

**CERTIFIED
TRANSCRIPT**

NATIONAL FEDERAL MILK MARKETING ORDER
PRICING FORMULA HEARING

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

Before the Honorable Jill Clifton, Judge

---o0o---

Carmel, Indiana

October 3, 2023

---o0o---

Reported by:

MYRA A. PISH, RPR, C.S.R.
Certificate No. 11613

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

A P P E A R A N C E S:

FOR THE USDA ORDER FORMULATION AND ENFORCEMENT DIVISION,
USDA-AMS DAIRY PROGRAM:

Erin Taylor
Todd Wilson
Brian Hill

FOR THE AMERICAN FARM BUREAU FEDERATION:

Roger Cryan

FOR THE MILK INNOVATION GROUP:

Ashley Vulin (Remotely)
Charles "Chip" English
Grace Bulger

FOR THE NATIONAL MILK PRODUCERS FEDERATION:

Nicole Hancock
Brad Prowant

FOR SELECT MILK PRODUCERS, INC.:

Ryan Miltner

FOR EDGE DAIRY COOPERATIVES:

Lucas Sjostrom
Dr. Marin Bozic

FOR INTERNATIONAL DAIRY FOODS ASSOCIATION:

Steve Rosenbaum

---o0o---

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

---o0o---



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

M A S T E R I N D E X

SESSIONS

TUESDAY, OCTOBER 3, 2023

PAGE

MORNING SESSION

6564

AFTERNOON SESSION

6680

---o0o---



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

M A S T E R I N D E X

WITNESSES IN CHRONOLOGICAL ORDER

WITNESSES:	PAGE
Dr. Marin Bozic:	
Cross-Examination by Mr. Miltner	6564
Cross-Examination by Dr. Cryan	6588
Cross-Examination by Mr. Rosenbaum	6595
Cross-Examination by Ms. Taylor	6598
Cross-Examination by Mr. Wilson	6623
Redirect Examination by Mr. Sjostrom	6631
Dr. Roger Cryan:	
Statement Read	6643
Cross-Examination by Dr. Bozic	6680
Cross-Examination by Mr. English	6689
Cross-Examination by Mr. Rosenbaum	6708
Cross-Examination by Mr. Miltner	6720
Cross-Examination by Mr. Sjostrom	6735
Cross-Examination by Ms. Taylor	6736
Cross-Examination by Mr. Rosenbaum	6743
Lucas Sjostrom:	
Statement Read	6751
Calvin Covington:	
Direct Examination by Ms. Hancock	6760
Cross-Examination by Dr. Bozic	6773
Cross-Examination by Mr. Miltner	6790
Cross-Examination by Dr. Cryan	6798
Cross-Examination by Ms. Taylor	6800

---oOo---



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

M A S T E R I N D E X

INDEX OF EXHIBITS

IN CHRONOLOGICAL ORDER:

NO.	DESCRIPTION	I.D.	EVD.
289	Edge-6		6639
290	Edge-15		6639
292	AFBF-4	6642	6744
293	AFBF-4A	6642	6744
294	AFBF-4B	6643	6744
295	Edge-14	6749	
296	Testimony of Calvin Covington	6759	6804

---o0o---



1 TUESDAY, OCTOBER 3, 2023 - - MORNING SESSION

2 THE COURT: Please come to order.

3 Let's go on record.

4 We're back on record at 8:20 in the morning on
5 October 3, 2023.

6 I apologize to all for my being late. I have no
7 interesting story. I have been in awe of the
8 indestructibility of all of you, and I thought I was like
9 that, but -- there's nothing unusual. All right.

10 All right. Good. We have a witness in the stand.

11 Dr. Bozic, would you again state your name?

12 DR. BOZIC: Marin Bozic, M-A-R-I-N, B-O-Z-I-C.

13 THE COURT: Thank you.

14 MARIN BOZIC,

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

17 THE COURT: And who will next question the
18 witness?

19 Mr. Miltner?

20 CROSS-EXAMINATION

21 BY MR. MILTNER:

22 Q. I'm Ryan Miltner. I represent Select Milk
23 Producers.

24 Good morning, Dr. Bozic.

25 A. Good morning, Ryan.

26 Q. I wanted to start with your first statement,
27 Exhibit 289, and I'm looking at page 4, it's the first
28 paragraph under your numbered paragraphs there, two-thirds



1 of the way down. And you -- you say that: "Class III
2 Plus includes provisions that both producers and
3 processors don't like," which I like that
4 characterization, I suppose.

5 And when it comes to the producer side, you
6 testified that dairy producers may prefer the higher-of
7 without advanced prices as their top choice, as it
8 increases the odds of realtime maximal income from Class I
9 sales.

10 I wondered if, in your opinion, there were any
11 other benefits to the higher-of from the producer
12 perspective that you think are meritorious or worthy of
13 keeping in consideration?

14 A. Well, I hope you can help me with the
15 cross-examination to tease that out.

16 But one thing that I believe we have heard from
17 multiple witnesses, the one that comes to mind is
18 Mr. Schlangen from AMPI, who said that, well, it seems to
19 him that higher-of worked well.

20 And I think that in light of the last four years
21 which maybe perceived as an experiment by dairy producers,
22 trying out again something new may make them sensitive to,
23 like, what is it that we don't know now? We didn't know
24 about the asymmetric risk before; are we missing something
25 new now? The Rumsfeld's famous unknown unknown.

26 Whereas, the higher-of with advanced pricing could
27 be perceived as the -- you know, the devil you know, like
28 the old system tried and tested for 20 years, which is --



1 whose -- whose behavior is well understood, both in its
2 limitations as well. So that's not to be easily
3 discarded.

4 I -- I don't mean to portray the world as black
5 and white, my proposal good, everything else bad. In
6 fact, Edge did come in with Proposal 17, which is the
7 higher-of with a twist, just removal of advanced pricing,
8 to recognize the producers' desire for -- for the
9 higher-of approach.

10 But if you can maybe help me with some -- some
11 questions, I can try to answer further on what you may
12 have in mind.

13 Q. Yeah. I really didn't have anything in mind. I
14 really was more interested in -- in your thoughts as
15 someone who has dealt with these questions for your
16 clients and with Edge about what you may have seen from
17 producers or heard from producers about why the higher-of
18 is appealing.

19 And, you know, if I had to characterize what I
20 have heard, there is that issue of the devil you know
21 versus the devil you don't.

22 A. Right.

23 Q. But I -- further, from an economic perspective, I
24 wondered if there was anything that -- that producers
25 might see or maybe not fully understand about a benefit
26 to --

27 A. Oh, we can -- we can quickly analyze some of the
28 other arguments that were put forward. One of them is the



1 market signals, that it produced -- that it, like,
2 provides for more timely market signals. I don't find
3 that argument very compelling because there are other
4 instruments that have been put in force over the last four
5 years, three and a half years that serve to provide more
6 pointed market signals. Those are base/excess plans.

7 So, you know, you can have higher-of increase the
8 price of Class I in a particular month, but really, you
9 know, we don't need more fluid milk that month, you know,
10 the sales have not grown higher of fluid milk, we don't
11 need more milk in general that month. And most producers
12 can't even increase because they are at 99 or 100% of
13 their base. So the market signals' argument I don't think
14 is -- is very compelling here.

15 You know, when you want to send a signal, you send
16 it at the margin, and margin is the excess pricing. Like
17 the -- if you cross this threshold of, you know, say 100
18 units of your milk -- just standardizing now -- then we
19 are going to pay you \$3 less per hundredweight. That's a
20 strong incentive. You know, higher-of versus average-of
21 provides very diffused market signal, if we can even call
22 it signal, to producers in the short-term, month-to-month
23 changes.

24 The other argument we've heard was regarding
25 the -- what I can maybe rephrase as maybe
26 intergenerational equity. That, you know, if we have some
27 variation of average-of, returning funds to producers
28 after a year or two, that those same producers wouldn't be



1 in business anymore.

2 And the exception I take to that argument is that
3 it stands at odds with the practices of its proponents and
4 the proposals put forward. For example, Make Allowances,
5 according to National Milk, would hit the markets
6 January 1, 2025, whereas the increase in standard milk
7 composition would be delayed to 2026.

8 Well, what about producers that are likely to exit
9 the business in 2025? Higher Make Allowances would
10 presumably, according to its proponents, lead to better
11 maintained plants and further investments in processing
12 capacity. If you are going to exit the business in the
13 next one or two years, you don't need more processing
14 capacity, you just want your milk checks to be as high as
15 possible right now.

16 So as I see that internal contradictions in what
17 proponents are advocating for on one topic versus another,
18 so I find the argument challenging from that perspective.

19 The third is regarding the impact on depooling,
20 and I think we have covered that exhaustively yesterday.
21 But to the extent that there may be some small, you know,
22 third level down in terms of priorities effect on
23 depooling, we have to keep in mind that, you know, arguing
24 from principles, we have -- the key question to ask is,
25 does the pricing system for Class I milk ensure sufficient
26 availability of reserve supply for Class I needs? Any of
27 those proposals do.

28 When you have less than a third of -- of milk



1 pooled that goes to Class I, to talk in the shipping
2 percentages that are ever declining, you know, to try to
3 make an argument that, you know, in some periods, in some
4 months, like in some circumstances, we will not have
5 sufficient supply for fluid, I just find it very thin.

6 So, you know, all things considered, you know, I
7 can understand why producers prefer higher-of, at least
8 many of them, but that doesn't mean that it is the best
9 long-term system for our industry, especially if we don't
10 remove advanced pricing.

11 Q. So you -- there were three things in your answer
12 there I'd like to ask a little more about.

13 So in terms of base/excess plans, your
14 understanding is that they are implemented at the
15 cooperative level, correct?

16 A. Cooperative and private handlers as well.

17 Q. And is your understanding that those base/excess
18 plans allow a producer to market up to a certain quantity
19 of milk at a price, and if they exceed that amount, they
20 receive a much lower price for their milk?

21 A. That is a short-term aspect of those programs.
22 The long-term aspect is that you are not even -- you are
23 effectively precluded from increasing the size of your
24 operation, even when such capital expenditure may be
25 necessary in order to bring the next generation into the
26 family business. If you don't have a letter from your
27 milk buyer that they will be willing to buy milk for that
28 additional 400 or 800 or 1,000 cows, lenders will be much



1 more hesitant to extend the credit needed to expand the
2 barn and the parlor, etcetera. So that's a long-term
3 effect of this, that we may -- we may in the short-term
4 have stabilized milk prices somewhat, but in the long-term
5 it may lead to more severe consolidation of the industry.

6 Q. So I want to talk about this in the context of a
7 cooperative. If you have a cooperative with a base/excess
8 plan that caps your base milk, you would assume that that
9 was done so because that cooperative only has a market for
10 a certain amount of milk produced, correct?

11 A. Yes.

12 Q. And so at a small economic scale, that's a matter
13 of that cooperative balancing its supplies with its
14 demands, correct?

15 A. Yeah. And I -- yes. And I do support that
16 approach. I didn't -- if I came across as critical, I
17 don't mean that as blanket criticism.

18 Q. No, it's not a criticism. I'm trying to lead up
19 to my next question --

20 A. Sure.

21 Q. -- which is, while that may solve for the price
22 signals that that cooperative needs, that doesn't
23 necessarily transmit a price signal to producers that
24 aligns with the national market, does it?

25 A. In the sense that there may be some other
26 competitor who does not have base/excess plans.

27 Q. Well, in the sense that -- yes, that's part of
28 it -- but also in the sense that perhaps the market is



1 telling producers to put milk into cheese manufacturing
2 because there's an excess demand for that product, but a
3 cooperative may not have a contract to supply a cheese
4 manufacturer and may not need more milk for that --

5 A. Sure.

6 Q. -- for that outlet?

7 A. Yeah.

8 Q. And so in that sense, does a base/excess plan
9 provide a market signal to producers about the general
10 market?

11 A. Well, the base/excess plans are not the only way
12 in which producers receive signals, right? They also
13 receive signals through the announced prices from AMS.
14 They also receive signals through the feed costs that they
15 have to pay, labor costs that they face, fuel costs that
16 they face. Those are all signals. Base/excess plan is
17 just part of that information -- informational process
18 that should guide their decision-making.

19 Q. So if you could set aside the base/excess plan for
20 a moment, and acknowledging that USDA has, in the past,
21 indicated that the higher-of does send a price signal to
22 the market in its opinion, is that price signal a
23 sufficient impetus to keep the higher-of over the other
24 alternatives you have discussed?

25 A. So we have to go back and ask what is the purpose
26 of the signal? What is the signal trying to, well,
27 signal? And it's trying to signal that we may need, you
28 know, more milk for Class I. You know, so then the



1 question can be rephrased as, does a particular pricing
2 regime have -- induce a danger that there will be
3 insufficient supply of reserve milk for Class I? And from
4 that perspective, I don't think that higher-of provides
5 that must-have signal that would -- such that it's the
6 only way to achieve the objective.

7 I don't think that's a strong enough reason to go
8 back to higher-of.

9 Q. Thank you.

10 As you were finishing your statement before about
11 some reasons why producers might -- might still like the
12 higher-of, you talked about depooling, and you said that
13 that can be addressed, especially if we address advanced
14 pricing.

15 In your opinion, if we do not address the issue of
16 advanced pricing, can USDA effectively manage the problems
17 caused by depooling?

18 A. Well, with grim -- I'm going to have to make an
19 assumption regarding what you mean by problems caused by
20 depooling. But, you know, to the extent that we have some
21 shared understanding of that, the sad truth is that
22 higher-of can barely help versus average-of. But it's
23 also sad truth that removing advanced pricing would only
24 do so much. It would help. It would not solve the
25 problem fully.

26 The core problem, Mr. Miltner, is that we have a
27 system designed for a world in which 60% or more of milk
28 is Class I, and we live in a world in which less than



1 30% of pooled milk is Class I. And in the world in which
2 we live, we are ever so -- ever more frequently asking the
3 cheese makers to subsidize powder makers, or the other way
4 around. And whenever they have that request come to them,
5 they say, "I'm not going to be pooled that month."

6 Unless we solve for the cross-class subsidization
7 that happens because of the uniform price provisions, we
8 will not be able to solve depooling in any market in which
9 the fluid milk utilization percentage is -- is a
10 minority -- is a distinct minority. So think about
11 Central, Mideast, Pacific Northwest, California,
12 Southwest, Upper Midwest, all of these orders are
13 problematic in terms of depooling.

14 Northeast still has sufficiently high Class I
15 utilization that they can provide strong disincentives for
16 depooling, and -- and I -- I envy them in some sense
17 coming from Upper Midwest. And of course, Southeast, and
18 Florida, and Arizona are predominantly Class I order, so
19 they don't have those problems.

20 Q. You mentioned those high Class I utilization
21 orders. For a -- an order that is either milk deficit or
22 extremely high in Class I utilization, does your analysis
23 about which mover is best differ when you are looking at
24 an order with 70% Class I versus 20% Class I?

25 A. I think that the -- there are other topics in this
26 hearing that are more appropriate for addressing the
27 potential milk deficiencies in those orders. That would
28 be Topic 1 on standard milk composition, and where Edge



1 agrees with National Milk on the need to increase the
2 standard components, and we just added butterfat for risk
3 management purposes.

4 As well as Topic 5, Class I surface, that needs to
5 provide for sufficient gradient between Class I
6 differentials to induce the milk to move from surplus to
7 deficit areas.

8 The Class I mover is not the top of the list
9 there. I -- I don't want to say with 100% confidence that
10 it bears absolutely no impact, but if there is any impact,
11 it would be a third order impact. And we have yet to see
12 quantitative evidence that would be convincing that the
13 higher-of would perform any better than average-of in that
14 respect -- average-of or Class III Plus.

15 Q. On page 6 of your statement at the very bottom --

16 A. Is that Exhibit 29?

17 Q. Yes, the same exhibit. Sorry.

18 A. Uh-huh.

19 Q. You stated: "In our opinion, CME Group hesitated
20 to create a Class I futures contract in the past, as there
21 would be no clear arbitrage relationship between Class I
22 and Class III and IV futures contracts."

23 When you are saying "in our opinion," is that
24 Edge's opinion or Dr. Bozic's opinion?

25 A. Sometimes I address myself in plural. I should
26 have said "in my opinion." I apologize.

27 Q. I just wanted to make --

28 A. Sometimes I have multiple opinions, so --



1 Q. You are a good academic.

2 Now, when you say that CME Group hesitated to
3 create a Class I futures contract, was that a hesitation
4 based on pre-2019 or based on the current mover?

5 A. So I do want to stress, Mr. Miltner, I'm not privy
6 to any internal discussions that may or may have not taken
7 place within the CME Group. But what I do observe is that
8 we are in 2023 and there is no Class I contract. So from
9 that, I can only deduce that neither higher-of nor the
10 average-of with advanced pricing met the standards that
11 CME would consider as sufficient for creating a new
12 contract.

13 Q. And there's been questions asked or statements
14 made about the CME perhaps introducing a contract on
15 Class I throughout the hearing.

16 Are you aware of any plans by the CME to develop
17 or introduce such a contract?

18 A. No, I'm not at this point, I'm not aware. And in
19 general, CME tends to be -- tends to keep their cards
20 close to their chest until they have fully made the
21 decision to pursue a particular course of action.

22 Q. In any of your research or projects, have you ever
23 dug into what it would take to create that type of
24 instrument?

25 A. I don't recall my full body of research at this
26 point in time, I apologize. But in our recent -- in my
27 recent thinking, as I was preparing for this hearing, it
28 was my -- I was -- I arrived at a conclusion that removal



1 of advanced pricing would be the single biggest change
2 needed to substantially increase the probability that CME
3 would consider the introduction of such a contract.

4 Q. In your opinion, if there -- if advanced pricing
5 were eliminated but the mover was the higher-of, could CME
6 develop an effective Class I contract?

7 A. How would you define effective?

8 Q. Whatever a good economist would find to be
9 effective.

10 A. It is possible. It is possible. But we should
11 understand that there are risks to that. I mean, take a
12 look at the block cheese contract. We had it for a few
13 years now. It did not really rise to stardom. It's not
14 heavily used. The volume is thin.

15 A lot of -- and it's not the only one. Like, in
16 the pork cutout was another recent introduction among the
17 agriculture futures. It was greeted with much enthusiasm.
18 Does not really get used a lot. A lot of new
19 introductions, a lot of new contracts.

20 And this is not just true of CME. It's not like
21 they have bad product development team. This is true of
22 all exchanges in all times throughout history. Most new
23 futures contracts fail, and what we observe today are the
24 survivors, like those contracts that have withstood the
25 test of time and -- and have -- and if you just look at
26 the changes in the dairy complex since the year 2000, at
27 one point in time we had deliverable -- I think that we
28 had deliverable nonfat dry milk powder and maybe butter as



1 well. I could be wrong about that. And then over time
2 all of those contracts changed to cash-settled contracts.

3 So, yes, they may introduce it. Nobody can
4 guarantee that the product would indeed succeed. And the
5 history would warn us that there are -- that the odds
6 would be against it, not in favor of it, that we should
7 start with the premise that -- we should start with the
8 assumption that it will fail, not that it will succeed.

9 Q. When such products fail, do they fail because of
10 lack of demand or because of they failed to achieve their
11 purpose?

12 A. Lack of demand, which, again, is related to lack
13 of necessity for achieving the purpose.

14 Now, what would work really well in favor of such
15 a contract is that if we do remove advanced pricing and go
16 back to higher-of, the Class I handlers would really need
17 that contract. The profit margins are not large in the
18 HTST sector in particular, and they would need to engage
19 in strategies to know with certainty their input costs
20 before the start of the month in which they sell the milk.
21 They would no longer be able to do that solely based on
22 the AMS report, so they would have to combine whatever AMS
23 does, such as the indicative Class I price report I
24 introduced yesterday, with a hedging strategy.

25 Q. You stated that the margins are thin for HTST
26 processors.

27 What do you consider thin?

28 A. I would prefer not to quantify. I would prefer



1 not to offer any numbers because I am not sufficiently
2 familiar with the sector to, you know, opine as an expert
3 on that topic.

4 Q. Now, you testified that an OTC swap to cover that
5 risk would be about \$0.30 per hundredweight.

6 How can you state that that is expensive if you
7 can't quantify the margin?

8 A. I can quantify the margin to the extent that that
9 would anticipate that \$0.30 per hundredweight would be a
10 large share of that margin. I would prefer not to insert
11 into evidence one number that can be so easily abused
12 later if -- if -- because people focus on the point
13 estimate, not the variance around that -- around the
14 estimate. So I'm just trying not to create noise by being
15 more specific than is appropriate.

16 Q. So assuming that it is \$0.30 hundredweight to
17 create a swap --

18 A. Uh-huh.

19 Q. -- that's about \$0.026 a gallon?

20 A. Yes.

21 Q. And I think the retail price averages two to three
22 times the raw milk cost.

23 Do you still think that that price per gallon to
24 lock in a fixed price and hedge your risk is still -- is
25 still high?

26 A. I do, and here is why. You can have a very
27 expensive final product, but if you don't have a
28 differentiation strategy, if you don't have a way to



1 separate yourself from competition, if we are only talking
2 about a commodity product, then the profit margins will be
3 thin.

4 Corn can be \$7 per bushel, but if you're an
5 elevator in an area in which local farmers have four other
6 elevators that they can ship to, your profit margin on
7 handling that grain can be just pennies per bushel.

8 Q. If you were to look at getting Dairy Revenue
9 Protection in the state of Minnesota on class pricing
10 covering 95% coverage for about three quarters out, what
11 would be a reasonable premium for that coverage?

12 A. Can I use my laptop?

13 Q. I'm using mine. If you would like to, that's
14 fine?

15 THE WITNESS: Would it be okay?

16 THE COURT: Certainly.

17 THE WITNESS: I don't need to guess then. I will
18 just need a minute.

19 I need to go through a very extensive
20 authentication process to access my system, so I apologize
21 that it is taking a bit.

22 Okay. So you are looking at yesterday's quotes
23 for the state of Minnesota, three quarters out, that would
24 be -- at this point in time, that would be July through
25 September 2024.

26 Did you want Class III or Class IV offers?

27 Let's go with Class III. That would be what
28 Minnesotans would typically use.



1 BY MR. MILTNER:

2 Q. Okay.

3 A. Protection factor 10, coverage level 95%, and on
4 the class side, after subsidies, we are looking at \$0.36,
5 \$0.3655 per hundredweight.

6 Q. Good. Because I have \$0.37 here, so that --
7 Now, what's Class IV?

8 A. Class IV is --

9 THE COURT: Hold on, Mr. Miltner.

10 MR. MILTNER: Same parameters.

11 THE COURT: How long did it take you to calculate
12 that?

13 MR. MILTNER: Less than Dr. Bozic, but it's just
14 a -- it's not a form. I didn't calculate anything, so --
15 I relied on software to do the work.

16 THE WITNESS: So the Class IV, same parameters
17 yesterday for Minnesota, July/September 2024, is \$0.52,
18 \$0.53.

19 BY MR. MILTNER:

20 Q. Okay. That's what I have.

21 A. That's what you have as well?

22 Q. Yes.

23 A. I'm glad my quarter is working.

24 THE COURT: Say again, Mr. Miltner?

25 MR. MILTNER: Yes, I found the same numbers.

26 BY MR. MILTNER:

27 Q. Now, when you described a Class I handler having
28 to pay \$0.30 to hedge their costs, you described that as



1 paying through the nose.

2 A. Yes.

3 Q. Producers, to cover the same type of risk, are
4 going to pay more than a Class I handler?

5 A. We are comparing apples to pineapples, not even
6 oranges.

7 Q. Please explain.

8 A. We are -- in the context of a swap, we are looking
9 at a contract that removes all of the upside, as well as
10 all of the downside, completely removes risk.

11 Dairy Revenue Protection is an option. It sets
12 the floor but keeps the upside open. So this cost is not
13 comparable with that. This cost is a cost of optionality,
14 the cost of, like, you know, removing the downside
15 pressure while keeping the upside open. If we were
16 looking at a dairy producer's coverage that is an
17 equivalent to a swap. That would be -- the closest would
18 be a forward contract through their cooperative. And
19 cooperatives, to my understanding, charge most \$0.10 for
20 that, \$0.10 per hundredweight.

21 Q. Is that universally available?

22 A. Through major co-ops it is. It wouldn't be
23 quarterly, it would be monthly typically.

24 Q. And they pay \$0.10 per month?

25 A. \$0.10 per hundredweight.

26 Q. Per hundredweight.

27 But they buy it on a monthly contract, not a
28 quarterly contract?



1 A. That's my understanding. And I understand that
2 Mr. Gallagher is somewhere in Carmel, so he may be
3 available for further cross-examination later this week.
4 And, you know, he runs these programs for Dairy Farmers of
5 America.

6 Q. If they are paying \$0.10, would you have to triple
7 that premium to then correlate with the coverage that's
8 available through DRP? Because you are covering a
9 quarter's worth of milk under DRP.

10 A. No, no, you don't -- you don't need to -- in fact,
11 you would probably -- this is going to sound
12 counterintuitive -- you would probably reduce it a little
13 bit.

14 The -- whenever -- this is one of the reasons why
15 some producers actually do not like Dairy Revenue
16 Protection. Dairy Revenue Protection is designed to cover
17 against major crisis. If you have a price fall in one
18 month and then recover in the next month, you can cover
19 that through your liquid assets. You know, you don't need
20 an insurance policy for that. There is no reason why
21 taxpayers would need to subsidize that.

22 The -- because it's a \$0.10 per hundredweight, if
23 you were to create a quarterly price, and the quarterly
24 price would only -- would manage the average of three
25 months as opposed to a single month, you may actually have
26 some savings there. Not actually sure in the case of
27 contract that locks in a price -- in case of a forward
28 contract, I'm not sure that's the case, but in case of an



1 option, that would definitely be the case.

2 The longer the period over which you are
3 averaging, the less attractive the option is.

4 Q. And is the option you just described available
5 through a cooperative?

6 A. So there are some cooperatives that have licensed
7 livestock insurance agents that offer Dairy Revenue
8 Protection, if that's an answer to your question.

9 They also -- I'm not sure whether they are also
10 licensed introducing brokers, so I'm not sure whether they
11 can offer regular puts and -- put and calls options that
12 are normally traded on the Chicago Mercantile Exchange.

13 Q. Thank you.

14 On page 4 of your second statement --

15 A. That's 290?

16 Q. Yes.

17 A. Exhibit 290? Okay.

18 Q. And you have a table -- or a -- yeah, I guess it's
19 a table, comparing various proposals. And you -- you
20 identify that Proposal 16 addresses the three risks you
21 have listed there.

22 Would it be correct that even though Proposals 14
23 and 15 do not, in and of themselves, eliminate the
24 advanced prices risk, if they were adopted in combination
25 with the elimination of advanced prices, that they would
26 eliminate all the same risks as Proposal 16?

27 A. That is true. That is correct.

28 Q. In that instance, what makes Proposal 16 superior



1 to the others?

2 A. By "others," I assume you are referring to 14 and
3 15?

4 Q. Yes.

5 A. The -- one of the principal reasons why we wanted
6 to offer an alternative to higher-of -- well, several
7 reasons. One of them is so that the good people at AMS
8 would have a larger choice to choose from as they are
9 preparing the recommended decision.

10 Second, for the reasons that I have listed
11 yesterday in my Exhibit 820 -- 289, I apologize. If you
12 look at the page 4, the -- under the Class III Plus
13 proposal, if there is a demand shock, Class III would --
14 I'm summarizing --

15 Q. Sure.

16 A. -- Class III would likely be higher than Class IV;
17 therefore, Class III Plus proposal would mimic higher-of
18 more faithfully than the average-of.

19 If there is an inversion, Class IV higher than
20 Class III, it's likely that you are in a profitable year,
21 so pricing it off of Class III would have the benefits to
22 producers of moving some of that revenue to -- to a low
23 income year, which, you know, means that they reduce their
24 tax liability in the high profitable year and -- and
25 the -- and it's easier to hedge.

26 If you look at the -- from a fluid milk
27 processors' perspective, Class IV futures contracts are
28 much less liquid than Class III contracts.



1 Now, if -- if processors were to come back and
2 say, we don't really care about the liquidity of Class III
3 being better than Class IV, we still want the average,
4 then, you know, there's no reason for me to further push
5 the point number three.

6 But from a producer's perspective, I still believe
7 that, you know, that we are -- that producers would be
8 better off with a Class III Plus than average-of.

9 Q. Okay. On page 6 of the same testimony --

10 A. 289 again?

11 Q. No, I'm sorry, 290.

12 A. Okay.

13 Q. Yep.

14 This is where you begin summarizing with -- with
15 charts, the various impacts on the PPD.

16 A. Uh-huh.

17 Q. And if you said this during your testimony, I
18 missed it, and I apologize.

19 What does the baseline PPD column represent, and
20 how is that derived?

21 A. Thank you for your question. That is a
22 model-based result where we -- by "we" I mean Professor
23 Wolf and myself -- where we assumed utilization
24 percentages by class as they were in 2010. We assumed the
25 component tests, so protein tests, other solids tests,
26 butterfat tests, as they were in -- I think it was either
27 2010 or the average 2009, 2010 -- and we assumed that
28 the -- that the prices, the announced prices are at their



1 average, and I believe it was 2010 through 2019 average.

2 So that's like the closest we can get to a normal
3 situation, as it -- as it existed ten years ago in terms
4 of how much Class I sales we had in the order and what
5 producers were -- you know, the composition of milk.

6 The reason to choose that as a baseline,
7 Mr. Miltner, is to be able to quantify the impact of
8 rising component tests and reduction in fluid sales on PPD
9 before we even start talking about any month-to-month
10 changes.

11 Q. Thank you. I appreciate that explanation.

12 Would it be fair to summarize your testimony on
13 the impacts of the average-of on PPDs and, therefore,
14 depooling, that while the average-of might not have caused
15 depooling, it generally increased the magnitude of
16 negative PPDs and, therefore, the economic impact of
17 depooling when it occurred?

18 A. I'm not sure about the amplification of the
19 depooling effect, but I think it is -- and when I say I'm
20 not sure, I'm not trying to be nice and say I disagree. I
21 just don't know. I would need to examine that.

22 But I think it's fair to say that the average-of
23 in -- in months when -- because negative PPDs tended to
24 happen in months when the spread between III and IV was
25 large -- I'm talking now about 2020 -- those were the same
26 months where the average-of would have resulted in a lower
27 price than higher-of and, therefore, average-of did lower
28 the PPD further. So the magnitude, the absolute value was



1 higher and the sign tended to be negative.

2 Q. So it did increase the magnitude of the negative
3 PPD.

4 A. Yes. Yes. It did increase the magnitude of
5 negative PPDs. And we can count it in the months here.
6 So if we look at just quickly through months.

7 In March, PPD's positive contribution -- in March,
8 PPD's positive; contribution of the reform is positive.

9 In April, PPD is positive; contribution is still
10 positive.

11 In May, the contribution is negative \$0.06; PPD is
12 still positive.

13 And then in June the contribution is still
14 virtually zero. It's \$0.12 positive.

15 Then in July we start having \$0.84 negative, and
16 the PPD is negative.

17 In August we have \$1.57 per hundredweight negative
18 of Class I reform, and the PPD is negative.

19 In September we have negative 1.52 for Class I
20 reform, and the PPD remains negative.

21 In October, \$0.36 negative for Class I reform; PPD
22 is also negative.

23 November, negative 1.14 for Class I reform; PPD is
24 also negative.

25 And December, Class I negative 1.72; actual PPD is
26 positive in that respect.

27 So, you know, most of the months when PPD was
28 negative, the Class I reform made it more negative.



1 Q. I'm curious if you did a similar analysis for any
2 of the months in 2021 or 2022?

3 A. I did not at this time. I -- that would have been
4 something that before I knew better about the rules of
5 this hearing -- and thank you, Mrs. Hancock, on that --
6 that we are not supposed to introduce further evidence in
7 post-hearing brief. But that would be something that I
8 would need more time to calculate.

9 Q. I think this is my last question then.

10 Can -- can any combination of the proposals
11 related to advanced pricing or the Class I mover in this
12 hearing eliminate the risk of depooling caused by a large
13 Class III and IV spread?

14 A. No.

15 MR. MILTNER: That's all. Thank you.

16 THE WITNESS: Thank you, Mr. Miltner.

17 CROSS-EXAMINATION

18 BY DR. CRYAN:

19 Q. Good morning.

20 A. Good morning.

21 Q. I'm Roger Cryan from the American Farm Bureau
22 Federation. Nice to see you.

23 So your paper, the paper you did with Dr. Wolf, I
24 think did a very nice job showing a striking variation in
25 the PPDs, and then the very considerable variation in its
26 elements.

27 Would -- would you describe in plain terms the
28 impact that advanced pricing has on the differential, the



1 two different differentials, the differential between the
2 uniform price and the Class III price, and the
3 differential between the uniform price and the Class IV
4 price?

5 A. In plain words, huh?

6 Q. Please.

7 A. The differential -- the difference between the
8 uniform price and the Class III price is mathematically
9 equal to producer price differential.

10 Advanced prices, over the long-term, if there is
11 no upward or downward trend in announced prices, the
12 advanced prices, then, would not tend to either increase
13 or decrease that long-term, the PPDs. However, they would
14 add to the PPD variability, or changes, month to month.
15 Sometimes they will make producer price differential
16 higher than it would be than in the -- in the case if the
17 advanced prices were not used; sometimes it will make
18 producer price differential more negative.

19 The impact on producers, however, is not symmetric
20 and depends on the utilization rates in a particular
21 order. If, for example, advanced prices make producer
22 price differential more positive in the order, like Upper
23 Midwest has mostly Class III and barely any Class IV, then
24 the increase in the PPD will be small.

25 However, when advanced prices contribute to
26 negative PPD, the moment you switch from positive to
27 negative PPD, at least 20% of Class III milk will depool,
28 and potentially much more than that depending on the



1 expected spread between uniform and Class III futures.

2 Q. I think that's the amplification that Mr. Miltner
3 was getting at.

4 A. Okay.

5 Q. Yeah.

6 A. I -- I can't vouch for that, but I -- I accept
7 your --

8 Q. That's my interpretation.

9 A. That's your interpretation, huh?

10 Yeah. So that -- that -- that would be the impact
11 of advanced pricing on the spread between uniform price
12 and the Class III price.

13 The impact on -- on the difference between
14 uniform -- so first let's take a step back.

15 The reason why one would be interested in the
16 difference between the uniform price and the Class IV
17 price is to examine incentives of Class IV handlers to
18 remain in the pool or to depool. And the effect is, we
19 won't call it PPD, but otherwise, the mechanism is the
20 same.

21 In some months, that spread can be amplified
22 higher; in some months it can be amplified lower. And if
23 you have an order in which Class IV is a substantial part
24 of utilization mix and advanced prices makes the uniform
25 price fall below the Class IV price, that will send the
26 signals to Class IV handlers to depool. So it's trouble
27 either way.

28 Q. So the issue with Class IV is analogous to the



1 issue with Class III, it just gets less attention because
2 it doesn't show up in the published PPD every month,
3 right?

4 A. That's right. Yes. Yes.

5 Q. So would you -- would you agree that those are the
6 relationships that -- that generally lead to depooling?
7 That is to say, you are describing relationships, price
8 relationships, specific price relationships that
9 incentivize or don't incentivize handlers to depool?

10 A. Yes. So the existence of advanced pricing
11 amplifi- -- or introduces incentives to depool that would
12 otherwise not exist, occasionally.

13 Q. Your -- in your analysis with Dr. Wolf you talked
14 about some of those impacts that you separated out in your
15 econometric estimation. They can be related, right?
16 There are -- sometimes it's not that easy to tease out
17 which -- when things are correlated, it's hard to tease it
18 out. The statistical methods basically make a sort of
19 decision for you, but that doesn't always mean that that's
20 exactly the allocation of impact; is that correct?

21 A. Yeah, that is fair to say. And in some sense, the
22 analysis suffers from the composition effect. If we
23 analyze some other effects first, and then the spread,
24 maybe the chart would show that they have a bigger effect
25 than the spread.

26 But, you know, in -- we followed this
27 composition -- and just to reiterate, we -- we decided on
28 this composition before -- years before we knew that that



1 paper would be considered in a Federal Order hearing like
2 this, so it's a strategic tactical move, if you will. But
3 we thought it would be most appropriate to start with the
4 trends, because those are, in some sense, hardest to
5 address, especially the decline in Class I.

6 And then the Class III order -- the Class III
7 versus IV spread we chose as the second effect, because
8 even if you abolish the Class I reform, even if you
9 abolish advanced prices, you can't abolish Class III/IV
10 spread, so you are still stuck with that.

11 And then to the extent advanced prices preceded
12 temporally, preceded the introduction of the Class I
13 reform, it made sense to maybe introduce that before we
14 add on that final change between the higher-of -- from
15 higher-of to average-of.

16 Q. Okay. And in the econometric estimation, how you
17 order the variables has an impact on which one has a
18 bigger impact?

19 A. Dr. Cryan, that's actually -- only parts of this
20 are econometric, the rest is just accounting exercise, if
21 you will.

22 Q. I understand the monthly analyses were an
23 accounting exercise -- not an exercise but a --

24 A. Yes. So the part that is an econometric analysis
25 here is the estimation of utilization trends, so
26 utilization percentages by class, and the estimation of
27 the trends in component tests.

28 Q. Okay. Okay. Thank you.



1 Regarding the success or failure of futures and
2 options markets, a Class I futures and options complex on
3 the CME would presumably be cash settled.

4 Would you agree with that?

5 A. Most definitely.

6 Q. Would you also say that cash-settled contracts
7 have a lower bar for success than the delivery-settled
8 contracts?

9 A. I think that's fair to say. There is one -- one
10 source of basis risk is removed. As long as the
11 settlement price corresponds to the price at which people
12 transact, which would be most definitely the case in the
13 case of Class I futures contract.

14 Q. And you brought up the block contract.

15 Would you say that cheddar -- the cheddar block
16 contract?

17 A. Yes.

18 Q. Would you say that in the case of a complex of
19 contracts, like the CME's complex of cash-settled
20 contracts would all relate to prices announced by USDA,
21 that there is a value to maintaining certain things like
22 the whey contract and the block contract that complete the
23 complex for the benefit of customers?

24 A. No. That's absolutely the case. So before 2007
25 when the dry whey -- excuse me -- before 2010 when the
26 cheese contract was introduced, we did not have the full
27 non-arbitrage relationship between the components or the
28 products and the milk on the other side.



1 Once the cheese contract was introduced, then an
2 arbitrager could provide liquidity to a cheese buyer on
3 one side, take a position in whey and butter contracts as
4 well, and then provide a liquidity to a dairy producer on
5 the other side who wants to sell a Class III futures
6 contract. So that was a very important link between the
7 markets.

8 Q. All right.

9 A. Which we may lose if we are not careful about
10 Make Allowances and how we reform them.

11 Starting to sound as a broken record.

12 Q. So success -- there are other aspects -- there are
13 other things that can define a contract as successful than
14 the -- than the isolated volume of the contract, like, in
15 the case of the whey contract, just like you described?

16 A. So -- so I think what you are trying to say, and
17 correct me if I'm wrong, is that, you know, the Class I
18 futures may be more likely to succeed because it is tied
19 back -- it is in some sense a redundant contract, it can
20 be replicated by Class III and Class IV contracts, at
21 least on a, you know, short time period.

22 Is that where you are going with it?

23 Q. Or because as it relates -- because it would -- in
24 the case, for example, if we went to the higher-of, that
25 it would fill a need in the larger dairy complex.

26 A. Oh, yes. That would be hedging demand for it.
27 The -- the challenge is that there would be no obvious
28 hedging demand for the other side of that. You know,



1 the -- that would, to a large extent, have to be met by
2 the arbitragers who would take a short position on Class I
3 futures and then a long position in either Class III or
4 Class IV futures, whichever one was the higher for that
5 day.

6 DR. CRYAN: That's it. Thank you very much.

7 THE WITNESS: Thank you, Dr. Cryan.

8 CROSS-EXAMINATION

9 BY MR. ROSENBAUM:

10 Q. Steve Rosenbaum for the International Dairy Foods
11 Association.

12 Dr. Bozic, you, on page 13 of -- I guess this
13 became part of the entire Hearing Exhibit 290, the various
14 tables; is that right? So it's --

15 A. Yes.

16 Q. -- it's labeled as Edge-15B, page 13.

17 That's where you start to do your month-to-month
18 PPD decomposition, correct?

19 A. That's correct.

20 Q. Which you talked about yesterday and then again
21 today.

22 I just want to clarify perhaps a little bit for
23 the record what you mean when you are discussing what you
24 labeled as Class I reform, correct? Okay. And I'm going
25 to ask you a question.

26 A. Sure.

27 Q. Which is, am I correct that in this context,
28 Class I reform means the system under which, rather than



1 pricing on higher-of, the pricing is the average-of
2 Advanced Class III and Class IV plus \$0.74? Is that what
3 you mean by that?

4 A. Just -- just the opposite. The change from
5 higher-of as it existed prior to 2019 to the average-of
6 plus \$0.74.

7 Q. And -- and I think you implicitly answered this
8 question, but I'll just make it explicit.

9 This is not attempting to capture the -- for
10 example, the IDFA proposal, which would replace the
11 average-of plus \$0.74 with a system that instead was the
12 average-of plus either \$0.74 or a higher amount to the
13 extent that farmers during the two-year lookback period
14 would have received more under the higher-of versus the
15 average-of plus \$0.74, correct?

16 A. This chart was produced using an Excel file that
17 was last modified on March 31st, 2021, so that would be
18 almost two years -- or about two years -- more than two
19 years before IDFA formulated their proposal for Class I
20 mover.

21 Q. Certainly not suggesting this is a criticism. I'm
22 only trying to --

23 A. Yeah. No, no --

24 Q. -- identify what it is you are saying --

25 A. Just trying to answer precisely.

26 Q. And the fact that the IDFA proposal has a \$0.74
27 floor which it cannot go below, but it has an add-back
28 that has no cap, is it fair to say that inherently the



1 impact of the IDFA proposal would be less on PPD
2 decomposition than is shown in your -- in your tables,
3 correct?

4 A. I think it would be more precise to say that the
5 numbers provided here provide a lower pound. In other
6 words, the effect of such reform as compared to the
7 higher-of, could only be more positive, I guess. So if,
8 for example, March says \$0.10, it would be either \$0.10 or
9 better impact on PPD. And so even in months where the
10 impact is negative, it would be, at most, as -- as
11 negative, but it could be perhaps less negative.

12 MR. ROSENBAUM: Thank you very much.

13 THE WITNESS: You're welcome.

14 THE COURT: Does anyone else have questions before
15 I turn to Agricultural Marketing Service for their
16 questions?

17 No.

18 MS. TAYLOR: It may be a good idea to have a
19 break.

20 THE COURT: I think a break is excellent. Would
21 you like five minutes or ten?

22 MS. TAYLOR: Ten-minute morning break.

23 THE COURT: Ten-minute morning break. All right.
24 Let's come back at 9:30. We go off record at
25 9:18.

26 (Whereupon, a break was taken.)

27 THE COURT: Let's go back on record.

28 We're back on record. It's 9:30.



1 CROSS-EXAMINATION

2 BY MS. TAYLOR:

3 Q. Good morning.

4 A. Good morning.

5 Q. I'd like to start with your Exhibit 289, your
6 statement in support of 16 and 17. And I first want to
7 turn to page 4. And on that list of -- under the header
8 "Proposal Number 16," your list of three reasons that you
9 are advocating for Proposal 16. I think what I heard --
10 you clarified that a little bit with maybe Dr. Ryan --
11 Dr. Cryan's questions.

12 But number one, is what you are saying, if
13 there's -- I just want to make sure we're clear -- if
14 there's a demand shock, it will probably happen and
15 Class III will be higher?

16 A. That's right.

17 Q. And so at least under your proposal, you think it
18 would be better than if under any other proposals in that
19 situation?

20 A. To the extent that we are looking for a solution
21 that would mimic higher-of in a year like 2020, the
22 Class III Plus is superior to average-of solutions.

23 Q. Okay. And then in the second bullet, I think what
24 you clarified and what you are saying there, if there is
25 an inversion, that typically indicates that it is actually
26 a profitable year. Class IV is higher, Class III is
27 probably high, too. So you would be moving some of that
28 revenue from that high profitable year to a lower year,



1 where a later year that was probably not going to be as
2 profitable?

3 A. That is correct.

4 Q. And when you mentioned revenue shortfall in that
5 second line of that bullet. We had a question on what
6 you -- if you could clarify what you are talking about
7 there.

8 A. In the context of this topic, revenue shortfall is
9 a jargon often used to describe or to capture the --
10 denote the difference between the higher-of system as it
11 existed before 2019, and the alternatives being
12 contemplated, either average-of, or in this case -- in
13 this case, the Class III Plus.

14 Q. Okay. And that's kind of playing out to the
15 moving revenue layer on to a later year.

16 A. That is correct, yes.

17 Q. Okay. On page 5, that first paragraph when you
18 are talking about advanced pricing, and my takeaway from
19 that is, you all support getting rid of advanced pricing
20 as a way to force -- and force might be the wrong word --
21 but encourage fluid plants to actually make the leap and
22 do risk management.

23 Would that be correct?

24 A. That is one of the benefits that we see. The
25 other benefit is that their profit margins would not be as
26 easy to -- well, their cost of production would not be as
27 easy to calculate by -- or estimate by the buyers of their
28 products, and the opacity in the cost of production would



1 give them the opportunity to increase their profit
2 margins. So we hope that it would ultimately lead to
3 invigoration of that sector, more innovation, more
4 competition.

5 Q. And if I could make sure I'm clear on that.

6 When you say: "Their cost of production wouldn't
7 be easily calculated to their buyers," if I'm getting that
8 right, so what you are indicating is, then the buyer can't
9 kind of try to eek out every penny from them as possible?

10 A. Exactly. Yes.

11 Q. Okay. And then on the second paragraph, I wonder
12 if you could go into more detail kind of what you are
13 talking about there. You have this, "We would publish an
14 indicative Class I skim milk price."

15 So if you could just kind of explain that
16 paragraph, what you think AMS would need to publish, and
17 what it would be used for.

18 A. Sure. Would you like an example as well?

19 Q. Examples are always beneficial, yes.

20 A. Would anyone object to it?

21 The way I would do that is by pulling out my
22 laptop, pulling the prices for -- pulling the October
23 futures contract prices as they existed in mid-September,
24 and showing exactly how the number would be calculated.

25 I'm happy to submit that file for the record
26 later.

27 THE COURT: Okay. Let me start by when I asked
28 you yesterday to close your laptop, that was a -- a



1 peculiar situation.

2 THE WITNESS: Sure.

3 THE COURT: And I wanted you just to rely on
4 your -- your own knowledge without looking at somebody
5 else's statement. That's unusual. Normally I want you to
6 use that laptop.

7 THE WITNESS: Sure.

8 THE COURT: And I don't think you have to
9 identify -- I don't think you have to make an exhibit of
10 everything that you use to inform us in your testimony.
11 All you need to do is tell us during your testimony where
12 you found it and how others can look at it. You do not
13 have to reproduce it.

14 THE WITNESS: Okay.

15 BY MS. TAYLOR:

16 Q. Well, let me ask a few questions maybe, and lead
17 us to where I hope we -- to get some clarity.

18 You talk about, "If there's a need for some form
19 of coordination mechanism, that can be solved with this
20 publish of this price."

21 So what do you mean there by "coordination
22 mechanism"?

23 A. So as we will hear, I think, later today from
24 Mr. Covington, that their exhibit is already published,
25 you know, so I cannot speak on his behalf. But my
26 understanding of what we are to expected to hear is that a
27 rebuttal argument will center on, well, we have to know
28 our costs before the month starts because we have to



1 provide a price to our buyers before the month starts.

2 And if AMS is not publishing any prices, then what prices
3 do we give them?

4 And if there is an indicative Class I milk price,
5 as described in this paragraph, that becomes the natural
6 starting point for such discussions between Class I
7 handlers and their buyers. Here is an indicative Class I
8 milk price; would you like to pay at that price? No, I
9 would prefer to pay at something else.

10 But that's a starting point to any discussion.
11 It's not a binding price in any sense, but it's a focal
12 point from which the discussions would further emanate.

13 Q. And so I think as I'm reading this, your
14 indicative Class I skim milk price would be kind of like
15 our advanced price now?

16 A. "Like" is a dangerous word there, because advanced
17 price has enforcement mechanisms behind it that is --
18 becomes your handler obligation to the pool. Indicative
19 Class I price would be more similar to Dairy Market News.
20 Here is what we observe in the market. You know, here is
21 what the Upper Midwest Class III basis is, or what the
22 spot market price is, etcetera. It's a news rather than
23 an enforced -- an enforced price.

24 Q. Sure.

25 And so how would one -- how would the Agency
26 collect the information you would like published for that
27 price?

28 A. The futures prices for our -- from CME are



1 publicly available at no cost, and they are used by your
2 colleagues in risk management agency.

3 Q. You are talking about III/IV futures?

4 A. Yes.

5 Q. Okay.

6 A. In the context of Class III Plus, you would only
7 need Class III futures. In the context of -- if you were
8 to choose to implement average-of without advanced
9 pricing, then you would also -- and if you were to choose
10 to publish such report, you would also need Class IV
11 futures prices.

12 Q. So if I'm a fluid HTST plant --

13 A. Uh-huh.

14 Q. -- and -- I guess I'm trying to figure out how
15 this would work.

16 A. Sure.

17 Q. My buyer comes to me and says, this is the
18 Class III futures price, or this is the indicative skim
19 milk price. That would be, what, the Class III futures
20 price for --

21 A. So you would publish the indicative base Class I
22 skim milk price, just like you do today.

23 Q. So we would publish that.

24 Let's -- let's use an example. We're in October.
25 We would have published that price at the end of September
26 sometime --

27 A. Yes, that's correct.

28 Q. -- or after -- and we would use what -- we would



1 use what futures prices?

2 A. You would use the October contract month. In the
3 context of Class III Plus, you would use only Class III
4 milk futures.

5 Q. For October 2023.

6 A. For October 2023.

7 As they were settled on each of the calendar days
8 that fall within the current two-week window that is used
9 for measuring advanced prices.

10 Q. Okay.

11 A. That's a 14-day window.

12 You may be curious to know that a very similar
13 mechanism is used by risk management agency to set the
14 expected price for, for example, corn. They measure daily
15 settlements of futures prices for corn for December
16 contract. They measure it through the month of February.
17 And then that becomes the price used for crop insurance
18 contracts in corn that must be bound by March 15th. So
19 this may be new to AMS, but it is not precedential for
20 USDA overall.

21 Q. Okay. And so Class III futures are announced at
22 3.5; is that correct?

23 A. That's correct.

24 Q. So Class I milk is priced on skim fat?

25 A. That's correct.

26 Q. So how would one go about --

27 A. Yes. So every day, at the end of the day, you
28 would observe the butter futures. From the butter



1 futures, you would derive an implied butterfat price.
2 Once you have the Class III price and the butterfat price,
3 you could back out what the skim, Class III skim price
4 would be. And then you would average that over two weeks.

5 The full detail is included -- the full detail of
6 a similar exercise in the context of evaluating hedge
7 effectiveness is included in the Appendix to the
8 Exhibit 290. If you -- let's see where that is. Oh, it
9 didn't get printed. Oh, no, it did get printed. Okay.

10 If you look at the page 13 of the Exhibit 290 with
11 the -- in the interest of time, we didn't go through this
12 yesterday, but it is part of the record as I understand
13 it.

14 So if you look at the step 3 on page 14, in the
15 context of evaluating hedge effectiveness, we needed to
16 calculate the futures implied expected base Class I milk
17 price. So we take the butter futures, subtract the
18 current Make Allowance, multiply the difference by the
19 manufacturing yield. That results in the expected
20 butterfat price. That's in the step 3.1.

21 Did you -- do you see that?

22 Q. Uh-huh.

23 A. And then, you know, I -- even in that summary, I
24 provide a reference to a cell, H155 on tab "Analysis" of
25 the Excel spreadsheet that is included for the record, so
26 you can trace back and you can see the full calculations
27 there.

28 So once we have the expected butterfat price, then



1 knowing the composition of the Class III futures,
2 currently it's 3.5 and -- but down the road it may be
3 something different. As long as the market has full
4 information as to the competition -- excuse me, not as to
5 the -- as to the composition, you can use an equivalent
6 formula to what is presented here in step 3.2.

7 So Class III milk futures minus 3.5 times the
8 expected butterfat price, and then that difference must be
9 divided by 0.965 to derive the expected Class III skim
10 milk price.

11 And, again, the -- the appendix contains the
12 reference to cell I155 for expected Class III skim milk
13 price, and J155 for expected Class IV skim milk price.

14 You would do that for each of the trading days
15 that -- that fall within the two-week window to derive
16 essentially a 14-day average of the projected prices for
17 skim for the month of October.

18 The reason I would recommend that you do it over
19 the same two-week window is, first, that will be perceived
20 as close to what we are doing currently; and second, to
21 the extent that the Class I handlers want to hedge, they
22 would probably want to place those hedges incrementally
23 over a two-week period so as not to move the market now.

24 A valid objection, going back to what Ms. Hancock
25 was asking me yesterday, could be that if we spread it
26 over a two-week window, then we are essentially saying
27 that in each of those days, you know, you have to have
28 volume large enough to be able to buy at least one



1 contract.

2 But that's where the, you know, industry input
3 should come in as you -- that's why we have a difference
4 between recommended and Final Decision, so that people can
5 see what you are thinking and provide input on that.

6 I'm not saying that -- that -- that I have
7 everything figured out here to the point that nobody
8 else's input can improve it.

9 Q. So it leads me to another question.

10 You know, we have heard discussion about why it's
11 important to have advanced pricing for HTST plants still.
12 And I understand the desire to kind of push them to go
13 into hedging.

14 But what about the small processors that don't
15 have -- that already operate on small margins and might
16 not have the financial capability to involve themselves in
17 hedging?

18 A. So Mr. Turner, who was here two weeks ago, I
19 believe you asked him whether he qualifies as a small
20 business, and his answer was yes. So could we use him as
21 an example as a small processor to that question?

22 Q. Well, I think the range of small varies, and he's
23 just one example of that.

24 A. Yeah. So -- so in his example, you know, I don't
25 believe that -- you know, he may not find it pleasant the
26 first month, but, you know, give him a month or two, and I
27 think that he can fully master this without any issues.

28 Not to steal Lucas' thunder, but, you know, we do



1 have testimony coming up later today that tries to offer
2 you more choices for you to consider as you -- as you make
3 your recommended decision. That may be something that
4 could make you more comfortable from that perspective that
5 you just asked.

6 Q. Okay. On page 6, I was wondering if you could
7 just --

8 A. I'm sorry, Ms. Taylor, page 6 of which exhibit?

9 Q. I'm sorry, of Exhibit 289.

10 I wonder if you could review again, what this
11 graph is showing us.

12 A. This is really an eyesight test.

13 Q. It is. I would agree.

14 A. I apologize for that. It was a -- it was just an
15 image transplant from a different paper.

16 So what we wanted to illustrate -- this is an
17 excerpt from the Exhibit 76. You can find that larger
18 version of that image on page 435 of the Exhibit 76.

19 Q. Okay.

20 A. So those are exactly the same images. It might be
21 easier to look there.

22 So what we wanted to -- in real world you have
23 many things moving all at once. The spread is changing,
24 advanced prices are changing versus announced. The
25 component tests are changing. There's -- utilization
26 rates are changing because of depooling. So it's very
27 hard to disentangle the impact of one force on, for
28 example, PPD.



1 In this paper, co-authored with Dr. Wolf, we tried
2 to do that. We tried to keep everything else constant,
3 move one thing and see how that influences PPD. So that
4 is -- that's what this chart is attempting to do. It is
5 looking at the difference between the announced cheese
6 price, so it's a final price, and the advanced cheese
7 price, that would be used for advanced pricing.

8 So when -- on the horizontal axis, as you move to
9 the right, that means that there was a rally after the
10 prices, after the advanced prices have been released. As
11 you move to the left on the horizontal axis, that means
12 that the prices have dropped after the advanced prices
13 have been released. So far so good.

14 Q. Yes.

15 A. Okay. So now on the vertical axis, what we wanted
16 to do is we wanted to keep the utilization into the pool
17 as we believe it would have been were it no depooling. So
18 we tried to, you know, stipulate what the utilization by
19 class would have been based on historical trends, and we
20 tried to -- and we ignored the 2019 Class I reform. So
21 this is under the higher-of system.

22 So under those two assumptions, which are modeling
23 assumptions, we have to recognize, we can see a more -- a
24 clearer relationship or clearer impact on rallies in the
25 market after the advanced prices have been released on the
26 PPD, on what we project the PPD would have been. We don't
27 know for sure what the PPD would have been because this is
28 a modeling exercise.



1 So if there was no depooling, if there was this
2 Class I reform, what do we project, based on our
3 understanding of trends in component tests and our
4 understanding of trends in utilization rates, what would
5 we project would be the PPD in this context in the
6 Order 126, the Southwest order?

7 And as you can see, as the -- as market -- if
8 markets rally, the PPDs drop. If markets -- if the prices
9 go down after the advanced prices are released, then the
10 PPD increases, tends to be higher. That is -- that was
11 what explains this about 45-degree negative line there.
12 There is some noise, but the relationship is fairly strong
13 there.

14 In the real world, if you tried to plug this, if
15 you were to take last ten years of data, or 15 years of
16 data for Southwest Order, and you were to plot their PPD
17 against the difference between the advanced and the
18 announced -- excuse me -- announced and the advanced
19 cheese price, it would be more hairy. It would be more
20 dispersed around. And the reason that is the case is
21 because, well, primarily we do have depooling.

22 So -- so that would perhaps make it more
23 non-linear, if you will. I would expect that this line
24 would have a deeper slope than 45 degrees negative, as the
25 spread between the announced and the advanced cheese price
26 rises.

27 Q. So -- so if I can summarize --

28 THE COURT: Let's go off record just a minute at



1 9:52. We need help with the battery for the Agricultural
2 Marketing Service.

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

4 THE COURT: All right. Let's go back on record.

5 We're back on record at 9:53.

6 BY MS. TAYLOR:

7 Q. So if I could summarize. What this graph is
8 showing us is generally if -- if the time between the
9 advanced and the announced, the market rallies, generally
10 PPDs go down?

11 A. Yes.

12 Q. And the inverse is true?

13 A. That's correct.

14 Q. Okay.

15 A. And it is providing you some sense of magnitude.

16 Q. Correct.

17 A. In this case, in the Order 126.

18 Q. Okay. Got it.

19 I wanted to -- I want to talk just sticking on
20 Proposal 16, and I wanted to talk order language, which is
21 always a fun discussion. But since your exhibit didn't
22 cover that, we want to make sure we understand how it is
23 supposed to operate.

24 So I want to turn to Exhibit 13, which I will
25 bring you up a copy, but it is USDA-13 on the website if
26 anybody is wanting to look at that. And I want to turn to
27 page -- well, 19 is where -- 20 is where Proposal 16
28 starts.



1 A. Yes, ma'am.

2 Q. All right. So we want to make sure we understand
3 how this would work.

4 So in the first -- in Section 50, paragraph B,
5 it's essentially saying the Class I skim milk price is the
6 Class III price plus the adjustment computed in Q3.

7 A. That's correct.

8 Q. And so I want to -- that's simple enough.

9 I want to turn to Q3, which starts at the bottom
10 of page 21.

11 So what we read here is -- I want to figure out --
12 I think I know the A -- you know, the adjustment is the
13 difference between A and B, theoretically, and I want to
14 define what A and B is.

15 A. Uh-huh.

16 Q. Okay. So A is the higher-of either the Advanced
17 Class III and the Advanced Class IV, so whatever one is
18 higher; and B is the Class III skim milk price, the
19 announced Class III skim milk price.

20 A. That's correct. Yes.

21 Q. So you put those each in a column and you take the
22 difference?

23 A. That's correct.

24 Q. And then you do that for every month?

25 A. That's correct.

26 Q. And then you take a 36-month average from August
27 of the four years prior to July of the year prior, I
28 guess?



1 A. That's correct.

2 Q. Okay. And round that to the nearest cent.

3 That's the adjuster?

4 A. That's correct.

5 Q. The question is, when is that implemented?

6 A. September.

7 Q. For how long?

8 A. So -- so that would be implemented annually in
9 September -- no. For example, you could publish that in
10 September as a formal announcement that would be enforced
11 from January of the forthcoming year.

12 Q. So let's take an example. In 2023, we would have
13 gone back four years, computed the 36-month average up
14 until July of this current year?

15 A. That's correct.

16 Q. Whatever that adjuster is, we would announce,
17 let's say in September --

18 A. That's correct.

19 Q. -- and you would have it implemented in 2020- --
20 January 1 of 2024?

21 A. That's correct. Yes.

22 Q. Okay. So I think I'm off a year. When you are
23 talking about hedging and you need to know these things in
24 advance, that only gives you less than six months advance
25 notice of that. I'm not sure how that works for you.

26 A. So as I said yesterday, you know, Edge did come to
27 this hearing not just to -- for you to hear some foreign
28 accents, but also to listen, learn from others, try to see



1 if we can find common ground where possible, provide
2 common sense solutions. I think we owe it to the U.S.
3 taxpayer to try to do that.

4 One of the learnings for me, personally, and for
5 Edge, was the rolling nature of some of the institutional
6 contracts and other, you know, commercial contracts, for
7 example, that I think that's best exemplified by
8 Mr. Doelman's testimony from Fairlife.

9 Having heard that, Edge would not object if you
10 were to implement Class III Plus with the adjuster of the
11 style that -- that MIG proposed.

12 Q. A rolling adjuster.

13 A. A rolling adjuster, yes.

14 We would also not -- the other assumption that we
15 had when we were designing this proposal is that we have
16 to stick to revenue neutrality, because that was the
17 former deal between IDFA and National Milk.

18 We did not have the privilege of knowing what is
19 now known as proposal, I believe, 15, the IDFA's proposal,
20 with a floor of \$0.74. We would not object if AMS were to
21 set the floor to Class III Plus in a similar way.
22 That's -- you know, that would be in line with the floor
23 of \$0.74.

24 So there -- we are not writing a Bible here, we
25 are writing regulation. Regulation needs to be based on
26 all of the evidence heard, not just what we all knew in
27 mid-June of 2023 when we were putting these proposals in.

28 So we are quite flexible. Edge is quite flexible



1 on those details in the -- in the regulation. The core
2 principles are, let's get rid of advanced prices, we don't
3 need them anymore; and then the choice is whether you
4 would like to do it as an average-of or tie it just to
5 Class III. But even that is a second order priority for
6 Edge versus getting rid of advanced pricing.

7 Q. So but back to -- I'm trying to understand Edge's
8 proposal.

9 A. Sure.

10 Q. And your, you know, testimony about the importance
11 of hedging and the importance of knowing things in
12 advance.

13 A. Yes.

14 Q. So for that purpose --

15 A. I guess --

16 Q. -- what kind of -- you know, you can -- we can
17 think about the rolling, we can think about 36 months, or
18 24 months. You know, those are all -- the big picture,
19 how much lag time is Edge seeking to implement whatever
20 the adjuster is, however it's calculated should that be
21 recommended, for you to meet your hedging objective in
22 proposing this?

23 A. Yes. Ms. Taylor, I apologize, I didn't -- I just
24 realized I didn't directly answer your question.

25 When we were designing this proposal, we worked
26 off the assumption that folks don't really start hedging
27 the next year until they set the budgets for the next
28 year, and the budgets are set in September. So from that



1 sense, some of the months have higher lag than others.
2 January would have the smallest lag and the December would
3 have the highest lag.

4 Having heard the testimonies, we revised our
5 assumptions.

6 Q. Okay. I had another question. You know, you want
7 to get rid of advanced pricing, but your proposal still
8 has us using advanced pricing to calculate the adjuster.
9 And I'm curious why that's being proposed, and if we're
10 looking 36 months back and we know what the announced was,
11 why not just use the announced? Why are we looking at the
12 advanced at all?

13 A. The only reason why we drafted the language as we
14 did is to come across as not trying to tilt the scale to
15 producers or processors to maintain strict revenue
16 neutrality. To the extent that we would be all happy with
17 an approximate revenue neutrality, it would be perfectly
18 fine to just use announced Class III skim and Class IV
19 skim over the previous 36 months.

20 Q. Okay.

21 A. Certainly would mean less paperwork for you, one
22 less report to track.

23 Q. Okay. I think I'm good with that.

24 I want to turn to your next exhibit, 290. And in
25 preparation for that, I am going to have some questions
26 looking at Exhibit 76 that we --

27 THE COURT: May I stop you?

28 MS. TAYLOR: Yes.



1 THE COURT: I have a record exhibit here --

2 MS. TAYLOR: Yeah, we'll get it back at the end.

3 THE COURT: I would like to give it --

4 MS. TAYLOR: Well, we can get it now, if you would
5 like.

6 THE COURT: I would like you to take it away from
7 me.

8 THE WITNESS: I might also lose it.

9 Ms. Taylor, which exhibit are we on?

10 MS. TAYLOR: 76, I'm going to reference that one.
11 And, Judge, I have a copy for you if you would
12 like to look at it.

13 THE COURT: I do like to look at it during the
14 testimony and then give it back immediately.

15 MS. TAYLOR: Okay.

16 BY MS. TAYLOR:

17 Q. I want to turn first to page 3.

18 A. And would it be -- are we talking about
19 Exhibit 76?

20 Q. 290, I'm sorry.

21 A. Okay.

22 Q. So many papers. So many exhibits.

23 Okay. So on Exhibit 290, page 3, and this is
24 where you are talking about the three risks, listing the
25 three risks that you are trying to --

26 A. Sure. Basis risk, yeah?

27 Q. Yeah. This last one, bid-ask risk or risk
28 premium. And I want you to, if you could, explain again



1 what that is. And when I first read it, I thought that
2 this risk is assuming that there's a CME base Class I milk
3 futures contract --

4 A. That is correct.

5 Q. -- in existence, which actually doesn't exist
6 right now.

7 A. That is correct as it does not exist today. This
8 contemplates a potential risk that would emerge were AMS
9 to go with Proposal 17 or 18 and CME were to create a
10 Class I contract either for Class I price or Class I skim
11 price.

12 Q. Okay. So that's just if all those stars align,
13 using that risk to do this?

14 A. Yes. I think if -- you know, given our experience
15 with the asymmetric risk under average-of, I do think we
16 need to contemplate such scenarios.

17 Q. Okay. And then I want to turn to page 6, and I
18 then, at the same time, on page 76 want to turn to page --
19 Exhibit 76, turn to page 437, because I think what you --
20 what you put in this Exhibit 290 was kind of a summary of
21 your paper in Exhibit 76.

22 A. It was, did you say page 437?

23 Q. Yes.

24 A. Okay. The table, I assume.

25 Q. Table 5. That's what I want to talk about.

26 A. Yes.

27 Q. Yep.

28 So we were trying to look at kind of the



1 categories you have in Exhibit 290 --

2 A. Oh, I see.

3 Q. -- and match them with the columns that you have
4 in Exhibit 76, and they don't match identically.

5 And if I could just further explain. Trying to
6 figure out, I mean, what goes into trends, in particular.
7 And you said in some text yesterday, trends are the change
8 in utilization rates between the classes, and there might
9 be a different factor, I missed writing down when you were
10 saying that. So I was trying to match these things up.

11 A. Sure. So the -- in the Exhibit 290, the bar that
12 is named "trend" would be the sum of what in Table 5 is
13 Step 1 and Step 2, utilization rates and component tests.

14 And I believe I -- I answered a question or two in
15 today's cross-examination, that trends -- I think it was
16 from Mr. Miltner -- that the trends capture changes in
17 utilization trends and the growth in protein tests and
18 other solids, butterfat -- well, butterfat wouldn't matter
19 for PPD but --

20 THE COURT: Say that last part again.

21 THE WITNESS: Butterfat wouldn't matter for PPD so
22 it would be the changes in protein and other solids test
23 that would matter for this.

24 BY MS. TAYLOR:

25 Q. I think I had missed that second piece. That's
26 where I was stuck.

27 A. And then the Step 3 in Table 5, actual announced
28 prices, that would correspond to what we are calling in



1 the -- in the waterfall chart as a Class III/IV spread.

2 Q. Okay.

3 A. Step 4, advanced prices matches it one-to-one with
4 the bar, with the legend advanced prices.

5 Step 5, Class I pricing reform matches with the
6 bar with the label Class I reform.

7 And Step 6, depooling and structure changes
8 matches what I was just referring as depooling here.

9 I did preface yesterday as I was introducing the
10 waterfall charts, I did say that the depooling bar also
11 captures any deviations -- any deviations in utilization
12 rates from what we have modeled them to be. It's not
13 necessary -- so, for example, if our model suggests that
14 the order should have 40% utilization in Class IV, but
15 even in the best of months when nobody depools they really
16 have 37, or 43, then that would show up in this last
17 residual column, depooling.

18 So depooling is everything that we cannot explain.
19 Most of the time it really is truly depooling, but it does
20 capture -- capture everything else that just the analysis
21 did not properly address through linear trends in --
22 changes in utilization rates and component tests. Linear
23 and seasonal in case of component tests. I think. Yeah.

24 Q. And where would -- or does your model take into
25 account production increases, milk production increases?

26 A. Implicitly? The production increases without --
27 in the absence of higher Class I sales, higher milk
28 production, which is pooled, would lead to increasing



1 utilization rates for manufacturing classes.

2 Q. And does your model account for limits in pooling
3 provisions, whether they are, you know, the repooling
4 limits that exist, for example, or in the Northeast, there
5 are dairy farmers further markets provisions?

6 A. It doesn't need to. If the provisions are such
7 that it's more difficult to depool, or that it's less
8 lucrative to depool I should say, then the bar depooling
9 would simply be smaller.

10 As you can see, for example, in the -- in the
11 Northeast order, in the Table 5, page 437 of Exhibit 76,
12 Table 5, Step 6, depooling and structure changes under
13 Northeast, in 2020, depooling was only \$0.05, and it was
14 actually positive. That clearly means that there was --
15 maybe this was, you know, more yogurt made than we
16 accounted for. Over years we did not maybe anticipate
17 precisely the increase in Class II or -- or we anticipated
18 that Class I would drop more than it really did, so -- but
19 you can see that in that order where it is more difficult
20 to depool, we have a smaller unexplained residual. We are
21 right on the money almost.

22 It would be so much fun if academic conferences
23 were organized this way, you present the paper and you
24 were cross-examined on it.

25 Q. Let me see. In your proposal submission, back a
26 long time ago, if I remember, you had something about how
27 the adjuster couldn't be non-negative, something like
28 that.



1 Does that ring a bell?

2 A. We were probably wrong about it. I believe that
3 one of the other testifiers, it could have been
4 Ms. Dorland, calculated in the amount of years it would
5 have been some \$0.20 negative or so. That is indeed
6 correct.

7 Q. Okay.

8 A. But in -- just to add, in that particular year,
9 where the adjuster was indeed negative, the Class III Plus
10 result with a Class I price that is within \$0.10 of what
11 the higher-of system would result as well.

12 Q. Okay.

13 A. We would not object if AMS were to floor it at
14 zero.

15 Q. I'll ask you a similar question I think I asked
16 the IDFA witness.

17 If you are all about market price singles and not
18 muting some of those, doesn't a floor do that?

19 A. I believe that it was the National Milk that
20 complained about muting market signals. As I testified
21 this morning in one of the cross-examinations, I think
22 that the core principle here, core -- set of core
23 principles here are:

24 Does the proposal provide for sufficient reserve
25 supply of milk for fluid needs? Yes, it does.

26 Does the proposal allow the manufacturers of
27 beverage milk to provide for stability to producers as is
28 listed as objective 4 of the enabling legislation? Yes,



1 it does.

2 Does the proposal, over time, provide for a
3 relationship that Class I milk is more valuable on average
4 than manufacturing classes? Yes, it does.

5 So I think we check all the boxes of the core
6 principles. The market signal is a -- is one of those
7 terms, like, you know, social capitalist. Like, it
8 doesn't -- it can mean a lot of things to different
9 people. And I don't believe that dairy producers should
10 be rushing to the barns and start playing Mozart to their
11 cows just because the Class I, you know, price is a little
12 bit higher so they need extra milk that afternoon.

13 Q. Okay. But from your perspective, you don't have a
14 problem setting the floor -- or Edge -- you are speaking
15 on behalf of Edge -- so Edge is not opposed to some floor?

16 A. We are not opposed to the floor.

17 MS. TAYLOR: I think Mr. Wilson has a few more
18 questions.

19 CROSS-EXAMINATION

20 BY MR. WILSON:

21 Q. Good morning, Dr. Bozic.

22 A. Good morning, Mr. Wilson.

23 Q. On your -- continue on page 6 of the Exhibit 290,
24 the baseline PPD, that, as I understand it, would be the
25 average PPD for the year 2010 for Federal Order 33?

26 A. A little about bit more complicated. That would
27 be the PPD in March 2020 had the prices in March 2020 been
28 as they were on average between 2010 and 2019, the



1 announced prices, and the components in March 2020 were as
2 they averaged in 2010, and utilization rates by class in
3 March 2020 were as they were in 2010.

4 Q. So when I compare that PPD, that would be --

5 A. Uh-huh.

6 Q. -- to Exhibit 76 PPD for Federal Order 33, it's
7 very different. Exhibit 76 has the Mideast Order at a
8 \$0.98 baseline positive, and you have it at 1.65.

9 A. That's a good question. I will need to do some
10 research later this morning, and I'm happy to jump back on
11 the stage for a few minutes to clarify. I don't have the
12 answer for you this moment.

13 Q. So with that in mind, you used the same model
14 parameters from Exhibit 76 over to Table 290, page 6.

15 A. I believe so, yes.

16 Q. So do the rest of the steps, do they correspond,
17 do you --

18 A. I believe so. But I think that, you know, given
19 the obvious discrepancy regarding the baseline, I think it
20 would be prudent if we allow for an hour so I can do some
21 forensics and I'll be happy to report back.

22 Q. So as I understand Exhibit 76, the Table 5, that's
23 a yearlong look?

24 A. Yes.

25 Q. And all the graphs in Exhibit 290 is a
26 month-to-month look?

27 A. That's correct.

28 Q. That's probably -- that's the difference probably



1 in some of them. Okay.

2 The bottom of page 12 -- well, Exhibit 290, it's
3 actually the top of page 12.

4 A. Excuse me, page 12?

5 Q. Page 12.

6 You indicate the primary driver, you indicate
7 that, and then you cite -- the next sentence you cite the
8 second most important factor.

9 Are those -- is that description a quantitative
10 description -- the primary driver, what would be -- what
11 would we be looking at in our graphs that you provided us
12 to understand your description of "primary driver"?

13 A. So in the context of -- thank you for your
14 question -- the context of the spread between III and IV,
15 if you were to look at, well, any month here, the
16 parameter of depooling -- I think that we would have to
17 consider that to be an expert opinion rather than just a
18 reading of any chart.

19 Q. Yeah.

20 A. Because we -- we can logically conclude that the
21 more negative the PPD before depooling, the stronger to --
22 the incentive to depool, but that does not follow
23 arithmetically from these charts. That is a conclusion
24 that requires prior knowledge of incentives with Federal
25 Orders. So from -- for those reasons, I would submit that
26 those sentences are my opinion rather than a number that
27 you can read off a chart.

28 Q. Okay. So it's not like the sum of all of the



1 III/IV spread values, summing them together to get the
2 biggest number?

3 A. If the sentence said the primary driver of
4 negative PPDs prior to depooling, then we could do that.
5 Right? But if we are making a claim about depooling, then
6 we have to complement the numbers with the -- with the
7 opinion about the numbers.

8 Q. I'm just trying to understand your sentence.

9 A. Yes. Yeah. So that's why I'm saying, like, if --
10 you know, you cannot just sum them up, no. I mean, in
11 most conversations you could and it would be admissible,
12 but here we are creating a formal record, so I want to be
13 really precise about that.

14 Q. Okay. And then the last bucket that you have, you
15 label as depooling. You have said that it's -- it's more
16 than just that, it's things that the model can't predict
17 and things like that.

18 Depooling's been a big topic in this hearing. Is
19 there -- would you have an opinion about how much, as a --
20 as a -- as handlers make decisions about what to pool and
21 what not to pool based on alignments and things, how much
22 of that decision is related in your model for these
23 graphs?

24 A. I would say all of the -- most of the relevant
25 factors are. There could be some truly idiosyncratic
26 local reasons that are not captured. Maybe someone needs
27 to pool for -- I can't even provide you with a good
28 example. But the spreads, advanced prices, are the main



1 drivers of the incentives to depool, like, just financial
2 incentives to depool. In terms of, like, your
3 equalization payments, that's driven by those two factors,
4 first and foremost.

5 The third one driving is the -- you know, the
6 difference between the higher-of and the average-of.
7 The -- what is in question is the marginal effect on your
8 decision to depool.

9 For example, as you well know, Mr. Wilson, in the
10 Order 30 -- and I'm not an expert on depooling provisions
11 in other orders -- but in Order 30, if you depool some
12 amount of milk, you can pool again next month, I believe,
13 125% of what you pooled previous month. Which means that
14 the moment we switch from positive to negative PPD, you
15 would immediately want to depool at least 20% of your
16 milk, because next month you can repool the entire milk
17 that you have -- I'm ignoring seasonality and milk
18 production and all that now.

19 So the small change from \$0.01 positive to \$0.01
20 negative -- and, again, I'm ignoring, I guess, the
21 administrator fees here as well, the -- because
22 presumably, if the -- if you are not pooled -- I don't
23 know, I'm not actually sure how that works. I assume that
24 they don't have to pay the administrative fees to the
25 Market Administrator if they are not pooled -- or on the
26 milk that's not pooled. So if the administrator -- if
27 that's correct, if the administrative fees are \$0.05, then
28 as soon as your draws drop below \$0.05, so you're net



1 financially negative on milk pooled, maybe you would want
2 to depool at least 20%. I'm thinking on the fly here. I
3 apologize if there's an error in the logic. You would
4 want to depool at least 20% because you can -- you
5 preserve full optionality for potentially pooling all of
6 your milk in the next month.

7 Now, if you -- if the -- if the negative PPDs are
8 really large, let's say \$4, now you must be think -- now
9 you are thinking, okay, do I depool only 20% or do I take
10 it one step further and depool another 20%? Do I really
11 care that I won't be able to pool everything next month
12 when I'm losing so much money in this month? Why would I
13 want to preserve the option to maybe get \$0.15 positive
14 two months down the road if I'm losing \$4 today? So from
15 that perspective, you depool a lot if the current month
16 PPD is negative.

17 And in that context, should my statement be
18 understood that even if the Class I reform dampened or
19 made the PPD more negative, it may have no effect on
20 further depooling decisions. You would have done as much
21 anyway. Once you get down to -- at one point we had, I
22 think, like, single digits, you know, percentage of the
23 total Class III milk that was typically pooled in the
24 Upper Midwest Order. Once you're that low, you just don't
25 go any lower.

26 Q. So on the first month that you have listed here,
27 March '20, 2020, you have a minus \$0.25 attributed to
28 depooling.



1 Am I understanding your testimony to say that
2 future -- future months, that you don't know how much it's
3 going to be negative for however long, could impact your
4 decision rather than just the immediate disparity of --

5 A. Yes.

6 Q. -- what their draw is --

7 A. Yes.

8 Q. -- today, and so there could be some future
9 aspects to looking at one month of change, so to speak?

10 A. Yes. That's absolutely correct.

11 Q. All right.

12 A. So the -- so the -- again, the chart -- the chart
13 describes the PPD, right? Like, the chart describes how
14 did we arrive at the current month PPD, and the amount
15 that is depooled will be a reflection of the previous
16 three bars in that. Like, so the current month spread,
17 advanced pricing, potentially Class I reform, but will
18 have a strong lookout for up to -- in the context of
19 Order 30 where you can bring back all your months after
20 six months, as I understand it, you would look up -- up to
21 six months out when making a depooling decision.

22 Which, actually -- and I didn't want to go too
23 much into that yesterday because it's complicated enough
24 anyway, that is even a stronger argument why Class I
25 reform likely did not have a material impact in 2020.

26 In 2020, if you were looking at a term structure
27 of the spread between Class III and IV for the next
28 12 months, it was deeply negative. It was deeply



1 negative. People -- markets did not anticipate those two
2 prices to converge for a long while. So from, you know,
3 making such a dynamic programming, if you will, depooling
4 decision, that would have been a strong influence, even in
5 the absence of any reform.

6 MR. WILSON: Thank you, Dr. Bozic. That's all I
7 have.

8 THE COURT: Mr. Wilson, do you want him to do any
9 report-back after spending an hour analyzing?

10 MR. WILSON: No. Thank you. No, thank you.

11 THE WITNESS: But can I ask, Your Honor, is the
12 validity of my evidence in any way reduced if I don't
13 submit that correction? No? It's not? Okay.

14 THE COURT: How confident are you that the
15 difference is, in fact, in comparing a year to a month?

16 THE WITNESS: I prefer not to answer before doing
17 more forensic analysis on these numbers, but, you know, if
18 the evidence will be considered just as strong, you know,
19 without submitting further analysis, I'd rather sleep a
20 little bit.

21 THE COURT: You know, I -- I would like to invite
22 him to clarify, just because this is such an important
23 issue.

24 THE WITNESS: Sure.

25 THE COURT: Okay.

26 THE WITNESS: Yeah. I -- I would be happy to.

27 THE COURT: You are invited to return to clarify
28 that.



1 THE WITNESS: Yes. I mean, who cares about sleep?

2 THE COURT: And I would like to return my
3 Exhibit 76, because it's the record copy. All right.

4 Redirect.

5 MR. SJOSTROM: Yes. Lucas Sjostrom for Edge Dairy
6 Farmer Cooperative.

7 THE WITNESS: Your Honor, didn't we have to ask
8 for any further cross-examination before redirect?

9 THE COURT: Well, I try to let Agricultural
10 Marketing Service be the last, and sometimes they do
11 prompt more questions, but I didn't see anyone squirming,
12 so I'd like to keep moving.

13 MR. SJOSTROM: What more do you want? All right.

14 REDIRECT EXAMINATION

15 BY MR. SJOSTROM:

16 Q. First, Dr. Bozic, a couple of questions on OTC.

17 Well, really one question. In your past work, and
18 I think you mentioned this yesterday, but I just wanted to
19 clarify because I think it was maybe trailing off.

20 But in your past work, what data sources have you
21 used to draw conclusions related to over-the-counter
22 trading?

23 A. The only data source that I have relied upon to
24 form my conclusions was the data source cited, I believe
25 it was Footnote 6 in the 2019 paper co-authored with Matt
26 Gould, that would have been the OTC report published by
27 Rice Dairy.

28 Q. All right. And briefly, and I know that might be



1 difficult, but briefly, I don't know that we ever put into
2 the record the difference between a -- like, what a
3 cash-settled trade versus a delivery-settled trade was,
4 and we had several questions about it this morning.

5 So depending on who is reading this, I just wanted
6 you to be able to clarify what is the difference between
7 those two objects?

8 A. Yes. In the -- so corn contract would be an
9 example of a physically-settled contract. If you do not
10 exit your hedge position on a corn futures, you will have
11 to deliver some corn or you will have to accept delivery
12 of some corn somewhere on the Illinois River. There is
13 no -- there are no butter or cheese or dry whey trucks
14 going around the country to settle anybody's position on
15 dairy futures.

16 Dairy futures contracts are all cash settled,
17 which means that your position, your gains or losses on
18 your hedge position on the last day, are simply settled as
19 a difference of the prior day of futures price and the
20 announced price published by AMS.

21 Q. Thank you. I just thought we should get that in.

22 Next, so if we build a new structure -- and that's
23 what we're here to do -- of the Federal Order, and as
24 implausible as it is, we do all this and no one uses any
25 hedging instruments, no one hedges anything in any of the
26 classes in any phases, are we -- at the farmer level,
27 cooperative level, processor level, retailer level, at
28 least in price discovery, are -- are we any worse off in a



1 non-hedging environment than we are today as we think
2 about price discovery?

3 A. Over the long-term, Class I prices would have been
4 actually equivalent under any of the proposals currently
5 on the table, from 13 to 18. So there will be no material
6 difference to dairy producers.

7 Q. So, in other words, it would be fair to say that
8 we do not need hedging as much as we have talked about it
9 the past few weeks? We do not need hedging for these
10 instruments to operate properly?

11 A. That question is rather vague. I don't know, you
12 know, how to answer it. Like, people use hedging because
13 they want to stabilize their revenue or they want to
14 stabilize their input costs, and the purpose of these
15 proposals is to facilitate effective use of hedging.

16 Q. Thank you. I'll move on to advanced pricing.

17 We have heard that HTST milk, or at least maybe
18 milk that has no desire to be hedged, ranges from 70% to
19 90% of the market. Obviously, this is a perishable
20 product sold often within 72 hours or less at retail of it
21 being produced on the farm. Proponents say -- may say
22 that we need to know these prices ahead of time.

23 And we have covered this, but just to go back, do
24 you believe that's the case? Do we need to know these
25 prices ahead of time?

26 A. If you'd first allow me to just slightly correct
27 your question. Those products may not be sold to final
28 consumer within 72 hours. They will be available for



1 purchase by final consumer within 72 hours. They will be
2 available in the retail store.

3 Is that what you meant?

4 Q. Yes.

5 A. Now, could you please repeat your question?

6 Q. So they are highly perishable, as you restated.

7 A. Yeah.

8 Q. But talking about those products, and proponents
9 may say, we need to know these prices ahead of time.

10 With that available delivery so quick after raw
11 milk production, do you believe that that needs to be the
12 case?

13 A. Four out of six proposals that were noticed on
14 this hearing would allow that. The only proposals that --
15 well, actually, six out of six proposals out of -- on
16 this -- on the notice for this hearing would allow that.
17 Three of the proposals noticed for the hearing do that
18 through advanced pricing; the other three proposals do
19 that through the ability to lock in the input costs
20 without basis risk, or at least without basis risk that is
21 not due to the risk premium, the third potential effect in
22 the Exhibit 290.

23 Q. Thank you.

24 As we're thinking about that, if you were a
25 cooperative, as the fluid milk processor, would you have
26 any advantages in a higher-of system with advanced pricing
27 over a proprietary plant?

28 A. Yeah. So it's -- before I answer, I just want to



1 preface that I'm not implying or alleging that this is
2 actually happening. We are just looking at the incentives
3 or what may transpire.

4 If -- in a system in which the hedging is
5 strongly -- is complicated by the pricing regulations, it
6 is easier for a cooperatively-owned Class I handler to
7 offer fixed price contracts to the buyers than it is for
8 private handlers. The reason is that the private handler
9 would have to pay to the producer and to the pool at least
10 a minimum regulated price, whereas the cooperative can
11 essentially reblend any materialized basis risk.

12 Q. Thank you.

13 I think in some of the testimony we talked about
14 true-ups. For example, you might negotiate a January
15 price in late December, and then not be paid for it until
16 March.

17 Without advanced pricing, how would you see the
18 market changing without true-ups? Would the market still
19 be able to operate in that true-up environment?

20 A. To the extent that a buyer and a seller may agree
21 to postpone the payment of the invoice for whichever
22 reason they may be, perhaps related to tax liability,
23 nothing in any of the proposals would really stop that.

24 Q. Do you believe it's bad for fluid milk processors
25 to lose pre-knowledge of their prices versus dairy farmers
26 who have none? Is there a distinct difference?

27 A. First of all, I would challenge the assumption
28 that they are losing the knowledge of their input cost.



1 They would be given the choice to know their input costs
2 before the start of the month in which the milk is
3 marketed, or after the end of the month, that the choice
4 is exercised by choosing whether to hedge or not, but if
5 they choose to hedge, they would know their costs.

6 Second, you know, as I have noticed -- as I have
7 written in my testimonies, dairy producers in general must
8 take on risk in order to operate their dairy farms. They
9 have to know their -- you know, their situation is
10 inverse. Like, in the case of Class I handler, they know
11 their revenue, and we are talking about should they know
12 their input cost and how. In the case of a dairy farmer,
13 they know their input cost, sometimes not very far in
14 advance, in the case of feed, but they wouldn't know their
15 revenue.

16 So -- so it's really not uncommon for market
17 participants to face risk. You know, it is really -- it
18 really is uncommon to be, you know, as insulated from risk
19 as Class I handlers have been over the previous two
20 decades.

21 Q. Thank you.

22 So since this proposal -- or since your
23 submission, our submission, of the regulatory language
24 this spring, would you personally consider or entertain
25 studying modifications of Proposal 16? Is there anything
26 you have considered through the course of this hearing or
27 through the summer that haven't been even reviewed by our
28 Board of Directors that may get at some of the biggest



1 criticisms you have heard here?

2 A. I just want to preface my answer. I'm not
3 answering on behalf of Edge. To your question now, I'm
4 answering on behalf of just myself. Correct?

5 Q. Wonderful.

6 A. Yes. So things that we have learned in this
7 hearing: First, we have learned that revenue -- strict
8 revenue neutrality is not a requirement requested by IDFA.
9 If that's the case, then we have more degrees of freedom
10 of how to design these programs to properly compensate
11 dairy producers for the asymmetric risk that has been
12 well-established by National Milk. One way to do that is
13 to set the floor on the mover.

14 Second, to the extent that one may not need to
15 follow the strict revenue neutrality, we can further
16 simplify the day-to-day work by Ms. Taylor and her team.
17 There is no reason to use advanced pricing in calculation
18 of moving adjuster for Class III Plus.

19 Third learning was the -- what we have heard from
20 MIG's witnesses about the rolling nature of school milk
21 contracts and other sales. From that perspective, some
22 sort of rolling adjuster might make more sense than an
23 annual adjuster, which was designed anticipating that
24 folks like to set the budgets before they initiate hedging
25 strategies for the forthcoming calendar year.

26 And then, finally, to the extent that we learned
27 that HTST -- that a lot of HTST grocery sales really don't
28 care about hedging as much as preserving their natural



1 hedge that they have currently through the advanced
2 pricing, I think it behooves all of us to look at some
3 hybrid solutions that allow the growing part of the
4 Class I sector, the ESL, the aseptic, some of the
5 innovative HTST products, institutional sales, to pursue
6 hedging strategies while letting the old traditional HTST
7 perhaps function in a way that it does today, or maybe
8 even return back to what producers have been looking for.
9 We discussed that over the last few days, and my
10 understanding is that you will actually be formalizing
11 those thoughts into an analogous proposal that we will
12 hear soon today.

13 Q. Thank you.

14 Anything I missed or comments you would like to
15 share?

16 A. Oh, plenty, but I've been here a day and a half,
17 so let's wrap it up.

18 MR. SJOSTROM: Your Honor, I would like to move
19 Exhibits 289 and 290 into the record. I believe USDA is
20 going to continue to object to 244. We have no attachment
21 to any extra paper, so --

22 THE WITNESS: Or 291, right? Like, this was --
23 this is still marked as 291, the Stephenson/Novakovic?
24 Yes.

25 THE COURT: That's Mr. English's project. I'll
26 hear from him later.

27 MR. SJOSTROM: We'll move 289 and 290, please,
28 Your Honor.



1 THE COURT: All right. Now, I have lost track.
2 Okay -- good.

3 Is there any objection to the admission into
4 evidence of Exhibit 289?

5 There is none. Exhibit 289 is admitted into
6 evidence.

7 (Exhibit Number 289 was received into
8 evidence.)

9 THE COURT: Is there any objection to the
10 admission into evidence of Exhibit 290, which includes the
11 online versions of Edge-15, Edge-15A, and Edge-15B?

12 There is no objection. Exhibit 290 and all its
13 forms, as mentioned, is admitted into evidence.

14 (Exhibit Number 290 was received into
15 evidence.)

16 MR. SJOSTROM: Thank you, Your Honor.

17 MR. ENGLISH: Your Honor, Chip English for the
18 Milk Innovation Group.

19 So I am not Edge's attorney, and so since they
20 themselves do not want to put Exhibit 244 into evidence,
21 I'm not going to speak to it, although I have strong
22 arguments under the rules.

23 As to 291, we did pre-submit it -- well, not
24 pre-submit it -- we submitted it yesterday as you
25 requested.

26 In an attempt to move the hearing along, while
27 I -- you know, I'm not going to stand on principle today.
28 The reason I'm not is because Dr. Stephenson's going to



1 come, and that should resolve the objections of OGC, I
2 hope, once he identifies them.

3 THE COURT: May I mention?

4 MR. ENGLISH: Yes.

5 THE COURT: I love the way you solve problems, and
6 I appreciate it.

7 MR. ENGLISH: So I just want for the record to
8 state that given the fact that Edge is not going to move
9 admission of 244, I had a statement on that, I won't give
10 it.

11 And given the fact that Dr. Stephenson will be
12 here at some point in the future after October 11th, while
13 I think 291 could be admitted, I'm going to stand down for
14 today and just note for the record that I think it could
15 be admitted. But I'm not going to push the point, so we
16 can move along today.

17 THE COURT: On behalf of all of us, I thank you.
18 All right.

19 I believe we can let this witness stand down, and
20 I encourage you to ask to be invited back to clarify that
21 one point when you are ready.

22 THE WITNESS: Thank you, Your Honor. I will
23 probably need a few minutes just to take all my stuff
24 here. Maybe it's a good time for a little break?

25 MS. TAYLOR: Yeah.

26 THE COURT: Oh, good. All right. Let's see.
27 This is a ten-minute break, right?

28 Please be back and ready to go at 10:55.



1 We go off record at 10:42.

2 (Whereupon, a break was taken.)

3 THE COURT: Let's go back on record.

4 We're back on record. It's 10:55.

5 I would like the witness to identify himself,
6 please.

7 DR. CRYAN: All right. Beg your pardon. Did you
8 just ask me to identify myself?

9 THE COURT: I did.

10 DR. CRYAN: In case no one knows it, I am Roger
11 Cryan with the American Farm Bureau Federation, and I have
12 been sworn. It's up to you whether you want to do it
13 again.

14 THE COURT: No, once is enough. But I want you to
15 spell your name into the record.

16 DR. CRYAN: The first name is Roger, R-O-G-E-R.
17 The last name is Cryan, C-R-Y-A-N, just like Ryan with a C
18 in front of it.

19 ROGER CRYAN,

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

22 THE COURT: And if I might inquire, what kind of
23 doctorate do you hold?

24 THE WITNESS: I hold a Ph.D. in food and resource
25 economics from the University of Florida. I have
26 been recog- -- go Gators -- I have been recognized
27 previously in this proceeding and in previous proceedings
28 as an expert on Federal Milk Marketing Orders and dairy



1 economics.

2 THE COURT: Thank you.

3 You do remain sworn, and you may proceed.

4 Oh, wait, I don't have a copy of --

5 USDA REPRESENTATIVE: I have it. I was just
6 waiting for the numbers.

7 THE COURT: Oh, all right.

8 Let's -- you have distributed your statement; is
9 that correct?

10 THE WITNESS: I have distributed a statement,
11 distributed copies to the public and -- that was here, and
12 I provided 15 copies to the -- to the -- I guess the
13 clerk, the -- officially the clerk of the hearing
14 proceeding, to Emily, otherwise known as Emily. She has
15 15 copies single-sided, as requested by USDA, of three
16 documents. The first one is marked AFBF-4.

17 THE COURT: All right. Let's deal with that one.
18 Let's call that one Exhibit 292.

19 (Exhibit Number 292 was marked for
20 identification.)

21 THE WITNESS: I have another document identified
22 as AFBF-4A.

23 THE COURT: We will call that one 293.

24 (Exhibit Number 293 was marked for
25 identification.)

26 THE WITNESS: Finally, an exhibit marked AFBF-4B.

27 THE COURT: We will call that 294.

28 (Exhibit Number 294 was marked for



1 identification.)

2 THE WITNESS: Thank you, Your Honor.

3 THE COURT: All right. And now you may proceed.

4 THE WITNESS: Thank you.

5 I thank you, Your Honor, and I thank USDA and --
6 for the opportunity to be here to testify. Everything I
7 present here has been presented -- has been prepared by
8 Danny Munch or myself as joint -- joint product from the
9 -- by the AFBF economics team. And all of it is based on
10 the policy of our members.

11 The American Farm Bureau Federation has nearly
12 6 million members in all 50 states and Puerto Rico,
13 including many thousands of cooperative and independent
14 dairy farmers. Most of these dairy farmers are directly
15 affected by the pricing provisions of the Federal Milk
16 Marketing Orders. These dairy farmers play a crucial role
17 in the development of AFBF dairy policy. Every Farm
18 Bureau position and proposal is based explicitly on that
19 policy developed through a grassroots process in which
20 farmers make the decisions every step of the way.

21 AFBF submitted nine proposals for consideration in
22 this hearing, and appreciates the opportunity to address
23 the four that were accepted by USDA, as well as the clear
24 direction on what may be needed to advance the rest.

25 The fundamental focus of AFBF's proposals is the
26 reduction or elimination of negative producer price
27 differentials and the depooling that they cause. We
28 believe that an orderly pool is the key to orderly



1 marketing and ensuring Federal Milk Marketing Orders
2 continue to benefit farmers, cooperatives, processors, and
3 consumers. The key to an orderly pool, in turn, is above
4 all, the proper alignment of the four class prices.

5 In addition to our own proposals, AFBF largely
6 supports four of the five proposals submitted by the
7 National Milk Producers Federation. These are Proposals
8 1, 3, 13, and 19.

9 And I'll move on from the procedural stuff.

10 AFBF also supports Edge Dairy Farmer Cooperative
11 Proposal 17 in principal, which basically combines NMPF's
12 Proposal 13, the switchback to the higher-of, and the AFBF
13 Proposal 18, using announced prices instead of advanced,
14 which we will be testifying on today.

15 This statement covers AFBF Proposal 18 under
16 Category 4.

17 Proposal 18: AFBF proposes to end the advanced
18 pricing of Class II skim milk and components and Class I
19 milk and components.

20 In AFBF Proposal 18, the Class II skim milk price
21 would be equal to the Class IV skim milk price plus the
22 Class II differential. The Class II nonfat solids price
23 would be equal to the Class IV nonfat solids price, plus
24 1/100th of the Class I -- II differential. The Class I
25 skim milk price would be the higher-of the Class III or
26 Class IV skim milk price plus the Class I differential.
27 And the Class I butterfat price would be equal to the
28 butterfat price plus 1/100th of the Class I differential.



1 Under classified pricing, handlers participating
2 in an order have an obligation to the pooling function of
3 Federal Orders based on how the milk is used in class
4 price. In seven of the 11 Federal Orders, dairy farmers
5 are paid based on the component content of their milk by
6 multiple component pricing.

7 In this process, the producer value of milk is
8 determined monthly based on the cheese milk (Class III)
9 component levels of fat, protein, and other solids. The
10 difference between the total pooled value of what handlers
11 pay for their allocated class price values and the
12 component value worth of producers' milk is denoted as the
13 producer price differential.

14 When the component value of milk in the pool is
15 higher than the revenue pooled from paid class prices,
16 deductions are applied to farmers' checks in the form of a
17 negative producer price differential to represent the gap
18 in pool value. Dairy farmers suffered negative PPDs
19 during 2020 and 2021, with average all-market PPDs
20 reaching below negative \$7 per hundredweight, showing up
21 as a massive reduction on milk checks.

22 According to the Journal of Dairy Science
23 peer-reviewed article titled "Negative Producer Price
24 Differentials in Federal Milk Marketing Orders:
25 Explanations, Implications, and Policy Options," the most
26 common factors that contribute to the existence of
27 negative PPDs are Class II milk value rising above the
28 butter powder, changes in utilization rates of milk due to



1 production changes in an order, the advanced prices for
2 Class II skim and Class I milk lagging behind rising
3 Class III component values, and changes in utilization due
4 to depooling by handlers deciding to not pool milk in
5 order for one or more months -- in an order, I'm sorry --
6 in an order for one or more months by which depooling
7 leads to more depooling.

8 AFBF's proposals and support for proposals from
9 other stakeholders are intended to reduce the prevalence
10 of PPDs -- of negative PPDs that should say -- by reducing
11 the frequency of the previously-listed occurrences, which
12 in many cases have been found to contribute to disorderly
13 marketing.

14 I'll make a note there that, on the record, this
15 should say negative PPDs.

16 THE COURT: When you say "make a note," you want
17 to change it at the end of your testimony on this exhibit?

18 THE WITNESS: However Your Honor believes we best
19 clean up the record is fine with me.

20 THE COURT: All right. Let's do it now.

21 THE WITNESS: Okay.

22 THE COURT: Call our attention to exactly what you
23 want to change on page 2 of Exhibit 292.

24 THE WITNESS: In the first full paragraph, in the
25 second to last line it says, "prevalence of PPDs." That
26 should say "prevalence of negative PPDs." There's always
27 a PPD, but we want fewer negative PPDs.

28 THE COURT: We'll take a moment to make that



1 change on the record copy. We're inserting one word,
2 "negative," before the "PPDs" that is found in the next to
3 the last sentence of the first full paragraph. Done.

4 Thank you.

5 THE WITNESS: Thank you, Your Honor.

6 Currently, the classified prices for each month
7 are announced at two different times. First, the advanced
8 prices are announced by the 23rd day of the preceding
9 month. For example, September's advanced prices are
10 announced on or before August 23rd. Advanced minimum
11 prices are announced for Class I, Class I skim, Class I
12 butterfat, and Class II skim.

13 By the fifth day of the following month, the
14 Class II, Class II butterfat, Class III, Class III skim,
15 Class III butterfat, Class IV, Class IV skim, and Class IV
16 butterfat prices are announced. These prices for
17 September are announced on or before October 5th.

18 This arrangement creates a long lag between when
19 the advanced prices and current prices are announced for
20 that month. That means that the advanced prices, Class II
21 skim and components, and Class I skim milk and butterfat,
22 can be based on weekly data that is 25 to 40 days older on
23 average than the basis for the current prices, the
24 Class II butterfat and all Class III and IV prices.

25 This means when market prices rally announced --
26 that is, final prices -- can be much higher than the
27 advanced prices leading to low and negative PPDs. This
28 creates an incentive to depool milk from the order, to



1 benefit the non-pooled -- to benefit from the non-pooled
2 value of the recently-elevated prices without sharing that
3 value with the pool, which further depresses the PPD and
4 undermines the FMMO principle of uniform pricing.

5 The impact of advanced pricing on orderly
6 marketing of milk is not new to the Federal Milk Marketing
7 Order discussions -- to Federal Milk Marketing
8 discussions. In fact, USDA has acknowledged the impact of
9 lagged fluid in manufacturing class pricing on orderly
10 marketing of milk.

11 I would like to present several quotes from the
12 proposed rule published in Federal Register Volume 64,
13 Number 63, released on April 2nd, 1999.

14 On page 16,102, USDA states:

15 "Since Class I handlers must compete with
16 manufacturing plants for supply of milk, the Class I price
17 must be related to the price of milk used for
18 manufacturing.

19 "It is apparent from the price patterns of a large
20 part of 1998, that the current two-month lag between
21 manufacturing and fluid pricing does not establish as
22 close a relationship between the two price levels as is
23 desirable. Indeed, from an analysis of the differences
24 between prices generated by a six-month declining average
25 and the current pricing system, it is clear that the
26 current two-month lag does not accomplish any closer
27 relationship between manufacturing and fluid prices than
28 would the six-month declining average.



1 "When manufactured dairy product prices are
2 relatively stable, the advanced pricing of Class I milk
3 works quite well. However, since 1988, the volatility in
4 the manufactured dairy product market has caused problems
5 with the advanced pricing of Class I milk.

6 "The first problem is readily evident in class
7 price relationships during the latter part of 1998. The
8 frequent occurrence of price inversions during that period
9 indicates that some alteration to both proposed and
10 current methods of computing and announcing Class I prices
11 may be necessary. Class price inversion occurs when a
12 market's regulated price for milk used in manufacturing
13 exceeds the Class I fluid milk price in a given month and
14 causes serious competitive inequities among dairy farmers
15 and regulated handlers. Advanced pricing of Class I milk
16 actually causes this situation when manufactured product
17 prices are increasing rapidly.

18 "Since the Class I price is announced in advance,
19 in a rapidly changing market, the Class I price may not
20 reflect the value needed to compete for the necessary raw
21 milk supply, or the Class I price may be overvalued
22 relative to the raw milk price. Undervaluing class milk
23 is a particular problem since it reduces producer pay
24 prices at a time when producers should be receiving a
25 positive price signal."

26 And I would --

27 THE COURT: Dr. Cryan, just read that last
28 sentence again, please.



1 THE WITNESS: "Undervaluing Class I milk is a
2 particular problem since it reduces producer pay prices at
3 a time when the producers should be receiving a positive
4 price signal."

5 That's the end of the quote from the USDA's
6 decision in order reform. And I would note here -- this
7 is not in the text -- I would note that this is a USDA
8 decision. The US- -- this is -- this was the basis for
9 USDA choosing the higher-of 20 years ago. The markets
10 have only gotten more volatile.

11 The conditions -- back to my text -- the
12 conditions USDA refers to from over 20 years ago related
13 to price inversions, rapidly changing markets, and
14 resulting competitive inequalities among dairy farmers
15 have continued. A range in a price series provides
16 insights on how volatile a price is. Larger ranges in
17 price indicate high volatility, while a smaller range
18 would indicate lower volatility.

19 As displayed in Figure 1, the range in class
20 prices within a year has exceeded \$4 per hundredweight
21 frequently since 2012. For example, the annual range in
22 Class I prices has exceeded \$4 per hundredweight in six of
23 the past 12 years. The annual range in Class II prices
24 has exceeded \$4 per hundredweight in five of the past 12
25 years. The annual range in Class III prices has exceeded
26 \$4 per hundredweight in seven of the past 12 years. And
27 the average range in Class IV prices has exceeded \$4 per
28 hundredweight in four of the past 12 years.



1 The average annual range of prices has exceeded
2 20% of the annual final class price for all classes in
3 milk, with Class III ranges exceeding 28% of the average
4 final Class III price since 2012. Dairy farmers have had
5 to deal with wide and rapid spreads in prices that have
6 contributed to income uncertainty and disruptions in their
7 ability to manage risk.

8 THE COURT: I need to stop you. I should have
9 stopped you a little sooner, but you -- you are rolling.

10 I want you to go to the middle of that paragraph
11 and begin with the sentence "the annual range in Class II
12 prices" and just read from there, more slowly, please.

13 THE WITNESS: The annual range in Class II prices
14 has exceeded \$4 per hundredweight in five of the past
15 12 years. The annual range in Class III prices has
16 exceeded \$4 per hundredweight in seven of the past
17 12 years. And the annual range in Class IV prices has
18 exceeded \$4 per hundredweight in four of the past
19 12 years. The average annual range in prices has exceeded
20 20% of the average final class price for all classes of
21 milk, with Class III ranges exceeding 20% of the average
22 final Class III price since 2012.

23 THE COURT: Now, what percent is that?

24 THE WITNESS: 28%.

25 THE COURT: Okay. Just read that part with
26 Class III ranges, pick it up from there.

27 THE WITNESS: With Class III ranges exceeding
28 28% of the average final Class III price since 2012.



1 THE COURT: Thank you.

2 THE WITNESS: You're welcome.

3 Dairy farmers have had to deal with wide and rapid
4 spreads in prices that have contributed to income
5 uncertainty and disruptions in their ability to manage
6 risk.

7 USDA continues in the same -- well, there's -- and
8 there's a graph that demonstrates the phenomena I just
9 read out in the text about the range and how the range
10 in -- in class prices has been very substantial. It's an
11 indicator of the volatility. The volatility is what has
12 made the current advanced class pricing -- Class I and
13 Class II skim pricing problematic.

14 USDA continues in the same section on the issue of
15 depooling. And remember, this is from 1999. This is from
16 USDA in 1999:

17 "Milk used in Class I in Federal Order Markets
18 must be pooled, but milk for manufacturing is pooled
19 voluntarily and will not be pooled if the returns for
20 manufacturing exceed the blend price of the marketwide
21 pool. Thus, an inequitable situation has developed where
22 milk from manufacturing is pooled only when associating it
23 with a marketwide pool increase in returns. Illustrative
24 of the worsening class price inversion problem are the
25 growing volumes of milk that, while normally associated
26 with Federal Milk Orders, are not being pooled due to
27 price inversion problems."

28 Over the past 20 years, the percentage of depooled



1 milk has increased. Based on data from USDA Exhibit 30,
2 between -- between 2007 and 2012, the average monthly
3 price -- the average monthly percent of eligible milk that
4 was depooled across all orders was 5.7%; between 2013 and
5 2018, this percentage increased to 9.5%; between 2018 and
6 2023, this figure nearly doubled to an average of 18.9% of
7 eligible milk being depooled each month. Handlers are
8 depooling milk at higher volumes more frequently.

9 And Figure 2 demonstrates that. You can see the
10 trend towards greater depooling.

11 The increase in depooling has been correlated with
12 the volatility in class prices at varying levels, with a
13 highly positive correlation between wider Class I and
14 Class III ranges and higher rates of depooling. More
15 frequent depooling has also been positively correlated
16 with lower and negative producer price differentials.
17 These interactions are displayed on Table 1 -- in Table 1.

18 Based on AMS' final class pricing data from
19 May 2012 to July 2023, the range of class prices --
20 calculated by subtracting minimum class price -- the
21 lowest class price from the highest class price -- for
22 each year was compared to the average monthly percentage
23 of milk depooled that year using Excel's correlation
24 function -- CORREL is the -- is the term, the abbreviation
25 that's used in the formula, in the Excel function, but
26 it's a correlation function -- which determines the
27 correlation coefficient between two variables.

28 The same was done comparing month-to-month



1 percentages of pooled milk with the average all-order
2 producer price differential. A positive correlation
3 between zero and 1 indicates varying strengths of positive
4 linear relationships between the two variables, while a
5 negative correlation is reflected in the value between
6 zero and negative 1.

7 For instance -- for instance, the correlation
8 coefficient of the annual range in Class I prices compared
9 to range -- to rates of average annual rates of depooling
10 is 0.62, indicating as the range of Class I prices was
11 higher, the rate of depooling was higher.

12 Similarly -- similarly, the correlation
13 coefficient of the monthly all-market combined PPD and
14 monthly percent of pooled milk was also 0.62, indicating
15 as the PPD increased, the percent of monthly pooled milk
16 also increased.

17 The inequitable situation -- and there's a table
18 there that demonstrates the substantial correlation
19 between essentially the price volatility and the depooling
20 of milk, and a relationship between the volatility of all
21 four classes and the depooling of milk, which of course
22 there's a correlation among those prices and the
23 volatility of those prices, but they are -- they all are
24 related.

25 The inequitable situation that USDA described over
26 20 years ago has become increasingly present in today's
27 dairy markets. Eligible processors pool milk when
28 marketwide pool returns are expected to be positive



1 compared to current manufacturing class prices, but are
2 likely to depool milk otherwise. This causes serious
3 competitive inequities among dairy farmers, contrary to
4 the Federal Order principle of uniform prices.

5 This Figure 3 is a -- sort of a simplified way of
6 demonstrating the relationship between large changes in
7 Class III prices and depooling by showing the average
8 percent of eligible milk depooled on a monthly basis
9 related to the positive change in Class III. Month to
10 month, as the Class III price has a big increase, there's
11 more depooling because it incentivizes depooling. On the
12 other end, when there's a large negative change, there's
13 less depooling, and when it's in between, it's in between.

14 Figure 4 -- I will go back to the text in
15 between -- but Figure 4 I would note should say -- is --
16 should -- is a similar demonstration of the relationship
17 between class price changes and -- the manufacturing class
18 price change and depooling.

19 In this case, there is a typo, there is a
20 duplicate typo on this. The -- the labels -- the labels
21 at the bottom of each column should talk about the change
22 in Class IV month to month, and those -- instead they say
23 change in Class I, they should say change in Class IV.
24 Both of those should say change in Class IV.

25 THE COURT: All right. Let me stop you,
26 Dr. Cryan. We'll make those changes now.

27 THE WITNESS: Okay.

28 There's another change. There's -- in the third



1 column it says "change" twice. The second "change" should
2 be deleted.

3 THE COURT: Okay. That last thing you just told
4 me, direct me to where I find that again on page 5 of --

5 THE WITNESS: In Figure 4.

6 THE COURT: In Exhibit 292.

7 THE WITNESS: In the third set of columns where it
8 says "Below 5% Change in Class IV Change Month to Month,"
9 it should just say, "Below 5% Change in Class IV Month to
10 Month."

11 THE COURT: So all we have to do there in Table --
12 Figure 4 is strike the word "change," the second word
13 "change"?

14 THE WITNESS: That's for that correction.

15 But the same table, the same figure, Figure 4 is
16 where "Class I" should be changed to read "Class IV" in
17 two places, under each of the first two sets of the
18 columns.

19 THE COURT: All right. So in Figure 4, and I look
20 at the words below the columns, we need to change
21 "Class I," all we have to change is the Roman numeral "I"
22 to a Roman numeral "IV"?

23 THE WITNESS: Correct.

24 THE COURT: We're doing that, showing the "Above
25 5% Positive Change," and then next to that, the two
26 columns, we're doing the same thing with the "Above 5%
27 Negative Change," all we're changing is the Roman numeral
28 "I" to the Roman numeral "IV" so that that accurately



1 reflects the title of the graph, which is talking about
2 the magnitude of change in Class IV.

3 THE WITNESS: That's correct. Thank you, Your
4 Honor.

5 THE COURT: Those changes have been made,
6 Dr. Cryan. Thank you.

7 THE WITNESS: Thank you. So I'll read the text
8 then in between the two figures.

9 Large ranges and rapid increases in class prices
10 contribute to, or at least are associated with, higher
11 rates of depooling. Figures 2 and 3 compare the average
12 percent of milk depooled across all markets within three
13 different identified timeframes. The timeframe isolates
14 months in which the Class III price for Figure 3 and the
15 Class IV price for Figure 4 rose positively more than 5%.
16 The second timeframe, or set of months, isolates months in
17 which the corresponding class price declined more than
18 5% -- declined more than 5%. The third timeframe isolates
19 months in which the corresponding class price -- the
20 change in the corresponding class price, was below 5%.

21 Both the average and --

22 THE COURT: Do we need to insert a word there?

23 THE WITNESS: That would probably be -- be
24 clarifying. The third timeframe isolates months in which
25 the change in -- change in the corresponding class price
26 was below 5%.

27 THE COURT: All right. And that is in line 5 of
28 the paragraph between the two charts.



1 THE WITNESS: That's correct.

2 THE COURT: And we're adding two words before the
3 word "corresponding."

4 THE WITNESS: Three words.

5 THE COURT: Okay. And tell me again?

6 THE WITNESS: Between "which" and "the" where
7 we're changing "the change in." So it reads, "The third
8 timeframe isolates months in which the change in the
9 corresponding class price was below 5%."

10 THE COURT: So adding the words "change in the"
11 before the word "corresponding"?

12 THE WITNESS: That works also.

13 THE COURT: All right. Thank you.

14 You may proceed, Dr. Ryan -- Cryan.

15 THE WITNESS: Thank you. I put that in your mind
16 when I said Cryan is spelled like Ryan with a C in front
17 of it. I have been addressed as Ryan by so many people, I
18 can't even count it.

19 THE COURT: You are being confused with the other
20 Ryan. People have begun to call him Dr. Ryan.

21 Anyway, go ahead.

22 THE WITNESS: Thank you.

23 Both the average and median percent of eligible
24 milk depooled are displayed for the three different
25 timeframes. For months where Class III prices increase
26 more than 5%, the amount of depooled milk from the market
27 averages 19.9%, while the percentage of milk depooled in
28 months with -- with more than a 5% decline or lower --



1 than or lower than a 5% change averaged 13% and 13.3%,
2 respectively.

3 Likewise, for months where Class IV prices
4 increased more than 5%, the average amount of depooled
5 milk from the market averaged 19.5%, while the percent of
6 milk depooled in months with more than a 5% decline or
7 lower than a 5% change averaged 13% and 13.9%,
8 respectively.

9 It is important to note that these values are
10 averages across orders. The impact of stricter pooling
11 rules in certain orders is not accounted for since
12 existing pooling rules limit the rate at which milk could
13 be repooled it is likely the full magnitude of price
14 changes on depooling is more extreme than presented.

15 As mentioned previously, when market prices rally,
16 announced or final prices can be much higher than advanced
17 prices, leading to low and negative PPDs. This creates an
18 opportunity to depool milk from the order to benefit from
19 the non-pooled value of the recently elevated prices
20 reflected in available market information, further
21 depressing the PPD.

22 Producers who incur the additional costs of
23 consistently servicing the Class I needs of the market
24 receive a lower return than they would otherwise have
25 received if they did not continue to service the Class I
26 market. Prices received by dairy farmers who supplied the
27 other milk needs of the market are not known. However, as
28 USDA affirmed, it is reasonable to conclude that prices



1 received by dairy farmers were not equitable or uniform.

2 In their in-depth discussion, USDA ultimately
3 decided to reduce the time lag between advanced and
4 announced prices by 18 days, with the intention that price
5 inversions and associated depooling behavior would be
6 avoided. USDA defended their decision with several
7 important points.

8 Firstly, the NDPSR -- which is the National Dairy
9 Product Sales Report, the survey by which dairy product
10 prices are collected and used for the purposes of Federal
11 Milk Marketing Orders prices -- the NDPSR, which includes
12 statistics and pricing information used in the first step
13 of establishing a minimum pay price, are announced
14 publicly every week. Therefore, as USDA puts it,
15 "handlers can update formulas on a weekly basis to
16 estimate what the Class I price will be before the price
17 is announced."

18 Let's read through a quick example.

19 Announced in late May, the Class I price for
20 June 20th was \$14.24 --

21 THE COURT: I'm sorry, stop. The Class I price
22 for?

23 THE WITNESS: June 2020.

24 THE COURT: Thank you.

25 THE WITNESS: Did I not say that?

26 THE COURT: You probably did, but I just want to
27 make sure.

28 THE WITNESS: Okay.



1 -- was \$14.24 per hundredweight. During June
2 there were five NDPSR releases: June 4th, June 10th,
3 June 17th, and June 23rd -- 24th, which is actually four.

4 Per these reports, the prices of the following
5 products changed by the corresponding amounts between the
6 first report and the last report:

7 40-pound cheddar blocks increased from \$1.17 to
8 \$1.37, which was a 17% increase;

9 500-pound cheddar barrels increased from \$1.13 to
10 \$1.45, a 28% increase;

11 Butter increased from \$1.13 to \$1.43, which is
12 another 28% increase;

13 Whey increased from \$0.378 per pound to \$0.384 per
14 pound, which is a small 1.7% increase;

15 And the nonfat dry milk price decreased from \$0.86
16 per pound to \$0.859 per pound, is a 0.2% decrease.

17 Announced in early July, the Class III price for
18 June 2020 was \$21.04. There were five releases of the
19 NDPSR in July: July 1st, July 8th, July 15th, July 22nd,
20 and July 29th.

21 Per these reports, the prices of the following
22 products changed by the corresponding amounts between the
23 first report and the last report:

24 The 40-pound cheddar blocks increased from \$1.61
25 to \$2.53. That's a 57% increase --

26 (Court Reporter clarification.)

27 THE WITNESS: Certainly.

28 500-pound cheddar barrels increased from \$1.74 per



1 pound to \$2.50 per pound, which is a 44% increase;

2 Butter increased from \$1.56 per pound to \$1.82 per
3 pound, a 17% increase;

4 Whey decreased from \$0.382 per pound to \$0.365 per
5 pound, a 4.4% decrease;

6 Nonfat dry milk increased from \$0.846 per pound to
7 \$0.959 per pound, which is a 13% increase.

8 The Class IV price formula does not include the
9 commodity values of cheese in its calculation, instead
10 relying on nonfat dry milk prices and butter prices in its
11 formula. Given the above per pound values, the spread
12 between the Class III and IV price could be inferred
13 before the announcement of monthly prices pooled
14 manufacturers would have to pay are reported. This
15 differs from the advanced price announced for Class I and
16 II, which are based on different previous values.

17 This available information means that processors
18 have enough information and enough time to depool milk
19 when prices change -- when prices -- price changes are
20 clear and rapid. The presence and frequency of published
21 commodity pricing data allow handlers to estimate price
22 changes regardless of when a price is announced.
23 Additionally, as more products are offered on the Chicago
24 Mercantile Exchange, handlers will continue to have access
25 to the information needed to hedge and manage risk.

26 USDA agreed on this matter in their 1999
27 decisions, stating:

28 "Also, as more NASS product price survey



1 observations become available, basis differences from
2 earlier traded/issued product price surveys such as those
3 from the Chicago Mercantile Exchange or Dairy Market News
4 will be more predictable and, therefore, should provide
5 for more accurate predictions of future price levels. In
6 addition, futures markets have been established for the
7 four dairy products in the NASS price surveys. While
8 trading to date in these contracts has not been large,
9 interest in these markets may increase as the industry
10 learns to use them as effective hedges to the component
11 values to determined under this Final Decision. These
12 markets also will assist handlers in estimating the
13 Class I price."

14 Additionally, AFBF is supportive of and engaged in
15 the development of a Class I futures and options complex
16 that's at the CME Group to further assist fluid handlers
17 in managing risk.

18 In conclusion, AFBF believes that disorderly
19 marketing conditions are present when producers do not
20 receive uniform prices because of frequent depooling.
21 AFBF also believes the current system of advanced pricing
22 contributes to the frequency and magnitude of depooling.
23 Given the growing number of resources for data and market
24 information, AFBF proposes a structure of announcing class
25 prices -- all class prices at the same time.

26 And below is the language that would implement
27 that. It is simple as I stated in the first paragraph.

28 That is our original proposal testimony submitted



1 according to the September 8th deadline. I would -- you
2 know, in the interest of moving things along, I would
3 offer our rebuttal testimony which includes a few
4 additional notes, and then -- and then move on to some
5 analysis I did for this.

6 So reading from Exhibit 293, the first -- the
7 first section is essentially -- repeats what I said at the
8 beginning of the previous statement. And this -- again,
9 this context, I'll briefly summarize AFBF's Proposal 18,
10 including some comments based on the hearing record to
11 date, in addition to offering our response to proposals --
12 to the other proposals, 13 through 17.

13 Regarding Proposal 18: AFBF proposes to end the
14 advanced pricing of Class I skim milk and components --

15 (Court Reporter clarification.)

16 THE WITNESS: Sorry. I'll slow down.

17 AFBF proposes to end the advanced pricing of
18 Class II skim milk and components and Class II milk and
19 components.

20 THE COURT: Read the heading again, please.

21 THE WITNESS: Proposal 18: AFBF proposes to end
22 the advanced pricing of Class II skim milk and components
23 and Class I milk and components.

24 THE COURT: Thank you.

25 THE WITNESS: You're very welcome.

26 In AFBF Proposal 18, the Class II skim milk price
27 would be equal to the Class IV skim milk price plus the
28 Class II differential. The Class II nonfat solids price



1 would be equal to the Class IV nonfat solids price, plus
2 1/100th of the Class II differential. The Class I skim
3 milk price would be the higher-of the Class III or
4 Class IV skim milk price, plus the Class I differential.
5 And the Class I butterfat price would be equal to the
6 butterfat price plus 1/100th of the Class I differential.

7 Advanced pricing and the average-of Class I price
8 formula are two of the largest contributors to class price
9 misalignments in Federal Order markets leading to negative
10 producer price differentials (PPDs) and milk being
11 depooled when a manufacturer faces Class III or IV prices
12 that are higher than the market's uniform price.

13 The lag between the announcement of Class I skim
14 milk and butterfat prices and Class II skim milk prices
15 for a month being announced just after the middle of the
16 previous month, and the announcement of the other class
17 prices for a month -- for the same month at the beginning
18 of the following month, can create wild divergence between
19 advanced and announced prices in today's volatile dairy
20 markets, as rapid upper swings of Class III or IV prices
21 can put them far above the Class I price.

22 Numerous witnesses have acknowledged that
23 eliminating advanced pricing would help realign class
24 prices and have opposed it just because the industry is
25 accustomed to the practice.

26 Class II advanced pricing serves no purpose today.
27 Eliminating advanced pricing of Class II skim milk would
28 create a perfect hedge with zero basis risk for Class II



1 buyers and sellers using Class IV and butterfat contracts.
2 Class II milk buyers are "used" to advanced pricing, as we
3 have heard many times during this proceeding, but many are
4 as capable of handling end-of-the-month pricing as
5 Class III handlers, as they have been, regarding butterfat
6 pricing for the last 23 years.

7 This proposal is, fundamentally, a simplification
8 of the system to better preserve the system. Bringing
9 Class I and II prices into temporal alignment with
10 Class III and IV prices will go hand in hand with the
11 return to the higher-of formula to eliminate most class
12 price misalignments.

13 Testimony by multiple witnesses, including from
14 the CME Group, suggests that the exchange would be likely
15 to institute Class I futures and options once a need and
16 likely volume is made clear, as the adoption of the
17 higher-of proposal alone would do.

18 This is one more reason that this is an
19 appropriate time to eliminate advanced pricing in
20 connection with other changes to Class I pricing. AFBF is
21 supportive of and engaged in the development of Class I
22 futures and options -- of a Class I futures and options
23 complex at the CME Group to further assist fluid handlers
24 in managing risk. This would be the most convenient
25 outcome for dairy market participants. However, other
26 exchanges could offer these contracts, as CME does not
27 have a monopoly on agricultural derivatives clearing.

28 I would note in connection with the elimination of



1 advanced pricing that the introduction of class -- of a
2 Class III/IV spread options contracts in combination with
3 Class III or Class IV futures would also provide a means
4 for hedging Class I milk. That's a technical note that is
5 of -- of probably, you know, significant but minor
6 interest for this proceeding.

7 AFBF believes that disorderly marketing conditions
8 are present when producers do not receive uniform prices
9 because of frequent depooling. The current system of
10 advanced pricing continues to the frequent -- contributes
11 to the frequency and magnitude of depooling. Given the
12 information and risk management resources available today,
13 AFBF supports announcing prices for all four classes of
14 milk at the end of the month for which they apply.

15 The American Farm Bureau Federation response to
16 Proposals 13 through 17.

17 Regarding Proposal 13: AFBF supports NMPF's
18 proposal to return Class I base pricing to the higher-of
19 the Class III and Class IV pricing formulas.

20 As NMPF has outlined, the Class I mover based on
21 the average-of Class III or IV has had terrible impacts on
22 dairy farmers and dairy markets when the Class I -- I'm
23 sorry -- when the Class III and Class IV prices have
24 substantially diverged, leading to inverted Class I,
25 Class III price relationships and resulting in large
26 negative producer price differentials (PPDs) and heavy
27 depooling.

28 We believe that changes in the market could lead



1 to similar price misalignments between Class I and
2 Class IV in the near future, as cheese capacity grows and
3 cheese prices fall. For these reasons, we believe that a
4 return to the higher-of formula will be important to
5 maintaining reasonable price alignments and avoiding the
6 chaos of negative draws for Class III and Class IV milk
7 and subsequent depooling the future.

8 However reasonable it seemed at the time, the
9 mandate to change Class I pricing from the higher-of
10 Class III and Class IV formulas pricing formulas has
11 turned out to be:

12 1) bad for producer revenue, generating Class I
13 prices that were substantially lower than they would have
14 been without the change; and

15 2) bad for the stability of Federal Order pooling,
16 increasing the incidence of Class III and IV prices
17 getting out of line with the Class I and uniform prices
18 and leading to unpredictable relationships among class and
19 uniform prices, depooling, and an undermining of the
20 principle of uniform pricing.

21 We believe the Class I futures and options
22 contracts will be instituted by CME Group or another
23 exchange, if necessary, providing the hedging
24 opportunities which processor representatives have
25 insisted make the continuation of the average-of formula
26 necessary.

27 We also believe that NMPF has demonstrated the
28 degree to which the average-of formula has put the greater



1 downside risk on the farmer side of price pooling, and
2 another critical reason to return -- another critical
3 reason to return to the higher-of.

4 THE COURT: Dr. Cryan, please re-read that last
5 paragraph.

6 THE WITNESS: We also believe that NMPF has
7 demonstrated the degree to which the average-of formula
8 has put the greater downside price risk on the farmer side
9 of milk pricing, another critical reason to return to the
10 higher-of.

11 THE COURT: Thank you.

12 THE WITNESS: You're very welcome.

13 Regarding Proposals 14 and 15: AFBF opposes IDFA
14 and MIG's proposals to retain average-of class price --
15 Class I pricing with a complicated formula to adjust for
16 losses relative to the higher-of.

17 Both of these proposals are unnecessary -- both of
18 these proposals are unnecessarily complicated and do
19 nothing to address the issue of class price misalignment,
20 which is so important to solve. They are so complicated
21 that they almost seem designed to put the Federal Order
22 system itself into an absurd light.

23 The focus of testimony by the proprietary
24 processor groups was on the importance of hedging for
25 which they justified these Rube Goldberg proposals.
26 Again, we believe that Class I futures and options (or,
27 again, a Class III/IV spread option) would be available in
28 reasonably short order, especially if the industry united



1 in urging CME Group to offer such proposals.

2 THE COURT: To offer such?

3 THE WITNESS: Products. I apologize. To offer
4 such products.

5 Proposal -- regarding Proposal 16: AFBF opposes
6 the Edge proposal to use the Class III price plus an
7 adjuster as the Class I price mover.

8 This is another proposal designed to maintain the
9 opportunity to hedge Class I using existing contracts. It
10 is well-intended and seemed to make sense a few years ago
11 when Class III promised to be the higher milk price for
12 the indefinite future, as it has been for many years, and
13 as the four-class system anticipated it to be.

14 However, the supposedly inadequate current cheese
15 Make Allowances have not apparently discouraged cheese
16 plant construction, as has been clear from prior
17 testimony. As a result, there appears to be sufficient
18 American cheese, which has limited export opportunities --
19 that is to say the cheese has limited export opp- -- there
20 are limited export opportunities for cheese on the market
21 so that Class IV, which has an easier export outlet for
22 its products, may tend to be the higher price for quite
23 some time.

24 In that case, a Class I price tied to the
25 Class III price could operate like a lower-of formula.

26 The adjuster, which would provide future
27 compensation to the pool for current losses relative to
28 the higher-of formula, is another Rube Goldberg design



1 that delays payment to farmers and does not contribute to
2 proper alignment of class prices.

3 We believe, as Dr. Bozic himself has testified,
4 that the class -- that the CME Group will introduce
5 Class I futures and options if advanced pricing has ended,
6 and we believe they will also be responsive to the
7 industry's desire to hedge Class I.

8 Regarding Proposal 17: AFBF supports the Edge
9 proposal to both return the Class I mover to the use of
10 the higher-of in the Class III and IV price formulas and
11 to eliminate advanced pricing.

12 AFBF fully supports Proposal 17, which is
13 effectively identical to AFBF's Proposal 18, in
14 combination with NMPF's Proposal 13, which AFBF also
15 supports, excepting that the -- I don't believe they make
16 any note of eliminating advanced pricing for Class II.

17 Okay. That's -- that's my -- that concludes
18 Exhibit 293. And I would now go into -- whoops, go to the
19 slides.

20 Thank you very much.

21 I had hoped through the entire proceeding that
22 someone would do an analysis along these lines, that --
23 that has been suggested by few people they would, and --
24 and there has not been any sort of analysis of the -- of
25 the elimination of advanced pricing of the sort of simple
26 historical comparison that I had in mind.

27 I appreciate that Dr. Bozic's paper with Dr. Wolf
28 indicates -- does indicate the problems with advanced



1 pricing to some degree, but I thought another approach
2 would perhaps simplify the demonstration of that.

3 So -- so I'll start with -- with some graphs,
4 which are essentially graphs that Danny Munch created. I
5 have perhaps simplified these or laid these out a little
6 differently than he has.

7 But this -- in each case, each of these will show
8 the four class prices under different scenarios. In this
9 case, I have added -- in all of these cases, as
10 Dr. Brown -- as Mr. Brown did in his analysis, I have
11 added \$1.60, which is the minimum Class I differential to
12 the Class I mover in order to provide a more accurate
13 context for this.

14 And so in this case --

15 THE COURT: Dr. Cryan, would you spell Danny
16 Munch?

17 THE WITNESS: Danny Munch is D-A-N-N-Y, and Munch
18 is M-U-N-C-H.

19 THE COURT: Thank you.

20 THE WITNESS: Mr. Munch appeared to present our
21 testimony on a previous proposal, so he's -- he's on
22 the -- he's been here. But I appreciate the benefit to
23 the audience of getting the clarity again.

24 So the first graph, Table 1, which is really
25 Figure 1, says -- shows the current price formulas. And
26 you can see the extent to which the Class I price is not
27 consistently the highest price as was intended by the
28 orders in their original design. And to the extent to



1 which volatility in the Class III price, in particular in
2 2020, created difficulties, and you can also see the
3 extent to which, at times, Class II has become the higher
4 price, and there's been even higher than the Class I with
5 the \$1.60 minimum differential. So these price
6 misalignments, I think it -- it -- looking at those, it
7 may -- it ought to be clear from the discussions from
8 previous witnesses that these price misalignments tend to
9 create chaotic situations.

10 This is Proposal 13, the return to the higher-of
11 presented by National Milk. This demonstrates the extent
12 to which the Class I price tends to be higher than -- than
13 the other classes, but it also demonstrates the
14 misalignment associated with the advanced pricing.

15 You can see the times, especially in 2020, which
16 is a very clear, in-your-face example of how these things
17 line up. You can see the ups and down of the Class III
18 price were trailed by the ups and downs of the Class I
19 price, so that there were months where the Class III price
20 was substantially above even -- even the Class I mover
21 with the \$1.60 minimum Class I differential.

22 The Table 13 is the --

23 THE COURT: Wait. Table 3?

24 THE WITNESS: I'm sorry, Table 3 represents
25 Proposal 17, which is --

26 THE COURT: Wait. I'm sorry. I -- I maybe didn't
27 catch up with you. Okay.

28 So what we have done --



1 THE WITNESS: No, you were right. You were right.
2 I said Table 13 because I was already -- I was still
3 looking at the thing that said Proposal 13. You are
4 correct. Table 3.

5 We have gone over Table 2, and Table 3 now is --
6 reflects Proposal 17, the Edge proposal, which is very
7 similar to Farm Bureau's proposals, to eliminate the
8 higher-of and to eliminate -- or to return to the
9 higher-of -- I apologize -- to return to the higher-of and
10 to eliminate advanced pricing. And you can see how the
11 elimination of advanced pricing ensures that the Class I
12 price does stay above the Class III and IV prices.

13 And, again, it is my understanding that the Edge
14 proposal did not address advanced pricing of Class II, so
15 I have left the advanced pricing of Class II in this
16 graph. And you can see the Class II is the highest price
17 under the scenario in -- in the summer of 2022, as it was
18 in the current regime.

19 Table 4 combines AFBF Proposal 18 and 21, just for
20 clarification. That table -- Proposal 21, which we will
21 present when we get to Category 5, is to -- is for the
22 Class II differential to be \$1.56 rather than \$0.70.
23 Lowering that green line by the difference would -- would
24 represent the same thing, with simply eliminating advanced
25 pricing of Class II.

26 This incorporates the return to the higher-of, the
27 elimination of advanced pricing, eliminating the advanced
28 pricing of Class II, and a Class II differential of \$1.56.



1 It does not account for changes in composition, which we
2 support. It does not account for a number of other things
3 that would have an impact on this. But it does address
4 some of the changes, most relevant, I think, to
5 Category 4.

6 And you can see that there is a more -- much more
7 consistent alignment. You can see that the Class IV is
8 al- -- Class I price is always the highest price at the
9 minimum Class I differential, which is slightly above the
10 \$1.56 that we are proposing for the Class II differential.

11 And then lastly, I will offer -- I went -- I did a
12 very basic analysis of the pools under three scenarios,
13 one using a status quo, and this uses data from USDA from
14 April 2012, which is when the NDPSR began to be used in
15 class pricing, through April 2023, because that was the
16 spreadsheet I had.

17 And I looked at the four class prices under each
18 of these scenarios. I used the utilization rates, the
19 class utilization rates for the -- for the ten orders --
20 the nine orders that existed in June 2018. June 2018 was
21 a month with -- it's the second lowest depooling. Since
22 that time, the lowest was the following month, July, but
23 I -- I -- my sense is that USDA tends to think of -- I'm
24 sorry -- USDA tends -- I didn't show you that one either,
25 but y'all had enough paper in front of you, so -- USDA
26 tends to think of spring months as more representative
27 than summer months, so I used June instead of July.

28 I used those -- those class utilization percents



1 for all nine markets that existed at that point, or ten --
2 ten markets that existed at that point, and applied those
3 utilization rates to the class prices. I looked at the
4 gap between that estimate and the actual uniform prices in
5 June 2018, and applied that difference to all months, and
6 found that it was a relatively good match. As I
7 spot-checked it through some months, it was a relatively
8 good match, but I recognize it was somewhat crude.

9 I would -- the results I found, though, was that
10 the status quo -- under the status quo, the Class III
11 price rose above the crudely estimated uniform price 104
12 times out of the 1320 order months that I had. 1320 is
13 the number of orders times the number of months I looked
14 at. And out of 1320 order months, there were 104 times,
15 or 7.9% percent of the time, the Class III price rose
16 above the uniform price. 4% of the time, 53 times, which
17 was 4% of the time, the Class IV price rose above the
18 uniform price.

19 And this, again, is a uniform price -- a sort of
20 hypothetical uniform price, with full pooling, without
21 depooling. That's the -- the idea is once you go
22 negative, then -- then things tail off, but it is a kind
23 of a benchmark. A full pooling uniform price is sort of a
24 benchmark of what -- what -- you know, what the price
25 relationship is. We have had a lot of depooling because
26 of these relationships. And going back and using the
27 utilization rates from those months that are depooled,
28 where the things are depooled, it makes it complicated.



1 The uniform prices are also further changed. So this is
2 an assessment of -- of what a normal pool compared to the
3 Class III and Class IV prices would look like.

4 Under Proposal 13, which is strictly the return to
5 the higher-of, the number of times that the Class III
6 price is higher than the uniform price is reduced to 88,
7 or 6.7%, and the number of times the Class IV price is
8 higher than the uniform price is reduced to 46, or 3.5%.

9 And under Proposal 18, it is reduced to 61 times,
10 or 4.6%, for the Class III price being above the uniform
11 price, and 38 times or 2.9% for the Class IV price to be
12 above the uniform price.

13 And for the purpose of this, I would ask that
14 notice be taken of -- of -- in addition to USDA exhibits,
15 which this data is -- all came from USDA, the June 2018
16 information that I -- that I tied this to was based on the
17 market -- Dairy Market News from July 20th to 27th, 2018,
18 and I ask that notice be taken of that USDA publication.

19 THE COURT: Now, you said July 20. Your
20 explanation says July 23?

21 THE WITNESS: July --

22 THE COURT: For Dairy Market News?

23 THE WITNESS: July -- July 23rd through 27th,
24 2018.

25 THE COURT: Thank you.

26 THE WITNESS: Certainly.

27 There is a -- that's -- I don't have a page
28 number. I think it's page 12. There's a table that



1 showed both the uniform prices in each market for June, as
2 well as the utilization percentages -- estimated
3 utilization percentages -- the final utilization
4 percentages for each market.

5 I would also point out -- make a note -- I would
6 like to point out that USDA, in their analysis of the
7 California Federal Order, did some modeling of depooling,
8 which I thought was very useful, and it turned out to be
9 very predictive of manufacturers depooling once the
10 California order was implemented, and I would encourage
11 the department to take a look at that.

12 It just went -- tell me now at zero. I'm doing
13 rebuttal. I'm slowing down at request. I'm done.

14 THE COURT: Well done, sir.

15 THE WITNESS: Thank you. I mean, I -- if I
16 understand correctly, I could have done rebuttal later and
17 started all over again.

18 THE COURT: I know, and had an hour for it.

19 THE WITNESS: I was trying to -- trying to put
20 things all together.

21 THE COURT: Do we need a break before we begin
22 cross-examination?

23 MS. TAYLOR: We need lunch.

24 THE COURT: Oh, really? Oh, you know, when you
25 come late --

26 MR. HILL: You are telling on yourself. Don't do
27 that.

28 THE COURT: All right. Please be back and ready



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

to go at 1:05 p.m. We go off record at 12:01.

(Whereupon, the lunch recess was taken.)

---o0o---



1 TUESDAY, OCTOBER 3, 2023 - - AFTERNOON SESSION

2 THE COURT: Let's go back on record.

3 We're back on record at 1:06 p.m.

4 DR. CRYAN: Your Honor, I would like to thank the
5 gentleman helping us with audio/visual stuff, Sean. He's
6 been doing a really wonderful job. He is -- (applause).

7 Yeah. Thank you.

8 As well as -- I would like to add my voice to the
9 chorus praising our court reporter as well. So, thank
10 you.

11 THE COURT: She is amazing, and you almost stopped
12 amusing her.

13 DR. CRYAN: I'm trying.

14 THE COURT: It's so hard to slow down. These
15 things are so familiar to you.

16 DR. CRYAN: And when the clock's running,
17 Mr. Wilson's ready to jump on you as soon as --

18 DR. BOZIC: Marin Bozic for --

19 DR. CRYAN: I offer myself for cross-examination.

20 CROSS-EXAMINATION

21 BY DR. BOZIC:

22 Q. Marin Bozic for Edge Dairy Farmer Cooperative.

23 Dr. Cryan, are you a Farm Bureau member?

24 A. I am.

25 Are you?

26 Q. If you can help me figure out how to become one, I
27 would love to.

28 A. Just call the Minnesota Farm Bureau, send them a



1 check.

2 Q. Okay. I thought I had to own land or something.

3 A. That'll work, too.

4 Q. Thank you for your presentation this morning. I
5 don't have a lot of questions, but one issue that keeps
6 coming up with the removal of advanced pricing is that
7 handlers will not know what price to quote to their
8 buyers.

9 In your opinion, how should that problem be
10 resolved?

11 A. It's -- I would not presume to tell folks how to
12 do that, but there are a wide range of ways that things
13 are priced in the market for things that don't have
14 official government prices added to them. And with
15 opportunities to hedge, they can -- they can -- they could
16 potentially become a practice.

17 And I don't -- I don't represent any handlers, so
18 I can say things like this, they could all kind of
19 coalesce around issuing prices based on the futures as of
20 the 23rd of the previous month.

21 Q. And you said that there are other examples from
22 other commodities that don't have government prices.

23 Do you find any of those examples particularly
24 useful that -- you know, anything that you would like to
25 add to the record that -- as a useful analogy or --

26 A. Could you repeat the question?

27 Q. As I understood you, you mentioned that in some
28 other commodities where advanced prices are not published



1 by the government, there were other arrangements made in
2 order to provide for appropriate timing of prices to the
3 buyers. So I was wondering if you have any examples that
4 you would like to add to the record.

5 A. I -- I don't really have firsthand knowledge of a
6 lot of that. I know a lot of large -- I believe a lot of
7 large retailers get companies to lock in prices for months
8 at a time. I -- it's my general understanding. But I
9 don't have any specific knowledge, so I won't go into
10 detail.

11 Q. And following up with the example, illustration
12 you did provide where the futures prices on the 23rd of
13 the prior month is used. I note that we are a little bit
14 belaboring the point here, but maybe in a minute or two,
15 could you describe how that solves the problem for both
16 the buyer and the handler and pool integrity?

17 Pool integrity from the perspective that they will
18 get the full payment that is due; buyer from the
19 perspective of knowing the price before the start of the
20 month; and the Class I handler from the perspective of
21 having their margins presumably stable as they have today.

22 A. Well, if they have the opportunity to go to the --
23 to an exchange and hedge on the -- with a Class I
24 contract, then they could -- they can lock that it in.

25 I mean, you -- you went through -- somebody --
26 some witness went through great detail on how a hedge
27 works. I mean, they can hedge -- they can offer their
28 customer a fixed price, and -- and the pool can be kept



1 whole. I mean, that's all been gone over by other
2 witnesses. I think it's relatively straightforward.

3 Q. Thank you for your answer.

4 In the Exhibit 294, which is your PowerPoint, on
5 the last page -- and I don't see that there is a number on
6 this page -- on the last page of that exhibit with the
7 title "Manufacturing - Uniform Price Misalignments," you
8 compare the status quo, Proposal 13, and Proposal 18.

9 Is there a reason why you did not also tabulate
10 the percentages for Proposals 14 through 17?

11 A. I think Mr. Brown did a lot of the calculations on
12 those. It's not exactly the same thing but -- and they're
13 a little more complicated to manage. I was really hoping
14 he would have done an analysis like he did for the other
15 scenarios on Proposal 18, 17/18, and he did not.

16 So I felt like I had to do something to compare
17 this at least to the -- the status quo and the -- and the
18 simple higher-of with advanced pricing.

19 Q. And to make sure that I understand, you are not
20 providing for the record any evidence that Proposal 16,
21 which is the Class III Plus, has higher percentages of
22 misalignment in either of these two columns than
23 Proposal 18; is that correct?

24 A. I did not look at it, so I'm not making an
25 assertion about it one way or the other.

26 Q. Okay. Thank you very much. That's all I have.

27 A. Although, I would say, as I said in the testimony,
28 that there's -- if -- if the markets are moving the way



1 they seem to be, which is for Class IV to be a dominant
2 class, you know, we have got so much cheese production
3 capacity now that the Class III price may be the lower
4 price for quite some time. And if that's the case, then
5 the Class III, by extension of the class -- looking
6 forward rather than backwards, the Class III Plus could
7 end up being problematic and depending very heavily on
8 your adjuster calculation.

9 Q. Okay. Thank you for that clarification.

10 Also, you have not provided the Excel spreadsheet
11 that accompanies the Exhibit 294; is that correct?

12 A. It doesn't accompany it, but as a courtesy, at
13 your request, I can send it out to everybody and we can --
14 I'm not offering it as an exhibit, but if somebody else
15 wants to, they can.

16 Q. I don't believe anybody else has the privilege to
17 offer that as an exhibit because you created it.

18 DR. BOZIC: Is that correct, Your Honor?

19 THE COURT: I don't know. Now, this Excel
20 spreadsheet --

21 THE WITNESS: It's not a spreadsheet, it's a
22 workbook. But it's four spreadsheets, and it -- it
23 basically is a calculation of how I got to this page. And
24 it also is the -- it's the -- the -- it doesn't have each
25 of these graphs in it -- oh, it does have each of these
26 graphs in it. So there's a sheet with each of these
27 graphs.

28 So it's just a verification of how the numbers



1 were put together without really asserting anything new.

2 THE COURT: So that is in addition to the
3 electronic version of 294 that you have also submitted?

4 THE WITNESS: Right.

5 THE COURT: I would have to agree that no one else
6 really has the foundation to offer that into evidence,
7 because you didn't do the work. Unless you want to take
8 that spreadsheet and prove it to yourself and then say
9 it's valid.

10 BY DR. BOZIC:

11 Q. Dr. Cryan, would you please consider submitting
12 the Excel spreadsheet for the evidence so that we can
13 cross-examine based on that?

14 A. I don't want to spend three hours going through
15 spreadsheet cell by cell, so, no, I won't.

16 I provided it so anybody can check it, verify it.
17 If there's a problem with it, they can bring it up.

18 Q. Dr. Cryan, do you understand that we cannot
19 provide any claims for the record on any errors we may
20 find unless you submit that spreadsheet for the record?

21 A. As the judge said, you can. If you find some
22 issue, if there's something you want to bring up, you
23 can --

24 Q. In order for me to do that, Dr. Cryan, I have to
25 vouch for your work.

26 A. I -- I'm not going to sit here with a spreadsheet
27 in front of me and spend hours going through cell by cell
28 what it all means. I have provided it as a courtesy so



1 anybody that wants to check that it -- that what I -- what
2 I said I did here is what I did, can check it. But it's
3 not -- it's not worth the time. It's a very simple,
4 relatively crude analysis, and all -- I only provided it
5 to help folks be assured that there's no -- no tricks,
6 that it's just what it is. It is what it is.

7 Q. Dr. Cryan, the part that I don't understand here,
8 is that your list that you are using actual June 2018
9 uniform prices is just one month, and then you list these
10 various percentages, and you are calling it simulated
11 uniform prices.

12 So what is simulated if you are using actual
13 June 2018 uniform prices? The questions can multiply on
14 and on. They can be very quickly resolved if we had the
15 ability to offer questions on that spreadsheet in the --
16 on the record.

17 I'm not sure -- I can -- I can commit that I will
18 not ask you to go cell by cell and spend hours on the
19 stand. I would think we broke enough records on that
20 earlier this week.

21 A. Yeah. I decline to offer it as an exhibit.

22 Q. Can you please explain how can you have the actual
23 2018 uniform prices and still calculate some percentages
24 on this page?

25 THE COURT: Which page?

26 DR. BOZIC: The pages are not numbered.

27 MR. HILL: Title?

28 THE COURT: The last page of 294?



1 DR. BOZIC: That's correct.

2 THE WITNESS: Sure. I'm happy to explain again
3 what I did.

4 What I -- what I -- I had was -- and Danny did a
5 bunch of this work to basically establish calculations of
6 what the Class I movers would be under the various
7 scenarios. We also offered a -- we calculated, without
8 much difficulty, what the Class II price would be under
9 our Proposal 21. We lined those all up.

10 Looked at the -- as I said in the earlier
11 testimony, I looked at the months -- the depooling by
12 month over the last five or six years, and had to kind of
13 go back to June and July of 2018 to find kind of the first
14 time going back that -- the most recent months going back
15 that the pooling was relatively small. And, again,
16 choosing June instead of July, because, you know, May,
17 June are typically seen as more representative than July.

18 I took -- I looked at the actual utilization
19 percentages in the, I think, ten existing markets at the
20 time, so California was not in there.

21 And I -- and I used those utilization percentages,
22 and the class prices under each of three scenarios to
23 roughly calculate a blend price, and I compared that blend
24 price -- the price that was generated in June of 2018 to
25 the actual uniform price, in June of 2018, I used the
26 difference as an -- as an additional factor, as an add-on,
27 as a truing up factor in the entire spreadsheet.

28 It's crude, but it's a way to kind of line things



1 up together. And if it's crude, it's crude. I just
2 thought it was important that something be -- some
3 analysis be offered to at least introduce the concept of
4 looking at how these -- how these different scenarios
5 affect the number of months that are depooling.

6 And, again, I would have been very happy if
7 Mr. Brown had included Proposal 17 or 18 in his analysis.
8 He did not, so I felt I had to do something along those
9 lines.

10 BY DR. BOZIC:

11 Q. I must admit, I still don't understand the last
12 page of this exhibit. I'm going to try again.

13 When you say that Class III is higher than
14 uniform, does that refer to the simulated uniform price?

15 A. Yes.

16 Q. Okay. So that table -- or the middle part of the
17 page that resembles a table, none of those numbers there
18 in any way use the actual June 2018 uniform prices?

19 A. Except in the way that I described, that's right.

20 Q. The way you described I didn't previously
21 understand. That's why I was asking for clarifications.

22 A. I used the difference between the blended
23 calculation and the -- and the actual uniform prices for
24 each market as a way to true up the simulated results to
25 better resemble actual results.

26 It's not -- it's not sophisticated, and you can --
27 anybody can say whatever they want about it. But I wanted
28 to put something on the record that reflected the -- the



1 difference, you know, in negative -- in the changes -- in
2 the price relationships that incentivize depooling, both
3 by Class III and Class IV handlers.

4 And these -- again, these simulated uniform prices
5 are designed to represent what a uniform price would look
6 like with full pooling, without -- you know, without --
7 with minimal depooling so that you can say this is -- this
8 is essentially what the handlers are considering when they
9 are deciding to depool.

10 Now, there's been so much depooling in the last
11 five years that it's hard to say what normal is, but that
12 was an effort to define a fully-pooled normal. And if the
13 prices are better aligned, then potentially we will get
14 back to that, we'll have more pooling, we'll have more
15 milk in the pool, and more consistent relationships.

16 Q. Thank you, Dr. Cryan. There's only so much that
17 we can do with this last page without seeing the
18 spreadsheet.

19 DR. BOZIC: So I have no further questions.

20 THE COURT: Thank you, Dr. Bozic.

21 Next? Who has questions for Dr. Cryan?

22 CROSS-EXAMINATION

23 BY MR. ENGLISH:

24 Q. Chip English with the Milk Innovation Group. So I
25 really don't want to dwell on it much longer, since my
26 head already hurts.

27 But Exhibit 294, the last page, when you say based
28 on utilization rates and 2018 actual uniform prices, first



1 I think I heard you say that you excluded California; is
2 that correct?

3 A. I -- I didn't exclude California. California did
4 not have an order --

5 Q. Right.

6 A. -- in June of 2018, so --

7 Q. I --

8 (Court Reporter clarification.)

9 THE COURT: Mr. English, ask your question again.

10 BY MR. ENGLISH:

11 Q. So the question was, as I understand it, because
12 you used June 2018, which was several months before the
13 California Federal Order came into effect, California is
14 not included in this analysis; is that correct?

15 A. That's correct.

16 Q. Okay. So what kind of -- how did you average
17 utilization rates across the orders that existed at that
18 time?

19 A. I applied the utilization rate to each of the --
20 each of the orders that was there. I calculated a -- a
21 simulated -- essentially a crudely simulated uniform price
22 based on full pooling, what I assumed to be approximating
23 full pooling as represented by the utilization rates in
24 June of 2018. Because depooling was very limited in June
25 of 2018, I -- I used the utilization rates, the four class
26 utilization rates, to -- to essentially calculate a
27 crudely estimated uniform price for each -- each of the
28 ten markets before California. And then I -- and then I



1 compared those prices to the Class III and Class IV prices
2 on a month-by-month basis and counted the number of times
3 that the -- that the Class III or Class IV prices were
4 higher than the fully-pooled uniform price.

5 So it does not -- it is not comparable to the
6 actual results of depooling.

7 Q. I understand that.

8 But, for instance, let me try to simplify it
9 greatly. If in a given month five of the orders the
10 Class III price was above the uniform, and five of the
11 orders it wasn't, did that count for five, say, for the
12 column of number?

13 A. It essentially counted for five out of ten. Yeah.

14 Q. Okay. But if it's five out often, how does
15 that -- is that reflected in the column that is "number"?

16 A. It's the number of order months. So each month --
17 each month that each order had a negative relationship
18 counts as one. So the month -- the example you give of a
19 month where five markets, it's a negative relationship,
20 that counts for five. It -- it -- out of ten that month,
21 and there were -- as I said in the earlier testimony,
22 there were 1320 order months, which was ten markets times
23 132 months.

24 Q. Okay. All right. I really have no further
25 questions on that.

26 So a number of times, but in particular on page 7
27 of 7 of AFBF-4, which is, I believe 292 -- do I have that
28 right?



1 MR. HILL: Yes.

2 BY MR. ENGLISH:

3 Q. You discuss the Chicago Mercantile Exchange.

4 What precisely has the American Farm Bureau done
5 with the respect to the Chicago Mercantile Exchange to
6 create or urge them to create a Class I hedge product?

7 A. We have -- we have had a phone call or two. And
8 we have -- it's -- this may overstate a little bit how far
9 we have taken that, but we have explored it. It's --
10 there's been a lot of turnover over there and -- but we
11 have gotten in touch with folks and expressed the
12 interest.

13 But we also understand that they have -- at one
14 time they had a dairy advisory committee that was pretty
15 diverse from across the industry. At the moment, I
16 understand they have an advisory committee that is -- as I
17 understand it, this is what I was told -- is that they're
18 dealing with an advisory committee that's essentially
19 provided to them by IDFA.

20 So I don't know how -- how amenable that committee
21 is at the moment to -- to positioning the CME to -- to
22 make unnecessary some of the -- the average-of. So I --
23 I -- we concluded that we'd keep going, but that's where
24 we're at right now.

25 Q. So two things from that.

26 First, you don't have any reason to -- you have no
27 knowledge about whether IDFA is or is not trying to push
28 that, correct?



1 A. No, I don't know.

2 Q. So on page 3 of 3 of page 293, in the second
3 paragraph, where you say, "We believe the Class I futures
4 and option contracts will be instituted by the CME Group
5 or another exchange, if necessary," you know, I happen to
6 believe every morning I wake up here that the hearing is
7 going to move faster than it does, okay, and I have no
8 evidence to show that.

9 What evidence do you have beyond a hope or belief
10 that that's what will happen?

11 A. What I have is the -- is the experience that the
12 CME has taken steps to, for example, add the whey contract
13 to fill out the complex of products and prices that the
14 Federal Orders rely on. The fact that they responded to
15 cheese makers' concerns by implementing a block contract
16 in order to provide for that -- that spread to allow the
17 industry to do the risk management that they wanted to do.
18 And I believe if the Federal Order -- if USDA moves ahead
19 with going back to the higher-of, I believe that the
20 industry will see a clear need and the CME will respond.

21 Q. But other than that belief, you don't have any
22 evidence, you know, actual evidence -- you, yourself, said
23 in the very -- to answer the first question, you may have
24 overstated what Farm Bureau has done.

25 A. I believe -- I overstated -- it seems to overstate
26 how far we have gone with things, but I -- I don't believe
27 I'm overstating my faith in the CME as an institution to
28 serve the needs of their customers.



1 Q. Has American Farm Bureau discussed this proposal
2 change to eliminate advanced pricing with any customers of
3 fluid milk processors, like retailers?

4 A. No. Maybe I have talked with -- no. I mean, I
5 might have talked with Mike Brown before he went from
6 Kroger to IDFA. But other than that, no.

7 Q. Has National Milk -- I'm sorry. I apologize.
8 Typo in my thing.

9 Has American Farm Bureau done any study of whether
10 removing advanced pricing will make it easier for fluid
11 milk processors to sell HTST milk?

12 A. We have not.

13 Q. Has American Farm Bureau done any study of whether
14 removing advanced pricing will make it harder for fluid
15 milk processors to sell HTST milk?

16 A. We have not done a study in the way that you mean
17 a study by peer-reviewed research and so forth.

18 Q. Okay. That doesn't have to be peer-reviewed
19 research.

20 Have you done any research into whether it will
21 either help or hurt the sales of HTST milk?

22 A. We have not explored with anyone outside of the
23 organization.

24 Q. So in the weeks now that we have been on Issue 4,
25 have you heard the testimony, both of National Milk and
26 Milk Innovation Group witnesses selling HTST milk, that
27 their customers demand advanced pricing?

28 A. I don't know if I have heard anybody say "demand."



1 No, I don't think I have heard that word. I think expect
2 it a reasonable description of what I have heard.

3 Q. I will -- I will accept your clarification and
4 correction, you have heard that --

5 THE COURT: So ask the question with "expect" in
6 it, please.

7 MR. ENGLISH: Okay.

8 BY MR. ENGLISH:

9 Q. Have you heard the testimony by both National Milk
10 Producers Federation and Milk Innovation Group witnesses
11 selling HTST milk, that their customers expect advanced
12 pricing?

13 A. Yes. But that's because the regime has provided
14 for it automatically for years.

15 Q. Given declining Class I utilization and retailer
16 market power, doesn't your proposal further risk reducing
17 Class I sales?

18 A. I don't believe so.

19 Q. Or reduce the likelihood of fluid milk processors
20 being able to recover fluid increases for the marketplace?

21 A. No. I don't have any reason to believe that.

22 Q. So if there was a rapid price increase that was
23 announced on the 4th of the month following that sold the
24 milk, how are HTST processors going to recover that from
25 their retailers?

26 A. They will have used risk management tools like
27 futures and -- and hedge that price ahead of time so that
28 they can recover that.



1 Q. Did you hear the testimony last week from at least
2 one fluid milk processor that even if they sell milk on
3 long-term contracts, if they need to raise prices, those
4 are "very difficult conversations to have with customers"?

5 A. I think that's true in any industry. Yes. I
6 heard that, and I think that's true in any industry.

7 Q. So as opposed to a hope or a belief, given what
8 you know about the dairy industry, do you have evidence to
9 offer this record that elimination of advanced pricing
10 will not harm fluid milk processors financially?

11 A. Do I have evidence that something won't happen?
12 No.

13 Q. With respect to Class II, has American Farm Bureau
14 Federation done any analysis of whether removing advanced
15 pricing on Class II skim could lead to additional
16 depooling of Class II milk?

17 A. No. There was some potential for that for those
18 handlers that are -- that are exclusively Class II, but an
19 awful lot of Class II is undertaken at Class I plants.

20 Q. And wouldn't that, then, put those plants that are
21 standalone Class II plants at an advantage over Class II
22 plants that are part of Class I?

23 A. Say that again? Oh, I see what you are saying.

24 Potentially. But if the prices are aligned and if
25 we eliminate advanced pricing, that would reduce that.

26 Q. Wouldn't it also, with respect to Class II,
27 further risk the use of solids in lieu of fluid skim milk
28 in order to avoid that price risk when products are sold?



1 A. Let me back up. The eliminating advanced pricing
2 of Class II will actually reduce the likelihood of
3 Class II plants depooling, because things will line up
4 better. We see in the -- in Exhibit 294, you can see the
5 extent -- you can see that Class II has become the highest
6 price under our current -- it's become higher than the
7 Class I at 1.60 -- the 1.60 differential. And it's the
8 elimination of advanced pricing that prevents Class II
9 from becoming higher than -- than the Class I price.

10 So I think that while there would continue to be
11 the risk of Class II depooling as there is today, I think
12 it would be reduced by the elimination of advanced pricing
13 for Class II.

14 Q. I was asking a different question, which is the
15 actual loss of advanced, so Class II sellers of product
16 would not know what the price of their product was at the
17 time they sell it?

18 A. That was a follow-up question you asked. So go
19 ahead and ask me that again so I can understand it.

20 Q. Okay. Given the fact that Class II handlers,
21 especially those who are -- well, only those who are
22 standalone in operations, would no longer know what the
23 price of their product was of milk before they sold it as
24 Class II products, wouldn't that incentivize them to say,
25 since I don't know what it is under the pool, I think I'm
26 better off not pooling it?

27 A. I think the Class II handlers being -- with the
28 elimination of advanced pricing for Class II, Class II



1 handlers are in a better position to hedge that price
2 because they are -- the Class I -- the Class II prices
3 would line up perfectly with the Class IV prices. They
4 would have a perfect hedge against the Class IV contract.
5 They could lock in whatever price they want. They could
6 lock in the price on the market whenever they want: In
7 the middle of the month, before the month, a month far
8 ahead of time. I think they actually are advantaged by
9 that.

10 Q. Have you talked to Class II processors about that?

11 A. I have not.

12 Q. Have you heard any Class II processor who wants
13 that?

14 A. What I heard repeatedly during this proceeding was
15 Class II processors said they want it because they are
16 used to it. I did not really hear any good arguments
17 through six weeks or seven weeks of testimony that -- that
18 there's a fundamental reason for Class II advanced pricing
19 to continue. And I appreciate you bringing it up.

20 Q. So let me turn to Figure 2 on page 4 of 7 of 292.

21 So let me start --

22 A. You are on page 4?

23 Q. Page 4, yes. It's Figure 2, your average percent
24 of monthly milk depooled.

25 A. Okay.

26 Q. So am I correct that for Table 1 you started with
27 May 2012 and ran through July 2023 in order to create
28 Table 1? Is that what you did?



1 A. Right.

2 Q. So you -- you excluded the time period before
3 that.

4 Let me go back for a moment to 2003 and 2004, a
5 time period shortly after Federal Order reform, correct?

6 A. 2003, shortly after Federal Order reform.

7 Q. Yes.

8 A. I thought you said before.

9 Q. No. Shortly after.

10 A. Yes.

11 Q. And you agree that it was, you know, within three
12 years or four years of order reform, correct?

13 A. Yes.

14 Q. And you note that the percentages from 2002 into
15 2003 went up, and the percentages from 2003 to 2004 went
16 up, correct? Of depooled milk, correct?

17 A. Sure. Yeah. Yeah.

18 Q. And then it drops down significantly in 2005,
19 correct?

20 A. Uh-huh. Yes.

21 Q. Where were you back in 2003 and 2004?

22 A. I was working for National Milk.

23 Q. Okay. And did members of National Milk, along
24 with members of IDFA, back in the 2002 to 2004 timeframe,
25 seek regulatory changes from USDA post-Federal Order
26 reform to tighten performance standards?

27 A. I don't -- I don't really recall. That was an
28 issue that was generally considered a market-specific



1 issue, and I don't believe National Milk got involved
2 in -- in pooling standards because it wasn't considered a
3 national issue.

4 Q. I'll agree it was not national.

5 My question was, are you aware that members of
6 National Milk and members of International Dairy Foods
7 Association submitted requests to tighten performance
8 standards and have hearings at that time?

9 A. I remember requests of that sort for over -- over
10 many years. I don't remember that specifically.

11 Q. Okay.

12 A. But if you -- if you say so, I'll -- I'll accept
13 it.

14 Q. Do you know for a fact that USDA did adopt, after
15 a series of hearings, a number of changes that tightened
16 pooling performance standards?

17 A. I know over the years that they have done that. I
18 don't -- I don't recall that being specifically associated
19 with 2003 and 2004. But if the record says so, I'll
20 accept that.

21 Q. Would you agree with me that -- that it -- that we
22 haven't had such a hearing since 2010?

23 A. We have not had a hearing since 2010, that's
24 correct.

25 Q. And whether regional or federal, other than the
26 California hearing, correct?

27 A. There have been a few -- there have been a few
28 hearings on some --



1 Q. Southeast --

2 A. -- issues --

3 Q. -- issues, but not performance standards, correct?

4 (Court Reporter clarification.)

5 MR. ENGLISH: The Southeast issues, not
6 performance standards.

7 THE COURT: Let's first hear the witness's answer.

8 And you are talking about hearings other than the
9 California one, and you began to describe what might have
10 happened.

11 THE WITNESS: There have been a few hearings on
12 things like the Class I differentials in the Southeast,
13 and some -- some other plant qualification standards, a
14 handful of things. But there have been a -- there have
15 been few, and this is, I think, the first national hearing
16 since -- in at least -- at least 15 years, I think.

17 MR. ENGLISH: I asked before I started for a
18 couple of exhibits -- or one exhibit. This is Exhibit 39.

19 Your Honor, may I approach and hand --

20 THE COURT: If you have enough --

21 MR. ENGLISH: Well, everybody else has it already,
22 39. There's one for you and one for the witness.

23 THE COURT: Excellent. Thank you.

24 These are record copies; we give them back.

25 THE WITNESS: Yes, ma'am.

26 MR. ENGLISH: It is USDA Exhibit 39 on the
27 website. It was also admitted as Exhibit 39.

28 MS. TAYLOR: Right.



1 BY MR. ENGLISH:

2 Q. This hearing -- this exhibit was admitted either
3 the first or second day of the hearing. I no longer
4 recall. This is entitled "Adjustments to Federal Order
5 Performance Standards: Shipping Requirements and Diversion
6 Limits, 2010 to Current."

7 Did you review this when USDA put it in,
8 Dr. Cryan?

9 A. I noted that they did, but I didn't pay particular
10 attention to it.

11 Q. Did you hear any of the discussion about this
12 issue back in week one or two when we were talking about
13 Issue 1?

14 A. I don't recall discussion about shipping
15 requirements and diversion limits, no.

16 Q. From this document one would conclude that since
17 2010, in a number of orders, there have either been no
18 adjustments or adjustments to performance standards have
19 been lowered, correct?

20 A. I see a number of them have been lowered
21 seasonally, which is provided for in the orders. And a
22 few that have been lowered until further notice. But
23 that's the request. The request is to reduce them, right?
24 This -- this -- this shows the request to reduce --

25 Q. These are actual adjustments. These are not
26 requests. These are actually adjustments that the Market
27 Administrator granted.

28 A. Right. But when they revert, they don't show up.



1 Q. Do you see any that have reverted?

2 A. Well, it shows the reduction from April -- for
3 Order 30, from April 2017 to April 2019, from 8 -- from 10
4 to 8, and then -- I see, then it continues.

5 Q. So -- so it continues. So August 2022 to the
6 current time has -- has been even lower, correct?

7 A. I see that. I see that, yep.

8 Q. So when you did your correlation analysis on the
9 bottom the page 4 --

10 A. Uh-huh.

11 Q. -- did you take into consideration these kinds of
12 reductions in performance standards as they may have
13 affected depooling?

14 A. No, that wasn't really the point of the analysis.
15 The point of the analysis was to see what the blends would
16 look like in a -- in what we presumed to be -- what I
17 presumed to be a fully-pooled market.

18 Q. But wouldn't that affect, as a variable, your
19 annual range in Class I prices versus the annual
20 percentage of depooled milk?

21 A. It would. I didn't use any actual -- I didn't use
22 the actual uniform prices. I used uniform prices
23 simulated for a fully-pooled market.

24 Q. Okay. So I'm sorry, I misunderstood.

25 So the Table 1 on 292 is also a simulated market;
26 is that correct?

27 A. 292?

28 Q. I'm looking at 292, Table 1. I did not understand



1 that to be a simulated market.

2 A. No, no, that's not.

3 Q. And so --

4 A. So what's the question?

5 Q. Yeah. So the question is, did you consider as a
6 variable, the differences in performance standards as an
7 impact on depooling?

8 A. I did not.

9 Q. So you already testified with respect to 294 that
10 you -- by using June 2018, you excluded California,
11 because by definition California had not become a Federal
12 Order, correct?

13 A. And now you are going back to the other -- the
14 other analysis?

15 Q. No, I'm staying on page 4. I was merely
16 predicating by saying that we earlier discussed 294, and
17 you said that you used June 2018, which is before there
18 was a Federal Order, California Federal Order, correct?

19 A. Right.

20 Q. So looking back at Figure 2, did you, in looking
21 at your correlation coefficient, include California in
22 those average percents of monthly milk depooled from when
23 you look at the end of 2018, 2019, 2020, 2021, 2022, and
24 2023?

25 A. I believe so.

26 Q. You included California, correct?

27 A. For the months -- for the months that it existed.
28 For the months that there was a Federal Order in



1 California.

2 Q. So when you did your analysis and correlation, we
3 have six years and ten months where California wasn't
4 there, and the remainder California was there, correct?

5 A. Yes.

6 MR. ENGLISH: Before I forget, I would like to get
7 Exhibit 39 back to USDA, if I may.

8 THE COURT: Agreed. Thank you.

9 THE WITNESS: I would -- I would refer USDA to
10 look at the details of their own depooling data in order
11 to evaluate whether or not the addition of California to
12 the system sufficiently -- substantially affects those
13 results or not. I -- I don't propose to do that sitting
14 here right now.

15 MR. ENGLISH: So just a couple more questions --
16 maybe just one.

17 THE COURT: You're --

18 MR. ENGLISH: I'm sorry, a couple more questions,
19 maybe just one.

20 BY MR. ENGLISH:

21 Q. When you, on page 2 of 7 of Exhibit 292, at the
22 top of the page you used the word "deductions are applied
23 to farmers' checks in the form of a negative producer
24 price differential."

25 Do you see that?

26 A. Yeah. That is certainly the perception that
27 farmers have. That was -- the point of that paragraph is
28 that the extent to which these negative PPDs are perceived



1 by farmers as a loss.

2 Q. And I just want to be clear, because you used the
3 word "deductions."

4 And you have worked at USDA AMS, correct?

5 A. I have.

6 Q. Isn't the term "deductions" for pooled milk a
7 term -- not just of art, but a defined term in each order
8 under Section 73(a), authorized deductions, in writing?

9 A. Tell me the citation?

10 Q. So pick any order. I'm on 1032. So
11 order Order 32, 73, under (a)(1), for instance?

12 A. So you are on 1032.73(a)(1)?

13 Q. (a)(1).

14 A. Uh-huh.

15 Q. The last part, very last phrase: "Less proper
16 deductions authorized in writing by the producer."

17 Do you see that language?

18 A. I see that, but that doesn't mean that's the only
19 way that "deduction" can be used in the English language.

20 Q. Okay. But I want it to be clear for the record --

21 A. Uh-huh.

22 Q. -- that when you are using it, you are not using
23 it as used by the order --

24 A. As a deduction by the handler? No.

25 Q. Yes.

26 A. No. But it does appear to farmers as a deduction
27 in their check, when they are told that their milk has the
28 value of those components, and then there's a subtraction



1 for negative PPD.

2 Q. But you know, in fact, that's not what it is,
3 correct?

4 A. Mathematically, that's exactly what it is.

5 Q. But that's not how USDA explains it, is it?

6 A. USDA presents a component value that can -- that
7 farmers take as meaning that their components have that
8 full value, and then the -- then there's a deduction based
9 on how the uniform price works out. It's a problem.

10 Q. Is it a problem in how handlers have explained it
11 to their farmers, or is it a problem?

12 A. It is -- it is a problem that the accounting for
13 their milk check is -- is presented in a way that they
14 appear to be losing money because of the Federal Order.
15 There are too -- a lot of farmers believe that the Federal
16 Orders are taking money away from them because of the way
17 the accounting is done.

18 A system that lines things up so there's less of
19 these negative PPDs would be very helpful in maintaining
20 the integrity and support for the system.

21 Q. We're back to talking about belief.

22 Is it the case, sir, especially since you worked
23 at USDA shortly after Federal Order reform, that producer
24 price differentials are, in fact, a deduction as opposed
25 to a representation of the value of the milk compared to
26 uniform price and Class III?

27 A. The negative PPD is a deduction from the Class III
28 component value to reflect the gap between the Class III



1 value and the actual value in the pool. So I mean, how
2 you -- how you say that as a matter of semantics, we don't
3 disagree on the facts, we only disagree on the semantics.

4 MR. ENGLISH: I have no further questions, and
5 thank you.

6 THE WITNESS: Thank you.

7 CROSS-EXAMINATION

8 BY MR. ROSENBAUM:

9 Q. Steve Rosenbaum for the International Dairy Foods
10 Association.

11 Dr. Cryan, you spend some of your written
12 testimony and some of your oral testimony relating certain
13 materials from the 1999 USDA decision in order reform,
14 correct?

15 A. That's correct.

16 Q. And specifically, some of them relating to the
17 question of advanced pricing, correct?

18 A. That's correct.

19 Q. I would like to just talk about that for a minute.

20 So at the time of order reform, the Class I price
21 in a given month was based upon the manufacturing price
22 two months earlier, correct?

23 A. That's correct.

24 Q. So just to give a specific example, since we're in
25 the month of October right now, under the system as it
26 existed then, the October Class I price was the August
27 manufacturing price plus the Class I differential,
28 correct?



1 A. Before order reform, that's correct. Before order
2 reform, that's correct, that's how it was done. The
3 BFP --

4 Q. And --

5 A. -- plus two months.

6 Q. And so every time that you're commenting or --
7 strike that.

8 Every time that you are quoting from USDA
9 regarding their views about advanced pricing and whether
10 that should be changed, that's the system they were
11 commenting upon, correct?

12 A. That's correct.

13 Q. And ultimately what they adopted was the system
14 that's now in effect and has been since 2000, which is
15 that the Class I price is based upon the manufacturing
16 price during the two-week period closest to the 24th day
17 of the prior month, correct?

18 A. State that question again, please.

19 Q. Yes.

20 Now, the Class I price is based upon the
21 manufacturing price as reported in the two most recent
22 price surveys, weekly price surveys, prior to the 24th of
23 the prior month, correct?

24 A. Yeah. They have gone essentially from two months
25 before to the little less than a month and a half before.

26 Q. Well, no, they have gone to two weeks before,
27 haven't they?

28 A. No. No. If the August price has been used to



1 price October, and that's a two-month gap, then using the
2 first two weeks of September to price October is the
3 essentially a month-and-a-half gap, a month and a week.

4 Q. You are using -- the data that sets the price that
5 goes into effect October 1 is September data, correct?

6 A. It's essentially the first two weeks of September.

7 Q. Well, it's whatever two weeks has most -- has been
8 reported prior to --

9 A. No, the surveys -- the surveys are reported on a
10 Wednesday for the week ending the previous Saturday. So
11 the latest that that data is relevant to is -- that that
12 data is reporting is for the 19th.

13 Q. Right. And -- okay. And that's -- that takes you
14 to the two weeks -- you are describing the two weeks of
15 data that's closest -- reported data that's closest to the
16 24th of the previous month, correct?

17 A. I'm describing what are essentially the first two
18 weeks -- or almost the first two weeks of the previous
19 month. So instead of a two-month lag, you have an
20 over-a-month lag, because if you are using the September
21 price, the full September price for October, that will be
22 a one-month lag. If you are using the first half of
23 September, then it's a month-and-a-week lag on average.

24 Q. I mean, previously you went back all the way to
25 data from August 1st.

26 A. Through August 30th.

27 Q. Correct?

28 A. 31st.



1 Q. And now you're using data that is more than a
2 month fresher, right?

3 A. No, it's not more than a month fresher. On
4 average, it's about three weeks fresher. You are going
5 from essentially a nine-week lag to a six-and-a-half-week
6 lag.

7 Q. And you are calculating that six weeks by looking
8 at what the last --

9 A. The midpoint.

10 Q. -- date -- the last date --

11 A. The midpoint. The midpoint.

12 THE COURT: Let him ask his question.

13 THE WITNESS: Okay. Go ahead and ask your
14 question.

15 THE COURT: Ask your question again.

16 BY MR. ROSENBAUM:

17 Q. How are you calculating that, six weeks?

18 A. The midpoint of the two-month lag is -- is you're
19 using September, the middle of September is the middle of
20 September, back to the -- to -- well, October. If you are
21 using -- pricing October, to use your example, August --
22 the August BFP would -- the midpoint of that would have
23 been the middle of August, right, using to price October.
24 The middle of October is the middle of October. So it's a
25 two-month lag.

26 If you are using the new pricing, the -- you are
27 using the first two weeks of the month, so you're
28 basically looking at about September 8th or 9th or 10th is



1 the midpoint, to October 15th or so is the midpoint for
2 the next one. So you are -- you are talking about a
3 six-week -- six-week lag.

4 Q. And didn't USDA explicitly address whether that
5 provided a proper balance between getting current pricing
6 and the need for processors to have advanced pricing?
7 Didn't they address that specifically?

8 A. They hoped that the use of technology to
9 accelerate the collection -- the process of collecting the
10 data was -- was going to provide a closer relationship
11 between the advanced pricing and the current pricing, and
12 what -- you know, and I think they were reluctant to
13 overturn the thing all at once to see how far they could
14 take it.

15 But the fact is that dairy prices have become more
16 volatile over time, and as a result, that gap becomes
17 more -- more problematic with respect to keeping advanced
18 prices and current prices in some reasonable alignment.
19 And, therefore, we believe it's time to cut the Gordian
20 Knot and just get rid of advanced pricing, let the -- let
21 technology and -- including financial technology -- the
22 opportunity to hedge and use risk management tools that
23 are out there, and that should be out there, to -- to
24 allow that to -- advanced price. If you want advanced
25 price, do it in the market, not by government dictate.

26 Q. So let me quote to you from page 16,102 of the
27 decision that you quoted other things from.

28 Quote -- this is USDA, of course -- quote,



1 "Marketers of Class I products support some degree of
2 forward pricing requiring processors of Class I products
3 to know the Class I price in advance," end quote.

4 Are you familiar with that conclusion that USDA
5 reached at that time?

6 A. I think that's what I just said, yeah. They
7 didn't want to turn it over. They didn't want to upset
8 things all at once. They tried to tighten it up. It
9 didn't go far enough.

10 Q. Well, I think what they were saying was that the
11 customers, grocery stores, for example, the marketers of
12 Class I products, supported some degree of forward pricing
13 requiring processors of Class I products to know the
14 Class I price in advance.

15 Is that the way you interpret that sentence?

16 A. And they asked for it because they could, because
17 the system provided for it. There's all kinds of things
18 we get stuck in ruts, because the system is provided for
19 it and people are upset about overturning it. Sometimes
20 you have got to break a few legs.

21 Q. And under your approach, there would be no
22 advanced pricing at all, correct?

23 A. That's correct.

24 Q. And there would be --

25 A. Except through the market. Except for the use of
26 the futures and other forward -- forward pricing
27 mechanisms.

28 Q. Well, there would -- I'm using the term advanced



1 pricing in the sense that it currently exists under the
2 orders, namely, there would no longer be a system in which
3 USDA announced in advance of the month, what the Class I
4 price was going to be for that month?

5 A. That's what our proposal states, that's correct.

6 Q. Your proposal would do away with that obviously,
7 correct?

8 A. It would. For Class I and Class II.

9 Q. And then in addition to doing that, your proposal
10 would do away with using the average-of to set the Class I
11 mover, correct?

12 A. That's right. That we adopt that -- we accept --
13 we support the National Milk proposal to do that, and we
14 adopt that in our presentation of other elements.

15 Q. But National Milk does not support you on doing
16 both, correct?

17 A. That's correct.

18 Q. Okay. Because, I mean, you -- you have heard
19 testimony from Nestle, for example, about how they
20 couldn't engage in hedging until the average-of system
21 went in place, correct? Were you here for that testimony?

22 A. I did. I heard that.

23 Q. Okay. And others have opined on this subject,
24 you -- and -- but you would obviously -- I mean, to the
25 extent that any of those people are right, that you can't
26 hedge absent an average-of Class I mover, you -- your
27 proposals leave processors naked, don't they? They can't
28 know in advance what the Class I price is going to be, as



1 they can now, and they can't, if the Nestles of the world
2 are right, engage in affordable Class I hedging. You have
3 just, if you will, kicked all the supports out from
4 underneath my clients, haven't you?

5 A. They can go to the CME and work to get a Class I
6 futures contract, then they get the same hedging forward
7 pricing opportunities that other manufacturers have.

8 Q. Well, you have now moved on to my next topic. I
9 mean, what you seem to offer up as consolation for my
10 clients is the theoretical possibility that the CME may
11 adopt one of two hedging opportunities, namely a Class I
12 hedge or a Class III versus Class IV hedge, whatever you
13 call that, that don't exist today, correct?

14 A. They do not exist today.

15 Q. And you were obviously here this morning when
16 Dr. Bozic told us that most new futures offerings fail,
17 correct?

18 A. I heard him say that.

19 Q. And when we don't even know whether CME would be
20 willing to offer this, correct?

21 A. CME came here and testified they are open to
22 considering it. They have also shown a commitment to
23 their dairy customers over the years that, I believe,
24 would be manifested into a Class I futures contract if
25 USDA made the decision to eliminate advanced pricing and
26 adopt the higher-of.

27 Q. I mean, don't you -- I mean, right now Class I
28 handlers can hedge using the combination of Class III and



1 Class IV futures, correct?

2 A. Who can?

3 Q. Class I handlers.

4 A. I don't know whether they can do that under the --
5 to some degree they can.

6 Q. That's what Nestle is doing for 100% of its
7 Class I milk supply, correct?

8 A. Well, right now with the current formula, yes.

9 Q. That's what I'm talking about.

10 A. Right.

11 Q. Yes. Okay. And, you know, one -- one benefit of
12 that, perhaps to farmers, is that farmers themselves use
13 Class III and Class IV hedging, not for Class I milk
14 necessarily, but for -- because that's what most of their
15 milk ends up being used for, correct?

16 A. Most of the milk ends up --

17 Q. Let me just ask you point blank rather than my
18 speculating as to what exactly their motivation is.

19 Do dairy farmers or their cooperatives use
20 Class III and Class IV futures as part of their --

21 A. I believe so. I believe we have heard that
22 testimony in this hearing.

23 Q. Right.

24 And so -- and we have also heard that liquidity is
25 really important to the success of futures in general?

26 A. Yes, liquidity is very important. And as was
27 suggested by my questions of Dr. Bozic earlier, the
28 nice -- one of the very nice things about the dairy



1 contracts is that they are cash settled against prices,
2 regulated prices, in fact, prices that are typically used
3 as benchmarks in the dairy industry.

4 So whether or not there's a big liquid market,
5 which is kind of necessary to settle out a
6 delivery-settled contract like cattle or corn, you know,
7 in the -- in the cash -- in these cash-settled contracts,
8 the CME does not require step downs. They allow anybody
9 to hold these contracts to settlement because there's no
10 reason to make them -- to reduce their positions ahead of
11 time like is required for -- for delivery-based contracts.
12 There's a wide range of reasons why the Federal Milk
13 Marketing Orders and the pricing systems in the Federal
14 Milk Marketing Orders has provided an almost ideal
15 scenario for the establishment of cash-settled contracts
16 on a range of dairy products and milk types for the
17 relatively low risk.

18 And I -- and I do believe that the CME is
19 responsive to its customers, and I do believe that they
20 will institute a Class I futures contract if -- if the
21 regulations change in such a way that that becomes
22 necessary.

23 Q. The current participation by Class I handlers in
24 the Class III and IV futures markets under the average-of
25 approach, which is now in effect, I mean, that would --
26 that would disappear from those futures if, in fact, we
27 went back to higher-of, right?

28 A. Is the question whether Class I handlers would



1 stop using III and IV futures?

2 Q. If -- well if -- if it -- I mean, according to
3 Nestle the answer is yes.

4 So I'm asking you is that your view as well?

5 A. We -- we heard testimony from a lot of -- from a
6 very small number of Class I handlers that they are --
7 that they are forward pricing their milk. What we heard
8 from more was we would like to, some day we will, but we
9 haven't yet. That seemed to be the result -- that seemed
10 to be the result of the move towards the average-of, that
11 there was a lot of expectation that this would become
12 widespread, the use would become widespread among Class I
13 handlers. And the evidence from this proceeding seems to
14 be that it is been rather limited. It has, perhaps, been
15 large enough to spur enough folks to go back to the CME
16 and say we want to keep doing this, so let's get a Class I
17 contract on the board. That would be the hope. That
18 would be the expectation.

19 Q. You are saying that's actually happened?

20 A. No, I'm saying if there's an appropriate
21 regulatory change, then I believe some of those customers
22 who have become accustomed to using Class III and IV
23 contracts will go to the CME and say, we would like a
24 Class I contract.

25 One of your witnesses, or perhaps one of
26 Mr. English's witnesses, when I asked him, would you like
27 to see a Class I futures contract, said that would be very
28 interesting. I think a lot of those folks doing risk



1 management on Class I would just as soon see a Class I
2 contract as a III and IV contract. I think they would be
3 just as satisfied with that.

4 Q. Didn't that witness say something like, some time
5 in the distant future that would make sense?

6 A. He said he would like to see the market, he would
7 like to know that it's a liquid market.

8 Q. But --

9 A. I don't think he said in the distant future. If
10 he -- perhaps he did, but I don't -- I don't recall that.

11 Q. But right now they have a liquid market, right?
12 The Class III and IV futures contract --

13 A. They do.

14 Q. -- correct?

15 A. And they are facing basis risk because of advanced
16 pricing. If you eliminate advanced pricing, then their
17 basis risk goes away. I think that would be very good for
18 the risk management of -- by -- of Class I handlers.

19 Q. Okay. And I'm addressing here whether you are
20 killing the futures market for those people?

21 A. I don't believe so.

22 Q. Because you hope that something new might be put
23 in place?

24 A. I don't believe that they are that large a share
25 of the market that they are -- that they are contributing
26 that much to the liquidity of the Class III and IV futures
27 markets.

28 MR. ROSENBAUM: That's all I have. Thank you.



1 THE WITNESS: You're welcome.

2 CROSS-EXAMINATION

3 BY MR. MILTNER:

4 Q. Good afternoon, Dr. Cryan.

5 A. Good afternoon.

6 Q. Ryan Miltner representing Select Milk.

7 So in your cross-examination you talked a lot
8 about the PPD and whether it's a deduction or not a
9 deduction, or what you meant by deduction.

10 Would you agree with me that the PPD is simply an
11 accounting measure that -- that relates the uniform price
12 to the price that a producer receives?

13 A. Yeah. It is an accounting measure, but it's not
14 that simple because it's not -- because of the -- because
15 of the perception, it has -- it has substantial
16 ramifications. The way it's presented is -- becomes
17 problematic at times.

18 But I think what's more important is recognizing
19 that when that goes negative, it means that something's
20 out of whack. It means that the system is not operating
21 the way it was designed to operate at its origin, and that
22 it's -- that it -- that the result is -- well, the -- that
23 means that it's -- it behooves us to find ways to avoid
24 negative PPDs.

25 Q. In my experience, when a producer has asked who is
26 taking the money out of my check because there's a
27 negative PPD, I have suggested that if you sell your corn
28 for \$4 minus a local adjustment of \$0.10, that doesn't



1 mean someone is taking money out of your corn. I've found
2 that doesn't always resonate.

3 Have you had a similar experience in trying to
4 explain this to producers?

5 A. I have -- I have had the conversations with
6 National Milk, at USDA, at Farm Bureau. It's a -- it's
7 a -- it's -- you know, you want to explain the accounting,
8 but at the same time, when that PPD is negative, it raises
9 some real questions about whether some -- what's working
10 and what isn't working.

11 And I do often -- you know, and the fact is at
12 times depooling means -- to those producers that are in
13 the pool, it means somebody is taking their money, that
14 somebody is taking the -- the -- what would otherwise be a
15 pooled value and -- and redistributing it.

16 So the principle of uniform pricing is compromised
17 by -- by those types of outcomes.

18 Q. I wanted to ask a couple of questions about
19 Exhibit 294 on the last page. And I hope I'm not
20 repeating what's already been asked, but there's a risk I
21 will do so.

22 Where you state in the third line on there,
23 "uniform prices under various regimes."

24 By "various regimes," you mean you're comparing
25 the status quo, Proposal 13, and Proposal 18; is that
26 correct?

27 A. Yeah. And by "status quo," I mean the current,
28 the current regulation applied to the entire history.



1 Q. Okay. Now, when I looked into your courtesy
2 spreadsheet, it appears to me that you have taken this
3 period of 13 years, April 2012 to April '23 --

4 A. Well, 11 years I guess, yeah.

5 Q. Yes, thank you, 11 years -- for each of the
6 orders, and you have, whatever that multiplies out to be,
7 I think 1320 observations or so?

8 A. Correct. 1320.

9 Q. You have a monthly observation for each individual
10 order?

11 A. Right.

12 Q. And so where you now have a count under your
13 number column, that is the number of individual
14 observations where Class III was greater than the uniform
15 price as you calculated it, correct?

16 A. Right.

17 Q. And so if I look at Class III, the "number"
18 column, and the Proposal 18 row, there are 61 instances
19 where that occurs.

20 And so it could be that of those 61 observations,
21 I mean, theoretically 10 of them could be in one
22 particular calendar month, but it happened in every order,
23 correct?

24 A. 10 of them, yeah, could -- right. It could be,
25 yeah.

26 Q. Right. Okay.

27 A. And I should say that these -- these numbers were
28 higher than I expected. The -- the advanced --



1 eliminating advanced pricing has a significant impact, but
2 not as large as I expected.

3 Q. Okay.

4 A. It's -- I think it still is important to squaring
5 up the system and making it work better. And I think, in
6 combination with some of the other things, it would also
7 help. And perhaps a more detailed analysis would show
8 more but --

9 Q. And so this -- this particular depooling trigger
10 that you have analyzed is the one that results primarily
11 when the delta between Class III and Class IV is
12 particularly large, correct?

13 A. This is when the -- when the Class III or Class IV
14 price is above what a fully-pooled uniform price would
15 look like.

16 So, for example, if you think about the uniform
17 price in the terms of the way California's state system
18 operated, where everybody has to participate, or everybody
19 who normally participates, participates, then you have a
20 fully pooled uniform price.

21 If the class -- if the Class III or IV price stays
22 below that, they don't -- they are not -- they don't
23 really have an incentive to depool. If it goes above
24 that, then they -- then they can have an incentive to
25 depool. And then -- and then there's a downward slide as
26 depooling leads to lower uniform prices, which leads to
27 lower sort of equilibrium of depooling.

28 Q. So if you were to eliminate advanced pricing,



1 would that -- would that occur when the gap between III
2 and IV gets particularly large?

3 A. Ask the question again, please?

4 Q. Sure.

5 Proposal 18 assumes the elimination of advanced
6 pricing, correct?

7 A. Uh-huh.

8 Q. Okay. So that eliminates depooling when you would
9 have an -- otherwise have a class inversion, correct?

10 A. Right.

11 Q. So where you identify these instances, is that --
12 would that have to be triggered by a large gap between
13 Class III and Class IV?

14 A. I think, generally speaking, yeah. I mean, if you
15 have precluded price inversions of Class I and other
16 classes, then necessarily it's something else bringing
17 down the uniform price to the point where the -- there's
18 now an incentive to depool.

19 So, yes, a big spread between III and IV in either
20 direction can -- can lead to a uniform price low enough
21 that III or IV exceeds that.

22 Q. And I think Dr. Bozic suggested that there is no
23 combination of proposals in this hearing that would avoid
24 that type of depooling incentive.

25 Would you agree with that?

26 A. I think -- I think the higher-of reduces it.

27 There are months when the higher-of and the advanced
28 would -- would stop specific instances, but it does not --



1 it does not make it impossible to continue to happen.

2 And I think your assessment is correct that
3 probably most of these, most of these scenarios in here
4 where the -- the manufacturing price rises above the
5 uniform price are scenarios where there's a big gap
6 between III and IV.

7 Q. Thank you.

8 Okay. Mr. English asked you some questions about
9 the CME's Class I futures and options and the status of
10 development of that. I don't want to repeat those
11 questions, but there is one that I don't believe he asked.

12 Have you, in your role with Farm Bureau or
13 otherwise, attempted to figure out what the mechanism for
14 such an instrument might look like under a higher-of
15 mover?

16 A. What the mechanism would look like?

17 Q. Yes.

18 A. I -- I can only expect it to be a cash settled set
19 of futures and options contract like those for the
20 Class III and Class IV. Is that -- does that answer the
21 question? I'm not sure I --

22 Q. Maybe but -- but maybe not.

23 We have heard testimony that using the higher-of,
24 it's much more difficult to hedge the price risk for a
25 Class I handler.

26 A. Uh-huh.

27 Q. Correct?

28 A. Right.



1 Q. We have heard testimony that it can be done with
2 over-the-counter products.

3 A. Right.

4 Q. And I think it was also suggested that some sort
5 of creative combination of existing futures and options
6 could construct something that would work.

7 Would you agree with that?

8 A. I -- I don't believe there are -- there's a
9 combination of -- I have tried to figure it out, and I
10 think probably other folks who know much more about this
11 than I do have tried to figure it out, how to -- how to
12 construct a hedge using futures and options on the -- that
13 exist. And I -- I haven't seen it in my -- I think either
14 of Class I futures contract or a Class III/IV spread
15 option which doesn't exist, neither one of those exists,
16 could -- could accomplish that. You know, the option --
17 the spread option in combination with the Class III or
18 Class IV contract could accomplish that, but it doesn't
19 exist. So I don't believe there's any combination of
20 current instruments that -- that -- on the exchange, that
21 can do that. But -- right? Swaps and over-the-counter
22 trading can do it.

23 And there are other exchanges other than the CME.
24 I think it would be -- as I said -- as I attempted to say,
25 I don't know if it was presented very clearly, it would be
26 much more convenient for the industry if the CME had --
27 had the Class I futures contracts, but others could as
28 well. I mean, another clearing -- clearing body could do



1 that as well.

2 Q. If the CME were to offer an instrument like that,
3 do you imagine that it would have to be some sort of
4 complex derivative of existing tools that is packaged as a
5 Class I offset, or would it be a completely unique product
6 where someone else is voluntarily accepting the risk that
7 is being shifted?

8 A. Right. Just a brand new contract. It would look
9 just like -- I think it would look just like the Class III
10 and Class IV contracts.

11 Q. Okay. And in your discussions with the CME,
12 has -- has that -- have the discussions advanced to any
13 level like that?

14 A. No. I mean beyond I think the basic discussion of
15 the assumption that the contract would look like other
16 contracts.

17 Q. Okay. So have you heard the testimony from --
18 from -- yeah, from HTST processors, and that they -- those
19 that have testified, they have almost uniformly asked for
20 the average-of mover to be maintained for the purposes of
21 their own risk management?

22 A. No. I mean, we have had co-ops come and present,
23 who are HTST processors, and they have asked -- that they
24 have supported National Milk's position.

25 Q. That's a very good clarification.

26 Those proprietary HTST handlers that have
27 testified?

28 A. Those people who came here to support the IDFA and



1 MIG proposals, yes, they have asked to keep the
2 average-of. They have asked to avoid going to the
3 higher-of.

4 Q. Okay. So if counsel for those processors asked
5 you if you agreed that those same handlers said their
6 customers absolutely would not accept a fixed price, did
7 you -- do you recall that question?

8 A. The fixed price?

9 Q. Yes.

10 A. I heard a lot of folks talk about their customers'
11 expectation that they get the price ahead of the month,
12 but I'm not sure what you mean about the fixed price.

13 Q. Well, I assume that's -- yes. That's a more
14 accurate statement, that they need to have the price in
15 advance.

16 A. And actually, I think I understand a lot of
17 retailers -- I think I did hear at least one of the
18 witnesses say that they would like to have fixed prices
19 instead of having to adjust it every month. So, you know,
20 that's all a matter of -- of using -- using hedging in the
21 market to be able to do that, to lock something in over a
22 longer period of time. That's what the -- the ESL
23 processors were talking about, using those tools in order
24 to lock prices in over time. If there's a Class I futures
25 contract, they can do the same thing.

26 Q. I think that's -- that's what I was going to drive
27 at next, was if a -- to your understanding, if an HTST
28 processor can actually hedge their costs, wouldn't they



1 necessarily be able to know those costs to communicate to
2 their customers before the month occurs?

3 A. Say it again?

4 Q. Sure.

5 If an HTST processor is able to adequately hedge
6 their raw milk costs, wouldn't that necessarily mean they
7 could provide their price to their customers in advance?

8 A. Sure.

9 Q. Just one last couple of questions.

10 What is -- for Farm Bureau's members, what's the
11 main reason for them supporting a return to the higher-of
12 over all their options?

13 A. The higher-of. There was a lot of lost Class I
14 revenue in the -- during the COVID years and since. There
15 was a lot of -- there's -- there was a lot of negative
16 PPDs, partly because of that. It's felt like there was a
17 lot of chaos, and that the processors benefitted at the
18 expense of farmers, that -- that they want to go back to
19 what they had before. They felt like it was -- it was --
20 it turned out to be a bad deal. I think there's a general
21 agreement on the -- on the producers' side that it turned
22 out to be a bad deal.

23 Q. Am I correct that the process for AFBF to
24 establish a policy position is that each individual local
25 Farm Bureau group is solicited their opinions, and those
26 opinions are fed up to a county, and then a state level,
27 and eventually to the national level where it's voted on
28 at the national convention?



1 A. That's close. They are not -- nobody's soliciting
2 the county farm bureaus to come up with something. Nobody
3 goes and stirs them up and says, give us your opinion
4 about this. They make the -- you know, AFBF and the State
5 Farm Bureaus and the local farm bureaus in some states,
6 they have staff and offices in some states. They are much
7 more shoestring.

8 They -- they react. They respond to farmers
9 offering resolutions. A farmer comes to a county farm
10 bureau meeting and says, I think this ought to change, and
11 the voting -- voting membership of the farm bureau is
12 generally tied to being a farmer, or very closely tied to
13 agriculture. So farmers vote at a county level. They
14 look at a resolution at the county level, and if it's
15 approved, it gets -- it gets passed on to the state, and
16 then there's a resolution process at the state.

17 So everything is initiated by -- by farmers --
18 farmer members at the local level, occasionally through a
19 state committee. But when a -- state committees are
20 reluctant to submit formal resolutions. More typically
21 they will -- they will refer it back to -- to somebody at
22 the county level, where there's a discussion at that
23 grassroots unit, and things move up through the process.
24 And at every step of the way, it's a farmer decision.
25 It's farmer-initiated, farmer-driven, and farmer-decided.

26 Q. And so the proposals from Farm Bureau here are
27 exactly that: Farmer-driven, farmer-voted on,
28 farmer-approved?



1 A. Right. They are all -- they are all either --
2 they are all either -- they all either represent a
3 specific farmer-driven policy or they are founded on a
4 farmer-driven policy.

5 Q. And I'm not asking you to agree that this is, in
6 fact, the case, but hypothetically, if at this hearing,
7 you, as an expert dairy economist, said, "I think there's
8 another combination of options that would work as well or
9 better to address farmer income, the impacts of depooling,
10 and better risk management for the producer," am I correct
11 that you personally would not be able to change the
12 position that Farm Bureau has on that?

13 A. There's -- there's two parts to that. Two parts
14 to my answer.

15 Part one is that, you know, there are -- some of
16 our policies are -- are -- some of the policies are
17 more -- some of the policies are more specific and other
18 policies are more sort of aspirational, they say this is
19 the outcome we want. And when it's about the outcome, if
20 there is a -- if there is a better way to achieve the
21 outcome, then we can talk -- we can talk about it.

22 The second part of the answer is that the thing
23 that's -- that has really struck me about going to work at
24 Farm Bureau is the extent to which our policy process
25 generates sound coherent policy. I came into it kind of
26 expecting to be a little more -- to have the policy book
27 to be a little more chaotic, and I am struck by how -- how
28 coherent the policies generated by that kind of



1 grassroots, bit-by-bit development, turns out to be. And
2 I think our dairy policies are -- are very sound and very
3 coherent.

4 Q. If there were a combination of proposals that
5 would better address, in your opinion, the concerns of
6 Farm Bureau members, how would you be able to change Farm
7 Bureau's position, or -- or how would Farm Bureau, then,
8 be able to get to a point where it may endorse something
9 different?

10 A. Our members are -- are reasonable and open minded,
11 and there's been a lot of evolution of some of the policy.
12 We have a dairy working group that -- that went through
13 some iterations and arrived at some recommendations, some
14 of which became policy through the grassroots process and
15 some of which didn't. We have an ongoing discussion about
16 these things. We are more involved in Federal Order
17 policy through the involvement of our members than we have
18 been really ever before. In the last four or five years
19 we have been more involved than we ever have been, and our
20 members are appreciative of it, and they are involved and
21 there's an ongoing discussion.

22 They -- they are interested in good policy.
23 They -- we had the forum in Kansas City last October where
24 there was a very good discussion, and a lot of members
25 listened to folks like Chris Herlache and Mike Brown to
26 understand the balancing that has to be done between the
27 interest of processors and producers. And we -- you know,
28 that's how we came to the position that we accept that



1 Make Allowances may need to be changed, but that they
2 should be based on the audited mandatory data. I mean,
3 there's -- our members are -- are more engaged than ever,
4 and they are actively engaged in the discussion.

5 Nothing -- if something we have -- something in
6 our policy book is not sound, they will figure it out and
7 it will be -- it will be improved upon.

8 Q. And --

9 A. And I haven't really heard anything that I think
10 is more sound than what we are offering.

11 Q. You will get my question anyway on it.

12 A. Okay.

13 Q. And Select, for the record, doesn't have a set
14 position on the mover yet, either. We're trying to weigh
15 all of the evidence and testimony.

16 But would the IDFA, despite your statement that
17 it's Rube Goldbergian, would the IDFA proposal, over time,
18 return as much money to producers as the higher-of?

19 A. I haven't looked at it in detail, but if it
20 returns it over time and not now, it could -- it's not
21 necessarily helping everybody. And I -- and I -- I
22 guess -- I guess I would say that, you know, to refer
23 to -- to both -- to some of these things as Rube Goldberg
24 devices is -- is perhaps harsh, but it's -- and it's -- I
25 also believe there's a -- there's good intention and
26 there's adjustments.

27 But there comes a time -- and I learned that when
28 I was at USDA, as folks would say, "Well, how do we fix



1 this?" And I would say, "Oh, let's do this, that, and the
2 other thing, let's build this." And they would say, "No,
3 that's not really going to fly."

4 And there's a time when you just have to kind of
5 simplify things, because the -- the layer after layer of
6 complication really raises questions. It causes problems,
7 like people not -- not understanding why they have a
8 negative PPD that's a deduction from their check. It --
9 you know, whether it is or it isn't, it certainly looks
10 like it. And it's, I think, you know, simplification.

11 Farmers are always talking about, how do we
12 simplify the orders? How can I understand how this thing
13 works? That's what they -- over and over again they talk
14 about simplifying the orders, and -- and -- and we got to
15 start somewhere. So that's -- that's what our proposals
16 are about.

17 MR. MILTNER: I'll stop my questioning there.

18 Thank you.

19 THE WITNESS: Okay. You're welcome.

20 MR. HILL: Your Honor, I think this might be a
21 good time to take our first break for the afternoon.

22 THE COURT: I think so, too. Please be back and
23 ready to go at 2:50. That's 2:50.

24 We go off record at 2:38.

25 (Whereupon, a break was taken.)

26 THE COURT: Let's go back on record.

27 We're back on record. It is 2:50.

28 How would you like to proceed?



1 MR. SJOSTROM: Your Honor, I would like to ask
2 this witness a question.

3 THE COURT: Excellent.

4 CROSS-EXAMINATION

5 BY MR. SJOSTROM:

6 Q. Lucas Sjostrom, Edge Dairy Farmer Cooperative.

7 Good afternoon, Roger.

8 A. Good afternoon, Lucas.

9 Q. As you were providing your written testimony,
10 Exhibit 293, the bottom of page 3, Edge believes you wrote
11 correctly how we wanted Proposal 17 and 18 portrayed, that
12 they're -- I think in meaning identical of each other.
13 You did -- you did add verbally that you believe they are
14 different in terms of Class II.

15 So as you were giving testimony, we were
16 scrambling to figure out where we screwed up. As we
17 looked through it, we do not believe we screwed up, and
18 they are identical. So I would ask that you withdraw
19 Table 3, Proposal 17, on Exhibit AFBF-4B which is 294, if
20 that's the case.

21 If it's not the case, we'll look -- keep looking
22 for that error. But we do believe that Proposals 17 and
23 18 are indeed identical in intent and in purpose, so I
24 would ask that you make that --

25 A. I -- I'm not going to withdraw the table, but I'm
26 happy to correct on the record that my understanding based
27 on the summary that was in the -- in the Federal Register
28 was incomplete, that, in fact, you guys didn't remember,



1 because I -- when I said that, I looked to see -- to get a
2 signal from you guys whether you had it in or not, and you
3 weren't sure.

4 So I -- I acknowledge that the proposal from Edge,
5 Proposal 17, does include the elimination of advanced
6 pricing for Class II, and I think that's a very sound
7 policy choice. And again, I'm happy to acknowledge that.
8 And I don't think we're -- withdrawing the table
9 accomplishes anything. But it's on the record, and I
10 appreciate that. I appreciate you letting me know.

11 Q. Thank you, Dr. Cryan.

12 MR. SJOSTROM: Thank you, Your Honor.

13 THE WITNESS: Thank you.

14 THE COURT: Are there other questions of Dr. Cryan
15 before I ask to hear from the Agricultural Marketing
16 Service?

17 There are not. The Agricultural Marketing Service
18 may proceed.

19 CROSS-EXAMINATION

20 BY MS. TAYLOR:

21 Q. Good afternoon.

22 A. Good afternoon.

23 Q. I have a couple of questions. You talked a few
24 times, it's in your testimony, you talked a few times
25 about how Class I contracts, the CME could do something
26 with that, or it could be found on other exchanges.

27 Just wondering for the record if you could
28 elaborate on what other exchanges could do that, because



1 basically all the testimony has been around the CME.

2 A. Yeah, I think that it's important to recognize
3 that there are other exchanges. There's the ICE --

4 Q. Don't use acronyms.

5 A. I think that may be their name now.

6 Q. Okay.

7 A. I forget what it used to stand for, but there's
8 quite a few other agricultural commodity exchanges.
9 There's been a lot of consolidation, and I don't have a
10 list of them. But there are several other substantial
11 agricultural commodity exchanges that could -- if, you
12 know, so induced to offer something like this.
13 Cash-settled contracts are much simpler to implement than
14 delivery-based contracts.

15 And the -- under the Dodd-Frank rules, there's
16 such a demand for clearing organizations, that I think
17 there's been some proliferation of those, so --

18 Q. Okay. I want to turn to your Exhibit 292, on
19 page 3.

20 A. I'm sort of making a note, and I'm thinking that
21 the next -- that the next time I testify I should have
22 more information for you about other exchanges. Okay.

23 What are we looking at?

24 Q. Exhibit 292.

25 A. Yes, ma'am.

26 Q. Page 3.

27 A. Page 3.

28 Q. Figure 1. There's a footnote for 2012 that's only



1 May through December. I'm curious what happened to
2 January through April.

3 A. This was -- a lot of this stuff was -- was
4 developed using the data from AMS. The data from AMS,
5 based on the DPS -- the NDPSR, sorry -- I should know
6 that. Of all people, I should know that.

7 Q. You should definitely know that.

8 A. Yeah. The NDPSR was implemented in April of 2012.
9 And of course, if you are looking at year-over-year
10 changes, then you need to start with May. So that's --
11 that's what it is based on the data.

12 Q. Okay.

13 A. The light was better.

14 Q. That's helpful.

15 A. That's not where I lost my keys, but the light was
16 better over here.

17 Q. Okay. If we can turn to page 5, and I want to
18 talk Figure 3. So most -- most of our questions, I think,
19 have been answered. I won't -- I'm trying not to be
20 repetitive.

21 But as I read through and listened to you read
22 through the text on that page, and tried to follow that on
23 the graphs, the figures on that page, I got a little lost
24 on the middle set of -- the middle figures where it says
25 above 5% negative. It seems like a double something.

26 A. Yeah. I think the idea is -- and probably these
27 columns should be reversed, the last two. The last column
28 should be the one in the middle, because it really



1 represents the middle. Yeah, it represents the limited
2 change, and the negative -- the larger negative change is
3 the more extreme in the other direction. So they are a
4 little under -- you know, they are a little disordered,
5 but the basic concept is actually, I thought -- this was
6 Danny's concept, and it's a pretty good way to kind of
7 break it out in a way that makes it relatively easy to
8 understand, we had hoped. That the rising Class III and
9 rising Class IV prices had a big impact on depooling, and
10 that that is pretty specifically associated with advanced
11 pricing.

12 Q. And I -- I'm kind of clear on that concept. But
13 since this is -- this is our only opportunity to
14 understand the figure with you here and ask questions,
15 so --

16 A. Sure.

17 Q. -- I understand that the columns on the left are
18 depooling when there's a positive change in the Class III
19 price greater than 5%.

20 A. Right. And the one in the middle -- I understand.
21 You want to clarify for the record what this is actually
22 saying. So --

23 Q. That would be helpful.

24 A. Yes. So what the one in the middle is saying,
25 it's a larger -- larger than 5% decline in the Class III
26 price, that middle one. And the last, the third column is
27 less than 5% change in either direction from month to
28 month in Class III.



1 Does that clarify it? And then the same thing
2 with the lower, with the Figure 4 for Class IV.

3 I appreciate that. I understand that you are just
4 trying to understand. You are trying to make the record
5 clear.

6 Q. Right. We don't get to call you later and ask, so
7 this is it.

8 A. I'm reading too much into it. I apologize.

9 THE COURT: If I could just ask, just now noticed,
10 Dr. Cryan, that the blue are showing us an average and the
11 orange are showing us a median. Is that correct on every
12 one of these columns in Figure 3 and in Figure 4?

13 THE WITNESS: Right.

14 THE COURT: And I'm surprised they are so close to
15 each other. I thought there would be a bigger difference
16 between average and median. Could you explain that, what
17 those are?

18 THE WITNESS: I mean, the median is just if you
19 take those months, the average is the -- the mean is
20 the -- the average is the mean average. When you add them
21 all up and then divide them by the number, and that's the
22 average, so that's the average size of the depooling
23 volume.

24 And the median is, you line them all up in order,
25 and the one in the middle of the line is the median. So
26 that's what -- you know, sometimes they are both -- I
27 mean, mathematicians refer to both of them as types of
28 average, a median average and a mean average. In popular



1 vernacular, we typically think of the mean average as the
2 average, and the median has to be defined specifically.

3 Sometimes they are -- sometimes those can be
4 different, but in this case they are -- they are similar.
5 It's not that unusual for medians to end up similar if you
6 have got a relatively straight line -- straight line
7 distribution.

8 THE COURT: Thank you.

9 THE WITNESS: You're welcome.

10 MS. TAYLOR: Okay.

11 BY MS. TAYLOR:

12 Q. If we can turn to 294, and this might have gone to
13 Mr. Sjostrom's point, but I was reading, so I might not
14 have caught all of what he was talking about earlier.

15 Table 3 on Proposal 17, which is the Class III
16 Plus proposal. And you say that the red line shows
17 basically what the Class I price would be under their
18 proposal, which would be the announced higher -- well, no.
19 That doesn't make any sense.

20 Can you tell me what this is showing me?

21 A. That is more or less --

22 Q. I should state that the thought in my head didn't
23 make any sense. I was not commenting.

24 A. Right. This was my understanding, and I
25 identified it as Proposal 17 because I had understood from
26 the summary of Edge's Proposal Number 17 that they did not
27 address advanced pricing on Class II, so I had simply left
28 that as is with that, with the advanced pricing.



1 Marin and Lucas clarified for me that, well, when
2 they went back to look, they clarified -- they confirmed
3 that they did, in fact, propose the elimination, so that
4 in effect, Proposal 17 and Proposal 18 are identical.

5 So Class II in this table should look like
6 Class II -- well, it shouldn't look like Class II in
7 Table 4. Table 4 we have also added the \$1.56 instead of
8 the \$0.70 on the differential.

9 I'm sorry, I forgot the question.

10 Q. Well, I think I made my own mistake since there's
11 two Edge proposals on the subject, that 16 is a Class III
12 price plus --

13 A. Right.

14 Q. -- and 17 is their higher-of, and I had confused
15 it in my head. Because I was wondering why the red line
16 said announced higher-of, and that didn't make sense to
17 me, but I was thinking about the wrong proposal.

18 A. 17, as clarified by the folks from Edge, 17 is
19 completely consistent with Farm Bureau policy, but it's --
20 but the Class II on this graph does not reflect that.

21 Q. Got it. Thank you.

22 One last question. I know you had some back and
23 forth with Mr. Rosenbaum on the impact to some Class I
24 handlers who currently are able to hedge but, you know,
25 wouldn't under your proposal, and he brought up a few of
26 his members.

27 But I'm curious your thoughts on the impact to
28 smaller Class I processors, not the big guys, but the



1 smaller guys who don't have that ability to just -- and
2 the resources to do hedging.

3 A. Uh-huh.

4 Q. If you get rid of announced pricing, kind of, the
5 impact to them and how should we be thinking about that as
6 we make a decision?

7 A. I mean, okay. Farmers -- a large farmer is really
8 a small business for the most part. Most farmers -- the
9 cutoffs for agriculture, you know, for the small business
10 definition are ridiculously small, and -- and farmers go
11 out and they manage their risk. Farmers use all kinds of
12 risk management tools to manage their crop risks and their
13 monthly delivery price risks for delivery of milk.

14 I don't think there's -- I don't think it's beyond
15 the small processor to make use of these tools as they
16 develop. Farm -- I mean, farmers are -- farmers are
17 constantly doing this kind of thing, and so I -- I believe
18 that processors are capable as well.

19 MS. TAYLOR: I think that's it for AMS. Thank
20 you.

21 THE COURT: Mr. Rosenbaum.

22 CROSS-EXAMINATION

23 BY MR. ROSENBAUM:

24 Q. Mr. Cryan, is it correct that the only exchange in
25 the United States currently handling any dairy futures of
26 any kind is the CME?

27 A. Today, yes.

28 MR. ROSENBAUM: That's all I have.



1 THE COURT: Dr. Cryan, do you want to --

2 THE WITNESS: I'd like to move, yes, I would like
3 to move -- I would like to -- I have no other redirect. I
4 think I have said my piece.

5 I would like to move the -- whatever the term is.

6 THE COURT: Into evidence.

7 THE WITNESS: The admission of these three
8 exhibits into evidence, please.

9 THE COURT: Is there any objection to Exhibit 292
10 being admitted into evidence?

11 There is none. Exhibit 292 is admitted into
12 evidence.

13 (Exhibit Number 292 was received into
14 evidence.)

15 THE COURT: Is there any objection to Exhibit 293
16 being admitted into evidence?

17 There is none. Exhibit 293 is admitted into
18 evidence.

19 (Exhibit Number 293 was received into
20 evidence.)

21 THE COURT: Is there any objection to the
22 Exhibit 294 being admitted into evidence?

23 There is none. Exhibit 294 is admitted into
24 evidence, with our thanks.

25 (Exhibit Number 294 was received into
26 evidence.)

27 THE COURT: Thank you, Dr. Cryan.

28 I'd like to go off record at 3:07 while a



1 statement is being distributed.

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

3 THE COURT: We're back on record at 3:08 p.m.

4 Ms. Hancock.

5 MS. HANCOCK: Your Honor, Mr. Sjostrom is
6 intending to present some testimony on Edge-14, and
7 National Milk has an objection to this testimony being
8 outside the scope of this hearing.

9 I don't know if it's something you would like to
10 take up before he reads his testimony in or if after, and
11 so I guess I'm just alerting you so that we can maybe make
12 the decision before we get too far down the road.

13 THE COURT: All right. You are willing to have
14 him read it so that I'll know what to do with the
15 objection. Is that partly it, since I have no idea?

16 MS. HANCOCK: I think it's fair to say that
17 everyone would stipulate that this is a compromise -- or
18 an offer by Edge of being a proposal that is different
19 than the proposals that were originally articulated by the
20 Hearing Notice.

21 DR. BOZIC: May I speak, Your Honor?

22 THE COURT: Yes.

23 DR. BOZIC: Your Honor, this is --

24 THE COURT: Go ahead and say who you are.

25 DR. BOZIC: Marin Bozic, Edge Dairy Farmer
26 Cooperative.

27 The testimony that Mr. Sjostrom was about to read,
28 or is about to read depending on your decision, is a



1 simple combination of Proposals 13 and Proposal 16. And
2 the reason for this testimony is to offer a choice to AMS
3 that incorporates all of the evidence that has been heard
4 on this topic over the previous two weeks.

5 We are not introducing anything new. We are just
6 saying you don't have to choose between the proposals, you
7 can adopt multiple proposals as one proposal.

8 MR. HILL: Your Honor? Brian Hill, OGC.

9 Yeah, Ms. Hancock beat me to the punch. So I was
10 having the same conversation here as to whether I should
11 say something before or after this was introduced.

12 It seems the -- well, first, the Hearing Notice
13 mentions that -- let me see if I can find this real
14 quickly.

15 The summary is: A national public hearing is
16 being held to consider and take evidence on proposals to
17 amend the pricing formulas in the 11 Federal Milk
18 Marketing Orders. And that's essentially 7 CFR 1000.50.
19 And also -- let me find this real quickly -- 1052, the
20 Class I differentials.

21 It appears that this proposal would instead be
22 looking at changing the classification of uti- -- classes
23 of utilization, which is in 1000.40, which would make this
24 outside of the scope of this hearing. And so I'm not sure
25 what you want to do with that, but the Secretary has
26 already determined that anything outside of 1000.50 or
27 1000.52 will not be considered in any decision.

28 THE COURT: Give me the cite for the section that



1 this would fall in that is not noticed.

2 MR. HILL: 1000.40, classes of utilization.

3 That's what it appears. If they tell me something
4 different, I would like to hear it.

5 THE COURT: Dr. Bozic -- oh, let me hear from
6 Mr. English first.

7 MR. ENGLISH: So I think before we get into the
8 weeds on this, whether it's an offer of proof or
9 otherwise, I think unless Your Honor has read the
10 statement or wants to take a break and read the statement
11 and then rule, which I think is -- would be faster to
12 allow the witness to put it in.

13 I have a rather complex comment to make, partly
14 because Your Honor has been maybe fortunate enough not to
15 have been here for the entire hearing, and may or may not
16 be aware that there was an objection made on Day 1 -- not
17 an objection but a -- well, yeah, it was an objection --
18 objection made on Day 1 by both National All-Jersey and
19 the Milk Innovation Group about the scope of the hearing.

20 I'd rather -- I think, from my perspective, we
21 can -- I think you need to know what the statement is
22 before you can make a decision anyway. So the question
23 is, do you let him make an offer of proof and then rule?
24 Do you take the time to read it and rule without his doing
25 that? It seems to me we save more time by letting him do
26 it. I think the objection can still stand. I think it
27 would be reserved, and I just think that we can move more
28 quickly trying to do that today.



1 If we allow him to make the statement with the
2 recognition that you may rule ultimately that it's not
3 evidence, but give you an opportunity to listen to it to
4 be able to make your ruling. And I think you are going to
5 hear a fair amount of argument afterwards about what
6 happened back on Day 1 and how it might relate to this and
7 everything else.

8 So I think that would be an efficient way to move,
9 recognizing that both OGC and National Milk can reserve
10 their objection, so if that's okay with people -- the
11 alternative is to let the Judge read it while we take a
12 break.

13 THE COURT: No.

14 MS. HANCOCK: I can present another alternative.
15 We have Mr. Covington prepared to go on the stand today,
16 and so we could let you consider this overnight -- not to
17 use up your evening time -- but we could let you consider
18 this overnight by reading it.

19 My concern is, is how do we unring the bell if we
20 put it into the record? I mean, obviously, we have
21 preserved our objection by making it, but, you know, in an
22 effort to try and save time, it would be great not to have
23 to even use record time for it.

24 THE COURT: Now, we have plenty of time to do both
25 Mr. Sjostrom and Mr. Covington before 5:00.

26 MS. HANCOCK: We do, but we have other witnesses
27 that are prepared to go today as well, like Dr. Vitaliano,
28 if we had -- if we were going to be able to save us one



1 witness slot.

2 THE COURT: Well, let me ask about that. I'd like
3 to get Mr. Covington in if he wants to go back to his farm
4 and bring in his hay. And so he would actually be my
5 preferred next witness. And perhaps if we did that --
6 take a five-minute break, change the order of things, let
7 Mr. Covington testify, we could finish him today, and then
8 we can decide what to do next.

9 DR. BOZIC: Your Honor, I'm not sure whether
10 Mr. Covington is planning to be here tomorrow. I do know
11 that Mr. Sjostrom needs to leave tonight.

12 THE COURT: You have to leave tonight? I thought
13 this was your life.

14 MR. SJOSTROM: No. I have a few hats, as you may
15 have remembered.

16 THE COURT: Then, that's important. Yes. Okay.
17 Let's keep going. I'm going to need a break soon,
18 but let's get started with how we're going to proceed.

19 I'm going to mark this document as an exhibit so
20 we know what to call it. This is going to be 295. And I
21 note that the name of it is "Testimony in Support of
22 Logical Outgrowth of Proposals Number 13, Number 14,
23 Number 15, Number 16, Number 17, and Number 18."

24 Now, up at the top it's called Edge-14.

25 (Exhibit Number 295 was marked for
26 identification.)

27 THE COURT: The reason I'm intrigued by this
28 document is we have already told Dr. Bozic that the



1 hearing is where you present evidence, and if you fail to
2 present it at the hearing, you cannot expect that if you
3 mention brilliant things, even if supported by
4 documentation in a brief, they are not evidence, they are
5 argument.

6 So if, in fact, people have a proposal that takes
7 into account the dynamics of what's been happening here in
8 the hearing, I think that's a wonderful thing. So I love
9 that this was going to combine all those proposals. But
10 if it's really about Edge-14, which has been objected to
11 from the beginning, that's different.

12 So the only way I can decide what to do is to look
13 at Exhibit 295 and accept Mr. Sjostrom's testimony that
14 I'm about to take as an offer of proof as to why what he's
15 going to tell me and why Exhibit 295 should be admitted
16 into evidence. And if I reject that, reject that offer of
17 proof, the fact that I gave it a number does not mean that
18 it's evidence. However, it would be part of the record of
19 rejected documents, as is done. Things that are offered
20 but either accepted -- I'm sorry -- offered and either
21 accepted or rejected are part of the record.

22 So that's what I would propose to do.

23 Let me ask Dr. Bozic, is that something you want
24 me to go forward with, and if not, why?

25 DR. BOZIC: Your Honor, I fully agree with your
26 approach. I share Mr. Hill's concern that this hearing
27 needs to stay within the bounds of what was originally
28 noticed for a hearing. But unless we are going to tear



1 the baby apart to decide that each alleged mother, you
2 know, should have it, we need to find a Solomonian
3 solution, and this is what Mr. Sjostrom is here to
4 present.

5 THE COURT: So is he King Solomon or am I?

6 DR. BOZIC: You would be Queen Solomona, I guess.

7 THE COURT: All right. Very good. Thank you. We
8 will proceed on that basis.

9 Would you state and spell your name, please?

10 MR. SJOSTROM: Lucas Sjostrom, L-U-C-A-S,
11 S-J-O-S-T-R-O-M.

12 THE COURT: Have you previously testified in this
13 proceeding?

14 MR. SJOSTROM: Yes.

15 THE COURT: You remain sworn.

16 MR. SJOSTROM: Thank you.

17 LUCAS SJOSTROM,
18 Having been previously sworn, was examined
19 and testified as follows:

20 THE COURT: You may -- you may read Exhibit 295,
21 you may testify apart from what is in 295, in whatever
22 order you would like.

23 THE WITNESS: Thank you, Your Honor. And my
24 counsel has left me, but I did prepare this myself, so --
25 I have given an introduction to myself, but I'm just going
26 to read this into the record.

27 Edge participates -- and as fast and as slow as I
28 can.



1 Edge participates in this proceeding, not just to
2 advocate for the proposals we have filed, but also to
3 learn from other participants, challenge, and draw the
4 best out of all witnesses, and contribute to finding a
5 solution that will work well for producers, processors,
6 and consumers of dairy products. In that spirit, we
7 previously suggested slight modifications to National Milk
8 Producers Federation's Proposal Number 1 on standard milk
9 composition, and a proposal that would reduce, but not
10 eliminate, the role of barrel cheese in determining the
11 value of protein.

12 This week the topic before us is base Class I skim
13 milk price. In various testimonies this week and weeks
14 before, we heard the need for hedging raw milk input costs
15 by manufacturers of extended shelf life, or ESL, and
16 aseptic milk products, who typically offer their buyers a
17 fixed price, for example, a price that does not change
18 from month to month.

19 In contrast, most manufacturers of the traditional
20 high temperature short time products have no need to
21 hedge, as they simply pass through any month-to-month
22 changes in Class I milk price to buyers of their products.
23 Exceptions to this would be sales to schools, government,
24 and foodservice.

25 The difference in marketing practices among
26 Class I handlers creates a situation where a subset of
27 fluid milk product manufacturers is pleading with the USDA
28 not to take away their ability to hedge so that they may



1 continue to provide a flat price to their customers and
2 effectively manage their Class I price risk. Others in
3 the HTST space are protesting any proposals under which
4 they would need to start hedging if advanced prices were
5 abandoned.

6 Having heard all the evidence presented so far,
7 Edge would like to invite all participants at this
8 hearing, trade associations, producers and processors, and
9 particularly USDA, to think "outside the box." We believe
10 it is possible to find a pricing method for base Class I
11 skim milk price that would meet everyone's needs --
12 there's an "S" for correction there on the paper -- in
13 line with the policy objective set in the Section 2,
14 Part 4, of the Agricultural Marketing Agreement Act, to
15 look for solutions that avoid unreasonable fluctuations in
16 price.

17 To that end, Edge would like to introduce a
18 logical outgrowth proposal based on submitted proposals
19 and evidence heard thus far. Our objective is to preserve
20 the ability to hedge by those Class I companies that do
21 hedge, while at the same time, return to the higher-of
22 approach of pricing fluid milk where hedging is not used
23 or needed.

24 Essentially, this proposal combines Proposal
25 Number 13 by the National Milk Producers Federation and
26 Proposal Number 16 by Edge Dairy Farmer Cooperative. It
27 also combines discussions found in testimonies and
28 cross-examination from proponents of all six proposals



1 noted -- noticed -- excuse me -- for this section.

2 Proposal 13 stipulates a reversal to higher-of as
3 existed prior to 2019, which would decimate nascent
4 hedging programs by Class I handlers. In contrast,
5 Proposal 16 abolishes advanced prices and pushes the
6 sector further towards hedging, even beyond the current
7 average-of regime.

8 How can these two be reconciled? We propose that
9 AMS consider splitting Class I milk into two subclasses:
10 Traditional Class I available to HTST manufacturers, and
11 utilizing the National Milk Producers Federation's
12 Proposal 13 to price the Class I milk.

13 A new subclass, I-H -- H for "hedgeable" -- all
14 milk processed as extended shelf life or aseptic would
15 automatically be classified to Class I-H, and others can
16 elect it if they can demonstrate to the Market
17 Administrator's satisfaction that they are regularly
18 offering their product on a forward price basis and are
19 currently hedging, or wish to start utilizing hedging
20 tools to manage their price exposure.

21 The milk in Class I-H would be priced per
22 Proposal 16, Class III Plus with no advanced prices. To
23 prevent adverse selection, the switch between subclasses
24 should be difficult to make, with a very long lead time.
25 We suggest a lead time of at least 24 months.

26 We anticipate that providing specific targeted
27 pricing incentives that facilitate hedging could spur
28 further growth of the extended shelf life and aseptic



1 fluid milk sector, adding innovation into the fluid milk
2 category. Extended shelf life and aseptic milk continues
3 to be a growth area for dairy. Since 2019, nearly 30 HTST
4 plants have been shuttered and 11 new ESL/A plants have
5 been opened. This trend, if continued, would imply an
6 ever rising share of Class I milk that is priced on
7 Class III Plus, both a gradual transition towards our
8 Edge's preferred solution.

9 At the present time, we anticipate that -- and
10 this is a correction we have made in listening to
11 testimony -- we anticipate that 10 to 30% of Class I milk
12 is hedged or offered on flat price basis and would qualify
13 for sub-Class I-H.

14 THE COURT: Let me stop you --

15 THE WITNESS: Yes.

16 THE COURT: -- and we'll make that correction.

17 So on the record copy, I'm looking at page 2 of
18 this, we'll call it proffered Exhibit 295, and the next to
19 the last full paragraph, fourth line down, currently shows
20 "10-20%." The witness has just said the "20" should be
21 "30."

22 Can you find that on this document?

23 So if you would strike -- now, am I correct,
24 Mr. Sjostrom?

25 THE WITNESS: Yes. And, Your Honor, by doing
26 math, two lines down the "80" will become "70."

27 THE COURT: Ah, all right.

28 THE WITNESS: Thank you.



1 THE COURT: So we will just strike "20" and insert
2 "30," and two lines below that we will strike "80" and
3 insert "70." Done. Thank you.

4 THE WITNESS: Thank you.

5 I'll re-read at the beginning of that sentence.

6 At the present time, we anticipate that 10 to
7 30% of Class I milk is hedged or offered on a flat price
8 basis and would qualify for sub-Class I-H. Those dairy
9 producers anxious to return to higher-of pricing would see
10 70 to 90% of Class I milk priced, again, using the formula
11 they understand and trust.

12 Edge members, and all U.S. dairy farmers, have
13 repeatedly asked for more innovation in the fluid milk
14 sector. One way to lower risk and allow more opportunity
15 for innovation is to lengthen the shelf life of the
16 product and manage the risk associated with the flat price
17 contracts for inventory value.

18 Finally, dairy farmers want to see the best price
19 discovery possible. While the regular Class I and the
20 sub-Class I-H are both fluid products with mandatory
21 pooling, they do deserve separate pricing solutions and
22 the accompanying risk management tools to go along with
23 them.

24 Per Proposal Number 22, AMS is authorized to make
25 such changes as may be necessary to make the respective
26 Marketing Orders conform with any amendments thereto that
27 may result from this hearing. We strongly believe that
28 the proposal we are submitting today is a logical



1 outgrowth of the discussion heard so far, and respectfully
2 request that USDA rule before the end of the in-person
3 hearing proceedings whether they would find this proposal
4 and other outgrowth proposals submitted by Edge thus far
5 as admissible.

6 Such ruling is not pre-judicial, i.e., does not
7 indicate that USDA prefers those proposals over others,
8 but would provide incentive to all parties to offer their
9 substantive comments in post-hearing briefs in favor or
10 against such outgrowth proposals, or deepen the ideas
11 presented thus far with detailed suggestions for
12 implementation. These changes create a pathway towards
13 solution by utilizing the combined wisdom shared
14 throughout this important process.

15 THE COURT: Do you have anything to add to that
16 before you are asked any questions?

17 THE WITNESS: No.

18 THE COURT: All right.

19 Dr. Bozic, you may come to the witness stand. I'm
20 about to rule. What were you about to do?

21 DR. BOZIC: Just be at your availability.

22 THE COURT: Thank you. Good.

23 I remember, Dr. Bozic, when you had a brilliant
24 answer, Mr. Miltner asked you your opinion on something, I
25 believe it was Mr. Miltner, and your opinion was, "It's
26 worth considering."

27 And this is worth considering, but you can't do it
28 as this hearing's been noticed. You know, it's a great



1 idea to have USDA decide to change horses midstream, but
2 they can't. Legally they can't.

3 So I'm going to reject Exhibit 295 as evidence in
4 the case. It will be part of the record. It is thought
5 provoking, and there are pieces of it that can be utilized
6 without getting into classes of utilization. There are
7 pieces of it that are ideas that people will benefit from
8 having found here.

9 But I'll agree with Mr. Hill that we -- we cannot,
10 in this hearing -- which can't do all things, and I hope
11 there's another Federal Order hearing soon -- but this one
12 will have to stay between the lines and be consistent. It
13 would be unfair to everyone who's already been here --
14 well, to everyone who's already submitted a proposal under
15 the rules to change the rules now.

16 DR. BOZIC: Thank you, Your Honor.

17 THE COURT: Thank you both.

18 Now, is Mr. Sjostrom free to leave knowing that he
19 won't be here tomorrow? Is everyone in agreement with
20 there's nothing left over that you want him to stay for or
21 be around for later today?

22 All right. I'm going to take that as a yes,
23 because no one leaped up.

24 All right. So I am marking my copy that I'm using
25 that I have rejected, Exhibit 295, for the reason that the
26 proposal that we create an additional classification was
27 not noticed, that category of classes of utilization was
28 not noticed. And as Mr. Hill provided, that's in



1 Section 1000.40.

2 All right. Mr. Covington, you may approach and be
3 seated in the witness stand, and I would like to take a
4 five-minute break while his documents are being
5 distributed. So please be back and ready to go at 3:40.

6 It's now 15:34. We're going off record.

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

8 THE COURT: Let's go back on record.

9 We're back on record at 3:41.

10 First I would like the witness to state and spell
11 his name.

12 MR. COVINGTON: Calvin Covington. That's
13 C-A-L-V-I-N; Covington, C-O-V-I-N-G-T-O-N.

14 THE COURT: Thank you.

15 I'm being handed your statement, and it's already
16 marked as 296.

17 (Exhibit Number 296 was marked for
18 identification.)

19 THE COURT: 296.

20 And, Mr. Covington, you have previously testified?

21 MR. COVINGTON: Yes, ma'am.

22 THE COURT: You remain sworn.

23 MR. COVINGTON: Yes, ma'am.

24 CALVIN COVINGTON,

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

27 THE COURT: Ms. Hancock, you may identify yourself
28 and proceed.



1 MS. HANCOCK: Thank you, Your Honor.

2 DIRECT EXAMINATION

3 BY MS. HANCOCK:

4 Q. Good afternoon, Mr. Covington. Welcome back to
5 the stand.

6 Did you prepare Exhibit NMPF-104 in support of
7 your testimony today?

8 A. Yes, ma'am, I did.

9 Q. And we have marked that as Exhibit 296. If you
10 would proceed with your testimony, please.

11 A. All right. Thank you.

12 This testimony is presented in opposition to the
13 portions of Proposals 16, 17, and 18, which eliminate
14 advanced pricing. This testimony is presented on behalf
15 of Southeast Milk, Incorporated, with the support of
16 National Milk Producers Federation.

17 And, Your Honor, I'm going to skip over the rest
18 of the first page since it's been presented before and
19 start with page 2.

20 My testimony will provide seven reasons for
21 opposing the elimination of advanced pricing.

22 Number 1: The nature of packaged fluid milk. I
23 estimate about 90% of packaged fluid milk sales is
24 considered conventional and processed using high
25 temperature-short time (HTST) pasteurization.
26 Conventional packaged fluid milk is the most perishable
27 dairy product in the dairy case. In practical terms,
28 packaged fluid milk is marketed using just-in-time



1 strategies. Most buyers of packaged fluid milk,
2 especially large retail grocers, receive fluid milk
3 deliveries multiple times per week. It is common for
4 retail grocers to refresh their dairy cases with packaged
5 fluid milk frequently throughout the day. There's no
6 practical method to store HTST packaged fluid milk for
7 more than what would represent a few days of a retailer's
8 needs. This is unlike many Class III and Class IV retail
9 products, such as butter and cheese, which can be stored
10 for longer periods.

11 Grade A farm milk delivered to pool distributing
12 plants marketing conventional HTST packaged fluid milk is
13 processed, packaged, distributed, and sold in a relatively
14 short time period. It just makes good economic and
15 business sense to know at the time of purchase, the price
16 of the product with a relatively short shelf life,
17 especially compared to other dairy products. Federal Milk
18 Marketing Order advanced pricing in Class I milk provides
19 this price. Without advanced pricing, this pricing goes
20 away. Waiting until most of the product is already
21 distributed, and much of it consumed before knowing the
22 price, is not a prudent business practice.

23 Reason number 2: Pricing of packaged fluid milk.
24 Most HTST packaged fluid milk, especially private label
25 sales and institutional sales (schools), is priced by
26 fluid processors to its customers monthly based on some
27 type of pricing formula. In simple terms, the formula has
28 as its base the raw milk cost. The raw milk cost is



1 significant and the highest single item cost of the total
2 expense to process and package a unit of conventional HTST
3 fluid milk.

4 The monthly Federal Milk Marketing Order Class I
5 price is used to determine the base raw milk cost in the
6 pricing formula. Most dairy plants manufacturing cheese
7 or butter base their selling price, generally, off Chicago
8 Mercantile Exchange (CME) daily cash prices. Fluid milk
9 plants marketing excess cream use the CME butter price to
10 establish the base selling price. A buyer of cheddar
11 cheese or even cream can look at CME prices and know the
12 base price they will expect to pay for a truckload of
13 block cheddar cheese or a load of cream. Fluid milk has
14 no daily price basis such as the CME. The base price is
15 the announced Federal Milk Marketing Order Class I price.

16 To further explain packaged fluid milk pricing and
17 the need for advanced pricing, I provide the following
18 example:

19 Assume I own a group of grocery stores. I
20 contract with a fluid milk processor for gallon jugs of
21 private label packaged conventional white fluid milk for
22 my stores. My monthly price for the packaged fluid milk
23 is based on the formula negotiated with the fluid milk
24 processor. The formula is the monthly Federal Milk
25 Marketing Order Class I price at the location of the fluid
26 plant, packaging costs, the resin used to make the jug,
27 the cap and label, and any added ingredient cost, plus a
28 tolling fee. In this formula, assume the cost of raw milk



1 represents 75% or more of my total cost of a gallon of
2 whole milk at the fluid milk's plant dock.

3 Using the month of September 2023 as an example, I
4 knew on August 23 of the prior month the price for the
5 packaged milk I would purchase from the fluid processor
6 during the month of September. How did I know the price?
7 Federal Milk Marketing Orders announced the September
8 Class I price in advance on August 23. This advanced
9 price notice enabled me to set my retail store milk prices
10 in September, prior to the beginning of the month.

11 Knowing my package milk cost in advance allowed me
12 to consider any milk promotion plans. Announced Federal
13 Milk Marketing Order Class I pricing allowed me as a
14 retailer to know the packaged milk price in advance.
15 Advanced pricing allowed the fluid milk processor to know
16 the price the plant would receive for the packaged fluid
17 milk prior to the raw milk being processed, packaged, and
18 sold.

19 Now, look at my situation as a retail grocer under
20 Proposals 16, 17, and 18, which eliminate advanced
21 pricing. For the packaged fluid milk I purchased in
22 September, I will not know the cost until the afternoon of
23 October 4. Why? Without advanced Class I pricing, it
24 would be October 4 before the September Class I price is
25 announced. Again, the price of the raw milk represents at
26 least 75% of my packaged milk cost. Most of the packaged
27 fluid milk I purchase in September has been sold before
28 the price I paid for the product is known. From a retail



1 grocer's perspective, this is not orderly marketing of
2 fluid milk.

3 History tells us there can be significant
4 month-to-month price increases in the Class I milk price.
5 Advanced pricing telling us what the next month's milk
6 price will be and plans can be made accordingly. Without
7 advanced pricing, the actual announced Federal Milk
8 Marketing Order Class I price would not be known until the
9 following month, after most of the product has already
10 been distributed and sold.

11 When there is a significant monthly increase in
12 the Class I price, I see the possibility of retailers
13 going back to their fluid milk processor, and the fluid
14 milk processor going back to the dairy farmer cooperatives
15 supplying them with milk seeking price relief when there's
16 a large month-to-month price increase. This is not
17 orderly marketing. It opens the potential of fluid milk
18 processors in the same marketing area not having equitable
19 raw milk cost and the potential producers in the same
20 marketing area not having uniform pricing.

21 Reason number 3: Additional burden on fluid milk
22 processors and cooperatives. If the sections of
23 Proposals 16, 17, and 18, which eliminate advanced pricing
24 were adopted, it would be unrealistic to think many retail
25 grocers would not seek some type of continued advanced
26 pricing on Class I products. This due to the example just
27 given and the tradition of advanced Class I pricing, fluid
28 milk processors and cooperatives that supply raw milk to



1 fluid processors would be asked to respond to that
2 request.

3 To meet the request, fluid processors and/or
4 cooperatives would need to calculate an estimated advance
5 Class I milk price. An estimated Advanced Class I price
6 would require later true-ups to the final announced
7 Federal Milk Marketing Order Class I price. Doing this
8 would require additional accounting and recordkeeping,
9 plus there is the potential true-ups could be upside
10 limited. This means fluid milk processors and/or their
11 milk suppliers take the hit when prices rise faster than
12 forecast as indicated above.

13 On past occasions cooperatives were asked by fluid
14 processors to develop Class I price estimates in advance
15 of the Federal Milk Marketing Order Class I price
16 announcement with a promise to true-up later. Let me
17 share with you an actual example.

18 It was December, and the January Class I price
19 announcement date was just a few days before Christmas
20 that year. Some fluid milk processors and their customers
21 want to get a jump start on Christmas. They wanted to
22 have their January milk price announcements out of the way
23 several days before Christmas. Fluid processors asked
24 their supplying milk cooperatives to estimate the January
25 Class I mover and announce the cooperatives' Class I price
26 several days before the actual Class I announcement.

27 Desirous to meet the request of its customers, the
28 cooperatives agreed, including a future true-up. The



1 true-up is the difference between the estimated Class I
2 price and final Class I price, up or down. The true-up is
3 carried over to the February price announcement. The
4 cooperative does not receive the final settlement for
5 February milk until March. The true-up would not be
6 reflected in the dairy farmers milk check until the check
7 received in March for February milk.

8 If all of this sounds complicated, it was.
9 Personally, I can tell you when this was done, it was one
10 big mess. It met the definition of disorderly marketing.
11 I regretted agreeing to do it and departing from the
12 Federal Milk Marketing Order advanced price schedule. It
13 was not done again. The scenario just described is for a
14 one-off pricing date accommodation. Imagine how complex
15 this could get if these estimations and true-ups occur
16 monthly.

17 Adding to the market disorder created by true-ups
18 there is a possibility of notably different Class I raw
19 milk costs across competing Class I milk buyers. These
20 would not be due to differences in prices based on plant
21 location, but rather variations in effective prices due
22 purely to differences in the forecast of Class I prices.
23 Unequal pricing for the same product is disorderly and
24 should be avoided.

25 Reason number 4: Institutional buyers of fluid
26 milk products. School systems and other public
27 institutions such as military bases and prisons are large
28 buyers of packaged fluid milk. Most schools and public



1 institutions purchase packaged fluid milk based on a
2 pricing formula similar to what I used in my earlier
3 example. These pricing formulas are known for their being
4 rigid and strict, with the only change being monthly
5 changes in the raw milk cost.

6 Advanced Class I prices allow schools and other
7 public institutions to know in advance their monthly milk
8 cost and plan accordingly. It would be a challenge to
9 have a true-up program with a school, a military
10 commissary, and explain to them why they could not know
11 the milk price prior to purchase and why they needed to
12 true-up beyond what they already pay for milk.

13 Reason 5: The Class I price. Fluid milk
14 processors pay the highest regulated raw milk price. The
15 Class I price is higher than Class II, III, or IV.
16 Eliminating Class I advanced pricing creates a one-sided
17 change. Dairy farmers retain the economic benefits of a
18 higher Class I price, but fluid milk processors lose the
19 pre-knowledge of their raw product cost.

20 Reason 6: Dairy farmer benefits. Advanced
21 pricing benefits dairy farmers by providing a mild buffer
22 to blend price fluctuations. When Class III and IV milk
23 prices are falling, advanced class prices are the last to
24 be impacted. This buffers the inevitable declines in the
25 blend price. Depending upon Class I utilization, this
26 buffering can be a little or a lot, but it is nonetheless
27 present and important.

28 The one place in Federal Milk Marketing Order



1 pricing where the industry, and in particular dairy
2 farmers, get a peek over the fence at what prices may be
3 coming at them are advanced class prices. Advanced prices
4 provide a realtime look forward for milk pricing trends.
5 They are the first regulated prices to signal what is
6 coming. Elimination of advanced pricing removes this
7 market signal.

8 With advanced pricing, there is no doubt when
9 dairy product prices increase, there is a lag period
10 before the Class I price increases. On the other hand,
11 when dairy product prices decline, there's a lag period
12 before the Class I price declines. Over the years, dairy
13 farmers have regularly expressed to me that they want to
14 know as far in advance as possible the direction milk
15 prices are moving. Advanced pricing helps provide a look
16 forward for the milk price direction.

17 Reason number 7: Little benefit. Reducing the
18 potential of price inversions is the justification
19 provided for eliminating advanced pricing. There's no
20 argument eliminating advanced pricing helps reduce price
21 inversions. NMPF, and its member cooperatives, recognize
22 the need to reduce price inversions. Adoption of NMPF
23 Proposals 1, 13, and 19 would help do so.

24 The marginal benefit from eliminating advanced
25 pricing does not exceed the marginal cost. As the old
26 saying goes, do not let the cure be worse than the
27 disease. Advanced pricing provides benefits to all
28 involved in the fluid milk food chain from dairy farmers



1 to consumers. Advanced pricing should not be eliminated
2 just in order to help solve a single challenge.

3 Federal Milk Marketing Orders do not establish or
4 regulate the retail price of packaged fluid milk.
5 However, some acknowledgement of Federal Milk Marketing
6 Orders and its impacts on retail marketing of Class I
7 fluid milk is appropriate. It is helpful to retail
8 grocers and institutional buyers to know the cost of
9 packaged fluid milk in advance. The current system of
10 Federal Milk Marketing Order advanced Class I pricing
11 addresses this need. Advanced pricing allows retailers to
12 better implement their marketing strategies and allows
13 institutional buyers easier budgeting.

14 Advanced pricing has served the fluid dairy
15 industry well for many years. This hearing shows there
16 are Federal Milk Marketing Order provisions where
17 processors and producers have differences of opinion.
18 Advanced pricing is one Federal Milk Marketing Order
19 provision that most fluid milk processors, and those
20 cooperatives who supply fluid milk to these processors,
21 largely agree on.

22 We strongly encourage the Secretary of Agriculture
23 to retain the advanced pricing provisions in all Federal
24 Milk Marketing Orders.

25 Respectfully submitted.

26 Q. Thank you, Mr. Covington. Just a couple of
27 questions I want to follow up on.

28 We have heard various lines of questions



1 arounding -- around depooling and -- and how advanced
2 pricing also will help either eliminate or reduce the
3 instances of depooling. And I'm wondering what your
4 thoughts are with respect to that.

5 A. Well, as I mentioned in my testimony, you know,
6 other proposals of National Milk Producers Federation have
7 been proposed, does address that to some extent. But I'm
8 just going to give you my personal opinion. This is not
9 opinion of Southeast Milk, and this is not opinion of
10 National Milk Producers Federation, and it is outside the
11 scope of this hearing.

12 Each Federal Milk Marketing Order, each Federal
13 Milk Marketing Order has pooling standards, or what I call
14 performance standards. And those standards are standards
15 in regards to what we call touch-day provisions, the
16 number of days that producer milk must be delivered to a
17 pool or supply distributing plant, how much milk that
18 could be diverted and still receive the -- be a part of
19 the pool and still receive the uniform price, and also
20 some Federal Orders have requirements about once you get
21 depoiled, a percent or how long you have got to stay out
22 before you can get back in. But all those performance
23 standards are -- each one is different for each individual
24 order.

25 And so my personal opinion, that progress could be
26 made on trying to slow down eliminating depooling if each
27 individual order would look about what changes they could
28 make to their individual order performance standards to



1 tighten them up. To tighten them up. Again, that's
2 outside the scope of this hearing, and it's on a regional
3 basis or each order basis.

4 But there's such a variation in performance
5 standards for pooling standards from order to order. The
6 order that I represent, the Florida order, has the
7 tightest standards of any Federal Milk Marketing Order.
8 And, again, there's no supply plants in that order, only
9 pool distributing plants. But for a producer's milk to be
10 pooled on that order, it has to be -- one-day's production
11 has to be delivered ten days each month to be a part of
12 that Federal Order, and the diversion limit -- diversion
13 requirements are very tight. They vary seasonally.

14 From June to November only 10% of the milk can be
15 diverted to a non-pool plant and still participate in that
16 order. Then it goes up to 15%. Then we get March, April
17 and May, it kicks up to 20%. But if you go to some other
18 orders -- and again, I'm not as familiar with those
19 without looking them up -- diversion requirements could be
20 70, 80, 90%, and maybe only 10% has to be delivered, and
21 touch base might only be once a month or not that
22 frequently.

23 But personally, my opinion is to look -- for each
24 order to look at individual performance standards in their
25 orders if they want to make more progress on the issue of
26 price inversions.

27 Q. And you participated on the task force for
28 National Milk and spent a considerable amount of time



1 getting ready for this hearing, and then even for the
2 amount of effort that you put into this hearing, why not
3 have it at a national hearing and have the decision made
4 once and for all right here for everyone across the
5 country?

6 A. There's a reason we have 11 different milk
7 marketing orders, not one big one. There's such a wide
8 variation in the way milk is utilized in this country, and
9 those performance standards need to recognize that.
10 What's good for Florida might not be good for California,
11 or Washington, or Wisconsin.

12 And so that's the reason it needs to be looked at
13 on a local basis, or an order basis, not on a national
14 basis. One shoe doesn't fit all sizes when it comes to
15 performance standards.

16 Q. So it's fair to say that -- that some of the
17 decisions or some of the factors that go into the decision
18 about what -- when there should be limits placed on
19 depooling, those are regional in nature?

20 A. In my opinion, they should be left up to each
21 individual order.

22 Q. And what kind of factors go into making a decision
23 that are more regional in nature?

24 A. Well, I'll go back and give the example from the
25 Florida order. Okay. And, in fact, I can't remember the
26 exact year, I know there's been questions here at this
27 hearing and been information presented, has there ever
28 been any time when pooling standards were tightened?



1 Well, it was 2004, '05, '06 -- don't hold me to that --
2 that the Southeast Milk actually made a request in the
3 Florida order to the Market Administrator to tighten them.

4 The Market Administrator in some orders has got a
5 leeway. So we did request they were tightened, there was
6 no opposition, and the Market Administrator granted that.

7 In making that decision, we tried to look at what
8 was most economical for that order for the producers
9 supplying that market and do what was the best to make
10 sure that we -- that the pool distributing plants were
11 supplied with the adequate volume of Class I.

12 So in other orders, I'm not quite as familiar with
13 those. You got to look at the Class I needs, the producer
14 milk volume, what you need for reserve is several factors.
15 And those decisions, in my opinion, can best be made at
16 the individual order level.

17 Q. Thank you, Mr. Covington.

18 MS. HANCOCK: Your Honor, we'd make him available
19 for cross-examination at this time.

20 CROSS-EXAMINATION

21 BY DR. BOZIC:

22 Q. Marin Bozic for Edge Dairy Farmer Cooperative.

23 Good afternoon, Cal.

24 A. Good afternoon.

25 Q. On page 4 of the -- did we assign the exhibit
26 number for the --

27 THE COURT: Yes, this is 296.

28 ///



1 BY DR. BOZIC:

2 Q. On page 4 of the Exhibit 296, last paragraph, last
3 sentence of the last paragraph, you state: "Unequal
4 pricing for the same product is disorderly and should be
5 avoided."

6 I would like you to imagine Mr. Michael Dykes
7 saying this sentence in his chairman's lecture of the
8 Dairy Forum in 2023. Michael -- I'm not going to try to
9 mimic his accent. His accent would be similar to yours.

10 But do you think that if a government official
11 would be in the room, that they could find his statements
12 that unequal pricing for the same product is disorderly
13 and should be avoided, in violation of the Sherman Act?

14 A. Well, I can't tell Michael Dykes what to say or
15 not to say. I'm assuming -- well, there's an IDFA lawyer
16 here, and I'm assuming -- I don't know, you need to ask
17 the IDFA lawyer, you know, what advice he would give him.
18 I am not going to tell somebody else what to say or what
19 not to say.

20 Q. Can you see how this sentence in any other setting
21 other than this quite unique world of Federal Milk
22 Marketing Order regulation could be seen as
23 anti-competitive, that unequal pricing for the same
24 product is disorderly and should be avoided?

25 A. Well, this testimony was written for this hearing.
26 And there's two purposes of Federal Milk Marketing Orders:
27 That is to ensure that we supply the Class I market and
28 promote orderly marketing of milk. And this is the third



1 testimony that I have presented so far at this hearing. I
2 have got one more to come. And I have tried to write all
3 of them trying to keep those two things in mind.

4 And we -- and, again, one of the reasons why I
5 wrote what I wrote, and opposing the elimination of
6 advanced pricing, because there is the potential if we
7 eliminate advanced pricing, as I have testified to, it
8 could create disorderly marketing. And one of the things
9 that causes disorderly marketing is not having equal raw
10 product cost for Class I milk.

11 Again, if you go back and read the Agricultural
12 Marketing Agreement Act of 1937, it talks about ensuring
13 equal raw product cost for handlers within the same
14 marketing area.

15 Q. Thank you.

16 On page 5 of the Exhibit 296 under point 6, dairy
17 farmer benefits, you elaborate how advanced pricing tends
18 to stabilize mailbox prices.

19 Would it be a fair restatement of your paragraph
20 that advanced pricing tends to stabilize milk mailbox
21 prices from month to month?

22 A. No. I -- I would -- I would disagree with that
23 statement, because there's other things that impact the
24 mailbox price.

25 Q. No, I'm not saying that it's the only factor. But
26 you are saying that advanced pricing benefits dairy
27 farmers by providing a mild buffer to blend price
28 fluctuations. So whether we call it mailbox price or



1 strawberry fields, the fact is that dairy farmers take
2 home some amount of money that is more stable from one
3 month to the next because of advanced pricing.

4 Is that a fair statement, according to you?

5 A. Well, I'm going to answer that by -- by -- it
6 might help, if I'm getting your question right, for me to
7 explain what I mean by what I wrote there, especially with
8 buffering.

9 Q. Sure.

10 A. We only have advanced pricing on Class I and
11 Class II skim. In even in a Federal Milk Marketing Order
12 like Florida, we still got some Class II fat and Class III
13 and Class IV. Those prices are going to be announced
14 later after the end of the month. And what I mean by
15 buffering is that, you know, as -- again, as you
16 testified, those prices react quicker to what's happening
17 in the marketplace.

18 So if Class III -- butter and cheese are going
19 down, Class III and IV is going down, Class II is going
20 down, producers still have a little -- have some advantage
21 from the higher Class I when prices were up. And what I
22 mean by that paragraph and that buffering, they don't get
23 the full blunt as that price goes down. Yeah, they are
24 going to get part of it based upon the utilization of how
25 much Class II butterfat and III and IV of that month.

26 Q. So the month-to-month changes in the producer pay
27 prices would not be as steep when the market is in a
28 nosedive because they receive part of their income from



1 the previous months' advanced prices?

2 A. Again, that's what I meant there by buffer.
3 Because you are going to have one price calculated based
4 upon what dairy product prices were during in one period
5 of time and the other classes on a different period of
6 time.

7 Q. Right.

8 So, therefore, their pay prices would be higher
9 with the advanced pricing than without advanced pricing
10 when the market starts going down. That shouldn't be
11 controversial. I'm just trying to --

12 A. That is correct. And then the same thing, the
13 opposite when prices go back up. And, again, I think I
14 have that included in my testimony, yes.

15 Q. So would it also then imply that given that this
16 is a national policy, not a regional issue, advanced
17 pricing is applied throughout the nation, that because of
18 the advanced pricing, when the markets are falling, the
19 all-milk price will not drop as much, National all-milk
20 price?

21 A. Boy, I got to think about that one a little bit.
22 You talk about the national all-milk price. Well, first
23 thing that comes to my mind, if you take an individual
24 state like Florida with a high Class I utilization, yes,
25 that all-milk price is not going to drop as quick as
26 somewhere like in your state in Minnesota. You probably
27 need to ask somebody from -- because I know this has come
28 up before -- ask somebody from the Agriculture Statistic



1 Service who does all that, you know, about the weight they
2 give.

3 But, you know, I have to admit, Florida is a small
4 volume of milk. So even if those doesn't drop, I would
5 say -- and you're a lot more -- a whole lot more about
6 statistics than I'll ever know -- I'm sure if you did the
7 calculation on that, probably by Florida's not falling
8 that month, it's probably not going to make a whole lot of
9 difference in the all-milk, national all-milk price.

10 Q. Can we agree it's going to make a little bit of
11 difference?

12 A. Oh, yeah, it would be a little bit of difference,
13 but I can't see how it can make a significant difference.

14 Q. And, no, I understand that. But -- but we would
15 have to have a debate on what significant means.

16 But Florida is not the only Class I market. In
17 fact, three-quarters of all Class I milk is in the
18 multiple-component orders, Northeast, Central, Midwest.
19 In fact, the Midwest order has, in some months this year,
20 higher Class I utilization than Florida.

21 So could we agree that the national all-milk price
22 would not drop as much? We can disagree on the magnitude,
23 but at least in a direction, could we agree that the
24 national all-milk price will not drop as much if we keep
25 advanced prices as opposed to if we eliminate it?

26 A. What I would agree with you on is that, yes,
27 advanced pricing would have some impact on the all-milk
28 price going down or going back up.



1 Q. Right, right, right. I wasn't -- I wasn't
2 implying anything about the long-term average, just in a
3 particular month when the markets are on the -- on the
4 downslide, right?

5 So if we can agree that in a -- in a downward
6 market the all-milk price drops less precipitously because
7 of advanced pricing, then let's examine the full
8 consequence on the dairy farming.

9 Are you familiar with the program called Dairy
10 Margin Coverage?

11 A. I am.

12 Q. And are you familiar with, at least conceptually,
13 with the formula used by Dairy Margin Coverage to
14 determine the monthly payments?

15 A. I know the main components that go in it.

16 Q. And you are familiar that one of the main
17 components is the national all-milk price?

18 A. Yes.

19 Q. And, therefore, the further the all-milk price
20 drops, the bigger would be the payments to the farmers,
21 correct?

22 A. It depends upon what the feed cost is, too. You
23 have to have both of them.

24 Q. Thank you for your correction. I was being a
25 little sloppy in my question.

26 If the margin is already at or below \$9.50, then
27 keeping feed costs constant, any reduction in the all-milk
28 price would one-for-one translate to the indemnity or



1 payment to the dairy producers on their eligible enrolled
2 hundredweight?

3 A. If the feed cost stays the same, you know, the
4 change in all-milk price up or down is going to -- going
5 to impact.

6 Again, what I would say, you know, the impact of
7 the advanced pricing, I know you presented testimony here
8 and you have done a whole lot of calculations. I'm sure
9 you could calculate that and come up with exact cents per
10 hundredweight that advanced pricing impacts it. But,
11 again, a layman like me, over time it would average out.

12 Q. No, no. I understand that the national
13 all-milk -- and I agree with you that the national
14 all-milk price over time would be about the same whether
15 we use advanced prices or not.

16 However, I assert -- and please tell me whether
17 you agree or disagree -- that over time, the volatility,
18 standard deviation, of the national all-milk price is
19 going to be bigger if we remove advance prices. If we
20 keep the advanced prices, then the volatility of the
21 national milk price would be smaller.

22 Would that be a statement that you would agree or
23 disagree with?

24 A. I want to make sure I understood you there, first.

25 So what you are saying, that if we keep advanced
26 pricing, if I heard you say, the volatility would be less?

27 Q. Yes.

28 A. If we keep advanced pricing -- if we keep advanced



1 pricing, we're going to keep doing it the way we have been
2 doing it ever since Dairy Margin --

3 Q. That's correct.

4 A. -- Coverage Program's been in place.

5 Q. That's correct. Yes.

6 So under that scenario would the -- maybe I can
7 ask the question a more intuitive way.

8 If we remove advanced pricing because the status
9 quo says that we have that, if we remove advanced pricing,
10 would you anticipate that volatility of the all-milk price
11 would increase?

12 A. I'm just not enough statistician to answer that
13 question. You -- you need to talk to somebody that's --
14 it's been years since I took statistics and --

15 Q. Okay. Maybe --

16 A. I'm just going to be honest with you.

17 Q. Sure. But I don't -- I don't think it's that
18 hard.

19 If -- if the advanced pricing provides buffer to
20 blend price fluctuations, then advanced pricing provides
21 buffer to month-to-month changes in all-milk prices. If
22 there is no buffer, then the all-milk price is more
23 volatile.

24 Anything you see wrong so far in that reasoning?

25 A. That's not what my testimony was.

26 Q. But, sir, your testimony is regarding dairy farmer
27 benefits.

28 What I'm driving with this is that in the presence



1 of subsidized safety net, some of those benefits are lost
2 because they reduce the potential payments that the
3 farmers would otherwise receive from the
4 government-provided safety net, in this context, Dairy
5 Margin Coverage.

6 A. Well, I could tell you for the dairy farmers that
7 I represent, since the Dairy Margin Coverage Program
8 covers a relatively small volume of milk, it's not going
9 to make a whole lot of difference because they are so far
10 over that cap.

11 And I want to go back, because I didn't finish
12 answering the question before you started with another
13 question, the question before.

14 Q. I apologize.

15 A. But what I mean by -- by buffering here is that
16 especially in a high Class I market of the dairy farmers
17 that I represent, if milk prices are falling, and since
18 advanced pricing use dairy product prices from a different
19 time period than what you do for Class II fat, Class III,
20 and IV, they don't get all that loss at the same time.
21 They know it's coming, but it slows it down a little.
22 Likewise, when it goes back up, we have the opposite
23 occur.

24 Q. Just in the interest of time, I propose that we
25 move on to the next point.

26 On the same Exhibit 296, page 5, point 7, and the
27 little benefit. You mention price inversions.

28 Could you please define precisely what do you mean



1 by price inversion? What is inverted --

2 A. My definition -- and I probably use a little
3 different terms because I'm probably a little older school
4 than some people -- what I mean by a price inversion would
5 be when the Class II price, Class III price, or Class IV
6 price is higher than the particular Federal Order's
7 uniform price.

8 Q. And to -- in your opinion, there is no argument --
9 there's no argument, so you agree, that eliminating
10 advanced pricing helps reduce price inversions, just to
11 make sure I understand that?

12 A. That's what I wrote there, yes, sir.

13 Q. Okay. So -- but then in your direct questioning
14 by Ms. Hancock, you also followed up that addressing
15 depooling should be done regionally.

16 Would you venture a guess why a market order such
17 as Order 30 in the Upper Midwest, which has single-digit
18 utilization percentage of Class I, why they have depooling
19 provisions that are less strict or more permissive, if you
20 will, than, for example, Order 1 in the Northeast?

21 A. You would need to go to ask the dairy farmers or
22 their cooperatives in their particular order, because it's
23 dairy farmers who have the final vote on provisions.
24 Somewhere if you go back in time, you probably could read
25 a reco- -- a Final Decision, would give you the reasons
26 why they wanted those particular performance standards.

27 It's -- again, it is -- as I was emphasizing
28 before, it's the decision of the people in that particular



1 marketing area.

2 Q. But you wouldn't venture your own guess as to why
3 that is the case?

4 A. No, I wouldn't want to guess. I'll go back, you
5 know, as I answered earlier to Ms. Hancock, and I just
6 gave my own personal opinion about performance standards.
7 And I do strongly believe, you know, if you tighten
8 performance standards, you make it harder to get in and
9 out of the pool. That eliminates some of it.

10 Q. Could it follow that if you eliminate in and out
11 of the pool, that you just create a whole class of
12 processors that are just out of the pool for good?

13 A. And, again, those are the type of things that when
14 you have a Federal Order Hearing, you would hear both
15 sides of it and debate it.

16 Q. But to the extent that the inversion happens for a
17 reasons not -- to -- also happens for reasons other than
18 the advanced pricing, eliminating advanced pricing does
19 not eliminate price inversions, correct?

20 A. You know, again, I said just reduce it. That was
21 the word I used, reduce.

22 Q. Okay. I think we agree on that. I just wanted to
23 make sure that we are on the same page there.

24 So if the price inversions would still potentially
25 be present even if we eliminate advanced pricing, then
26 tightening pooling requirements could result in the
27 benefits from remaining pooled being lower than the cost
28 of an occasional price inversion.



1 Would you agree with that?

2 A. You're going to have to repeat that again and just
3 a little slower for me, if you don't mind.

4 Q. It's 2020, Order 30. Even if advanced pricing
5 does not contribute to price inversion, we have Class III
6 skyrocket relative to Class IV, suddenly we have a price
7 inversion as you define it.

8 Even if the pooling requirements are much tighter
9 and you have to stay in a pool for -- you have to wait to
10 come back to the pool for 12 months, or even 24 months.
11 If your current -- if your present period negative PPD is
12 \$4 and your expected benefit per month is \$0.15, that's a
13 lot of months over which you would have to have positive
14 benefit in order to compensate for a single month cost of
15 participating in such pool.

16 I know this is barely a question, let alone, you
17 know, a short one.

18 So do you understand that under such
19 circumstances, tightening pooling requirements would not
20 be able -- would not be an instrument that can result in a
21 uniform price paid to all producers in an order because
22 some producers would be permanently depooled from the
23 order?

24 A. Again, go back to when I responded to the question
25 initially. I didn't say that, you know, strengthening
26 pooling requirements would eliminate it.

27 And we got to think about also -- and I don't want
28 to get into what's already been talked about so many times



1 here at this hearing, but if we've got a period of time
2 when cheese prices are rapidly going up, and I don't know
3 how many times I have stood before producer meetings when
4 I have got some questions about negative producer price
5 differentials. I said, Well, you're going to get negative
6 producer price differentials when prices are rapidly going
7 up, and that's not necessarily bad.

8 Q. I would like you to come give a speech in
9 Minnesota, see how that goes with that statement. Joking
10 aside.

11 I just want to -- and I won't take much of the
12 hearing's time here. It's 4:25. You don't use the word
13 hedging anywhere in your testimony, and there's a six-page
14 testimony. I don't believe that hedging was used there.
15 If it is, I apologize for not reading it that closely.

16 Why is that?

17 A. There was no need for me to put the word "hedging"
18 in there. I didn't see why I needed to put it in there.
19 I didn't -- you know, I didn't think this hearing was a
20 hearing about hedging. That's one of the reasons I didn't
21 include it in there. And I don't consider myself any risk
22 management, you know, expert.

23 Q. Would you say that you have no familiarity with
24 hedging?

25 A. No, I wouldn't say that.

26 Q. Based on your current familiarity with hedging, do
27 you believe that it would be possible, through some
28 proactive actions, of a buyer of fluid milk product to



1 lock in their input costs before the start of the month in
2 which they are going to receive milk?

3 A. If I understand your question correctly, you are
4 saying that a milk buyer can lock in all its milk costs,
5 all of its milk cost prior to receiving it by using
6 hedging. Is that what you are saying?

7 Q. The word "all" can be a got-you there, so I want
8 to be careful how I answer.

9 But can either cover all or vast majority of its
10 input costs before the start of the month?

11 A. Well, just like you said the word "all," I would
12 say also the word "vast" can have a wide definition.

13 Let me answer it this way. Again, I told you I'm
14 no expert in hedging. There's other -- other experts
15 here. But, yes, a buyer of milk could use the futures
16 market to lock in a portion of their anticipated milk
17 cost, or to hedge a portion of their milk cost.

18 Q. Which portion can they not hedge?

19 A. Well, now you are getting deeper more than
20 probably what I know about risk management, starting to
21 get a little dangerous here now with me.

22 Q. Don't worry. It's only going on the record.

23 But you used a phrase "only a portion," so
24 something led you to the conclusion that a portion cannot
25 be locked in, so --

26 A. Well, again, I'm a layman when it comes to risk
27 management, but I know the futures market just has
28 Class III and IV, and it's at 3.5% fat. And it's also --



1 I go back to my testimony on Proposal 1 -- at a -- you
2 know, a lower component level.

3 Well, if I'm a cheese maker and I am buying Jersey
4 milk that's 5% fat and 4% protein, if you're just buying
5 Class III, the higher cost of my butterfat, the higher
6 cost of my protein, I don't know of a futures market where
7 I can lock that in at.

8 Q. Well, Mr. Covington, we are in the Class I
9 discussion. Like, I don't know that a Jersey example
10 helps with this.

11 If you are a Class I buyer, could we please --
12 please -- I apologize for interrupting, but --

13 THE COURT: He's talking about a Class I.

14 DR. BOZIC: No, ma'am, he was talking about a
15 cheese maker, which is Class III.

16 THE COURT: All right.

17 THE WITNESS: Okay. I'll talk about a Class I.
18 But, again, you know, Class I can still buy Jersey milk.
19 There have been a number of Class I buyers I have helped
20 over the years to buy Jersey milk.

21 But anyhow, if I'm a Class I buyer and if I'm
22 buying milk from a cooperative, again, I'm probably going
23 to get milk that's above that 3.5, so I can't buy that.
24 It depends upon what I have negotiated with my
25 cooperative. There could be an over-order premium that I
26 have to pay, and I can't lock -- lock that in.

27 And, again, from my limited knowledge of using the
28 futures market, you buy the contracts in so many pounds of



1 milk, and I'm guessing the pounds of milk won't exactly
2 equal the milk I need for that particular period of time,
3 so if I got to buy more than that, I cannot lock that in.

4 And there are times running the fluid milk plant
5 that I just don't take in the same volume of milk every
6 day, seven days a week, or the same month. Something
7 could happen or whatever, and I have to call my
8 cooperative up, and if I have an agreement with them for
9 just so much milk, if I have to buy extra milk, I can't
10 lock that in.

11 BY DR. BOZIC:

12 Q. You just described basis risk. And I will not
13 contest it because, you know, that is true.

14 The question is, how high is the basis risk
15 relative to the profit margin of either the seller of
16 Class I or the buyer of Class I milk in that area?

17 THE COURT: Was there -- is that true? Or do you
18 agree? Or is there any kind of a question? Or just --

19 DR. BOZIC: I think in the interest of the
20 hearing, I think it's best if I stop here and give others
21 a chance. Thank you very much.

22 Thank you, Mr. Covington.

23 THE WITNESS: Yes, sir.

24 THE COURT: Dr. Bozic is the ultimate teacher.
25 Did you notice?

26 THE WITNESS: And he's probably got a tough
27 student to deal with, too.

28 ///



1 CROSS-EXAMINATION

2 BY MR. MILTNER:

3 Q. I can't do it even nonchalantly anymore.

4 Ryan Miltner representing Select Milk.

5 Good afternoon, Mr. Covington.

6 A. Good afternoon, sir.

7 Q. Okay. So on page 3, I'm going to -- let's do this
8 a little differently. Here's the issue that I'm going to
9 ask questions about.10 I'm really trying to figure out, for my client,
11 whether reverting to the higher-of or maintaining some
12 average-of is the most beneficial outcome for them, and
13 where the elimination of advanced pricing plays into that,
14 and the goals are to try to figure out what's the best way
15 to allow producers to fully manage their risks, including
16 those that result from depooling, as well as preserving
17 some risk management for Class I handlers. And so my
18 questions are aimed at those issues. Okay?

19 A. Yes, sir.

20 Q. So on page 3 of your testimony, you're -- in the
21 second paragraph, you're explaining how advanced pricing
22 allows a Class I handler to know the cost of their raw
23 milk before they have to sell it, correct?

24 A. Yes, sir.

25 Q. Okay. So if a Class I handler were able to
26 adequately hedge their raw milk costs and fix a price,
27 they would have that same result, wouldn't they? They
28 would be able to know their raw milk cost before they sell

1 it, correct?

2 A. No, sir, not -- not entirely. And I'm going to go
3 back a little bit to the previous person questioning, and
4 he ended up talking about basis. And again, I'll tell
5 you, when it comes to hedging, whatever, I probably know
6 enough to be dangerous.

7 Q. That makes two of us.

8 A. There's no instrument out there I know where a
9 Class I handler can hedge the exact price they are going
10 to pay for the milk. We only have III and -- Class III
11 and Class IV that they can use. And again, that's at 3.5
12 butterfat. Maybe they could use butterfat to hedge or
13 whatever, but, you know, generally you're going to buy
14 milk higher than that 3.5 butterfat. And generally, if
15 you are buying from a cooperative, you can have some
16 handling fees or whatever to pay over that.

17 And, again, as I understand using the futures
18 market -- again, I'm no expert, I got to be careful, I
19 don't want to go more than what I know -- they're fixed
20 volumes, and all the fluid plants I have ever dealt with,
21 that volume fluctuates from month to month. So you are
22 not going to be able to hedge 100% of it.

23 Q. Okay. Acknowledge you will not be able to hit
24 exactly the pounds and components for any particular
25 plant.

26 But for butterfat over 3.5, they could look to the
27 butter market for any overage, correct?

28 A. Again, just what I have heard here, there are



1 futures contracts out there for butter.

2 Q. Okay. And your cooperative handling fees are
3 independent of the milk price usually, correct?

4 A. The cooperative fees, anything they charge above
5 the Class I price, that's between the buyer and the
6 seller. It's not mandated by the Federal Order.

7 Q. Okay. It's usually amount per hundredweight,
8 correct.

9 A. Yes, sir, it's on a per hundredweight basis.

10 Q. And as far as the volumes, I believe that the CME
11 contracts are 100,000-pound contracts, I could be wrong on
12 that, but that's -- and in-plant terms, two loads of milk,
13 right?

14 A. Yes, sir.

15 Q. And so a plant generally has an idea how many
16 loads of milk it's going to take in a month, with certain
17 fluctuations for seasonality, correct?

18 A. In my experience, when I was full-time in Florida,
19 and we did some of this, and we were handling quite a bit
20 of milk, from what a plant anticipated on the first day of
21 the month to what they ended up taking, it was always off.
22 Things changed.

23 Q. They do. I would agree. I would agree with that.
24 Did Southeast Milk own an ESL plant at one point?

25 A. Yes, sir.

26 Q. And am I correct that they no longer own that
27 plant?

28 A. No longer own it.



1 Q. Was that a plant that they owned while you were
2 the CEO of that cooperative?

3 A. When I was CEO, it was a conventional milk plant.

4 Q. Okay. That eliminates my need to ask a few more
5 questions then on that point.

6 We have heard some testimony from ESL
7 manufacturers about their use of risk management tool
8 hedging to fix their price, and they have asserted that
9 that is a benefit to their customers.

10 Southeast Milk is a significant supplier of raw
11 milk to HTST plants. I wonder if, in your experience, you
12 have an opinion about whether SMI's customers would find a
13 value in obtaining milk at a more stable price?

14 A. It's been approximately a year now since I had
15 regular contact with Southeast Milk customers, the pool
16 distributing plants. In those contacts I had, there never
17 was an interest. Never was an interest. One of the
18 Southeast Milk's major customers is a retail grocer, and
19 retail grocers have their -- this retail grocer had its
20 own fluid processing plant, and a high percent of the milk
21 in the Southeast is processed by retail grocers who have
22 their own plants.

23 And conversations I have had with one we supplied,
24 and also good friends with the buyer of another one, there
25 just was no -- wasn't any interest there. They looked at
26 things a little different. So they can control a little
27 more from their plant to the end user there, or the
28 consumer on the shelf.



1 We also supplied other plants. And, again,
2 conversations I had was no interest. They always -- the
3 biggest thing was, "Calvin, you just make sure we don't
4 have to pay any more for milk than what our competitor is
5 paying." That was their big interest. And most those
6 others, non-retailers, were private label, and formulas
7 just like what I mentioned here in my example.

8 Then we have had one processor who was big on
9 schools. And, again, because of some history of legal
10 issues with schools in Florida, I can't tell you how rigid
11 and strict it is, and they just adhered to that monthly
12 price change. It had to come from our office.

13 In anticipation of a question like yours at this
14 hearing, I talked with the people at Southeast Milk over
15 the last -- since this hearing started, who have regular
16 contact with customers, and I says, in your conversations,
17 has it changed? And they told me it has not changed.

18 Q. So the stories you are hearing from those HTST
19 processors are different than the stories we have heard
20 from some of the other HTST processors who testified here,
21 that they maintain an interest in -- in hedging their raw
22 milk costs?

23 A. Yes, sir. I was not here for all of them. I
24 don't know what volumes those other processors had. Just
25 on personal knowledge -- I don't mean this in a negative
26 way -- but they are with not some real, real large --
27 large processors. The ones I'm talking -- you know, what
28 I have talked with, the SMI customers, other than ones --



1 you know, we got a couple small ones, take a pretty
2 significant amount of milk in in a monthly basis.

3 Q. And my understanding would be that if -- if
4 Class I were easily hedgeable, those processors that
5 wanted to know that they were paying the same price as
6 their competitors could still purchase on a regulated
7 price, but they would also have the ability to try to
8 hedge that risk.

9 Would that be your understanding as well?

10 A. It's my understanding, if they wanted to hedge,
11 under the Federal Order, they are still required to pay
12 that minimum Federal Order price. And whatever they might
13 gain, plus or minus, by using the futures market, that is
14 their own thing on gain or loss.

15 Q. That actually takes me to another question I had,
16 so I'm going to jump ahead to that, because it seems to
17 make sense here.

18 On the next page under item 3, you're describing
19 an example about truing up milk. And you say it was
20 January -- or December into January when this occurred.

21 Was this -- well, let me rephrase my question.

22 How does that work when you have a regulated
23 minimum price?

24 A. Again, that was one of the reasons why it was a
25 mess. At that time, again, we did have an over-order
26 premium, and the plant's still going to be responsible to
27 the order for that federal minimum over-order price.

28 And so, again, I'm going back on history, this



1 happened 15 to 20 years ago, but some things still stick
2 out in your mind. And so we had to estimate on both
3 butterfat and -- and skim of what we thought the price was
4 going to be. And as you expect, we were off. We were
5 off. But the amount we were off, if I remember, was
6 significant, but it still fell within the range where
7 they're still going to pay the over-order premium -- I
8 mean, excuse me -- still going to pay the minimum price.

9 But, again, trying to explain, we -- it -- they
10 had to explain to their customers about why -- especially
11 on schools, what happened to a carton of 2% milk, why that
12 being off was as much as a whole milk carton. We got
13 involved with military bases on the same thing. And then
14 we got involved, some customers, when we had to true up,
15 put it on the February price announcement, some wanted to
16 include it with the over-order premium, some wanted a
17 separate line item. It -- and I think we might have been
18 on through almost summer before we ever got it cleaned up.

19 Q. So it was -- that true-up was a true-up against
20 the over-order premium, not against the regulated price?

21 A. Well, that's what we had to work with because the
22 plant, regardless, still had to pay the minimum price.

23 Q. Okay. Very good.

24 Okay. Now, on to page 5 of your testimony, and
25 item 5, and you state that eliminating Class I advanced
26 pricing creates a one-sided change. Dairy farmers retain
27 the economic benefits of the higher Class I price, but
28 fluid milk processors lose the pre-knowledge of their raw



1 product cost.

2 Wouldn't the elimination of advanced pricing, when
3 coupled with the ability to manage risk, provide some
4 benefit to some Class I handlers at least?

5 A. Well, again, as I understand this hearing, we're
6 just dealing with Federal Order provisions. And no
7 Federal Order provisions I know of have anything to -- you
8 know, any provisions related to risk management.

9 And the statement I am making here, Class I price
10 is the highest, we recognize that. And, again, the
11 product they are making as Class I processors, you know,
12 the raw milk cost, that's the highest single cost. The
13 number I used was 75%. Back when I was at Southeast Milk,
14 some of our -- it was -- it was greater -- greater than
15 that.

16 So in my opinion, that's a fair -- you know, fair
17 tradeoff on advanced pricing if we can have the highest
18 classified price.

19 Q. Even if doing so creates more opportunities for
20 some farmers to be hurt by opportunistic depooling?

21 A. Well, again, in the market I am, there's no
22 depooling. I mean, if you are depooling, you are off --
23 you have messed up big time, and so forth, nobody would
24 take your milk.

25 And, again, I go back, you know, I use the term
26 price inversions instead of depooling. I'll go back to my
27 question from Ms. Hancock -- again, this is personally --
28 I think there's other things we can look at, too, also to



1 help slow down or reduce the risk of price inversions.

2 Q. In your next paragraph when you talked about the
3 buffering effect when prices are falling. I would think
4 that the flip side would be that you also buffer the
5 benefits of rising markets on the upside, correct?

6 A. Yes. But you know what's coming.

7 Q. I don't think I have any other questions.

8 MR. MILTNER: Thank you very much, Mr. Covington.

9 THE WITNESS: Thank you, sir.

10 CROSS-EXAMINATION

11 BY DR. CRYAN:

12 Q. Hello, Calvin.

13 A. Good afternoon.

14 Q. I already know you're a Farm Bureau member, so I
15 won't ask that question.

16 A. I was hoping you would.

17 Q. Well, would you? Would you like me to ask?

18 Are you a Farm Bureau member, Calvin?

19 A. Yes, sir, I am a Farm Bureau member.

20 Q. Yes, sir. I appreciate that. And you are pretty
21 active down there in North Carolina.

22 A. Since you ask, I'm on the County Farm Bureau --
23 Board of Directors of our County Farm Bureau. And, in
24 fact, to be here at this hearing, I'm missing our annual
25 meeting tonight.

26 Q. Oh, okay.

27 A. So I won't be able to participate in that process
28 that you talked about of giving resolutions and so forth



1 that work their way up.

2 And then also, I'm on the State -- North Carolina
3 State Farm Bureau Dairy Committee.

4 Q. Fantastic.

5 And I saw you last year at the North Carolina
6 annual meeting.

7 A. Where I was a delegate.

8 Q. Fantastic. Well, I'm sorry you are missing that.
9 I'm sorry that we couldn't do something different. But
10 here you are, and thank you.

11 So I think I only have one question.

12 Would you -- would you propose advanced pricing
13 for all the classes?

14 A. Personally, I wouldn't. But I'm just giving you
15 my personal opinion.

16 Q. Personally you would?

17 A. I said personally I would not, but I'm just giving
18 you my personal opinion.

19 Q. Okay.

20 A. I would -- again, what I testified, is to keep
21 advanced pricing for what we have now.

22 Q. And you think that those are different -- those
23 are substantially different from the -- from the classes
24 that are -- that are --

25 A. Well, again, I go back to my testimony. You know,
26 Class I is a different product than Class III and IV.

27 Q. Okay. What about Class II?

28 A. Well, the Class II is mixed. We have advanced



1 pricing for Class II skim, but we do not have advanced
2 pricing for Class II butterfat.

3 Q. That's true. Thank you, Calvin. Have a great
4 day.

5 DR. CRYAN: Thank you very much.

6 THE COURT: Are there are questions before I ask
7 the Agricultural Marketing Service?

8 I see none. The Agricultural Marketing Service
9 may proceed.

10 CROSS-EXAMINATION

11 BY MS. TAYLOR:

12 Q. Good afternoon.

13 A. Good afternoon.

14 Q. I think most of our questions have been asked and
15 answered already, so I only have a couple.

16 I was wondering if you might -- what your response
17 is to some of the arguments we have heard about if we got
18 rid of advanced, then that would just push the HTST plants
19 to start hedging.

20 A. Well, it -- I guess, you know, I hate to put the
21 cart in front of the horse. Okay? I know there's been
22 testimony here about, well, if we don't have advanced
23 pricing, CME will come up with something and so forth.
24 But I guess I'm one that wants to go with what we have,
25 what we are sure of.

26 The current system has worked. Again, the
27 processors that I work with, they are comfortable with
28 advanced pricing. As I have answered questions before,



1 there has not been a whole lot of interest in it. And I
2 just would have a challenge of making it mandatory to push
3 them in to use the futures market. If they want to do it,
4 they can do it now, voluntary basis.

5 But I'm just hesitant, and that's the reason I'm a
6 strong supporter of keeping what we have now on advanced
7 pricing.

8 Q. Okay. You use a term in your statement that I
9 don't think's been used yet in this six and a half weeks,
10 so if you could define for the record what a tolling fee
11 is.

12 A. Okay. A tolling fee -- again, this was when I was
13 at Southeast Milk, and we had processing plants, and most
14 of the milk that our processing plants -- packaged milk,
15 was private label.

16 So -- so basically, you know, I say -- the price
17 of raw milk, the packaging, and so forth, and then we
18 would negotiate with our customer -- think of a tolling
19 fee similar to a Make Allowance. We had to have a fee
20 that covers our cost of running that plant, paying the
21 labor, paying the light bill, our return on investment.
22 And, again, we would negotiate that. You know, if you
23 were doing all gallon jugs, that would be lower than if
24 you were doing pints or half-pints. You know, somebody
25 that was taking several truckloads of milk a day is
26 different than somebody only taking a half a truckload.

27 Q. Okay. On your page 5, top of -- top of the page,
28 you are talking about -- this is your -- the institutional



1 buyers of fluid milk products. There's schools, prisons,
2 etcetera. And we have heard an earlier testimony that
3 schools set their budgets for the year, and so some people
4 argue they would prefer to have some kind of set price so
5 they could budget better.

6 But from the paragraph I read of what you have
7 written, your opinion is slightly different that -- if I
8 can summarize, basically, they know how to deal with the
9 monthly milk price fluctuation, so they are just fine.

10 And I just want to see if you can expand on that a
11 little bit more since it is different than what we have
12 heard from others.

13 A. Yes. One of the Southeast Milk's customer is a
14 major provider of school milk, not only in Florida, but
15 goes out of Florida. And so I get a lot of feedback from
16 him with schools. And also, as I have mentioned earlier,
17 because of what happened back in the late '80s with school
18 milk and the big federal issue down there, legal issue,
19 everybody's real careful when it comes to school milk in
20 Florida, both the processor and the people buying -- the
21 school people buying it.

22 And so they have become very, very comfortable.
23 The formula is very strict. In fact, had a number of
24 school systems that Southeast Milk had to send our pricing
25 announcement directly to them. And so they -- they
26 understand the monthly fluctuations. And also had some of
27 that same thing with military bases, large military bases
28 in Florida. So they were comfortable with that, with that



1 change.

2 And I think it would be a challenge just to --
3 with some of them, to explain it to them to go back. It's
4 working.

5 Q. Okay. My last question is just kind of a
6 step-back question. And there's been a lot of talk about
7 various changes in the base Class I skim price formula to
8 allow for hedging and facilitating price risk management.
9 So I want to give you the opportunity to respond to what
10 you think big picture-wise, because risk management,
11 hedging is not in the -- in the Agricultural Marketing
12 Agreement Act.

13 So how do you think Federal Orders should
14 prioritize that versus the other provisions in the Act
15 that is explicit that they should provide for?

16 A. It's obvious that just in my -- think about the
17 last ten years, the use of risk management, hedging,
18 futures market by dairy farmers has grown quite a bit. In
19 fact, if you look at USDA programs, Dairy Revenue Program,
20 Livestock Gross Margin, you know, even USDA's involved in
21 it.

22 But in my -- this is just giving my opinion, so
23 far all these programs have been voluntary. A dairy
24 farmer can choose if he wants to be involved in it. If a
25 plant wants to use it, they can be involved in it. And I
26 would prefer to see it remain on a voluntary basis, that
27 the Federal Milk Marketing Orders continue to do what they
28 have done, in my opinion, so well for a number of years,



1 set minimum prices, enforce payment, pool, and so forth.

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

4 MS. HANCOCK: Your Honor, I think that's all we
5 have at this time. We would move for admission of
6 Exhibit 296.

7 THE COURT: Is there any objection to Exhibit 296
8 being admitted into evidence?

9 There is none. Exhibit 296 is admitted into
10 evidence.

11 (Exhibit Number 296 was received into
12 evidence.)

13 THE COURT: I love listening to Mr. Covington.
14 I'm glad he's coming back.

15 THE WITNESS: Well, thank you, ma'am.

16 THE COURT: You're welcome.

17 Dr. Bozic is ready to come to the podium. Let me
18 see what he's got on his mind.

19 DR. BOZIC: Marin Bozic for Edge Dairy Farmer
20 Cooperative.

21 Your Honor, upon your urging, I did the forensics
22 on the Exhibit 290 to reconcile. I have the results, and
23 will submit them overnight. And just out of abundance of
24 caution so that nobody can say that the evidence should
25 somehow be discounted later, I would like to make myself
26 available for examination tomorrow, hoping that nobody has
27 any questions.

28 THE COURT: Wonderful. Good for you.



1 DR. BOZIC: Thank you, Your Honor.

2 THE COURT: Thank you.

3 MS. TAYLOR: I just wanted to say, the only person
4 I have left on my list that had something to go up is
5 Sally Keefe, I think with a short -- and I don't know what
6 short means anymore -- statement.

7 MR. ENGLISH: Well, I know it's a couple of
8 minutes before 5:00. It is the submission of an exhibit
9 in response to Mr. Wilson's questions back from the second
10 week on 5B, and a very short statement about MIG's
11 position on advanced pricing.

12 Now, my view of the world is, in a normal world,
13 that could be done in four minutes.

14 MS. TAYLOR: We don't live there anymore.

15 MR. ENGLISH: If the view is that we can't do it
16 tonight because it's couple minutes to 5:00, Ms. Hancock
17 was nice enough, if it was going today, to agree. If it's
18 going to interfere with tomorrow, she can with -- we would
19 like to just kind of clean it up.

20 And if you want to do it tomorrow because it's
21 close enough to 5:00 and you don't believe me that it can
22 be done in four minutes --

23 MS. TAYLOR: We don't. On the record, I do not
24 believe you.

25 MR. ENGLISH: I said in a normal world, so I will
26 stand down.

27 MS. TAYLOR: As long as Ms. Keefe had already
28 planned to be here tomorrow, I don't want her staying



1 overnight for just this.

2 MR. ENGLISH: Unfortunately for Ms. Keefe, I think
3 that that's -- the reality is that she's here for longer
4 than she wishes.

5 MS. TAYLOR: Okay. So I would think we could
6 start with her in the morning.

7 And then I'm not sure who is on National Milk's
8 list.

9 THE COURT: Yeah, let's find out if that's fine
10 with whomever she's replacing.

11 Ms. Hancock, what's your lineup?

12 MS. HANCOCK: And, Your Honor, that's completely
13 fine for us if Ms. Keefe wants to go first.

14 MR. ENGLISH: She doesn't have to.

15 MS. HANCOCK: We have Dr. Peter Vitaliano, then we
16 have Dr. Chuck Nicholson, and then we have Jeff Sims, and
17 we believe that would take us through the end of the day.

18 Just to give a little bit of advance, we have
19 Dr. Stephen Koontz, who will need to go on on Thursday.
20 And then -- K-O-O-N-T-Z -- and then we have a dairy farmer
21 who will be appearing in person on Friday, in addition to
22 what we will have -- whoever signs up online.

23 THE COURT: Say that last part. Your voice
24 dropped off.

25 MS. HANCOCK: Oh. Just in addition to whoever
26 signs up online, the dairy farmers who will appear by
27 Zoom.

28 MS. TAYLOR: And, Dr. Bozic, are you going to be



1 here all week or are you going to leave tomorrow?

2 DR. BOZIC: I am leaving tomorrow afternoon, 4:39
3 flight, and I'm probably not coming back until the --

4 MS. TAYLOR: Maybe I would propose we do Ms. Keefe
5 and then Dr. Bozic and then --

6 MR. ENGLISH: And just to be clear, as short as it
7 is, we are prepared Ms. Keefe to go another time, because
8 we understand where the thing is. So if people don't
9 think it's going to be that short, Ms. Keefe is flexible.

10 I say that. Part of the context that I talk about
11 looking ahead, I talked to Ms. Hancock earlier this week,
12 that there is a witness on the earlier issue, 3, about
13 butterfat recovery, an expert named Dean Sommer, who will
14 be here Thursday. It's a relatively short statement. We
15 will get it posted as soon as we can.

16 I'll also share it with Mr. Miltner as soon as I
17 can. My understanding is we can try to get him on
18 Thursday.

19 And therefore, since Ms. Keefe is flexible, and
20 since no one believes we're in a normal world, if that
21 means not -- maybe if a slot opens up tomorrow at some
22 point, we can do it. She can be flexible. I want to
23 emphasize that because I'm trying to move this along, too.

24 MS. HANCOCK: So all of that sounds fine with me.
25 Dr. Vitaliano does have to finish tomorrow, so that's my
26 only asterisk on the witnesses.

27 I felt reasonably confident, but given how things
28 have gone, I thought I'd better say it out loud.



1 THE COURT: So is the thought that we would take
2 Dr. Bozic first? Is everyone fine with that? We'll take
3 Dr. Bozic first, and then is the next thing Dr. Vitaliano,
4 or is it Sally Keefe?

5 MS. TAYLOR: I would propose Dr. Vitaliano so he
6 can be done tomorrow for sure.

7 THE COURT: Okay. Yep, that's fine with me. I
8 know the first two, and then there's lunch.

9 Thank you all. I know how hard you worked, and I
10 really appreciate it.

11 For those who are leaving, you will be missed.
12 You have contributed greatly. I thank you.

13 We go off record at 5:03.

14 (Whereupon, the proceedings concluded.)

15 ---o0o---

16

17

18

19

20

21

22

23

24

25

26

27

28



1 STATE OF CALIFORNIA)
) SS
 2 COUNTY OF FRESNO)

3

4 I, MYRA A. PISH, Certified Shorthand Reporter, do
 5 hereby certify that the foregoing pages comprise a full,
 6 true and correct transcript of my shorthand notes, and a
 7 full, true and correct statement of the proceedings held
 8 at the time and place heretofore stated.

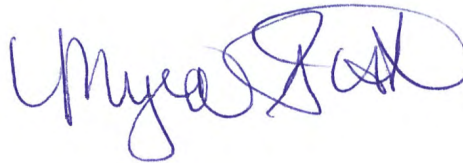
9

10 DATED: November 21, 2023

11 FRESNO, CALIFORNIA

12

13



14

15

16 MYRA A. PISH, RPR CSR
 17 Certificate No. 11613

18

19

20

21

22

23

24

25

26

27

28



<u>\$</u>	\$1.74 6661:28	10% 6771:14,20	15:34 6759:6
\$0.01 6627:19	\$1.82 6662:2	10-20% 6755:20	15th 6604:18 6661:19 6712:1
\$0.026 6578:19	\$14.24 6660:20 6661:1	100 6567:17	16 6583:20,26,28 6598:6,8,9 6611:20,27 6636:25 6670:5 6683:20 6742:11 6746:1 6749:23 6753:26 6754:5,22 6760:13 6763:20 6764:23
\$0.05 6621:13 6627:27,28	\$2.50 6662:1	100% 6567:12 6574:9 6716:6 6791:22	16,102 6648:14 6712:26
\$0.06 6587:11	\$2.53 6661:25	100,000-pound 6792:11	17 6566:6 6598:6 6618:9 6644:11 6664:12 6667:16 6671:8,12 6673:25 6674:6 6683:10 6688:7 6735:11,19, 22 6736:5 6741:15,25,26 6742:4,14,18 6749:23 6760:13 6763:20 6764:23
\$0.10 6581:19,20,24,25 6582:6,22 6597:8 6622:10 6720:28	\$21.04 6661:18	1000.40 6746:23 6747:2 6759:1	
\$0.12 6587:14	\$3 6567:19	1000.50 6746:18,26	
\$0.15 6628:13 6785:12	\$4 6628:8,14 6650:20,22,24, 26,27 6651:14,16,18 6720:28 6785:12	1000.52 6746:27	
\$0.20 6622:5	\$7 6579:4 6645:20	1032 6706:10	
\$0.25 6628:27	\$9.50 6779:26	1032.73(a)(1) 6706:12	
\$0.30 6578:5,9,16 6580:28	(104 6676:11,14	17% 6661:8 6662:3
\$0.36 6580:4 6587:21	(a)(1) 6706:11,13	1052 6746:19	17/18 6683:15
\$0.365 6662:4	-	10:42 6641:1	17th 6661:3
\$0.3655 6580:5	0	10:55 6640:28 6641:4	18 6618:9 6633:5 6644:13, 15,17,20 6660:4 6664:9,13, 21,26 6671:13 6674:19 6677:9 6683:8,15,23 6688:7 6721:25 6722:18 6724:5 6735:11,23 6742:4 6749:23 6760:13 6763:20 6764:23
\$0.37 6580:6	---o0o--- 6679:3 6808:15	10th 6661:2 6711:28	18.9% 6653:6
\$0.378 6661:13	0	11 6645:4 6722:4,5 6746:17 6755:4 6772:6	19 6611:27 6644:8 6768:23
\$0.382 6662:4	0.2% 6661:16	11th 6640:12	19.5% 6659:5
\$0.384 6661:13	0.62 6654:10,14	12 6625:2,3,4,5 6629:28 6650:23,24,26,28 6651:15, 17,19 6677:28 6785:10	19.9% 6658:27
\$0.52 6580:17	0.965 6606:9	125% 6627:13	1937 6775:12
\$0.53 6580:18	05 6773:1	126 6610:6 6611:17	1988 6649:3
\$0.70 6674:22 6742:8	06 6773:1	12:01 6679:1	1998 6648:20 6649:7
\$0.74 6596:2,6,11,12,15,26 6614:20,23	1	13 6595:12,16 6605:10 6611:24 6633:5 6644:8,12 6664:12 6667:16,17 6671:14 6673:10,22 6674:2,3 6677:4 6683:8 6721:25 6722:3 6746:1 6749:22 6753:25 6754:2,12 6768:23	1999 6648:13 6652:15,16 6662:26 6708:13
\$0.84 6587:15	1 6568:6 6573:28 6613:20 6619:13 6644:8 6650:19 6653:17 6654:3,6 6668:12 6672:24,25 6698:26,28 6702:13 6703:25,28 6710:5 6737:28 6747:16,18 6748:6 6752:8 6760:22 6768:23 6783:20 6788:1	13% 6659:1,7 6662:7	19th 6710:12
\$0.846 6662:6	1,000 6569:28	13.3% 6659:1	1:05 6679:1
\$0.859 6661:16	1.14 6587:23	13.9% 6659:7	1:06 6680:3
\$0.86 6661:15	1.52 6587:19	132 6691:23	1st 6661:19 6710:25
\$0.959 6662:7	1.60 6697:7	1320 6676:12,14 6691:22 6722:7,8	<u>2</u>
\$0.98 6624:8	1.65 6624:8	14 6583:22 6584:2 6605:14 6669:13 6683:10 6749:22	2 6619:13 6646:23 6653:9 6657:11 6668:15 6674:5 6698:20,23 6704:20 6705:21 6753:13 6755:17 6760:19 6761:23
\$1.13 6661:9,11	1.7% 6661:14	14-day 6604:11 6606:16	2% 6796:11
\$1.17 6661:7	1.72 6587:25	15 6583:23 6584:3 6610:15 6614:19 6642:12,15 6669:13 6701:16 6749:23 6796:1	2.9% 6677:11
\$1.37 6661:8	1/100th 6644:24,28 6665:2,6	15% 6771:16	20 6565:28 6611:27 6628:27 6650:9,12 6652:28 6654:26
\$1.43 6661:11	10 6580:3 6703:3 6722:21,24 6755:11 6756:6		
\$1.45 6661:10			
\$1.56 6662:2 6674:22,28 6675:10 6742:7			
\$1.57 6587:17			
\$1.60 6672:11 6673:5,21			
\$1.61 6661:24			



6677:19 6755:20 6756:1 6796:1	21 6612:10 6674:19,20 6687:9	<hr/> 3 <hr/>	40-pound 6661:7,24
20% 6573:24 6589:27 6627:15 6628:2,4,9,10 6651:2,20,21 6771:17	22 6756:24	3 6564:1,5 6605:14 6617:17, 23 6619:27 6644:8 6655:5 6657:11,14 6673:23,24 6674:4,5 6680:1 6693:2 6735:10,19 6737:19,26,27 6738:18 6740:12 6741:15 6764:21 6790:7,20 6795:18 6807:12	400 6569:28
2000 6576:26 6709:14	22nd 6661:19	3.1 6605:20	43 6620:16
2002 6699:14,24	23 6666:6 6677:20 6722:3 6763:4,8	3.2 6606:6	435 6608:18
2003 6699:4,6,15,21 6700:19	23rd 6647:8,10 6661:3 6677:23 6681:20 6682:12	3.5 6604:22 6606:2,7 6788:23 6791:11,14,26	437 6618:19,22 6621:11
2004 6699:4,15,21,24 6700:19 6773:1	24 6615:18 6754:25 6785:10	3.5% 6677:8 6787:28	44% 6662:1
2005 6699:18	244 6638:20 6639:20 6640:9	30 6627:10,11 6629:19 6653:1 6703:3 6755:3,21 6756:2 6783:17 6785:4	45 6610:24
2007 6593:24 6653:2	24th 6661:3 6709:16,22 6710:16	30th 6710:26	45-degree 6610:11
2009 6585:27	25 6647:22	31st 6596:17 6710:28	46 6677:8
2010 6585:24,27 6586:1 6593:25 6623:25,28 6624:2, 3 6700:22,23 6702:6,17	25th 6677:17,23	32 6706:11	4:25 6786:12
2012 6650:21 6651:4,22,28 6653:2,19 6675:14 6698:27 6722:3 6737:28 6738:8	28% 6651:3,24,28 6661:10, 12	33 6623:25 6624:6	4:39 6807:2
2013 6653:4	289 6564:27 6584:11 6585:10 6598:5 6608:9 6638:19,27 6639:4,5,7	36 6615:17 6616:10,19	4th 6661:2 6695:23
2017 6703:3	29 6574:16	36-month 6612:26 6613:13	<hr/> 5 <hr/>
2018 6653:5 6675:20 6676:5 6677:15,17,24 6686:8,13,23 6687:13,24,25 6688:18 6689:28 6690:6,12,24,25 6704:10,17,23	290 6583:15,17 6585:11 6595:13 6605:8,10 6616:24 6617:20,23 6618:20 6619:1, 11 6623:23 6624:14,25 6625:2 6634:22 6638:19,27 6639:10,12,14 6804:22	37 6620:16	5 6574:4 6599:17 6618:25 6619:12,27 6620:5 6621:11, 12 6624:22 6656:4 6657:27 6674:21 6738:17 6767:13 6775:16 6782:26 6796:24,25 6801:27
2019 6586:1 6596:5 6599:11 6609:20 6623:28 6631:25 6703:3 6704:23 6754:3 6755:3	291 6638:22,23 6639:23 6640:13	38 6677:11	5% 6656:8,9,25,26 6657:15, 18,20,26 6658:9,26,28 6659:1,4,6,7 6738:25 6739:19,25,27 6788:4
2020 6586:25 6598:21 6621:13 6623:27 6624:1,3 6628:27 6629:25,26 6645:19 6660:23 6661:18 6673:2,15 6704:23 6785:4	292 6642:18,19 6646:23 6656:6 6691:27 6698:20 6703:25,27,28 6705:21 6737:18,24 6744:9,11,13	39 6701:18,22,26,27 6705:7	5.7% 6653:4
2020- 6613:19	293 6642:23,24 6664:6 6671:18 6693:2 6735:10 6744:15,17,19	3:07 6744:28	50 6612:4 6643:12
2021 6588:2 6596:17 6645:19 6704:23	294 6642:27,28 6683:4 6684:11 6685:3 6686:28 6689:27 6697:4 6704:9,16 6721:19 6735:19 6741:12 6744:22,23,25	3:08 6745:3	500-pound 6661:9,28
2022 6588:2 6674:17 6703:5 6704:23	295 6749:20,25 6750:13,15 6751:20,21 6755:18 6758:3, 25	3:40 6759:5	53 6676:16
2023 6564:1,5 6575:8 6604:5,6 6613:12 6614:27 6653:6,19 6675:15 6680:1 6698:27 6704:24 6763:3 6774:8	296 6759:16,17,19 6760:9 6773:27 6774:2 6775:16 6782:26 6804:6,7,9,11	3:41 6759:9	57% 6661:25
2024 6579:25 6580:17 6613:20	29th 6661:20	<hr/> 4 <hr/>	5:00 6748:25 6805:8,16,21
2025 6568:6,9	2:38 6734:24	4 6564:27 6583:14 6584:12 6598:7 6620:3 6622:28 6644:16 6655:14,15 6656:5, 12,15,19 6657:15 6674:19 6675:5 6694:24 6698:20,22, 23 6703:9 6704:15 6740:2, 12 6742:7 6753:14 6763:23, 24 6766:25 6773:25 6774:2	5:03 6808:13
2026 6568:7	2:50 6734:23,27	4% 6676:16,17 6788:4	5B 6805:10
20th 6660:20 6677:17	2nd 6648:13	4.4% 6662:5	5th 6647:17
		4.6% 6677:10	<hr/> 6 <hr/>
		40 6647:22	6 6574:15 6585:9 6608:6,8 6618:17 6620:7 6621:12 6623:23 6624:14 6631:25 6643:12 6767:20 6775:16
		40% 6620:14	6.7% 6677:7
			60% 6572:27
			61 6677:9 6722:18,20
			63 6648:13
			64 6648:12



7	6652:5 6686:15 6743:1 6752:28 6753:20 6795:7 6797:3	acknowledge 6736:4,7 6791:23	adjust 6669:15 6728:19
7 6691:26,27 6698:20 6705:21 6746:18 6768:17 6782:26	abolish 6592:8,9	acknowledged 6648:8 6665:22	adjuster 6613:3,16 6614:10, 12,13 6615:20 6616:8 6621:27 6622:9 6637:18,22, 23 6670:7,26 6684:8
7.9% 6676:15	abolishes 6754:5	acknowledgement 6769:5	adjustment 6612:6,12 6720:28
70 6755:26 6756:3,10 6771:20	absence 6620:27 6630:5	acknowledging 6571:20	adjustments 6702:4,18,25, 26 6733:26
70% 6573:24 6633:18	absent 6714:26	acronyms 6737:4	administrative 6627:24,27
72 6633:20,28 6634:1	absolute 6586:28	Act 6753:14 6774:13 6775:12 6803:12,14	administrator 6627:21,25,26 6702:27 6773:3,4,6
73 6706:11	absolutely 6574:10 6593:24 6629:10 6728:6	action 6575:21	Administrator's 6754:17
73(a) 6706:8	absurd 6669:22	actions 6786:28	admissible 6626:11 6757:5
75% 6763:1,26 6797:13	abundant 6804:23	active 6798:21	admission 6639:3,10 6640:9 6744:7 6804:5
76 6608:17,18 6616:26 6617:10,19 6618:18,19,21 6619:4 6621:11 6624:6,7,14, 22 6631:3	abused 6578:11	actively 6733:4	admit 6688:11 6778:3
8	academic 6575:1 6621:22	actual 6587:25 6619:27 6676:4 6686:8,12,22 6687:18,25 6688:18,23,25 6689:28 6691:6 6693:22 6697:15 6702:25 6703:21,22 6708:1 6764:7 6765:17,26	admitted 6639:5,13 6640:13, 15 6701:27 6702:2 6744:10, 11,16,17,22,23 6750:15 6804:8,9
8 6703:3,4	accelerate 6712:9	add 6589:14 6592:14 6622:8 6680:8 6681:25 6682:4 6693:12 6735:13 6740:20 6757:15	adopt 6700:14 6714:12,14 6715:11,26 6746:7
80 6755:26 6756:2 6771:20	accent 6774:9	add-back 6596:27	adopted 6583:24 6709:13 6764:24
800 6569:28	accents 6613:28	add-on 6687:26	adoption 6666:16 6768:22
80s 6802:17	accept 6590:6 6632:11 6695:3 6700:12,20 6714:12 6728:6 6732:28 6750:13	added 6574:2 6672:9,11 6681:14 6742:7 6762:27	advance 6613:24 6615:12 6636:14 6643:24 6649:18 6713:3,14 6714:3,28 6728:15 6729:7 6763:8,11, 14 6765:4,14 6767:7 6768:14 6769:9 6780:19 6806:18
820 6584:11	accepted 6643:23 6750:20, 21	adding 6658:2,10 6755:1 6766:17	advanced 6565:7,26 6566:7 6569:10 6572:13,16,23 6575:10 6576:1,4 6577:15 6583:24,25 6588:11,28 6589:10,12,17,21,25 6590:11,24 6591:10 6592:9, 11 6596:2 6599:18,19 6602:15,16 6603:8 6604:9 6607:11 6608:24 6609:6,7, 10,12,25 6610:9,17,18,25 6611:9 6612:16,17 6615:2,6 6616:7,8,12 6620:3,4 6626:28 6629:17 6633:16 6634:18,26 6635:17 6637:17 6638:1 6644:13,17 6646:1 6647:7,9,10,19,20,27 6648:5 6649:2,5,15 6652:12 6659:16 6660:3 6662:15 6663:21 6664:14,17,22 6665:7,19,23,26,27 6666:2, 19 6667:1,10 6671:5,11,16, 25,28 6673:14 6674:10,11, 14,15,24,27 6681:6,28
88 6677:6	accepting 6727:6	addition 6644:5 6663:6 6664:11 6677:14 6685:2 6705:11 6714:9 6806:21,25	
8:20 6564:4	access 6579:20 6662:24	Additional 6662:23 6663:14	
8th 6661:19 6664:1 6711:28	accommodation 6766:14	address 6572:13,15 6574:25 6592:5 6620:21 6643:22 6669:19 6674:14 6675:3 6712:4,7 6731:9 6732:5 6741:27 6770:7	
9	accompanies 6684:11	addressed 6572:13 6658:17	
9.5% 6653:5	accompany 6684:12	addresses 6583:20 6769:11	
90% 6633:19 6756:10 6760:23 6771:20	accompanying 6756:22	addressing 6573:26 6719:19 6783:14	
95% 6579:10 6580:3	accomplish 6648:26 6726:16,18	adequate 6773:11	
99 6567:12	accomplishes 6736:9	adequately 6729:5 6790:26	
9:18 6597:25	account 6620:25 6621:2 6675:1,2 6750:7	adhered 6794:11	
9:30 6597:24,28	accounted 6621:16 6659:11		
9:52 6611:1	accounting 6592:20,23 6707:12,17 6720:11,13 6721:7 6765:8		
9:53 6611:5	accurate 6663:5 6672:12 6728:14		
9th 6711:28	accurately 6656:28		
A	accustomed 6665:25 6718:22		
abandoned 6753:5	achieve 6572:6 6577:10 6731:20		
abbreviation 6653:24	achieving 6577:13		
ability 6634:19 6651:7			



6683:18 6694:2,10,14,27 6695:11 6696:9,14,25 6697:1,8,12,15,28 6698:18 6708:17 6709:9 6712:6,11, 17,20,24 6713:22,28 6715:25 6719:15,16 6722:28 6723:1,28 6724:5,27 6727:12 6736:5 6739:10 6741:27,28 6753:4 6754:5, 22 6760:14,21 6761:18,19 6762:17 6763:8,15,20,23 6764:5,7,23,25,27 6765:5 6766:12 6767:6,16,20,23 6768:3,6,8,15,19,20,24,27 6769:1,10,11,14,18,23 6770:1 6775:6,7,17,20,26 6776:3,10 6777:1,9,16,18 6778:25,27 6779:7 6780:7, 10,15,20,25,28 6781:8,9,19, 20 6782:18 6783:10 6784:18,25 6785:4 6790:13, 21 6796:25 6797:2,17 6799:12,21,28 6800:1,18,22, 28 6801:6 6805:11	agency 6602:25 6603:2 6604:13 agents 6583:7 agree 6591:5 6593:4 6608:13 6635:20 6685:5 6699:11 6700:4,21 6720:10 6724:25 6726:7 6731:5 6750:25 6758:9 6769:21 6778:10,21,23,26 6779:5 6780:13,17,22 6783:9 6784:22 6785:1 6789:18 6792:23 6805:17 agreed 6662:26 6705:8 6728:5 6765:28 agreeing 6766:11 agreement 6729:21 6753:14 6758:19 6775:12 6789:8 6803:12 agrees 6574:1 agricultural 6597:15 6611:1 6631:9 6666:27 6736:15,17 6737:8,11 6753:14 6775:11 6800:7,8 6803:11 agriculture 6576:17 6730:13 6743:9 6769:22 6777:28 ahead 6633:22,25 6634:9 6658:21 6693:18 6695:27 6697:19 6698:8 6711:13 6717:10 6728:11 6745:24 6795:16 6807:11 aimed 6790:18 al- 6675:8 alerting 6745:11 align 6618:12 aligned 6689:13 6696:24 alignment 6644:4 6666:9 6671:2 6675:7 6712:18 alignments 6626:21 6668:5 aligns 6570:24 All-jersey 6747:18 all-market 6645:19 6654:13 all-milk 6777:19,22,25 6778:9,21,24,27 6779:6,17, 19,27 6780:4,13,14,18 6781:10,21,22 all-order 6654:1 alleged 6751:1 alleging 6635:1 allocated 6645:11 allocation 6591:20	Allowance 6605:18 6801:19 Allowances 6568:4,9 6594:10 6670:15 6733:1 allowed 6763:11,13,15 alteration 6649:9 alternative 6584:6 6748:11, 14 alternatives 6571:24 6599:11 amazing 6680:11 amenable 6692:20 amend 6746:17 amendments 6756:26 America 6582:5 American 6588:21 6641:11 6643:11 6667:15 6670:18 6692:4 6694:1,9,13 6696:13 amount 6569:19 6570:10 6596:12 6622:4 6627:12 6629:14 6658:26 6659:4 6748:5 6771:28 6772:2 6776:2 6792:7 6795:2 6796:5 amounts 6661:5,22 AMPI 6565:18 amplifi- 6591:11 amplification 6586:18 6590:2 amplified 6590:21,22 AMS 6571:13 6577:22 6584:7 6600:16 6602:2 6604:19 6614:20 6618:8 6622:13 6632:20 6706:4 6738:4 6743:19 6746:2 6754:9 6756:24 6804:2 AMS' 6653:18 amusing 6680:12 analogous 6590:28 6638:11 analogy 6681:25 analyses 6592:22 analysis 6573:22 6588:1 6591:13,22 6592:24 6605:24 6620:20 6630:17,19 6648:23 6664:5 6671:22,24 6672:10 6675:12 6678:6 6683:14 6686:4 6688:3,7 6690:14 6696:14 6703:8,14,15 6704:14 6705:2 6723:7 analyze 6566:27 6591:23	analyzed 6723:10 analyzing 6630:9 and/or 6765:3,10 announce 6613:16 6765:25 announced 6571:13 6585:28 6589:11 6593:20 6604:21 6608:24 6609:5 6610:18,25 6611:9 6612:19 6616:10,11,18 6619:27 6624:1 6632:20 6644:13 6647:7,8,10,11,16,17,19,25 6649:18 6659:16 6660:4,13, 17,19 6661:17 6662:15,22 6665:15,19 6695:23 6714:3 6741:18 6742:16 6743:4 6762:15 6763:7,12,25 6764:7 6765:6 6776:13 announcement 6613:10 6662:13 6665:13,16 6765:16,19,26 6766:3 6796:15 6802:25 announcements 6765:22 announcing 6649:10 6663:24 6667:13 annual 6637:23 6650:21,23, 25 6651:1,2,11,13,15,17,19 6654:8,9 6703:19 6798:24 6799:6 annually 6613:8 answering 6637:3,4 6782:12 anti-competitive 6774:23 anticipate 6578:9 6621:16 6630:1 6754:26 6755:9,11 6756:6 6781:10 anticipated 6621:17 6670:13 6787:16 6792:20 anticipating 6637:23 anticipation 6794:13 anxious 6756:9 anybody's 6632:14 anymore 6568:1 6615:3 6790:3 6805:6,14 apologize 6564:6 6574:26 6575:26 6579:20 6584:11 6585:18 6608:14 6615:23 6628:3 6670:3 6674:9 6694:7 6740:8 6782:14 6786:15 6788:12 apparent 6648:19 apparently 6670:15 appealing 6566:18
--	--	--	---



appeared 6672:20	art 6706:7	attributed 6628:27	B
appearing 6806:21	article 6645:23	audience 6672:23	
appears 6670:17 6722:2 6746:21 6747:3	articulated 6745:19	audio/visual 6680:5	B-O-Z-I-C 6564:12
appendix 6605:7 6606:11	aseptic 6638:4 6752:16 6754:14,28 6755:2	audited 6733:2	baby 6751:1
applause 6680:6	aspect 6569:21,22	August 6587:17 6612:26 6647:10 6703:5 6708:26 6709:28 6710:25,26 6711:21,22,23 6763:4,8	back 6564:4 6571:25 6572:8 6577:16 6585:1 6590:14 6594:19 6597:24,27,28 6605:3,26 6606:24 6611:4,5 6613:13 6615:7 6616:10 6617:2,14 6621:25 6624:10, 21 6629:19 6633:23 6638:8 6640:20,28 6641:3,4 6650:11 6655:14 6676:26 6678:28 6680:2,3 6687:13, 14 6689:14 6693:19 6697:1 6699:4,21,24 6701:24 6702:12 6704:13,20 6705:7 6707:21 6710:24 6711:20 6717:27 6718:15 6729:18 6730:21 6734:22,26,27 6742:2,22 6745:3 6748:6 6749:3 6759:5,8,9 6760:4 6764:13,14 6770:22 6772:24 6775:11 6777:13 6778:28 6782:11,22 6783:24 6784:4 6785:10,24 6788:1 6791:3 6795:28 6797:13,25,26 6799:25 6802:17 6803:3 6804:14 6805:9 6807:3
apples 6581:5	aspects 6594:12 6629:9	authentication 6579:20	
applied 6645:16 6676:2,5 6690:19 6705:22 6721:28 6777:17	aspirational 6731:18	authorized 6706:8,16 6756:24	
apply 6667:14	assert 6780:16	automatically 6695:14 6754:15	
appreciates 6643:22	asserted 6793:8	availability 6568:26 6757:21	
appreciative 6732:20	asserting 6685:1	average 6582:24 6585:3,27 6586:1 6605:4 6606:16 6612:26 6613:13 6623:3,25, 28 6645:19 6647:23 6648:24,28 6650:27 6651:1, 3,19,20,21,28 6653:2,3,6,22 6654:1,9 6655:7 6657:11,21 6658:23 6659:4 6690:16 6698:23 6704:22 6710:23 6711:4 6740:10,16,19,20,22, 28 6741:1,2 6779:2 6780:11	
approach 6566:9 6570:16 6672:1 6701:19 6713:21 6717:25 6750:26 6753:22 6759:2	assertion 6683:25	average-of 6567:20,27 6572:22 6574:13,14 6575:10 6584:18 6585:8 6586:13,14, 22,26,27 6592:15 6596:1,5, 11,12,15 6598:22 6599:12 6603:8 6615:4 6618:15 6627:6 6665:7 6667:21 6668:25,28 6669:7,14 6692:22 6714:10,20,26 6717:24 6718:10 6727:20 6728:2 6754:7 6790:12	
approved 6730:15	assessment 6677:2 6725:2	averaged 6624:2 6659:1,5,7	
approximate 6616:17	assets 6582:19	averages 6578:21 6658:27 6659:10	
approximately 6793:14	assign 6773:25	averaging 6583:3	
approximating 6690:22	assist 6663:12,16 6666:23	avoid 6696:28 6720:23 6724:23 6728:2 6753:15	
April 6587:9 6648:13 6675:14,15 6703:2,3 6722:3 6738:2,8 6771:16	associating 6652:22	avoided 6660:6 6766:24 6774:5,13,24	
arbitrage 6574:21	Association 6595:11 6700:7 6708:10	avoiding 6668:5	
arbitrager 6594:2	associations 6753:8	aware 6575:16,18 6700:5 6747:16	
arbitragers 6595:2	assume 6570:8 6584:2 6618:24 6627:23 6728:13 6762:19,28	awe 6564:7	
area 6579:5 6755:3 6764:18, 20 6775:14 6784:1 6789:16	assumed 6585:23,24,27 6690:22	awful 6696:19	
areas 6574:7	assumes 6724:5	axis 6609:8,11,15	
argue 6802:4	assuming 6578:16 6618:2 6774:15,16		
arguing 6568:23	assumption 6572:19 6577:8 6614:14 6615:26 6635:27 6727:15		
argument 6567:3,13,24 6568:2,18 6569:3 6601:27 6629:24 6748:5 6750:5 6768:20 6783:8,9	assumptions 6609:22,23 6616:5		
arguments 6566:28 6639:22 6698:16 6800:17	assured 6686:5		
arithmetically 6625:23	asterisk 6807:26		
Arizona 6573:18	asymmetric 6565:24 6618:15 6637:11		
rounding 6770:1	attachment 6638:20		
arrangement 6647:18	attempt 6639:26		
arrangements 6682:1	attempted 6725:13 6726:24		
arrive 6629:14	attempting 6596:9 6609:4		
arrived 6575:28 6732:13	attention 6591:1 6646:22 6702:10		
	attorney 6639:19		
	attractive 6583:3		



8 6647:22 6653:1,18 6662:16 6664:10 6667:20 6677:16 6681:19 6685:13 6689:27 6690:22 6707:8 6708:21 6709:15,20 6733:2 6735:26 6738:5,11 6753:18 6761:26 6762:23 6766:20 6767:1 6776:24 6777:3 6786:26	benefit 6566:25 6593:23 6599:25 6644:2 6648:1 6659:18 6672:22 6716:11 6758:7 6768:17,24 6782:27 6785:12,14 6793:9 6797:4	bottom 6574:15 6612:9 6625:2 6655:21 6703:9 6735:10	6798:4
baseline 6585:19 6586:6 6623:24 6624:8,19	benefits 6565:11 6584:21 6599:24 6767:17,20,21 6768:27 6775:17,26 6781:27 6782:1 6784:27 6796:27 6798:5	bound 6604:18	buffering 6767:26 6776:8, 15,22 6782:15 6798:3
bases 6766:27 6796:13 6802:27	benefitted 6729:17	bounds 6750:27	buffers 6767:24
basic 6675:12 6727:14 6739:5	beverage 6622:27	box 6753:9	build 6632:22 6734:2
basically 6591:18 6644:11 6684:23 6687:5 6711:28 6737:1 6741:17 6801:16 6802:8	BFP 6709:3 6711:22	boxes 6623:5	bullet 6598:23 6599:5
basis 6593:10 6602:21 6617:26 6634:20 6635:11 6647:23 6650:8 6655:8 6660:15 6663:1 6665:28 6691:2 6719:15,17 6751:8 6754:18 6755:12 6756:8 6762:14 6771:3 6772:13,14 6789:12,14 6791:4 6792:9 6795:2 6801:4 6803:26	Bible 6614:24	Boyz 6777:21	bunch 6687:5
battery 6611:1	bid-ask 6617:27	Bozic 6564:11,12,14,24 6580:13 6595:12 6623:21 6630:6 6631:16 6671:3 6680:18,21,22 6684:18 6685:10 6686:26 6687:1 6688:10 6689:19,20 6715:16 6716:27 6724:22 6745:21, 23,25 6747:5 6749:9,28 6750:23,25 6751:6 6757:19, 21,23 6758:16 6773:21,22 6774:1 6788:14 6789:11,19, 24 6804:17,19 6805:1 6806:28 6807:2,5 6808:2,3	burden 6764:21
bears 6574:10	bigger 6591:24 6592:18 6740:15 6779:20 6780:19	Bozic's 6574:24 6671:27	bureau 6588:21 6641:11 6643:11,18 6667:15 6680:23,28 6692:4 6693:24 6694:1,9,13 6696:13 6721:6 6725:12 6729:25 6730:10, 11,26 6731:12,24 6732:6,7 6742:19 6798:14,18,19,22, 23 6799:3
beat 6746:9	biggest 6576:1 6626:2 6636:28 6794:3	brand 6727:8	Bureau's 6674:7 6729:10 6732:7
Beg 6641:7	bill 6801:21	break 6597:19,20,22,23,26 6640:24,27 6641:2 6678:21 6713:20 6734:21,25 6739:7 6747:10 6748:12 6749:6,17 6759:4	bureaus 6730:2,5
began 6675:14 6701:9	binding 6602:11	Brian 6746:8	bushel 6579:4,7
begin 6585:14 6651:11 6678:21	bit 6579:21 6582:13 6595:22 6598:10 6623:12,26 6630:20 6682:13 6692:8 6777:21 6778:10,12 6791:3 6792:19 6802:11 6803:18 6806:18	briefly 6631:28 6632:1 6664:9	business 6568:1,9,12 6569:26 6607:20 6743:8,9 6761:15,22
beginning 6664:8 6665:17 6750:11 6756:5 6763:10	bit-by-bit 6732:1	briefs 6757:9	butter 6576:28 6594:3 6604:28 6605:17 6632:13 6645:28 6661:11 6662:2,10 6761:9 6762:7,9 6776:18 6791:27 6792:1
begun 6658:20	black 6566:4	brilliant 6750:3 6757:23	butterfat 6574:2 6585:26 6605:1,2,20,28 6606:8 6619:18,21 6644:27,28 6647:12,14,15,16,21,24 6665:5,6,14 6666:1,5 6776:25 6788:5 6791:12,14, 26 6796:3 6800:2 6807:13
behalf 6601:25 6623:15 6637:3,4 6640:17 6760:14	blank 6716:17	bring 6569:25 6611:25 6629:19 6685:17,22 6749:4	buy 6569:27 6581:27 6606:28 6788:18,20,23,28 6789:3,9 6791:13
behavior 6566:1 6660:5	blanket 6570:17	bringing 6666:8 6698:19 6724:16	buyer 6569:27 6594:2 6600:8 6603:17 6635:20 6682:16,18 6762:10 6786:28 6787:4,15 6788:11,21 6789:16 6792:5 6793:24
behooves 6638:2 6720:23	blend 6652:20 6687:23 6767:22,25 6775:27 6781:20	broke 6686:19	buyers 6599:27 6600:7 6602:1,7 6635:7 6666:1,2 6681:8 6682:3 6752:16,22 6761:1 6766:19,25,28 6769:8,13 6788:19 6802:1
belaboring 6682:14	blended 6688:22	broken 6594:11	buying 6788:3,4,22 6791:15 6802:20,21
belief 6693:9,21 6696:7 6707:21	blends 6703:15	brokers 6583:10	
believes 6646:18 6663:18, 21 6667:7 6735:10 6807:20	block 6576:12 6593:14,15, 22 6693:15 6762:13	brought 6593:14 6742:25	
bell 6622:1 6748:19	blocks 6661:7,24	Brown 6672:10 6683:11 6688:7 6694:5 6732:25	
benchmark 6676:23,24	blue 6740:10	bucket 6626:14	
benchmarks 6717:3	blunt 6776:23	budget 6802:5	
beneficial 6600:19 6790:12	board 6636:28 6718:17 6798:23	budgeting 6769:13	
	body 6575:25 6726:28	budgets 6615:27,28 6637:24 6802:3	
	book 6731:26 6733:6	buffer 6767:21 6775:27 6777:2 6781:19,21,22	



C-O-V-I-N-G-T-O-N 6759:13	care 6585:2 6628:11 6637:28	challenge 6594:27 6635:27 6752:3 6767:8 6769:2 6801:2 6803:2	Chip 6639:17 6689:24
C-R-Y-A-N 6641:17	careful 6594:9 6787:8 6791:18 6802:19	challenging 6568:18	choice 6565:7 6584:8 6615:3 6636:1,3 6736:7 6746:2
Cal 6773:23	cares 6631:1	chance 6789:21	choices 6608:2
calculate 6580:11,14 6588:8 6599:27 6605:16 6616:8 6686:23 6687:23 6690:26 6765:4 6780:9	Carmel 6582:2	change 6576:1 6592:14 6596:4 6619:7 6627:19 6629:9 6646:17,23 6647:1 6655:9,12,18,21,23,24,28 6656:1,8,9,12,13,20,21,25, 27 6657:2,20,25 6658:7,8,10 6659:1,7 6662:19 6668:9,14 6694:2 6717:21 6718:21 6730:10 6731:11 6732:6 6739:2,18,27 6749:6 6752:17 6758:1,15 6767:4, 17 6780:4 6794:12 6796:26 6803:1	choose 6584:8 6586:6 6603:8,9 6636:5 6746:6 6803:24
calculated 6600:7,24 6615:20 6622:4 6653:20 6687:7 6690:20 6722:15 6777:3	Carolina 6798:21 6799:2,5	changed 6577:2 6656:16 6661:5,22 6677:1 6709:10 6733:1 6792:22 6794:17	choosing 6636:4 6650:9 6687:16
calculating 6711:7,17	carried 6766:3	changing 6608:23,24,25,26 6635:18 6649:19 6650:13 6656:27 6658:7 6746:22	chorus 6680:9
calculation 6637:17 6662:9 6684:8,23 6688:23 6778:7	cart 6800:21	chaos 6668:6 6729:17	chore 6592:7
calculations 6605:26 6683:11 6687:5 6780:8	carton 6796:11,12	chaotic 6673:9 6731:27	Chris 6732:25
calendar 6604:7 6637:25 6722:22	case 6582:26,27,28 6583:1 6589:16 6593:12,13,18,24 6594:15,24 6599:12,13 6610:20 6611:17 6620:23 6633:24 6634:12 6636:10, 12,14 6637:9 6641:10 6655:19 6670:24 6672:7,9, 14 6684:4 6707:22 6731:6 6735:20,21 6741:4 6758:4 6760:27 6784:3	characterization 6565:4	Christmas 6765:19,21,23
California 6573:11 6678:7, 10 6687:20 6690:1,3,13,28 6700:26 6701:9 6704:10,11, 18,21,26 6705:1,3,4,11 6772:10	cases 6646:12 6672:9 6761:4	characterize 6566:19	Chuck 6806:16
California's 6723:17	cash 6593:3 6632:16 6717:1,7 6725:18 6762:8	charge 6581:19 6792:4	circumstances 6569:4 6785:19
call 6567:21 6590:19 6642:18,23,27 6646:22 6658:20 6680:28 6692:7 6715:13 6740:6 6749:20 6755:18 6770:13,15 6775:28 6789:7	cash-settled 6577:2 6593:6, 19 6632:3 6717:7,15 6737:13	chart 6591:24 6596:16 6609:4 6620:1 6625:18,27 6629:12,13	citation 6706:9
called 6749:24 6779:9	catch 6673:27	charts 6585:15 6620:10 6625:23 6657:28	cite 6625:7 6746:28
calling 6619:28 6686:10	categories 6619:1	check 6623:5 6681:1 6685:16 6686:1,2 6706:27 6707:13 6720:26 6734:8 6766:6	cited 6631:24
calls 6583:11	category 6644:16 6674:21 6675:5 6755:2 6758:27	checks 6568:14 6645:16,21 6705:23	City 6732:23
Calvin 6759:12,24 6794:3 6798:12,18 6800:3	cattle 6717:6	cheddar 6593:15 6661:7,9, 24,28 6762:10,13	claim 6626:5
cap 6596:28 6762:27 6782:10	caught 6741:14	cheese 6571:1,3 6573:3 6576:12 6593:26 6594:1,2 6609:5,6 6610:19,25 6632:13 6645:8 6662:9 6668:2,3 6670:14,15,18,19, 20 6684:2 6693:15 6752:10 6761:9 6762:6,11,13 6776:18 6786:2 6788:3,15	claims 6685:19
capability 6607:16	caused 6572:17,19 6586:14 6588:12 6649:4	chest 6575:20	clarification 6661:26 6664:15 6674:20 6684:9 6690:8 6695:3 6701:4 6727:25
capable 6666:4 6743:18	caution 6804:24	Chicago 6583:12 6662:23 6663:3 6692:3,5 6762:7	clarifications 6688:21
capacity 6568:12,14 6668:2 6684:3	cell 6605:24 6606:12 6685:15,27 6686:18		clarified 6598:10,24 6742:1, 2,18
capital 6569:24	cent 6613:2		clarify 6595:22 6599:6 6624:11 6630:22,27 6631:19 6632:6 6640:20 6739:21 6740:1
capitalist 6623:7	center 6601:27		clarifying 6657:24
caps 6570:8	Central 6573:11 6778:18		clarity 6601:17 6672:23
capture 6596:9 6599:9 6619:16 6620:20	cents 6780:9		class 6565:1,8 6567:8 6568:25,26 6569:1 6571:28 6572:3,28 6573:1,14,18,20, 22,24 6574:4,5,8,14,20,21, 22 6575:3,8,15 6576:6 6577:16,23 6579:9,26,27 6580:4,7,8,16,27 6581:4 6584:12,13,16,17,19,20,21, 27,28 6585:2,3,8,24 6586:4 6587:18,19,21,23,25,28 6588:11,13 6589:2,3,8,23,27 6590:1,12,16,17,23,25,26,28 6591:1 6592:5,6,8,9,12,26 6593:2,13 6594:5,17,20 6595:2,3,4,24,28 6596:2,19
captured 6626:26	CEO 6793:2,3		
captures 6620:11	certainty 6577:19		
cards 6575:19	CFR 6746:18		
	chain 6768:28		
	chairman's 6774:7		



6598:15,22,26 6599:13 6600:14 6602:4,6,7,14,19,21 6603:6,7,10,18,19,21 6604:3,21,24 6605:2,3,16 6606:1,7,9,12,13,21 6609:19,20 6610:2 6612:5,6, 17,18,19 6614:10,21 6615:5 6616:18 6618:2,10 6620:1,5, 6,14,27 6621:17,18 6622:9, 10 6623:3,11 6624:2 6628:18,23 6629:17,24,27 6633:3 6635:6 6636:10,19 6637:18 6638:4 6644:4,18, 20,21,22,23,24,25,26,27,28 6645:3,8,11,15,27 6646:2,3 6647:11,12,14,15,20,21,24 6648:9,15,16 6649:2,5,6,10, 11,13,15,18,19,21,22 6650:1,19,22,23,25,27 6651:2,3,4,11,13,15,17,20, 21,22,26,27,28 6652:10,12, 13,17,24 6653:12,13,14,18, 19,20,21 6654:8,10 6655:1, 7,9,10,17,22,23,24 6656:8,9, 16,21 6657:2,9,14,15,17,19, 20,25 6658:9,25 6659:3,23, 25 6660:16,19,21 6661:17 6662:8,12,15 6663:13,15,24, 25 6664:14,18,22,23,26,27, 28 6665:1,2,3,4,5,6,7,8,11, 13,14,16,20,21,23,26,27,28 6666:1,2,5,9,10,11,15,20,21, 22 6667:1,2,3,4,18,19,20,21, 22,23,24,25 6668:1,2,6,9,10, 12,16,17,18,21 6669:14,15, 19,26,27 6670:6,7,9,11,21, 24,25 6671:2,4,5,7,9,10,16 6672:8,11,12,26 6673:1,3,4, 12,17,18,19,20,21 6674:11, 12,14,15,16,22,25,28 6675:7,8,9,10,15,17,19,28 6676:3,10,15,17 6677:3,5,7, 10,11 6682:20,23 6683:21 6684:1,2,3,5,6 6687:6,8,22 6688:13 6689:3 6690:25 6691:1,3,10 6692:6 6693:3 6695:15,17 6696:13,15,16, 18,19,21,22,26 6697:2,3,5,7, 8,9,11,13,15,20,24,27,28 6698:2,3,4,10,12,15,18 6701:12 6703:19 6707:26, 27,28 6708:20,26,27 6709:15,20 6713:1,2,3,12, 13,14 6714:3,8,10,26,28 6715:2,5,11,12,24,27,28 6716:1,3,7,13,20 6717:20, 23,24,28 6718:6,12,16,22, 24,27 6719:1,12,18,26 6722:14,17 6723:11,13,21 6724:9,13,15 6725:9,20,25 6726:14,17,18,27 6727:5,9, 10 6728:24 6729:13 6735:14 6736:6,25 6739:8,9,18,25,28 6740:2 6741:15,17,27 6742:5,6,11,20,23,28	6746:20 6752:12,22,26 6753:2,10,20 6754:4,9,10, 12,15,21,22 6755:6,7,11 6756:7,10,19 6761:8,18 6762:4,15,25 6763:8,13,23, 24 6764:4,8,12,26,27 6765:5,7,14,15,18,25,26 6766:1,2,18,19,22 6767:6, 13,15,16,18,22,23,25 6768:3,10,12 6769:6,10 6773:11,13 6774:27 6775:10 6776:10,11,12,13,18,19,21, 25 6777:24 6778:16,17,20 6782:16,19 6783:5,18 6784:11 6785:5,6 6787:28 6788:5,8,11,13,15,17,18,19, 21 6789:16 6790:17,22,25 6791:9,10,11 6792:5 6795:4 6796:25,27 6797:4,9,11 6799:26,27,28 6800:1,2 6803:7 classes 6619:8 6621:1 6623:4 6632:26 6651:2,20 6654:21 6667:13 6673:13 6724:16 6746:22 6747:2 6758:6,27 6777:5 6799:13, 23 classification 6746:22 6758:26 classified 6645:1 6647:6 6754:15 6797:18 clean 6646:19 6805:19 cleaned 6796:18 clear 6574:21 6598:13 6600:5 6643:23 6648:25 6662:20 6666:16 6670:16 6673:7,16 6693:20 6706:2, 20 6739:12 6740:5 6807:6 clearer 6609:24 clearing 6666:27 6726:28 6737:16 clerk 6642:13 client 6790:10 clients 6566:16 6715:4,10 clock's 6680:16 close 6575:20 6600:28 6606:20 6648:22 6730:1 6740:14 6805:21 closely 6730:12 6786:15 closer 6648:26 6712:10 closest 6581:17 6586:2 6709:16 6710:15 CME 6574:19 6575:2,7,11, 14,16,19 6576:2,5,20 6593:3 6602:28 6618:2,9 6663:16	6666:14,23,26 6668:22 6670:1 6671:4 6692:21 6693:4,12,20,27 6715:5,10, 19,21 6717:8,18 6718:15,23 6726:23,26 6727:2,11 6736:25 6737:1 6743:26 6762:8,9,11,14 6792:10 6800:23 CME's 6593:19 6725:9 co-authored 6609:1 6631:25 co-ops 6581:22 6727:22 coalesce 6681:19 coefficient 6653:27 6654:8, 13 6704:21 coherent 6731:25,28 6732:3 colleagues 6603:2 collect 6602:26 collected 6660:10 collecting 6712:9 collection 6712:9 column 6585:19 6612:21 6620:17 6655:21 6656:1 6691:12,15 6722:13,18 6738:27 6739:26 columns 6619:3 6656:7,18, 20,26 6683:22 6738:27 6739:17 6740:12 combination 6583:24 6588:10 6667:2 6671:14 6715:28 6723:6 6724:23 6726:5,9,17,19 6731:8 6732:4 6746:1 combine 6577:22 6750:9 combined 6654:13 6757:13 combines 6644:11 6674:19 6753:24,27 comfortable 6608:4 6800:27 6802:22,28 comment 6747:13 commenting 6709:6,11 6741:23 comments 6638:14 6664:10 6757:9 commercial 6614:6 commissary 6767:10 commit 6686:17 commitment 6715:22 committee 6692:14,16,18,20 6730:19 6799:3	committees 6730:19 commodities 6681:22,28 commodity 6579:2 6662:9, 21 6737:8,11 common 6614:1,2 6645:26 6761:3 communicate 6729:1 companies 6682:7 6753:20 comparable 6581:13 6691:5 compare 6624:4 6657:11 6683:8,16 compared 6597:6 6653:22 6654:8 6655:1 6677:2 6687:23 6691:1 6707:25 6761:17 comparing 6581:5 6583:19 6630:15 6653:28 6721:24 comparison 6671:26 compelling 6567:3,14 compensate 6637:10 6785:14 compensation 6670:27 compete 6648:15 6649:20 competing 6766:19 competition 6579:1 6600:4 6606:4 competitive 6649:14 6650:14 6655:3 competitor 6570:26 6794:4 competitors 6795:6 complained 6622:20 complement 6626:6 complete 6593:22 completely 6581:10 6727:5 6742:19 6806:12 complex 6576:26 6593:2,18, 19,23 6594:25 6663:15 6666:23 6693:13 6727:4 6747:13 6766:14 complicated 6623:26 6629:23 6635:5 6669:15,18, 20 6676:28 6683:13 6766:8 complication 6734:6 component 6585:25 6586:8 6592:27 6608:25 6610:3 6619:13 6620:22,23 6645:5, 6,9,12,14 6646:3 6663:10 6707:6,28 6788:2
---	---	--	--



components 6574:2 6593:27 6624:1 6644:18,19 6647:21 6664:14,18,19,22, 23 6706:28 6707:7 6779:15, 17 6791:24	constant 6609:2 6779:27	6792:1,11	core 6572:26 6615:1 6622:22 6623:5
composition 6568:7 6573:28 6586:5 6591:22,27, 28 6606:1,5 6675:1 6752:9	constantly 6743:17	contradictions 6568:16	corn 6579:4 6604:14,15,18 6632:8,10,11,12 6717:6 6720:27 6721:1
compromise 6745:17	construct 6726:6,12	contrary 6655:3	correct 6569:15 6570:10,14 6583:22,27 6591:20 6594:17 6595:18,19,24,27 6596:15 6597:3 6599:3,16,23 6603:27 6604:22,23,25 6611:13,16 6612:7,20,23,25 6613:1,4,15,18,21 6618:4,7 6622:6 6624:27 6627:27 6629:10 6633:26 6637:4 6642:9 6656:23 6657:3 6658:1 6674:4 6683:23 6684:11,18 6687:1 6690:2, 14,15 6692:28 6698:26 6699:5,12,16,19 6700:24,26 6701:3 6702:19 6703:6,26 6704:12,18,26 6705:4 6706:4 6707:3 6708:14,15, 17,18,22,23,28 6709:1,2,11, 12,17,23 6710:5,16,27 6713:22,23 6714:5,7,11,16, 17,21 6715:13,17,20 6716:1, 7,15 6719:14 6721:26 6722:8,15,23 6723:12 6724:6,9 6725:2,27 6729:23 6731:10 6735:26 6740:11 6743:24 6755:23 6777:12 6779:21 6781:3,5 6784:19 6790:23 6791:1,27 6792:3,8, 17,26 6798:5
compromised 6721:16	construction 6670:16	contrast 6752:19 6754:4	correction 6630:13 6656:14 6695:4 6753:12 6755:10,16 6779:24
computed 6612:6 6613:13	consumed 6761:21	contribute 6589:25 6645:26 6646:12 6657:10 6671:1 6752:4 6785:5	correctly 6678:16 6735:11 6787:3
computing 6649:10	consumer 6633:28 6634:1 6793:28	contributed 6651:6 6652:4 6808:12	CORREL 6653:24
concept 6688:3 6739:5,6,12	consumers 6644:3 6752:6 6769:1	contributes 6663:22 6667:10	correlate 6582:7
conceptually 6779:12	contact 6793:15 6794:16	contributing 6719:25	correlated 6591:17 6653:11, 15
concern 6748:19 6750:26	contacts 6793:16	contribution 6587:7,8,9,11, 13	correlation 6653:13,23,26, 27 6654:2,5,7,12,18,22 6703:8 6704:21 6705:2
concerns 6693:15 6732:5	contemplate 6618:16	contributors 6665:8	correspond 6619:28 6624:16
conclude 6625:20 6659:28 6702:16	contemplated 6599:12	control 6793:26	corresponds 6593:11
concluded 6692:23 6808:14	contemplates 6618:8	controversial 6777:11	cost 6578:22 6581:12,13,14 6599:26,28 6600:6 6603:1 6635:28 6636:12,13 6761:28 6762:1,5,27,28 6763:1,11, 22,26 6764:19 6767:5,8,19 6768:25 6769:8 6775:10,13 6779:22 6780:3 6784:27 6785:14 6787:5,17 6788:5,6 6790:22,28 6797:1,12 6801:20
concludes 6671:17	contest 6789:13	convenient 6666:24 6726:26	
conclusion 6575:28 6625:23 6663:18 6713:4 6787:24	context 6570:6 6581:8 6595:27 6599:8 6603:6,7 6604:3 6605:6,15 6610:5 6625:13,14 6628:17 6629:18 6664:9 6672:13 6782:4 6807:10	convention 6729:28	
conclusions 6631:21,24	continuation 6668:25	conventional 6760:24,26 6761:12 6762:2,21 6793:3	
conditions 6650:11,12 6663:19 6667:7	continue 6623:23 6638:20 6644:2 6659:25 6662:24 6697:10 6698:19 6725:1 6753:1 6803:27	converge 6630:2	
conferences 6621:22	continued 6650:15 6755:5 6764:25	conversation 6746:10	
confidence 6574:9	continues 6652:7,14 6667:10 6703:4,5 6755:2	conversations 6626:11 6696:4 6721:5 6793:23 6794:2,16	
confident 6630:14 6807:27	contract 6571:3 6574:20 6575:3,8,12,14,17 6576:3,6, 12 6577:15,17 6581:9,18,27, 28 6582:27,28 6593:13,14, 16,22,26 6594:1,6,13,14,15, 19 6600:23 6604:2,16 6607:1 6618:3,10 6632:8,9 6682:24 6693:12,15 6698:4 6715:6,24 6717:6,20 6718:17,24,27 6719:2,12 6725:19 6726:14,18 6727:8, 15 6728:25 6762:20	convincing 6574:12	
confirm 6756:26	contracts 6574:22 6576:19, 23,24 6577:2 6584:27,28 6593:6,8,19,20 6594:3,20 6604:18 6614:6 6632:16 6635:7 6637:21 6663:8 6666:1,26 6667:2 6668:22 6670:9 6693:4 6696:3 6717:1,7,9,11,15 6718:23 6726:27 6727:10,16 6736:25 6737:13,14 6756:17 6788:28	cooperative 6569:15,16 6570:7,9,13,22 6571:3 6581:18 6583:5 6631:6 6632:27 6634:25 6635:10 6643:13 6644:10 6680:22 6735:6 6745:26 6753:26 6766:4 6773:22 6788:22,25 6789:8 6791:15 6792:2,4 6793:2 6804:20	
confirmed 6742:2		cooperatively-owned 6635:6	
confused 6658:19 6742:14		cooperatives 6581:19 6583:6 6644:2 6716:19 6764:14,22,28 6765:4,13,24, 28 6768:21 6769:20 6783:22	
connection 6666:20,28		cooperatives' 6765:25	
consequence 6779:8		coordination 6601:19,21	
considerable 6588:25 6771:28		copies 6642:11,12,15 6701:24	
consideration 6565:13 6643:21 6703:11		copy 6611:25 6617:11 6631:3 6642:4 6647:1 6755:17 6758:24	
considered 6569:6 6592:1 6630:18 6636:26 6699:28 6700:2 6746:27 6760:24			
consistent 6675:7 6689:15 6742:19 6758:12			
consistently 6659:23 6672:27			
consolation 6715:9			
consolidation 6570:5 6737:9			



<p>costs 6571:14,15 6577:19 6580:28 6601:28 6633:14 6634:19 6636:1,5 6659:22 6728:28 6729:1,6 6752:14 6762:26 6766:19 6779:27 6787:1,4,10 6790:26 6794:22</p> <p>counsel 6728:4 6751:24</p> <p>count 6587:5 6658:18 6691:11 6722:12</p> <p>counted 6691:2,13</p> <p>counterintuitive 6582:12</p> <p>country 6632:14 6772:5,8</p> <p>counts 6691:18,20</p> <p>county 6729:26 6730:2,9,13, 14,22 6798:22,23</p> <p>couple 6631:16 6701:18 6705:15,18 6721:18 6729:9 6736:23 6769:26 6795:1 6800:15 6805:7,16</p> <p>coupled 6797:3</p> <p>court 6564:2,13,17 6579:16 6580:9,11,24 6597:14,20,23, 27 6600:27 6601:3,8 6610:28 6611:4 6616:27 6617:1,3,6,13 6619:20 6630:8,14,21,25,27 6631:2,9 6638:25 6639:1,9 6640:3,5, 17,26 6641:3,9,14,22 6642:2,7,17,23,27 6643:3 6646:16,20,22,28 6649:27 6651:8,23,25 6652:1 6655:25 6656:3,6,11,19,24 6657:5,22,27 6658:2,5,10, 13,19 6660:21,24,26 6661:26 6664:15,20,24 6669:4,11 6670:2 6672:15, 19 6673:23,26 6677:19,22, 25 6678:14,18,21,24,28 6680:2,9,11,14 6684:19 6685:2,5 6686:25,28 6689:20 6690:8,9 6695:5 6701:4,7,20,23 6705:8,17 6711:12,15 6734:22,26 6735:3 6736:14 6740:9,14 6741:8 6743:21 6744:1,6,9, 15,21,27 6745:3,13,22,24 6746:28 6747:5 6748:13,24 6749:2,12,16,27 6751:5,7, 12,15,20 6755:14,16,27 6756:1 6757:15,18,22 6758:17 6759:8,14,19,22,27 6773:27 6788:13,16 6789:17,24 6800:6 6804:7, 13,16,28 6805:2 6806:9,23 6808:1,7</p> <p>courtesy 6684:12 6685:28 6722:1</p>	<p>cover 6578:4 6581:3 6582:16,18 6611:22 6787:9</p> <p>coverage 6579:10,11 6580:3 6581:16 6582:7 6779:10,13 6781:4 6782:5,7</p> <p>covered 6568:20 6633:23</p> <p>covering 6579:10 6582:8</p> <p>covers 6644:15 6782:8 6801:20</p> <p>COVID 6729:14</p> <p>Covington 6601:24 6748:15, 25 6749:3,7,10 6759:2,12, 13,20,21,23,24 6760:4 6769:26 6773:17 6788:8 6789:22 6790:5 6798:8 6804:13</p> <p>cows 6569:28 6623:11</p> <p>cream 6762:9,11,13</p> <p>create 6574:20 6575:3,23 6578:14,17 6582:23 6618:9 6665:18,28 6673:9 6692:6 6698:27 6757:12 6758:26 6775:8 6784:11</p> <p>created 6672:4 6673:2 6684:17 6766:17</p> <p>creates 6647:18,28 6659:17 6752:26 6767:16 6796:26 6797:19</p> <p>creating 6575:11 6626:12</p> <p>creative 6726:5</p> <p>credit 6570:1</p> <p>crisis 6582:17</p> <p>critical 6570:16 6669:2,9</p> <p>criticism 6570:17,18 6596:21</p> <p>criticisms 6637:1</p> <p>crop 6604:17 6743:12</p> <p>cross 6567:17</p> <p>cross-class 6573:6</p> <p>cross-examination 6564:20 6565:15 6582:3 6588:17 6595:8 6598:1 6619:15 6623:19 6631:8 6678:22 6680:19,20 6689:22 6708:7 6720:2,7 6735:4 6736:19 6743:22 6753:28 6773:19,20 6790:1 6798:10 6800:10</p> <p>cross-examinations 6622:21</p> <p>cross-examine 6685:13</p>	<p>cross-examined 6621:24</p> <p>crucial 6643:16</p> <p>crude 6676:8 6686:4 6687:28 6688:1</p> <p>crudely 6676:11 6690:21,27</p> <p>Cryan 6588:18,21 6592:19 6595:6,7 6641:7,10,11,16, 17,19 6649:27 6655:26 6657:6 6658:14,16 6669:4 6672:15 6680:4,13,16,19,23 6685:11,18,24 6686:7 6689:16,21 6702:8 6708:11 6720:4 6736:11,14 6740:10 6743:24 6744:1,27 6798:11 6800:5</p> <p>Cryan's 6598:11</p> <p>cure 6768:26</p> <p>curious 6588:1 6604:12 6616:9 6738:1 6742:27</p> <p>current 6575:4 6604:8 6605:18 6613:14 6628:15 6629:14,16 6647:19,23 6648:20,25,26 6649:10 6652:12 6655:1 6663:21 6667:9 6670:14,27 6672:25 6674:18 6697:6 6702:6 6703:6 6712:5,11,18 6716:8 6717:23 6721:27,28 6726:20 6754:6 6769:9 6785:11 6786:26 6800:26</p> <p>customer 6682:28 6801:18 6802:13</p> <p>customers 6593:23 6693:28 6694:2,27 6695:11 6696:4 6713:11 6715:23 6717:19 6718:21 6728:6 6729:2,7 6753:1 6761:26 6765:20,27 6793:9,12,15,18 6794:16,28 6796:10,14</p> <p>customers' 6728:10</p> <p>cut 6712:19</p> <p>cutoffs 6743:9</p> <p>cutout 6576:16</p> <hr/> <p style="text-align: center;">D</p> <hr/> <p>D-A-N-N-Y 6672:17</p> <p>daily 6604:14 6762:8,14</p> <p>dairy 6565:6,21 6576:26 6579:8 6581:11,16 6582:4, 15,16 6583:7 6594:4,25 6595:10 6602:19 6621:5 6623:9 6631:5,27 6632:15, 16 6633:6 6635:25 6636:7,8, 12 6637:11 6641:28</p>	<p>6643:14,16,17 6644:10 6645:4,18,22 6649:1,4,14 6650:14 6651:4 6652:3 6654:27 6655:3 6659:26 6660:1,8,9 6663:3,7 6665:19 6666:25 6667:22 6677:17,22 6680:22 6692:14 6696:8 6700:6 6708:9 6712:15 6715:23 6716:19,28 6717:3, 16 6731:7 6732:2,12 6735:6 6743:25 6745:25 6752:6 6753:26 6755:3 6756:8,12, 18 6760:27 6761:4,17 6762:6 6764:14 6766:6 6767:17,20,21 6768:1,9,11, 12,28 6769:14 6773:22 6774:8 6775:16,26 6776:1 6777:4 6779:8,9,13 6780:1 6781:2,26 6782:4,6,7,16,18 6783:21,23 6796:26 6799:3 6803:18,19,23 6804:19 6806:20,26</p> <p>dampened 6628:18</p> <p>danger 6572:2</p> <p>dangerous 6602:16 6787:21 6791:6</p> <p>Danny 6643:8 6672:4,15,17 6687:4</p> <p>Danny's 6739:6</p> <p>data 6610:15,16 6631:20,23, 24 6647:22 6653:1,18 6662:21 6663:23 6675:13 6677:15 6705:10 6710:4,5, 11,12,15,25 6711:1 6712:10 6733:2 6738:4,11</p> <p>date 6663:8 6664:11 6711:10 6765:19 6766:14</p> <p>day 6595:5 6604:27 6632:18,19 6638:16 6647:8, 13 6702:3 6709:16 6718:8 6747:16,18 6748:6 6761:5 6789:6 6792:20 6800:4 6801:25 6806:17</p> <p>day-to-day 6637:16</p> <p>days 6604:7 6606:14,27 6638:9 6647:22 6660:4 6761:7 6765:19,23,26 6770:16 6771:11 6789:6</p> <p>deadline 6664:1</p> <p>deal 6614:17 6642:17 6651:5 6652:3 6729:20,22 6789:27 6802:8</p> <p>dealing 6692:18 6797:6</p> <p>dealt 6566:15 6791:20</p> <p>Dean 6807:13</p>
---	--	--	--



debate 6778:15 6784:15	6785:7 6801:10	6655:2 6659:18 6662:18 6689:9 6723:23,25 6724:18	desirable 6648:23
decades 6636:20	defined 6706:7 6741:2	depoiled 6629:15 6652:28 6653:4,7,23 6655:8 6657:12 6658:24,26,27 6659:4,6 6665:11 6676:27,28 6698:24 6699:16 6703:20 6704:22 6770:21 6785:22	desire 6566:8 6607:12 6633:18 6671:7
December 6587:25 6604:15 6616:2 6635:15 6738:1 6765:18 6795:20	definition 6704:11 6743:10 6766:10 6783:2 6787:12	depooling 6568:19,23 6572:12,17,20 6573:8,13,16 6586:14,15,17,19 6588:12 6591:6 6608:26 6609:17 6610:1,21 6620:7,8,10,17, 18,19 6621:8,12,13 6625:16, 21 6626:4,5,15 6627:10 6628:20,28 6629:21 6630:3 6643:27 6646:4,6,7 6652:15 6653:8,10,11,14,15 6654:9, 11,19,21 6655:7,11,13,18 6657:11 6659:14 6660:5 6663:20,22 6667:9,11,27 6668:7,19 6675:21 6676:21, 25 6678:7,9 6687:11 6688:5 6689:2,7,10 6690:24 6691:6 6696:16 6697:3,11 6703:13 6704:7 6705:10 6721:12 6723:9,26,27 6724:8,24 6731:9 6739:9,18 6740:22 6770:1,3,26 6772:19 6783:15,18 6790:16 6797:20,22,26	Desirous 6765:27
decide 6749:8 6750:12 6751:1 6758:1	degree 6668:28 6669:7 6672:1 6713:1,12 6716:5	depool 6589:27 6590:18,26 6591:9,11 6621:7,8,20 6625:22 6627:1,2,8,11,15 6628:2,4,9,10,15 6647:28	detail 6600:12 6605:5 6682:10,26 6733:19
decided 6591:27 6660:3	degrees 6610:24 6637:9	deserve 6756:21	detailed 6723:7 6757:11
deciding 6646:4 6689:9	delayed 6568:7	designed 6572:27 6582:16 6637:23 6669:21 6670:8 6689:5 6720:21	details 6615:1 6705:10
decimate 6754:3	delays 6671:1	design 6637:10 6670:28 6672:28	determine 6762:5 6779:14
decision 6575:21 6584:9 6591:19 6607:4 6608:3 6626:22 6627:8 6629:4,21 6630:4 6650:6,8 6660:6 6663:11 6708:13 6712:27 6715:25 6730:24 6743:6 6745:12,28 6746:27 6747:22 6772:3,17,22 6773:7 6783:25,28	delegate 6799:7	designed 6572:27 6582:16 6637:23 6669:21 6670:8 6689:5 6720:21	determined 6645:8 6663:11 6746:26
decision-making 6571:18	deleted 6656:2	designing 6614:15 6615:25	determines 6653:26
decisions 6626:20 6628:20 6643:20 6662:27 6772:17 6773:15	deliver 6632:11		determining 6752:10
decline 6592:5 6658:28 6659:6 6686:21 6739:25 6768:11	deliverable 6576:27,28		develop 6575:16 6576:6 6743:16 6765:14
declined 6657:17,18	delivered 6761:11 6770:16 6771:11,20		developed 6643:19 6652:21 6738:4
declines 6767:24 6768:12	deliveries 6761:3		development 6576:21 6643:17 6663:15 6666:21 6725:10 6732:1
declining 6569:2 6648:24,28 6695:15	delivery 6632:11 6634:10 6743:13		deviation 6780:18
decomposition 6595:18 6597:2	delivery-based 6717:11 6737:14		deviations 6620:11
decrease 6589:13 6661:16 6662:5	delivery-settled 6593:7 6632:3 6717:6		devices 6733:24
decreased 6661:15 6662:4	delta 6723:11		devil 6565:27 6566:20,21
deduce 6575:9	demand 6571:2 6577:10,12 6584:13 6594:26,28 6598:14 6694:27,28 6737:16	Depooling's 6626:18	dictate 6712:25
deduction 6706:19,24,26 6707:8,24,27 6720:8,9 6734:8	demands 6570:14	depoils 6620:15	differ 6573:23
deductions 6645:16 6705:22 6706:3,6,8,16	demonstrate 6754:16	depresses 6648:3	difference 6589:7 6590:13, 16 6599:10 6605:18 6606:8 6607:3 6609:5 6610:17 6612:13,22 6624:28 6627:6 6630:15 6632:2,6,19 6633:6 6635:26 6645:10 6674:23 6676:5 6687:26 6688:22 6689:1 6740:15 6752:25 6766:1 6778:9,11,12,13 6782:9
deepen 6757:10	demonstrated 6668:27 6669:7	depressing 6659:21	differences 6648:23 6663:1 6704:6 6766:20,22 6769:17
deeper 6610:24 6787:19	demonstrates 6652:8 6653:9 6654:18 6673:11,13	derivative 6727:4	differential 6588:28 6589:1, 3,7,9,15,18,22 6644:22,24, 26,28 6645:13,17 6654:2 6664:28 6665:2,4,6 6672:11 6673:5,21 6674:22,28 6675:9,10 6697:7 6705:24 6708:27 6742:8
deeply 6629:28	demonstrating 6655:6	derive 6605:1 6606:9,15	differentials 6574:6 6589:1 6643:27 6645:24 6653:16 6665:10 6667:26 6701:12 6707:24 6746:20 6786:5,6
defended 6660:6	demonstration 6655:16 6672:2	derived 6585:20	differentiation 6578:28
deficiencies 6573:27	denote 6599:10	describe 6588:27 6599:9 6682:15 6701:9	
deficit 6573:21 6574:7	denoted 6645:12	describes 6629:13	
define 6576:7 6594:13 6612:14 6689:12 6782:28	departing 6766:11	describing 6591:7 6710:14, 17 6795:18	



differently 6672:6 6790:8	dispersed 6610:20	draws 6627:28 6668:6	Edge 6566:6,16 6573:28
differs 6662:15	displayed 6650:19 6653:17 6658:24	drive 6728:26	6613:26 6614:5,9,28 6615:6, 19 6623:14,15 6631:5
difficult 6621:7,19 6632:1 6696:4 6725:24 6754:24	disruptions 6651:6 6652:5	driven 6627:3	6637:3 6640:8 6644:10 6670:6 6671:8 6674:6,13 6680:22 6735:6,10 6736:4 6742:11,18 6745:18,25 6751:27 6752:1 6753:7,17, 26 6756:12 6757:4 6773:22 6804:19
difficulties 6673:2	distant 6719:5,9	driver 6625:6,10,12 6626:3	Edge's 6574:24 6615:7 6639:19 6741:26 6755:8
difficulty 6687:8	distinct 6573:10 6635:26	drivers 6627:1	Edge-14 6745:6 6749:24 6750:10
diffused 6567:21	distributed 6642:8,10,11 6745:1 6759:5 6761:13,21 6764:10	driving 6627:5 6781:28	Edge-15 6639:11
digits 6628:22	distributing 6761:11 6770:17 6771:9 6773:10 6793:16	drop 6610:8 6621:18 6627:28 6777:19,25 6778:4, 22,24	Edge-15a 6639:11
direct 6656:4 6760:2 6783:13	distribution 6741:7	dropped 6609:12 6806:24	Edge-15b 6595:16 6639:11
direction 6643:24 6724:20 6739:3,27 6768:14,16 6778:23	diverged 6667:24	drops 6699:18 6779:6,20	EEK 6600:9
directly 6615:24 6643:14 6802:25	divergence 6665:18	DRP 6582:8,9	effect 6568:22 6570:3 6586:19 6590:18 6591:22,24 6592:7 6597:6 6627:7 6628:19 6634:21 6690:13 6709:14 6710:5 6717:25 6742:4 6798:3
Directors 6636:28 6798:23	diverse 6692:15	dry 6576:28 6593:25 6632:13 6661:15 6662:6,10	effective 6576:6,7,9 6633:15 6663:10 6766:21
disagree 6586:20 6708:3 6775:22 6778:22 6780:17,23	diversion 6702:5,15 6771:12,19	due 6634:21 6645:28 6646:3 6652:26 6682:18 6764:26 6766:20,21	effectively 6569:23 6572:16 6671:13 6753:2
disappear 6717:26	diverted 6770:18 6771:15	dug 6575:23	effectiveness 6605:7,15
discarded 6566:3	divide 6740:21	duplicate 6655:20	effects 6591:23
discounted 6804:25	divided 6606:9	dwel 6689:25	efficient 6748:8
discouraged 6670:15	dock 6763:2	Dykes 6774:6,14	effort 6689:12 6748:22 6772:2
discovery 6632:28 6633:2 6756:19	doctorate 6641:23	dynamic 6630:3	elaborate 6736:28 6775:17
discrepancy 6624:19	document 6642:21 6702:16 6749:19,28 6755:22	dynamics 6750:7	elect 6754:16
discuss 6692:3	documentation 6750:4	E	electronic 6685:3
discussed 6571:24 6638:9 6694:1 6704:16	documents 6642:16 6750:19 6759:4	earlier 6663:2 6686:20 6687:10 6691:21 6704:16 6708:22 6716:27 6741:14 6767:2 6784:5 6802:2,16 6807:11,12	elements 6588:26 6714:14
discussing 6595:23	Dodd-frank 6737:15	early 6661:17	elevated 6659:19
discussion 6602:10 6607:10 6611:3,21 6660:2 6702:11, 14 6727:14 6730:22 6732:15,21,24 6733:4 6745:2 6757:1 6759:7 6788:9	Doelman's 6614:8	easier 6584:25 6608:21 6635:6 6670:21 6694:10 6769:13	elevator 6579:5
discussions 6575:6 6602:6, 12 6648:7,8 6673:7 6727:11, 12 6753:27	dominant 6684:1	easily 6566:2 6578:11 6600:7 6795:4	elevators 6579:6
disease 6768:27	Dorland 6622:4	easy 6591:16 6599:26,27 6739:7	eligible 6653:3,7 6654:27 6655:8 6658:23 6780:1
disentangle 6608:27	double 6738:25	economic 6566:23 6570:12 6586:16 6761:14 6767:17 6796:27	eliminate 6583:23,26 6588:12 6666:11,19 6671:11 6674:7,8,10 6694:2 6696:25 6715:25 6719:16 6723:28 6752:10 6760:13 6763:20 6764:23 6770:2 6775:7 6778:25 6784:10,19,25 6785:26
disincentives 6573:15	doubled 6653:6	economical 6773:8	eliminated 6576:5 6769:1
disorder 6766:17	doubt 6768:8	economics 6641:25 6642:1 6643:9	
disordered 6739:4	downs 6673:18 6717:8	economist 6576:8 6731:7	
disorderly 6646:12 6663:18 6667:7 6766:10,23 6774:4, 12,24 6775:8,9	downside 6581:10,14 6669:1,8		
disparity 6629:4	downslide 6779:4		
	downward 6589:11 6723:25 6779:5		
	DPS 6738:5		
	drafted 6616:13		
	draw 6629:6 6631:21 6752:3		



eliminates 6724:8 6784:9 6793:4	English's 6638:25 6718:26	estimation 6591:15 6592:16, 25,26	excess 6567:16 6571:2 6762:9
eliminating 6665:23,27 6671:16 6674:24,27 6697:1 6723:1 6767:16 6768:19,20, 24 6770:26 6783:9 6784:18 6796:25	enrolled 6780:1	estimations 6766:15	exchange 6583:12 6662:24 6663:3 6666:14 6668:23 6682:23 6692:3,5 6693:5 6726:20 6743:24 6762:8
elimination 6583:25 6643:26 6666:28 6671:25 6674:11,27 6696:9 6697:8,12,28 6724:5 6736:5 6742:3 6760:21 6768:6 6775:5 6790:13 6797:2	ensure 6568:25 6774:27	etcetera 6570:2 6602:22 6802:2	exchanges 6576:22 6666:26 6726:23 6736:26,28 6737:3, 8,11,22
else's 6601:5 6607:8	ensures 6674:11	evaluate 6705:11	exclude 6690:3
emanate 6602:12	ensuring 6644:1 6775:12	evaluating 6605:6,15	excluded 6690:1 6699:2 6704:10
emerge 6618:8	entertain 6636:24	evening 6748:17	exclusively 6696:18
Emily 6642:14	enthusiasm 6576:17	eventually 6729:27	excuse 6593:25 6606:4 6610:18 6625:4 6754:1 6796:8
emphasize 6807:23	entire 6595:13 6627:16 6671:21 6687:27 6721:28 6747:15	everybody's 6802:19	exemplified 6614:7
emphasizing 6783:27	entitled 6702:4	everyone's 6753:11	exercise 6592:20,23 6605:6 6609:28
enabled 6763:9	environment 6633:1 6635:19	evidence 6574:12 6578:11 6588:6 6614:26 6630:12,18 6639:4,6,8,10,13,15,20 6683:20 6685:6,12 6693:8,9, 22 6696:8,11 6718:13 6733:15 6744:6,8,10,12,14, 16,18,20,22,24,26 6746:3,16 6748:3 6750:1,4,16,18 6753:6,19 6758:3 6804:8,10, 12,24	exercised 6636:4
enabling 6622:28	envy 6573:16	evident 6649:6	exhaustively 6568:20
encourage 6599:21 6640:20 6678:10 6769:22	equal 6589:9 6644:21,23,27 6664:27 6665:1,5 6775:9,13 6789:2	evolution 6732:11	exhibit 6564:27 6574:16,17 6583:17 6584:11 6595:13 6598:5 6601:9,24 6605:8,10 6608:8,9,17,18 6611:21,24 6616:24,26 6617:1,9,19,23 6618:19,20,21 6619:1,4,11 6621:11 6623:23 6624:6,7, 14,22,25 6625:2 6631:3 6634:22 6639:4,5,7,10,12, 14,20 6642:18,19,24,26,28 6646:17,23 6653:1 6656:6 6664:6 6671:18 6683:4,6 6684:11,14,17 6686:21 6688:12 6689:27 6697:4 6701:18,26,27 6702:2 6705:7,21 6721:19 6735:10, 19 6737:18,24 6744:9,11,13, 15,17,19,22,23,25 6749:19, 25 6750:13,15 6751:20 6755:18 6758:3,25 6759:17 6760:6,9 6773:25 6774:2 6775:16 6782:26 6804:6,7,9, 11,22 6805:8
encourage 6599:21 6640:20 6678:10 6769:22	equalization 6627:3	exact 6772:26 6780:9 6791:9	examination 6631:14 6760:2 6804:26
end 6603:25 6604:27 6617:2 6636:3 6644:17 6646:17 6650:5 6655:12 6664:13,17, 21 6667:14 6684:7 6704:23 6713:3 6741:5 6753:17 6757:2 6776:14 6793:27 6806:17	equilibrium 6723:27	examine 6586:21 6590:17 6779:7	examined 6564:15 6641:20 6751:18 6759:25
end-of-the-month 6666:4	equitable 6660:1 6764:18	examples 6600:19 6681:21, 23 6682:3	exceeded 6650:20,22,24,25, 27 6651:1,14,16,18,19
ended 6671:5 6791:4 6792:21	equity 6567:26	exceed 6569:19 6652:20 6768:25	exceeding 6651:3,21,27
ending 6710:10	equivalent 6581:17 6606:5 6633:4	exceeds 6649:13 6724:21	Excel 6596:16 6605:25 6653:25 6684:10,19 6685:12
endorse 6732:8	error 6628:3 6735:22	Excel's 6653:23	exist 6591:12 6618:5,7 6621:4 6715:13,14 6726:13, 15,19
ends 6716:15,16	errors 6685:19	excellent 6597:20 6701:23 6735:3	existed 6586:3 6596:5 6599:11 6600:23 6675:20 6676:1,2 6690:17 6704:27 6708:26 6754:3
enforce 6804:1	ESL 6638:4 6728:22 6752:15 6792:24 6793:6	exception 6671:15	existence 6591:10 6618:5 6645:26
enforced 6602:23 6613:10	ESL/A 6755:4	exception 6568:2	
enforcement 6602:17	essentially 6606:16,26 6612:5 6635:11 6654:19 6664:7 6672:4 6689:8 6690:21,26 6691:13 6692:18 6709:24 6710:3,6,17 6711:5 6746:18 6753:24	Exceptions 6752:23	
engage 6577:18 6714:20 6715:2	establish 6648:21 6687:5 6729:24 6762:10 6769:3	excerpt 6608:17	
engaged 6663:14 6666:21 6733:3,4	established 6663:6		
English 6639:17 6640:4,7 6689:23,24 6690:9,10 6692:2 6695:7,8 6701:5,17, 21,26 6702:1 6705:6,15,18, 20 6706:19 6708:4 6725:8 6747:6,7 6805:7,15,25 6806:2,14 6807:6	establishing 6660:13		
	establishment 6717:15		
	estimate 6578:13,14 6599:27 6660:16 6662:21 6676:4 6760:23 6765:24 6796:2		
	estimated 6676:11 6678:2 6690:27 6765:4,5 6766:1		
	estimates 6765:14		
	estimating 6663:12		



existing 6659:12 6670:9 6687:19 6726:5 6727:4	extension 6684:5	6778:7 6782:17 6798:3	fat 6604:24 6645:9 6776:12 6782:19 6787:28 6788:4
exists 6714:1 6726:15	extensive 6579:19	familiar 6578:2 6680:15 6713:4 6771:18 6773:12 6779:9,12,16	favor 6577:6,14 6757:9
exit 6568:8,12 6632:10	extent 6568:21 6572:20 6578:8 6592:11 6595:1 6596:13 6598:20 6606:21 6616:16 6635:20 6637:14,26 6672:26,28 6673:3,11 6697:5 6705:28 6714:25 6731:24 6770:7 6784:16	familiarity 6786:23,26	February 6604:16 6766:3,5, 7 6796:15
expand 6570:1 6802:10	extra 6623:12 6638:21 6789:9	family 6569:26	fed 6729:26
expect 6610:23 6695:1,5,11 6725:18 6750:2 6762:12 6796:4	extreme 6659:14 6739:3	famous 6565:25	federal 6592:1 6623:25 6624:6 6625:24 6632:23 6641:28 6643:15 6644:1 6645:3,4,24 6648:6,7,12 6652:17,26 6655:4 6660:10 6665:9 6668:15 6669:21 6678:7 6690:13 6693:14,18 6699:5,6 6700:25 6702:4 6704:11,18,28 6707:14,15, 23 6717:12,13 6732:16 6735:27 6746:17 6758:11 6761:17 6762:4,15,24 6763:7,12 6764:7 6765:7,15 6766:12 6767:28 6769:3,5, 10,16,18,23 6770:12,20 6771:7,12 6774:21,26 6776:11 6783:6 6784:14 6792:6 6795:11,12,27 6797:6,7 6802:18 6803:13, 27
expectation 6718:11,18 6728:11	eyesight 6608:12	Fantastic 6799:4,8	Federation 6588:22 6641:11 6643:11 6644:7 6667:15 6695:10 6696:14 6753:25 6760:16 6770:6,10
expected 6590:1 6601:26 6604:14 6605:16,19,28 6606:8,9,12,13 6654:28 6722:28 6723:2 6785:12	face 6571:15,16 6636:17	farm 6588:21 6633:21 6641:11 6643:11,17 6667:15 6674:7 6680:23,28 6692:4 6693:24 6694:1,9,13 6696:13 6721:6 6725:12 6729:10,25 6730:2,5,9,11,26 6731:12,24 6732:6,7 6742:19 6743:16 6749:3 6761:11 6798:14,18,19,22, 23 6799:3	Federation's 6752:8 6754:11
expecting 6731:26	faces 6665:11	farmer 6631:6 6632:26 6636:12 6644:10 6669:1,8 6680:22 6730:9,12,18,24 6731:9 6735:6 6743:7 6745:25 6753:26 6764:14 6767:20 6773:22 6775:17 6781:26 6803:24 6804:19 6806:20	fee 6762:28 6801:10,12,19
expenditure 6569:24	facilitate 6633:15 6754:27	farmer-approved 6730:28	feed 6571:14 6636:14 6779:22,27 6780:3
expense 6729:18 6762:2	facilitating 6803:8	farmer-decided 6730:25	feedback 6802:15
expensive 6578:6,27	facing 6719:15	farmer-driven 6730:25,27 6731:3,4	fees 6627:21,24,27 6791:16 6792:2,4
experience 6618:14 6693:11 6720:25 6721:3 6792:18 6793:11	fact 6566:6 6582:10 6596:26 6630:15 6640:8,11 6648:8 6693:14 6697:20 6700:14 6707:2,24 6712:15 6717:2, 26 6721:11 6731:6 6735:28 6742:3 6750:6,17 6772:25 6776:1 6778:17,19 6798:24 6802:23 6803:19	farmer-initiated 6730:25	fell 6796:6
experiment 6565:21	factor 6580:3 6619:9 6625:8 6687:26,27 6775:25	farmer-voted 6730:27	felt 6683:16 6688:8 6729:16, 19 6807:27
expert 6578:2 6625:17 6627:10 6641:28 6731:7 6786:22 6787:14 6791:18 6807:13	factors 6626:25 6627:3 6645:26 6772:17,22 6773:14	farmers 6579:5 6582:4 6596:13 6621:5 6635:25 6643:14,16,20 6644:2 6645:4,18 6649:14 6650:14 6651:4 6652:3 6655:3 6659:26 6660:1 6667:22 6671:1 6705:27 6706:1,26 6707:7,11,15 6716:12,19 6729:18 6730:8,13,17 6734:11 6743:7,8,10,11,16 6756:12,18 6766:6 6767:17, 21 6768:2,13,28 6775:27 6776:1 6779:20 6782:3,6,16 6783:21,23 6796:26 6797:20 6803:18 6806:26	fence 6768:2
experts 6787:14	facts 6708:3	farmers' 6645:16 6705:23	fewer 6646:27
explain 6581:7 6600:15 6617:28 6619:5 6620:18 6686:22 6687:2 6721:4,7 6740:16 6762:16 6767:10 6776:7 6796:9,10 6803:3	fail 6576:23 6577:8,9 6715:16 6750:1	farming 6779:8	fields 6776:1
explained 6707:10	failed 6577:10	farms 6636:8	figure 6603:14 6612:11 6619:6 6650:19 6653:6,9 6655:5,14,15 6656:5,12,15, 19 6657:14,15 6672:25 6680:26 6698:20,23 6704:20 6725:13 6726:9,11 6733:6 6735:16 6737:28 6738:18 6739:14 6740:2,12 6790:10, 14
explaining 6790:21	failure 6593:1	fast 6751:27	figured 6607:7
explains 6610:11 6707:5	fair 6586:12,22 6591:21 6593:9 6596:28 6633:7 6745:16 6748:5 6772:16 6775:19 6776:4 6797:16	faster 6693:7 6747:11 6765:11	
explanation 6586:11 6677:20	Fairlife 6614:8		
Explanations 6645:25	fairly 6610:12		
explicit 6596:8 6803:15	faith 6693:27		
explicitly 6643:18 6712:4	faithfully 6584:18		
explored 6692:9 6694:22	fall 6582:17 6590:25 6604:8 6606:15 6668:3 6747:1		
export 6670:18,19,20,21	falling 6767:23 6777:18		
exposure 6754:20			
expressed 6692:11 6768:13			
extend 6570:1			
extended 6752:15 6754:14, 28 6755:2			



figures 6657:8,11 6738:23, 24	6802:14,15,20,28	form 6580:14 6601:18 6631:24 6645:16 6705:23	6647:3 6659:13 6676:20,23 6682:18 6689:6 6690:22,23 6707:8 6710:21 6755:19 6776:23 6779:7
file 6596:16 6600:25	Florida's 6778:7	formal 6613:10 6626:12 6730:20	full-time 6792:18
filed 6752:2	fluctuates 6791:21	formalizing 6638:10	fully 6566:25 6572:25 6575:20 6607:27 6671:12 6723:20 6750:25 6790:15
fill 6594:25 6693:13	fluctuation 6802:9	forms 6639:13	fully-pooled 6689:12 6691:4 6703:17,23 6723:14
final 6578:27 6592:14 6607:4 6609:6 6633:27 6634:1 6647:26 6651:2,4,20, 22,28 6653:18 6659:16 6663:11 6678:3 6765:6 6766:2,4 6783:23,25	fluctuations 6753:15 6767:22 6775:28 6781:20 6792:17 6802:26	formula 6606:6 6653:25 6662:8,11 6665:8 6666:11 6668:4,25,28 6669:7,15 6670:25,28 6716:8 6756:10 6761:27 6762:6,23,24,28 6767:2 6779:13 6802:23 6803:7	fun 6611:21 6621:22
finally 6637:26 6642:26 6756:18	fluid 6567:9,10 6569:5 6573:9 6584:26 6586:8 6599:21 6603:12 6622:25 6634:25 6635:24 6648:9,21, 27 6649:13 6663:16 6666:23 6694:3,10,14 6695:19,20 6696:2,10,27 6752:27 6753:22 6755:1 6756:13,20 6760:22,23,26,28 6761:1,2, 5,6,12,23,24,26 6762:3,8,13, 16,20,21,22,23,25 6763:2,5, 15,16,21,27 6764:2,13,17, 21,27 6765:1,3,10,13,20,23 6766:25,28 6767:1,13,18 6768:28 6769:4,7,9,14,19,20 6786:28 6789:4 6791:20 6793:20 6796:28 6802:1	formulas 6660:15 6667:19 6668:10 6671:10 6672:25 6746:17 6767:3 6794:6	function 6638:7 6645:2 6653:24,25,26
financial 6607:16 6627:1 6712:21	fly 6628:2 6734:3	formulated 6596:19	fundamental 6643:25 6698:18
financially 6628:1 6696:10	FMMO 6648:4	forthcoming 6613:11 6637:25	fundamentally 6666:7
find 6567:2 6568:18 6569:5 6576:8 6607:25 6608:17 6614:1 6656:4 6681:23 6685:20,21 6687:13 6720:23 6746:13,19 6751:2 6753:10 6755:22 6757:3 6774:11 6793:12 6806:9	focal 6602:11	fortunate 6747:14	funds 6567:27
finding 6752:4	focus 6578:12 6643:25 6669:23	forum 6732:23 6774:8	future 6629:2,8 6640:12 6663:5 6668:2,7 6670:12,26 6719:5,9 6765:28
fine 6579:14 6616:18 6646:19 6802:9 6806:9,13 6807:24 6808:2,7	folks 6615:26 6637:24 6681:11 6686:5 6692:11 6718:15,28 6726:10 6728:10 6732:25 6733:28 6742:18	forward 6566:28 6568:4 6581:18 6582:27 6684:6 6713:2,12,26 6715:6 6718:7 6750:24 6754:18 6768:4,16	futures 6574:20,22 6575:3 6576:17,23 6584:27 6590:1 6593:1,2,13 6594:5,18 6595:3,4 6600:23 6602:28 6603:3,7,11,18,19 6604:1,4, 15,21,28 6605:1,16,17 6606:1,7 6618:3 6632:10,15, 16,19 6663:6,15 6666:15,22 6667:3 6668:21 6669:26 6671:5 6681:19 6682:12 6693:3 6695:27 6713:26 6715:6,16,24 6716:1,20,25 6717:20,24,26 6718:1,27 6719:12,20,26 6725:9,19 6726:5,12,14,27 6728:24 6743:25 6787:15,27 6788:6, 28 6791:17 6792:1 6795:13 6801:3 6803:18
finish 6749:7 6782:11 6807:25	follow 6625:22 6637:15 6738:22 6769:27 6784:10	found 6580:25 6601:12 6646:12 6647:2 6676:6,9 6721:1 6736:26 6753:27 6758:8	gain 6795:13,14
finishing 6572:10	follow-up 6697:18	foundation 6685:6	gains 6632:17
firsthand 6682:5	food 6641:24 6768:28	founded 6731:3	Gallagher 6582:2
Firstly 6660:8	Foods 6595:10 6700:6 6708:9	four-class 6670:13	gallon 6578:19,23 6762:20 6763:1 6801:23
fit 6772:14	foodservice 6752:24	fourth 6755:19	gap 6645:17 6676:4 6707:28 6710:1,3 6712:16 6724:1,12 6725:5
five-minute 6749:6 6759:4	footnote 6631:25 6737:28	free 6758:18	Gators 6641:26
fix 6733:28 6790:26 6793:8	force 6567:4 6599:20 6608:27 6771:27	freedom 6637:9	gave 6750:17 6784:6
fixed 6578:24 6635:7 6682:28 6728:6,8,12,18 6752:17 6791:19	forecast 6765:12 6766:22	frequency 6646:11 6662:20 6663:22 6667:11	general 6567:11 6571:9 6575:19 6636:7 6682:8 6716:25 6729:20
flat 6753:1 6755:12 6756:7, 16	foreign 6613:27	frequent 6649:8 6653:15 6663:20 6667:9,10	
flexible 6614:28 6807:9,19, 22	foremost 6627:4	frequently 6573:2 6650:21 6653:8 6761:5 6771:22	
flight 6807:3	forensic 6630:17	 fresher 6711:2,3,4	
flip 6798:4	forensics 6624:21 6804:21	Friday 6806:21	
floor 6581:12 6596:27 6614:20,21,22 6622:13,18 6623:14,15,16 6637:13	forget 6705:6 6737:7	friends 6793:24	
Florida 6573:18 6641:25 6771:6 6772:10,25 6773:3 6776:12 6777:24 6778:3,16, 20 6792:18 6794:10	forgot 6742:9	front 6641:18 6658:16 6675:25 6685:27 6800:21	
		fuel 6571:15	
		full 6575:25 6593:26 6605:5, 26 6606:3 6628:5 6646:24	



generally 6586:15 6591:6 6611:8,9 6699:28 6724:14 6730:12 6762:7 6791:13,14 6792:15	granted 6702:27 6773:6	6742:28 6743:1	hardest 6592:4
generated 6648:24 6687:24 6731:28	graph 6608:11 6611:7 6652:8 6657:1 6672:24 6674:16 6742:20	H	harm 6696:10
generates 6731:25	graphs 6624:25 6625:11 6626:23 6672:3,4 6684:25, 26,27 6738:23	H155 6605:24	harsh 6733:24
generating 6668:12	grassroots 6643:19 6730:23 6732:1,14	hairy 6610:19	hate 6800:20
generation 6569:25	great 6682:26 6748:22 6757:28 6800:3	half 6567:5 6638:16 6709:25 6710:22 6801:9,26	hats 6749:14
gentleman 6680:5	greater 6653:10 6668:28 6669:8 6722:14 6739:19 6797:14	half-pints 6801:24	hay 6749:4
get all 6782:20	greatly 6691:9 6808:12	Hancock 6588:5 6606:24 6745:4,5,16 6746:9 6748:14, 26 6759:27 6760:1,3 6773:18 6783:14 6784:5 6797:27 6804:4 6805:16 6806:11,12,15,25 6807:11, 24	head 6689:26 6741:22 6742:15
give 6600:1 6602:3 6607:26 6617:3,14 6640:9 6691:18 6701:24 6708:24 6730:3 6746:28 6748:3 6770:8 6772:24 6774:17 6778:2 6783:25 6786:8 6789:20 6803:9 6806:18	green 6674:23	hand 6666:10 6701:19 6768:10	header 6598:7
giving 6735:15 6798:28 6799:14,17 6803:22	greeted 6576:17	handed 6759:15	heading 6664:20
glad 6580:23 6804:14	grim 6572:18	handful 6701:14	hear 6601:23,26 6613:27 6638:12,26 6696:1 6698:16 6701:7 6702:11 6728:17 6736:15 6747:4,5 6748:5 6784:14
goals 6790:14	grocer 6763:19 6793:18,19	handler 6580:27 6581:4 6602:18 6635:6,8 6636:10 6682:16,20 6706:24 6725:25 6790:22,25 6791:9	heard 6565:16 6566:17,20 6567:24 6598:9 6607:10 6614:9,26 6616:4 6633:17 6637:1,19 6666:3 6690:1 6694:25,28 6695:1,2,4,9 6696:6 6698:12,14 6714:18, 22 6715:18 6716:21,24 6718:5,7 6725:23 6726:1 6727:17 6728:10 6733:9 6746:3 6752:14 6753:6,19 6757:1 6769:28 6780:26 6791:28 6793:6 6794:19 6800:17 6802:2,12
Goldberg 6669:25 6670:28 6733:23	grocer's 6764:1	handlers 6569:16 6577:16 6590:17,26 6591:9 6602:7 6606:21 6626:20 6635:8 6636:19 6645:1,10 6646:4 6648:15 6649:15 6653:7 6660:15 6662:21,24 6663:12,16 6666:5,23 6681:7,17 6689:3,8 6696:18 6697:20,27 6698:1 6707:10 6715:28 6716:3 6717:23,28 6718:6,13 6719:18 6727:26 6728:5 6742:24 6752:26 6754:4 6775:13 6790:17 6797:4	hearing 6573:26 6575:15,27 6588:5,12 6592:1 6595:13 6613:27 6626:18 6634:14, 16,17 6636:26 6637:7 6639:26 6642:13 6643:22 6664:10 6693:6 6700:22,23, 26 6701:15 6702:2,3 6716:22 6724:23 6731:6 6745:8,20 6746:12,15,24 6747:15,19 6750:1,2,8,26,28 6753:8 6756:27 6757:3 6758:10,11 6769:15 6770:11 6771:2 6772:1,2,3,27 6774:25 6775:1 6784:14 6786:1,19,20 6789:20 6794:14,15,18 6797:5 6798:24
Goldbergian 6733:17	grocers 6761:2,4 6764:25 6769:8 6793:19,21	handing 6579:7 6666:4 6743:25 6791:16 6792:2,19	hearing's 6757:28 6786:12
good 6564:10,24,25 6566:5 6575:1 6576:8 6580:6 6584:7 6588:19,20 6597:18 6598:3,4 6609:13 6616:23 6623:21,22 6624:9 6626:27 6639:2 6640:24,26 6676:6,8 6698:16 6719:17 6720:4,5 6727:25 6732:22,24 6733:25 6734:21 6735:7,8 6736:21, 22 6739:6 6751:7 6757:22 6760:4 6761:14 6772:10 6773:23,24 6784:12 6790:5, 6 6793:24 6796:23 6798:13 6800:12,13 6804:28	grocery 6637:27 6713:11 6762:19	happened 6701:10 6718:19 6722:22 6738:1 6748:6 6796:1,11 6802:17	hearings 6700:8,15,28 6701:8,11
good 6564:10,24,25 6566:5 6575:1 6576:8 6580:6 6584:7 6588:19,20 6597:18 6598:3,4 6609:13 6616:23 6623:21,22 6624:9 6626:27 6639:2 6640:24,26 6676:6,8 6698:16 6719:17 6720:4,5 6727:25 6732:22,24 6733:25 6734:21 6735:7,8 6736:21, 22 6739:6 6751:7 6757:22 6760:4 6761:14 6772:10 6773:23,24 6784:12 6790:5, 6 6793:24 6796:23 6798:13 6800:12,13 6804:28	Gross 6803:20	happening 6635:2 6750:7 6776:16	heavily 6576:14 6684:7
good 6564:10,24,25 6566:5 6575:1 6576:8 6580:6 6584:7 6588:19,20 6597:18 6598:3,4 6609:13 6616:23 6623:21,22 6624:9 6626:27 6639:2 6640:24,26 6676:6,8 6698:16 6719:17 6720:4,5 6727:25 6732:22,24 6733:25 6734:21 6735:7,8 6736:21, 22 6739:6 6751:7 6757:22 6760:4 6761:14 6772:10 6773:23,24 6784:12 6790:5, 6 6793:24 6796:23 6798:13 6800:12,13 6804:28	ground 6614:1	happy 6600:25 6616:16 6624:10,21 6630:26 6687:2 6688:6 6735:26 6736:7	heavy 6667:26
good 6564:10,24,25 6566:5 6575:1 6576:8 6580:6 6584:7 6588:19,20 6597:18 6598:3,4 6609:13 6616:23 6623:21,22 6624:9 6626:27 6639:2 6640:24,26 6676:6,8 6698:16 6719:17 6720:4,5 6727:25 6732:22,24 6733:25 6734:21 6735:7,8 6736:21, 22 6739:6 6751:7 6757:22 6760:4 6761:14 6772:10 6773:23,24 6784:12 6790:5, 6 6793:24 6796:23 6798:13 6800:12,13 6804:28	group 6574:19 6575:2,7 6639:18 6663:16 6666:14,23 6668:22 6670:1 6671:4 6689:24 6693:4 6694:26 6695:10 6729:25 6732:12 6747:19 6762:19	hard 6591:17 6608:27 6680:14 6689:11 6781:18 6808:9	hedge 6578:24 6580:28 6584:25 6605:6,15 6606:21 6632:10,18 6636:4,5 6638:1 6662:25 6665:28 6670:9 6671:7 6681:15 6682:23,26, 27 6692:6 6695:27 6698:1,4
good 6564:10,24,25 6566:5 6575:1 6576:8 6580:6 6584:7 6588:19,20 6597:18 6598:3,4 6609:13 6616:23 6623:21,22 6624:9 6626:27 6639:2 6640:24,26 6676:6,8 6698:16 6719:17 6720:4,5 6727:25 6732:22,24 6733:25 6734:21 6735:7,8 6736:21, 22 6739:6 6751:7 6757:22 6760:4 6761:14 6772:10 6773:23,24 6784:12 6790:5, 6 6793:24 6796:23 6798:13 6800:12,13 6804:28	groups 6669:24	harder 6694:14 6784:8	
good 6564:10,24,25 6566:5 6575:1 6576:8 6580:6 6584:7 6588:19,20 6597:18 6598:3,4 6609:13 6616:23 6623:21,22 6624:9 6626:27 6639:2 6640:24,26 6676:6,8 6698:16 6719:17 6720:4,5 6727:25 6732:22,24 6733:25 6734:21 6735:7,8 6736:21, 22 6739:6 6751:7 6757:22 6760:4 6761:14 6772:10 6773:23,24 6784:12 6790:5, 6 6793:24 6796:23 6798:13 6800:12,13 6804:28	growing 6638:3 6652:25 6663:23		
good 6564:10,24,25 6566:5 6575:1 6576:8 6580:6 6584:7 6588:19,20 6597:18 6598:3,4 6609:13 6616:23 6623:21,22 6624:9 6626:27 6639:2 6640:24,26 6676:6,8 6698:16 6719:17 6720:4,5 6727:25 6732:22,24 6733:25 6734:21 6735:7,8 6736:21, 22 6739:6 6751:7 6757:22 6760:4 6761:14 6772:10 6773:23,24 6784:12 6790:5, 6 6793:24 6796:23 6798:13 6800:12,13 6804:28	grown 6567:10 6803:18		
good 6564:10,24,25 6566:5 6575:1 6576:8 6580:6 6584:7 6588:19,20 6597:18 6598:3,4 6609:13 6616:23 6623:21,22 6624:9 6626:27 6639:2 6640:24,26 6676:6,8 6698:16 6719:17 6720:4,5 6727:25 6732:22,24 6733:25 6734:21 6735:7,8 6736:21, 22 6739:6 6751:7 6757:22 6760:4 6761:14 6772:10 6773:23,24 6784:12 6790:5, 6 6793:24 6796:23 6798:13 6800:12,13 6804:28	grows 6668:2		
good 6564:10,24,25 6566:5 6575:1 6576:8 6580:6 6584:7 6588:19,20 6597:18 6598:3,4 6609:13 6616:23 6623:21,22 6624:9 6626:27 6639:2 6640:24,26 6676:6,8 6698:16 6719:17 6720:4,5 6727:25 6732:22,24 6733:25 6734:21 6735:7,8 6736:21, 22 6739:6 6751:7 6757:22 6760:4 6761:14 6772:10 6773:23,24 6784:12 6790:5, 6 6793:24 6796:23 6798:13 6800:12,13 6804:28	growth 6619:17 6754:28 6755:3		
good 6564:10,24,25 6566:5 6575:1 6576:8 6580:6 6584:7 6588:19,20 6597:18 6598:3,4 6609:13 6616:23 6623:21,22 6624:9 6626:27 6639:2 6640:24,26 6676:6,8 6698:16 6719:17 6720:4,5 6727:25 6732:22,24 6733:25 6734:21 6735:7,8 6736:21, 22 6739:6 6751:7 6757:22 6760:4 6761:14 6772:10 6773:23,24 6784:12 6790:5, 6 6793:24 6796:23 6798:13 6800:12,13 6804:28	guarantee 6577:4		
good 6564:10,24,25 6566:5 6575:1 6576:8 6580:6 6584:7 6588:19,20 6597:18 6598:3,4 6609:13 6616:23 6623:21,22 6624:9 6626:27 6639:2 6640:24,26 6676:6,8 6698:16 6719:17 6720:4,5 6727:25 6732:22,24 6733:25 6734:21 6735:7,8 6736:21, 22 6739:6 6751:7 6757:22 6760:4 6761:14 6772:10 6773:23,24 6784:12 6790:5, 6 6793:24 6796:23 6798:13 6800:12,13 6804:28	guess 6579:17 6583:18 6595:12 6597:7 6603:14 6612:28 6615:15 6627:20 6642:12 6722:4 6733:22 6745:11 6751:6 6783:16 6784:2,4 6800:20,24		
good 6564:10,24,25 6566:5 6575:1 6576:8 6580:6 6584:7 6588:19,20 6597:18 6598:3,4 6609:13 6616:23 6623:21,22 6624:9 6626:27 6639:2 6640:24,26 6676:6,8 6698:16 6719:17 6720:4,5 6727:25 6732:22,24 6733:25 6734:21 6735:7,8 6736:21, 22 6739:6 6751:7 6757:22 6760:4 6761:14 6772:10 6773:23,24 6784:12 6790:5, 6 6793:24 6796:23 6798:13 6800:12,13 6804:28	guessing 6789:1		
good 6564:10,24,25 6566:5 6575:1 6576:8 6580:6 6584:7 6588:19,20 6597:18 6598:3,4 6609:13 6616:23 6623:21,22 6624:9 6626:27 6639:2 6640:24,26 6676:6,8 6698:16 6719:17 6720:4,5 6727:25 6732:22,24 6733:25 6734:21 6735:7,8 6736:21, 22 6739:6 6751:7 6757:22 6760:4 6761:14 6772:10 6773:23,24 6784:12 6790:5, 6 6793:24 6796:23 6798:13 6800:12,13 6804:28	guide 6571:18		
good 6564:10,24,25 6566:5 6575:1 6576:8 6580:6 6584:7 6588:19,20 6597:18 6598:3,4 6609:13 6616:23 6623:21,22 6624:9 6626:27 6639:2 6640:24,26 6676:6,8 6698:16 6719:17 6720:4,5 6727:25 6732:22,24 6733:25 6734:21 6735:7,8 6736:21, 22 6739:6 6751:7 6757:22 6760:4 6761:14 6772:10 6773:23,24 6784:12 6790:5, 6 6793:24 6796:23 6798:13 6800:12,13 6804:28	guys 6735:28 6736:2		



6712:22 6714:26 6715:12,28 6725:24 6726:12 6728:28 6729:5 6742:24 6752:21,28 6753:20,21 6787:17,18 6790:26 6791:9,12,22 6795:8,10	6569:7 6571:21,23 6572:4,8, 12,22 6574:13 6575:9 6576:5 6577:16 6584:6,17 6586:27 6592:14,15 6594:24 6596:1,5,14 6597:7 6598:21 6599:10 6609:21 6612:16 6622:11 6627:6 6634:26 6644:12,25 6650:9 6665:3 6666:11,17 6667:18 6668:4, 9 6669:3,10,16 6670:28 6671:10 6673:10 6674:8,9, 26 6677:5 6683:18 6693:19 6715:26 6717:27 6724:26,27 6725:14,23 6728:3 6729:11, 13 6733:18 6742:14,16 6753:21 6754:2 6756:9 6790:11	horses 6758:1	6699:24 6727:28 6733:16,17 6774:15,17	
hedgeable 6754:13 6795:4	highest 6616:3 6653:21 6672:27 6674:16 6675:8 6697:5 6762:1 6767:14 6797:10,12,17	hour 6624:20 6630:9 6678:18	IDFA's 6614:19	
hedged 6633:18 6755:12 6756:7	highly 6634:6 6653:13	hours 6633:20,28 6634:1 6685:14,27 6686:18	idiosyncratic 6626:25	
hedges 6606:22 6632:25 6663:10	Hill 6678:26 6686:27 6692:1 6734:20 6746:8 6747:2 6758:9,28	HTST 6577:18,25 6603:12 6607:11 6633:17 6637:27 6638:5,6 6694:11,15,21,26 6695:11,24 6727:18,23,26 6728:27 6729:5 6753:3 6754:10 6755:3 6760:25 6761:6,12,24 6762:2 6793:11 6794:18,20 6800:18	ignoring 6627:17,20	
hedging 6577:24 6594:26,28 6607:13,17 6613:23 6615:11,21,26 6632:25 6633:8,9,12,15 6635:4 6637:24,28 6638:6 6667:4 6668:23 6669:24 6714:20 6715:2,6,11 6716:13 6728:20 6743:2 6752:14 6753:4,22 6754:4,6,19,27 6786:13,14,17,20,24,26 6787:6,14 6791:5 6793:8 6794:21 6800:19 6803:8,11, 17	Hill's 6750:26	hundredweight 6567:19 6578:5,9,16 6580:5 6581:20, 25,26 6582:22 6587:17 6645:20 6650:20,22,24,26, 28 6651:14,16,18 6661:1 6780:2,10 6792:7,9	II 6621:17 6644:18,20,22,24 6645:27 6646:2 6647:12,14, 20,24 6650:23 6651:11,13, 6652:13 6662:16 6664:18, 22,26,28 6665:2,14,26,27,28 6666:2,9 6671:16 6673:3 6674:14,15,16,22,25,28 6675:10 6687:8 6696:13,15, 16,18,19,21,26 6697:2,3,5,8, 11,13,15,20,24,27,28 6698:2,10,12,15,18 6714:8 6735:14 6736:6 6741:27 6742:5,6,20 6767:15 6776:11,12,19,25 6782:19 6783:5 6799:27,28 6800:1,2	
held 6746:16	historical 6609:19 6671:26	hurt 6694:21 6797:20	III 6565:1 6574:14,22 6579:26,27 6584:12,13,16, 17,20,21,28 6585:2,8 6586:24 6588:13 6589:2,8, 23,27 6590:1,12 6591:1 6592:6 6594:5,20 6595:3 6596:2 6598:15,22,26 6599:13 6602:21 6603:6,7, 18,19 6604:3,21 6605:2,3 6606:1,7,9,12 6612:6,17,18, 19 6614:10,21 6615:5 6616:18 6622:9 6625:14 6628:23 6629:27 6637:18 6644:25 6645:8 6646:3 6647:14,15,24 6650:25 6651:3,4,15,21,22,26,27,28 6653:14 6655:7,9,10 6657:14 6658:25 6661:17 6662:12 6665:3,11,20 6666:5,10 6667:3,19,21,23, 25 6668:6,10,16 6670:6,11, 25 6671:10 6673:1,17,19 6674:12 6676:10,15 6677:3, 5,10 6683:21 6684:3,5,6 6688:13 6689:3 6691:1,3,10 6707:26,27,28 6715:12,28 6716:13,20 6717:24 6718:1, 22 6719:2,12,26 6722:14,17 6723:11,13,21 6724:1,13,19, 21 6725:6,20 6726:17 6727:9 6739:8,18,25,28 6741:15 6742:11 6754:22 6755:7 6761:8 6767:15,22 6776:12,18,19,25 6782:19 6783:5 6785:5 6787:28 6788:5,15 6791:10 6799:26	
helped 6788:19	hit 6568:5 6765:11 6791:23	hurts 6689:26	I	
helpful 6707:19 6738:14 6739:23 6769:7	hold 6580:9 6641:23,24 6717:9 6773:1	hybrid 6638:3	I-H 6754:13,15,21 6755:13 6756:8,20	
helping 6680:5 6733:21	home 6776:2	hypothetical 6676:20	i.e. 6757:6	
helps 6768:15,20 6783:10 6788:10	honest 6781:16	hypothetically 6731:6	I155 6606:12	
Herlache 6732:25	Honor 6630:11 6631:7 6638:18,28 6639:16,17 6640:22 6643:2,5 6646:18 6647:5 6657:4 6680:4 6684:18 6701:19 6734:20 6735:1 6736:12 6745:5,21, 23 6746:8 6747:9,14 6749:9 6750:25 6751:23 6755:25 6758:16 6760:1,17 6773:18 6804:4,21 6805:1 6806:12	historical 6609:19 6671:26	ICE 6737:3	idea 6597:18 6676:21 6738:26 6745:15 6758:1 6792:15
hesitant 6570:1 6801:5	hope 6565:14 6600:2 6601:17 6640:2 6693:9 6696:7 6718:17 6719:22 6721:19 6758:10	history 6576:22 6577:5 6721:28 6764:3 6794:9 6795:28	ideal 6717:14	ideas 6757:10 6758:7
hesitated 6574:19 6575:2	hoping 6683:13 6798:16 6804:26	hit 6568:5 6765:11 6791:23	identical 6671:13 6735:12, 18,23 6742:4	identically 6619:4
hesitation 6575:3	horizontal 6609:8,11	hold 6580:9 6641:23,24 6717:9 6773:1	identification 6642:20,25 6643:1 6749:26 6759:18	identified 6642:21 6657:13 6741:25
high 6568:14 6573:14,20,22 6578:25 6584:24 6598:27,28 6650:17 6752:20 6760:24 6777:24 6782:16 6789:14 6793:20	horse 6800:21	hit 6568:5 6765:11 6791:23	identifies 6640:2	identify 6583:20 6596:24 6601:9 6641:5,8 6724:11 6759:27
higher 6567:10 6568:9 6584:16,19 6587:1 6589:16 6590:22 6595:4 6596:12 6598:15,26 6610:10 6612:18 6616:1 6620:27 6623:12 6645:15 6647:26 6653:8,14 6654:11 6657:10 6659:16 6665:12 6670:11,22 6673:3, 4,12 6677:6,8 6683:21 6688:13 6691:4 6697:6,9 6722:28 6741:18 6767:15,18 6776:21 6777:8 6778:20 6783:6 6788:5 6791:14 6796:27		hold 6580:9 6641:23,24 6717:9 6773:1	identical 6671:13 6735:12, 18,23 6742:4	IDFA 6596:10,19,26 6597:1 6614:17 6622:16 6637:8 6669:13 6692:19,27 6694:6
higher-of 6565:6,11,19,26 6566:7,9,17 6567:7,20			Illinois 6632:12	



illustrate 6608:16	in-person 6757:2	independent 6643:13 6792:3	inquire 6641:22
illustration 6682:11	in-plant 6792:12	indestructibility 6564:8	insert 6578:10 6657:22 6756:1,3
Illustrative 6652:23	in-your-face 6673:16	indicating 6600:8 6654:10, 14	inserting 6647:1
image 6608:15,18	inadequate 6670:14	indicative 6577:23 6600:14 6602:4,7,14,18 6603:18,21	insights 6650:16
images 6608:20	incentive 6567:20 6625:22 6647:28 6723:23,24 6724:18,24 6757:8	indicator 6652:11	insisted 6668:25
imagine 6727:3 6766:14 6774:6	incentives 6590:17 6591:11 6625:24 6627:1,2 6635:2 6754:27	individual 6722:9,13 6729:24 6770:23,27,28 6771:24 6772:21 6773:16 6777:23	instance 6583:28 6654:7 6691:8 6706:11
immediately 6617:14 6627:15	incentivize 6591:9 6689:2 6697:24	induce 6572:2 6574:6	instances 6722:18 6724:11, 28 6770:3
impact 6568:19 6574:10,11 6586:7,16 6588:28 6589:19 6590:10,13 6591:20 6592:17,18 6597:1,9,10 6608:27 6609:24 6629:3,25 6648:5,8 6659:10 6675:3 6704:7 6723:1 6739:9 6742:23,27 6743:5 6775:23 6778:27 6780:5,6	incentivizes 6655:11	induced 6737:12	institute 6666:15 6717:20
impacted 6767:24	incidence 6668:16	industry 6569:9 6570:5 6607:2 6663:9 6665:24 6669:28 6692:15 6693:17,20 6696:5,6,8 6717:3 6726:26 6768:1 6769:15	instituted 6668:22 6693:4
impacts 6585:15 6586:13 6591:14 6667:21 6731:9 6769:6 6780:10	include 6662:8 6704:21 6736:5 6786:21 6796:16	industry's 6671:7	institution 6693:27
impetuous 6571:23	included 6605:5,7,25 6688:7 6690:14 6704:26 6777:14	inequalities 6650:14	institutional 6614:5 6638:5 6761:25 6766:25 6769:8,13 6801:28
implausible 6632:24	includes 6565:2 6639:10 6660:11 6664:3	inequitable 6652:21 6654:17,25	institutions 6766:27 6767:1, 7
implement 6603:8 6614:10 6615:19 6663:26 6737:13 6769:12	including 6643:13 6664:10 6666:13 6712:21 6765:28 6790:15	inequities 6649:14 6655:3	instrument 6575:24 6725:14 6727:2 6785:20 6791:8
implementation 6757:12	income 6565:8 6584:23 6651:6 6652:4 6731:9 6776:28	inevitable 6767:24	instruments 6567:4 6632:25 6633:10 6726:20
implemented 6569:14 6613:5,8,19 6678:10 6738:8	incomplete 6735:28	inferred 6662:12	insufficient 6572:3
implementing 6693:15	Incorporated 6760:15	influence 6630:4	insulated 6636:18
Implications 6645:25	incorporates 6674:26 6746:3	influences 6609:3	insurance 6582:20 6583:7 6604:17
implicitly 6596:7 6620:26	increase 6567:7,12 6568:6 6574:1 6576:2 6587:2,4 6589:12,24 6600:1 6621:17 6652:23 6653:11 6655:10 6658:25 6661:8,10,12,14,25 6662:1,3,7 6663:9 6695:22 6764:11,16 6768:9 6781:11	inform 6601:10	integrity 6682:16,17 6707:20
implied 6605:1,16	increased 6586:15 6653:1,5 6654:15,16 6659:4 6661:7,9, 11,13,24,28 6662:2,6	information 6571:17 6602:26 6606:4 6659:20 6660:12 6662:17,18,25 6663:24 6667:12 6677:16 6737:22 6772:27	intended 6646:9 6672:27
imply 6755:5 6777:15	increases 6565:8 6610:10 6620:25,26 6657:9 6695:20 6764:4 6768:10	informational 6571:17	intending 6745:6
implying 6635:1 6779:2	increasing 6569:23 6620:28 6649:17 6668:16	ingredient 6762:27	intent 6735:23
importance 6615:10,11 6669:24	increasingly 6654:26	inherently 6596:28	intention 6660:4 6733:25
important 6594:6 6607:11 6625:8 6630:22 6659:9 6660:7 6668:4 6669:20 6688:2 6716:25,26 6720:18 6723:4 6737:2 6749:16 6757:14 6767:27	incrementally 6606:22	initially 6785:25	interactions 6653:17
impossible 6725:1	incur 6659:22	initiate 6637:24	interest 6605:11 6663:9 6664:2 6667:6 6692:12 6732:27 6782:24 6789:19 6793:17,25 6794:2,5,21 6801:1
improve 6607:8	indefinite 6670:12	initiated 6730:17	interested 6566:14 6590:15 6732:22
improved 6733:7	indemnity 6779:28	innovation 6600:3 6639:18 6689:24 6694:26 6695:10 6747:19 6755:1 6756:13,15	interesting 6564:7 6718:28
in-depth 6660:2		innovative 6638:5	interfere 6805:18
		input 6577:19 6607:2,5,8 6633:14 6634:19 6635:28 6636:1,12,13 6752:14 6787:1,10	intergenerational 6567:26
			internal 6568:16 6575:6
			International 6595:10 6700:6 6708:9
			interpret 6713:15



interpretation 6590:8,9	issuing 6681:19	jump 6624:10 6680:17 6765:21 6795:16	label 6620:6 6626:15 6761:24 6762:21,27 6794:6 6801:15
interrupting 6788:12	item 6762:1 6795:18 6796:17,25	June 6587:13 6660:20,23 6661:1,2,3,18 6675:20,27 6676:5 6677:15 6678:1	labeled 6595:16,24
intrigued 6749:27	iterations 6732:13	just-in-time 6760:28	labels 6655:20
introduce 6575:17 6577:3 6588:6 6592:13 6671:4 6688:3 6753:17	IV 6574:22 6579:26 6580:7, 8,16 6584:16,19,27 6585:3 6586:24 6588:13 6589:3,23 6590:16,17,23,25,26,28 6592:7 6594:20 6595:4 6596:2 6598:26 6603:10 6606:13 6612:17 6616:18 6620:14 6625:14 6629:27 6644:21,23,26 6647:15,24 6650:27 6651:17 6655:22, 23,24 6656:8,9,16,22,28 6657:2,15 6659:3 6662:8,12 6664:27 6665:1,4,11,20 6666:1,10 6667:3,19,21,23 6668:2,6,10,16 6670:21 6671:10 6674:12 6675:7 6676:17 6677:3,7,11 6684:1 6689:3 6691:1,3 6698:3,4 6715:12 6716:1,13,20 6717:24 6718:1,22 6719:2, 12,26 6723:11,13,21 6724:2, 13,19,21 6725:6,20 6726:18 6727:10 6739:9 6740:2 6761:8 6767:15,22 6776:13, 19,25 6782:20 6783:5 6785:6 6787:28 6791:11 6799:26	justification 6768:18	labor 6571:15 6801:21
introduced 6577:24 6593:26 6594:1 6746:11		justified 6669:25	lack 6577:10,12
introduces 6591:11			lag 6615:19 6616:1,2,3 6647:18 6648:20,26 6660:3 6665:13 6710:19,20,22,23 6711:5,6,18,25 6712:3 6768:9,11
introducing 6575:14 6583:10 6620:9 6746:5		K	lagged 6648:9
introduction 6576:3,16 6592:12 6667:1 6751:25		K-O-O-N-T-Z 6806:20	lagging 6646:2
introductions 6576:19		Kansas 6732:23	laid 6672:5
intuitive 6781:7		Keefe 6805:5,27 6806:2,13 6807:4,7,9,19 6808:4	land 6681:2
inventory 6756:17		keeping 6565:13 6581:15 6712:17 6779:27 6801:6	language 6611:20 6616:13 6636:23 6663:26 6706:17,19
inverse 6611:12 6636:10		key 6568:24 6643:28 6644:3	laptop 6579:12 6600:22,28 6601:6
inversion 6584:19 6598:25 6649:11 6652:24,27 6724:9 6783:1,4 6784:16,28 6785:5, 7		keys 6738:15	large 6577:17 6578:10 6586:25 6588:12 6595:1 6606:28 6628:8 6648:19 6655:6,12 6657:9 6663:8 6667:25 6682:6,7 6718:15 6719:24 6723:2,12 6724:2, 12 6743:7 6761:2 6764:16 6766:27 6794:26,27 6802:27
inversions 6649:8 6650:13 6660:5 6724:15 6768:18,21, 22 6771:26 6782:27 6783:10 6784:19,24 6797:26 6798:1		kicked 6715:3	largely 6644:5 6769:21
inverted 6667:24 6783:1		kicks 6771:17	larger 6584:8 6594:25 6608:17 6650:16 6739:2,25
investment 6801:21	J	killing 6719:20	largest 6665:8
investments 6568:11	J155 6606:13	kind 6599:14 6600:9,12,15 6602:14 6607:12 6615:16 6618:20,28 6641:22 6676:22 6681:18 6687:12,13,28 6690:16 6717:5 6731:25,28 6734:4 6739:6,12 6743:4,17, 26 6772:22 6789:18 6802:4 6803:5 6805:19	lastly 6675:11
invigoration 6600:3	January 6568:6 6613:11,20 6616:2 6635:14 6738:2 6765:18,22,24 6795:20	kinds 6703:11 6713:17 6743:11	late 6564:6 6635:15 6660:19 6678:25 6802:17
invite 6630:21 6753:7	jargon 6599:9	King 6751:5	latest 6710:11
invited 6630:27 6640:20	Jeff 6806:16	knew 6588:4 6591:28 6614:26 6763:4	lawyer 6774:15,17
invoice 6635:21	Jersey 6788:3,9,18,20	Knot 6712:20	layer 6599:15 6734:5
involve 6607:16	job 6588:24 6680:6	knowing 6606:1 6614:18 6615:11 6682:19 6758:18 6761:21 6763:11	layman 6780:11 6787:26
involved 6700:1 6732:16,19, 20 6768:28 6796:13,14 6803:20,24,25	joint 6643:8	knowledge 6601:4 6625:24 6635:28 6682:5,9 6692:27 6788:27 6794:25	lead 6568:10 6570:5,18 6591:6 6600:2 6601:16 6620:28 6667:28 6696:15 6724:20 6754:24,25
involvement 6732:17	Joking 6786:9	Koontz 6806:19	leading 6647:27 6659:17 6665:9 6667:24 6668:18
isolated 6594:14	Journal 6645:22	Kroger 6694:6	leads 6607:9 6646:7 6723:26
isolates 6657:13,16,18,24 6658:8	judge 6617:11 6685:21 6748:11	L	leap 6599:21
issue 6566:20 6572:15 6590:28 6591:1 6630:23 6652:14 6669:19 6681:5 6685:22 6694:24 6699:28 6700:1,3 6702:12,13 6771:25 6777:16 6790:8 6802:18 6807:12	jug 6762:26	L-U-C-A-S 6751:10	leaped 6758:23
issues 6607:27 6701:2,3,5 6790:18 6794:10	jugs 6762:20 6801:23		
	July 6579:24 6587:15 6612:27 6613:14 6653:19 6661:17,19,20 6675:22,27 6677:17,19,20,21,23 6687:13,16,17 6698:27		
	July/september 6580:17		



learn 6613:28 6752:3	limits 6621:2,4 6702:6,15 6772:18	6689:25 6697:22 6702:3 6714:2 6728:22 6761:10 6792:26,28 6806:3	M
learned 6637:6,7,26 6733:27	linear 6620:21,22 6654:4	lookback 6596:13	M-A-R-I-N 6564:12
learning 6637:19	lined 6687:9	looked 6675:17 6676:3,13 6687:10,11,18 6722:1 6733:19 6735:17 6736:1 6772:12 6793:25	M-U-N-C-H 6672:18
learnings 6614:4	lines 6671:22 6688:9 6707:18 6755:26 6756:2 6758:12 6769:28	lookout 6629:18	made 6575:14,20 6587:28 6592:13 6621:15 6628:19 6652:12 6657:5 6666:16 6682:1 6715:25 6742:10 6747:16,18 6755:10 6764:6 6770:26 6772:3 6773:2,15
learns 6663:10	lineup 6806:11	lose 6594:9 6617:8 6635:25 6767:18 6796:28	magnitude 6586:15,28 6587:2,4 6611:15 6657:2 6659:13 6663:22 6667:11 6778:22
leave 6714:27 6749:11,12 6758:18 6807:1	link 6594:6	losing 6628:12,14 6635:28 6707:14	mailbox 6775:18,20,24,28
leaving 6807:2 6808:11	liquid 6582:19 6584:28 6717:4 6719:7,11	loss 6697:15 6706:1 6782:20 6795:14	main 6626:28 6729:11 6779:15,16
lecture 6774:7	liquidity 6585:2 6594:2,4 6716:24,26 6719:26	losses 6632:17 6669:16 6670:27	maintain 6616:15 6670:8 6794:21
led 6787:24	list 6574:8 6598:7,8 6686:8, 9 6737:10 6805:4 6806:8	lost 6639:1 6729:13 6738:15,23 6782:1	maintained 6568:11 6727:20
leeway 6773:5	listed 6583:21 6584:10 6622:28 6628:26	lot 6576:15,18,19 6623:8 6628:15 6637:27 6676:25 6681:5 6682:6 6683:11 6692:10 6696:19 6707:15 6718:5,11,28 6720:7 6728:10,16 6729:13,15,17 6732:11,24 6737:9 6738:3 6767:26 6778:5,8 6780:8 6782:9 6785:13 6801:1 6802:15 6803:6	major 6581:22 6582:17 6793:18 6802:14
left 6609:11 6674:15 6739:17 6741:27 6751:24 6758:20 6772:20 6805:4	listen 6613:28 6748:3	loud 6807:28	majority 6787:9
legal 6794:9 6802:18	listened 6732:25 6738:21	love 6640:5 6680:27 6750:8 6804:13	make 6565:22 6568:4,9 6569:3 6572:18 6574:27 6589:15,17,21 6591:18 6594:10 6596:8 6598:13 6599:21 6600:5 6601:9 6605:18 6608:2,4 6610:22 6611:22 6612:2 6626:20 6637:22 6643:20 6646:14, 16,28 6655:26 6660:27 6668:25 6670:10,15 6671:15 6678:5 6683:19 6692:22 6694:10,14 6717:10 6719:5 6725:1 6730:4 6733:1 6735:24 6740:4 6741:19,23 6742:16 6743:6,15 6745:11 6746:23 6747:13,22,23 6748:1,4 6754:24 6755:16 6756:24,25 6762:26 6770:28 6771:25 6773:9,18 6778:8, 10,13 6780:24 6782:9 6783:11 6784:8,23 6794:3 6795:17 6801:19 6804:25
legally 6758:2	listening 6755:10 6804:13	lower 6569:20 6586:26,27 6590:22 6593:7 6597:5 6598:28 6628:25 6650:18 6653:16 6658:28 6659:1,7, 24 6668:13 6684:3 6703:6 6723:26,27 6740:2 6756:14 6784:27 6788:2 6801:23	maker 6788:3,15
legend 6620:4	listing 6617:24	lower-of 6670:25	makers 6573:3
legislation 6622:28	live 6572:28 6573:2 6805:14	lowered 6702:19,20,22	makers' 6693:15
legs 6713:20	livestock 6583:7 6803:20	Lowering 6674:23	makes 6583:28 6590:24 6676:28 6739:7 6761:14 6791:7
lenders 6569:28	load 6762:13	lowest 6653:21 6675:21,22	making 6626:5 6629:21 6630:3 6683:24 6723:5
lengthen 6756:15	loads 6792:12,16	Lucas 6631:5 6735:6,8 6742:1 6751:10,17	
let alone 6785:16	local 6579:5 6626:26 6720:28 6729:24 6730:5,18 6772:13	Lucas' 6607:28	
letter 6569:26	location 6762:25 6766:21	lucrative 6621:8	
letting 6638:6 6736:10 6747:25	lock 6578:24 6634:19 6682:7,24 6698:5,6 6728:21, 24 6787:1,4,16 6788:7,26 6789:3,10	lunch 6678:23 6679:2 6808:8	
level 6568:22 6569:15 6580:3 6632:26,27 6727:13 6729:26,27 6730:13,14,18, 22 6773:16 6788:2	locked 6787:25		
levels 6645:9 6648:22 6653:12 6663:5	locks 6582:27		
liability 6584:24 6635:22	logic 6628:3		
licensed 6583:6,10	logical 6749:22 6753:18 6756:28		
lieu 6696:27	logically 6625:20		
life 6749:13 6752:15 6754:14,28 6755:2 6756:15 6761:16	long 6580:11 6593:10 6595:3 6606:3 6613:7 6621:26 6629:3 6630:2 6647:18 6754:24 6770:21 6805:27		
light 6565:20 6669:22 6738:13,15 6801:21	long-term 6569:9,22 6570:2, 4 6589:10,13 6633:3 6696:3 6779:2		
likelihood 6695:19 6697:2	longer 6577:21 6583:2		
Likewise 6659:3 6782:22			
limit 6659:12 6771:12			
limitations 6566:2			
limited 6670:18,19,20 6690:24 6718:14 6739:1 6765:10 6788:27			



6737:20 6748:21 6772:22 6773:7 6797:9,11 6801:2	6571:9,10,22 6573:8 6602:19,20,22 6606:3,23 6609:25 6610:7 6611:9 6622:17,20 6623:6 6627:25 6633:19 6635:18 6636:16 6647:25 6649:4,19 6658:26 6659:5,15,20,23,26,27 6663:3,23 6666:25 6667:28 6670:20 6677:17,22 6678:1, 4 6681:13 6688:24 6695:16 6698:6 6702:26 6703:17,23, 25 6704:1 6712:25 6713:25 6717:4 6719:6,7,11,20,25 6728:21 6754:16 6766:17 6768:7 6773:3,4,6,9 6774:27 6776:27 6777:10 6778:16 6779:6 6782:16 6783:16 6787:16,27 6788:6,28 6791:18,27 6795:13 6797:21 6801:3 6803:18	material 6629:25 6633:5	mentions 6746:13
manage 6572:16 6582:24 6651:7 6652:5 6662:25 6683:13 6743:11,12 6753:2 6754:20 6756:16 6790:15 6797:3	market's 6649:12 6665:12	materialized 6635:11	Mercantile 6583:12 6662:24 6663:3 6692:3,5 6762:8
management 6574:3 6599:22 6603:2 6604:13 6667:12 6693:17 6695:26 6712:22 6719:1,18 6727:21 6731:10 6743:12 6756:22 6786:22 6787:20,27 6790:17 6793:7 6797:8 6803:8,10,17	market-specific 6699:28	materials 6708:13	meritorious 6565:12
managing 6663:17 6666:24	marketed 6636:3 6760:28	math 6755:26	mess 6766:10 6795:25
mandate 6668:9	marketers 6713:1,11	mathematically 6589:8 6707:4	messed 6797:23
mandated 6792:6	marketing 6597:15 6611:2 6631:10 6641:28 6643:16 6644:1 6645:24 6646:13 6648:6,7,10 6660:11 6663:19 6667:7 6717:13,14 6736:15,17 6746:18 6752:25 6753:14 6756:26 6761:12,18 6762:4,9,15,25 6763:7,13 6764:1,8,17,18,20 6765:7,15 6766:10,12 6767:28 6769:3, 5,6,10,12,16,18,24 6770:12, 13 6771:7 6772:7 6774:22, 26,28 6775:8,9,12,14 6776:11 6784:1 6800:7,8 6803:11,27	mathematicians 6740:27	met 6575:10 6595:1 6766:10
mandatory 6733:2 6756:20 6801:2	marketplace 6695:20 6776:17	Matt 6631:25	method 6753:10 6761:6
manifested 6715:24	markets 6568:5 6593:2 6594:7 6610:8 6621:5 6630:1 6650:9,13 6652:17 6654:27 6657:12 6663:6,9, 12 6665:9,20 6667:22 6676:1,2 6683:28 6687:19 6690:28 6691:19,22 6717:24 6719:27 6777:18 6779:3 6798:5	matter 6570:12 6619:18,21, 23 6662:26 6708:2 6728:20	methods 6591:18 6649:10
manufactured 6649:1,4,16	marketwide 6652:20,23 6654:28	maximal 6565:8	Michael 6774:6,8,14
manufacturer 6571:4 6665:11	marking 6758:24	meaning 6707:7 6735:12	mid-june 6614:27
manufacturers 6622:26 6662:14 6678:9 6715:7 6752:15,19,27 6754:10 6793:7	massive 6645:21	means 6584:23 6595:28 6609:9,11 6621:14 6627:13 6632:17 6647:20,25 6662:17 6667:3 6685:28 6720:19,20, 23 6721:12,13 6765:10 6778:15 6805:6 6807:21	mid-september 6600:23
manufacturing 6571:1 6605:19 6621:1 6623:4 6648:9,16,18,21,27 6649:12 6652:18,20,22 6655:1,17 6683:7 6708:21,27 6709:15, 21 6725:4 6762:6	master 6607:27	meant 6634:3 6720:9 6777:2	middle 6651:10 6665:15 6688:16 6698:7 6711:19,23, 24 6738:24,28 6739:1,20,24, 26 6740:25
March 6587:7 6596:17 6597:8 6604:18 6623:27 6624:1,3 6628:27 6635:16 6766:5,7 6771:16	match 6619:3,4,10 6676:6,8	measure 6604:14,16 6720:11,13	Mideast 6573:11 6624:7
margin 6567:16 6578:7,8,10 6579:6 6779:10,13,26 6781:2 6782:5,7 6789:15 6803:20	matches 6620:3,5,8	measuring 6604:9	midpoint 6711:9,11,18,22 6712:1
marginal 6627:7 6768:24,25		mechanism 6590:19 6601:19,22 6604:13 6725:13,16	midstream 6758:1
margins 6577:17,25 6579:2 6599:25 6600:2 6607:15 6682:21		mechanisms 6602:17 6713:27	Midwest 6573:12,17 6589:23 6602:21 6628:24 6778:18,19 6783:17
Marin 6564:12,14 6680:18, 22 6742:1 6745:25 6773:22 6804:19		median 6658:23 6740:11,16, 18,24,25,28 6741:2	MIG 6614:11 6728:1
mark 6749:19		medians 6741:5	MIG's 6637:20 6669:14 6805:10
marked 6638:23 6642:16,19, 24,26,28 6749:25 6759:16, 17 6760:9		meet 6615:21 6753:11 6765:3,27	Mike 6694:5 6732:25
market 6567:1,2,6,13,21 6569:18 6570:9,24,28		meeting 6730:10 6798:25 6799:6	mild 6767:21 6775:27



6651:3,21 6652:17,18,22,25, 26 6653:1,3,7,8,23 6654:1, 14,15,20,21,27 6655:2,8 6657:12 6658:24,26,27 6659:5,6,12,18,27 6660:11 6661:15 6662:6,10,18 6664:14,18,22,23,26,27 6665:3,4,10,14,27 6666:2 6667:4,14 6668:6 6669:9 6670:11 6673:11 6689:15,24 6694:3,7,11,15,21,25,26 6695:9,10,11,19,24 6696:2, 10,16,27 6697:23 6698:24 6699:16,22,23 6700:1,6 6703:20 6704:22 6706:6,27 6707:13,25 6714:13,15 6716:7,13,15,16 6717:12,14, 16 6718:7 6720:6 6721:6 6729:6 6743:13 6745:7 6746:17 6747:19 6748:9 6752:7,8,13,14,16,22,27 6753:11,22,25 6754:9,11,12, 14,21 6755:1,2,6,11 6756:7, 10,13 6760:15,16,22,23,26, 28 6761:1,2,5,6,11,12,17,18, 23,24,28 6762:3,4,5,8,13,15, 16,20,21,22,23,24,28 6763:2,5,7,9,11,12,13,14,15, 17,21,25,26,27 6764:2,4,5,7, 13,14,15,17,19,21,28 6765:5,7,10,11,15,20,22,24 6766:5,6,7,12,19,26,28 6767:1,5,7,11,12,13,14,18, 22,28 6768:4,14,16,28 6769:3,4,5,7,9,10,16,18,19, 20,24 6770:6,9,10,12,13,16, 17 6771:7,9,14,28 6772:6,8 6773:2,14 6774:21,26,28 6775:10,20 6776:11 6778:4, 17 6780:21 6782:8,17 6786:28 6787:2,4,5,15,16,17 6788:4,18,20,22,23 6789:1, 2,4,5,9,16 6790:4,23,26,28 6791:10,14 6792:3,12,16,20, 24 6793:3,10,11,13,15,20 6794:4,14,22 6795:2,19 6796:11,12,28 6797:12,13, 24 6801:13,14,17,25 6802:1, 9,14,18,19,24 6803:27	6671:26 6775:3 6777:23 6785:3 6796:2 6804:18 mind 6732:10 mine 6579:13 minimal 6689:7 minimum 6635:10 6647:10 6653:20 6660:13 6672:11 6673:5,21 6675:9 6795:12, 23,27 6796:8,22 6804:1 Minnesota 6579:9,23 6580:17 6680:28 6777:26 6786:9 Minnesotans 6579:28 minor 6667:5 minority 6573:10 minus 6606:7 6628:27 6720:28 6795:13 minute 6579:18 6610:28 6682:14 6708:19 minutes 6597:21 6624:11 6640:23 6805:8,13,16,22 misalignment 6669:19 6673:14 6683:22 misalignments 6665:9 6666:12 6668:1 6673:6,8 6683:7 missed 6585:18 6619:9,25 6638:14 6808:11 missing 6565:24 6798:24 6799:8 mistake 6742:10 misunderstood 6703:24 mix 6590:24 mixed 6799:28 model 6620:13,24 6621:2 6624:13 6626:16,22 model-based 6585:22 modeled 6620:12 modeling 6609:22,28 6678:7 modifications 6636:25 6752:7 modified 6596:17 moment 6571:20 6589:26 6624:12 6627:14 6646:28 6692:15,21 6699:4 money 6621:21 6628:12 6707:14,16 6720:26 6721:1, 13 6733:18 6776:2	monopoly 6666:27 month 6567:8,9,11 6573:5 6577:20 6581:24 6582:18,25 6589:14 6591:2 6601:28 6602:1 6604:2,16 6606:17 6607:26 6612:24 6625:15 6627:12,13,16 6628:6,11,12, 15,26 6629:9,14,16 6630:15 6636:2,3 6647:6,9,13,20 6649:13 6653:7 6655:9,10, 22 6656:8,9,10 6665:15,16, 17,18 6667:14 6675:21,22 6681:20 6682:13,20 6686:9 6687:12 6691:9,16,17,18,19, 20 6695:23 6698:7 6708:21, 25 6709:17,23,25 6710:3,16, 19 6711:2,3,27 6714:3,4 6722:22 6728:11,19 6729:2 6739:27,28 6752:18 6763:3, 4,6,10 6764:9 6771:11,21 6775:21 6776:3,14,25 6778:8 6779:3 6785:12,14 6787:1,10 6789:6 6791:21 6792:16,21 month's 6764:5 month-and-a-half 6710:3 month-and-a-week 6710:23 month-by-month 6691:2 month-to-month 6567:22 6586:9 6595:17 6624:26 6653:28 6752:21 6764:4,16 6776:26 6781:21 monthly 6581:23,27 6592:22 6645:8 6653:2,3,22 6654:13, 14,15 6655:8 6662:13 6698:24 6704:22 6722:9 6743:13 6761:26 6762:4,22, 24 6764:11 6766:16 6767:4, 7 6779:14 6794:11 6795:2 6802:9,26 months 6569:4 6582:25 6586:23,24,26 6587:5,6,27 6588:2 6590:21,22 6597:9 6613:24 6615:17,18 6616:1, 10,19 6620:15 6628:14 6629:2,19,20,21,28 6646:5,6 6657:14,16,19,24 6658:8,25, 28 6659:3,6 6673:19 6675:26,27 6676:5,7,12,13, 14,27 6682:7 6687:11,14 6688:5 6690:12 6691:16,22, 23 6704:27,28 6705:3 6708:22 6709:5,24 6724:27 6740:19 6754:25 6778:19 6785:10,13 months' 6777:1 morning 6564:1,4,24,25 6588:19,20 6597:22,23 6598:3,4 6622:21 6623:21,	22 6624:10 6632:4 6681:4 6693:6 6715:15 6806:6 mother 6751:1 motivation 6716:18 move 6574:6 6592:2 6606:23 6609:3,8,11 6633:16 6638:18,27 6639:26 6640:8,16 6644:9 6664:4 6693:7 6718:10 6730:23 6744:2,3,5 6747:27 6748:8 6782:25 6804:5 6807:23 moved 6715:8 mover 6573:23 6574:8 6575:4 6576:5 6588:11 6596:20 6637:13 6667:10 6670:7 6671:9 6672:12 6673:20 6714:11,26 6725:15 6727:20 6733:14 6765:25 movers 6687:6 moves 6693:18 moving 6584:22 6598:27 6599:15 6608:23 6631:12 6637:18 6664:2 6683:28 6768:15 Mozart 6623:10 multiple 6565:17 6574:28 6645:6 6666:13 6746:7 6761:3 multiple-component 6778:18 multiplies 6722:6 multiply 6605:18 6686:13 Munch 6643:8 6672:4,16,17, 20 must-have 6572:5 muting 6622:18,20
N			
milk's 6727:24 6763:2 6793:18 6802:13 6806:7	million 6643:12	Miltner 6564:19,21,22 6572:26 6575:5 6580:1,9,10, 13,19,24,25,26 6586:7 6588:15,16 6590:2 6619:16 6720:3,6 6734:17 6757:24, 25 6790:2,4 6798:8 6807:16	mimic 6584:17 6598:21 6774:9
mind 6565:17 6566:12,13 6568:23 6624:13 6658:15	million 6643:12	Miltner 6564:19,21,22 6572:26 6575:5 6580:1,9,10, 13,19,24,25,26 6586:7 6588:15,16 6590:2 6619:16 6720:3,6 6734:17 6757:24, 25 6790:2,4 6798:8 6807:16	mimic 6584:17 6598:21 6774:9



6752:7 6753:25 6754:11 6760:16 6770:6,10 6771:28 6772:3,13 6777:16,19,22 6778:9,21,24 6779:17 6780:12,13,18,21 6806:7 natural 6602:5 6637:28 nature 6614:5 6637:20 6760:22 6772:19,23 NDPSR 6660:8,11 6661:2,19 6675:14 6738:5,8 nearest 6613:2 necessarily 6570:23 6716:14 6724:16 6729:1,6 6733:21 6786:7 necessity 6577:13 needed 6570:1 6576:2 6605:15 6643:24 6649:20 6662:25 6753:23 6767:11 6786:18 negative 6586:16,23 6587:1, 2,5,11,15,16,17,18,19,20,21, 22,23,24,25,28 6589:18,26, 27 6597:10,11 6610:11,24 6622:5,9 6625:21 6626:4 6627:14,20 6628:1,7,16,19 6629:3,28 6630:1 6643:26 6645:17,18,20,23,27 6646:10,15,26,27 6647:2,27 6653:16 6654:5,6 6655:12 6656:27 6659:17 6665:9 6667:26 6668:6 6676:22 6689:1 6691:17,19 6705:23, 28 6707:1,19,27 6720:19,24, 27 6721:8 6729:15 6734:8 6738:25 6739:2 6785:11 6786:4,5 6794:25 negotiate 6635:14 6801:18, 22 negotiated 6762:23 6788:24 Nestle 6714:19 6716:6 6718:3 Nestles 6715:1 net 6627:28 6782:1,4 neutrality 6614:16 6616:16, 17 6637:8,15 news 6602:19,22 6663:3 6677:17,22 nice 6586:20 6588:22,24 6716:28 6805:17 Nicholson 6806:16 nine-week 6711:5 NMPF 6667:20 6668:27 6669:6 6768:21,22	NMPF's 6644:11 6667:17 6671:14 NMPF-104 6760:6 nobody's 6730:1 noise 6578:14 6610:12 non-arbitrage 6593:27 non-hedging 6633:1 non-linear 6610:23 non-negative 6621:27 non-pool 6771:15 non-pooled 6648:1 6659:19 non-retailers 6794:6 nonchalantly 6790:3 nonetheless 6767:26 nonfat 6576:28 6644:22,23 6661:15 6662:6,10 6664:28 6665:1 normal 6586:2 6677:2 6689:11,12 6805:12,25 6807:20 North 6798:21 6799:2,5 Northeast 6573:14 6621:4, 11,13 6778:18 6783:20 Northwest 6573:11 nose 6581:1 nosedive 6776:28 notably 6766:18 note 6640:14 6646:14,16 6650:6,7 6655:15 6659:9 6666:28 6667:4 6671:16 6678:5 6682:13 6699:14 6737:20 6749:21 noted 6702:9 6754:1 notes 6664:4 notice 6613:25 6634:16 6677:14,18 6702:22 6745:20 6746:12 6763:9 6789:25 noticed 6634:13,17 6636:6 6740:9 6747:1 6750:28 6754:1 6757:28 6758:27,28 November 6587:23 6771:14 number 6578:11 6585:5 6598:8,12 6600:24 6625:26 6626:2 6639:7,14 6642:19, 24,28 6648:13 6663:23 6675:2 6676:13 6677:5,7,28 6683:5 6688:5 6691:2,12,15, 16,26 6700:15 6702:17,20 6718:6 6722:13,17 6740:21	6741:26 6744:13,19,25 6749:22,23,25 6750:17 6752:8 6753:25,26 6756:24 6759:17 6760:22 6761:23 6764:21 6766:25 6768:17 6770:16 6773:26 6788:19 6797:13 6802:23 6803:28 6804:11 numbered 6564:28 6686:26 numbers 6578:1 6580:25 6597:5 6626:6,7 6630:17 6642:6 6684:28 6688:17 6722:27 numeral 6656:21,22,27,28 Numerous 6665:22 <hr/> O <hr/> object 6600:20 6614:9,20 6622:13 6638:20 objected 6750:10 objection 6606:24 6639:3,9, 12 6744:9,15,21 6745:7,15 6747:16,17,18,26 6748:10, 21 6804:7 objections 6640:1 objective 6572:6 6615:21 6622:28 6753:13,19 objects 6632:7 obligation 6602:18 6645:2 observation 6722:9 observations 6663:1 6722:7,14,20 observe 6575:7 6576:23 6602:20 6604:28 obtaining 6793:13 obvious 6594:27 6624:19 6803:16 occasional 6784:28 occasionally 6591:12 6730:18 occasions 6765:13 occur 6724:1 6766:15 6782:23 occurred 6586:17 6795:20 occurrence 6649:8 occurrences 6646:11 occurs 6649:11 6722:19 6729:2 October 6564:1,5 6587:21	6600:22 6603:24 6604:2,5,6 6606:17 6640:12 6647:17 6680:1 6708:25,26 6710:1,2, 5,21 6711:20,21,23,24 6712:1 6732:23 6763:23,24 odds 6565:8 6568:3 6577:5 off-the-record 6611:3 6745:2 6759:7 offer 6578:1 6583:7,11 6584:6 6608:1 6635:7 6664:3 6666:26 6670:1,2,3 6675:11 6680:19 6682:27 6684:17 6685:6 6686:15,21 6696:9 6715:9,20 6727:2 6737:12 6745:18 6746:2 6747:8,23 6750:14,16 6752:16 6757:8 offered 6662:23 6687:7 6688:3 6750:19,20 6755:12 6756:7 offering 6664:11 6684:14 6730:9 6733:10 6754:18 offerings 6715:16 offers 6579:26 office 6794:12 offices 6730:6 official 6681:14 6774:10 officially 6642:13 offset 6727:5 OGC 6640:1 6746:8 6748:9 older 6647:22 6783:3 one-day's 6771:10 one-for-one 6779:28 one-month 6710:22 one-off 6766:14 one-sided 6767:16 6796:26 one-to-one 6620:3 ongoing 6732:15,21 online 6639:11 6806:22,26 opacity 6599:28 open 6581:12,15 6715:21 6732:10 opened 6755:5 opens 6764:17 6807:21 operate 6607:15 6611:23 6633:10 6635:19 6636:8 6670:25 6720:21 operated 6723:18
--	--	---	--



operating 6720:20	6629:19 6632:23 6636:8	over-a-month 6710:20	parlor 6570:2
operation 6569:24	6645:2 6646:1,5,6 6647:28	over-order 6788:25 6795:25, 27 6796:7,16,20	part 6570:27 6571:17 6590:23 6592:24 6595:13 6605:12 6619:20 6638:3 6648:20 6649:7 6651:25 6686:7 6688:16 6696:22 6706:15 6716:20 6731:15,22 6743:8 6750:18,21 6753:14 6758:4 6770:18 6771:11 6776:24,28 6806:23 6807:10
operations 6697:22	6655:4 6659:18 6665:9 6668:15 6669:21,28 6672:12 6676:12,14 6678:7,10 6682:2 6685:24 6690:4,13 6691:16,17,22 6693:16,18 6696:28 6698:27 6699:5,6, 12,25 6702:4 6703:3 6704:12,18,28 6705:10 6706:7,10,11,23 6707:14,23 6708:13,20 6709:1 6722:10, 22 6728:23 6732:16 6740:24 6749:6 6751:22 6758:11 6761:18 6762:4,15,25 6763:13 6764:8 6765:7,15 6766:12 6767:28 6769:2,10, 16,18 6770:12,13,24,27,28 6771:3,5,6,7,8,10,12,16,24 6772:13,21,25 6773:3,8,16 6774:22 6776:11 6778:19 6783:16,17,20,22 6784:14 6785:4,14,21,23 6792:6 6795:11,12,27 6797:6,7	over-the-counter 6631:21 6726:2,21	participants 6636:17 6666:25 6752:3 6753:7
opine 6578:2		overage 6791:27	participate 6723:18 6771:15 6798:27
opined 6714:23		overnight 6748:16,18 6804:23 6806:1	participated 6771:27
opinion 6565:10 6571:22 6572:15 6574:19,23,24,26 6576:4 6625:17,26 6626:7, 19 6681:9 6730:3 6732:5 6757:24,25 6769:17 6770:8, 9,25 6771:23 6772:20 6773:15 6783:8 6784:6 6793:12 6797:16 6799:15,18 6802:7 6803:22,28		overstate 6692:8 6693:25	participates 6723:19 6751:27 6752:1
opinions 6574:28 6729:25, 26		overstated 6693:24,25	participating 6645:1 6785:15
opp- 6670:19		overstating 6693:27	participation 6717:23
opportunistic 6797:20		overturn 6712:13	parties 6757:8
opportunities 6668:24 6670:18,20 6681:15 6715:7, 11 6797:19		overturning 6713:19	partly 6729:16 6745:15 6747:13
opportunity 6600:1 6643:6, 22 6659:18 6670:9 6682:22 6712:22 6739:13 6748:3 6756:14 6803:9	Order's 6783:6	overvalued 6649:21	parts 6592:19 6731:13
opposed 6582:25 6623:15, 16 6665:24 6696:7 6707:24 6778:25	orderly 6643:28 6644:3 6648:5,9 6764:1,17 6774:28	owe 6614:2	pass 6752:21
opposes 6669:13 6670:5	orders 6573:12,21,27 6625:25 6627:11 6641:28 6643:16 6644:1 6645:3,4,24 6652:26 6653:4 6659:10,11 6660:11 6672:28 6675:19,20 6676:13 6690:17,20 6691:9, 11 6693:14 6702:17,21 6707:16 6714:2 6717:13,14 6722:6 6734:12,14 6746:18 6756:26 6763:7 6769:3,6,24 6770:20 6771:18,25 6772:7 6773:4,12 6774:26 6778:18 6803:13,27	owned 6793:1	passed 6730:15
opposing 6760:21 6775:5		p	past 6571:20 6574:20 6631:17,20 6633:9 6650:23, 24,26,28 6651:14,16,18 6652:28 6765:13
opposite 6596:4 6777:13 6782:22		p.m. 6679:1 6680:3 6745:3	pasteurization 6760:25
opposition 6760:12 6773:6	organization 6694:23	Pacific 6573:11	pathway 6757:12
option 6581:11 6583:1,3,4 6628:13 6669:27 6693:4 6726:15,16,17	organizations 6737:16	package 6762:2 6763:11	patterns 6648:19
optionality 6581:13 6628:5	organized 6621:23	packaged 6727:4 6760:22, 23,26,28 6761:1,4,6,12,13, 23,24 6762:16,21,22 6763:5, 14,16,17,21,26 6766:28 6767:1 6769:4,9 6801:14	pay 6567:19 6571:15 6580:28 6581:4,24 6602:8,9 6627:24 6635:9 6645:11 6649:23 6650:2 6660:13 6662:14 6702:9 6762:12 6767:12,14 6776:26 6777:8 6788:26 6791:10,16 6794:4 6795:11 6796:7,8,22
options 6583:11 6593:2 6645:25 6663:15 6666:15,22 6667:2 6668:21 6669:26 6671:5 6725:9,19 6726:5,12 6729:12 6731:8	origin 6720:21	packaging 6762:26 6801:17	paying 6581:1 6582:6 6794:5 6795:5 6801:20,21
oral 6708:12	original 6663:28 6672:28	pages 6686:26	payment 6635:21 6671:1 6682:18 6780:1 6804:1
orange 6740:11	originally 6745:19 6750:27	paid 6635:15 6645:5,15 6763:28 6785:21	payments 6627:3 6779:14, 20 6782:2
oranges 6581:6	OTC 6578:4 6631:16,26	paper 6588:23 6592:1 6608:15 6609:1 6618:21 6621:23 6631:25 6638:21 6671:27 6675:25 6753:12	peculiar 6601:1
order 6564:2 6569:25 6573:18,21,24 6574:11 6586:4 6589:21,22 6590:23 6592:1,6,17 6610:6,16 6611:17,20 6615:5 6620:14 6621:11,19 6623:25 6624:6, 7 6627:10,11 6628:24	outcome 6666:25 6731:19, 21 6790:12	papers 6617:22	peer-reviewed 6645:23 6694:17,18
	outcomes 6721:17	paperwork 6616:21	
	outgrowth 6749:22 6753:18 6757:1,4,10	paragraph 6564:28 6599:17 6600:11,16 6602:5 6612:4 6646:24 6647:3 6651:10 6657:28 6663:27 6669:5 6693:3 6705:27 6755:19 6774:2,3 6775:19 6776:22 6790:21 6798:2 6802:6	
	outlet 6571:6 6670:21	paragraphs 6564:28	
	outlined 6667:20	parameter 6625:16	
		parameters 6580:10,16 6624:14	
		pardon 6641:7	



<p>pennies 6579:7</p> <p>penny 6600:9</p> <p>people 6578:12 6584:7 6593:11 6607:4 6623:9 6630:1 6633:12 6658:17,20 6671:23 6713:19 6714:25 6719:20 6727:28 6734:7 6738:6 6748:10 6750:6 6758:7 6783:4,28 6794:14 6802:3,20,21 6807:8</p> <p>perceived 6565:21,27 6606:19 6705:28</p> <p>percent 6651:23 6653:3 6654:14,15 6655:8 6657:12 6658:23 6659:5 6676:15 6698:23 6770:21 6793:20</p> <p>percentage 6573:9 6628:22 6652:28 6653:5,22 6658:27 6703:20 6783:18</p> <p>percentages 6569:2 6585:24 6592:26 6654:1 6678:2,3,4 6683:10,21 6686:10,23 6687:19,21 6699:14,15</p> <p>percents 6675:28 6704:22</p> <p>perception 6705:26 6720:15</p> <p>perfect 6665:28 6698:4</p> <p>perfectly 6616:17 6698:3</p> <p>perform 6574:13</p> <p>performance 6699:26 6700:7,16 6701:3,6 6702:5, 18 6703:12 6704:6 6770:14, 22,28 6771:4,24 6772:9,15 6783:26 6784:6,8</p> <p>period 6583:2 6594:21 6596:13 6606:23 6649:8 6699:2,5 6709:16 6722:3 6728:22 6761:14 6768:9,11 6777:4,5 6782:19 6785:11 6786:1 6789:2</p> <p>periods 6569:3 6761:10</p> <p>perishable 6633:19 6634:6 6760:26</p> <p>permanently 6785:22</p> <p>permissive 6783:19</p> <p>person 6791:3 6805:3 6806:21</p> <p>personal 6770:8,25 6784:6 6794:25 6799:15,18</p> <p>personally 6614:4 6636:24 6731:11 6766:9 6771:23 6797:27 6799:14,16,17</p>	<p>perspective 6565:12 6566:23 6568:18 6572:4 6584:27 6585:6 6608:4 6623:13 6628:15 6637:21 6682:17,19,20 6747:20 6764:1</p> <p>Peter 6806:15</p> <p>Ph.d. 6641:24</p> <p>phases 6632:26</p> <p>phenomena 6652:8</p> <p>phone 6692:7</p> <p>phrase 6706:15 6787:23</p> <p>physically-settled 6632:9</p> <p>pick 6651:26 6706:10</p> <p>picture 6615:18</p> <p>picture-wise 6803:10</p> <p>piece 6619:25 6744:4</p> <p>pieces 6758:5,7</p> <p>pineapples 6581:5</p> <p>pints 6801:24</p> <p>place 6575:7 6606:22 6611:3 6714:21 6719:23 6745:2 6759:7 6767:28 6781:4</p> <p>places 6656:17</p> <p>plain 6588:27 6589:5</p> <p>plan 6570:8 6571:8,16,19 6767:8</p> <p>planned 6805:28</p> <p>planning 6749:10</p> <p>plans 6567:6 6569:13,18 6570:26 6571:11 6575:16 6763:12 6764:6</p> <p>plant 6603:12 6634:27 6670:16 6701:13 6762:26 6763:2,16 6766:20 6770:17 6771:15 6789:4 6791:25 6792:15,20,24,27 6793:1,3, 20,27 6796:22 6801:20 6803:25</p> <p>plant's 6795:26</p> <p>plants 6568:11 6599:21 6607:11 6648:16 6696:19, 20,21,22 6697:3 6755:4 6761:12 6762:6,9 6771:8,9 6773:10 6791:20 6793:11, 16,22 6794:1 6800:18 6801:13,14</p> <p>play 6643:16</p>	<p>playing 6599:14 6623:10</p> <p>plays 6790:13</p> <p>pleading 6752:27</p> <p>pleasant 6607:25</p> <p>plenty 6638:16 6748:24</p> <p>plot 6610:16</p> <p>plug 6610:14</p> <p>plural 6574:25</p> <p>podium 6804:17</p> <p>point 6575:18,26 6576:27 6578:12 6579:24 6585:5 6602:6,10,12 6607:7 6628:21 6640:12,15,21 6676:1,2 6678:5,6 6682:14 6703:14,15 6705:27 6716:17 6724:17 6732:8 6741:13 6775:16 6782:25,26 6792:24 6793:5 6807:22</p> <p>pointed 6567:6</p> <p>points 6660:7</p> <p>policies 6731:16,17,18,28 6732:2</p> <p>policy 6582:20 6643:10,17, 19 6645:25 6729:24 6731:3, 4,24,25,26 6732:11,14,17,22 6733:6 6736:7 6742:19 6753:13 6777:16</p> <p>pool 6590:18 6602:18 6609:16 6626:20,21,27 6627:12 6628:11 6635:9 6643:28 6644:3 6645:14,18 6646:4 6648:3 6652:21,23 6654:27,28 6670:27 6677:2 6682:16,17,28 6689:15 6697:25 6708:1 6721:13 6761:11 6770:17,19 6771:9 6773:10 6784:9,11,12 6785:9,10,15 6793:15 6804:1</p> <p>pooled 6569:1 6573:1,5 6620:28 6627:13,22,25,26 6628:1,23 6645:10,15 6652:18,19,22,26 6654:1,14, 15 6662:13 6706:6 6721:15 6723:20 6771:10 6784:27</p> <p>pooling 6621:2 6628:5 6645:2 6659:10,12 6668:15 6669:1 6676:20,23 6687:15 6689:6,14 6690:22,23 6697:26 6700:2,16 6756:21 6770:13 6771:5 6772:28 6784:26 6785:8,19,26</p> <p>pools 6675:12</p> <p>popular 6740:28</p>	<p>pork 6576:16</p> <p>portion 6787:16,17,18,23,24</p> <p>portions 6760:13</p> <p>portray 6566:4</p> <p>portrayed 6735:11</p> <p>position 6594:3 6595:2,3 6632:10,14,17,18 6643:18 6698:1 6727:24 6729:24 6731:12 6732:7,28 6733:14 6805:11</p> <p>positioning 6692:21</p> <p>positions 6717:10</p> <p>positive 6587:7,8,9,10,12, 14,26 6589:22,26 6597:7 6621:14 6624:8 6627:14,19 6628:13 6649:25 6650:3 6653:13 6654:2,3,28 6655:9 6656:25 6739:18 6785:13</p> <p>positively 6653:15 6657:15</p> <p>possibility 6715:10 6764:12 6766:18</p> <p>post-federal 6699:25</p> <p>post-hearing 6588:7 6757:9</p> <p>posted 6807:15</p> <p>postpone 6635:21</p> <p>potential 6573:27 6618:8 6634:21 6696:17 6764:17,19 6765:9 6768:18 6775:6 6782:2</p> <p>potentially 6589:28 6628:5 6629:17 6681:16 6689:13 6696:24 6784:24</p> <p>pound 6597:5 6661:13,14,16 6662:1,2,3,4,5,6,7,11</p> <p>pounds 6788:28 6789:1 6791:24</p> <p>powder 6573:3 6576:28 6645:28</p> <p>power 6695:16</p> <p>Powerpoint 6683:4</p> <p>PPD 6585:15,19 6586:8,28 6587:3,9,11,16,18,20,21,23, 25,27 6589:14,24,26,27 6590:19 6591:2 6595:18 6597:1,9 6608:28 6609:3,26, 27 6610:5,10,16 6619:19,21 6623:24,25,27 6624:4,6 6625:21 6627:14 6628:16,19 6629:13,14 6646:27 6648:3 6654:13,15 6659:21 6707:1, 27 6720:8,10,27 6721:8 6734:8 6785:11</p>
---	--	---	---



<p>PPD's 6587:7,8</p> <p>PPDS 6586:13,16,23 6587:5 6588:25 6589:13 6610:8 6611:10 6626:4 6628:7 6645:18,19,27 6646:10,15, 25,26,27 6647:2,27 6659:17 6665:10 6667:26 6705:28 6707:19 6720:24 6729:16</p> <p>practical 6760:27 6761:6</p> <p>practice 6665:25 6681:16 6761:22</p> <p>practices 6568:3 6752:25</p> <p>praising 6680:9</p> <p>pre-2019 6575:4</p> <p>pre-judicial 6757:6</p> <p>pre-knowledge 6635:25 6767:19 6796:28</p> <p>pre-submit 6639:23,24</p> <p>preceded 6592:11,12</p> <p>precedential 6604:19</p> <p>preceding 6647:8</p> <p>precipitously 6779:6</p> <p>precise 6597:4 6626:13</p> <p>precisely 6596:25 6621:17 6692:4 6782:28</p> <p>precluded 6569:23 6724:15</p> <p>predicating 6704:16</p> <p>predict 6626:16</p> <p>predictable 6663:4</p> <p>predictions 6663:5</p> <p>predictive 6678:9</p> <p>predominantly 6573:18</p> <p>preface 6620:9 6635:1 6637:2</p> <p>prefer 6565:6 6569:7 6577:28 6578:10 6602:9 6630:16 6802:4 6803:26</p> <p>preferred 6749:5 6755:8</p> <p>prefers 6757:7</p> <p>premise 6577:7</p> <p>premium 6579:11 6582:7 6617:28 6634:21 6788:25 6795:26 6796:7,16,20</p> <p>preparation 6616:25</p> <p>prepare 6751:24 6760:6</p> <p>prepared 6643:7 6748:15,27</p>	<p>6807:7</p> <p>preparing 6575:27 6584:9</p> <p>presence 6662:20 6781:28</p> <p>present 6621:23 6643:7 6648:11 6654:26 6663:19 6667:8 6672:20 6674:21 6727:22 6745:6 6748:14 6750:1,2 6751:4 6755:9 6756:6 6767:27 6784:25 6785:11</p> <p>presentation 6681:4 6714:14</p> <p>presented 6606:6 6643:7 6659:14 6673:11 6707:13 6720:16 6726:25 6753:6 6757:11 6760:12,14,18 6772:27 6775:1 6780:7</p> <p>presents 6707:6</p> <p>preserve 6628:5,13 6666:8 6753:19</p> <p>preserved 6748:21</p> <p>preserving 6637:28 6790:16</p> <p>pressure 6581:15</p> <p>presume 6681:11</p> <p>presumed 6703:16,17</p> <p>pretty 6692:14 6739:6,10 6795:1 6798:20</p> <p>prevalence 6646:9,25,26</p> <p>prevent 6754:23</p> <p>prevents 6697:8</p> <p>previous 6616:19 6627:13 6629:15 6636:19 6641:27 6662:16 6664:8 6665:16 6672:21 6673:8 6681:20 6710:10,16,18 6746:4 6777:1 6791:3</p> <p>previously 6564:15 6641:20, 27 6659:15 6688:20 6710:24 6751:12,18 6752:7 6759:20, 25</p> <p>previously-listed 6646:11</p> <p>price 6567:8 6569:19,20 6570:21,23 6571:21,22 6573:7 6577:23 6578:21,23, 24 6582:17,23,24,27 6586:27 6589:2,3,4,8,9,15, 18,22 6590:11,12,16,17,25 6591:7,8 6593:11 6600:14 6601:20 6602:1,4,8,11,14, 15,17,19,22,23,27 6603:18, 19,20,22,25 6604:14,17 6605:1,2,3,17,20,28 6606:8, 10,13 6609:6,7 6610:19,25</p>	<p>6612:5,6,18,19 6618:10,11 6622:10,17 6623:11 6632:19,20,28 6633:2 6635:7,10,15 6643:26 6644:20,21,22,23,25,26,27, 28 6645:4,11,13,17,23 6648:16,17,19,22 6649:7,8, 11,12,13,18,19,21,22,25 6650:4,13,15,16,17 6651:2, 4,20,22,28 6652:20,24,27 6653:3,16,20,21 6654:2,19 6655:10,17,18 6657:14,15, 17,19,20,25 6658:9 6659:13 6660:4,13,16,19,21 6661:15, 17 6662:8,12,15,19,21,22,28 6663:2,5,7,13 6664:26,27,28 6665:1,3,4,5,6,7,8,10,12,21 6666:12 6667:25,26 6668:1, 5 6669:1,8,14,19 6670:6,7, 11,22,24,25 6671:10 6672:25,26,27 6673:1,4,5,8, 12,18,19 6674:12,16 6675:8 6676:11,15,16,17,18,19,20, 23,24 6677:6,7,8,10,11,12 6681:7 6682:19,28 6683:7 6684:3,4 6687:8,23,24,25 6688:14 6689:2,5 6690:21, 27 6691:4,10 6695:22,27 6696:28 6697:6,9,16,23 6698:1,5,6 6705:24 6707:9, 24,26 6708:20,21,26,27 6709:15,16,20,21,22,28 6710:1,2,4,21 6711:23 6712:24,25 6713:3,14 6714:4,28 6720:11,12 6722:15 6723:14,17,20,21 6724:15,17,20 6725:4,5,24 6728:6,8,11,12,14 6729:7 6739:19,26 6741:17 6742:12 6743:13 6752:13,17,22 6753:1,2,11,16 6754:12,18, 20 6755:12 6756:7,16,18 6761:15,19,22 6762:5,7,9, 10,12,14,15,22,25 6763:4,6, 8,9,14,16,24,25,28 6764:4,6, 8,12,15,16 6765:5,7,14,15, 18,22,25 6766:2,3,12 6767:11,13,14,15,18,22,25 6768:10,12,16,18,20,22 6769:4 6770:19 6771:26 6775:24,27,28 6776:23 6777:3,19,20,22,25 6778:9, 21,24,28 6779:6,17,19,28 6780:4,14,18,21 6781:10,20, 22 6782:27 6783:1,4,5,6,7, 10 6784:19,24,28 6785:5,6, 21 6786:4,6 6790:26 6791:9 6792:3,5 6793:8,13 6794:12 6795:5,7,12,23,27 6796:3,8, 15,20,22,27 6797:9,18,26 6798:1 6801:16 6802:4,9 6803:7,8</p> <p>priced 6604:24 6681:13 6754:21 6755:6 6756:10 6761:25</p>	<p>prices 6565:7 6570:4 6571:13 6583:24,25 6585:28 6589:10,11,12,17,21,25 6590:24 6592:9,11 6593:20 6600:22,23 6602:2,28 6603:11 6604:1,9,15 6606:16 6608:24 6609:10, 12,25 6610:8,9 6615:2 6619:28 6620:3,4 6623:27 6624:1 6626:28 6630:2 6633:3,22,25 6634:9 6635:25 6644:4,13 6645:15 6646:1 6647:6,8,9,11,16,19, 20,23,24,25,26,27 6648:2, 24,27 6649:1,10,17,24 6650:2,20,22,23,25,27 6651:1,5,12,13,15,17,19 6652:4,10 6653:12,19 6654:8,10,22,23 6655:1,4,7 6657:9 6658:25 6659:3,15, 16,17,19,26,28 6660:4,10,11 6661:4,21 6662:10,13,19 6663:20,25 6665:11,14,17, 19,20,24 6666:9,10 6667:8, 13,23 6668:3,13,16,17,19 6671:2 6672:8 6674:12 6675:17 6676:3,4 6677:1,3 6678:1 6681:14,19,22,28 6682:2,7,12 6686:9,11,13,23 6687:22 6688:18,23 6689:4, 13,28 6691:1,3 6693:13 6696:3,24 6698:2,3 6703:19, 22 6712:15,18 6717:1,2 6721:23 6723:26 6728:18,24 6739:9 6753:4 6754:5,22 6762:8,11 6763:9 6765:11 6766:20,21,22 6767:6,23 6768:2,3,5,9,11,15 6775:18, 21 6776:13,16,21,27 6777:1, 4,8,13 6778:25 6780:15,19, 20 6781:21 6782:17,18 6786:2,6 6798:3 6804:1</p> <p>pricing 6565:26 6566:7 6567:16 6568:25 6569:10 6572:1,14,16,23 6575:10 6576:1,4 6577:15 6579:9 6584:21 6588:11,28 6590:11 6591:10 6596:1 6599:18,19 6603:9 6607:11 6609:7 6615:6 6616:7,8 6620:5 6629:17 6633:16 6634:18,26 6635:5,17 6637:17 6638:2 6643:15 6644:18 6645:1,6 6648:4,5,9,21,25 6649:2,5, 15 6652:12,13 6653:18 6660:12 6662:21 6663:21 6664:14,17,22 6665:7,23,26, 27 6666:2,4,6,19,20 6667:1, 10,18,19 6668:9,10,20 6669:9,15 6671:5,11,16,25 6672:1 6673:14 6674:10,11, 14,15,25,27,28 6675:15 6681:6 6683:18 6694:2,10, 14,27 6695:12 6696:9,15,25 6697:1,8,12,28 6698:18</p>
--	---	---	---



6708:17 6709:9 6711:21,26 6712:5,6,11,20 6713:2,12, 22,26 6714:1 6715:7,25 6717:13 6718:7 6719:16 6721:16 6723:1,28 6724:6 6736:6 6739:11 6741:27,28 6743:4 6746:17 6753:10,22 6754:27 6756:9,21 6760:14, 21 6761:18,19,23,27 6762:6, 16,17 6763:13,15,21,23 6764:5,7,20,23,26,27 6766:14,23 6767:2,3,16,21 6768:1,4,6,8,15,19,20,25,27 6769:1,10,11,14,18,23 6770:2 6774:4,12,23 6775:6, 7,17,20,26 6776:3,10 6777:9,17,18 6778:27 6779:7 6780:7,10,26,28 6781:1,8,9,19,20 6782:18 6783:10 6784:18,25 6785:4 6790:13,21 6796:26 6797:2, 17 6799:12,21 6800:1,2,23, 28 6801:7 6802:24 6805:11	6652:13 6684:7 6712:17 6720:17 problems 6572:16,19 6573:19 6640:5 6649:4 6652:27 6671:28 6734:6 procedural 6644:9 proceed 6642:3 6643:3 6658:14 6734:28 6736:18 6749:18 6751:8 6759:28 6760:10 6800:9 proceeding 6641:27 6642:14 6666:3 6667:6 6671:21 6698:14 6718:13 6751:13 6752:1 proceedings 6641:27 6757:3 6808:14 process 6571:17 6579:20 6643:19 6645:7 6712:9 6729:23 6730:16,23 6731:24 6732:14 6757:14 6762:2 6798:27 processed 6754:14 6760:24 6761:13 6763:17 6793:21 processing 6568:11,13 6793:20 6801:13,14 processor 6607:21 6632:27 6634:25 6668:24 6669:24 6696:2 6698:12 6728:28 6729:5 6743:15 6762:20,24 6763:5,15 6764:13,14 6794:8 6802:20 processors 6565:3 6577:26 6585:1 6607:14 6616:15 6635:24 6644:2 6654:27 6662:17 6694:3,11,15 6695:19,24 6696:10 6698:10,15 6712:6 6713:2, 13 6714:27 6727:18,23 6728:4,23 6729:17 6732:27 6742:28 6743:18 6752:5 6753:8 6761:26 6764:18,22, 28 6765:1,3,10,14,20,23 6767:14,18 6769:17,19,20 6784:12 6794:19,20,24,27 6795:4 6796:28 6797:11 6800:27 processors' 6584:27 produced 6567:1 6570:10 6596:16 6633:21 producer 6565:5,11 6569:18 6589:9,15,18,21 6594:4 6635:9 6643:26 6645:7,13, 17,23 6649:23 6650:2 6653:16 6654:2 6665:10 6667:26 6668:12 6705:23 6706:16 6707:23 6720:12,25 6731:10 6770:16 6773:13	6776:26 6786:3,4,6 producer's 6581:16 6585:6 6771:9 producers 6564:23 6565:2, 6,21 6566:17,24 6567:11,22, 27,28 6568:8 6569:7 6570:23 6571:1,9,12 6572:11 6581:3 6582:15 6584:22 6585:7 6586:5 6589:19 6616:15 6622:27 6623:9 6633:6 6636:7 6637:11 6638:8 6644:7 6649:24 6650:3 6659:22 6663:19 6667:8 6695:10 6721:4,12 6732:27 6733:18 6752:5,8 6753:8,25 6754:11 6756:9 6760:16 6764:19 6769:17 6770:6,10 6773:8 6776:20 6780:1 6785:21,22 6790:15 producers' 6566:8 6645:12 6729:21 product 6571:2 6576:21 6577:4 6578:27 6579:2 6633:20 6643:8 6649:1,4,16 6660:9 6662:28 6663:2 6692:6 6697:15,16,23 6727:5 6752:27 6754:18 6756:16 6760:27 6761:16,20 6763:28 6764:9 6766:23 6767:19 6768:9,11 6774:4, 12,24 6775:10,13 6777:4 6782:18 6786:28 6797:1,11 6799:26 production 6599:26,28 6600:6 6620:25,26,28 6627:18 6634:11 6646:1 6684:2 6771:10 products 6577:9 6593:28 6599:28 6633:27 6634:8 6638:5 6661:5,22 6662:23 6663:7 6670:3,4,22 6693:13 6696:28 6697:24 6713:1,2, 12,13 6717:16 6726:2 6752:6,16,20,22 6756:20 6761:9,17 6764:26 6766:26 6802:1 Professor 6585:22 proffered 6755:18 profit 6577:17 6579:2,6 6599:25 6600:1 6789:15 profitable 6584:20,24 6598:26,28 6599:2 program 6767:9 6779:9 6782:7 6803:19 Program's 6781:4 programming 6630:3	programs 6569:21 6582:4 6637:10 6754:4 6803:19,23 progress 6770:25 6771:25 project 6609:26 6610:2,5 6638:25 projected 6606:16 projects 6575:22 proliferation 6737:17 promise 6765:16 promised 6670:11 promote 6774:28 promotion 6763:12 prompt 6631:11 proof 6747:8,23 6750:14,17 proper 6644:4 6671:2 6706:15 6712:5 properly 6620:21 6633:10 6637:10 proponents 6568:3,10,17 6633:21 6634:8 6753:28 proposal 6566:5,6 6583:20, 26,28 6584:13,17 6596:10, 19,26 6597:1 6598:8,9,17 6611:20,27 6614:15,19 6615:8,25 6616:7 6618:9 6621:25 6622:24,26 6623:2 6636:22,25 6638:11 6643:18 6644:11,12,13,15,17,20 6663:28 6664:9,13,21,26 6666:7,17 6667:17,18 6670:5,6,8 6671:8,9,12,13, 14 6672:21 6673:10,25 6674:3,6,14,19,20 6677:4,9 6683:8,15,20,23 6687:9 6688:7 6694:1 6695:16 6714:5,6,9,13 6721:25 6722:18 6724:5 6733:17 6735:11,19 6736:4,5 6741:15,16,18,25,26 6742:4, 17,25 6745:18 6746:1,7,21 6750:6 6752:8,9 6753:18,24, 26 6754:2,5,12,22 6756:24, 28 6757:3 6758:14,26 6788:1 proposals 6568:4,27 6583:19,22 6588:10 6598:18 6614:27 6633:4,15 6634:13, 14,15,17,18 6635:23 6643:21,25 6644:5,6,7 6646:8 6664:11,12 6667:16 6669:13,14,17,18,25 6670:1 6674:7 6683:10 6714:27 6724:23 6728:1 6730:26 6732:4 6734:15 6735:22 6742:11 6745:19 6746:1,6,7, 16 6749:22 6750:9 6752:2
---	---	---	--



6753:3,18,28 6757:4,7,10 6760:13 6763:20 6764:23 6768:23 6770:6	published 6591:2 6601:24 6602:26 6603:25 6631:26 6632:20 6648:12 6662:20 6681:28	Queen 6751:6	rally 6609:9 6610:8 6647:25 6659:15
propose 6705:13 6742:3 6750:22 6754:8 6782:24 6799:12 6807:4 6808:5	publishing 6602:2	question 6564:17 6568:24 6570:19 6572:1 6583:8 6585:21 6588:9 6595:25 6596:8 6599:5 6607:9,21 6613:5 6615:24 6616:6 6619:14 6622:15 6624:9 6625:14 6627:7 6631:17 6633:11,27 6634:5 6637:3 6681:26 6690:9,11 6693:23 6695:5 6697:14,18 6700:5 6704:4,5 6708:17 6709:18 6711:12,14,15 6717:28 6724:3 6725:21 6728:7 6733:11 6735:2 6742:9,22 6747:22 6776:6 6779:25 6781:7,13 6782:12,13 6785:16,24 6787:3 6789:14, 18 6794:13 6795:15,21 6797:27 6798:15 6799:11 6803:5,6	ramifications 6720:16
proposed 6614:11 6616:9 6648:12 6649:9 6770:7	Puerto 6643:12		ran 6698:27
proposes 6644:17 6663:24 6664:13,17,21	pulling 6600:21,22		range 6607:22 6650:15,17, 19,21,23,25,27 6651:1,11, 13,15,17,19 6652:9 6653:19 6654:8,9,10 6681:12 6703:19 6717:12,16 6796:6
proposing 6615:22 6675:10	punch 6746:9		ranges 6633:18 6650:16 6651:3,21,26,27 6653:14 6657:9
proprietary 6634:27 6669:23 6727:26	purchase 6634:1 6761:15 6763:5,27 6767:1,11 6795:6		rapid 6651:5 6652:3 6657:9 6662:20 6665:20 6695:22
Protection 6579:9 6580:3 6581:11 6582:16 6583:8	purchased 6763:21		rapidly 6649:17,19 6650:13 6786:2,6
protein 6585:25 6619:17,22 6645:9 6752:11 6788:4,6	purely 6766:22		rate 6654:11 6659:12 6690:19
protesting 6753:3	purpose 6571:25 6577:11, 13 6615:14 6633:14 6665:26 6677:13 6735:23		rates 6589:20 6608:26 6610:4 6619:8,13 6620:12, 22 6621:1 6624:2 6645:28 6653:14 6654:9 6657:11 6675:18,19 6676:3,27 6689:28 6690:17,23,25,26
prove 6685:8	purposes 6574:3 6660:10 6727:20 6774:26		raw 6578:22 6634:10 6649:20,22 6729:6 6752:14 6761:28 6762:5,28 6763:17, 25 6764:19,28 6766:18 6767:5,14,19 6775:9,13 6790:22,26,28 6793:10 6794:21 6796:28 6797:12 6801:17
provide 6567:5 6571:9 6573:15 6574:5 6594:2,4 6597:5 6602:1 6605:24 6607:5 6614:1 6622:24,27 6623:2 6626:27 6663:4 6667:3 6670:26 6672:12 6682:2,12 6685:19 6693:16 6712:10 6729:7 6753:1 6757:8 6760:20 6762:17 6768:4,15 6797:3 6803:15	pursue 6575:21 6638:5		re-read 6669:4 6756:5
provided 6597:5 6625:11 6642:12 6684:10 6685:16,28 6686:4 6692:19 6695:13 6702:21 6712:5 6713:17,18 6717:14 6758:28 6768:19	push 6585:4 6607:12 6640:15 6692:27 6800:18 6801:2		reached 6713:5
provider 6802:14	pushes 6754:5		reaching 6645:20
providing 6611:15 6668:23 6683:20 6735:9 6754:26 6767:21 6775:27	put 6566:28 6567:4 6568:4 6571:1 6583:11 6612:21 6618:20 6632:1 6639:20 6658:15 6665:21 6668:28 6669:8,21 6678:19 6685:1 6688:28 6696:20 6702:7 6719:22 6747:12 6748:20 6772:2 6786:17,18 6796:15 6800:20		react 6730:8 6776:16
provision 6769:19	puts 6583:11 6660:14		read 6612:11 6618:1 6625:27 6649:27 6651:12,25 6652:9 6656:16 6657:7 6660:18 6664:20 6738:21 6745:14,27,28 6747:9,10,24 6748:11 6751:20,26 6775:11 6783:24 6802:6
provisions 6565:2 6573:7 6621:3,5,6 6627:10 6643:15 6769:16,23 6770:15 6783:19,23 6797:6,7,8 6803:14	putting 6614:27		readily 6649:6
provoking 6758:5	<hr/> Q <hr/>		reading 6602:13 6625:18 6632:5 6664:6 6740:8 6741:13 6748:18 6786:15
prudent 6624:20 6761:22	Q3 6612:6,9		reads 6658:7 6745:10
public 6642:11 6746:15 6766:26,28 6767:7	qualification 6701:13		ready 6640:21,28 6678:28 6680:17 6734:23 6759:5 6772:1 6804:17
publication 6677:18	qualifies 6607:19		real 6608:22 6610:14 6721:9 6746:13,19 6794:26 6802:19
publicly 6603:1 6660:14	qualify 6755:12 6756:8		
publish 6600:13,16 6601:20 6603:10,21,23 6613:9	quantify 6577:28 6578:7,8 6586:7		
	quantitative 6574:12 6625:9		
	quantity 6569:18		
	quarter 6580:23		
	quarter's 6582:9		
	quarterly 6581:23,28 6582:23		
	quarters 6579:10,23		
	<hr/> R <hr/>		
	R-O-G-E-R 6641:16		
	raise 6696:3		
	raises 6721:8 6734:6		
	rallies 6609:24 6611:9		



realign 6665:23	recognized 6641:26	reference 6605:24 6606:12 6617:10	relationship 6574:21 6593:27 6609:24 6610:12 6623:3 6648:22,27 6654:20 6655:6,16 6676:25 6691:17, 19 6712:10
reality 6806:3	recognizing 6720:18 6748:9	referring 6584:2 6620:8	relationships 6591:6,7,8 6649:7 6654:4 6667:25 6668:18 6676:26 6689:2,15
realized 6615:24	recommend 6606:18	refers 6650:12	relative 6649:22 6669:16 6670:27 6785:6 6789:15
realtime 6565:8 6768:4	recommendations 6732:13	reflect 6649:20 6707:28 6742:20	released 6609:10,13,25 6610:9 6648:13
reason 6572:7 6582:20 6585:4 6586:6 6590:15 6606:18 6610:20 6616:13 6635:8,22 6637:17 6639:28 6666:18 6669:2,3,9 6683:9 6692:26 6695:21 6698:18 6717:10 6729:11 6746:2 6749:27 6758:25 6761:23 6764:21 6766:25 6767:13,20 6768:17 6772:6,12 6801:5	recommended 6584:9 6607:4 6608:3 6615:21	reflected 6654:5 6659:20 6688:28 6691:15 6766:6	releases 6661:2,18
reasonable 6579:11 6659:28 6668:5,8 6695:2 6712:18 6732:10	reconcile 6804:22	reflection 6629:15	relevant 6626:24 6675:4 6710:11
reasoning 6781:24	reconciled 6754:8	reflects 6657:1 6674:6	relied 6580:15 6631:23
reasons 6572:11 6582:14 6584:5,7,10 6598:8 6625:25 6626:26 6668:3 6717:12 6760:20 6775:4 6783:25 6784:17 6786:20 6795:24	record 6564:3,4 6594:11 6595:23 6597:24,27,28 6600:25 6605:12,25 6610:28 6611:4,5 6617:1 6626:12 6631:3 6632:2 6638:19 6640:7,14 6641:1,3,4,15 6646:14,19 6647:1 6664:10 6679:1 6680:2,3 6681:25 6682:4 6683:20 6685:19,20 6686:16 6688:28 6696:9 6700:19 6701:24 6706:20 6733:13 6734:24,26,27 6735:26 6736:9,27 6739:21 6740:4 6744:28 6745:3 6748:20,23 6750:18,21 6751:26 6755:17 6758:4 6759:6,8,9 6787:22 6801:10 6805:23 6808:13	reform 6587:8,18,20,21,23, 28 6592:8,13 6594:10 6595:24,28 6597:6 6609:20 6610:2 6620:5,6 6628:18 6629:17,25 6630:5 6650:6 6699:5,6,12,26 6707:23 6708:13,20 6709:1,2	reliance 6661:2,18
rebuttal 6601:27 6664:3 6678:13,16	recordkeeping 6765:8	refresh 6761:4	relief 6764:15
recall 6575:25 6699:27 6700:18 6702:4,14 6719:10 6728:7	records 6686:19	regime 6572:2 6674:18 6695:13 6754:7	reluctant 6712:12 6730:20
receive 6569:20 6571:12,13, 14 6659:24 6663:20 6667:8 6761:2 6763:16 6766:4 6770:18,19 6776:28 6782:3 6787:2	recover 6582:18 6695:20,24, 28	regimes 6721:23,24	rely 6601:3 6693:14
received 6596:14 6639:7,14 6659:25,26 6660:1 6744:13, 19,25 6766:7 6804:11	recovery 6807:13	regional 6700:25 6771:2 6772:19,23 6777:16	relying 6662:10
receives 6720:12	red 6741:16 6742:15	regionally 6783:15	remain 6590:18 6642:3 6751:15 6759:22 6803:26
receiving 6649:24 6650:3 6787:5	redirect 6631:4,8,14 6744:3	Register 6648:12 6735:27	remainder 6705:4
recent 6575:26,27 6576:16 6687:14 6709:21	redistributing 6721:15	regretted 6766:11	remaining 6784:27
recently 6659:19	reduce 6582:12 6584:23 6646:9 6660:3 6695:19 6696:25 6697:2 6702:23,24 6717:10 6752:9 6768:20,22 6770:2 6782:2 6783:10 6784:20,21 6798:1	regular 6583:11 6756:19 6793:15 6794:15	remains 6587:20
recently-elevated 6648:2	reduced 6630:12 6677:6,8,9 6697:12	regularly 6754:17 6768:13	remember 6621:26 6652:15 6700:9,10 6735:28 6757:23 6772:25 6796:5
recess 6679:2	reduces 6649:23 6650:2 6724:26	regulate 6769:4	remembered 6749:15
reco- 6783:25	reducing 6646:10 6695:16 6768:17	regulated 6635:10 6649:12, 15 6717:2 6767:14 6768:5 6795:6,22 6796:20	removal 6566:7 6575:28 6681:6
recog- 6641:26	reduction 6586:8 6643:26 6645:21 6703:2 6779:27	regulation 6614:25 6615:1 6721:28 6774:22	remove 6569:10 6577:15 6780:19 6781:8,9
recognition 6748:2	reductions 6703:12	regulations 6635:5 6717:21	removed 6593:10
recognize 6566:8 6609:23 6676:8 6737:2 6768:21 6772:9 6797:10	redundant 6594:19	regulatory 6636:23 6699:25 6718:21	removes 6581:9,10 6768:6
	refer 6688:14 6705:9 6730:21 6733:22 6740:27	reiterate 6591:27	removing 6572:23 6581:14 6694:10,14 6696:14
		reject 6750:16 6758:3	repeat 6634:5 6681:26 6725:10 6785:2
		rejected 6750:19,21 6758:25	repeatedly 6698:14 6756:13
		relate 6593:20 6748:6	repeating 6721:20
		related 6577:12 6588:11 6591:15 6626:22 6631:21 6635:22 6648:17 6650:12 6654:24 6655:9 6797:8	repeats 6664:7
		relates 6594:23 6720:11	repetitive 6738:20
		relating 6708:12,16	rephrase 6567:25 6795:21
			rephrased 6572:1
			replace 6596:10
			replacing 6806:10



replicated 6594:20	reserved 6747:27	retain 6669:14 6767:17 6769:23 6796:26	12 6753:2 6756:14,16,22 6786:21 6787:20,26 6789:12,14 6790:17 6793:7 6795:8 6797:3,8 6798:1 6803:8,10,17
repool 6627:16	residual 6620:17 6621:20	return 6630:27 6631:2 6638:8 6659:24 6666:11 6667:18 6668:4 6669:2,3,9 6671:9 6673:10 6674:8,9,26 6677:4 6729:11 6733:18 6753:21 6756:9 6801:21	risks 6576:11 6583:20,26 6617:24,25 6743:12,13 6790:15
repooled 6659:13	resin 6762:26	returning 6567:27	River 6632:12
repooling 6621:3	resolution 6730:14,16	returns 6652:19,23 6654:28 6733:20	road 6606:2 6628:14 6745:12
report 6577:22,23 6603:10 6616:22 6624:21 6631:26 6660:9 6661:6,23	resolutions 6730:9,20 6798:28	revenue 6579:8 6581:11 6582:15,16 6583:7 6584:22 6598:28 6599:4,8,15 6614:16 6616:15,17 6633:13 6636:11,15 6637:7,8,15 6645:15 6668:12 6729:14 6803:19	Roger 6588:21 6641:10,16, 19 6735:7
report-back 6630:9	resolve 6640:1	reversal 6754:2	role 6643:16 6725:12 6752:10
reported 6662:14 6709:21 6710:8,9,15	resolved 6681:10 6686:14	reversed 6738:27	rolling 6614:5,12,13 6615:17 6637:20,22 6651:9
reporter 6661:26 6664:15 6680:9 6690:8 6701:4	resonate 6721:2	revert 6702:28	Roman 6656:21,22,27,28
reporting 6710:12	resource 6641:24	reverted 6703:1	room 6774:11
reports 6661:4,21	resources 6663:23 6667:12 6743:2	reverting 6790:11	rose 6657:15 6676:11,15,17
represent 6564:22 6585:19 6645:17 6674:24 6681:17 6689:5 6731:2 6761:7 6771:6 6782:7,17	respect 6574:14 6587:26 6692:5 6696:13,26 6704:9 6712:17 6770:4	review 6608:10 6702:7	Rosenbaum 6595:9,10 6597:12 6708:8,9 6711:16 6719:28 6742:23 6743:21, 23,28
representation 6707:25	respectfully 6757:1 6769:25	reviewed 6636:27	roughly 6687:23
representative 6642:5 6675:26 6687:17	respective 6756:25	revised 6616:4	round 6613:2
representatives 6668:24	respond 6693:20 6730:8 6765:1 6803:9	Rice 6631:27	row 6722:18
represented 6690:23	responded 6693:14 6785:24	Rico 6643:12	Rube 6669:25 6670:28 6733:17,23
representing 6720:6 6790:4	response 6664:11 6667:15 6800:16 6805:9	rid 6599:19 6615:2,6 6616:7 6712:20 6743:4 6800:18	rule 6648:12 6747:11,23,24 6748:2 6757:2,20
represents 6673:24 6739:1 6763:1,25	responsible 6795:26	ridiculously 6743:10	rules 6588:4 6639:22 6659:11,12 6737:15 6758:15
reproduce 6601:13	responsive 6671:6 6717:19	rigid 6767:4 6794:10	ruling 6748:4 6757:6
request 6573:4 6678:13 6684:13 6702:23,24 6757:2 6765:2,3,27 6773:2,5	rest 6592:20 6624:16 6643:24 6760:17	ring 6622:1	Rumsfeld's 6565:25
requested 6637:8 6639:25 6642:15	restated 6634:6	rise 6576:13 6765:11	running 6680:16 6789:4 6801:20
requests 6700:7,9 6702:26	restatement 6775:19	rises 6610:26 6725:4	runs 6582:4
require 6717:8 6765:6,8	result 6585:22 6622:10,11 6670:17 6712:16 6718:9,10 6720:22 6756:27 6784:26 6785:20 6790:16,27	rising 6586:8 6645:27 6646:2 6739:8,9 6755:6 6798:5	rushing 6623:10
required 6717:11 6795:11	resulted 6586:26	risk 6565:24 6574:2 6578:5, 24 6581:3,10 6583:24 6588:12 6593:10 6599:22 6603:2 6604:13 6617:26,27 6618:2,8,13,15 6634:20,21 6635:11 6636:8,17,18 6637:11 6651:7 6652:6 6662:25 6663:17 6665:28 6666:24 6667:12 6669:1,8 6693:17 6695:16,26 6696:27,28 6697:11 6712:22 6717:17 6718:28 6719:15, 17,18 6721:20 6725:24 6727:6,21 6731:10 6743:11,	ryan 6564:22,25 6598:10 6641:17 6658:14,16,17,20 6720:6 6790:4
requirement 6637:8	resulting 6650:14 6667:25		S
requirements 6702:5,15 6770:20 6771:13,19 6784:26 6785:8,19,26	results 6605:19 6676:9 6688:24,25 6691:6 6705:13 6723:10 6804:22		S-J-O-S-T-R-O-M 6751:11
requires 6625:24	retail 6578:21 6633:20 6634:2 6761:2,4,8 6763:9, 19,28 6764:24 6769:4,6,7 6793:18,19,21		sad 6572:21,23
requiring 6713:2,13	retailer 6632:27 6695:15 6763:14		safety 6782:1,4
research 6575:22,25 6624:10 6694:17,19,20	retailer's 6761:7		
resemble 6688:25	retailers 6682:7 6694:3 6695:25 6728:17 6764:12 6769:11		
resembles 6688:17			
reserve 6568:26 6572:3 6622:24 6748:9 6773:14			



<p>sales 6565:9 6567:10 6586:4,8 6620:27 6637:21, 27 6638:5 6660:9 6694:21 6695:17 6752:23 6760:23 6761:25</p> <p>Sally 6805:5 6808:4</p> <p>satisfaction 6754:17</p> <p>satisfied 6719:3</p> <p>Saturday 6710:10</p> <p>save 6747:25 6748:22,28</p> <p>savings 6582:26</p> <p>scale 6570:12 6616:14</p> <p>scenario 6674:17 6717:15 6766:13 6781:6</p> <p>scenarios 6618:16 6672:8 6675:12,18 6683:15 6687:7, 22 6688:4 6725:3,5</p> <p>schedule 6766:12</p> <p>Schlangen 6565:18</p> <p>school 6637:20 6766:26 6767:9 6783:3 6802:14,17, 19,21,24</p> <p>schools 6752:23 6761:25 6766:28 6767:6 6794:9,10 6796:11 6802:1,3,16</p> <p>Science 6645:22</p> <p>scope 6745:8 6746:24 6747:19 6770:11 6771:2</p> <p>scrambling 6735:16</p> <p>screwed 6735:16,17</p> <p>Sean 6680:5</p> <p>seasonal 6620:23</p> <p>seasonality 6627:17 6792:17</p> <p>seasonally 6702:21 6771:13</p> <p>seated 6759:3</p> <p>Secretary 6746:25 6769:22</p> <p>section 6612:4 6652:14 6664:7 6706:8 6746:28 6753:13 6754:1 6759:1</p> <p>sections 6764:22</p> <p>sector 6577:18 6578:2 6600:3 6638:4 6754:6 6755:1 6756:14</p> <p>seek 6699:25 6764:25</p> <p>seeking 6615:19 6764:15</p> <p>Select 6564:22 6720:6 6733:13 6790:4</p>	<p>selection 6754:23</p> <p>sell 6577:20 6594:5 6694:11, 15 6696:2 6697:17 6720:27 6790:23,28</p> <p>seller 6635:20 6789:15 6792:6</p> <p>sellers 6666:1 6697:15</p> <p>selling 6694:26 6695:11 6762:7,10</p> <p>semantics 6708:2,3</p> <p>send 6567:15 6571:21 6590:25 6680:28 6684:13 6802:24</p> <p>sense 6570:25,27,28 6571:8 6573:16 6591:21 6592:4,13 6594:19 6602:11 6611:15 6614:2 6616:1 6637:22 6670:10 6675:23 6714:1 6719:5 6741:19,23 6742:16 6761:15 6795:17</p> <p>sensitive 6565:22</p> <p>sentence 6625:7 6626:3,8 6647:3 6649:28 6651:11 6713:15 6756:5 6774:3,7,20</p> <p>sentences 6625:26</p> <p>separate 6579:1 6756:21 6796:17</p> <p>separated 6591:14</p> <p>September 6579:25 6587:19 6603:25 6613:6,9,10,17 6615:28 6647:17 6664:1 6710:2,5,6,20,21,23 6711:19,20,28 6763:3,6,7, 10,22,24,27</p> <p>September's 6647:9</p> <p>series 6650:15 6700:15</p> <p>serve 6567:5 6693:28</p> <p>served 6769:14</p> <p>serves 6665:26</p> <p>service 6597:15 6611:2 6631:10 6659:25 6736:16,17 6778:1 6800:7,8</p> <p>servicing 6659:23</p> <p>SESSION 6564:1 6680:1</p> <p>set 6571:19 6604:13 6614:21 6615:27,28 6622:22 6637:13,24 6656:7 6657:16 6714:10 6725:18 6733:13 6738:24 6753:13 6763:9 6802:3,4 6804:1</p> <p>sets 6581:11 6656:17</p>	<p>6710:4</p> <p>setting 6623:14 6774:20</p> <p>settle 6632:14 6717:5</p> <p>settled 6593:3 6604:7 6632:16,18 6717:1 6725:18</p> <p>settlement 6593:11 6717:9 6766:4</p> <p>settlements 6604:15</p> <p>severe 6570:5</p> <p>share 6578:10 6638:15 6719:24 6750:26 6755:6 6765:17 6807:16</p> <p>shared 6572:21 6757:13</p> <p>sharing 6648:2</p> <p>sheet 6684:26</p> <p>shelf 6752:15 6754:14,28 6755:2 6756:15 6761:16 6793:28</p> <p>Sherman 6774:13</p> <p>shifted 6727:7</p> <p>ship 6579:6</p> <p>shipping 6569:1 6702:5,14</p> <p>shock 6584:13 6598:14</p> <p>shoe 6772:14</p> <p>shoestring 6730:7</p> <p>short 6594:21 6595:2 6669:28 6752:20 6761:14,16 6785:17 6805:5,6,10 6807:6, 9,14</p> <p>short-term 6567:22 6569:21 6570:3</p> <p>shortfall 6599:4,8</p> <p>shortly 6699:5,6,9 6707:23</p> <p>show 6591:2,24 6620:16 6672:7 6675:24 6693:8 6702:28 6723:7</p> <p>showed 6678:1</p> <p>showing 6588:24 6600:24 6608:11 6611:8 6645:20 6655:7 6656:24 6740:10,11 6741:20</p> <p>shown 6597:2 6715:22</p> <p>shows 6672:25 6702:24 6703:2 6741:16 6755:19 6769:15</p> <p>shuttered 6755:4</p> <p>side 6565:5 6580:4 6593:28 6594:3,5,28 6669:1,8</p>	<p>6729:21 6798:4</p> <p>sides 6784:15</p> <p>sign 6587:1</p> <p>signal 6567:15,21,22 6570:23 6571:9,21,22,26,27 6572:5 6623:6 6649:25 6650:4 6736:2 6768:5,7</p> <p>signals 6567:1,2,6 6570:22 6571:12,13,14,16 6590:26 6622:20</p> <p>signals' 6567:13</p> <p>significant 6667:5 6723:1 6762:1 6764:3,11 6778:13, 15 6793:10 6795:2 6796:6</p> <p>significantly 6699:18</p> <p>signs 6806:22,26</p> <p>similar 6588:1 6602:19 6604:12 6605:6 6614:21 6622:15 6655:16 6668:1 6674:7 6721:3 6741:4,5 6767:2 6774:9 6801:19</p> <p>similarly 6654:12</p> <p>simple 6612:8 6663:27 6671:25 6683:18 6686:3 6720:14 6746:1 6761:27</p> <p>simpler 6737:13</p> <p>simplification 6666:7 6734:10</p> <p>simplified 6655:5 6672:5</p> <p>simplify 6637:16 6672:2 6691:8 6734:5,12</p> <p>simplifying 6734:14</p> <p>simply 6621:9 6632:18 6674:24 6720:10 6741:27 6752:21</p> <p>Sims 6806:16</p> <p>simulated 6686:10,12 6688:14,24 6689:4 6690:21 6703:23,25 6704:1</p> <p>single 6576:1 6582:25 6628:22 6762:1 6769:2 6785:14 6797:12</p> <p>single-digit 6783:17</p> <p>single-sided 6642:15</p> <p>singles 6622:17</p> <p>sir 6678:14 6707:22 6781:26 6783:12 6789:23 6790:6,19, 24 6791:2 6792:9,14,25 6794:23 6798:9,19,20</p> <p>sit 6685:26</p>
---	--	--	--



sitting 6705:13	22 6627:19 6661:14 6687:15 6718:6 6743:8,9,10,15 6778:3 6782:8 6795:1	6794:14 6797:13 6801:13 6802:13,24	stabilized 6570:4
situation 6586:3 6598:19 6601:1 6636:9 6649:16 6652:21 6654:17,25 6752:26 6763:19	smaller 6621:9,20 6650:17 6742:28 6743:1 6780:21	Southwest 6573:12 6610:6, 16	stable 6649:2 6682:21 6776:2 6793:13
situations 6673:9	smallest 6616:2	space 6753:3	staff 6730:6
six-and-a-half-week 6711:5	SMI 6794:28	speak 6601:25 6629:9 6639:21 6745:21	stage 6624:11
six-month 6648:24,28	SMI's 6793:12	speaking 6623:14 6724:14	stakeholders 6646:9
six-page 6786:13	social 6623:7	specific 6578:15 6591:8 6682:9 6708:24 6724:28 6731:3,17 6754:26	stand 6564:10 6639:27 6640:13,19 6686:19 6737:7 6747:26 6748:15 6757:19 6759:3 6760:5 6805:26
six-week 6712:3	software 6580:15	specifically 6700:10,18 6708:16 6712:7 6739:10 6741:2	standalone 6696:21 6697:22
size 6569:23 6740:22	sold 6633:20,27 6695:23 6696:28 6697:23 6761:13 6763:18,27 6764:10	speculating 6716:18	standard 6568:6 6573:28 6574:2 6752:8 6780:18
sizes 6772:14	solely 6577:21	speech 6786:8	standardizing 6567:18
Sjostrom 6631:5,13,15 6638:18,27 6639:16 6735:1, 5,6 6736:12 6745:5,27 6748:25 6749:11,14 6751:3, 10,14,16,17 6755:24 6758:18	solicited 6729:25	spell 6641:15 6672:15 6751:9 6759:10	standards 6575:10 6699:26 6700:2,8,16 6701:3,6,13 6702:5,18 6703:12 6704:6 6770:13,14,23,28 6771:5,7, 24 6772:9,15,28 6783:26 6784:6,8
Sjostrom's 6741:13 6750:13	soliciting 6730:1	spelled 6658:16	stands 6568:3
skim 6600:14 6602:14 6603:18,22 6604:24 6605:3 6606:9,12,13,17 6612:5,18, 19 6616:18,19 6618:10 6644:18,20,21,25,26 6646:2 6647:11,12,14,15,21 6652:13 6664:14,18,22,26, 27 6665:2,4,13,14,27 6696:15,27 6752:12 6753:11 6776:11 6796:3 6800:1 6803:7	solids 6585:25 6619:18,22 6644:22,23 6645:9 6664:28 6665:1 6696:27	spend 6685:14,27 6686:18 6708:11	stardom 6576:13
skip 6760:17	Solomon 6751:5	spending 6630:9	stars 6618:12
skyrocket 6785:6	Solomona 6751:6	spent 6771:28	start 6564:26 6577:7,20 6586:9 6587:15 6592:3 6595:17 6598:5 6600:27 6615:26 6623:10 6636:2 6672:3 6682:19 6698:21 6734:15 6738:10 6753:4 6754:19 6760:19 6765:21 6787:1,10 6800:19 6806:6
sleep 6630:19 6631:1	Solomonian 6751:2	spirit 6752:6	started 6678:17 6698:26 6701:17 6749:18 6782:12 6794:15
slide 6723:25	solution 6598:20 6751:3 6752:5 6755:8 6757:13	splitting 6754:9	starting 6594:11 6602:6,10 6787:20
slides 6671:19	solutions 6598:22 6614:2 6638:3 6753:15 6756:21	spot 6602:22	starts 6601:28 6602:1 6611:28 6612:9 6777:10
slight 6752:7	solve 6570:21 6572:24 6573:6,8 6640:5 6669:20 6769:2	spot-checked 6676:7	state 6564:11 6578:6 6579:9,23 6640:8 6709:18 6721:22 6723:17 6729:26 6730:4,15,16,19 6741:22 6751:9 6759:10 6774:3 6777:24,26 6796:25 6799:2, 3
slightly 6633:26 6675:9 6802:7	solved 6601:19	spread 6586:24 6588:13 6590:1,11,21 6591:23,25 6592:7,10 6606:25 6608:23 6610:25 6620:1 6625:14 6626:1 6629:16,27 6662:11 6667:2 6669:27 6693:16 6724:19 6726:14,17	stated 6574:19 6577:25 6663:27
slope 6610:24	solves 6682:15	spreads 6626:28 6651:5 6652:4	statement 6564:26 6572:10 6574:15 6583:14 6598:6 6601:5 6628:17 6640:9 6642:8,10 6644:15 6664:8 6728:14 6733:16 6745:1 6747:10,21 6748:1 6759:15 6775:23 6776:4 6780:22
sloppy 6779:25	something's 6720:19	spreadsheet 6605:25 6675:16 6684:10,20,21 6685:8,12,15,20,26 6686:15 6687:27 6689:18 6722:2	
slot 6749:1 6807:21	Sommer 6807:13	spreadsheets 6684:22	
slow 6664:16 6680:14 6751:27 6770:26 6798:1	sooner 6651:9	spring 6636:24 6675:26	
slower 6785:3	sophisticated 6688:26	spur 6718:15 6754:27	
slowing 6678:13	sort 6591:18 6637:22 6655:5 6671:24,25 6676:19,23 6700:9 6723:27 6726:4 6727:3 6731:18 6737:20	squaring 6723:4	
slowly 6651:12	sound 6582:11 6594:11 6731:25 6732:2 6733:6,10 6736:6	squirring 6631:11	
slows 6782:21	sounds 6766:8 6807:24	stability 6622:27 6668:15	
small 6568:21 6570:12 6589:24 6607:14,15,19,21,	source 6593:10 6631:23,24	stabilize 6633:13,14 6775:18,20	
	sources 6631:20		
	Southeast 6573:17 6701:1, 5,12 6760:15 6770:9 6773:2 6792:24 6793:10,15,18,21		



6786:9 6797:9 6801:8 6805:6,10 6807:14	stores 6713:11 6762:19,22	submit 6600:25 6625:25 6630:13 6685:20 6730:20 6804:23	summarizing 6584:14 6585:14
statements 6575:13 6774:11	stories 6794:18,19	submitted 6639:24 6643:21 6644:6 6663:28 6685:3 6700:7 6753:18 6757:4 6758:14 6769:25	summary 6605:23 6618:20 6735:27 6741:26 6746:15
states 6643:12 6648:14 6714:5 6730:5,6 6743:25	story 6564:7	submitting 6630:19 6685:11 6756:28	summer 6636:27 6674:17 6675:27 6796:18
stating 6662:27	straight 6741:6	subsequent 6668:7	summing 6626:1
Statistic 6777:28	straightforward 6683:2	subset 6752:26	superior 6583:28 6598:22
statistical 6591:18	strategic 6592:2	subsidies 6580:4	supplied 6659:26 6773:11 6793:23 6794:1
statistician 6781:12	strategies 6577:19 6637:25 6638:6 6761:1 6769:12	subsidization 6573:6	supplier 6793:10
statistics 6660:12 6778:6 6781:14	strategy 6577:24 6578:28	subsidize 6573:3 6582:21	suppliers 6765:11
status 6675:13 6676:10 6683:8,17 6721:25,27 6725:9 6781:8	strawberry 6776:1	subsidized 6782:1	supplies 6570:13
stay 6674:12 6750:27 6758:12,20 6770:21 6785:9	strengthening 6785:25	substantial 6590:23 6652:10 6654:18 6720:15 6737:10	supply 6568:26 6569:5 6571:3 6572:3 6622:25 6648:16 6649:21 6716:7 6764:28 6769:20 6770:17 6771:8 6774:27
staying 6704:15 6805:28	strengths 6654:3	substantially 6576:2 6667:24 6668:13 6673:20 6705:12 6799:23	supplying 6764:15 6765:24 6773:9
stays 6723:21 6780:3	stress 6575:5	substantive 6757:9	support 6570:15 6598:6 6599:19 6646:8 6675:2 6707:20 6713:1 6714:13,15 6727:28 6749:21 6760:6,15
steal 6607:28	strict 6616:15 6637:7,15 6767:4 6783:19 6794:11 6802:23	subtract 6605:17	supported 6713:12 6727:24 6750:3
steep 6776:27	stricter 6659:10	subtracting 6653:20	supporter 6801:6
step 6590:14 6605:14,20 6606:6 6619:13,27 6620:3,5, 7 6621:12 6628:10 6643:20 6660:12 6717:8 6730:24	strictly 6677:4	subtraction 6706:28	supporting 6729:11
step-back 6803:6	strike 6656:12 6709:7 6755:23 6756:1,2	succeed 6577:4,8 6594:18	supportive 6663:14 6666:21
Stephen 6806:19	striking 6588:24	success 6593:1,7 6594:12 6716:25	supports 6644:6,10 6667:13,17 6671:8,12,15 6715:3
Stephenson 6640:11	strong 6567:20 6572:7 6573:15 6610:12 6629:18 6630:4,18 6639:21 6801:6	successful 6594:13	suppose 6565:4
Stephenson's 6639:28	stronger 6625:21 6629:24	suddenly 6785:6	supposed 6588:6 6611:23
Stephenson/novakovic 6638:23	strongly 6635:5 6756:27 6769:22 6784:7	suffered 6645:18	supposedly 6670:14
steps 6624:16 6693:12	struck 6731:23,27	suffers 6591:22	surface 6574:4
Steve 6595:10 6708:9	structure 6620:7 6621:12 6629:26 6632:22 6663:24	sufficient 6568:25 6569:5 6571:23 6574:5 6575:11 6622:24 6670:17	surplus 6574:6
stick 6614:16 6796:1	stuck 6592:10 6619:26 6713:18	sufficiently 6573:14 6578:1 6705:12	surprised 6740:14
sticking 6611:19	student 6789:27	suggest 6754:25	survey 6660:9 6662:28
stipulate 6609:18 6745:17	study 6694:9,13,16,17	suggested 6671:23 6716:27 6720:27 6724:22 6726:4 6752:7	surveys 6663:2,7 6709:22 6710:9
stipulates 6754:2	studying 6636:25	suggesting 6596:21	survivors 6576:24
stirs 6730:3	stuff 6640:23 6644:9 6680:5 6738:3	suggestions 6757:11	swap 6578:4,17 6581:8,17
stood 6786:3	style 6614:11	suggests 6620:13 6666:14	Swaps 6726:21
stop 6616:27 6635:23 6651:8 6655:25 6660:21 6718:1 6724:28 6734:17 6755:14 6789:20	sub-class 6755:13 6756:8, 20	sum 6619:12 6625:28 6626:10	swings 6665:20
stopped 6651:9 6680:11	subclass 6754:13	summarize 6586:12 6610:27 6611:7 6664:9 6802:8	switch 6589:26 6627:14 6754:23
store 6634:2 6761:6 6763:9	subclasses 6754:9,23		
stored 6761:9	subject 6714:23 6742:11		
	submission 6621:25 6636:23 6805:8		



<p>switchback 6644:12</p> <p>sworn 6564:15 6641:12,20 6642:3 6751:15,18 6759:22, 25</p> <p>symmetric 6589:19</p> <p>system 6565:28 6568:25 6569:9 6572:27 6579:20 6595:28 6596:11 6599:10 6609:21 6622:11 6634:26 6635:4 6648:25 6663:21 6666:8 6667:9 6669:22 6670:13 6705:12 6707:18,20 6708:25 6709:10,13 6713:17,18 6714:2,20 6720:20 6723:5,17 6769:9 6800:26</p> <p>systems 6717:13 6766:26 6802:24</p> <hr/> <p style="text-align: center;">T</p> <hr/> <p>tab 6605:24</p> <p>table 6583:18,19 6618:24,25 6619:12,27 6621:11,12 6624:14,22 6633:5 6653:17 6654:17 6656:11,15 6672:24 6673:22,23,24 6674:2,4,5, 19,20 6677:28 6688:16,17 6698:26,28 6703:25,28 6735:19,25 6736:8 6741:15 6742:5,7</p> <p>tables 6595:14 6597:2</p> <p>tabulate 6683:9</p> <p>tactical 6592:2</p> <p>tail 6676:22</p> <p>takeaway 6599:18</p> <p>takes 6710:13 6750:6 6795:15</p> <p>taking 6579:21 6707:16 6720:26 6721:1,13,14 6792:21 6801:25,26</p> <p>talk 6569:1 6570:6 6601:18 6611:19,20 6618:25 6655:21 6708:19 6728:10 6731:21 6734:13 6738:18 6777:22 6781:13 6788:17 6803:6 6807:10</p> <p>talked 6572:12 6591:13 6595:20 6633:8 6635:13 6694:4,5 6698:10 6720:7 6736:23,24 6785:28 6794:14,28 6798:2,28 6807:11</p> <p>talking 6579:1 6586:9,25 6599:6,18 6600:13 6603:3 6613:23 6617:18,24 6634:8</p>	<p>6636:11 6657:1 6701:8 6702:12 6707:21 6712:2 6716:9 6728:23 6734:11 6741:14 6788:13,14 6791:4 6794:27 6801:28</p> <p>talks 6775:12</p> <p>targeted 6754:26</p> <p>task 6771:27</p> <p>tax 6584:24 6635:22</p> <p>taxpayer 6614:3</p> <p>taxpayers 6582:21</p> <p>Taylor 6597:18,22 6598:2 6601:15 6608:8 6611:6 6615:23 6616:28 6617:2,4,9, 10,15,16 6619:24 6623:17 6637:16 6640:25 6678:23 6701:28 6736:20 6741:10,11 6743:19 6800:11 6804:2 6805:3,14,23,27 6806:5,28 6807:4 6808:5</p> <p>teacher 6789:24</p> <p>team 6576:21 6637:16 6643:9</p> <p>tear 6750:28</p> <p>tease 6565:15 6591:16,17</p> <p>technical 6667:4</p> <p>technology 6712:8,21</p> <p>telling 6571:1 6678:26 6764:5</p> <p>tells 6764:3</p> <p>temperature 6752:20</p> <p>temperature-short 6760:25</p> <p>temporal 6666:9</p> <p>temporally 6592:12</p> <p>ten 6586:3 6597:21 6610:15 6675:19 6676:1,2 6687:19 6690:28 6691:13,20,22 6705:3 6771:11 6803:17</p> <p>ten-minute 6597:22,23 6640:27</p> <p>tend 6589:12 6670:22 6673:8</p> <p>tended 6586:23 6587:1</p> <p>term 6629:26 6653:24 6706:6,7 6713:28 6744:5 6797:25 6801:8</p> <p>terms 6568:22 6569:13 6573:13 6586:3 6588:27 6623:7 6627:2 6723:17 6735:14 6760:27 6761:27</p>	<p>6783:3 6792:12</p> <p>terrible 6667:21</p> <p>test 6576:25 6608:12 6619:22</p> <p>tested 6565:28</p> <p>testified 6564:16 6565:6 6578:4 6622:20 6641:21 6671:3 6704:9 6715:21 6727:19,27 6751:12,19 6759:20,26 6775:7 6776:16 6794:20 6799:20</p> <p>testifiers 6622:3</p> <p>testify 6643:6 6737:21 6749:7 6751:21</p> <p>testifying 6644:14</p> <p>testimonies 6616:4 6636:7 6752:13 6753:27</p> <p>testimony 6585:9,17 6586:12 6601:10,11 6608:1 6614:8 6615:10 6617:14 6629:1 6635:13 6646:17 6663:28 6664:3 6666:13 6669:23 6670:17 6672:21 6683:27 6687:11 6691:21 6694:25 6695:9 6696:1 6698:17 6708:12 6714:19,21 6716:22 6718:5 6725:23 6726:1 6727:17 6733:15 6735:9,15 6736:24 6737:1 6745:6,7,10,27 6746:2 6749:21 6750:13 6755:11 6760:7,10,12,14,20 6770:5 6774:25 6775:1 6777:14 6780:7 6781:25,26 6786:13, 14 6788:1 6790:20 6793:6 6796:24 6799:25 6800:22 6802:2</p> <p>tests 6585:25,26 6586:8 6592:27 6608:25 6610:3 6619:13,17 6620:22,23</p> <p>text 6619:7 6650:7,11 6652:9 6655:14 6657:7 6738:22</p> <p>That'll 6681:3</p> <p>theoretical 6715:10</p> <p>theoretically 6612:13 6722:21</p> <p>thereto 6756:26</p> <p>thin 6569:5 6576:14 6577:25,27 6579:3</p> <p>thing 6565:16 6609:3 6656:3,26 6674:3,24 6683:12 6694:8 6712:13 6728:25 6731:22 6734:2,12 6740:1 6743:17 6750:8</p>	<p>6777:12,23 6794:3 6795:14 6796:13 6802:27 6807:8 6808:3</p> <p>things 6569:6,11 6591:17 6593:21 6594:13 6608:23 6613:23 6615:11 6619:10 6623:8 6626:16,17,21 6637:6 6664:2 6673:16 6675:2 6676:22,28 6678:20 6680:15 6681:12,13,18 6687:28 6692:25 6693:26 6697:3 6701:12,14 6707:18 6712:27 6713:8,17 6716:28 6723:6 6730:23 6732:16 6733:23 6734:5 6749:6 6750:3,19 6758:10 6775:3,8, 23 6784:13 6792:22 6793:26 6796:1 6797:28 6807:27</p> <p>think's 6801:9</p> <p>thinking 6575:27 6607:5 6628:2,9 6634:24 6737:20 6742:17 6743:5</p> <p>thought 6564:8 6592:3 6618:1 6632:21 6672:1 6678:8 6681:2 6688:2 6699:8 6739:5 6740:15 6741:22 6749:12 6758:4 6796:3 6807:28 6808:1</p> <p>thoughts 6566:14 6638:11 6742:27 6770:4</p> <p>thousands 6643:13</p> <p>three-quarters 6778:17</p> <p>threshold 6567:17</p> <p>thunder 6607:28</p> <p>Thursday 6806:19 6807:14, 18</p> <p>tie 6615:4</p> <p>tied 6594:18 6670:24 6677:16 6730:12</p> <p>tight 6771:13</p> <p>tighten 6699:26 6700:7 6713:8 6771:1 6773:3 6784:7</p> <p>tightened 6700:15 6772:28 6773:5</p> <p>tightening 6784:26 6785:19</p> <p>tighter 6785:8</p> <p>tightest 6771:7</p> <p>tilt 6616:14</p> <p>time 6575:26 6576:25,27 6577:1 6579:24 6588:3,8 6594:21 6605:11 6611:8 6615:19 6618:18 6620:19</p>
--	--	--	--



6621:26 6623:2 6633:22,25 6634:9 6640:24 6649:24 6650:3 6660:3 6662:18 6663:25 6666:19 6668:8 6670:23 6675:22 6676:15, 16,17 6682:8 6684:4 6686:3 6687:14,20 6690:18 6692:14 6695:27 6697:17 6698:8 6699:2,5 6700:8 6703:6 6708:20 6709:6,8 6712:16, 19 6713:5 6717:11 6719:4 6721:8 6728:22,24 6733:17, 20,27 6734:4,21 6737:21 6747:24,25 6748:17,22,23, 24 6752:20 6753:21 6754:24,25 6755:9 6756:6 6760:25 6761:14,15 6771:28 6772:28 6773:19 6777:5,6 6780:11,14,17 6782:19,20, 24 6783:24 6786:1,12 6789:2 6795:25 6797:23 6804:5 6807:7	6805:16 tool 6793:7 tools 6695:26 6712:22 6727:4 6728:23 6743:12,15 6754:20 6756:22 top 6565:7 6574:8 6625:3 6705:22 6749:24 6801:27 topic 6568:17 6573:28 6574:4 6578:3 6599:8 6626:18 6715:8 6746:4 6752:12 topics 6573:25 total 6628:23 6645:10 6762:1 6763:1 touch 6692:11 6771:21 touch-day 6770:15 tough 6789:26 trace 6605:26 track 6616:22 6639:1 trade 6632:3 6753:8 traded 6583:12 traded/issued 6663:2 tradeoff 6797:17 trading 6606:14 6631:22 6663:8 6726:22 tradition 6764:27 traditional 6638:6 6752:19 6754:10 trailed 6673:18 trailing 6631:19 transact 6593:12 transition 6755:7 translate 6779:28 transmit 6570:23 transpire 6635:3 transplant 6608:15 trend 6589:11 6619:12 6653:10 6755:5 trends 6592:4,25,27 6609:19 6610:3,4 6619:6,7,15,16,17 6620:21 6768:4 tricks 6686:5 trigger 6723:9 triggered 6724:12 triple 6582:6	trouble 6590:26 truckload 6762:12 6801:26 truckloads 6801:25 trucks 6632:13 true 6576:20,21 6583:27 6611:12 6688:24 6696:5,6 6789:13,17 6796:14 6800:3 true-up 6635:19 6765:16,28 6766:1,2,5 6767:9,12 6796:19 true-ups 6635:14,18 6765:6, 9 6766:15,17 truing 6687:27 6795:19 trust 6756:11 truth 6572:21,23 TUESDAY 6564:1 6680:1 turn 6597:15 6598:7 6611:24,26 6612:9 6616:24 6617:17 6618:17,18,19 6644:3 6698:20 6713:7 6737:18 6738:17 6741:12 turned 6668:11 6678:8 6729:20,21 Turner 6607:18 turnover 6692:10 turns 6732:1 twist 6566:7 two-month 6648:20,26 6710:1,19 6711:18,25 two-thirds 6564:28 two-week 6604:8 6606:15, 19,23,26 6709:16 two-year 6596:13 type 6575:23 6581:3 6724:24 6761:27 6764:25 6784:13 types 6717:16 6721:17 6740:27 typically 6579:28 6581:23 6598:25 6628:23 6687:17 6717:2 6730:20 6741:1 6752:16 typo 6655:19,20 6694:8	6612:15 6624:5 6699:20 6703:10 6706:14,21 6724:7 6725:26 6743:3 ultimate 6789:24 ultimately 6600:2 6660:2 6709:13 6748:2 uncertainty 6651:6 6652:5 uncommon 6636:16,18 undermines 6648:4 undermining 6668:19 underneath 6715:4 understand 6566:25 6569:7 6576:11 6582:1 6592:22 6605:12 6607:12 6611:22 6612:2 6615:7 6623:24 6624:22 6625:12 6626:8 6629:20 6678:16 6683:19 6685:18 6686:7 6688:11,21 6690:11 6691:7 6692:13,16, 17 6697:19 6703:28 6728:16 6732:26 6734:12 6739:8,14, 17,20 6740:3,4 6756:11 6778:14 6780:12 6783:11 6785:18 6787:3 6791:17 6797:5 6802:26 6807:8 understanding 6569:14,17 6572:21 6581:19 6582:1 6601:26 6610:3,4 6629:1 6638:10 6674:13 6682:8 6728:27 6734:7 6735:26 6741:24 6795:3,9,10 6807:17 understood 6566:1 6628:18 6681:27 6741:25 6780:24 undertaken 6696:19 Undervaluing 6649:22 6650:1 unequal 6766:23 6774:3,12, 23 unexplained 6621:20 unfair 6758:13 uniform 6573:7 6589:2,3,8 6590:1,11,14,16,24 6648:4 6655:4 6660:1 6663:20 6665:12 6667:8 6668:17,19, 20 6676:4,11,16,18,19,20,23 6677:1,6,8,10,12 6678:1 6683:7 6686:9,11,13,23 6687:25 6688:14,18,23 6689:4,5,28 6690:21,27 6691:4,10 6703:22 6707:9, 26 6720:11 6721:16,23 6722:14 6723:14,16,20,26 6724:17,20 6725:5 6764:20 6770:19 6783:7 6785:21
		U	
		U.S. 6614:2 6756:12 Uh-huh 6574:18 6578:18 6585:16 6603:13 6605:22	



uniformly 6727:19	uti- 6746:22	vertical 6609:15	weeds 6747:8
unique 6727:5 6774:21	utilization 6573:9,15,20,22 6585:23 6589:20 6590:24 6592:25,26 6608:25	view 6718:4 6805:12,15	week 6582:3 6660:14 6686:20 6696:1 6702:12 6710:3,10 6752:12,13 6761:3 6789:6 6805:10 6807:1,11
unit 6730:23 6762:2	6609:16,18 6610:4 6619:8, 13,17 6620:11,14,22 6621:1 6624:2 6645:28 6646:3 6675:18,19,28 6676:3,27 6678:2,3 6687:18,21 6689:28 6690:17,19,23,25, 26 6695:15 6746:23 6747:2 6758:6,27 6767:25 6776:24 6777:24 6778:20 6783:18	views 6709:9	weekly 6647:22 6660:15 6709:22
united 6669:28 6743:25		violation 6774:13	weeks 6605:4 6607:18 6633:9 6694:24 6698:17 6709:26 6710:2,6,7,14,18 6711:4,7,17,27 6746:4 6752:13 6801:9
units 6567:18		virtually 6587:14	weigh 6733:14
universally 6581:21		Vitaliano 6748:27 6806:15 6807:25 6808:3,5	weight 6778:1
University 6641:25		voice 6680:8 6806:23	well-established 6637:12
unknown 6565:25		volatile 6650:10,16 6665:19 6712:16 6781:23	well-intended 6670:10
unlike 6761:8		volatility 6649:3 6650:17,18 6652:11 6653:12 6654:19, 20,23 6673:1 6780:17,20,26 6781:10	whack 6720:20
unnecessarily 6669:18	utilized 6758:5 6772:8		whey 6593:22,25 6594:3,15 6632:13 6661:13 6662:4 6693:12
unnecessary 6669:17 6692:22	utilizing 6754:11,19 6757:13		whichever 6595:4 6635:21
	V		white 6566:5 6762:21
unpredictable 6668:18		volume 6576:14 6594:14 6606:28 6648:12 6666:16 6740:23 6773:11,14 6778:4 6782:8 6789:5 6791:21	whomever 6806:10
unrealistic 6764:24	vague 6633:11	volumes 6652:25 6653:8 6791:20 6792:10 6794:24	whoops 6671:18
unreasonable 6753:15	valid 6606:24 6685:9	voluntarily 6652:19 6727:6	wide 6651:5 6652:3 6681:12 6717:12 6772:7 6787:12
unring 6748:19	validity 6630:12	voluntary 6801:4 6803:23, 26	wider 6653:13
unusual 6564:9 6601:5 6741:5	valuable 6623:3	vote 6730:13 6783:23	widespread 6718:12
update 6660:15	values 6626:1 6645:11 6646:3 6659:9 6662:9,11,16 6663:11	voted 6729:27	wild 6665:18
upper 6573:12,17 6589:22 6602:21 6628:24 6665:20 6783:17	variability 6589:14	voting 6730:11	Wilson 6623:17,20,22 6627:9 6630:6,8,10
ups 6673:17,18	variable 6703:18 6704:6	vouch 6590:6 6685:25	Wilson's 6680:17 6805:9
upset 6713:7,19	variables 6592:17 6653:27 6654:4		window 6604:8,11 6606:15, 19,26
upside 6581:9,12,15 6765:9 6798:5	variance 6578:13	W	Wisconsin 6772:11
upward 6589:11	variation 6567:27 6588:24, 25 6771:4 6772:8	wait 6642:4 6673:23,26 6785:9	wisdom 6757:13
urge 6692:6	variations 6766:21	waiting 6642:6 6761:20	wishes 6806:4
urging 6670:1 6804:21	varies 6607:22	wake 6693:6	withdraw 6735:18,25
US- 6650:8	vary 6771:13	wanted 6564:26 6574:27 6584:5 6601:3 6608:16,22 6609:15,16 6611:19,20 6631:18 6632:5 6688:27 6693:17 6721:18 6735:11 6765:21 6783:26 6784:22 6795:5,10 6796:15,16 6805:3	withdrawing 6736:8
USDA 6571:20 6572:16 6593:20 6604:20 6638:19 6642:5,15 6643:5,23 6648:8, 14 6650:7,9,12 6652:7,14,16 6653:1 6654:25 6659:28 6660:2,6,14 6662:26 6675:13,23,24,25 6677:14, 15,18 6678:6 6693:18 6699:25 6700:14 6701:26 6702:7 6705:7,9 6706:4 6707:5,6,23 6708:13 6709:8 6712:4,28 6713:4 6714:3 6715:25 6721:6 6733:28 6752:27 6753:9 6757:2,7 6758:1 6803:19	varying 6653:12 6654:3	wanting 6611:26	withstood 6576:24
USDA's 6650:5 6803:20	vast 6787:9,12	warn 6577:5	witness's 6701:7
USDA-13 6611:25	venture 6783:16 6784:2	Washington 6772:11	witnesses 6565:17 6637:20 6665:22 6666:13 6673:8 6683:2 6694:26 6695:10 6718:25,26 6728:18 6748:26 6752:4 6807:26
user 6793:27	verbally 6735:13	waterfall 6620:1,10	
	verification 6684:28	ways 6681:12 6720:23	
	verify 6685:16	website 6611:25 6701:27	
	vernacular 6741:1	Wednesday 6710:10	
	version 6608:18 6685:3		
	versions 6639:11		
	versus 6566:21 6567:20 6568:17 6572:22 6573:24 6592:7 6596:14 6608:24 6615:6 6632:3 6635:25 6703:19 6715:12 6803:14		



Wolf 6585:23 6588:23 6591:13 6609:1 6671:27	<hr/> Y <hr/>	
wondered 6565:10 6566:24	y'all 6675:25	
wonderful 6637:5 6680:6 6750:8 6804:28	year 6567:28 6576:26 6584:20,23,24 6598:21,26, 28 6599:1,15 6612:27 6613:11,14,22 6615:27,28 6622:8 6623:25 6630:15 6637:25 6650:20 6653:22,23 6765:20 6772:26 6778:19 6793:14 6799:5 6802:3	
wondering 6608:6 6682:3 6736:27 6742:15 6770:3 6800:16	year-over-year 6738:9	
word 6599:20 6602:16 6647:1 6656:12 6657:22 6658:3,11 6695:1 6705:22 6706:3 6784:21 6786:12,17 6787:11,12	yearlong 6624:23	
words 6589:5 6597:6 6633:7 6656:20 6658:2,4,10	years 6565:20,28 6567:5 6568:13 6576:13 6586:3 6591:28 6596:18,19 6610:15 6612:27 6613:13 6621:16 6622:4 6650:9,12,23,25,26, 28 6651:15,17,19 6652:28 6654:26 6666:6 6670:10,12 6687:12 6689:11 6695:14 6699:12 6700:10,17 6701:16 6705:3 6715:23 6722:3,4,5 6729:14 6732:18 6768:12 6769:15 6781:14 6788:20 6796:1 6803:17,28	
work 6577:14 6580:15 6603:15 6612:3 6631:17,20 6637:16 6681:3 6685:7,25 6687:5 6715:5 6723:5 6726:6 6731:8,23 6752:5 6795:22 6796:21 6799:1 6800:27	yesterday 6568:20 6577:24 6580:17 6584:11 6595:20 6600:28 6605:12 6606:25 6613:26 6619:7 6620:9 6629:23 6631:18 6639:24	
workbook 6684:22	yesterday's 6579:22	
worked 6565:19 6615:25 6706:4 6707:22 6800:26 6808:9	yield 6605:19	
working 6580:23 6699:22 6721:9,10 6732:12 6803:4	yogurt 6621:15	
works 6613:25 6627:23 6649:3 6658:12 6682:27 6707:9 6734:13	<hr/> Z <hr/>	
world 6566:4 6572:27,28 6573:1 6608:22 6610:14 6715:1 6774:21 6787:7 6805:12,25 6807:20	Zoom 6806:27	
worry 6787:22		
worse 6632:28 6768:26		
worsening 6652:24		
worth 6582:9 6645:12 6686:3 6757:26,27		
worthy 6565:12		
wrap 6638:17		
write 6775:2		
writing 6614:24,25 6619:9 6706:8,16		
written 6636:7 6708:11 6735:9 6774:25 6802:7		
wrong 6577:1 6594:17 6599:20 6622:2 6742:17 6781:24 6792:11		
wrote 6735:10 6775:5 6776:7 6783:12		

