depends --
Q. Years?
A. Yeah. It just depends on their motivation.
Q. And just I want to make sure that I heard you correct, multiple years?
A. No. Just depends -- it depends -- this -- this isn't -- this isn't something that says when you start -- you know, it's not like a recipe when you start, you end. It -- it seriously depends on the company's commitment to risk management.
Q. Sure. Sure. Sure.
Also, I'm hoping that you can help me understand your sentence on 80 to 125%, you mentioned correlations there. Are you suggesting that correlation should be between 80% and 125%?
A. That's what the -- that's what GAAP prescribes.
Q. Can you illustrate a condition under which correlation would be 125%?
A. That is GAAP, and that I don't have -- for dairy, I don't have that.
Q. Do you have an example like that, in general?
A. I don't. That is just their prescription.

Q. But in general, if the correlation coefficient is 125%, that will still be okay?
A. According to them, yes.
Q. So you have a business degree. I assume that you took some statistics as part of -- I hope you can apologize -- excuse me for asking some academic questions.
Could you tell in simple terms how is correlation between two variables measured?
A. It's the -- so if we take a look at the correlation, it's the -- it's the price change measured, the change in one, so basically the -- the dependent variable against the independent variable.
Q. So -- so from a mathematical point of view, that would be covariance between variables divided by the product of standard deviations; is that your understanding?
A. Yes.
Q. And if a correlation is zero, does that mean that two times series are independent?
A. Pretty typically, yes. The lower the number, the -- there's less of the price change that's reflected in the other products. So, yes. The lower the number.
Q. Are you aware that correlation coefficient by definition cannot be higher than 1 or 100%?
A. I understand that, but that is not what GAAP says.
Q. So GAAP says specifically about correlation coefficient being higher than 100%?
A. It does.

Q. So the language that I read yesterday is that has to be highly affecting the offsetting changes in fair value or cash flows of the derivative, which in practice is the level of 80% to 125%. Those percentages are regarding offsetting changes in one cash flow versus another, not the correlation coefficient.
Would you dispute that?
A. No.
Q. Even though that's contrary to what you just said?
A. It -- it may be.
Q. Okay. I want to turn everybody's attention to your organic example. And the first, if -- you still have your laptop with you? Would it be appropriate to put the Exhibit 32B on the big screen?
Ms. Dorland, if we could turn to the sheet, Exhibit 18, Hedge Ex - 2022.
A. This one?
Q. Doesn't look right, though. Doesn't seem like it's presenting all the columns, does it? Column F, for example, is not visible.
Maybe if you switched another sheet and then come back. Maybe it's just froze.
A. This is the one.
Q. 2020 is okay.
A. This is the one. I grabbed it from online, so this is --
Q. Would you please be so kind to try to close it and reopen it? It's material for my further questions that we

see the full sheet.
A. Okay.
Q. Did you have the PDF or the Excel file?
A. I have the Excel.
Q. That's -- there we go.
THE COURT: Let's go off the record.
(An off-the-record took place.)
THE COURT: Let's go back on the record.
We have established it's a page in Exhibit 240. How did we identify this page? You said Exhibit 18, but I don't --
DR. BOZIC: It's a spreadsheet, your Honor.
THE COURT: If you guys understand, that's fine.
Continue.
DR. BOZIC: I did prepare the copies of this particular page, so I'm happy to share that with you, your Honor.
THE COURT: I don't know that that's necessary. I have got Exhibit 240. If it's in there, I just need to be able to find the page within.
MS. HANCOCK: I don't think you are going to be able to find it on that chart.
THE COURT: Okay. Thank you.
DR. BOZIC: I got some more for the audience.
So, Ms. Dorland, the first thing --
THE COURT: You want to mark this one? I guess we might as well. I'm just afraid the record -- I don't want whoever is looking over this to have as much trouble as I

am finding it.

MS. HANCOCK: I think it's already marked as 240.

THE COURT: But it's a subpart of 240, right?

We won't mark this excerpt as an exhibit. We'll assume there's enough on the record for folks to be able to find this spreadsheet that is a part of Exhibit 240.

BY DR. BOZIC:

Q. So, Ms. Dorland, the first thing that caught my attention is that you have the -- in the column N for November, row 17, which is December 2022, you have butterfat test for the order at four decimal points.

I'm curious where you got this number from. The uniform price report from that order presents the numbers in three digits, not four.

A. I would have hand-keyed the data, so I -- I'm not sure why it would have done that. But I would have hand-keyed this, so I would have to go back and look.

Q. Okay. The next thing I wanted to just -- I also have here the uniform price report for the Order 126, for December 2022.

DR. BOZIC: I'm not sure if that needs to be entered into the record or what the protocol is, your Honor.

May I approach the witness and --

MR. ROSENBAUM: I'd like for these to be marked.

THE COURT: Yeah, I think this is something -- this is something new, right?

DR. BOZIC: Yes, it's a public document. I did not create it.

THE COURT: Yes, let's mark it.

DR. BOZIC: Would it be okay if I proceed?

THE COURT: Yes, let's mark -- everyone have it?

Let's mark this exhibit, which is -- that's dated January 10th, 2023. There's a bold heading, "December 2022 Computation of Producer Price Differential," and we'll mark this Exhibit 242 for identification.

(Exhibit Number 242 was marked for identification.)

BY DR. BOZIC:

Q. So, Ms. Dorland, the butterfat test presented in cell N17, that's November 17 -- I used November to spell the letter -- that is the butterfat test for December 2022. You have it in this spreadsheet as 4.2924. I just want to confirm that in the computation of producer price differential report, on the second page, that number is 4.292, under the table, producer milk components butterfat average test.

Does that data correspond to what you intended to present here?

A. It looks like I have an extra digit. I can't -- I went through a lot of data. I'm not sure where the fourth decimal place came from. But I can see on the report it says 4.92 -- excuse me -- 4.292.

Q. Sure. Sure. I just wanted to make sure that there is no other database that I'm unaware of. As you

know, I'm a voracious consumer of data feeds.
A. Yes.
Q. I was also hoping that we can just verify the other numbers in this row, starting with the -- sort of Column A, just gives the date, that's the December. That's what we are evaluating, December 2022.
You have a uniform price at $22.15. Would you agree that on the second page of the published report, that's the third digit from the top under statistical uniform price of milk?
A. Yes, I see that on the report.
Q. That matches.
Then the Class III price, you have in column C at $20.50. That also corresponds to Class III price on the second page, $20.50?
A. That's correct.
Q. Producer price differential in your column D is $1.65, and that corresponds to the first number in the second page; is that correct?
A. Yes.
Q. And so the uniform price is the sum of producer price differential and Class III price, correct?
Or put differently, PPD is the difference between the uniform price and the Class III price?
A. That is correct.
Q. Okay. Those two statements are equivalent, correct?
A. No, they are not.

Q. So when we say that uniform price is the sum of Class III price and PPD, why is that not equivalent to PPD is the difference between uniform price and the Class III price?

A. So, sorry. This is a touchy point for me because I have had to spend a lot of time with dairy producers undoing bad -- bad habits. And we have -- we have linked our Class III price to our uniform prices in most orders because of multiple component pricing. And multiple component pricing, as I'm sure everyone's aware, requires that we pay dairy producers for all the components in the milk that they deliver.

Q. Uh-huh.

A. Practically speaking, the only class of milk that an accountant could actually even conceive of doing that with is the Class III milk price, because it is the only milk price that has all three components in the calculation.

Q. Uh-huh.

A. So when we look at that, in order to practically pay a dairy producer for what they delivered to anyone, we have to actually sit down and say, here is the -- here is the Class III price. But we know that we used all sorts of other different things beyond Class III within that Federal Order system. And it varies. We use Class I, Class II, Class III, and Class IV in varying levels. So we actually calculate the uniform price based on utilization --

Q. Uh-huh.
A. -- and then we calculate the component prices. And there's all sorts of little miscellaneous adjustments that come along with that --
Q. Uh-huh.
A. -- we subtract that out. That is the PPD.
The PPD is not Class III -- the uniform price minus Class III -- the uniform price minus Class III is the PPD, but the PPD is not just a manifestation all on its own. It is the result of the utilization in that Federal Order system.
Q. If somewhere, someone were to tell you that the December Class III price was $20.50 and that the PPD is $1.65, would you know how to calculate the uniform price?
A. I would not.
Q. You would not.
A. I would have to actually go through and calculate the uniform price. I could tell you what the end result was, but you would actually have to follow -- what is that, Rule 1000 -- and you would have to actually go through all of the calculations that each and every Market Administrator goes through on utilization in order to determine the uniform price.
I can -- I can say the uniform price is the result of Class III plus the PPD, but that is not -- that PPD is not some manifestation of basis or anything else. That connotation does not apply there.
It is more correct to say it's the uniform price

minus the Class III price, results in the producer pay price differential, which is a function of actually paying dairy producers in multiple component milk orders.

Q. No, I agree with you on that one.

My question is pure arithmetic. If Class III price is $20.50 and producer price differential is announced to be $1.65, then the only price -- the only value that uniform price can take that month is $22.50; is that correct?

A. I would say you begin with the uniform price, you subtract out the producer components based on the Class III value, and you would arrive at the PPD. You don't work it backwards.

Mathematically, I understand what you are attempting to say with an equation, but that has led more producers down a path of risk management purgatory that is actually -- it does them a disservice because they believe the concept of basis applies in milk, and it absolutely, uncategorically, does not belong in milk.

Q. If I stipulated I'm not asking about economics, just arithmetic, can we agree that Class III Plus, plus PPD, mathematically, must equal what is published as the uniform price?

A. No.

Q. Just from arithmetic --

A. The PPD is the result of the uniform price minus the producer component value, plus or minus adjustments, is what the PPD is. It does not work its way in reverse.

You have to start with the uniform price. Otherwise, the implication is basis, and basis is dangerous.
Q. Ms. Dorland, if I stipulate that I'm not asking an economic question, but I'm asking an arithmetic question, if A plus B equals C, does it not follow that A must equal C minus B?
A. I think in this instance we're going to have to agree to disagree.
Q. On arithmetic?
A. On arithmetic.
Q. It wouldn't be the first time. We already disagreed on correlation coefficient, correct?
A. We have.
Q. Yes. Okay. I just want to get that on the record.
So how would one go about deriving the uniform price at test?
A. The uniform price at test?
Q. Yes.
A. Effectively, that's what the Market Administrator does. They walk through the calculation for utilization. They determine how much skim and butterfat went into Class I, how much skim and butterfat went into Class II, how much protein, butterfat and other solids went into III, and then Class IV is solids nonfat and butterfat. Based on those utilizations, you would calculate the uniform price, and that ultimately ends up at test because we're using the actual components.

Q. Can uniform price at test be derived mathematically?
A. I'm pretty certain that was derived mathematically.
Q. So would -- what is the difference between uniform price at test and uniform price at -- the way it's published in the Southwest marketing order, December 2022, for --
(Court Reporter clarification.)
BY DR. BOZIC:
Q. What is the difference, in general, in definition, of uniform price at test and statistical uniform price of milk (3.5% butterfat, Dallas) as published in this report?
What -- when people talk -- when you, Ms. Dorland, when you talk about uniform price at test, how is that any different than $22.15 is published here?
A. The -- so at 3.5% butterfat in Dallas, that is based on the Class I differentials in that market, and then adjusted to a 3.5% butterfat test.
Q. And how -- how is that -- why would that price be different than a uniform price at test?
A. At test it would be adjusted to the actual -- the actual butterfat delivered into that market.
Q. And as well as the protein?
A. As well as the protein? I would have to look at that. Typically we refer to it as at standard butterfat.
Q. We refer to uniform price at test as standard butterfat?

A. No, not at test. Here they're referring to it on this report. Are you asking me what they're referring to on this report?
Q. I'm trying to understand what you mean by uniform price at test.
A. The uniform price at test is based on the actual components.
Q. Does uniform price at test, in any way -- is it in any way related, derived from, corresponds to, producer price differential?
A. Does the uniform price at test correspond to the differential? Not necessarily. Because the -- like I said, the differential is the difference between the actual utilization minus the producer components at the actual -- at the actual test.
Q. Could you please repeat that?
A. It's at the actual test.
Q. What is at the actual test?
A. The producer pay price differential is based on the actual components delivered in that order.
Q. The producer price differential is calculated based on the actual test in the order?
A. Yes. Because it's the difference between the components and how they were used, less the components delivered in that order.
Q. So the -- you established before that the producer price differential is the difference between the uniform price and the Class III price, correct?

A. Yes.
Q. So the --
A. No, not the Class III price. The Class III price based on the components in that market.
Q. I want to make sure that I understood you.
So you are saying that the producer price differential is calculated as a difference between the statistical uniform price of 3.5% and the Class III price of the actual component test in the order?
A. That's at the Class III value.
Q. So the question is, what is the nature of the relationship between the statistical uniform price of milk and the producer price differential?
A. I'm not sure I understand your question.
Q. How are statistical uniform price of milk and producer price differential related?
We're just repeating what we are argued ten minutes ago.
So the producer price differential is derived as a difference between the statistical uniform price of milk and the Class III milk?
A. That's correct.
Q. Both statistical uniform price of milk and the Class III price of milk are 3.5 butterfat; is that correct?
A. The 3.5 butterfat.
Q. And 2.9915 protein; is that correct?
A. It's 3.1 before you adjust it for skim. But, yes.

Q. Plus you multiply 3.1 times --
A. Yes.
Q. -- you get 2.9915?
A. Correct.
Q. And 5.6575, if I -- basically the same, right, for other solids?
A. Right.
Q. Okay. So now we have the relationship between the statistical uniform price and producer price differential.
My next question is, like, when you define uniform price at test, how is that price related to producer price differential? Does it take into account producer price differential?
A. Are you asking about this spreadsheet here on column L where it says uniform price at test?
Q. In general, I'm asking when you conceived of a concept uniform price at test, what were you trying to capture by that?
A. Basically, the value of milk paid out on the actual test that a producer delivers.
Q. So if a privately-pooled -- privately-held handler is pooled, the minimum price they have to pay to a producer who ships to a plant located at a principal pricing point is equal to the uniform price at test.
Did I say that correctly?
A. I believe so, yes.
Q. Okay. So then does it follow -- or must it follow that the uniform price at test, as you just defined, must

reflect fully the producer price differential, producer price differential is an essential part of the uniform price at test?
A. It is a component of it, yes.
Q. Okay. Thank you very much.
So, now, let's continue going down that row 17. So we defined uniform price; that's column B. Column C; that's Class III. Column D; that's producer price differentials. We're all good on all of that.
Now, I want to go to the Class I at test, which is column K. Could you walk us through the formula in cell K17?
A. Yes. That is just simply multiplying the column -- let's see here -- column N, butterfat, which apparently has an extra digit in it, times the butterfat value of the Class -- the Class III butterfat value -- excuse me -- the Class I butterfat value.
Q. Okay.
A. And then it is taking the difference between, let's see, the actual butterfat test to calculate the skim value, times -- times the skim value of that milk.
Q. In other words, if a Class I handler receives the milk which has the butterfat test that is the same as the pool average, their handler obligation to the pool would be $28.10?
A. If was the same as the average, that would be -- that would be the obligation.
Q. Without location differentials or --

A. Adjustments, audit adjustments, anything like that.
Q. So the Class I test is the obligation to the pool.
Now, would it then also follow that the column L tries to measure the draw from the pool? Of course the net will be the difference, right?
A. The difference, yes.
Q. The settlement with producer settlement fund, that's the net draw or net payment, right?
But the -- the uniform price at test is the price owed to the producer, the minimum regulated price owed to the producer; is that correct?
A. In this instance, if it was 100% Class I, yes.
Q. No, I'm asking now about column L, as in love.
A. Okay.
Q. Is that -- does that define the minimum regulated price to a producer which has representative component tests and ships to a plant at the principal pricing point?
A. Yes. That appears to be the price that would have been paid to a producer should their components match the average.
Q. So can we -- can you walk us through that formula now, the same way you did with column -- with column K? And please, let's just walk one cell at a time. For the benefit of the audience, that's the formula that I've also printed in the handout.
A. So in this case it's column H, which is the Class III butterfat price, times column N, which is the

butterfat value.
Q. Uh-huh.
A. And then it's 96% of the Class III protein times the true protein value. And then the 96.5% of the other solids times the other solids price, rounded to two digits.
Q. So can you explain why you used this correction factor, 0.965?
A. I believe I was correcting for skim, which should probably not have been done.
Q. So that part is incorrect?
A. That part is incorrect.
Q. Is the formula otherwise correct?
A. It would be -- you know, it looks like it's missing the PPD.
Q. So we have established that we have an extra digit for butterfat, that we have a correction factor that shouldn't be there, and that we are missing a producer price differential.
I'm wondering in this example, given these corrections that you would need to make, how much validity should we assign to your organic example?
A. In the organic example, while the math in this instance looks like it is off, I don't think that that would have altered the outcome. Because effectively, the example I was providing was whether an organic company can hedge the -- the change -- basically their obligation to the pool. And that would be difficult to ascertain,

because there's so many moving pieces, that changes in the Class III and IV price, you have to control for depooling, you have to control for changes in utilization outside of Class I. You have -- you have all sorts of things that you have to deal with that I still believe that the number might not have been as low, but it certainly wouldn't meet the qualifications for hedging.

Q. Ms. Dorland, what puzzles me, if you can reach that conclusion with a high degree of certainty, why go through the trouble of providing this exhibit at all? If math doesn't need to be correct and it's -- and the errors in math are immaterial, why do we need math at all?

A. We do need math. And I will acknowledge that is a mistake. Unfortunately I went through a lot of data, so that part I did not catch.

Q. I'm counting. Strike two. Okay. Let's move on.

Thank you for your patience with me on this.

Okay. So if we could please turn to page 12 of your testimony. On page 12 you talk about the example in the Section 2.6.4, hedging 2% gallons at retail.

And the purpose of this paragraph, as I read it, is to evaluate whether average-of pricing improves or is materially more beneficial to Class I stakeholders than higher-of.

Would that be a fair summary of what you are trying to achieve here?

A. I'm sorry, say that again?

Q. Would it be a fair summary of Section 2.6.4 --

would it be a fair summary that we are trying to establish whether higher-of or average-of make a difference for hedging Class I exposure from a manufacturer standpoint or a grocer standpoint?

A. In this instance, what I was looking at was hedging actually 2% milk, not raw milk purchased from a producer to create 2% milk. This is somebody who is attempting to hedge 2% milk.

Q. So -- but we are trying to figure out whether higher-of or average-of can do that just as well. Is that a fair summary?

A. Correct.

Q. So my first question is 2% is different than 3.5%. In fact, 3.5% is almost twice as much, correct?

A. It's almost twice as much.

Q. So why would we not recognize explicitly that we are overhedged on the butterfat?

A. That is one of the issues that you have with that hedge. If somebody was to approach that without taking a butterfat offset, you are overhedged on the fat side of the equation.

Q. But why wouldn't you provide an example that properly accounts for the butterfat offset?

A. So I have actually done that for a client before who wanted to hedge 2%, and the math, it -- it -- the size of contract grows pretty quickly, and that was somewhat the point, to say that you tend to have mismatch.

If it was simplified to say all you have to do is go out and enter a Class III or IV contract to hedge, let's say 2%, which is the most commonly consumed milk today, if you were attempting to do that, you would have a mismatch, which would result in ineffectiveness for hedge accounting purposes.

Q. Ms. Dorland, are you aware that omitting a relevant variable could bias the coefficient in regressions if the model is miss specified?

A. So if somebody -- so I think what you are attempting to do is to take this example and make it something other than what it was. If somebody said, because the way this has been displayed is that all I have to do is go out and buy one Class III contract and one Class IV contract and I can hedge, then the answer is that you might not be able to get the efficacy that you think you are going to, unless you were buying raw milk Class I milk from a producer. Anybody else, the complications with that hedging goes up exponentially.

Q. So this --

A. And here, understand for accounting, unless you have a contract that specifically says, "I'm hedging," basically you would have to correlate the III to -- to your experience on price, and the IV to your experience on price.

And that's effectively what I'm doing is correlating the Class III to that example of a Class II value.

Q. Well, and you're sure that we cannot correlate our exposure to the average-of III and IV?

A. Not in accounting world you cannot, unless your contract stipulates it. We have a saying in accounting that's pretty common, and that is, you cannot hedge the rubber in a rubber tire unless the contract -- which this is a new modification of the hedge accounting rules -- unless the contract stipulates that you have an underlying commodity that you can tie it to.

So the class -- if you were to hedge 2% milk and it says you have a certain percentage of that milk that's based on Class III, Advanced Class III, and Advanced Class IV, then you can go ahead and just use the average-of.

If you have a contract that says, I'm buying Class I or I'm buying 2%, you are then required to correlate the Class III and then to correlate the Class IV independently.

Q. So for economic purposes, not hedge accounting, would it be appropriate to correlate the Class I and 2% with the average-of III and IV?

A. I still think it's appropriate to look at them independently. Because, again, the averages will tend to offset. And it doesn't mean that it -- it doesn't necessarily mean that your IV became more effective in 2020 because -- because your III performed better. It doesn't -- one performing well doesn't -- shouldn't mask that the other underperformed. And that actually, if you look at the price change, your price change would have been more effective looking at III versus IV at that time. And today, you are likely to look at it as IV versus III.

Q. So if I understand you correctly, to evaluate whether the average-of a IV is better hedging, we are forbidden from evaluating the strategy where we are using both III and IV because that's misleading?

A. No, I just think you do them independently and take a look at how they are impacting the price.

Q. And you believe that's more insightful than combining them?

A. I do. Because as I have said several times today, there is nothing that binds the Class III and IV skim values. And absent that, you should be looking at them independently.

Q. Are you as confident in that as you were about the coefficient correlation?

A. I suspect you are going to walk me through something, so --

Q. Well, no, I'm going to let you off the hook there. It is your opinion. You are recognized as an expert witness, so tune into my testimony on Monday.

So I want to talk about the prolonged periods of depooling, which is your phrase from page 2. And, also, closely related to that on your page 9, you write, "For instance, the implementation of the average-of price resulted in extended periods of depooling, which adversely impacted dairy producers that hedge milk price exposure for other classes of milk, most notably in 2020."

I wanted to make sure I understand the word "resulted." Is "resulted" a synonym for caused? Are you suggesting a causal relationship here?
A. What I'm suggesting there is that when Class I is not the highest value of milk, it affords the market to have two possible prices, the value by participating in the pool, uniform price, or the value of staying out of the market or depooling in that period.
And that prolonged period of manufacturing milk potentially being higher than the pool value of milk caused disruption in the market for dairy producers that hedged. Because unexpectedly, milk was removed, and it changed the utilization in those markets.
Q. Ms. Dorland, you said that it resulted in extended periods of depooling.
Are you claiming that extended periods of depooling would not have happened were it not for average-of?
A. That is correct. There were periods of depooling -- there would have been periods of depooling, as we have seen historically. Typically it's limited to about two months, potentially more, depending on -- you would have to look at the pandemic. But if I remember correctly, when I looked at this, you were talking about potentially two consecutive months of depooling.
Q. Have you done any research that would suggest how much milk would have been depooled if we had higher-of in either 2020 or 2022?

A. I have not. Although, I did look at the prices. The issue with the system is, as I said, the only way to pay dairy producers is that we have linked the Class III price to the milk check.

What I did look at is all of the proposals under -- under both pooling and depooling, assuming -- I think I looked at Federal Order 32 because it was the most reflective of the national average-of utilization. I looked at 2020 and 2022, because those are both extreme markets for different reasons. And typically, that would not have altered depooling decisions because the markets were so extreme. And under those scenarios, the higher-of mitigated depooling more so than any of the average-of proposals. But under all -- for Class III.

But under all scenarios, the milk prices can't. It has a difficult time tackling Class II and IV.

Q. Would you qualify your reading of those reports as research into this topic?

A. Yes.

Q. Are you familiar with any other research on this topic?

A. I -- I've read quite a few different reports at this -- to -- in order to put this information together.

Q. Specifically that the existence of average-of caused extended periods of depooling?

A. I think you are going to lean on my word choice.

Q. It was your word choice.

A. I understand. And so I'm not certain what you are looking at. But I would say the average-of, because Class I was no longer the highest milk price, provided that opportunity for prolonged periods of depooling.

Q. So you are not familiar with any other research, or can you point to any other specific research that demonstrated, to your satisfaction, that the average-of caused or resulted in extended periods of depooling?

A. If I didn't cite it, I -- I -- I might have read something, but I don't -- I don't have any specific recollection.

Q. Okay. So your sort of "finale" is that statement that the --

A. I'm sorry, what page are you on?

Q. Yeah. I'm about to say.

That the higher-of does not detract from Class I hedging. That's the way you preview your analysis on page 2. That's on the top of -- does not detract to the -- "is more effective compared to the current average," etcetera, including, number 2, "does not detract from Class I hedging."

I assume that "does not detract from Class I hedging," by that you mean that processors can as successfully hedge their exposure under higher-of as they can under average-of?

A. It depends on the tools and the processor. But my answer would be the ones I have worked with, we found different ways to manage Class I risk.

Q. Under higher-of?

A. Under higher-of, yes.
Q. So the change to average-of did not result in any improved strategies for the clients that you have advised?
A. It's -- look, it's certainly easier for what you are attempting to do. But the disorder that it causes in the entire system, that to me is more concerning and problematic than the slight improvement and ease of risk management.
Q. Could we -- could you help me reconcile how it could be easier if it, at the same time, does not detract? How are those two statements mutually consistent?
A. I think what I was saying is that -- where are you on this one?
Q. Page 2 of 39, top paragraph, about four lines from the top of the page.
A. I think the -- so I think what you are saying is -- is --
Q. I'm sorry, Ms. Dorland, this is you saying. I'm reading.
A. No, you are interpreting my statement, so I'm trying to understand what you are saying about what I'm saying.
So what I said is, I don't believe the average-of detracts from the ability to manage Class I risk -- or excuse me -- the higher-of does not detract from the ability to manage Class I risk.
Q. But "does not detract" has nothing to do with how easy it is to hedge risk.

A. It can be easy. It just depends on the company, the tool, and the partners that they use in order to do it.
Q. But there is an effective way to manage Class I risk under the higher-of, as effective as under average-of?
A. Yes.
Q. Are you familiar with the paper by Dr. Newton and Dr. Thraen from 2012, Road Block to Risk Management?
A. I may have read it in my past. I don't know.
Q. It is here --
A. It looks a little lengthy -- oh, okay.
Q. These hearings are the only way for us to get anybody to read our papers, so I'm going to distribute.
MR. ROSENBAUM: Your Honor, while they are doing that handout, the printout he did has the formula that he was asking questions about. You can find that in the spreadsheet, but you have to work to do it.
I would prefer that we have this document marked as a Hearing Exhibit so we know what it was that was being asked about.
DR. BOZIC: I would concur.
MR. ROSENBAUM: He asked her about the formula. She did not read it verbatim, which I'm not faulting her for.
THE COURT: Right. Right.
MR. ROSENBAUM: But if it's not in the record accurately, I think we need the document.

THE COURT: Anyone object to -- well, nobody's going to object to marking it. The question is going to be whether admitting it.

So does anyone object to marking and admitting this exhibit as an -- as an excerpt?

I'm a little confused about this whole thing, but that's just me. I don't speak economics all so well. I couldn't find this in the document.

So your idea is that we put -- even though this is already in as a part of the larger document -- I'm sorry, why does this need to go in again?

MR. ROSENBAUM: If you point your cursor at the right cell, and you look in the right place, this formula pops up. But that's -- you know, you have to go through those things.

And so I think, since she had the formula up as she was answering questions but did not --

THE COURT: She did, yeah.

MR. ROSENBAUM: -- she did not read -- and she started to read it. And I'm not suggesting she should have. She just didn't read the whole thing into the record.

THE COURT: Yeah.

MR. ROSENBAUM: And so I feel like there's a disconnect here, and it would be better if we have this document in so we know the actual specific formula that she was describing.

THE COURT: Anyone object?

MR. HILL: I'm not sure how -- looking at this document, how would I see what Mr. Rosenbaum is talking about?

MR. ROSENBAUM: You want me to show you?

THE COURT: Let's go off the record.

(An off-the-record discussion took place.)

THE COURT: Okay. Let's go back on the record.

We had an off-the-record discussion about the sheet described that we have been talking about. It's described as L17; is that right?

The subpart of Exhibit 240, whether it should be marked as a separate exhibit to help clarify I think the cross-examination that took place on this particular part of Exhibit 240. And nobody's got an objection to marking it, as I understand it.

I don't -- I think it helps the record to have it in there. The whole document's already in there. So unless people are objecting to that, I think this can go in there as a separate document.

AMS, I think, is concerned about this coming up again and again and having repeated exhibits that amount to the same subparts of the same exhibit, but we have had a lot on this particular one.

Let's mark this Exhibit 242 for identification.

What's the best way to describe this, again -- oh, 243. I'm not keeping up at all here. Strike that.

All right. We're marking an Exhibit 243 with the next exhibit number.

And the way to describe this is?

MS. TAYLOR: It has a title.

THE COURT: NMPF-32B spreadsheet screenshot. I see, L17 is up at the top left-hand corner as well. So I take it that I can look at L17 and flip through this oversized exhibit and find this sheet within there, too.

But anyway, we will mark this one-page excerpt from Exhibit 240 as Exhibit 243.

(Exhibit Number 243 was marked for identification.)

THE COURT: Do we want to take a break? Let's take a ten-minute break.

(Whereupon, a break was taken.)

THE COURT: Let's go on the record.

Dr. Bozic, your witness.

DR. BOZIC: Thank you, your Honor.

BY DR. BOZIC:

Q. Ms. Dorland, the last segment of my examination this afternoon is a paper by Dr. Newton, published in Applied Economic Perspectives and Policy, ten years ago. Dr. Newton evaluated how easy it is to cover Class I risk or reduce Class I risk.

And on page 563, the conclusion page, Dr. Newton concludes his paper by stating, "The basis exposure prevents Class III and IV milk futures from directly managing the milk price and limits potential risk reduction and revenue stability for fluid milk participants. Removing these roadblocks to risk management would provide avenues for farm processor retailer profitability in an increasing volatile market."

From previous page, page 562, second paragraph from the top, Dr. Newton and Dr. Thraen state, "The MSPE demonstrates that the basis still results in a considerable amount of risk exposure for the trader even when using the appropriate basis for testing technique."

I'll paraphrase: No matter what we do, there's only so much we can do to reduce risk to Class I hedgers. This was under higher-of.

Would it be fair to state that Dr. Newton reached different conclusions than you did?

A. So I haven't had an opportunity to read the entire report.

Although I would say that when we went off the record, I know Dr. Newton, I feel like I'm in good company because on page 552 he also said that the results have implications in hedge accounting since financial accounting standards for FASB requires a hedge instrument to have a correlation of 0.80 to 1.25. So that I just thought I'd point out.

Q. Do you mean to suggest that correlation can indeed be 1.25?

A. I don't want to go back there. That took us quite -- we have travelled that path. I'm just saying they used the exact same language that I did.

So as it relates to this, I did take a quick look -- and so I have said it a couple of times. The relationship between the Class III and Class IV skim prices, we have a lot of mechanisms within our system to tie relationships together. It's what makes our risk management system and all of our markets function, is the USDA and this FMMO pricing scheme that we have.

We are literally the envy of other folks in the world. At least when I have travelled, that's what they have told me. We have better tools than they do. In part, it's because of the design of our system, and largely because we have codified these relationships.

With one exception, the Class III price, the skim price, moves based on the value of cheese and whey, and the Class IV solids nonfat price moves based on the value of nonfat dry milk.

I'm sure you are well aware that the economics that drive those three products are vastly different. And as a result, yes, they can move independently of each other. And if you attempt to, as we went through earlier, talk about this in terms of basis to each other, you will find that Class III is not a good cross-hedge of Class IV, and Class IV is not a good cross-hedge of Class III for a variety of reasons. That also applies if you were attempting to do that with Class I.

But what I would say, is in my presentation earlier I mentioned -- I'm sorry, can we pop that back up for a moment?

If you look at slide 7, I showed a chart of the commitment of traders in the Class III contract, and you will see that bright gold area where it calls for swap dealers, and you will see that we have a lot more activity in there, in part, because of Dodd-Frank regulations in that we are required to report those swap transactions. But in part, because we have got a lot more liquidity providers than we did in 2012 and prior to that.

We have very creative market makers and folks who will put together customized tools. As I said earlier, I have worked with folks that when we had the higher-of, we would call up liquidity providers and ask them to provide a Class I skim or higher-of settled contract, and for a fee they would. And that's not different than anything else. If I want to do a Class III or Class IV or cheese look-alike in that category, someone's going to charge me a fee for putting that together. The idea that you can do risk management cost free doesn't make any sense.

So all that we're saying is, is that yes, I can still get a good correlation between Class III and the higher-of, and Class IV and the higher-of. I can also find liquidity providers that will provide me a customized solution to meet the needs that I have. If I want 2%, 1%, skim, whole fat, raw Class I milk, I can find somebody who will be more than happy to make that market for me. There are plenty of those out there, and those folks have increased, especially because we have got more money in the market, more liquidity, more capabilities than we did even, you know, 10 -- 10 short years ago.

Q. Ms. Dorland, would you like to answer my question?

The question was whether your paper reaches the same conclusion as Dr. Newton, or do you find his paper to be in contradiction with your paper?
A. So as I stated, I haven't been able to read the entirety of the paper and to absorb the information, and as a result, I can't answer that question in all honesty.
Q. So the -- that's fair point. I'm not -- I should not have said that, do you agree with his paper in entirety.
Specifically, the conclusion: "The basis exposure prevents Class III and IV milk futures contracts from directly managing the milk price and limits potential risk reduction and revenue stability for fluid milk participants."
Dr. Newton's entire paper is titled "Road Block to Risk Management - Investigating Class I Cross-Hedging Opportunities."
He finds, in his paper, that there are roadblocks. In your testimony you state that higher-of doesn't detract from Class I hedging. Are those two conclusions mutually consistent or contradictory?
A. As I stated, I haven't read the report. I can see that it has the word cross-hedging. As I just told you, Class III is not a good cross-hedge for IV, and IV is not a good cross-hedge for III.
Q. You don't believe that the sentence that I read from his conclusion sufficiently summarizes his finding?
A. What I would tend to say when it comes to Class I

hedging, that is a product that lends itself to a market maker, somebody who can customize that product for them, because there -- it's no different than let's say a specialty cheese, right? If I came in and said, I make Feta, I make Manchego, I make Brie, I make mozzarella. I only see a cash-settled cheese contract, or a cheddar block contract on the futures market. Well, that's too hard. My cheese make isn't the same. I have different moisture, and I have different yields, and I have different protein. You must accommodate me. We wouldn't get anywhere with our markets.

The benefit of our markets, and I think I mentioned this, is it's a clearing. It's a standardized contract that we can all use to manage risk. Yes, sometimes we have to do a little legwork. If I want to hedge Monterey Jack versus cheddar cheese, I have to do some work on moisture. Class I is no different.

And so that's why I'm saying, if I want something that's cookie cutter, Class I may be more challenging to hedge. But if I can work with somebody who will actually devise a program that works for me, I have no issues with Class I.

Furthermore, I'm not even aware that that many people do Class I hedging. A lot of the folks that I have dealt with on the public side of the world, they are not going to touch Class I hedging. Hedging specifically as risk management, hedging specifically defined by GAAP, because if I have hedge and effectiveness, that goes to my bottom line. If I am out on the market, but everybody in my industry is out in the market, that's a heck of a lot easier, actually, when we do an earnings report than if I made a mistake because of hedging.

So oftentimes I'm going to look for a normal purchase, normal sale exclusion under that, and that's how I'm going to try and manage my cost my price exposure.

Q. In the interest of time, I'm going to wrap up here.

Thank you, Ms. Dorland, for your patience with my many questions.

THE COURT: Are we going to mark this -- what are we going do with this article? Do you want to mark it as an exhibit? Are you going to move it into evidence?

DR. BOZIC: Sure.

THE COURT: Both? I mean, let's mark it as Exhibit -- and see if I'm getting this one right this time -- 244. And I will move it in, I guess at the end of this witness' testimony.

Although, I do note that Drs. Newton -- I assume he's a doctor by now. He was a Ph.D. candidate when this came out in 2013, and they are not here right now, you -- you retain --

MR. HILL: AMS does have one request. We would like to have electronic copies of these so that we can --

DR. BOZIC: I'll provide them in the next few minutes.

THE COURT: All right. When it's offered into evidence, we'll talk about it then. I don't know whether it is a learned treatise, for instance? I don't think so but -- so it's marked. Exhibit 244 is marked, Newton and -- how do you pronounce that, Dr. Bozic? What's the guy's last name, the co-author of this?

DR. BOZIC: T-H-R-A-E-N.

THE COURT: How do you pronounce that?

DR. BOZIC: Thraen.

THE COURT: Okay. It's marked as an exhibit.

(Exhibit Number 244 was marked for identification.)

THE COURT: Yes.

CROSS-EXAMINATION

BY MS. VULIN:

Q. Good afternoon, Ms. Dorland.

A. Hello.

Q. How are you?

A. Good, thanks.

Q. Good. So I'll pick up where we left off on hedging.

So you agree hedging has transaction costs, right?

A. It does.

Q. You said you could call up a provider and they would provide a hedge for a fee?

A. Typically, yes.

Q. And as a consultant, you or other others in your position would also typically charge a fee, correct?

A. Not for -- it depends on how your consultancy is

set up. I personally don't charge a fee for that.
Q. Do you provide all your hedging services for free?
A. I don't charge a fee on a transaction basis.
Q. Oh, got it. Okay. I'm just trying to merely establish that in engaging with consultants, you -- of all sorts, right, but any consultant, yourself included, probably when setting up a hedging program would cost money for a company.
A. It typically does because they are going to have to work with their accountants, brokers. You're going to have potentially consultants involved. You will have information services. You may have liquidity providers that you work with, banks, lines of credit, all sorts of things.
Q. So it's not something you can pick up and do in a day?
A. That's the second time I have heard that today.
Typically, no, you wouldn't want to, because, like anything, you are going to want to evaluate your risk exposure. You have got to sit down and understand what is causing changes in your earnings, and is that what you want to manage? Are you more concerned about counterparty risk? Are you concerned about liquidity risk? There's quite a bit of different things that you have got to evaluate in order to make a determination as to what would be appropriate for your company and risk management.
Q. And you said that on -- you couldn't say how long on average setting up a hedge program would take, but it

could be weeks to years; is that right?
A. I'm going to say it depends. Okay. So if you're highly motivated, if you are saying, you know what, I want to make -- if you are highly motivated and you want to make risk management a part of your core competency as a business, then oftentimes you are going to designate somebody who is in charge of it, and you are going to move through that process.
How difficult is it? It's as difficult as opening a brokerage account, which is filling out some online paperwork. It's not very difficult. If you want to do it correctly, it takes a little bit of time to set up. But this isn't something that, five years hence I will have a risk management program. Typically it gets going a little bit faster than that.
Q. What's the shortest amount of time it's taken you personally to help a processor put together a hedging program?
A. I'd say, oftentimes I'm coming in because they have got some of their legwork done, so it can be as short as three months, sometimes it can take up to nine months.
Q. From your involvement?
A. From my involvement.
Q. And in your estimation, in your experience, how much time or legwork would they have put in before you get involved?
A. That really depends. It -- honestly, it's -- some companies are very complicated. They handle all sorts of

different products. So like when I was at a co-op, we did everything. We did whey, and cheese, and butter, and powder, and yogurt, and, at one point ice cream. Thank goodness that went away, because that's a little bit more complicated. And then fluid milk, all sorts of things.

But when we set up the program to when they were initiating trading, it was a matter of months.

Q. And you said the shortest you had been involved in, was it six to nine months? Is that what you said?

A. I would say some of them, it's -- it can be as short as three, because like I said, they are already off and running.

Q. Okay. So three to nine months is the shortest amount of time it has taken you personally to help a processor set up a hedging program on the fast end?

A. I would say that that probably sounds about right.

Q. Okay. And then the same question on the long end. What is the longest amount of time it's taken you personally to help a processor put together a hedging program?

A. That's difficult to answer. And the reason is, is, as -- we focus in on certain things, so that we can be successful and demon- -- basically have a demonstration of success. This is what risk management can do if we employ it.

From there, I look at risk management. It's kind of like yoga, it's a practice. You don't ever finish it, you just keep adding to it. So you may say, okay, we're

going to start hedging cheese, or Class I, then that may move into packaging, it may move into natural gas, all sorts of things. So that's where I would say it's kind of an ongoing process.
Q. Let's simplify it, then. From when you are brought on board to when they place their first hedge, what's the longest amount of time you have personally taken to set up a hedging program for a processor?
A. I honestly don't have a good answer for that, because it's not something that I track. I actually have some clients that they just like talking about markets and understanding risk management, and they don't actually ever do any transactions.
Q. What percentage of your overall consulting work is putting together hedging programs for processors?
A. I'd say probably about a third.
Q. Just for processors?
A. So processors, cooperatives, consumer products companies.
Q. Not just in dairy or all exclusively in dairy?
A. Primarily in dairy. I have done others, but dairy primarily.
Q. Do you think Class I processors should hedge?
A. My answer is going to say it depends. So if I'm a bottler and I am selling to a retailer and I am passing the costs along, if you think about this as simple as the matching game that you would play with your kids. If I have basis to basis, meaning I sell Class I and they buy

Class I from me, and it's a passthrough, you actually wouldn't want to do anything because you are going to introduce risk to your system.

If you have -- if you are buying from farms, let's say, on a Class I basis, and at the same time you are trying to fix a price, that's an area where you may actually look at it and say, Class I hedging might be appropriate because you have got a milk price that's floating and a selling price that's fixed, and that creates some sort of financial exposure.

Q. So for processors who are trying to sell their milk on some kind of stable or fixed price, they would be better served by hedging?

A. Possibly. Again, you have to look at each organization and how they do it. Some people have extraordinary margins where they can just absorb those price changes and they are content with that.

If you are organic, the answer changes again, because, yes, I may want a fixed price, but typically in organic it's a one- to multi-year contract with fixed price milk. So, again, fixed to fixed, my risk is managed, so I wouldn't want to introduce risk by taking on additional positions.

Q. So you are saying that organic processors have no risk in their financial activities?

A. That's not what I said.

Q. Okay. Can you explain for me?

A. Yeah. So what I'm saying is, if I'm looking at

putting organic milk on a shelf for a fixed price for an extended period of time, and if I'm buying fixed price organic milk from a dairy, which is pretty typical, you will see that they do multi-year contracts. If I have those two things, my Class I exposure is not eliminated, but it's certainly greatly reduced.
Q.   But you still have exposure through your pool obligation, correct?
A.   You may have exposure if you have a pool obligation, but there are -- if you -- there's a series of ways that you would be -- you could be excluded from the pool, and as a result, that might be a pretty small portion of your milk.
Q.   Understood.
But for Class I organic processors, who are obligated to pay into the pool, they aren't able to manage their risk just because they purchase on a fixed price and sell on a fixed price, because they can't manage their pool obligation?
A.   No, that's not correct. So a portion -- they have a portion of risk, and that is to -- on the pool obligation. But if you look at the larger piece of the Class I that's established based on the overall milk price that they have contracted, a significant portion of their milk price exposure is already managed.
Q.   Through their own efforts.
A.   Through their own efforts by buying milk on a fixed price, and should they choose to sell milk on a

fixed price, that would be the case.
Q. And this question of organic leads me to Exhibit 18. So I see that you cite Exhibit 18 on page 11 of your testimony under the heading, "Hedge Example, Hedging the Producer Settlement Fund."
And this is Exhibit 18 that we just spent quite a bit of time with Dr. Bozic on, correct?
A. That's correct.
Q. In just a sentence, can you tell me what does Exhibit 18 demonstrate or establish in your testimony?
A. So I have to -- you know, clearly there was an error in one of the formulas, so I'll have to go back and revisit it. But what -- what they are attempting to do with that hedging of the pool obligation is to basically say I can -- I can mitigate what's -- you know, my payment in. And that's the piece that could be somewhat challenging because there are parts of that pool that are moving around outside of their control.
Q. Okay. So maybe just to simplify it further, Exhibit 18 is an example of an organic processor attempting to hedge?
A. Attempting -- theoretically, a scenario was provided to me, and that's what it was attempting to demonstrate.
Q. And a demonstration of what it would like look if a Class I organic processor tried to hedge.
A. No.
Q. So what is it -- tell me again, what is the point

of Exhibit 18 or what does it demonstrate?
A. It's to provide a specific hedging example, not wholesale hedging.
So what ends up happening with this, is we tend to -- that was the analogy I provided, Ford has trucks, and not recognizing that they are different models. So this was one of the models, okay? Under the umbrella of Class I hedging. So it's a very small -- extremely small demonstration of what may or may not happen. I'm actually personally not aware that anybody does that.
Q. And does this show us that Class I organic processors can hedge or can't? I mean, I truly don't know what the conclusion or the takeaway is for us.
A. The takeaway with that -- and honestly, I have got to go back and look at it -- but basically, the takeaway was, if you think you can use Class III and IV futures contracts to hedge your exposure into the pool, it could be challenging for you because there are many pieces that are moving that you can't account for in that hedge.
Q. And is that under the average-of or under the higher-of base Class I skim formula?
A. I believe this -- I did this under -- this would have been under the average-of, because it's present day.
Q. Okay. And then, again, I just want to make sure I understand what's going on here.
So I have Exhibit 243 in front of me. And we looked at cell L17. And we have the formula at the top, correct?

A. I don't have -- I don't have that document.
Q. Do we have -- may I approach the witness?
THE COURT: Yes, you may.
BY MS. VULIN:
Q. So now do you see this screenshot from your spreadsheet?
A. Uh-huh.
Q. So I just want to make sure I'm tracking the corrections that we'll make to this.
So the formula at the top, the equal sign, round parentheses, and then there's a formula. This N17 has an extra digit, correct?
A. Yes, apparently.
Q. And then the 0.965 is an incorrect skim adjustment or conversion, correct?
A. Yes.
Q. And then we're missing the PPD?
A. Correct.
Q. Okay. So thank you. That helps me then track Exhibit 243.
So --
THE COURT: May I -- just to be clear, please.
MS. VULIN: Yes.
THE COURT: I'm not as conversant with these things. I think I understand now.
When we're talking about L17 -- sorry, I'm so slow on the uptake here -- it's literally in row 17, column L. That cell up at the top of the page, the formula

calculating that cell is set out in that -- what would you call it, white space, just as you described. And that's how -- that describes how you get to that number. And you have gone through, and the witness says shouldn't have had the 965 in there, I should have had this other thing in there, there's a few corrections to that. But we're looking at just how you calculate that one number?
MS. VULIN: Correct.
THE COURT: Thank you, Counsel.
MS. VULIN: It helped me understand, too.
BY MS. VULIN:
Q. So then in thinking about Class I and hedging, you would agree with me that Class I sales are on a decline, correct?
A. The overall category, correct.
Q. And you -- which also means that Class I consumption is on a decline?
A. Correct.
Q. And you asserted in your testimony that the average-of was not successful because Class I fluid milk sales declined during the roughly four-year period that that formula was in place, correct?
A. I said if it was the -- so if it's conditioned, if risk management is conditioned on stemming losses or increasing consumption. So if risk management was responsible for those activities, then it didn't meet its objective.
Q. But you don't know, and you're not stating, that

it failed at stemming those losses, or otherwise that losses declined less than they would have had the average-of not been in place?

A. I think what I'm saying with regard to how consumers are purchasing milk, I am going to rely on that USDA report where there's a lot of other things going on. There are subcategories of growth within there, and then other categories where lifestyle changes, farming practice preference, all sorts of different attributes, higher protein, lower lactose, flavor, all of those things are playing into it, as well as the Healthy, Hunger-Free Kids Act, all of those things, according to USDA, are having some implications on that price as one of those things. But I can't actually say that more stable prices are causing consumers to change the behavior just like USDA concluded.

Q. Okay. So I understand your reliance on that statement from USDA.

But what I want to know is have you personally undertaken any analysis to say, yes, the average-of slowed the decline of Class I, or no, the average-of had no impact and it would have declined at the same rate?

A. It would be difficult to do because we'd have to rely on company information, and everything I have seen are anecdotes in the testimony that's been provided, all the reports that I have read. So it's difficult to ascertain if -- if that could have materially impacted the overall numbers, other than we can see the overall numbers are still declining, and according to what some of the different reports were saying that have been submitted to USDA for consideration, they are saying the risk management activity has picked up. So those two things don't seem to -- they seem to ring a little bit of discord.

Q.   And you testified, I believe, that there are not as -- not a lot of readily available Class I hedging programs; is that right?

A.   I'm not sure the context of what you are saying. I don't remember the part of the conversation.

Q.   I believe you said that if a Class I processor came to you and wanted to hedge, you would have to call and -- call, you know, whoever would sell the hedge, essentially, and they would have to put together a custom hedge program; is that right?

A.   No, that's not what I said.

Q.   Can you correct that for me, please?

A.   Sure.

So -- so oftentimes there are different market mechanisms that we can use to mitigate risk. So we can use futures. We can use options. Those are exchange traded contracts. They are structured, meaning we know the -- we know the volume. We know the date. The only thing that we're really negotiating in those exchange traded derivatives is price.

Then we have a whole category of forward contracting. Typically, under hedge accounting that's excluded as normal purchases and normal sales. But I can call up my supplier, I can call up different folks and say, hey, you know, would you be willing to do some fixed pricing with me? Sometimes that works, sometimes it doesn't, but there is a large volume of folks that actually do those transactions through just straight fixed pricing.

In fact, if you look at what we do in the international market, a lot of the transactions that we undertake are in that fixed pricing category.

Then there's the other where it's -- what we call is OTC, over-the-counter. And there we can actually work with folks to have futures or options look-alikes. I can have somebody create a Monterey Jack cheese contract for me. I can create a WPC-85 contract.

Q. Let's -- sorry to interrupt, but I want us to stick with Class I just because there's so much ground we could cover if we get outside of that.

So for Class I --

A. But Class I's no different than these other products. If I make WPC-85, there is not a direct futures or options contract. Just the same as if I do fluid milk, there isn't necessarily a direct contract, but I can actually work with somebody to create an over-the-counter solution for me.

Q. So if you want to hedge Class I, you would have to work to put together a customized hedging program. There's no over-the-counter option available?

A. So a customized hedging program. So hedging is a really big word. It's the entirety of everything that you do in risk management. We're talking about a derivative. So, yes, I could go talk to somebody about a Class I derivative, sure, just like I could do that for any other product.

Q. And is that available over-the-counter?

A. Yes.

Q. And you mentioned anecdotes, and I just want to cover something.

So the issue of Class I price elasticity is critical at this hearing. And you made a comment about your purchase of Fairlife and switching to a different product if the price changed.

Have you undertaken any studies or analysis of Class I price elasticity?

A. Not specifically Class I. But I buy that product actually for the protein that's labeled on it. So let me stop you there, and I don't have the exact name of it, I'd have to go back and find it, I saw it last week.

But in 2021 there was a study that was conducted that said 55% of global buyers would pay more as long as a product was labeled with enhanced protein content. I'm one of those 55%. That's basically the comment that I was making, that I buy that product because of the attribute that it has.

Q. And do you cite that anywhere in your testimony?

A. I did not.

Q. Okay. So you are not here to testify on elasticity?
A. No.
Q. Okay. I just want to make sure we're clear because that is critical, and we wouldn't want USDA relying on anecdotes for that.
A. No. We will avoid that pitfall today.
Q. So if you could go to page 3 of your testimony, please.
You say at the top that, although Class I sales and consumption has declined and that -- I'm summarizing -- Class I's ability to attract milk to the pool, one of its primary purposes remains intact.
Do you see that?
A. Uh-huh.
Q. So isn't the purpose of Class I to process and supply fluid milk to consumers?
A. So one of the purposes Class I is to ensure the function of that Federal Order system, and it is to -- to attract milk into the pool. That's where we -- you heard me talking about Class I primacy. That is part of what Class I is to do. It is to ensure that people participate in that pool.
Q. Class I processors, the purpose of manufacturing fluid milk is to support the FMMO pools?
A. The Class I pricing structure.
Q. Okay. And so the Class I -- this should say Class I pricing formulas' ability to attract milk to the

pool, one of the primary purposes of the formula remains intact. Would that be more accurate?
A. I think I just shortcut it because it says Class I's ability, and that was not a reference to processing or consumption, it was a reference to the milk price.
Q. Okay. And is the pool's purpose to create revenue or merely distribute revenue?
A. I don't believe the pool's purpose is to create revenue.
Q. The pool's purpose is to provide a mechanism for uniformly distributing the minimum value of milk used for Class I products, correct?
A. Sounds about right.
Q. And you say later on, the FMMO objectives are met by encouraging pool participation.
Does that sound right?
A. Yes.
Q. So encouraging who to participate in the pool?
A. The processors.
Q. All classes of processors?
A. Processors that qualify based on the USDA's rules. So those that service that market for that Federal Order, that's what I was referring to there.
Q. So do you believe that FMMOs should encourage Class I -- sorry -- you agree with me FMMOs require Class I participation in the pool?
A. They are mandatory, yes.

Q. Would you agree with -- is it your position that FMMOs should encourage Class II participation in the pool?

A. It is to encourage the -- those that service the market. So if it is a Class I plant with a Class II plant with processing attached, I would say, yes, that's probably what the objective is.

If you are solely a Class II processor that does not interact with the fluid market, no, that is not what the process -- that is not the purpose of the Federal Order system.

Q. Okay. So if you are not serving the Class I market, there's -- there's no reason that the FMMO should be trying to draw you into the pool; is that what you are saying?

A. If you are not participating in the Class I market and servicing that -- if you are not participating in the Federal Order by balancing -- being a supply plant to that system, then, no -- that's -- its objective is not to bring everybody in. Otherwise that would be closer to mandatory pooling.

Q. Okay. And you'd agree with me that the FMMOs don't require mandatory pooling?

A. They do not require mandatory pooling.

MS. HANCOCK: Your Honor, we're getting really far afield from what this witness is even here to testify to, and we're kind of burning out the clock for no reason that she's even been qualified as an expert for or for any purpose that she's been offered here.

MS. VULIN: The purpose of the Federal Milk Marketing Order pool, as testified to repeatedly by this witness, and she's stating that the formula for the Class I base skim milk price should be set at a certain level in order to draw all of these processors into the pool. And I want to walk her through why I don't think that is the purpose of FMMOs, which means the formula should not be as suggested by NMPF.

MS. HANCOCK: Convincing this witness what the purpose is or is not doesn't affect or change any of the testimony that she's here to offer.

MS. VULIN: I guess I'm not attempting to convince her, but maybe flesh out the holes in her testimony on that point.

THE COURT: Yeah. I mean, I think you are trying to undercut her reliance on that. She's testifying as to risk management and what the purposes are. The witness keeps answering, so --

MS. HANCOCK: Well, that she answers is not -- doesn't mean that it is within the scope of her testimony.

THE COURT: Well, she has testified -- I mean, she has testified as to the purpose of the --

MS. HANCOCK: I would just like us to make some progress.

THE COURT: Well --

MS. VULIN: I'm making progress, I thought, but it might not be progress for all involved.

THE COURT: All right. Let's keep going for a

while, see where we go on that, with that in mind. Try to stay -- make sure we stay within the scope of this witness' testimony and expertise.
BY MS. VULIN:
Q. Do you believe that the pools need to attract participation beyond the needs of Class I fluid milk use?
And I think I can state that more eloquently.
Do you think that the pools need to encourage participation of milk beyond the amount of milk needed to serve the Class I fluid milk market?
A. I'm just thinking back to what I wrote, and what I would say is, I don't think I was asked to conceive of how the pools could work, just restating what the function is according to USDA's own -- and the Congressional report that I cited, what the function is.
Q. Okay. So page 9 you say, "Class I milk price primacy is vital to attract milk to the pool each month."
Right? And what we're -- what we're talking about here is should the Class I price be above the III or IV price every month, right?
A. Correct.
Q. And I want to know, do you think that the Class I price needs to be high enough to attract milk to the pool beyond the amount of milk needed to serve the fluid milk markets?
A. I think what you are doing there is adding words that I did not imply in there at all.
Q. And I want to know your opinion in response to the

words I have added.
So you have said that you think the Class I price needs to be higher than the III or IV price, correct?
A. What I'm saying is, is for the proper function, the Class I price does need to be higher, otherwise two prices co-exist at the same time.
Q. And you said so here "proper function."
Is the proper function of the FMMO system to attract to the pool only the amount of milk needed to serve the fluid milk market, or do you believe the proper function is to draw in more milk than that?
A. So can you define for me the amount of milk needed to service the Class I market?
Q. So do you believe -- and I -- in your testimony, would you agree with me that one of the purposes of FMMOs is to assure a sufficient supply of milk for fluid use?
A. Yes.
Q. Okay. So that's the context in which I'm using this phrase.
In order for the pools to properly function, do you believe that they need to attract more milk than is necessary to ensure a sufficient supply of milk for fluid use?
A. So what you just said a moment ago and what you just said don't match. You are not saying the same thing.
Q. That's right. I'm building upon the first statement with a question following up on it.
So FMMOs are necessary to attract milk for fluid

use, correct?
A. That's correct. The system's designed around fluid use.
Q. FMMOs are not designed to attract sufficient milk for cheese, correct?
A. That is not part of their stated objective.
Q. And so in order for the FMMO system to function as intended, to attract a sufficient supply of milk for fluid use, do you believe the Class I price needs to be set at a level that would attract more milk to the pool than is necessary for fluid use?
A. I don't think you are asking your question correctly, or I don't understand what you are saying.
So what I had said is, Class I has to be the highest price in order to attract milk from surplus to deficit regions. That it does.
So if you are assuming that all Federal Order systems are self-sufficient, you might want to take a look at a few of those orders that are -- that are deficit milk pretty routinely.
So you actually have to signal to the system, please pull the milk in from either the Class IV or the Class III system, and pull it in because I need it for bottling. And when I don't need it -- it needs to go away.
So when you are saying attract milk to service the fluid milk market, it really depends on the milk market and how the rest of the system provides that -- that

balancing function, that ability to surge and pull that milk back.
Q. Are you talking temporally or geographically?
A. Both.
Q. Okay. So let's start with geographically.
You'd would agree with me that the base Class I skim formula is the same across all orders across the entire country, correct?
A. Correct. Our prices are nationwide with exception to the Class I differential.
Q. And so the base Class I skim price is the same in Florida as it is in Wisconsin, correct?
A. Yes.
Q. And so raising the base Class I skim price in Florida and Wisconsin at the same rate is not going to attract milk from Wisconsin to Florida, correct?
A. So if you've ever tried to move milk from Wisconsin to Florida, that's not -- that's not what we're talking about.
What we're talking about -- so you are basically talking about two markets that may compete, so there may be cheese plants in Wisconsin that want that milk and may or may not participate in the order. It's up to them.
But if Florida says, I have got schools going back in, I need milk, and that Class I price is at the same level as Class III and IV, why would I put milk on a 10-hour drive to Florida when I can run it through my own facility?

So that's where all of these different pieces of this system, even though devised years ago, they actually function quite well. Surprisingly well for a system that has changed.

But that piece of it that says, hey, hey, hey, I need that milk today, it causes all of that, in the system to go into motion, to move, as we say, bump that milk down to, you know, Winter Haven, Florida, because I happen to know there's a plant there, but down to Florida so that they can supply that bottled milk market.

I can tell you personally, I remember there was a day when I was sitting at a co-op and we were getting better pricing in the international market than our own bottling plants. And the cross thought -- you know, it crossed your mind for a moment to say, why would I give my milk to the bottling plant? I can make more money by shipping it overseas.

But it's because of the structure of that system that said, ah, you're here, but we're going to adjust these prices. That's what pulled that milk back in to ensure that the system had the sufficient milk that it needed.

But I think your definition of drawing milk in, this is a massive network that has to move milk around in order to supply it because of regional and seasonal differences.

And I am aware of how far that milk moves routinely in order to get that done. It does take a big,

you know, waving of the hands, hey, please, you know, send it this way.
Q. So then how can adopting the higher-of move milk to the right place if it's as complicated as you say?
A. Because when the price -- we all react -- the market reacts to price signals, okay? If Class III is 18 and we say, okay, today, you know, that's the highest price, Class IV is 14, and we say, all right, the Class I is the higher-of those two prices, when we look at it and you say, well, I can run $14 milk through my plant or I can move it to the bottler that's going to pay 18, you know, in addition, ignoring some of the other factors, you would -- the economics would say you move the milk.
Q. But why would you move it geographically if the higher-of is in place in both regions?
A. Geographically. I think because you're -- you're simplifying down to just one small piece of this. You know, then you have got -- you have got the Class I differentials. You have got the Class I base. Potentially when markets get tight like right now, you may have over-order premiums. All sorts of things come into play at that point.
Q. Okay. But you -- but I'm talking about your testimony. On page 6 you say, "The average-of formula is incapable of conveying current information about the market to facilitate the movement of milk from surplus regions to deficit regions, and that's why the higher-of should be adopted instead."

A. The average-of is communicating the average of the two, which may or may not better the manufacturing value of that milk. So why would I move milk from a manufacturing plant if I can achieve the same value in my plant versus shipping it to a bottling plant?
Q. But isn't it true that the higher-of does no better at moving product geographically than the average-of?
A. I'm not sure. I think I've just spent a bit of time saying that that's actually not the case.
Q. That is not what I understood your answers to be.
A. So if we look at it, the concept -- this whole system was designed, remember, almost a hundred years ago, when 75% of the milk went into a bottle, and the entire system is designed around that.
If you are asking about system redesign, that is not something I looked at because that's not what I was asked about. Okay? Which it sounds like you might be asking about that.
But if I was looking at it saying, you are to support the fluid milk market, and these plants over here are designed somewhat to surge specifically, you know, powder plants are the easiest to explain, they are designed to take the surge when there's not enough milk -- or when milk isn't needed, and they push the milk back into the system when it is called for.
Q. And you're saying that the higher-of does a better job at that than the average-of?

A. Yes.

Q. And the reason is because the higher-of would set a higher price than the average-of?

A. It would set the -- it would establish the price for Class I -- the Class I base based on the higher-of the two manufacturing classes. That's what I'm saying.

THE COURT: I think she agrees. I'm confused.

Did you ever get an answer to your first question?

MS. VULIN: I don't think I did.

THE COURT: I don't think -- you do say that it -- you know, "Class I milk primacy is vital to attract milk to the pool each month."

She asked -- when you say pool, do you mean just the fluid milk needs?

And then I didn't -- I didn't hear an answer to that. I don't think you are talking about -- I would read that, and say of course, it's fluid milk needs. That's what the pool is, right?

THE WITNESS: Okay. Part of the world of dairy is it's very complicated.

MS. VULIN: I think we all -- no objection from this room.

THE WITNESS: We're borderline rocket scientists.

THE COURT: I'm coming out of here thinking it is incomprehensible. I don't think that's a fact. Not with -- with smart people like you and Ms. Vulin and Ms. Hancock explaining this to me.

So -- okay. I mean, you said that, what you said.

Anyway we got to have a good price here to attract milk. You don't say sufficient milk. You say it's vital to attract milk to the pool.

Now I read that to say, okay, we need milk in that pool. That's kind of a high enough price to serve all the, what, fluid milk needs?

THE WITNESS: So I think if you were look at -- yes. So, yes.

But I think if you were to look at the rest of this, what I'm also saying is that the system does not function properly when two prices coexist at the same time. That wasn't something that was conceived of.

The idea was each of these little units of Federal Orders that we have is supposed to have a uniform price for all the -- for all the producers. As soon as the -- you know, when we start looking at that Class I price dropping -- which it can fall behind even under the higher-of, I have acknowledged that from time to time, we understand that to be the case.

But the issue that you begin to run into with that, is that when you have perpetual depooling, two prices co-exist in a system that was designed to have one price. And that's what I'm saying is, is when those two prices coexist for long periods of time, because the average-of does not necessarily transmit the current market conditions -- because keep in mind, it's not just the average-of, it's the plus $0.74.

And that historic reference to that number is transmitting into today's market, not only is it saying, I have got an average price less than the higher price, but that $0.74 is saying, these were the market conditions from 2000 until, I believe it was August of 2017, and we're imposing that on the current market, which may or may not have any relevance. And what I would argue is, I don't think it does, because what created that $0.74, at that time, doesn't exist today.

BY MS. VULIN:

Q. So you are saying that the pools have two goals: One, ensure a sufficient supply of fluid milk; and 2, ensure we don't have parallel pricing systems going within an order?

A. The concept of the pool was to have a uniform price. That's what they -- that's -- if you look at it all of this, it is to have a uniform price that doesn't -- and that is for people who are participating in the fluid milk market.

If I am a cheese plant and I manufacture cheese, and I never touch a bottling plant, I am outside the order. That is not with -- of whom I speak. It is the folks within the system that can move in and out of the system because the bottler can't. The Class I handlers can't. They have to be in. But others, II, III, and IV processors, can choose to be in or out, and it's, do I take the uniform price or the other price that may exist.

Q. And if the market signals are being sent to cheese is that your product is more valuable outside the FMMO

system, you agree with me those market signals should be followed?
A. No. What I'm saying is, is they don't qualify to participate. You have to service the order. And that's really what we're talking about is, the milk that qualifies because it participates in the system. I'm not talking about milk that doesn't participate, because we have got a decent amount of milk that sits out the -- out of the system constantly. I'm not saying go get that milk and bring it in because that, as I said, would be a system redesign, and that's not what I was asked to talk about. I was asked to talk about the existing system.
And under the existing system, the rules stipulate that you have to service the Class I market in order to participate. It varies Federal Order system to Federal Order system, but that is something that's implied, because I was asked to talk about the existing system, not a concept that you have constructed.
Q. Are you aware of any orders where a Class I processor has asked to increase performance standards to pull more participants into the system?
A. I'm not personally aware of that.
Q. Okay. So regardless of whether or not the higher-of, or the average-of, or the average-of plus some adjuster, regardless of whichever one is best at attracting milk for Class I needs, it appears as though we don't actually need to attract any milk for Class I needs, correct?

A. I don't know that that is correct.

Q. Why not?

A. Well, because we have deficit markets. I don't know if you have spent any time in the Southeast. A lot of milk moves from Pennsylvania, once in awhile Wisconsin, Texas. All of that milk gets pulled into that market.

Q. Other than the Southeast, are you aware of any region in the country where today we have an insufficient supply of milk to meet fluid needs?

A. Insufficient need to meet fluid needs. No, because -- because that is not a -- okay.

One of the issues that the -- here -- here -- one of the issues that the Southeast has today is it doesn't have sufficient balancing capacity, and that is why it's difficult to attract milk to that market.

The reason you don't have problems, and whatever everyone is taking for granted, in the Pacific Northwest, California, Arizona, the Upper Midwest, wherever you want to go, it's because of this system, and it allows and has the support of those manufacturing plants. They balance the system. You are overlooking that.

You are assuming that if every cheese plant and every powder plant left the system tomorrow, that those bottlers would have a sufficient supply of milk, and I'm telling you, go look at the Southeast, go look at Order 5, 6, and 7, and you would see otherwise. That's my personal experience.

So don't get it confused that you can say that the

Upper Midwest has more than enough milk and not a bottler is ever going to need milk. That's not the case. They have enough milk because of the Federal Order system.
Q. They have enough milk because the Federal Order system in place today incentivizes them in a way that ensures their fluid milk needs met in those regions, correct?
A. Not as it exists today. It functioned better, I would argue, under the higher-of than it does under the average-of plus $0.74 because the data was realtime, the communication was more effective.
Q. Okay. And you have talked -- so -- but, again, in the last four years, when the average-of plus $0.74 has been in place, you are not aware of any Class I processor asking to raise performance standards in order to attract more milk?
A. Under those conditions, no.
Q. Okay. And then this issue of realtime market signals. What are the market signals that you think need to be transmitted in realtime?
A. Price is first and foremost one of those market signals that needs to be transmitted. Price is typically a reflection of what's happening in the market. So, demand, typically, what we would expect to see, if you think about the economics, supply/demand curve, right? As demand increases, price increases along with it, in order to, A, encourage more supply to come into the system. And what we run into oftentimes is, we aren't transmitting

that signal properly, and as a result, it takes a while.
And that actually, from a processor perspective, is problematic, because when those signals get crossed and we don't transmit price information accurately and timely, we get lags. Think about last year. Prices were hitting all time highs in some of these markets. We saw extremely, historically high milk prices. And yet, our milk production was slow to respond.
Q. And my -- so are you talking about sending market signals to farmers about producing more or less milk?
A. Typically that's0, yes. That is exactly what we we'd be looking at.
Q. And how quickly can farmers respond to market signals to increase milk production or decrease milk product ion?
A. That depends on the market conditions, the price signal that's being sent, the availability of animals, all sorts of different things.
Q. So how -- what -- how, on average, if a farmer is getting a signal that more milk is needed, how do they address that?
A. Like I said, it depends. It depends on the equity and profitability the farm has. It depends on if the kids are going to come back to the farm and work on it. Like, there's so many things that that depends on. Obviously, price is something. We can typically see when price rises, we tend to see a commiserate response in milk production eventually.

Q. And I'm trying to track though your statement that market signals need to be transmitted immediately, and I want to know what do you want farmers to do immediately in response to those market signals. Why do you think they need to be transmitted?

A. So what we're looking at here is the $0.74. If we take a look at what was happening with that number, we're pushing that into the market every single month, $0.74, $0.74. It's the average-of plus $0.74.

And that is skewing some of the information in our markets, because what ends up happening is that is transmitting the relationship between the Class III and the -- III and Class IV milk price from 2000 to 2017.

And I can tell you the market conditions that we operate under today and the market conditions that we're likely to operate under the next five years don't necessarily reflect that history that we have seen, and that is creating noise in our system because it's not -- it's not realtime. And it's -- I -- and I have historically been somewhat critical of the USDA with some of the lags that we have in our system. But you have to understand, there's a certain amount of time that we have to transmit it.

And honestly, versus anybody else, I'll take the USDA any day. Because if you have to rely on what comes out of the European Union, or China, or anybody else, the USDA does a bang-up job, and it's pretty timely.

The issue is, is we're telling the Class I market and how we supply that market that, hey, what happened years ago is relevant today, and that's what I'm saying it is not.

Q. So you would agree with me then --

MS. HANCOCK: Your Honor, we're after 5:00.

THE COURT: Yeah, we're really getting after 5:00. I don't -- not sure what to do here. I mean, we're going to have to have this witness come back.

MS. HANCOCK: She's not going to be back on Monday. We can get her back some time after Monday next week.

THE COURT: Yeah, I think -- I think we better do that, right? Various of us have planes to catch and all that, and maybe, we can spend some more time on some of these things. I don't know.

So what do we -- we can move exhibits into evidence and all that, I think, when we come back. Ms. Vulin can continue.

MS. HANCOCK: We don't really have any objection to any of them. We might as well get that completed now.

THE COURT: Sure. Well, okay. Interesting to hear you don't have any objection, so that's always --

MS. HANCOCK: They are my exhibits, so --

THE COURT: That's not the only one, he --

MS. HANCOCK: Oh, the article? I mean, it meets all the other standards that we have applied, so I'm fine with it.

THE COURT: Well, I don't know it -- it's -- is it coming in as a learned treatise? What is it coming in as? He's a doctoral candidate, and the other guys aren't here to cross-examine. What's the exception to the hearsay rule we're using for this?

MS. HANCOCK: I didn't know we were applying the hearsay rule. I mean, she talked about it. I thought that was the standard that we were using.

THE COURT: No.

MS. VULIN: She's also been qualified as an expert, so she can rely upon learned treatise.

MS. HANCOCK: She didn't rely on it.

(Off-the-record discussion took place.)

THE COURT: Back on the record. All right.

Any objection to Exhibit 238?

238 is admitted into the record.

(Exhibit Number 238 was received into evidence.)

THE COURT: Any objection to 239?

Exhibit 239 is made a part of this record.

(Exhibit Number 239 was received into evidence.)

THE COURT: Any objection to Exhibit 240?

Hearing none, Exhibit 240 is made a part of the record.

(Exhibit Number 240 was received into evidence.)

THE COURT: Any objection to Exhibit 241?

Hearing none, Exhibit 241 is made a part of the

hearing record.
(Exhibit Number 241 was received into evidence.)
THE COURT: Any objection to Exhibit 242?
Can't see how there could be frankly. Exhibit 242 is admitted into the record.
(Exhibit Number 242 was received into evidence.)
THE COURT: Any objection to 243?
Seeing no objection, Exhibit 243 is entered into the record.
(Exhibit Number 243 was received into evidence.)
THE COURT: 244? That's not offered for admission as so far. Very good.
Anything else we need to cover on the record or off the record?
Off the record.
(Whereupon, the proceedings concluded.)
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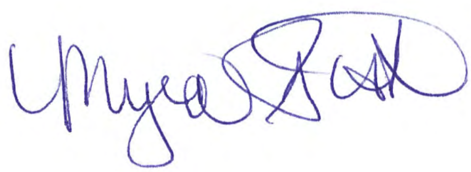
STATE OF CALIFORNIA)
) ss
COUNTY OF FRESNO)

I, MYRA A. PISH, Certified Shorthand Reporter, do hereby certify that the foregoing pages comprise a full, true and correct transcript of my shorthand notes, and a full, true and correct statement of the proceedings held at the time and place heretofore stated.

DATED: November 8, 2023
FRESNO, CALIFORNIA



MYRA A. PISH, RPR CSR
Certificate No. 11613

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