

NATIONAL FEDERAL MILK MARKETING ORDER PRICING FORMULA HEARING

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

Before the Honorable Channing D. Strother, Judge

---000---

Carmel, Indiana
September 5, 2023

---000---

Reported by:

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

1	APPEARANCES:
2	FOR THE USDA ORDER FORMULATION AND ENFORCEMENT DIVISION, USDA-AMS DAIRY PROGRAM:
3	Erin Taylor Todd Wilson Brian Hill
5	FOR THE AMERICAN FARM BUREAU FEDERATION:
6	Roger Cryan
7	FOR THE INTERNATIONAL DAIRY FOODS ASSOCIATION:
8	Steve Rosenbaum
9	FOR THE MILK INNOVATION GROUP:
LO	Charles "Chip" English
11	FOR THE NATIONAL MILK PRODUCERS FEDERATION:
12	Nicole Hancock
13 14	Brad Prowant
15	FOR SELECT MILK PRODUCERS, INC.:
16	Ryan Miltner
17	FOR THE EDGE DAIRY FARMER COOPERATIVE:
18	Dr. Marin Bozic
19	FOR LEPRINO FOODS:
20	Erik G. Nielsen
21	00
22	
23	(Please note: Appearances for all parties are subject to
24	change daily, and may not be reported or listed on
25	subsequent days' transcripts.)
26	000
27	
28	



TRANSCRIPT OF PROCEEDINGS September 05, 2023 NATIONAL FEDERAL MILK MARKETING ORDER PRICING FORMULA HEARING

	NATIONAL PEDEKAL MILK MAKKETING OKDEK PRICING POKMOLA I	IBAKING
1	MASTER INDEX	
2	SESSIONS	
3	TUESDAY, SEPTEMBER 5, 2023	PAGE
4	MORNING SESSION AFTERNOON SESSION	1970 2132
5	AFTERWOON DEBBION	2132
6		
7	000	
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		



1	MASTER INDEX		
2	WITNESSES IN CHRONOLOGICAL ORDER		
3	WITNESSES:	PAGE	
4	Christian Edmiston:		
5	Cross-Examination by Ms. Taylor Redirect Examination by Ms. Hancock	1970 1977	
6	Mike Brown:		
7	Direct Examination by Mr. Rosenbaum	1980	
8	Cross-Examination by Dr. Bozic Cross-Examination by Ms. Hancock	1989 2001	
9	Cross-Examination by Ms. Taylor Cross-Examination by Mr. Wilson	2022 2038	
10	Redirect Examination by Mr. Rosenbaum		
11	Mike Brown:		
12	Direct Examination by Mr. Rosenbaum Cross-Examination by Mr. Miltner	2043 2053	
13	Cross-Examination by Ms. Taylor	2061	
14	Dr. Roger Cryan:		
15	Testimony Read into the Record Cross-Examination by Dr. Bozic	2063 2076	
16	Cross-Examination by Mr. Rosenbaum Cross-Examination by Mr. English	2081 2086	
17	Cross-Examination by Mr. Miltner Cross-Examination by Mr. Rosenbaum		
18	Cross-Examination by Ms. Taylor	2099	
19	Mike Brown:	0104	
20	Direct Examination by Mr. Rosenbaum Cross-Examination by Dr. Cryan	2104 2109	
21	Cross-Examination by Mr. Miltner Cross-Examination by Dr. Cryan	2112 2116	
22	Cross-Examination by Ms. Taylor Redirect Examination by Mr. Rosenbaum	2116 2120	
23			
25			
26			
27			
28			



1	MASTER INDEX	
2	WITNESSES IN CHRONOLOGICAL ORD	DER
3	WITNESSES:	PAGE
4	Emma Reynolds:	
5	Direct Examination by Ms. Hancock	2133
6	Cross-Examination by Mr. Rosenbaum Cross-Examination by Dr. Cryan	2144 2159
7	Cross-Examination by Dr. Bozic Cross-Examination by Dr. Cryan	2161 2166
8	Cross-Examination by Mr. Miltner Cross-Examination by Ms. Taylor	2167 2169
9	Redirect Examination by Ms. Hancock	2175
10	Sue Taylor and Alison Krebs:	
11	Direct Examination by Mr. Nielsen	2178 2198
12	Cross-Examination by Mr. Miltner Cross-Examination by Ms. Hancock Cross-Examination by Dr. Bozic	2198 2202 2209
13	Cross-Examination by Mr. Bozic Cross-Examination by Mr. Taylor Cross-Examination by Mr. Wilson	2212 2223
14	Recross-Examination by Mr. Wilson Recross-Examination by Mr. Rosenbaum	2226
15	000	2231
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		



1		MASTER	INDEX	
2		INDEX OF E	XHIBITS	
3	IN CHRONO	LOGICAL ORDER:		
4	NO.	DESCRIPTION	I.D.	EVD.
5	126	Testimony of Christian Edmiston		1980
6 7	127	Testimony of Mike Brown	1980	2042
8	128	Testimony of Mike Brown	2043	2063
9	129	Testimony of Dr. Roger Cryan	2065	2103
11	130	Testimony of Mike Brown	2104	2122
12 13	131	Testimony of Mike Brown	2123	2131
14	132	Testimony of Emma Reynolds	2134	2177
15 16	133	IDFA-34	2178	2234
17		000		
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
28				



1	TUESDAY, SEPTEMBER 5, 2023 MORNING SESSION	
2	THE COURT: Let's come to order. Welcome back,	
3	everybody. I understand let's go on the record. We	
4	have at least one piece of preliminary business. We have	
5	a new appearance.	
6	MR. NIELSEN: Good morning, your Honor. Erik	
7	Nielsen here on behalf of Leprino Foods Company.	
8	THE COURT: Welcome.	
9	MR. NIELSEN: Thank you.	
10	THE COURT: Anything else preliminary?	
11	Seeing nothing, I guess we have a witness? We	
12	have a questioner?	
13	MS. TAYLOR: Good morning, your Honor.	
14	THE COURT: Good morning.	
15	MS. TAYLOR: I think it's down to AMS if nobody	
16	else has any other questions.	
17	THE COURT: Your witness, Ms. Taylor.	
18	CROSS-EXAMINATION	
19	BY MS. TAYLOR:	
20	Q. Good morning.	
21	A. Good morning.	
22	Q. We all have to refresh our memories of where we	
23	left off on Friday.	
24	A. Indeed.	
25	Q. Okay. Can you tell me just a little bit about the	
26	dairy farmer members of Land O'Lakes?	
27	A. Yeah. So we have over 1200 members, kind of sea	
28	to shining sea, but mainly concentrated in three areas:	



California, the Upper Midwest, and the Northeast. Upper Midwest being South Dakota, Minnesota, Wisconsin; the Northeast being mainly New York and Pennsylvania; the West being mainly California.

- Q. And the size ranges for your farms?
- A. I don't have exact numbers, but, you know, less than 50 cows to thousands of cows, over 5,000.
 - O. Thank you.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

28

On your statement on page 1, towards the bottom, your number one, you talk about -- well, I was wondering if you could expand on your experience when you refer to how more cheese is priced off the 40-pound block cheddar market, if you could just talk a little more about that.

- A. Yeah. I mean, I mainly lean on the testimony of others prior to -- to mine. But generally, in my experience, you know, a good portion of cheese is priced off of -- a majority of cheese is priced off of blocks as opposed to barrels. You know, as others have stated, barrels basically price barrels; they don't tend to price much of anything besides barrels. And in the scope of all cheese that is made out of Class III milk, you know, barrel cheddar is the minority.
- Q. Okay. And for Land O'Lakes you produce blocks; is that correct?
 - A. And barrels.
 - Q. And barrels.
- And do you do intercompany transfer -- or sales of blocks?



- A. Intercompany or sales?
- Q. Intercompany.
- A. Yes.

2.

2.1

Q. Okay. I'm just trying to get an -- peruse a little bit about, you know, there's some discussion, of course, barrels would reduce the survey volume. And National Milk and your members contend that everything's priced off of blocks. And so then the question is, well, if we drop barrels, yes, we will only have a smaller percentage of blocks surveyed, so does the survey really capture a lot more of the market because perhaps there's intercompany sales and, you know, those things aren't reported through the NDPSR.

So I was wondering if you could talk a little bit about that, and maybe that's part of the reason. I'm trying to explore if that's part of the reason why the survey of blocks is not as robust as one would think given NMPF's testimony that most cheese is priced off of blocks.

- A. Yeah. So I think a good portion of blocks are ageable. And the exclusion of aged, you know, cheese specifically for aging programs, I think deducts from the percentage of blocks that reach NDPSR. Intercompany transfer, at least for us, is relatively small, is a small portion of our production. I would cite -- I would show -- I would -- I would expect that ageable is a bigger category to deduct.
 - Q. Okay. Thank you.

 Your second point talks about how barrel cheese



plants struggle to maintain profitability when the blocks exceed barrels, and that makes intuitive sense, of course. But how will adoption of NMPF's proposal impact these barrels makers when, if your proposal was adopted, then their Class III price wouldn't reflect barrel prices at all?

A. Yep. And it would -- and it would raise milk price, I think is the point you are getting towards.

I think, you know, the current state, is -- is untenable for barrel manufacturing. I think you heard that from Paul Bauer as well. And so I think, you know, there's need to do something different. And I think that -- you know, Paul kind of mentioned as well. I thought he put it really well, actually, when he said that the industry -- under the current structure, the industry's kind of stuck on they've got a barrel market, they are pricing barrels off of that barrel market. And it's a situation that, you know, as I mentioned in my testimony, it doesn't -- doesn't do well for barrel manufacturers. So it's an attempt to -- to do something different.

- Q. I understand the different part. But what will it mean for barrel makers if their price -- if they pool their milk, and they don't have to pool, but it doesn't reflect at all the barrel market?
- A. Yep. So today, if mozzarella is priced off of blocks, mozzarella is a lot different than block cheddar cheese, then barrel cheese is different than block cheddar



2.

2.0

2.1

cheese.

2.

2.1

When Mr. Rosenbaum asked about this very topic, what I stated was, if -- you know, my answer was, if barrels continue to be priced off of barrels. So, you know, I think that individual companies would have to make individual decisions around how they react to something like this, but it would be -- the goal would be to unstick the market, if -- you know, to kind of co-op Mr. Bauer's words -- from relying on barrels -- relying on barrels solely to price barrels.

Q. Okay. On the second page you talk about increased volatility beginning in 2017 and before that it was relatively stable.

If you could expand for the record what you think is the cause of that increased volatility since that time.

A. Yeah. I don't think there is a single driving factor. I have had plenty of conversations in industry with folks on -- on all sides of this conversation. I don't think anybody has the aha moment of, oh, that's what's driving it. So I -- you know, I -- I think there is -- there's a multitude of drivers. One -- you know, one that has been explored in other testimony is the -- you know, the whey byproducts and what kind of contributions those provide. I think that's -- I think that's -- that's one obvious driver.

I think, you know, there was some expansion in -- in barrel capacity in the 2016, 2017 range, that probably provided some of it as well, but I don't know that



anybody's got the full answer.

2.

2.1

Q. Okay. And on the second page you state in one of your points that the CME cash barrel market would not be impacted.

I was wondering if you could expand on why you think that, and would you expect the barrel market on the CME to be of any value?

- A. So what I meant by that statement was that the CME barrel market would likely continue to trade afterwards. If interest in that barrel market were to change, that's -- you know, I don't know that I can necessarily predict that. But the market structure is really what I was speaking to. The CME barrel market structure would persist.
- Q. So Land O'Lakes produces both blocks and barrels.

 Can you share with us any measures that the co-op has had to take to make sure you can remain financially viable because of the spread?
- A. Yes. So actually our production fairly closely mirrors the spread in NDPSR. So we produce about as many blocks as barrels. And the other consideration for us, is our barrel plant generally makes hard Italian, so it's a different -- it's a different product with its own -- its own pricing considerations. So it's not a huge -- it has not been a huge impact to us.

However, we're also -- we also produce a couple hundred -- over 200 million pounds of processed cheese a year. We buy a lot of barrels. And so we've certainly



interacted with barrel manufacturers quite a bit over the -- you know, over my time at Land O'Lakes. And that's I would say really where we see the -- that disconnect driving on profitability among barrel manufacturers.

Q. There was some talk -- and now I can't remember who said it last week because it's been so long ago -- and about how different cooperatives, at least, are doing more intercompany balancing of their milk supplies, and so relying less on I guess just trying to do the balance internally and manage that, process and manage your supply.

And I just wondered if you could talk a little bit about how Land O'Lakes has attempted to do that, because there's -- you know, there -- the discussion -- it kind of goes to the discussion of selling milk in the market of last resort and putting it in, you know, the product of last resort. And I just kind of wanted to hear your thoughts on what you all have done to try to manage that.

A. Yeah, absolutely. So we don't have the luxury that some others have of an extensive plant network that -- for milk receiving plants, specifically, that allow us a lot of flexibility or a lot of ability to move milk -- balance milk the way you mentioned.

So our four milk receiving plants are Tulare,
California; Melrose, Minnesota; Kiel, Wisconsin; and
Carlisle, Pennsylvania. It's a long way from Tulare to
Melrose; it's a decent distance from Melrose to Kiel; and
it's a long way from Kiel to Carlisle.



2.

2.0

2.1

So, you know, while we can balance some milk internally between Melrose and Kiel, that's the only real lever we have internally. But we lean on -- we lean on our third-party milk sale partners quite a bit in terms of balancing milk.

And that's really based, again, on geography. So I mentioned where our milk is. We have milk sales obviously in those same areas. And our milk sale partners are customers, you know, that could be -- you know, they could make all different kinds of cheese, end up being the kind of destination for milk that doesn't have another home at times. So that could be into, you know, barrels or blocks or mozzarella or other products.

From a -- from a Class III perspective, you know, I would consider barrels only shouldering a portion of the market-clearing responsibility while, you know, blocks would shoulder some of that, and mozzarella would shoulder some of that, among other -- among other products.

The only -- the last thing I'll add to that is, you know, our two coastal plants, if you want to call them that, Tulare, California, and Carlisle, Pennsylvania, are both Class IV plants. And, you know, we see Class IV playing a bigger role for market balancing than Class III.

- O. I think that's all we have.
 - MS. TAYLOR: Thank you.
- 26 THE COURT: Redirect, I guess.
- 27 REDIRECT EXAMINATION
- 28 BY MS. HANCOCK:



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

22

23

24

- Q. Good morning, Mr. Edmiston.
- Α. Good morning.

1

2.

3

4

5

6

7

8

9

10

11

12

13

15

16

17

18

19

2.0

2.1

24

25

26

27

28

Just a brief follow-up from last week. You received some questions from Mr. Rosenbaum as to the whether the USDA has authority to collect data.

Do you recall that?

- Α. I do.
- And he proffered to you that he believed that it Ο. was unlawful for the USDA to collect that data.

Is that what you understood he was suggesting?

- Α. Yes.
- Let's say, for example, it was unlawful or they didn't have authority -- the USDA did not have authority 14 to do a mandatory collection.

Is there anything that you're aware of that would stop USDA from voluntarily collecting any data?

- Α. Not that I'm away of.
- And, in fact, are you aware of any examples in 0. which data is voluntarily collected?
 - Α. Absolutely.
 - And what would those be? Q.
- 22 Α. Dairy Market News would be the best example I 23 have.
 - Okay. And -- and if for some reason that Ο. provision that you had suggested in your testimony to collect the data was not permitted, does your -- does National Milk's proposal rise and fall on whether USDA has the ability to collect that data?



A. No. And the intent of the statement was to say that primary price -- or that price discovery would be relatively unimpacted.

My view of the market is that the CME barrel market is primary price discovery for barrels.

Q. Okay. And I think you were just talking with Ms. Taylor about market-clearing, and you said at the tail end there that -- that you thought that Class IV was market-clearing, or the place for market-clearing products.

Can you expand on that?

- A. Yeah. I mean, I think it's in reference to the idea of balancing plants, which, you know, there are -- I think there are fewer and fewer of over time. But I think -- my view of the market is that Class IV plays a bigger role in the clearing of milk that doesn't otherwise have a home than Class III. We certainly see that with our two milk receiving plants, as I mentioned in California and Pennsylvania.
- Q. And do you -- do you define barrels as a market-clearing product?
- A. I think they shoulder part of the responsibility, but certainly not all, even within Class III. But the then as you add Class IV, obviously, even a smaller portion of the total responsibility for balancing milk.
 - Q. Okay. Thank you.

MS. HANCOCK: That's all I have, your Honor.

THE COURT: Anything else?



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

1	You may step down, Mr. Edmiston. Thank you.
2	MR. ROSENBAUM: Your Honor, Steve Rosenbaum for
3	the International Dairy Foods Association. We will recall
4	Mike Brown to the stand to address the block-barrel issue.
5	MS. HANCOCK: And, your Honor, while he's making
6	his way up here, we'd just move to admit Exhibit 126.
7	THE COURT: Yes. Any objections?
8	Exhibit 126 is admitted into the record.
9	(Thereafter, Exhibit Number 126 was received
10	into evidence.)
11	THE COURT: Mr. Brown, welcome back. I guess I'll
12	swear you in again. Raise your right hand.
13	MIKE BROWN,
14	Being first duly sworn, was examined and
15	testified as follows:
16	DIRECT EXAMINATION
17	BY MR. ROSENBAUM:
18	Q. Good morning, Mr. Brown. I have put before you a
19	document marked IDFA Exhibit 30.
20	MR. ROSENBAUM: Your Honor, I would ask that this
21	document be marked with the next Hearing Exhibit Number.
22	THE COURT: Yes. The next exhibit number I have
23	is 127. So marked.
24	(Thereafter, Exhibit Number 127 was marked
25	for identification.)
26	BY MR. ROSENBAUM:
27	Q. Mr. Brown, does this document represent your
28	testimony regarding Proposal 3, the proposed elimination



of the cheddar cheese 500-pound barrel price series?

A. Yes, it does.

2.

2.1

- Q. All right. Could you please read your testimony? It's relatively short, so if you could please read your testimony into the record.
- A. Okay. Unless people need to hear it, I'm going to skip who IDFA is. We've covered that before. And I'm going to go directly to the core of the arguments.

Bottom of page 1. Since January 2000, Federal Milk Marketing Orders have utilized the price of finished products to determine the minimum milk prices that must be paid to farmers through a mechanism commonly referred to as product price formulas.

Oversimplifying slightly, a product price formula sets a minimum price that farmers must be paid for their milk, at least by proprietary handlers, as the price handlers receive for the finished products, cheddar cheese, dry whey, butter, and nonfat dry milk, minus the cost handlers incur in turning farm milk into those finished products, commonly referred to as cost of manufacture or Make Allowance.

In performing this calculation, USDA must make assumptions as to how much of the finished product can be made from a given quantity of milk, the yield factors.

Accordingly, step one in the formulas by which USDA sets the minimum price for milk used to make Class III and IV products starts with a survey of the price paid for specified manufactured dairy products.



Proposal 3 would change that step in the process by eliminating one of the products whose price is included in the price surveys.

For the reasons I shall now explain, Proposal 3 should be objected.

Class III products consist principally of cream cheese and other spreadable cheeses, hard cheeses of types that may be shredded, grated, or crumbled, under the CFR. In order to set the protein price component of the price of milk used to make Class III products, the orders, since 2000, have in step one relied upon the weighted average of the U.S average price for 40-pound block cheddar cheese and the U.S. average price for 500-pound barrel cheddar cheese at 38% moisture. 7 CFR 1000.50(n)(1) is where that comes from.

These prices are obtained through a survey of:

(i) the National Dairy Product Sales Report of prices
based for 40-pound block cheddar cheese; and (ii) the

NDPSR prices paid for 500-pound barrel cheddar cheese
adjusted to 38% moisture.

To be included in these sales reports, cheese must meet various criteria, including age (no less than four days or more than 30 days from date of sale); color (within the specified color range for 40-pound blocks; white for 500-pound barrels); and moisture content (no more than 37.7% moisture for 500-pound barrels, according to CFR.

Proposal 3 would eliminate the cheddar cheese



2.

2.1

500-pound barrel price series from the protein price formula used to price milk used to make cheese; thus, the price survey would be limited 40-pound blocks.

Whether 500-pound barrel cheese should be included in the surveys is a question USDA has previously addressed, and on two separate occasions resolved in favor of inclusion. IDFA believes that the USDA's reasoning in reaching that conclusion was sound and continues to be valid today.

When USDA, in 1999 and 2000, was for the first time in the process of adopting product price formulas to set minimum milk prices, NMPF argued, as it does now, that the survey should be limited to 40-pound blocks. "NMPF urged that the barrel price not be included because barrels don't have uniform composition and because the use of such prices would have the effect of unnecessarily reducing prices to producers." USDA, Milk in the New England and Other Marketing Areas; Decisions on Proposed Amendments is where this came from.

Other industry participants disagreed and USDA rejected NMPF's position, concluding that including both block and barrel cheese in the price computation increases the sample size by about 150%, giving better representation of the cheese market from the same document known above.

An identical proposal to eliminate 500-pound barrels was subsequently advanced in connection with the hearings that led to the 2008 revision to Federal Milk



2.

2.0

2.1

Marketing Orders. Milk in the Northeast and Other
Marketing Areas; Tentative Partial Final Decision on
Proposed Amendments and Opportunity to File Written
Exceptions to Tentative Marketing Agreements and Orders,
as listed.

USDA, again, rejected that proposal, concluding:

"This decision finds that retaining the cheese barrel price in the protein price formula is necessary to ensure that the protein price is representative of the national cheese market. The Class III product price formula needs to be as reasonably representative of the market for cheese that determines the value of milk.

"Record evidence reveals that barrel production in the NASS survey is often in excess of 50% of the total cheese volume surveyed. Eliminating the barrel price from the protein price formula would significantly and needlessly reduce the volume of cheese used in the Class III product price formula, which could lead to protein prices that are not as representative of the national cheese market. Accordingly, Proposal 13 to eliminate 500-pound barrels is not adopted."

The reasons behind USDA's decision to include 500-pound barrels in their product surveys are equally valid today. First and foremost, volumes from both forms of cheddar cheese remain very robust. In 2022, reported NDPSR 40-pound cheddar block sales totaled 643 million pounds, and 500-pound barrel sales were 701,415,050 pounds. This data was pulled from the Datamart, USDA's



2.

2.0

2.1

database, from weekly final block and barrel cheese prices.

Thus, both forms play a substantial role in setting the market value of cheddar cheese, which is the goal of step one of the process of setting minimum milk prices for -- used for Class III purposes. Eliminating 500-pound barrels would reduce by more than half the market pricing information upon which USDA currently and appropriately relies.

In the words of USDA in 2008, "Eliminating the barrel price from the protein price formula would significantly and needlessly reduce the volume of cheese used in the Class II product price formula, which can lead to protein prices that are not as representative of the national cheese market."

Both 40-pound blocks and 500-pound barrels are traded at the Chicago Mercantile Exchange. It would make no sense for a product such as a commodity cheese marketplace to be so traded on the CME cash exchange and, yet, not taken into account when the Federal Order system assesses the market value of cheddar cheese for purposes of setting minimum milk prices.

Nor does IDFA or the many members they have discussed this issue with see any indication that the CME would cease trading 500-pound barrels simply because they were no longer included in the milk pricing formulas.

40-pound blocks and 500-pound barrels are undoubtedly commodity products with different functions,



2.

2.1

and the failure to include both in the pricing formulas would provide a distorted view of the commodity cheddar market.

40-pound blocks are typically sliced, diced, shredded, or cut into smaller blocks and sold in its current form, while 500-pound barrels are typically further processed to make processed cheese and other cheese flavored products.

Critically, because 500-pound cheddar barrels are further processed through melting, they can be stored at 28, 29 degrees for up to 180 days for six months. Kroger has had success with this method on 40-pound organic cheddar blocks, but I do not believe the block aging is a wide industry practice of all temperatures.

This storage method has been an active part of block inventory management for about a decade -- excuse me, that should say barrel inventory management -- and has been widely adopted by both manufacturers and buyers of barrel cheddar. This process certainly allows 500-pound barrels to successfully balance seasonal inventories and provide a good market outlet for milk going into barrel cheese.

This tool to balance cheese market and demand further supported by the fact that facilities that can process 500-pound barrels tend to have more available capacity than 40-pound cheddar block manufacturers and, thereby, more readily serve the necessary outlets for milk. These market functions can only be captured by



2.

2.1

including 500-pound barrels in the formulas.

The CME itself has noted the differences between the usage of block and barrels and how the marketplace for one does not capture the market conditions affecting the other.

"Although blocks and barrels are both cheddar cheese products, their end uses are diverse. Typically, manufacturers use block cheddar cheese for chunks, loaves, shreds, and snack-size natural cheeses, while barrels are often consumed in the processed cheese category. The different channels can create unique and often dissimilar demand for cycles and trends as well as seasonal varieties." Quoted from CME Block Cheese Futures - a New Hedging Tool, which is available online.

The assertion that all cheese other than cheddar barrels are sold based on block prices is simply not the case. Even the witnesses for NMPF are not consistent with their estimates, ranging from 75 to 90%.

From my personal experience, there is a growing piece of the cheese market that is not priced on either blocks or barrels markets. More and more small cheese manufacturers are turning to the NDPSR price as their base for its simplicity in hedging. Others are using the Class III price for cheese value base because it eliminates whey price volatility in the Class III price for plants with limited opportunities for return on their liquid whey.

Some exporters are using the barrel price for



2.

2.0

2.1

setting export values in very competitive markets where the block price simply isn't competitive. Using the barrel price for these products moves the milk solids overseas and away from the CME in either block or barrel form.

Against this backdrop, eliminating 500-pound barrels will reduce the efficiency of the milk order -- efficacy of the milk pricing formulas. IDFA does not take the position because it results in any particular advantage to processors. Whether the 40-pound block price is higher or lower than the 500-pound barrel price varies from year to year, particularly when one adds \$0.03 to the barrel price as provided in the milk order formulas.

The following chart shows the cheese price when all cheese, i.e., 40-pound blocks and 500-pound barrels, are included versus only 40-pound blocks are used. And the chart below compares NDPSR monthly block price with a weighted average cheese price, which is where the cheese for Federal Order pricing.

If you go through the years: 2009, we had blocks for \$0.01 behind the weighted average; 2010, there a were a penny; 2011, they were \$0.02; 2012, they were a penny; '13, '14, '15, they were a penny; '16, they were \$0.02 below; '17 was plus 2; '18, plus 4; '19, plus 2; '20, the year of the Food Box Program and COVID, plus 12; 2021, plus 6; and 2022, back to minus .1.

As shown, in most years since 2009, only 40-pound blocks would reduce the survey cheese price and,



2.

2.1

therefore, reduce minimum milk prices to farmers. While
that relationship shifted for a few years in 2017 to 2021,
it shifted back in 2022. In any event, these shifts
reflect actual market conditions, and that is what product
pricing formulas are designed to do.
NMPF Proposal 3 should be rejected for the same

NMPF Proposal 3 should be rejected for the same reasons it was rejected by USDA in 2000 and 2008. The barrel market is an important part of the supply demand balance of the commodity cheddar sector of the cheese industry and needs to remain part of the NDPSR monthly price.

Q. Mr. Brown, as you were giving your testimony you made one correction, and I want to just make sure that everyone marks that on their copy of the Hearing Exhibit.

If we go to page 5, and go -- from the bottom, go up to the fourth line. It says -- the first words of that sentence -- of that line are, "an active part of block inventory management."

And did you say the word "block" instead should be "barrel"?

- A. Yes, that is correct. It should be barrel.
- 0. Okay.

MR. ROSENBAUM: Your Honor, I tender the witness for cross-examination.

THE COURT: Cross aside from AMS? No one?

CROSS-EXAMINATION

28 ///

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

2.4

25

26



BY DR. BOZIC:

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

28

- Q. Good morning, Mike.
- A. Good morning.
- Q. Not a high demand for cross this morning.
- A. Pardon?
- Q. Not a high demand for cross-examination this morning.
 - A. I figured this was coming.
- Q. Can you -- if -- let's say that the Proposal 3 is adopted and barrels are no longer priced in Class III. In your professional opinion, would that change how barrels are priced? Would they be priced off blocks?
- A. I don't think so. The reason is very simple. It is very much a commodity market. Pricing historically has been based on CM- --

(Court Reporter clarification.)

THE WITNESS: Barrels are generally priced off the CME barrel market. That market would not go away with the adoption of this proposal.

My experience as a commodity buyer of cheese at Kroger and selling cheese at Glanbia is that the most important thing with commodity often is point of reference. And so if there's a barrel cheese CME market, other processors -- or other buyers are going to look at that as the benchmark price for that product, and they will not want to move from that, their concern being if I do go to blocks and that barrel still exists, my competitors are using that barrel market, we won't have



alignment in price. And certainly processed cheese is a commodity just like barrels are and blocks are.

Q. Thank you.

2.

2.1

If -- if -- continuing with this thought experiment. If Proposal 3 is adopted and barrels are no longer part of the NDPSR, would you expect there to be a consensus within the industry between processors, cooperatives, and others, to request from CME to remove the spot market for barrels?

- A. No, I don't. I think there will be requests. I don't think it will be consensus.
- Q. And in your knowledge of the history of CME, has CME ever enacted a change without there being a consensus in the industry?
- A. It needs to be a very strong agreement. I won't say it's got to be 100%, but it's got to be very high before they are going to make a change, just because they service -- they want to keep their customer base as broad as it can be, and if they have customers that feel that market is important, they are going to be reluctant to remove it, whether it's -- it doesn't matter what the product is, but certainly that would be true with barrels.
- Q. So let's change to a different thought experiment. If I'm a manager of a cooperative and I make both blocks and barrels, and barrels are no longer part of NDPSR, but they are still priced off -- they still have their own price discovery, could you explain if there is -- how adoption of Proposal 3 could, or maybe could not, increase



my revenue as a cooperative?

2.

2.0

2.1

A. Well, the challenge you have is there's about 130 billion pounds of milk in this country used a year to make cheese. That's assuming 11% yield on all cheese production, which I think is generous.

On Federal Orders last year, 81.8 billion pounds were pooled, which is about 63%. As long as you have unregulated plants who have their own independent milk pricing systems, for the most part, they are going to do what they need to do to move cheese. And so, they will use -- if they can sell off of blocks -- I mean, everybody is opportunistic. They would love to be able to do that. The reality is they need to move product. They will price it as it needs to be priced. And some of those plants, transportation-wise, we're at a bit of a disadvantage, which also tends to lead to some discounts in price.

- Q. So, in other words -- and please correct me if this is not a fair restatement of your words -- there is really no clear and plausible causal mechanism that would make revenue from selling barrels be higher if barrels are not in NDPSR; is that a fair statement?
- A. That is -- that is -- in my opinion, that is very much the truth because of the traditional mechanism used in just a competitive market.
- Q. So therefore, if -- if my revenue -- again, as a manager for a cooperative -- my revenue for selling blocks is still based on blocks, on -- on block in NDPSR or CME, etcetera, and my revenue on barrels is still based on



primary discovery for barrels, would my revenue actually go up or not if Proposal 3 is adopted?

- A. It -- it may or may not. In my view, barrels would be priced the way they are, so it's opportunistic markets adjust. And I mean, more supply in your pricing mechanism.
- Q. So it will be driven -- so whether my revenue goes up or not will be driven by market supply and demand shocks, not by regulatory changes?
- A. That's always the case with dairy from my experience.
 - Q. Right. Right.

So in your understanding of the industry, the block-barrel spread that started going -- you know, being less stable in 2017, to what extent could we ascribe that to the increase in barrel-producing capacity or -- in 2016, 2017?

A. Certainly plays a role. The other thing that plays a role is -- is, frankly, export market. And if you have an export market for a certain product, I mentioned in my testimony, that those export prices, they don't follow up a lot. They can, but generally if you are going to export, you need to come up with a longer term price. You also need to be able to move product in the spot. Because even though we all think of exports in three- to six-month contracts, there's a fair amount of that that remains the spot market.





2.

2.1

- Q. Would it be fair to restate your statement as the overseas demand for our cheese export is more price elastic than domestic demand?
- A. I -- I'm not thinking of an economist. I think it's very -- well, you just have so many more players. So it definitely -- it definitely moves around because you have more places to go for supply, generally and depends on world production, but --
- Q. In other words, whether we remove barrels from the survey or not, that's not going to make our mozz exports any more guaranteed.
 - A. No. That's correct.
- Q. And therefore, there might be periods when we are less or more competitive than our overseas competitors?
 - A. Yes.
- Q. So if we remove barrels and -- from the NDPSR, and our cheese exports are not less stable, how would -- what would be -- would there be any change in how a rational exporter would manage their revenue in periods when they are not competitive overseas with mozz exports?
 - A. It's going to depend on a couple things. First of



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

all, the competitive market which they are buying milk, which in the -- in a lot of unregulated markets tends to be -- well, obviously, they're a commodity, but also tends to be a good mix of block and barrel cheddar, so there's a good mix. That's one.

I think the other thing is, they are going to -as long as they have milk supply and they have flexibility
in how they price, because they do, they will flex to -to basically keep their margins as consistent as they can.
And they will move -- they will move their pricing
regardless of what happens to Federal Orders. Which
leaves your barrel producers in Federal Orders, they could
be at a significant competitive disadvantage, and there's
a lot of those.

- Q. So and that flex between mozz and alternative products has been traditionally between mozz and barrels; is that correct?
- A. From my understanding, yes. I mean, export markets are relatively new. There's been some that have been in it for a long, long time. And so I think there's still learning going on. But, generally, I would say that is the case.
- Q. Would removing barrels from NDPSR change what a rational owner of such a plant would do? Would they be more likely to flex from exporting mozz to producing blocks?
- A. They could. It depends, again, what there's an immediate market for, what they feel that they can sell



2.

2.1

the easiest. I think it is -- and I'll be honest, the whey being white, that isn't worth as much as you all think it is.

- So -- but if they do flex from -- not to barrels Ο. but to blocks, would that not then make the block price more volatile than it is today?
- Oh, absolutely. I mean, any time you have excess product on the market, it's going to -- it's going to affect that price, and it doesn't matter what you -- if you've got ten loads of blocks to sell or ten loads of barrels to sell, once already at not a particularly strong demand market, but your normal market, of course it's going to affect price.
- And at least for those producers that are not hedged, and we know that most of them are not hedged, how would more volatile block cheese -- if barrels are removed from NDPSR -- how would that impact their pay price?
- Well, it becomes 100% the price for protein. And so it could -- it could have a very large significant impact. Again, if that's, if processors went to balance markets, and they will have some incentive to do that. Some of them -- obviously it would involve investment. And there's other ways to sell cheese, too, including, particularly 640s, they are often at auctions because there isn't a CME market for 640s.
 - Q. Okay.
- There's still a step in that demand for cheese and that will put pressure on the CME price.



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

22

23

24

25

26

27

28

Α.

Q. Thank you.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

22

23

24

25

26

27

28

Having explored the export pathway, I want to return briefly to the capacity increases. And if I am summarizing your statement correctly, you said that increase in barrel capacity in 2016, 2018, played part of the role in more volatile spread.

To your knowledge, are there any significant expansion projects right now in the barrel making capacity?

- A. No. None that I'm aware of.
- Q. Are there any significant projects -- cheese plant expansions right now in the block capacity?
 - A. Oh, several. You look at Texas, Kansas, South Dakota year-round, right now currently being built, 10 and 12 million pounds of milk a day, and that will grow with time. Those are the big ones I can think of off the top of my head.
 - Q. When do you anticipate that a majority of the projects that are currently under construction would be commissioned, the milk would start flowing?
 - A. One already is. I would say all of them within two years, maybe within a year and a half.
 - O. Within a year and a half.
- So what could be the short-term impact on block-barrel spread with the addition of all that new block capacity?
- A. Boy, do I have experience with that. Yes, it will affect -- it will affect barrels, too. And the



reason is this: When you first start a plant, your cheese isn't perfect, although, some recent startups came awfully close, have gotten pretty good at it. As a result, you have more off-grade cheese.

One thing you have to remember when you make processed cheese, it isn't all barrels. When you are running a cut-and-wrap plant, 10 to 15% of your trim, which is basically to make the squares for blocks or slices or whatever it maybe, ends up we call it in the cooker. It ends up being sold to someone for processed cheese. That price is a barrel base price, even though they bought the cheese on block.

And that market will depend on the availability and demand. If you have a new plant that's having trouble with some off-grade cheese, they will sell to that processing manufacturer, generally at barrel base price or worse, and that will put pressure on that market. But, again, it's simply supply and demand. You have added capacity to the business.

And we don't -- at this point, I don't see a lot of restriction in -- any interest in restricting the growth of those plants. We across the country have been dumping milk because there wasn't enough capacity.

- Q. Would it be fair to say that the block-barrel market could get inverted in 2025 as a result of new block capacity?
- A. It has before when we've had expansions, yes, it could.



2.

2.1

- Q. And if that does happen, would dairy farmers, at least in 2025, be better off if the Proposal 3 is rejected or adopted?
- A. They would be worse off that year. And I guess the whole point, there's two demand markets. They are different products. They both can play roles in balancing. They both can be stored successfully. And so it really depends on, A, where the capacity is and where the milk is or being made. You are not going to have plants say, oh, barrels are stronger, I'm going to put in a barrel line this year. It doesn't happen. But we do have plants already with that flexibility to move back and forth. They are fairly large.
- Q. Would it be fair to say that there's more flexibility in the industry today than -- than there was in 2017 when the spread first started becoming volatile?
 - A. Yes, because -- there's been several plants that have expanded, so they could do both block or barrel depending on the market conditions.
- Q. And if there's more flexibility today, what would be the impact on how long lived the shocks of the block-barrel spread are going forward versus last few years?
- A. Oh, we're already planning -- you can see it already. You can see where capacity is going. I mean, the industry will respond to that -- to that mix. And I don't necessarily see barrel plants closing, but I certainly -- I certainly see block plants expanding



2.

2.1

because, you know, that is the market they are chasing.

After the last few years it made sense. Think about '16,
'17, before that, as far as revenue, it was kind of
neutral, so it didn't make so much difference. Now, of
course, it does.

- Q. So would it be fair to conclude then that the volatility of the block-barrel spread will be addressed through the free market developments in some cases?
- A. Absolutely. Particularly if you consider that, you know, basically 15 billion pounds of milk a year are going to cheese plants that's not regulated in price.
- Q. And then the last point, I think, for your -- your answers, previous testimonies from other persons indicated that some block cheese is excluded for a variety of reasons. Could you speak to what percent in your professional opinion of barrel cheese is excluded from NDPSR and for what reasons?
- A. I can't -- I can tell you the why, exact if it's science, I can't tell you. It's obviously less. Probably as a percentage of barrel production, two to three times more on the total production.

The main thing I see in barrels, if it's a flavored barrel, for example, if you make processed Swiss cheese, you are buying a barrel with cheese culture in it, and so it's going to be -- it's going to be priced -- I mean, it's going to be priced -- not viewed by USDA as a standard cheddar barrel, which it shouldn't be, although the process is the same.



2.

2.1

Other than age, when you are making processed
cheese, the functionality of barrels changes with age. I
gave the example of they are strong after six months now,
and that's fairly common practice. Part of part of the
strategy behind that is that if you keep it for six months
at that very low temperature, it will go to kind of a
medium, as far as flavor profile, and it is perfectly
neutral in processed cheese.

Because when you are making processed cheese, you want a mix. I mean, I have heard more than once at Kroger, the processed cheese plant, which is in Rochester, Minnesota, saying, we are getting too much of this kind, we need more of that, to get our proper mix.

And so to get the right functionality, flavor profile, binding, you want both very fresh cheese and some older cheese. In my experience selling barrel cheese, there was a remarkable amount, from my personal experience, that was sold less than four days old. It was basically put into a barrel and shipped to a processing plant. So it wasn't recorded.

DR. BOZIC: Those are all the questions I have. Thank you very much.

THE COURT: Anyone else before we get to AMS? Yes, Ms. Hancock.

CROSS-EXAMINATION

BY MS. HANCOCK:

- Q. Good morning, Mr. Brown.
- A. Good morning.



2.

2.0

2.1

- Q. I want to chat about a couple of the things that you talk about in your testimony in Exhibit 127.
- So help me put this into context. In 2000, where were you employed?
 - A. In 2000, I was employed by National All-Jersey.
 - Q. And in 2008, where were you employed?
- A. Glanbia.

2.

3

4

5

6

7

8

9

10

11

12

13

19

22

- Q. And on page 2 of your testimony, you say, "The orders since 2000 have in step one" -- this is referring to your calculation -- "have in step one relied upon the weighted average of the U.S. average price for 40-pound block cheddar cheese and the U.S. average price for the 500-pound barrel cheese (38% moisture)."
- I'm wondering if you recall what the percentage in
 2000 was of the total surveyed amount representing the
 barrel market?
- 17 A. I don't, year by year. I do not. It tends to run 18 either side of 50.
 - Q. Okay. Was that in the case in 2000?
- 20 A. I believe it was, but I can't say for sure. I'm
 21 not going to vouch for that.
 - 0. Okay.
 - A. Yeah.
- Q. And -- so you don't know how it compares to what the percentages are today?
- A. No. I really only look back as far as 2008 or '9.
- 27 After -- after the last change is where I did my
- 28 | evaluation on.



- Q. And do you know if the block -- the total volume of block cheddar has increased since 2000?
- A. Oh, I think all has. But blocks, yes, certainly have.
 - Q. Okay. Do you think it's doubled?
- A. I think it's possible, but I'm not going to say.

 Again, I don't -- I don't have that in front of me.
 - Q. Fairly close to doubling at least?
 - A. I'm not going to say that. I just don't know.
- 10 Q. Okay.

2.

3

4

5

6

7

8

9

12

13

14

15

16

17

18

19

20

2.1

22

23

24

25

26

27

- 11 A. Yeah.
 - Q. If it had doubled, would removing the barrel sampling size from the total volume sampled cause you as much concern, if the total volume being sampled today for just block would be the same or close to the same volume as being sampled in 2000?
 - A. I think -- not necessarily, and this is why.

 Because both markets reflect supply and demand for commodity product, which is cheddar. And so absolute pounds isn't the whole -- isn't the whole story. When you have more barrels exchanged on the CME, for example, and they have been fairly strong over the last few years, it's simply that there is -- there are more barrels available. That has been what's been elected to meet the market. You can go back to 2021. Barrels were tight. Milk was tight. And that's -- that's one of the things it reflects.
 - So those barrels play a role in reflecting the overall balance as for cheddar. The block market alone



- Q. Okay. And I think you said that they are both necessary for balancing the market. Is that in part of your --
- A. Oh, yeah, it depends on what the capacity -what's available. In fact, it was said earlier, I think
 it was Christian, nonfat dry milk is still, and butter are
 probably the preferred products for balancing the market,
 but cheese does, to some extent, primarily because that's
 what the capacity is available that's what you are going
 to do with it.
- Q. And is it your opinion that barrel and block products are interchangeable?
 - A. No. They are not.
 - Q. Okay. You don't believe that they are interchangeable?
- A. I know they are not, with a couple of exceptions.

 Curds, which are very fresh -- they like 'em squeaky --



13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

- and you will see some barrels that are processed for shred. And, again, for immediate use, although it's a fairly small portion of them, I believe.
 - Q. And for IDFA, do you know what percentage of the cheese manufactured by IDFA is barrel production?
 - A. I do not.
 - O. Is it about 11%?
 - A. I have no idea.
 - Q. Is that in the right range?
- 10 A. I don't know.
- 11 | Q. Okay.

2.

3

4

5

6

7

8

9

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

- 12 A. I know -- I know barrels are roughly a third of 13 production of cheddar. I don't know whether in their own 14 membership, what that percent would be.
 - 0. Okay.
 - A. We have two -- three -- three large barrel processors, and they easily can make barrels -- only barrels, blocks, or barrels and another kind of cheese.
 - Q. Okay. So let's say if it was a third of the production, then that would mean that 66% would be cheddar production or other cheese production, a higher price cheese production?
 - A. Not necessarily higher price, but different cheese production. You got to remember, there's a supply and demand for everything. I mean, if you look at mozzarella the last few years, it's -- there's been a lot of growth, and so those markets become competitive. Having bought a lot of mozzarella in my career at Kroger and watching what



- happened, those market dynamics changed. That's why, for example, you need to really survey a market almost monthly to get a good feel for what the -- what the relative market is for commodities other than cheddar.
 - Q. You cite on page 4 of your testimony an excerpt from the 2008 hearing; is that right?
 - A. Yes.
 - Q. And -- and you cite this for the proposition that USDA had considered removal of barrels and decided not to remove them from the surveyed prices?
- 11 A. That is correct.
- Q. And I want to look at the language -- well, first off, were you involved in that hearing?
 - A. Oh, God, yes. I'm old.
- Q. Okay. It's -- I wasn't trying to suggest that.
- 16 | But --

6

7

8

9

10

- A. No, actually, just for -- for full disclosure, I started out the hearing working for Darigold, ended up working for Glanbia, so --
- 20 Q. Okay.
- 21 A. Didn't change positions but changed -- changed 22 employer.
- 0. Okay. So that's helpful.
- 24 | So -- so you started off by working for Darigold.
- 25 | And that's NDA?
- 26 A. Yes. NDA owns Darigold, that's correct.
- Q. Okay. And NDA was one of the proponents of barrel elimination for that hearing, weren't they?



- A. Yes. But we didn't testify on it.
- Q. Right. And that was going to be my next question.
- 3 | So NDA along with DFA were both supporters of barrel
- 4 elimination, at least in initiating the proposal for that
- 5 | hearing; is that right?
- 6 A. Yeah. Again, a long time ago from what I
- 7 | recollect. Obviously, there was a proposal, so we must
- 8 have, yes.

- 9 Q. Yeah. And then when the hearing was underway,
- 10 | neither DFA nor NDA, which is who you were working for,
- 11 | offered any testimony in support of that barrel
- 12 | elimination?
- 13 A. What I remember, yes, that's correct.
- 14 Q. But there were some people who testified in
- 15 | opposition to removing barrels at that hearing; is that
- 16 | right?
- 17 A. That would be true.
- 18 Q. And then based on the totality of that record, the
- 19 | USDA noted all of those facts, that even though there had
- 20 been proponents of it, they offered no testimony in
- 21 | support?
- 22 A. Yes. They did.
- 23 | O. And you read that in the hearing decision as well,
- 24 | in the paragraph that immediately precedes the one that
- 25 | you quoted?
- 26 A. Yes.
- 27 Q. And then when we get to this quoted paragraph, the
- 28 | USDA actually notes the importance of the protein price



being representative of the whole cheese market; is that
right?

- A. Yes.
- Q. In fact --
- A. Yes.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

- Q. -- they note it multiple times in this one paragraph, don't they?
 - A. Yes.
 - Q. And they don't just note it, but they actually said that it needs to be reasonably representative of the market for cheese; is that right?
 - A. Yes. But what's reasonable?
- Q. Well, they are not saying that it has to be reasonable. They are saying it needs to be reasonably representative.
 - A. Yes. But what does reasonably representative mean what you have two products, when you have two different ways a market can be balanced, and either product can play that role? So I don't think that means percent of cheese. It means what's the -- what's the effect they are having on keeping that overall market balance.
 - Q. And because no one put in any evidence in support of it, they didn't have any data in that hearing to suggest that it was not reasonably representative; is that fair?
 - A. From my recollection, NDA didn't have, I want to say -- we didn't think we had a strong argument.
 - Q. Okay. And even if we look at the chart that you



- 1 have put together on page 7 -- actually, we don't have
- 2 that information on the chart that you have on page 7,
- 3 | right, because it starts in 2009?
 - A. Yes, that's correct.
- 5 | Q. Okay.

- A. It started -- started post -- last time we changed
- 7 | pricing is when I started doing this.
- 8 Q. But you are --
- 9 | A. So --
- 10 Q. You are familiar with the numbers before 2009 as
- 11 | well, aren't you?
- 12 A. Yeah, but I don't have them in front of me. But
- 13 reasonably so, yes.
- 0. Okay. Were you here for Mr. Hanson's testimony?
- 15 A. Yes.
- 16 Q. And I think his written statement was in
- 17 | Exhibit 117.
- 18 Do you recall that?
- 19 A. I do, but I don't remember the table.
- 20 Q. Okay. And his -- his Table 4 had the block and
- 21 barrel spread on the actual numbers of what the spread was
- 22 | for each year.
- 23 Do you recall that?
- 24 A. I do.
- Q. Did you look at his numbers to see if any of those
- 26 | were incorrect?
- A. I did not. But did he include -- did he add \$0.03
- 28 | to the barrels would be my only question off the top of my



head.

1

2.

3

4

5

6

7

8

9

10

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

28

- Q. Okay.
- A. We didn't look at those because these are different -- because this is actually the NDPSR reported price for pricing milk in blocks. It isn't block versus barrels. So the differences will be roughly half.
- Q. Okay. And in 2008, I'll represent to you, his -- his chart reveals that the spread was zero.

Does that sound right?

- A. That's certainly possible, yes.
- 11 Q. Okay. And, in fact, even in 2006, the spread was 12 zero as well.

Does that sound about right?

- A. It could be. I mean, most years until '17 we didn't start seeing particularly large fluctuations.
- Q. And historically, up until 2017, there hadn't been a whole lot of volatility in the difference between cheddar and barrels, had there?
 - A. Best of my knowledge, that is true.
- Q. And do you know what happened in 2017 to initiate the volatility that we have seen since then?
- A. Well, we have had -- certainly we've had some expansion of plants. Exports is becoming a bigger, bigger part of sales, which are volatile. So -- so you had some issues with that. And because the spread had been so small until then, there wasn't -- there was actually still incentive to put in barrel capacity, whether it is a barrel-only plant, which I can't think of any that had --



well, there was one in Wisconsin that did in recent years.

That was before that.

But it was having that flexibility, that capacity to -- to meet a need. In a lot of cases it is just if you are -- if you are a cheese manufacturer, and somebody loves your blocks, and you think you can sell them barrels as well, you may put in the capacity to do that. It's a response -- it was a response to what was viewed as market demand.

- Q. Okay. And when you talked about that flexibility, it's true that there are plants that built in some flexibility into their processing capabilities; is that fair?
- A. That is true.
- Q. And oftentimes that was taking a barrel plant and allowing capacity to produce block cheddar?
 - A. Yeah. It went both directions, actually.
 - Q. Okay. Which way was more common since 2017?
- 19 A. Since '17, barrels to blocks --
- 20 Q. Okay.

3

4

5

6

7

8

9

10

11

12

13

14

17

18

23

24

25

26

27

- 21 A. -- I would say for sure, especially in the last 22 three or four years.
 - Q. And that's in part based on that volatility and response to that volatility?
 - A. It's market signal. Yes, I would believe that would be true. It just makes business sense that they would want to do that.
 - Q. Okay. Are you aware of any plants that went the



other direction?

1

2.

3

4

5

6

7

8

9

10

11

16

17

18

19

2.0

2.1

22

23

24

25

26

27

28

- A. I know one added barrel capacity as part of an expansion, yes. I know another one that added barrel capacity as part of an expansion, too.
 - 0. Okay.
- A. Off the top of my head. I'm just trying to -- in my head. But, yeah, two.
- Q. And then the overwhelming majority is that it went the other direction?
- A. It went to blocks, yes.
- Q. Can we look for a second at your table on page 7?
- 12 A. Yes.
- Q. And I just want to make sure I understand what's in the columns here. Can you walk us through those columns?
 - A. Certainly. First -- first column is the 52-week average block-barrel price, and, again, the resources here, it comes from -- from a -- I mean, it comes from dairy products.
 - Second, is the NDPSR block price, which was a price they reported for blocks only. The block-barrel price includes a \$0.03 adjustment on barrels, so it's the one that was used to determine the protein price.
 - Third column is the blocks versus that weighted average. And so, as you can see, most years it was fairly close to zero for a few years, and it obviously got higher.

And then the last column is the percentage of the



reported product that was blocks.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

26

27

- Q. Okay. So when you have the weighted average in the block -- you have the block versus weighted average in that fourth -- in the fourth column over, what is -- is it that you weighted there?
- A. The weighted average is the NDPSR weighted average price. So it is block minus the price used to determine the Class III protein price.
- Q. Okay. So you just took -- you just took the second -- or the third column and subtracted it from the second?
- A. I took the second -- I took the second column and subtract from -- yeah, third -- I guess you're calling years, yes. The block minus the weighted average, that's correct.
 - Q. I'm picturing the Excel spreadsheet and just counting over.
 - A. I just wish it was this small. Got a lot of stuff in it. This is my doodle spreadsheet.
- Q. Okay. So you took -- you just took the column titled "NDPSR Block Price" and subtracted it from the "NDPSR Weighted Average"?
 - A. That is correct.
- Q. Okay. So not the actual spread between block and barrels, right?
 - A. That is correct.
 - Q. And oftentimes, if you are just looking at the actual spread, it is more significant, especially when you



are looking at the years 2017 to the present?

A. It is. But this is the one that affects pricing and orders and margins. Because you are going to pay on the NDPSR weighted average, which is the most important price.

One thing I'd also like to add, for the years '17 through '21, particularly getting to 2021, we started having significant inflation in cost of manufacture. That spread is an implied -- basically increases your make if you are a block guy. It increases -- decreases if you are a barrel guy and helps some stay in business.

If you look at what's been reported on financials for 2022, they are a lot weaker, and part of that reason why is that that spread went away. It was no longer something that could help balance that. But for the barrel guys, it was probably their best year in five or six years, but not for the block guys.

So it does -- it does matter what that is, but it also depends -- it also goes the other way. I mean, it works both ways. And part of the -- part of the idea and part of what we see -- I think what we're seeing in response when we're seeing increasing block capacity, people see opportunity in that relative to barrels.

Blocks are what you export. We don't export a lot of barrels, if any, that I'm familiar with. And so, again, the market is responding to demand versus capacity.

We have seen the same thing in whey for years. When you go back to 2005 to 2015, everybody put in WPCA



2.

2.1

capacity, so we had too much, and it took years for that to kind of balance back as well.

Capacity is -- as you know, is a two- or three-year process, so it doesn't follow markets directly. I think we're seeing the signals are what they are. But I also think, let's see what happens with blocks when we add all this new capacity, and if that pulls some milk out of barrels, which it may or may not, what that does to that block-barrel spread. Because I think over time, if you look at margins from clients, they need to be relatively consistent; otherwise, one is going to grow and the other one is not. And right now we're seeing that growth in blocks. Particularly -- again, a lot of it is areas that either are unregulated or tend not to be heavily regulated, I guess I would say, kind of a balancing out of the orders.

- Q. And I think I heard you say in there that the inflationary effect on block versus barrels is in part what allowed some of the barrel processors to be able to stay in business when times got tough?
 - A. No. It's actually the other way around.
 - O. The other way around?
- A. Yeah. Block guys did better when times got tough because -- keep in mind, take 2021 -- and pardon my voice -- we have a \$0.06 spread. What that means, basically, the USDA's price they use for cheese, that weighted average price, was \$0.06 below the block price, which means that it priced used to price their product was



2.

2.0

2.1

below that market. But if you go to most years on here, it's the other way around. And so if you were a block guy in 2021 dealing with makes that hadn't been updated since 2008, it look a little pressure off, but it put more pressure on barrel guys. But, again, you go back to what's the market? It isn't blocks, it's both.

- Q. Do you know what percentage of the cheese market is -- is priced off of NDPSR?
- A. Off of NDPSR directly, it is mostly smaller processors that do that. A lot of people use it with risk management. In my experience, I have been able to buy cheese in the past based off the NDPSR price. Generally there's an adjustment. You may pay a premium if people think the spread is going to be wide, but it just makes forward value solution really simple. And that's, by the way, not only true with cheese, it's true with other products as well.
- Q. So it's just a smaller percentage is that, for the smaller processors?
- A. Well, if you look at -- no -- well, yes and no. Direct -- indirectly, yes. I mean, if you look at the volume on the block market, if that block market was used to the extent that people might think it would be, there would be a lot more value in it. There's not. Why? Because they figured out ways to use the NDPSR price to forward sell their cheese or forward buy their milk. And the NDPSR price, of course, goes back to farm price, so it also gives you a natural hedge at the farm side.



2.

2.1

If you -- if you take barrels out of that, it becomes, I would argue, less useful for a fair amount of the market.

Other things -- I'll go a step farther. Even whey, if you are a small plant and you can't process your own whey, some of those price cheese off of Class III because the whey price gets blended into the cheese price so that they don't have to worry about whey price volatility. I bought cheese all of those ways: NDPSR, Class III, blocks, barrels.

Q. And in 2022, your weighted block -- your weighted average versus block has negative .01.

Do you see that?

A. Yes.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

- Q. But throughout the year in 2022, it was a pretty volatile year; is that fair to say?
- A. Remarkably so. Particularly early fall it got pretty tough for the block guys.
- Q. And so that weighted average that you have noted there, it's not reflective of the volatility that actually occurred in calendar year 2022?
- A. It isn't, but that's true in a lot of years. This is not the only time barrels have gone below blocks -- I mean, barrels went above blocks. It's happened before. That's the fallacy of an average is it is a monthly number.
- Q. And then in 2023, did you -- have you calculated the year-to-date weighted average?



A. I have not.

2.

2.1

- Q. It's much larger again?
- A. Yes, I would agree that that's the case. What the number is, I don't want to speculate because I don't have it in front of me.
- Q. And we're nine months in, so we know with some certainty that the spread should be much larger, again, in two thousand -- or at the end of 2023 than what we saw in 2022?
- A. I would say nine months in, your -- it's going -- your weighted average, probably, you're right, that that would be the case. But I'm not going to speculate. I have given up guessing the spreads. I have never been able to forecast them. I've tried forever.
- Q. And if you look forward into the future, can you think of anything that is suggesting that the market will not continue to remain as volatile as we have seen since 2017?
- A. Yes. The expansion of block capacity I think is going to bring those prices back into alignment, just like it did with barrels in the past. I just don't see that continuing, because if you're a barrel plant, you can't operate at the current spread either, and so it moves back and forth, which is the problem with regulated price, that's why it is a minimum.

Some people would say, well, let's just price off of barrels because that is the market. And I would say, no, it's blocks and barrels that are the market.



But you do need to consider both, because barrels play an important role in balancing the market. I would disagree with some of my friends who have spoke before, it does. And we have ways to keep them. And we have ways to use them. And so that's what's happening. Again, that's not -- 20 years ago, I would say no. Today? Absolutely. There's millions of pounds of barrels in storage now.

- Q. And when you say you disagree with some of your friends who've said otherwise, that's because when we look forward into the volatility of the market, we're speculating?
- A. Yeah. I mean, you just don't know, I mean, they -- everybody's got a right to their opinion, but you just -- you simply don't know.
- Q. But it's fair to say that what we have seen from 2017 is somewhat of a demarcation line where the volatility started and we haven't yet seen that settle out?
- A. You can't look at trends. You have to look at capacities. And we are significantly growing block capacity, which I think is going to put pressure on that market again and bring things more back into alignment.
 - O. And --
- A. The other thing you got to remember, 50 billion pounds of milk that goes into cheese plants isn't pooled on the Federal Order. Now, some of that's pooled and depooled, some of the it's never on the pool. And that -- that has a factor, because there are, to a great degree,



2.

2.1

particularly if you are in an unregulated market and you don't ever pool, your pricing doesn't reflect Federal Order pricing, you are going to flex that pricing, which means that the Federal Orders always have to keep that in mind and make sure that plants are within the Federal Orders can remain competitive with that 50 billion pounds of milk that's being -- which makes about 55 billion pounds -- makes about 5.5 billion pounds of cheese, isn't -- is going to impact the market. Because you put people at a competitive disadvantage because those folks do flex between those markets, and their pricing, from my experience, reflects that mix.

If you go -- you are going to put folks, in my mind, whether block or barrel, when that market is the low at a competitive disadvantage because they don't -- they will not have the flex that the folks in the unregulated market has.

The unregulated market has grown significantly. It didn't used to be this large. If you look over time the amount Class III milk's pooled, it's changed some, but nothing like the cheese capacity has changed. We have more and more cheese being produced in plants that either the plants aren't regulated or the market is totally not regulated.

- Q. And when you talk about looking at the capacity, there's more capacity in barrels than there is block.
- A. No, there's more capacity in blocks. You mean -- you mean, on the margin capacity or capacity overall?



2.

2.1

- Q. No. Capacity for production.
- A. Oh, God, nowhere close. Blocks are at least twice as much as barrels.
- Q. Capacity to increase production is greater in barrels right now than it is for blocks?
- A. Yeah. It depends on the time, but I would say right now that -- that has been true. It also depends -- you got to look also at the locality. If you are -- I mean, some markets will have block capacity, some will have barrel, some will have none. We look to the Midwest, we've got milk all summer and spring, not so much summer, a lot of it is lack of capacity. We had plants close last year because they couldn't make money and we could have used them this spring, but they weren't there.

So, again, I get back to that question, we need to make sure those regulated plants get competitive, because particularly a lot of your cheddars for aging, your specialty kind of cheeses, they're all priced off of the market some way or shape or another. They -- they are made in the Midwest or the Northeast, mostly Midwest, and we need to make sure those plants stay competitive because they're an important part of the business.

And those specialty plants play a specifically important role because they tend to be smaller because demand is smaller, and we need to make sure that they can be -- be competitive, because it is a competitive market no matter what you buy. I don't care if I'm buying Colby horns for a deli, which is the long tubes, or whether I'm



2.

2.1

NATIONAL FEDERAL MILK MARKETING ORDER PRICING FORMULA HEARING
buying, you know, what we call short hole, fresh chedda
to put into a block. Those markets are all competitive
and you always have multiple people trying to just get
that market.
Q. Okay.
MS. HANCOCK: Thank you.
THE COURT: Any further questions not AMS?

CROSS-EXAMINATION

BY MS. TAYLOR:

AMS?

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

2.4

25

26

27

28

Q. Well, I'm shocked on this Tuesday morning no one else has questions.

Good morning.

- A. Good morning. Welcome back to Indiana.
- O. Yeah. You too. Great.

On page 2 into 3 of your statement, you talk about the volume of sales of both forms of cheddar cheese, and you state that they remain robust. Maybe I got my pages wrong. That's on page 4. Excuse me. I'm citing the wrong page.

The size of the NDPSR volumes that you cite, what other information can you add to the record about sales or production of both forms of cheddar production?

A. Well, they are both significantly higher than is reported, and that's because there's a lot of cheese that's made outside the USDA requirements for reporting.

More so with blocks than with barrels because I would say blocks are more apt to have a specific purpose. For



example, cheddar for aging is a different product. It tends to be a little lower in moisture, a little higher fat, and so it often doesn't meet the spec, and it also tends to be older, obviously. But if the plant sells it, an older age or not is another question, but obviously keep it for a certain period of time. It's not a fresh commodity cheddar, per se. Cheddar for aging, to me, is no different than a provolone as far as it's a special use product, but there's a lot of that in the market.

To me, as far as the sample is pretty rigorous, and quite honestly, until the NDPSR became in place, I can't remember when AMS took over that survey and it became audited, they became much better. I was working for Glanbia at the time that that happened. And, for example, we were reporting white blocks. Idaho NASS hadn't picked that up. You did. So, of course, we quit reporting them.

So I think it's become a very -- because of the audits, because of the meticulousness of the records, I'm very confident that the right product is being reported.

The other thing is, is just even though it may be a small portion of the market, statistically, if you have a sample size of billions of pounds of cheese, a total of 1.3 billion, that's a pretty amazing sample size. And so I think it does accurately reflect the milk value of that commodity based, like I said, off kind of base cheese.

Q. Okay. Thank you.

On page 5 and that first full paragraph, this is



2.

2.1

your discussion about how the blocks and barrels are traded on the CME. And in your second sentence, and I'll read it because I would like you to expand on that a little bit more: "It would make no sense for a product Central to the commodity cheese marketplace to be so traded on the CME cash exchange and yet not taken into account when the Federal Order system assesses the market value of cheddar cheese for the purposes setting minimum prices."

All right. I was wondering if you could explain on that because my takeaway from that is it's your opinion that Federal Order prices should -- or the survey should only look at those products that are traded on the CME.

- A. No. I think what I'm saying is just the opposite.
- Q. Okay.

2.

2.1

A. And that is, you think hard about having a product on the CME that isn't part of pricing when it's got a significant value like barrel cheddar does, because CME trades commodities. I mean, they're a little bit different specs than USDA, but it's essentially the same. And as a result, it's that commodity market that we -- everybody uses to market and sell products. If you pull away from that and you keep that market there, as sizeable as the barrel market is, I think you can end up with some real disruption between market values and -- and what the regulated minimum value would be, for example, with blocks only.

And the reason I say that, is I feel very strongly



as long as there's a CME barrel market, there's people who are going to use it, because that is the benchmark for barrel cheese, and it is a different market than block. It is not the same product. It's got a different function as USDA spelled out very clearly in some of your past decisions. And so -- but it is a building block for cheese. I mean, I think, in sum, that's why it needs to be considered.

I think you can have some significant problems with disruption, and plus the fact that the size of the unregulated market's gotten so large that it's easier to -- to see -- see dissimilarity in value of milk for cheese in unregulated and regulated markets. Because unregulated markets generally take into account both blocks and barrels, as USDA is now --

- Q. So when you --
- A. -- for reasons they're -- and that works for hedging, too, using both, because that -- that 50/50 gives you a decent tool for hedging cheese, roughly 50/50 that we have now in block-barrel.
- Q. Okay. So just to keep everybody straight on the type of markets we're talking about. When you say unregulated markets, you mean not federally -- a Federal Order market --
- A. Yeah. And they choose either to not be in the order they are located where there's isn't an order, yes.
- Q. Okay. Okay. So it's your contention, then, if the barrel price is removed from the cheese formula but



2.

2.0

2.1

2.4

the CME keeps the barrel market, that will create some unintended consequences?

- A. Yeah. It's going to change the alignment for that commodity value of product. And, again, we know from past history, it doesn't necessarily mean barrels are going to be lower or higher, but it just means that that relationship, in my opinion, is important because they both reflect commodity markets.
 - Q. Okay.

2.

2.0

2.1

- A. We -- we -- unlike powder, we don't have just one commodity market, we have two in cheddar.
- Q. So we have heard testimony last week and this morning about -- and I think from National Milk witnesses talking about, yeah, there would be a transition if we didn't collect and include barrel prices in the -- in the survey for -- and there will be a transition for barrel makers. But what I'm hearing from you is kind of the same, but yet the transition wouldn't eventually sort itself out.

Does that make sense?

A. I think -- I don't think it will. I think it's got to do with total aggregate demand for commodity cheddar, and you can't ignore one or the other. I mean, I guess if you make barrels the last few years, you'd say, yeah, we should price only off of barrels. Well, IDFA doesn't think that's realistic. We think both surveys make sense to provide some balance.

But moving from one to the other, I think with the



amount of unregulated barrels that are made, or blocks as far as that goes, and the -- the existence of the CME barrel cash exchange -- in my experience in the CME, they are very customer-driven. As long as customers want that market, it's going to stay there. And we all know what -- in dairy, if we did something one way in 1958, we are probably doing something similar now if the index still exists, that's just how it works.

O. Very true.

2.

2.0

2.1

So talking about -- kind of on that line, but what is the -- you know, talking about what will happen to barrel manufacturers versus blocks, you know, what's the makeup of IDFA members that produce barrels? Do you know that information?

- A. I don't. But we have, I think three, we have four -- four barrel makers out of the eight or nine big ones that are noted, we have four of them.
- Q. Okay. On the bottom of page 5 you talk about Kroger's ability to manage their barrel inventory.

But Kroger -- does Kroger purchase barrels?

- A. Oh, yes.
 - Q. And then manages that inventory?
- A. We do. But others do it in a much bigger way than we do. Kroger -- I'll give you a little story. How we learned how 28-degree cheese works, what happens when you have a six-month inventory of aged organic cheddar which costs you a small fortunate that hasn't moved as quick as you thought it was going to? So we experimented with



that. That's more than five years ago, I think, now.

And we discovered what the barrel folks -- I found out after we did that, we thought we were so smart, but barrel people knew that a long time. Is it just kind of preserves that cheese, it doesn't -- it slows that change in texture and flavor. So that was our experience.

Because we are a cut-and-wrap, we generally for our mature cheese, we have -- we have aged -- aged trim. We have fresh trim. We have all kinds of trim that we use. But I also know that when we -- if we have an issue with profile, we could find -- we store them ourselves, but we could find four- or six-month-old barrels to give us -- if we thought we were a little short on flavor on our processed cheese, you could buy those.

0. Okay.

2.

2.1

- A. And there's people willing to do that. A lot of that is broker-managed, but I believe a lot of the manufacturers also do it as well.
- Q. Okay. So in this paragraph, the takeaway is barrels can be managed as a way to balance inventory or surplus milk, and that's why they should remain in the survey, because they are a balancing --
 - A. They are.
 - Q. -- product.
- A. They are, in fact, blocks. The trouble with blocks is that, is the thing that keeping that flavor profile.
 - Barrels, you actually have a little more



flexibility because you are going to put them in a cooker we always call them, but you are going to heat process it. And one reason you don't have to do a coliform on a barrel is because you are going to cook it again when you are buying them.

But those barrels need to -- they are going to -they are going to function. Again, you are going to use
all fresh, as I mentioned earlier. At Glanbia we had
customers that wanted barrels that were three days old,
two days old. The customer wanted barrels that were
40 days old, which is one of the reasons why the survey
doesn't cover all those cheeses.

So it's really a mix. It's down to getting the blend that you want. And you discover that you can get that medium cheddar flavor out of a barrel aged six months at 28, 29 degrees.

Q. Okay. On page 7 you make the statement, "Eliminating 500-pound barrels would reduce the efficacy of the milk order pricing formulas."

I wonder if you could expand on that thought.

A. I think it -- you know, as we all know, one of the primary roles of Federal Orders is to keep marketing, in this crazy world we're in, as orderly as you can. We all know there's no perfect solution. But because block market doesn't always reflect the supply and demand balance, it will -- it can overvalue cheese values to what the true market is. So that's why having a combination of the two, in our mind, makes sense, because it's a more



2.

2.0

2.1

- Q. In the chart on page 7 you listed a monthly -- excuse me -- the yearly spreads, average spreads.
 - A. That is correct.

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

22

23

24

25

26

27

28

can -- you include the entire market.

Q. But the testimony we have heard from previous witnesses seemed to focus more on the monthly spreads and the volatility and impact from that, which obviously can't be seen in the yearly averages.

So I was wondering if you could speak to that problem that National Milk witnesses have discussed.

A. Well, anytime you look at monthly versus year, certainly an average always takes out some of that. If you put standard deviations in, I guess it would give you some explanation. But if they do it month to month can make a big difference either way. It's like the fall of last year when barrels got so strong and a lot of block guys got hung by their thumbs because of that difference in price.

Well, there's been a lot of barrel guys hung by their thumbs for several years now, particularly if they're in a regulated market, and there's a lot of Midwest barrel production. So it doesn't -- it doesn't get away from that.

But pricing in general, if you include them in



both, is going, to some degree, soften that spread change over time. But you got to expect the price is going to change every month because -- well, take this year for example, look where blocks were in June, look where they are now. We got ourself right-sided, there was some cheese exported at those lower prices, and we're back on -- on purpose. Whether it's block or barrel, the market needs to reflect that because it's a commodity and it needs to reflect that short-term market for product, which I would argue NDPSR, in my personal opinion, does a reasonably good job of doing.

- Q. So you don't find the monthly volatility an issue?
- A. Well, I --

2.

2.1

- O. For your members, I would say?
- A. Not really, because that's how cheese is priced. It can certainly make a difference. It isn't just cheese, it's the same with butter or whey or whatever the product may be, in different types of whey products. It is, but you can manage to an average better than you can manage to one extreme or the other over time, because it's going to ameliorate that variation in a way that I think is a good thing. Because I don't think you can just say one market or the other is the commodity market for cheese, because I strongly believe they both are. And you have to have that considered in the product price formula.
- Q. There's been discussion on this topic about what percentage of the market is priced off of barrels or on blocks, etcetera.



And if -- if USDA looked to keep barrels in the survey, would you suggest, perhaps, a different weighting that would be maybe more risk representative of all cheese produced, not just the cheese that's surveyed?

A. Well, a couple things. First of all, the 91/9 is not accurate because of -- I talked about earlier, there's lots of cheese being priced different ways and more flexible. Exports have become a big part of our market. That cheese is priced very differently from commodity -- or not even commodity but domestic use cheese because you have to be able to meet in that world market.

So you tell me what's a good -- I mean, we've had a range of 75 to 90 among witnesses from -- from the supporters of this proposal.

So -- and, again, I think what you are saying there is because 90% is priced off of one, does that really reflect the true supply and demand for that base commodity, which is cheddar blocks and barrels? I would argue it doesn't.

And I think the other thing -- and, again -- a lot of you probably knew Paul Christ. He always used to say, "Be careful what you ask for, you might get it." I think that's what I've been thinking about with the block market. I truly believe that there will be more incentive to -- I think we risk a lot more -- as I mentioned earlier to Marin -- a lot more volatility in that block market if the barrel market goes away as part of that safety valve. Personal opinion. But that's -- I personally believe that



2.

2.1

will be the case.

2.1

We have a lot of unknowns here that we are all speculating on. I don't think anyone can say with certainty exactly what would happen. But we do know there is risk that it could be different than we think it's going to be.

- Q. Okay. That led to my second question, which is, if barrel prices were removed, what would you expect to be the consequence of that? You know, other witnesses talked about how eventually they would expect barrels to be priced plus or minus off the block market. And I just wanted to see if you had an opinion. But what I'm taking from your last statement was, you would expect even more volatility in the block price.
- A. Absolutely. I think you would. If nothing else, if you've got surplus barrels, instead of pricing off the barrel market, you may say, I'll sell them to you at block minus 15, because of that demand. Well, if meets your spec or if USDA's spec indicates that, it's going to be reported, and then it's 100% of the market. So it could still have a very significant impact on the market.

And I think any -- any change, whether it makes sense or -- well, they all can make sense, I guess, to some degree -- but in this case we have two commodity markets. Ignoring one I think has some significant potential consequences --

- Q. Can you say -- I can't hear you through the mic.
- A. I'm sorry. My mouth is chalk.



I think -- I think going to one or the other would have serious consequences, that having the blend makes good sense. I know -- I know Proposal 22 gives you flexibility, which you may decide to do or not do. But we would -- we would concur that both are an important part of that commodity cheddar market, and they both need to be part of the price.

Oh, by the way, we have no opinion on 22.

- Q. That's good to hear.
- A. Yeah. One less testimony I have to give.
- Q. So I had another question on information regarding the percent of the cheese market that uses barrel prices versus block prices, and you stated you didn't think the 75 or the 90% estimates spoken earlier in this hearing -- thank you, Mr. English -- was accurate.

But do you have any data on that?

A. I'm not -- I think 90 is inaccurate. I'm not saying 75 is because I keep hearing it from brokers. I hear it from manufacturers. So maybe that's -- maybe that's closer to what the real number is. But we -- cheese pricing, particularly with risk management, has gotten much more flexible, how people are willing to market product.

Part of the mentality with risk management, it isn't just basis off of the block market. It is the price. If I want to be able to sell my deli Colby at price X, and I need this much margin, I know what that price is, whether it's based off of block or barrel or



2.

2.1

whatever it may be, as long as that price is fixed.

And that's what we're really seeing, from my experience, in risk management. And that's one of the reasons I think the block market hasn't done as well as people thought it might, the block cheddar CME market, is because the combined market does work. And then the other thing is you have a natural seller on the back end because farmers, that's what determines their protein price and their Class III price, so they, they're comfortable with that as well.

And it also ties into, of course, the Class III, which is important, too, just from the standpoint that -- one of the beauties we have with -- CME has structured their markets around Federal Order rules -- or Federal Order pricing regulations in a way that makes hedging at a very, very level of uncertainty or basis risk possible. I think when you start changing -- make big changes, you have to keep that in the back of your mind, is that going to affect that ability to do that.

And I recognize cheddar is different, but I think you have to recognize there's two commodity cheddar products, there isn't just one.

- Q. And based on your expertise in the market, is there ever a time where there's the -- for example, maybe so much block production that blocks are priced off barrels at a discount or something like that or --
- A. They are generally at a big discount, or you will see, particularly the 640s, because there's not a CME



2.

2.1

market, you will see auctions. A buyer -- a manufacturer may hold an auction to sell 640s, and that price will bounce all over the place.

But in the case of Kroger, we tried to contract all of our cheese. We had balancing agreements, plus or minus X percent in those contracts. So we weren't -- we were rarely on that -- on that market. But at times when the markets get tight, you can be.

Q. Okay.

2.

2.1

- A. You know, as we all know, when cheese is long, none of the regular buyers are buying, but that's why cheese is long out there, demand has weakened a little bit or exports have fallen off.
- Q. If -- if -- if Proposal 3 is adopted, how do you think that will impact barrel makers? I mean, right now, their price reflects part of what the barrel market is, and if Proposal 3 is adopted, it won't reflect their barrel price at all. I mean, how will that impact them?
- A. Well, the thing to remember, again, is you probably have 30 million pounds of milk a day that could -- excuse me -- 20 to 30 million pounds of milk a day that could go into barrels that's not regulated. And because of that, you can't assume that that barrel market is going to just fall along with the blocks, because that cheese is still going to get made if that's -- if the milk is there, and that's what they have capacity for. And that's why I think they will come along. As long as there's a balancing role, particularly for exports, I



think with barrels, that will not -- that will not solve itself. Because if you are an unregulated market, and those markets generally have growth in production even though they are not regulated. There's going to be larger and lower cost producers. They can continue to flourish just fine with that market.

You know, if you could get CME to testify and say, we'll get rid of it, then I think you have a little bit different question. But we don't see that and we don't expect that would happen. I think everyone's talked to them about it, and it's all about if there's a customer need, they will keep that market. And at this point, I have no reason to think that would change.

- Q. So you would expect then just that milk going into barrels -- well, a lot of it's currently not pooled, as you talk about, going into the unregulated market. Maybe more of that milk won't be pooled either if they won't be able to pay the Class III price?
- A. Well, that may well be the case -- yes, I think that could very well be the case. And over time they can make, you know, investments in their plant. But that's true. We're talking about Class I price surface here in a little bit, and it's really the same question. Changes like that, necessary or not, they do reflect relative competitive position. And today in cheese, unlike 20 years ago or, I guess now 23 with Federal Order Reform, we have a lot more unregulated milk, so that has a bigger impact on the market than it would have had in the past.



2.

2.1

1 Ο. Of your barrel makers that are members of IDFA, do 2. you know if they have -- they purchase pool milk? One does. Let me think. One does pretty much all 3 4 the time; one does a good share of the time; the other two are in unregulated markets. 5 MS. TAYLOR: Okay. 6 7 CROSS-EXAMINATION 8 BY MR. WILSON: 9 Good morning, Mike. Ο. 10 Good morning. Α. Mr. Brown. 11 Ο. 12 Α. I won't know who I am if you call me Mr. Brown. 13 Todd Wilson, USDA. Ο. 14 So we heard some testimony earlier about going 15 back into time, so to speak. And I know it's difficult, 16 but I just wondered if you had a thought on -- we have 17 heard from some of the recent testimonies that in 2022, 18 maybe there was an estimate of 9% barrel manufactured in 19 the cheese category. How -- obviously, cheese has grown exponentially 2.0 2.1 since 2000. Do you have an idea of what that percentage 22 was back then? 23 Α. I don't. 24 Ο. Okay. 25 I wish I had put a table somewhere, but I didn't. Α. 26 I don't have it in front of me.

had.

27

28

MR. WILSON: Thank you very much. That's all I

1	MS. TAYLOR: That's it from AMS. Thank you.				
2	THE COURT: Mr. Rosenbaum.				
3	REDIRECT EXAMINATION				
4	BY MR. ROSENBAUM:				
5	Q. Steve Rosenbaum for the International Dairy Foods				
6	Association.				
7	My first question is one I neglected to ask last				
8	time you were on the stand, which is to provide your				
9	address for the record.				
10	A. 1250 H Street, Washington DC.				
11	Q. Thank you.				
12	Okay. So right if I understood your testimony,				
13	right now, there is a tremendous amount of barrel cheese				
14	that is made outside in the United States, outside the				
15	Federal Order system, correct?				
16	A. That is correct.				
17	Q. And do barrel manufacturers within the Federal				
18	Order system have to be able to compete with those barrel				
19	manufacturers				
20	A. Oh				
21	Q outside the Federal Order system?				
22	A. Yes, they do.				
23	Q. Okay. And				
24	A. Regardless of the cheese they do.				
25	Q. Okay. And right now, if you're in the Federal				
26	Order system, the minimum start that question again.				
27	If you are a barrel manufacturer within the				
28	Federal Order system today, the minimum price of your milk				



is set by starting with roughly a 50/50 blend between the price of barrel cheese and the price of block cheese, correct?

A. That is correct.

4

5

6

7

8

9

10

11

12

13

14

15

- Q. Okay. And Proposal 3, which we're here discussing, would eliminate the use of the barrel cheese to set that, correct?
 - A. That is also correct.
- Q. And if that were to be done in a time period when the block price is materially higher than the barrel price, that would raise the minimum price of the milk for the barrel manufacturers within the Federal Order system, correct?
- A. If blocks are higher, it would raise the price --
- Q. Okay. And what --
- 16 A. -- in the market.
- Q. And what -- so what would that do to the competitive relationship between block manufacturers within the Federal Order system and those outside the Federal Order system?
- 21 A. On blocks? It would -- it would --
- 22 | O. I'm sorry, did I say --
 - A. You meant barrels -- you meant blocks.
- 24 | Q. No, I meant barrel. I'm sorry.
- 25 A. Yeah, barrels.
- 26 Q. Well, let me ask it again if I asked it wrong.
- 27 What -- what would removal of the barrels from the 28 price formula have on the competitive relationship between



barrel manufacturers within the Federal Order system versus barrel manufacturers outside the Federal Order system?

A. Barrel manufacturers outside of the system can adjust their pricing to meet the value -- basically the market value of the products that they make. They aren't tied to a Federal Order price. So if you have a widespread or barrel-block spread that's different or their capacity within the system isn't, you know, the roughly 50/50, they can and they do adjust for that. They look at real value.

In a lot of cases, those prices are actually published, but they have a -- they have a formula that's also published so their producers know how their price is calculated. But it will use the proportion of blocks and barrels more in line with what the plants actually manufacture rather than the Federal Order pricing.

- Q. Okay. And what is the impact on the ability of a barrel manufacturer within the Federal Order system to compete against a barrel manufacturer outside the Federal Order system, if the minimum price of milk is raised for the barrel manufacturer in the Federal Order system?
- A. It makes it much more difficult for them to compete because they have a minimum price that doesn't reflect the value of the products that they sell.
 - Q. The minimum price exceeds --
 - A. Yes.
 - Q. -- the value of the product that they sell; is



2.

2.1

1	that right?		
2	A. That is correct.		
3	Q. Okay.		
4	MR. ROSENBAUM: That's all I have, your Honor. I		
5	would move the admission of Hearing Exhibit 127.		
6	THE COURT: Objections?		
7	Exhibit 127 is admitted into the record.		
8	(Thereafter, Exhibit Number 127 was received		
9	into evidence.)		
10	THE COURT: Okay. You may step down, Mr. Brown.		
11	MR. ROSENBAUM: Your Honor, if we could if this		
12	would be a good time for a morning break. Mr. Brown is		
13	actually also going to be the next witness on a different		
14	proposal, and I think we		
15	THE WITNESS: I need water.		
16	THE COURT: Yes. Make sure Mr. Brown is hydrated,		
17	anyway. And, yes, let's have a break. Is ten minutes		
18	enough?		
19	THE WITNESS: Yes, that would be fine.		
20	THE COURT: Okay. Let's come back at five of,		
21	9:55.		
22	(Whereupon, a break was taken.)		
23	THE COURT: Let's come to order.		
24	Yes, Mr. Rosenbaum. I guess we won't swear this		
25	witness in again.		
26	You are still under oath, Mr. Brown. Welcome		
27	back.		
28	THE WITNESS: Sure.		



1	MR. ROSENBAUM: Steve Rosenbaum for the			
2	International Dairy Foods Association. We're now going to			
3	have testimony regarding IDFA Exhibit 33, which I would			
4	ask be marked with the next Hearing Exhibit number, which			
5	I believe is 128.			
6	THE COURT: Yes. So marked.			
7	(Thereafter, Exhibit Number 128 was marked			
8	for identification.)			
9	MR. ROSENBAUM: And I will give your Honor a copy.			
10	THE COURT: I have it.			
11	DIRECT EXAMINATION			
12	BY MR. ROSENBAUM:			
13	Q. So, Mr. Brown, is what's been marked as Hearing			
14	Exhibit 128, your testimony regarding Proposal 6, the			
15	proposal that would add mozzarella cheese to the product			
16	surveys used to establish minimum Class III prices?			
17	A. Yes.			
18	Q. Okay. And it's a relatively short statement, so I			
19	would ask that you read that into the record, please.			
20	THE COURT: I just had a quick thought. I meant			
21	to do this with the earlier witnesses. If we know of			
22	corrections, it might be easier to find those if we			
23	brought them out at first. I don't know that anyone does			
24	in a particular time. I don't mind later. I was just			
25	thinking, if I were writing the decision it would be			
26	easier for me to find any corrections.			



28

MR. ROSENBAUM: Your Honor, to be honest, the

correction that Mr. Brown found in his last testimony, $\ensuremath{\mathsf{I}}$

1 believe that was found as he was reading his testimony, 2. so --3

That is correct. THE WITNESS:

MR. ROSENBAUM: But I agree, if we are aware of an error or mistake -- mistake in advance -- we will let everyone know.

THE COURT: Thank you. We have all been there.

Mr. Brown.

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

28

THE WITNESS: Thank you.

This testimony is submitted on behalf of the International Dairy Foods Association (IDFA) with respect to Proposal 6. This Proposal would add mozzarella cheese to the product surveys used to establish minimum Class III prices.

USDA has consistently rejected including cheeses other than cheddar, and specifically mozzarella, in the price surveys used to establish the protein value that is included in setting minimum Class III prices.

When USDA in 1999 used notice and comment rulemaking to carry out Congress' mandate to consolidate the existing Federal Orders and consider order reforms, it noted that several "commenters argued that all varieties of cheese should be included in the NASS price survey to assure that all cheese value is captured." Milk in the New England and Other Marketing Areas; Decision on Proposed Amendments to Marketing Agreements and to Orders, from April 1999.

(Court Reporter clarification.)



THE WITNESS: However, USDA concluded that it was unworkable to have a system that tried to contour minimum milk prices to reflect the unique compositions of each Class III product. USDA instead adopted a system that calculated a minimum price based on cheddar, which would "enable handlers to adjust prices paid to producers to account for the additional value above the minimum Federal Order prices."

In so doing, USDA emphasized that the minimum milk price being established for each commodity (cheese, butter, and nonfat dry milk, and whey) needed to be the market-clearing price for that commodity:

"This pricing plan [being adopted by USDA] will allow the market-clearing price level of each of these manufactured products to be achieved independent of the other products. As a result, dairy farmers will be paid a price which is more representative of the level at which the market values their milk in its different uses. The importance of using minimum prices that are market-clearing for milk used to make cheese and butter/nonfat dry milk cannot be overstated. The prices for milk used in these products must reflect supply and demand and must not exceed a level that would require handlers to pay more for milk than needed to clear the market and make a profit."

As USDA further explained when it later considered additional milk order amendments in 2000, the problems with included other types of cheeses in setting minimum



2.1

prices are that (a) the resulting product price would not be representative of the value of any particular product, and (b) the Make Allowance deducted from that product price in order to establish minimum Class III milk prices would not be reflective of the cost of processing that cheese, because Make Allowance data relied upon to set minimum milk prices relates solely to cheddar cheese.

As USDA explicated in rejecting such an approach:
"Several witnesses testified that types of cheeses other
than cheddar should be included in the NASS (sic) survey
as a more comprehensive basis for identifying a cheese
price, although such a proposal was not included in the
hearing notice. The cheddar cheese included in the NASS
survey meets certain standard criteria that makes prices
for the reported cheese sales comparable. If the survey
included other descriptions of cheddar and other types of
cheese, such as mozzarella, it would not be possible to
consider the reported price as representative of the value
of any particular product. Further, the manufacturing
costs surveyed are, to a great extent, limited to the
costs of processing cheddar cheese."

All these USDA conclusions remain valid today, with respect to both the criteria for inclusion in the price survey and the existence of costs of manufacture.

Criteria for inclusion:

USDA has established very specific criteria for cheese to be included in the average price survey used to set minimum milk prices. For Class III, the survey covers



2.

2.0

2.1

(i) the National Dairy Products Sales Report, or NDPSR, of prices paid for 40-pound block cheddar cheese; and (ii) the NDPSR for prices paid for 500-pound barrel cheddar cheese at 38% moisture.

To be included in these Sales Reports, cheddar cheese must meet various criteria, including age (no less than four days or more than 30 days on date of sale); color (within a specified color range for 40-pound blocks; white for 500-pound barrels); and moisture content (no more than 37.7% moisture for 500-pound barrels).

No similar USDA report exists for mozzarella cheese. Furthermore, the commercial mozzarella cheese market contains very wide variability in the relevant criteria.

For example, the FDA standard of identity regulations provide for four different variants of mozzarella cheese, with widely varying fat and moisture parameters, as found in the Code of Regulations: One, mozzarella, minimum 45% and 52 to 60% moisture; low-moisture mozzarella, minimum 45% fat and 45 to 52% moisture; part-skim mozzarella, 30 to 45% fat and 52 to 60% moisture; and low-moisture part-skim mozzarella, 30 to 45% fat and 45 to 52% moisture.

In short, it would likely be impossible to select a suite of criteria for inclusion of mozzarella in a pricing survey that would adequately represent the market value of the mozzarella cheese as a whole.

Method and cost of manufacture:



2.

2.0

2.1

Even if pricing information for mozzarella were obtainable, no reported survey data includes the cost of making mozzarella cheese. No party to this hearing has purported to provide such survey data for the record. Thus, even if one were somehow to develop a reportable price of mozzarella cheese, one would still have to use as the Make Allowance the cost of making cheddar cheese.

But given that the minimum prices for Class III milk is the selling price of the finished product minus the cost to make the product, basing the finished product price on the price of both cheddar cheese and mozzarella, while basing the Make Allowance solely on the cost of making cheddar cheese, would be a complete mismatch.

This is especially true because the two cheeses are quite different in content and method of production. Cheddar must contain no less than 50% milk fat by weight of the solids and a maximum 39% moisture with no minimum, according to FDA Regulation 21 CFR.

By contrast, the minimum milk fat content of mozzarella cheese is 45% by weight of solids, and the moisture content is more than 52% but not more than 60% of weight.

These differences in content necessarily make the products heterogeneous and lacking the similarities sufficient to include both in the same pricing formula. These differences are the result in material differences in the costs to manufacture, which foreclose as a practical matter deriving a uniform cost of manufacture



2.

2.0

2.1

that could be utilized in a product pricing formula.

That heterogeneity is exacerbated by the divergence between the manufacturing steps used in cheddar versus mozzarella production. Cheddar cheese is subject to specific mandatory manufacturing steps:

" [Cow's milk or another specified dairy ingredient] may be warmed, treated with hydrogen peroxide/catalase, and is subjected to the action of a lactic acid-producing bacterial culture. One or more of [specified] clotting enzymes specified is added to the dairy ingredients to a semisolid mass. The mass is so cut, stirred, and heated with continued stirring, as to promote and regulate the separation of whey and curd. whey is drained off, and the curd is matted into a cohesive mass. This mass is cut into slabs, which are so piled and handled as to promote the drainage of whey and the development of acidity. The slabs are then cut into pieces, which may be rinsed by sprinkling or pouring water over them, with free and continuous drainage; but the duration of such rinsing is so limited that only the whey on the surface of such pieces is removed. The curd is salted, stirred, further drained, and pressed into forms. One or more of the other [specified] optional ingredients may be added during the procedure."

Mozzarella cheese is subject to a different specific required manufacturing steps:

"[Cow's milk or another specified dairy ingredient] is warmed to approximately 88 degrees



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

22

23

24

25

26

27

Farenheit and subjected to the action of a lactic acid-producing bacterial culture. One or more of the [specified] clotting enzymes is added to set the dairy ingredients to a semisolid mass. The mass is cut, and it may be stirred to facilitate the separation of whey from the curd. The whey is drained, and the curd may be washed with cold water and the water drained off. The curd may be collected in bundles for further drainage and for ripening. The curd may be iced, it may be held under refrigeration, and it may be permitted to warm to room temperature and ripen further. The curd may be cut. is immersed in hot water or heated with steam and kneaded and stretched until smooth and free of lumps. It is then cut and molded. The molded curd is firmed by immersion in cold water and drained. One or more [other specified] optional ingredients may be added during the procedure."

These differences in content and processing (e.g., the washing, kneading, stretching, and molding for mozzarella, but not cheddar) are necessarily reflected in the use of different and additional equipment.

Accordingly, the cost of making cheddar is quite different than the cost of making mozzarella. One could not reliably use the former as a proxy for the cost of the latter for purposes of setting minimum milk prices.

Yet the cost data for doing something else does not currently exist within USDA or this hearing record, and even if it did, calculating and applying different Make Allowances within the same product category would



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

unduly complicate the effort to set minimum milk prices, especially given the differences in the various categories of mozzarella.

Mozzarella lacks market-clearing capacity:

Mozzarella is made further unsuitable because it cannot establish an effective market-clearing price. As noted, USDA has itself emphasized that "the importance of using minimum prices that are market-clearing for milk used to make cheese and butter/nonfat dry milk cannot be overstated," and that "prices for milk used in these products must reflect supply and demand, and must not exceed a level that would require handlers to pay more for milk than needed to clear the market and make a profit."

It is cheddar, not mozzarella, which can serve this market-clearing function for cheese:

- (1) Cheddar is the true commodity cheese product, usable both in its own form and as a component of processed cheeses. Mozzarella is not.
- (40-pound blocks or 500-pound barrels) that meet the National Dairy Products Sales Report requirements. Bulk cheddar is routinely sold to other companies that either shred or cut them or perform further processing to create additional cheese products. Mozzarella, by contrast, is often made and sold to the specific specifications of specific customers. I am informed that a single mozzarella company may have hundreds of different product codes for its mozzarella products.



2.

2.0

2.1

(4) Last, but certainly not least, cheddar is the cheese more often produced to clear the market of surplus milk, given that cheddar is readily storable for extended periods, and the processor can make bulk cheddar products using surplus milk with reasonable confidence that it will be able to find a buyer while the cheese is still saleable. That confidence is bolstered by the fact that standard cheddar cheese can be sold to a variety of companies that will use bulk cheese making in a variety of food products. By contrast, most mozzarella is stored in refrigerated form, and by comparison, has a limited shelf life, and once produced encounters fewer potential outlets.

Other issues:

Proponents have argued that a recent USDA food procurement solicitation resulted in mozzarella being delivered at an average price per pound of \$3.6445, as compared to an AMS survey price of cheddar of less than \$1.50 per pound. Proponent infer that they are missing out when the minimum milk prices are based on cheddar rather than mozzarella. This is not a proper conclusion to reach.

Some of that price difference reflects the cost differences based on differences in the equipment used and



2.

2.1

the methods employed to make mozzarella versus chedda:	r, as
I have already discussed. Furthermore, the USDA	
solicitation to which Proponents refer entailed the	
purchase of one-ounce mozzarella string sticks, 360 to	э а
box, to more than a dozen cities throughout the United	d
States. (A copy of the solicitation appears as Hearing	ng
Exhibit 95.)	

Thus, as compared to the AMS reported price for cheddar cheese, which is an FOB plant price for bulk cheese in either 40-pound blocks or 500-pound barrels, the USDA solicitation was for mozzarella cheese that: (a) had been shaped into strings, which is itself an equipment specific and laborious undertaking; (b) cut into one-ounce pieces; (c) packaged and labeled individually; (d) packaged 360 to a box; and (e) delivered by the seller in hundreds of boxes to 36 different locations ranging from Alabama to California, and from Minnesota to Texas. The sales price information is not comparable.

For these reasons, mozzarella cheese should not be included in the product price surveys used to establish minimum Class III prices.

MR. ROSENBAUM: Your Honor, Mr. Brown is tendered for cross-examination.

THE COURT: Cross, anyone but AMS?

CROSS-EXAMINATION

BY MR. MILTNER:

Q. Ryan Miltner representing Select Milk Producers.

Good morning, Mr. Brown.



2.

2.0

2.1

- A. Good morning.
- Q. Could I ask you a few questions about a statement or a couple of statements on page 2, please?
 - A. Okay.

2.

2.1

Q. I'm looking at the first sentence in your paragraph that begins "as USDA further explained."

Where you have the parenthetical (a), "the resulting product price would not be representative of the value of any particular product." Can you expand on that a little bit more for us?

A. Yes. I think -- I think -- the price wouldn't reflect what we think of as the base commodity product. So -- and since there's so many -- again, depending how you survey it, there's so many different prices for mozzarella, that how do you pick what the reference price is.

So specifically the mozzarella, probably more than any other cheese, there's just so, so many different both packaging forms as well as processing -- content and processing. So it's just simply not a standard cheese per se. We all think it is when we think of mozzarella, but manufacturers will tell you how many different varieties they make. A lot of that's due to food service, and different companies have different demands for performance.

Q. Would it be possible to construct a method to survey some subset of mozzarella production so that you would be able to achieve a representative product price?



- A. I don't make it. I just know there's a lot of them. My question would be, what would the value be, what would the standard be that would give you adequate value to be a surveyable product. I just simply don't know.
- Q. And we really don't have that information today, do we?
 - A. No, we don't.

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

28

- Q. So what is -- what is the particular product that USDA does utilize in establishing the protein price used in Class III?
 - A. They use cheddar cheese, and butter indirectly.
- Q. Okay. As to the cheddar cheese, though, there's been a lot of testimony about whether 40-pound blocks and 500-pound barrels are the same product or the same commodity.

And am I correct that earlier this morning your testimony was that they are absolutely not the same commodity?

- A. That is correct. They perform different functions even though they are both based ingredients.
- Q. So if -- if I look at what you have at parenthetical (a), it says that "the resulting product price" -- if you use mozzarella -- "would not be representative of the value of any particular product."

How do we reconcile that with the fact that we have two absolutely distinct commodities in 40-pound blocks and 500-pound barrels, and we're trying to achieve a single price of a particular product?



1	A. Well, again, I come back so maybe it's not
2	clear is specifically with mozzarella, there's just so
3	many, many different products, how would you pick one, and
4	then you'd also, of course, have to have manufacturing
5	cost surveys. I don't agree and if it's worded in a
6	way that's not understood, that isn't clear I certainly
7	don't believe that there's one commodity cheddar, there's
8	two commodity cheddar products, and they do perform
9	different functions, although they are made
10	manufactured the same way, basically.

- Q. You say here, this is "as USDA further explained."

 So is (a), is that your words or is that USDA's words?
- A. Their words are below. So I honestly -- does -- if they were USDA's words, there would be a reference. I assume this is a summation of their -- of their later comments.
- Q. Isn't the alternative explanation that barrels were included merely to be a synthetic price for 40-pound blocks?
- A. No. They are a different product, but they are both commodity-based products used. I don't believe that barrels are a synthetic price for anything. They are their own market.
 - Q. Thank you.
- On page 7 I had a few questions there. With your first full bullet point, you write: "Mozzarella is not so traded or directly hedgeable."



12

13

14

15

16

17

18

19

2.0

2.1

22

23

2.4

25

26

27

What do you mean by "directly hedgeable"?

A. You can't -- you can't -- there isn't a -- mozzarella is a different composition. I mean, it's usually priced off of blocks. It can be priced off of other products, other -- in other futures markets. But because of its composition, it has more moisture, less fat relative to protein in the cheese. It isn't -- if you look at the ingredient cost of mozzarella, it is different than it is for cheddar. People still do it. Again, the key is you look at your plant margin.

When you make mozzarella, you really have two choices: You either sell off cream or you bring in skim solids, whether it's ultra-filtered, whether -- we can't bring them in unfiltered if they are on site, but nonfat dry milk or condensed milk, to use up that fat within your cheese. Your decision to do that is going to depend on the relative value of those solids versus solids that are in the Class III milk. So there is definitely a difference.

However, like with all cheeses, there's no hedging -- again, get back to the point. Hedging isn't only about basis versus a block or a barrel, it's about is it a price that works for you in the market, is it a price that a plant can pay to producers, transfer in a price for milk that that producer gets paid accordingly, and as a result, NDPSR cheese futures remains the cheese of choice for most hedging, which is evident in the volume of trades. Open interest is so much higher.



2.

2.1

- Q. For the mozzarella manufacturer, on its input side, they can effectively hedge purchasing derivatives using the Class III price nonfat dry milk, other ingredients, correct?
- A. Yes, that's true. And butter. But, yes, that's correct.
- Q. And on the -- for the customer of a mozzarella manufacturer, I believe there's been testimony that -- that a majority of -- not all, but a majority of mozzarella is priced off of the block market.
- A. I would expect that's true. I don't personally know that, but I have no reason to doubt it.
- Q. Okay. And if that were the case, the purchaser of mozzarella would be able to effectively hedge using the 40-pound block price?
- A. Yes. Or depending on his pricing formula off the same combination, that would be -- as those trades get a



2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

- Q. So even in the absence of a direct mozzarella contract, there are tools available so that both the manufacturer and the customer can hedge their risk?
- A. They can hedge their risk. But that doesn't -that's, again, reflecting the supply and demand for the
 cheddar market, because those prices are based off the
 cheddar market.
- Q. Just to clarify a couple more points on pages 6 and 7, if I could.

The first bullet point, you write: "Cheddar is the true commodity cheese product, usable both in its own form and as a component of processed cheeses."

I recall some testimony during the hearing that processed cheeses do use mozzarella in instances, and I don't --

- A. That -- that would -- that would probably be true. I don't personally -- personally not aware of it. But I wouldn't argue if others have understanding of that that I don't have.
- Q. Understanding, of course, cheddar is the predominant ingredient there, but mozzarella can be used in processed cheese, right?
- A. I would expect -- I don't personally know that, but I have no reason to argue with someone who believes it



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

22

23

24

25

26

27

does, because I just don't know.

2.

2.1

Q. Okay. And then the last bulleted point, back over on page 7, it reads: "Last but certainly not least, cheddar is the cheese more often produced to clear the market of surplus milk."

May I infer from that that there are instances and markets where mozzarella production can be used to clear the market of surplus milk?

- A. Any product can be used to clear the market as long as you know you can hold it, you have a buyer somewhere, whether it's export or otherwise. Cheddar is the easiest because if you are making 40-pound blocks or barrels, you always -- if it meets spec, you can always sell on the CME. You can't do that with anything else. So it is a -- there is an auction where you can sell that cheese that's traded every day. And you don't have that with mozzarella.
- Q. But when we are going to clear the market of surplus milk, depending on plant capacity, depending on where the milk is located, depending where the plants are located, it could be cheddar, it could be mozzarella, it could be blocks or barrels, it could be powder, it could be butter, it could be any of those products, correct?
- A. That is true. And this should have said, "Cheddar is the cheese more often produced." I mean, I would -- my understanding, butter and powder are probably used more in the balance markets than cheese is overall. The nature of -- they store better.



1 MR. MILTNER: Thank you. That's all I had. 2. THE COURT: Further cross by anyone but AMS? 3 AMS, back to you. I'm surprised too. MS. TAYLOR: Maybe we're all just trying to be 4 efficient this week. 5 6 THE COURT: I think everyone's always tried. 7 THE WITNESS: They're recovering from that marvelous three-day weekend. 8 9 CROSS-EXAMINATION 10 BY MS. TAYLOR: 11 Ο. Good morning again. 12 Α. Good morning. 13 I actually think most of my questions have been 14 answered by some questions you got there. 15 I did -- on page 3 you cite the standard of 16 identity for mozzarella. I'm curious if you know when 17 we -- when people talk about mozzarella production, is 18 there a production that happens that people off the cuff 19 say is mozzarella but might not meet that standard of 2.0 identity? 2.1 Well, I can't speak for food service, but for Α. 22 retail most mozzarella is low moisture, part skim. 23 Ο. Okay. Which I think is the fourth standard of identity, 24 Α. 25 yes. 26 Okay. Q. 27 Part of it, again, with mozzarella, when we talk



28

about it, is just the myriad of ways it can be packaged.

1	You buy the totes.	You buy the	six-pound	loaves.	You buy
2	it lots of different	ways.			

- And I know from my experience for -- for a cut-and-wrap at Kroger, we used totes, but that was us.

 And I know we could have bought it six ways to Sunday, the same cheese, different ways. It's depending how our plant was set up to use it.
- Q. Okay. So is totes what you would consider a bulk commodity package size for mozzarella?
- A. Probably as close as anything, but I'm not sure how much of the market it takes up. Certainly in our personal case it was, yes.
- Q. Okay. And since I'm not deep in knowledge on the mozzarella market, how much does -- how big is a tote?
- A. You can ask the mozzarella people who testify later. I honestly don't know because I -- the bids were always priced per pound, so I don't know what the delivered to it would be.
- Q. Okay. But there will be some mozzarella witnesses testifying later?
- A. I expect so, yes.
- Q. Okay. Thank you.
- MS. TAYLOR: I think that's all AMS has. Thank you.
- 25 THE COURT: Redirect?
- MR. ROSENBAUM: Your Honor, I would move the admission of Hearing Exhibit 128.
- THE COURT: Any objections?



4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

1	Exhibit 128 is entered into the record.
2	(Thereafter, Exhibit Number 128 was received
3	into evidence.)
4	THE COURT: Thank you, Mr. Brown.
5	THE WITNESS: Thank you.
6	THE COURT: You may step down, I think.
7	MS. TAYLOR: Yes, your Honor. I think Roger Cryan
8	is going to testify on behalf of American Farm Bureau
9	Federation next.
10	THE COURT: Raise your right hand.
11	ROGER CRYAN,
12	Being first duly sworn, was examined and
13	testified as follows:
14	THE COURT: You may continue.
15	DR. CRYAN: I beg your pardon?
16	THE COURT: You may continue or start, I guess.
17	DR. CRYAN: Thank you, sir.
18	THE COURT: Yes.
19	DR. CRYAN: I have testified earlier in the
20	hearing.
21	THE COURT: I remember you.
22	DR. CRYAN: My name is Roger Cryan with the
23	American Farm Bureau Federation. R-O-G-E-R, C-R-Y-A-N.
24	My address is 600 Maryland Avenue Southwest, Suite 1000W,
25	that would be care of American Farm Bureau Federation,
26	Washington DC 20024.
27	And I will read my testimony submitted, and then
28	I'll have some additional remarks, based largely on



1 previous testimony in the hearing. 2. THE COURT: Yes. Can we rely on this witness's previous testimony for his background credentials? 3 4 MR. HILL: Yes, your Honor. THE COURT: Well, that's a consent in the room. 5 6 Thank you. 7 DR. CRYAN: Thank you. THE COURT: You may proceed. 8 9 DR. CRYAN: Thank you. 10 The American Farm Bureau Federation has nearly 6 million members in all 50 states and Puerto Rico, 11 12 including many thousands of cooperative and independent 13 dairy farmers. All of these dairy farmers are indirectly 14 or (mostly) directly affected by the pricing provisions of 15 the Federal Milk Marketing Orders. 16 And I will skip the rest of this introductory 17 section, which is repeated in my -- will be repeated in my 18 testimony, my written testimony, for each -- each proposal 19 that we come up to support or represent -- or each 2.0 category, that is, each category. 2.1 I am -- in this case, I am -- I have a statement 22 that covers Category 2, the survey commodity products, and 23 it includes Farm Bureau's response to Proposal 3 made by 24 National Milk and our presentation of Proposals 4 and 5, 25 which we submitted -- which were submitted by Farm Bureau. 26 THE COURT: If you'll forgive me, we haven't 27 marked your statement.



28

DR. CRYAN: Oh, I'm sorry. My statement is --

1 THE COURT: AFBF-2 --2. DR. CRYAN: AFBF-2. THE COURT: -- will be marked as exhibit for 3 identification 129. 4 5 (Thereafter, Exhibit Number 129 was marked for identification.) 6 7 DR. CRYAN: Thank you, your Honor. THE COURT: Yes. 8 9 DR. CRYAN: My response to Proposal 3, which is 10 the National Milk Producers Federation's proposal to drop 11 barrel cheese from the Class III component and price 12 calculations. 13 The American Farm Bureau supports this proposal as 14 written. 15 As NMPF outlines in its proposal, barrel cheese 16 represents roughly 50% of the volume in the National Dairy 17 Product Sales Report but is used to set prices for only about 10% of cheese in the U.S. market. Price divergence 18 19 between block and barrel prices now creates a "cheddar" 2.0 cheese price for use in the formulas that is not 2.1 representative of the value of 90% of cheese. We expect 22 that the elimination of the barrel price from the survey 23 will contribute to an even greater reliance on block 24 prices in the U.S. cheese market, further reinforcing the 25 block price as the appropriate foundation for the 26 Class III protein and skim milk price.

And for what it's worth, Farm Bureau also supports the elimination of the barrel -- the barrel spot market in



27

the CME.

2.

2.0

2.1

Barrels should be dropped from the survey whether or not the 640-pound block -- whether or not 640-pound blocks are added per Proposal 4.

And then the fine detail of Proposal 3, I think National Milk will cover it in quite -- in detail in volume.

So Proposal 4: The American Farm Bureau

Federation proposes that 640-pound blocks be added to the

National Dairy Products Sales Report, to the cheddar

cheese price calculation, and to the Class III protein

calculation.

This proposal is consistent with dropping barrels from the survey, per Proposal 3 by the National Milk Producers Federation, but does not depend upon that measure.

As NMPF has indicated in that proposal, barrel cheese represents roughly 50% of the volume in the National Dairy Product Sales Report but is used to set prices for only about 10% of cheese in the U.S. market. Price divergence between block and barrel prices now creates a "cheddar" cheese price for use in the formulas that is not representative of the value of 90% of cheese.

Adding 640-pound blocks to the survey would expand the volume and emphasize blocks generally; however, it would also move the balance of blocks and barrels closer (but not close) to the actual market mix in the event that USDA decided not to remove barrels from the survey. No



price adjustment is necessary to integrate these larger blocks into the survey, as every indication we have is that the two sizes are roughly interchangeable in price, use, and storage.

There has been a pronounced shift from 40-pound blocks to 640-pound blocks in the marketplace. Adding 640-pound blocks would provide a deeper volume to the survey immediately and would avoid the need for a hearing in the future simply to address the further dwindling of 40-pound block volume.

As NMPF outlines in its proposal, barrel cheese represents roughly 50% of the volume in the NDPSR but is used to set prices for only about 10% of cheese in the U.S. market.

Okay. I won't say that a third time.

Impact: We expect that the addition of 640-pound blocks to the survey will strengthen price discovery, avoid the potential for block manufacturers to switch between sizes to avoid and re-enter the price survey, and avoid a possible crisis of dwindling small blocks in the future. That is, a large and reliable survey volume will help avoid some sources of disorderly marketing. A deeper survey will provide a stronger foundation for the Class III protein and skim milk price.

And language is set out that would add the 640-pound block to the products included in the survey.

And we identify sources for anecdotal evidence that there's a growth in 640-pound block production,



2.

2.1

including an article from the Paynesville website,
Paynesville, Minnesota's website indicating AMPI's new
plant would expand production by 50,000 pounds of cheese a
day in barrels and 640-pound blocks.

That the Glanbia plant in Clovis, New Mexico, opened in 2006 and 2009 and that blocks of cheddar weighing up to 640 pounds are produced in that facility, and lays out the idea that many customers have requested 640-pound blocks as they lower waste to make it easier to create exact weight packages for supermarket customers. That's from Food Processing Technology Magazine, an article about Southwest cheese.

Another citation indicates that the Midwest Whey -- I think that's the name, Midwest Whey Company -- found -- they opened a 375,000-foot -- square foot dairy facility, receives 8 million pounds of raw milk a day, and produces 850,000 pounds in 40- and 640-pound blocks. And that was opened in 2020, from Pro Food World.

And then there's also an item on Hilmar Cheese and their plant in Dalhart and -- their plants in Hilmar and Dalhart that produce 40-pound blocks and 640-pound blocks of a variety of products. And that was from Farm Progress Magazine.

And finally, something from MCT Dairies, which is an analyst outfit, laying out that -- well, this is an opinion on their part: "Adding 640-pound blocks to the NDPSR survey would be a good first step towards recalibrating the weight given to barrels, and it would



2.

2.1

better reflect commercial activity."

2.

2.0

2.1

For Proposal Number 5: The American Farm Bureau Federation proposes adding unsalted butter to the butterfat and protein calculation.

The growing volume of unsalted butter production and use in the U.S. market has meant that salted only butter price collection in the National Dairy Products Sales Report survey increasingly underrepresents the value of U.S. butter. At the time that the butter price survey was developed by the National Agricultural Statistics Service in 1999, it was done in support of Federal Milk Marketing Order reform, per the preamble to the recommended decision for order reform, but there is no rulemaking - by AMS or NASS - to establish the logic for excluding unsalted butter. Later regulations in 2008 and 2012 did not address this decision either.

And I have citations on the -- in the written testimony.

The NDPSR collects prices only for salted 80% fat butter in 25-kilo and 68-pound boxes. This only captures a small and declining share of U.S. butter production.

Based on a comparison of the NDPSR totals for a 52-week year and NASS dairy products annual reporting, butter in the NDPSR survey has fallen from 16% of total butter production (in the original NASS survey) to 10.9% in 2013 and 9.4% in 2022, in the current AMS survey.

We have every reason to believe that this trend will continue without the addition of unsalted butter.



The rest of the world produces and consumes primarily unsalted butter, and growing volumes of commodity unsalted butter are being used by American bakers and confectioners and is being sold in the regional market.

Although unsalted butter was produced in small quantities in the U.S. at the time of Federal Order Reform, its share of U.S. production and sales has grown very substantially since then and is projected to continue growing. The result of this growth is that a substantial volume of commodity butter is not included in an NDPSR survey and is increasingly underrepresented.

While producing and distributing unsalted butter was once more difficult and expensive for butter plants, and butter was typically salted to allow for extended storage, U.S. butter makers are increasingly offering unsalted butter to domestic and overseas customers, matching the European convention.

As a result, the definition of butter in the current data collection is outdated. The continued specification of salted butter in the CME Group butter market specification is based on old technology; it may still be a reasonable standard in order to assure a uniform product for that market, but it is unnecessarily restrictive for the purposes of the NDPSR survey, just as the CME Group spot exchange specifications for cheddar cheese calls for 40-pound blocks but is used to price 640-pound blocks as well.

USDA butter grading data should and will



2.

2.0

2.1

demonstrate growth in demand and production of unsalted butter. In addition, U.S. butter exports have grown from about 2,000 metric tons in 2000 to over 65,000 metric tons in 2022, almost entirely supplied with unsalted butter.

And I cite the USDA website cited.

Incorporating the unsalted butter price into the FMMO butterfat formula will expand the base of the survey and make the survey price more representative of the evolving butter market. Collecting and publishing separate prices for salted and unsalted butter will allow for better market transparency and more orderly marketing of butter and milk. Anecdotal evidence suggests that unsalted butter is slightly more expensive than salted butter, but we believe that this is a specialty premium that is disappearing as unsalted butter becomes more common.

And then I have language tweaking the butter survey requirement in the orders to -- to allow for salted and unsalted butter, and that would require conforming changes in Section 1170 I believe.

And I have some additional comments.

Regarding dropping barrels, prior testimony has indicated that one cannot turn block cheese into barrel cheese or barrel cheese into block cheese, that there are significant costs and production varies to using block cheese for processed cheese production. And blocks and barrels are not close-use substitute because they cannot be substituted one for the other, at least not without



2.

2.0

2.1

2.4

significant costs.

2.1

We've heard witnesses indicating that cheese plant operators strive to run their plants full because they have a substantial capital investment, and keeping capacity slack is expensive. We also heard that in the order -- at the time of order reform, cheese plants were more likely to have slack capacity, which allowed more easily for production substitution. That is, milk could be shifted from block production to barrel production and back because there was extra processing capacity for both. Now there is none.

This makes cheese manufacture only a slightly -only a marginally helpful balancing function. More
importantly, for this discussion, it means that the price
of barrels will not consistently converge with the price
of blocks in the short-term, and the surveys intended to
reflect spot prices, short-term prices.

And because barrel prices are used almost exclusively to price the 10% of cheese that is made in barrels, the barrel price is heavily overrepresented in the survey with about 50% of the survey weight. I think I have said that already.

Proposal 4, to add 640-pound blocks to the survey, testimony has indicated that 40- and 640-pound blocks are use substitutes. Two block marketers declined to say whether they quote customers the same price for 40s and 640s, which strongly suggests that they do, since any other answer is so open ended that they would really have



no reason to decline to answer.

2.

2.1

Both are defined under the same standard of identity. And that's 21 CFR 133.113. And both are graded under the same standards, the standard that barrels are not graded under.

And I would ask that official notice be taken of the United States standards for grades of cheddar cheese, published by AMS USDA. Although they reset and republish it on a regular basis, it was effective May 1st, 1956. And that is available on the USDA website -- on the AMS website.

The only difference is one of package size. The only difference between and 640- and 40-pound blocks are the two very standard package sizes upon which the survey can be based. This does not violate NMPF's aim to have a single product define cheese. It is the same product in two different package sizes. That is, it's the same product under the same standard of identity and the same grading standard, simply with two different package sizes.

And finally, we have heard testimony that there's been a substantial growth in 640 production, and the public sources identified in my written statement reinforce that. Adding 640s to the survey now will avoid problems in the future if the volume of 640s continues -- 640s declines.

Third -- I'm sorry -- Proposal 5, adding unsalted butter. Data USDA provided on Friday indicates that unsalted butter has gone from 13% of graded butter to



about 30% of graded butter. Much of the 355 million pounds of graded unsalted butter would add to the volume in the survey and improve price discovery. I would indicate that butter is uniquely represented by grading data since retail butter in the U.S. is almost all graded to allow for labeling with the grade AA seal.

It is also important to note that salted and unsalted butter are graded under the same standard. And I would ask that official notice be taken of the United States standards for grades of butter, also published by AMS at USDA. That standard was effective -- that set of standards was effective August 31st, 1989, and is also available on the AMS website.

THE COURT: Should we stop there for a second?

Does anyone object to official notice being taken of those butter rating standards? If people want to think about it.

Nope, nobody seems to want to think about it, no one seems to object.

Okay. Official notice will be taken of those --

DR. CRYAN: Thank you.

THE COURT: -- butter grading standards, as you described them.

Mr. English, you are not rising.

DR. CRYAN: And the cheese grading standards?

THE COURT: Yes.

DR. CRYAN: Thank you. Thank you, sir. Thank you, your Honor.



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

So salted and unsalted butter are the same product under the same standard, simply with the amount of salt adjusted. So in principle, they do not violate National Milk's aim either at having a single product defining the commodity -- the components in the formulas.

The survey standard excluded unsalted butter because the CME spot market excluded unsalted butter. This doesn't mean that they shouldn't both enter into the price for butterfat as the unsalted butter volume grows. Salted and unsalted butter are production substitutes, and often not demand substitutes like barrels and blocks. Like barrels and blocks are not demand substitutes. The key difference is that the same line can switch between salted and unsalted butter without substantial interruption. This leads to price convergence and the appropriateness of unsalted butter -- of including unsalted butter in the survey.

And I believe that's everything I have to say with respect to direct testimony. I'm available for cross-examination, your Honor.

THE COURT: Yes.

Cross, other than AMS?

MR. HILL: Brian Hill, for just one second. I'm not sure, maybe I missed this, and I apologize if I did, but was this marked for identification? I'm not sure, 129?

THE COURT: Yes, 129.

MR. HILL: Thank you.



2.

2.0

2.1

1	THE COURT: I forgot at the beginning and then
2	came back to it. But, yes AFBF-2 is marked 129.
3	All right. Where was I? Yes.
4	Introduce yourself.
5	CROSS-EXAMINATION
6	BY DR. BOZIC:
7	Q. Marin Bozic for Edge Dairy Farm Cooperative.
8	Good morning, Roger.
9	A. Good morning, Marin.
10	Marin, how are you?
11	Q. Very good. How about yourself?
12	A. Swell.
13	Q. The only person I know that uses that word.
14	When we mix the barrels and blocks in the survey,
15	the \$0.03 is done to account for the difference in
16	packaging cost I understand; is that correct?
17	A. I I think I recall someone saying that earlier.
18	I I didn't look that up. I it was a as I as I
19	recall, it had to do with differences in packaging costs
20	and sort of the historical difference in price over a long
21	time.
22	Q. Is are there any differences in packaging costs
23	for 640s versus 40s that needs to be acted for?
24	A. I don't have that detail.
25	Q. Is that something that would be prudent to
26	investigate before this proposal is adopted?
27	A. I think it ultimately would be a wonderful thing
28	to include in a mandatory audited survey of processing



costs and yields.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

- Q. Would it make it, then, maybe reasonable to wait for this proposal until we know those packaging costs, or no?
- A. The Department does not currently acknowledge that it has -- the Department does not currently indicate that it has the authority to -- to do that kind of a survey. And the way I see that going, legislatively, is that it is likely to be a mandate only for products already included in the formulas. So to that -- for that purpose, it makes more sense to go ahead with this now.
 - O. Sure. Sure.
- A. Especially, if -- if there was evidence, and I -- I would like to see more evidence, but every indication I have had in my career is -- anytime I have looked into it is that blocks and barrels, 640s and 40-pound blocks, are sold at the same price.
- Q. So you would not expect the -- any kind of price differential or basis between 640s and 40s?
- A. I'm not aware of one. That would be -- it would be useful to hear testimony that would lay that out.
- Q. Would it follow, then, that an equivalent result to including 640s would be achieved by some other reform that would equivalently reduce the weight of barrel cheese?
- A. I beg your pardon? Could you restate the question?
 - Q. What would -- let me rephrase. I'll try to be an



attorney here. If we include the 640s per Farm Bureau's proposal, what do you -- and if the barrels are not dropped, what would you anticipate to be the combined weight on the survey between 40s and 640s?

- A. I -- I don't know. There's no volume of data available on 640s, or anecdotally -- I mean, I have -- I have heard it suggested that 640s are approaching the volume of 40s, but I don't -- I don't know.
 - O. So -- so --
- A. So in that case it could be from a half to two-thirds.
- Q. So two-thirds would be a reasonable estimate, right? Not knowing the details, of course?
 - A. Sure.

2.

2.1

Q. So if two-thirds were to be resolved including 640s, and you don't expect any difference between 640s and 40s, would it not follow that the functional equivalent, price equivalent solution would be by just reducing the weight of barrels to one-third and not including 640s in the survey?

I'm not saying that that's something that the Department necessarily can do, but if they could do that, if they could just wave their magic wand and say, "Blocks, two-thirds; barrels, one-third," would that not produce the same announced cheese price as including 640s under the assumption that 640s would add one-third -- the blocks would be one-third and the barrels would be one-third?

A. The -- the -- our primary objective in -- in



proposing 640-pound blocks is to improve price discovery. So while it would have the -- I mean -- and obviously we support National Milk's proposal to drop barrels altogether. So the reweighting is -- you know, is a kind of half measure that doesn't really provide a satisfactory result. So it would -- it would -- it would certainly be an improvement over the status quo, but it would -- i

In fact, the fact that barrels don't really represent the larger cheese market, it's just dirtying the survey to have them included at all, even if it is 10%. And the real purpose -- the larger purpose of the adding the 640s is to make sure that the volume of cheddar cheese in the survey, the volume of block cheddar cheese in the survey, is made more robust and that there's less potential for sort of switching around to kind of capture things so any sort of -- any sort of -- so that it's more a robust price.

- Q. If -- if USDA were to adopt Proposal 3 and drop barrels, would there still be a need for including 640s?
- A. Yeah. As I said, our main purpose is to increase the -- improve the price discovery and increase the robustness of the survey.
 - Q. So -- so the answer is yes, you want --
- A. Yes. We want 640s added whether barrels are dropped or not.
 - Q. Why not add mozz as well if we are looking for



2.

2.0

2.1

more robust price discovery?

2.

2.0

2.1

A. You know, it's our policy to support including more products in the surveys, to use more products to price milk in the Federal Order system, and we would, I think, support that principle. The challenge is the -- is the practicality, the difficulties that Mr. Brown raised earlier today about -- about how -- how much variety there is of mozzarella. There's not a standard benchmark mozzarella that trades on the market that can really be, you know, used as a product with the substantial volume and a substantial -- you know, there's no benchmark mozzarella product.

So we would -- we would support it if there was a practical way to do it, but we don't see the practical way to do that.

Q. Thank you for that answer. And I just want to revert to something that I think I heard you say before, but I really don't mean to impute the words if that's not the way you meant it, so I'm going to ask it again.

Did you say that any solution that reduces the weights of barrel cheese is an improvement upon the current situation?

- A. On the status quo.
- O. What was that?
- A. On the status quo? Yeah, it would be an improvement on the status quo.

DR. BOZIC: Thank you very much. Those are all the questions I have.



1	THE COURT: Further cross other than AMS?
2	CROSS-EXAMINATION
3	BY MR. ROSENBAUM:
4	Q. Steve Rosenbaum for the International Dairy Foods
5	Association. I would like to start with the proposal to
6	add 640-pound blocks.
7	Are you aware that that question was something
8	that USDA did consider back in 2000 and they explicitly
9	rejected the inclusion of 640-pound blocks?
10	A. I don't recall that specifically, but it would
11	have been a it might have been a reasonable conclusion
12	at that time to that the volume was not sufficient to
13	require that to be included.
14	Q. Well, one point they did make was that 640-pound
15	blocks were not traded on the CME. Just take my word for
16	it.
17	A. I know they are not.
18	Q. We'll have some testimony to that.
19	Is that still the case today?
20	A. It is.
21	Q. Okay.
22	A. I don't believe that the CME should make USDA
23	policy.
24	Q. Well, are you okay. Are you aware that USDA
25	pointed to the absence of the trading of 640-pound blocks
26	on the CME as one reason why they were not going to
27	include it in the pricing formula?
28	A. I I believe that was part of the thinking. And



if you say it's in the record, I would believe that as well.

- Q. Okay. Is it, in fact, the case that for every single component that is being priced under the milk orders, the commodity being looked to is traded on the CME, that is to say 40-pound blocks, 600 -- 40-pound blocks, 500-pound barrels, and then also dry whey, and, in fact, nonfat dry milk, in all cases, it is the -- a commodity traded on the CME that's being used?
- A. I don't -- I don't recall -- I don't recall that there was a spot market for whey, dry whey before in the CME, before it was included, but -- but I'm not sure about that.
 - O. Is there one now?
- A. There's a futures and options market that is based on the USDA numbers. I don't know that there is -- I don't know if there is a spot market for -- is there a spot market for whey? I don't know if there was in 2000 or not.
- Q. Is there today either a spot or a futures market for each of the commodities that is used to set minimum milk prices?
- A. There is now a -- there was a spot market for powder, barrels, blocks, 40-pound blocks, and butter before -- before order reform, but there was not a spot market for whey. Whey was adopted based on the implementation of the -- of a USDA survey. And there are many markets over the years that the NDPSR has supplanted.



2.

2.0

2.1

- CME spot markets is the price discovery mechanism for much of the industry. So USDA no longer has to feel like it has to respond to what CME is doing or what standard CME follows.
 - Q. My question was simpler than that. Is -- is it, in fact, true that as of today, every commodity that is used by USDA to set minimum milk prices is a commodity that is either traded on the spot market or as to which there's a futures contract available?
 - A. As -- as of today, that's -- that's true.
- 11 Q. Okay.

5

6

7

8

9

10

15

16

17

19

2.0

2.1

22

23

26

27

- 12 A. Because -- because the whey market has been
 13 developed in response to USDA's use of whey in the price
 14 formulas.
 - Q. Okay. And -- and do you know whether a significant portion of 640s are made on a custom basis to customer specifications?
- 18 | A. I do not.
 - Q. You made -- you did make reference to the existence of a standard, I think, for 640-pound blocks; is that right?
 - A. The cheddar cheese standard --
 - 0. Okay.
- A. -- applies to 40-pound blocks and 640-pound blocks. It's the same standard.
 - Q. And just to be clear, we're talking there about the FDA standard as to what specifications the product has to be met to call -- has to meet to call it cheddar cheese



in this instance?

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

- A. We're talking about the FDA standard of identity for cheddar cheese.
 - Q. Okay.
- A. And we're talking about the AMS grading standard for cheddar cheese.
- Q. Okay. Is it -- as an example, we know that there are a series of standards that apply for inclusion in the price survey used to set minimum milk prices, correct?
 - A. Could you ask the question again?
- Q. Yes. To be included in the -- in the survey that USDA conducts of cheddar cheese, there are a variety of standards. As an example, the cheese can't be less than four days old or more than 30 days old, correct?
- A. Right.
 - Q. And standards for moisture content and things of that nature, correct?
 - A. Right.
 - Q. And these go beyond the FDA standards of identity, correct?
 - A. Some go beyond the grading standard. I mean, the age -- the standard -- the age is a specified in order to make sure that it's a price for current production -- current price for current production.
 - Q. Okay. So there isn't a current set of standards like that for 640-pound blocks, correct?
 - A. Well, by definition, because they're not included in the survey, there's no such definition, although the



- Q. And your statement that 40-pound blocks and 640-pound blocks sell at the same price is based upon the fact that some of the witnesses from National Milk declined to answer the question as to the difference?
- A. Not entirely. That's not -- that's not -- no, it's not based on that entirely. It's --
- Q. That's what you were referencing, though, when you made reference to people not answering questions?
 - A. That was -- that was the reference.
- 13 Q. Okay.

1

2.

3

4

5

6

7

8

9

10

11

12

14

15

16

17

18

19

2.0

2.1

22

23

2.4

25

26

27

28

- A. Because it's my experience that they are -- that they are priced at the same price, that the market is -- that there's no daylight between the two.
 - Q. Now, when it comes to -- let me switch over to unsalted butter.
 - A. Sure.
- Q. Okay. Once again, unsalted butter is not traded on the CME; is that correct?
 - A. That is correct.
- Q. And am I correct that unsalted butter does not store as well as salted butter?
 - A. Under certain conditions, it does not, right.
- Q. And is a lot of the salt -- let me start that question again.

Is a lot of the unsalted butter made in the United



States exported through premium-assisted sales such as the CWT program?

- A. I don't know that. I don't know how much is sold through those programs. I would -- I would -- I recognize that the NDPSR standards exclude products that are -- that are -- that are supported in that way, whether they are government programs or private programs.
- Q. And do you know whether -- well, do you know what quantity of unsalted butter is excludable on that basis, assuming unsalted butter were otherwise eligible for inclusion in the survey?
- A. I do not. I have not kept track of -- of CWT volumes over the years. The government support is -- doesn't really exist anymore. I don't have data. I don't have the CWT -- I do not have the CWT data. I would point out that most of the graded product is for domestic use, I believe.
- Q. And is there any evidence in the record as to what the cost of manufacture is of the two products, salted versus unsalted?
- A. I believe the primary difference is the cost of salt versus the cost of everything else, which is probably negligible. I do not have data.
 - MR. ROSENBAUM: That's all I have. Thank you.
 - MR. ENGLISH: Good morning, your Honor.

CROSS-EXAMINATION

- BY MR. ENGLISH:
 - Q. Good morning, Dr. Cryan. My name is Chip English



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

with the Milk Innovation Group.

- A. Good morning, Mr. English.
- Q. So I want to explore a little bit more of that.

 Would you agree that a significant element of
 unsalted butter is primarily made for the export market?
 - A. A significant part of it.
- Q. Yes.

1

2.

3

4

5

6

7

8

9

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

- A. Yes.
- O. And --
- 10 A. That's my understanding.
- 11 Q. So the U.S. standard --
- 12 A. Well, that comes and goes. I mean, our -- butter
 13 export volume comes and goes. But we still have
 14 substantial unsalted production.
 - Q. But regardless, the U.S. standard -- you mentioned cost difference. You understand and agree that the U.S. standard for grade AA is 80% fat, correct?
 - A. Right.
 - Q. And given that that's the standard, there is no economic incentive for anybody to make basically U.S. standard grade AA that would be higher than 80% butterfat, correct?
 - A. For domestic production, for --
 - Q. For domestic use, correct.
 - A. For domestic use? I think it's a good point you raise. You raise the point that the standard -- the grade standard is for 80%, and I don't know that 82% meets that standard. So most of our exports are 82% butterfat. So



that would suggest that the grading numbers do not include those exports.

- Q. Okay. So let's go back to -- you're a manufacturer of domestic salted butter, which needs to be graded to 80% butterfat, correct?
 - A. As I understand it.
- Q. And given the fact that, you know, butterfat is expensive, correct? It's not free, right?
 - A. It's not free.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

28

Q. There is no incentive for somebody producing for the U.S. salted butter market to produce higher than 80% fat, correct?

There's a cost to them for doing so?

- A. There's a market -- there's a market for so-called European style butter, which is 82% butterfat. It is growing. There are companies -- proprietary and cooperative companies that are producing butter with 82% butterfat, both salted and unsalted. It is a growing market.
- Q. But it is not the most significant market, is it? The most signature market for a commodity product is the U.S. standard 80%, correct?
 - A. Today, that's true.
- Q. But you already stated that, you know, for the significant element that is unsalted butter, that needs to be greater than 82%, correct?
 - A. I beg your pardon?
 - Q. It has to be equal or greater than 82% butterfat



to be exported, correct? The world market is 82%,
correct?

- A. If you say so.
- Q. You don't know?
- A. My understanding is that the market -- the -- I don't know what the requirement is, but I do know that the standard in the world market is 82% and that most exports are -- are 82%, if they are butter. There's also substantial exports of anhydrous milk fat and butter oil.
- Q. So the product that is exported that has 82% is going to be more expensive than 80%, correct?
- 12 A. 82%?

3

4

5

6

7

8

9

10

11

16

17

18

19

2.0

2.1

22

23

24

25

26

27

- 13 0. Yes.
- 14 A. Yes. And presumably would not be part of the 15 survey.
 - Q. So you would only certify -- you would only survey the product that is actually at 80%?
 - A. It's my -- and maybe I -- maybe I -- maybe I overlooked something, but it's my understanding that the grade standard is for -- is for 80% butter, that the 82% butter isn't graded. But it's -- certainly the standard in the survey could be established at -- within a range that is around the standard, the U.S. convention of 80%.
 - Q. Are you aware that unsalted butter that is sold in the export market will sometimes have added cost to culture it?
 - A. Say that again?
 - Q. Are you aware that unsalted butter made for the



export market often has added costs to make -- to culture
the product?

A. I'm not aware of that.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

2.4

25

26

27

28

- Q. Are you aware that unsalted butter made for the export market has additional testing requirements?
 - A. I'm not aware of that.

And it was not our intent to include products that have additional costs, additional standards and higher butterfat. The intent is to include butter that resembles the same commodity butter that is included in the NDPSR today except that it's unsalted. There has -- there has always been unsalted butter on the U.S. market, but the volume has grown to the point that it makes sense to include it in the survey.

- Q. Okay. So which unsalted butter would you include in the survey?
- A. The same type of butter that is in the survey currently, except that it is salted, that is unsalted.
 - Q. So same type. How do you define --
 - A. That same specifications.
 - Q. Same specification.

And you do not have, as asked by Mr. Rosenbaum, other than your theory that the salt is negligible, you don't have costs?

- A. I do not. It would be another -- another excellent subject for a mandatory and audited survey of processing costs and yields.
 - Q. Are you aware that in order to make unsalted



butter that meets the world standard, you have to run the
plant at a slower level in order to hit higher fat
targets?

- A. That makes sense.
- Q. And that would leave entities making such unsalted butter with lower plant throughput, fewer pounds of finished product to spread labor and overhead costs over, correct?
 - A. That would make sense.

MR. ENGLISH: I have no further questions.

THE WITNESS: And our intent is not to include the export oriented -- the export targeted butter with the higher standards and additional practices. It's specifically aimed at old-fashioned American unsalted butter.

MR. ENGLISH: I have no further questions.

CROSS-EXAMINATION

18 BY MR. MILTNER:

4

5

6

7

8

9

10

11

12

13

14

15

16

17

19

2.0

2.1

22

23

24

- Q. Ryan Miltner representing Select Milk.

 Good morning, Dr. Cryan.
- A. Good morning, Mr. Miltner.
- Q. You know, I just read an article about whether lawyers should be called doctors, since we have doctorate degrees --
 - A. Oh. Good morning, Dr. Miltner.
- Q. No. I -- I personally -- I personally don't like it, but -- but there's a subset of lawyers that think they ought to do so, so --



- A. I think you are entitled. I think you have that J -- that D in the JD. So if you want me to call you doctor, I will, and if you want me to call you mister, I will.
- Q. Either way is fine, but I prefer mister.

 On page 2, where you -- the paragraph that leads with "impact."
 - A. Yes, sir.

2.

2.0

2.1

Q. You reference avoiding the potential for block manufacturers to switch between sizes to avoid and re-enter the price survey.

Are you -- are you aware of -- of instances where that's actually happening?

- A. I would say that there has -- in the administration of the NDPSR program, there's always a desire to make sure that there's as little temptation to -- to -- to manage the results is possible.
- Q. Explain if you could, for the record, how that would work and what the impacts would be if that were occurring.
- A. In principle, hypothetically, a manufacturer could -- could -- could deliver loads of 40-pound blocks at a higher or lower price depending on how they wanted to affect the market, and deliver the loads of 640s at the opposite, you know, and the reverse with the intention of affecting the survey price. If they are required to include all of those blocks in the survey, they have less room to do that kind of thing. And I'm not saying that



O. Thank you.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

28

It begins -- beginning at the bottom of page 2, and continuing over to page 3, you cite several articles. May I correctly assume that the purpose of quoting those articles is to illustrate the growth of the 640-pound block market?

- A. Yes.
- Q. Is there anything else that you wanted USDA to take away from those articles?
- A. I guess the last one does indicate at least one opinion that it's time to include 640s. We have seen -- I have seen -- I don't know whether that's appropriate to include or not, but I have seen a number of folks in the industry saying, "Finally, we're talking about adding 640s, which is long overdue."

But the primary thing was this is the best evidence I could find of the growth in the production of 640s. It would be really nice if there was a more formal source for that, and if they were included in the survey, there would be.

- Q. Okay. I wanted to move to Proposal 5 if I could.
- A. Certainly.
- Q. The first paragraph under your Proposal 5 heading, you suggest that not including unsalted butter



underrepresents the value of U.S. butter --

- A. Yeah. I'm sorry.
- Q. No, go ahead.

2.

2.0

2.1

- A. That sounds as if I'm saying the price is lower than it would be otherwise. That's not really the intent. I don't -- I don't have reason to believe that unsalted butter price is lower or certainly not substantially lower than salted butter price when we're talking about the same kind of standard -- standard product that I would anticipate being in the survey. I don't expect there to be -- what did I just cite? Did I cite -- I don't expect the salted price to be substantially higher, if it is higher.
 - O. Thank you. You expected my question correctly.

As you move over to the top of page 4, and you describe the percentages of butter production in various categories, I personally have not been able to find a good number on the percent of butter manufactured that is sold at retail. Do you have any information on how much of the butter that's manufactured ends us up at retail?

A. I -- I don't. I would probably point to the grading numbers as some -- some indication of it. I don't know how much -- how much butter is graded without going to retail. The primary purpose for a lot of folks to grade butter is for it to be available for retail sale because retailers expect the grade AA seal on -- on retail butter. And that's -- that's both a marketing -- has both marketing value, and it has kind of quality control built



into it: If USDA has gone ahead and graded the butter AA, then it is good butter.

And so I don't know how much butter is graded if it's not intended for the retail market. And I don't have access to scanner data and a lot of the other things. There probably is a source somewhere, and I'll look for that. Try to get it on the record before the end of September.

O. Great.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

22

23

24

25

26

- A. We don't -- we don't -- you know, as representing farmers, we don't necessarily have the same access to processor resources as -- as cooperatives and proprietary handlers. So we have to find public information where we can.
- Q. I would say as counsel for a cooperative, that sometimes that extends to cooperatives as well.
- A. Yes. I'm sure it does. Yes.
- MR. MILTNER: Thank you. I don't have anymore questions.
- 20 THE WITNESS: Thank you, Dr. Miltner.
- 21 THE COURT: Yes, Mr. Rosenbaum.
 - MR. ROSENBAUM: Steve Rosenbaum for the International Dairy Foods Association. I have some follow-up questions on the -- on the unsalted butter proposal, which is Proposal 5.
 - CROSS-EXAMINATION
- 27 BY MR. ROSENBAUM:
 - Q. Did I understand correctly that in response to



questions by Mr. English, you said that the only unsalted butter that would be added under your proposal is that which is 80% butterfat?

- A. It would -- it is intended to include the butter that is analogous to the butter that's currently in the survey. And it is my understanding that a high -- a higher test butter is not included. It's my understanding -- and I probably should know this for sure, and I don't -- that the so-called European style butter or the -- whatever they call it, creamier style butter, is -- is not included because it's a premium product. It is not the intent to -- to start throwing in premium products into the -- into the survey in order to goose the price. That's not the intent. The intent is to enhance price discovery with a deeper volume.
- Q. All right. So if it is the case, as indeed it is, that the -- that the National Dairy Product Sales Report standards require that butter be 80% butterfat to be included in the survey, under your proposal, that standard would continue to exist and would apply to unsalted butter, correct?
- A. I think that's -- the language we offer indicates that.
- Q. Okay. And so -- but, in fact, the butter that's exported from the United States that is unsalted is today 82%, correct?
- A. I believe a lot of export butter is -- is made to different standards for the purposes of satisfying



2.

2.0

2.1

overseas markets. I don't know whether there is also some -- some volume that's being sold according to the standard American -- traditional American standards or not. But I do agree that most of our butter exports of butter per se are to higher standards -- to higher butterfat tests to meet the needs of the overseas market.

Q. All right. So if you look at page 4 of your testimony, Exhibit 129, and when -- and I'm looking sort of the middle of the page, where you say, and I'll quote: "USDA butter grading data should demonstrate growth and demand in production of unsalted butter. In addition, U.S. butter exports have grown from about 2,000 metric tons in 2000 to over 65,000 metric tons in 2022, almost entirely supplied with unsalted butter," end quote.

In fact, your proposal would exclude most, if not all, of that export growth because most, if not all of it, is butter that's 82% butterfat; is that fair?

- A. Yeah, probably. And I can see that it's a -- it gives the impression -- I understand that the testimony as written gives the impression that we're looking to include those -- those export products, and that's not the intent.
- Q. Okay. And -- and next question. We see here in Section 1170.8 of the CFR that the specifications for butter prices are specifically for 80% butterfat.
 - A. You say are or are not?
 - Q. They are.
 - A. Yes.
- Q. It's 80%.



2.

2.0

2.1

- A. We have no problem with that.
- Q. Okay. And so you're confirming my earlier statement that in order to be included in the survey, the butter has to be 80% butterfat?
 - A. Right.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

17

18

19

2.0

22

23

24

25

26

27

28

- Q. And you're fine with that requirement, correct?
- A. Fine with that. And that's -- that's our -- that was our intent.
- Q. Okay. And -- and to be included in the survey, another requirement is that the butter be packaged in 25-kilogram or 68-pound boxes as opposed to being packaged in retail sizes.

Do you understand that?

- A. Uh-huh.
 - Q. You need to say yes or no.
- 16 A. Yes. I understand that.
 - Q. And do you have any idea, to the extent that there is 80% unsalted butter being made in the United States today, how much of it is packaged in retail packages as opposed to these larger sizes?
- 21 A. No, I do not.
 - Q. Okay.
 - A. But I also know that an awful lot of butter that goes to retail is first made in one plant, sold in those sizes to another operation that will micro fix it for the retail market.
 - Q. And do you have any poundage you can --
 - A. I do not.



- Q. -- associate with -- let me --
 - A. Sorry.

1

2.

3

4

5

6

7

8

9

10

11

12

15

17

2.1

22

23

24

25

26

27

28

- Q. Do you have any poundage you can associate as to how much is packaged, if you will, from the get-go in retail size packaging and, therefore, would not qualify for inclusion in the survey?
 - A. No. I do not.
- Q. Okay. I mean, do you have any -- strike that.

 I mean, do you know what poundage of butter would be added to the survey if your proposal were adopted?
 - A. I do not.
- Q. That's all I have.
- THE COURT: Anyone else before we get to AMS?

 AMS.

CROSS-EXAMINATION

16 BY MS. TAYLOR:

- O. Good morning.
- 18 A. Good morning.
- 19 Q. Just a couple questions. I think most of it's 20 been answered through other questions.

You cite on the first page the 10% number we have heard many times on barrel production. Barrel production represents only about 10% of the cheese production in the U.S. I was just wondering for the record if you could expand if you had any information to support that number or is that just a generalization that you kind of accepted as you have heard other testimony.

A. We don't have specific data on that. But it's



consistent with my experience over the years, that there's nothing else really priced on barrels except barrels.

Q. Okay. And then on the next page you talk about adding 640s would move the balance of blocks and barrels closer to the actual market mix.

Can you expand on what the actual market -- what you mean by actual market mix and any information you have to support that?

A. The mix of products that are priced on one or the other, which is the same issue, the 10% versus the rest. The conventional wisdom, at least, is that the barrels are priced on barrels and everything else is priced on blocks. And so if it's 90/10 is the actual mix of how products are priced between barrels and blocks, or the other way around, moving -- moving -- adding the 640s would increase the volume of block pricing that is entering into the overall price.

And I think it is worth indicating -- it is worth noting that, you know, including barrels just kind of makes the price a dirty price. It makes it not -- not -- you know, it's neither fish nor fowl. It is not a block price; it is not a barrel price. If we conclude that the block price is the appropriate benchmark for cheese -- for most cheese, then we should -- it's better to have a price that's based on the block -- on block prices, 40s and 640s, in order to make sure that we don't just have a sort of wild card thrown in that skews everything -- that skews a price for the other 90%.



2.

2.1

- Q. And do you have information on what 640s are used for if we're talking about how 40s and 640s are interchangeable, as you discuss in your testimony?
- A. I don't have data. It is my understanding, though, that 640s are more easily handled by larger operators. I mean, larger scale users of blocks are happier with 640s. I think we have heard -- I don't know where I've -- if I heard testimony this week or if I heard -- if I read it, you know, a 640-pound block has -- has less surface area per pound of cheese than six 40-pound blocks. So there's quality issues. There's -- you know, there's -- there's just some handling advantages for somebody who is operating in a larger scale.

But to my understanding -- and, you know, 40-pound block can go to a smaller operator. I have seen 40-pound cheddar blocks at food service establishments. I don't think they buy 640-pound block. But if you need 40-pound blocks, you can cut the 640s. So I don't know that the -- I don't have -- reasonably there's a substantial difference for the most part in the uses of 640s and 40s.

Q. Moving to your Proposal Number 5 on adding unsalted butter. You have a sentence on there about -- on page 4, the first paragraph, towards the bottom:

"Although unsalted butter was produced in small quantities in the U.S. at the time of Federal Order Reform, its share of U.S. production and sales have grown substantially since then and is projected to continue growing."

I wonder if you could expand on that, in



2.

2.0

2.1

particular how you project it will continue to grow.

- A. I guess my only projection is I have gone -- I've gone online, and there are market reports that -- that are offered for sale, that I didn't buy, that where the summaries say unsalted butter sales are projected to grow. So it is not a very good -- it's not a very good source. But -- but they -- but they have been growing, and I think reasonable people are projecting that they will continue to grow.
- Q. And when it comes to -- you know, there's been discussion, kind of in all these surveyed products, proposals about how if we include it or didn't include a certain product, then the manufacturing costs and yields in the formula should also reflect whatever it is ultimately the products that are used.

So do you know if there's a manufacturing cost difference or yield differences in the production of salted versus unsalted butter that should be considered?

- A. You know, if it is the same butterfat test, in the same packaging, the same lines, it's I -- I -- as I said earlier, I -- my best guess would be it is negligible but I don't have data. I would love to see a survey, a mandatory and audited survey, in case you haven't heard that phrase enough.
 - Q. Just a few times.
- A. You will hear it again. I'm afraid.
 - MS. TAYLOR: That's it from AMS. Thank you.
 - THE WITNESS: Thank you.



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

2.4

25

26

27

1	THE COURT: Redirect?
2	Actually I have the witness here. Anything
3	further you would like to say in the nature of redirect,
4	since we don't have someone to present you and ask
5	questions. Anything that occurs to you that you would
6	like to add?
7	THE WITNESS: I I think I have had said
8	everything I wanted to say, and I appreciate the
9	questioners for their their provoking of additional
10	thoughts. So I'm good. I'm done.
11	THE COURT: Okay. With that, let's move to
12	introduce Exhibit 129 into the record.
13	Seeing no objection, Exhibit 129 is admitted into
14	the hearing record.
15	(Thereafter, Exhibit Number 129 was received
16	into evidence.)
17	THE COURT: Off the record.
18	(Off-the-record.)
19	THE COURT: Back on the record. Let's take a
20	ten-minute break. Come back at 11:47 a.m.
21	(Whereupon, a break was taken.)
22	THE COURT: Let's reconvene on the record.
23	Mr. Rosenbaum.
24	MR. ROSENBAUM: Your Honor, we recall Mr. Mike
25	Brown to the stand.
26	THE COURT: Very well.
27	MR. ROSENBAUM: Does your Honor have a copy of
28	IDFA-31?



1	MIKE BROWN,
2	Having been previously sworn, was examined
3	and testified as follows:
4	DIRECT EXAMINATION
5	BY MR. ROSENBAUM:
6	Q. Steve Rosenbaum for the International Dairy Foods
7	Association.
8	Mr. Brown, I put before you a document that's been
9	marked as IDFA Exhibit 31.
10	MR. ROSENBAUM: Your Honor, I would ask that this
11	be marked with the next Hearing Exhibit number.
12	THE COURT: Yes. IDFA-31 is marked as
13	identification as Hearing Exhibit 130.
14	(Thereafter, Exhibit Number 130 was marked
15	for identification.)
16	THE COURT: We'll say you are still under oath.
17	THE WITNESS: Okay. Thank you.
18	Since you don't have to hear about IDFA and me for
19	the 45th time, I'm going to skip some sections, but I'll
20	refer you to where I'm going in the testimony.
21	Again, Exhibit 31, and we are actually going to
22	page 2, to the second paragraph.
23	Accordingly, step one in the formulas by which
24	USDA sets minimum price for milk used to make Class III
25	and IV products starts with a survey of the price paid for
26	specified manufactured dairy products. Proposal 4 would
27	change that step in the process by adding a new product,



28

640-pound blocks, to the products whose prices are

included in the price surveys.

2.

2.0

2.1

For the reasons I will now explain, Proposal 4 should be rejected.

The next paragraph, again, is a repeat from our other testimony. So if you go on to page 3, to the first full paragraph, about seven lines down.

Proposal 4 would add 640-pound cheddar cheese blocks to the protein price formula used to price milk used to make cheese. Whether 640-pound blocks should be included in the survey used to set minimum milk prices is a question USDA has previously addressed and resolved. When USDA in 2000 held hearings in response to a Congressional mandate to reconsider the Class III and IV pricing formulas included in the 1999 final rule for the consolidation and reform of milk orders, a proposal was advanced to include 640-pound blocks in the survey. USDA, Milk in the Northeast and Other Marketing Areas; Tentative Decision on Proposed Amendments and Opportunity To File Written Exceptions --

(Court Reporter clarification.)

THE WITNESS: USDA agreed with the opponents' position that "the vast majority of 640s are made on a custom basis to customers' specifications, and therefore are not sufficiently uniform to have a standard identity." And, "[w]ithout a standard identity for the product, standardized pricing cannot be developed." Furthermore, the product was not traded on the exchange, end of quote.

As noted in my testimony regarding Proposal 3,



USDA's current pricing formulas reply on very substantial sales volumes to determine the market price of cheddar cheese. The price surveys encompassed well over 1.34 billion pounds of sales in 2022, divided almost evenly between 40-pound blocks and 500-pound barrels.

This robust data set is more than sufficient to determine prices in the market. 640-pound blocks are not needed to fill any information gap. Indeed, 640-pound blocks typically trade off the price of 40-pound blocks, and therefore bring little, if any, additional information to bear. Furthermore, only certain facilities are set up to purchase and handle 640s, so the market for them is much thinner.

Furthermore, 40-pound blocks and 500-pound barrels are both traded on the Chicago Mercantile Exchange, while 640-pound blocks are not. The absence of a public market makes 640-pound blocks unsuitable for determining actual market prices.

In addition, as was the case in 2000, there is no standard of identity for 640 blocks. They are more of a made-to-order product. Just as in 2000, the absence of uniformity makes it impossible as a practical matter to determine a uniform price.

For these reasons, Proposal 4 should not be adopted.

BY MR. ROSENBAUM:

Q. Mr. Brown, could you expand upon your statement that 640-pound blocks are more of a made-to-order product?



2.

2.1

How do you know that and what information do you have?

A. I have a lot of experience -- when I was at Kroger, we had two processing plants that used 640s whenever it was possible for most American style cheese. They are generally made to order, and there's a couple of good reasons for that.

First of all, we had that ability to get exactly what we want, profile, to put in consumer packages as far as aspects of the cheese. It meets standards of identity, but there may be some other changes that are made.

Second, because we can use those, and there's others, of course, that can use those as well. The market is kind of limited. It's kind of -- call it set theory, if you want. Certain people can use 640s. And they can generally use 40s if they have to. It tends to be very labor inefficient. But outside of those groups, people simply aren't set up to use them.

There's been comments on cutting them into 40s. Well, if you want mold and spoilage, cut up 640s, because that's what's going to happen to you. You lose your freshness if you try to do that, if you are not going to use them basically all at the very same time.

The other challenge with 640s -- there's a couple more, but one is exports. Generally, they are not suitable for export. Most buyers around the world aren't set up to handle -- to use 640s. So it is a very limited market for exports, which means, again, if your domestic buyer doesn't want them, you're probably not going to --



2.

2.1

you probably don't want to make them.

And finally is the fact that there isn't a traded market. I think that does -- there's a competitive difference between 640s and 40s. It is going to be smaller. Most 640s are contract, they're bought on an annual contract basis based off of the CME market, and so they're priced accordingly. There just isn't a lot of spot. In fact, when you do have a spot market -- or you do have the surplus of 640s, which happened this spring, you often will hold an auction because you can't sell them at the CME, so you basically hold an online auction to -- to sell the extra blocks.

As a result of that, I think you would find with 640s, you actually had more volatility in price on the margin because you don't have that CME option. And so while they are based on CME blocks, the price isn't necessarily always the same as a 40-pound block. It can be higher, or it can be lower. And it probably is a little more volatile on the margin.

- Q. Okay. And is this auction process less efficient or accurate than a traded market like the CME?
- A. Well, it's -- it's independent of the CME. So the market information doesn't feed back into the system the way that it would on a 40-pound block. So if it met spec, I guess it could be reported, if it -- if it were to happen. But, generally -- and they don't happen often, but when cheese gets long, that's their only avenue to sell the cheese, if they can't find a private buyer or by



2.

2.1

1	contract or by an agreement, they have to hold their
2	own own auction, which isn't isn't the best way to
3	sell extra cheese from what I understand.
4	MR. ROSENBAUM: Your Honor, Mr. Brown's tendered
5	for cross-examination.
6	THE COURT: Any cross aside from AMS?
7	Mr Cryan.
8	By the way, just I was thinking. I have not
9	I have been making a conscious effort not to say things
10	like "Mr. Cryan" or the name of counsel as they come up.
11	I don't want anyone to feel slighted, but I'm just
12	thinking it adds another couple lines to the hearing
13	transcript. It's going to be long enough. So I properly
14	should have said something earlier.
15	But, Mr. Cryan, you have this the witness is
16	yours.
17	DR. CRYAN: Thank you.
18	CROSS-EXAMINATION
19	BY DR. CRYAN:
20	Q. Roger Cryan, American Farm Bureau Federation.
21	Thanks for your testimony, Mike.
22	A. You're welcome.
23	Q. Are you are you suggesting that there aren't
24	any block makers that are just putting out a standard

A. Oh, yeah, I'm sure some do, and I'm sure some of the spec is for standard. You know, again, the standard for USDA reporting is pretty tight, particularly days.



640-pound block?

25

26

27

And so how much of that would be picked up, you know, I honestly don't know.

And the other thing with -- with a 640 is the contracts tend to be longer term just because manufacturers don't want to have capacity of 640s that they know isn't sold, so they tend to try to have it sold ahead of time. So it is less of -- it may be a CME-based cheese, but it is less of a spot market by sale. It tends to be contract.

- Q. And you talked about if somebody has extra, and they can't sell it in the CME because the CME doesn't trade 640-pound blocks, you said they could do an online auction.
- A. That's kind of last resort. If they have inventory they can't dispose of in another way -- and, again, like any -- any cheese, cheese changes with age.

 And so they generally want to sell that product when it's still has its original characteristics --
 - O. Sure.
- A. -- so they'll hold an auction. It tends to be a little older in an auction, as you might imagine, because it's inventory.
- Q. Sure. But those auctions are done on any of a variety of online exchanges that exist today; is that right?
- A. Yeah. It's basically an auction service per se, yes.
 - Q. Okay. But aren't there other -- aren't there



2.

2.0

2.1

exchanges like dairy.com that offer trading of a -- of a variety of dairy products?

- A. If you can find a buyer.
- Q. Right.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

2.4

25

26

27

28

- A. You can't always find a buyer. I tried to sell cream in April 2000.
 - Q. Right.
- A. We were members of Kroger. We called it the Dump Cream Club because there was no buyers for cream. And unfortunately, we had a lot of members along with us.

So the auctions are really when you can't find a suitable buyer and you think you're best off to do that. It is the last resort. But it does result in some lower prices. Would that cheese meet USDA specs and reporting? You know, I can't speak to that because I don't know. But the cheese is -- I have never bought cheese at an auction. I just know they exist.

- O. Have you sold cheese on an auction?
- A. No. Because we buy -- we don't sell cheese generally, we buy cheese, so --
 - Q. Okay.
 - A. Or we did at Kroger when I was there.
 - Q. Isn't it true if you're selling surplus into the CME, sometimes you are taking a lower price?
 - A. Depends on the demand, but you have an open supply and demand market. That's the beauty of the CME. You can love it or hate it, but it is the way we set prices in dairy and have for a long, long time.



- 1 Q. Right. 2. Α. And at this point we don't have that option with 3 640s. 4 Ο. Right. DR. CRYAN: Okay. That's all I've got. Thanks. 5 6 THE WITNESS: Thank you. 7 CROSS-EXAMINATION 8 BY MR. MILTNER: 9 Ryan Miltner representing Select Milk Producers. 0. 10 I think I have just one question for you, Mr. Brown. 11 You -- you answered some questions from 12 Mr. Rosenbaum about 640s being a made-to-order product. 13 And I think the one thing that I did not get from your 14 answer was what are the types of changes that would be 15 requested in making a custom 640? 16 Α. The -- the changes -- well, first of all, if you 17 have a certain spec to meet your consumer need, you can 18 have those changes. 19 But the bigger thing, Ryan, is just simply that 20 you don't make them as a commodity. If you don't have a 2.1 22
 - buyer, you don't make them, because they are harder to sell because you have a very limited market for them. So they may often -- they will often be spec, sometimes they are not. It depends on what your customer wants. And, again, keep in mind, USDA's standard of identity, you've got minimum specs. And then -- and then -- and then things move from there.

So certainly, they are -- a lot of the cheese is



23

24

25

26

27

1 standard cheese. The way it's purchased is what is very 2. There really isn't a cash market per se. that's why, for example, when Kroger would buy 640s, we 3 would -- we would have contracts that would have some flex 4 in them so that we didn't end up with cheese we didn't 5 6 need, and we would notify our manufacturers ahead of time 7 that we had a change. Because in most cases they could 8 make blocks -- they could make 40s instead of 640s if 9 there wasn't demand. Most of their 640 plants can do 10 both, not all but most can.

- 11 Q. But would there be variations in butterfat 12 content?
- 13 A. Generally not.
- 14 | O. Moisture?
- 15 A. Generally not.
- 16 Q. Color?
- 17 A. Possibly.
- 18 | O. Salt?
- 19 A. You have to put in to keep it -- no, salt's 20 basically a standard level of salt.
- 21 Q. Okay. So what would you change?
- 22 A. What would you change?
 - O. What specifications would change --
 - A. Color. Color may change. You may have a flavor or a certain culture that you want. Certainly, if you are a cheddar for aging, you have a different set of cultures as well because -- and it tends to be a little higher fat level, more moisture cheese than your -- what we call



23

24

25

26

27

short holder fresh cheddar.

1

2.

3

4

5

6

7

8

9

10

12

13

14

15

16

17

18

19

20

2.1

22

23

24

25

26

27

28

- Q. If it were going to be aged, it would be excluded from the survey anyway, wouldn't it?
 - A. That is correct.
- Q. So if I go to Kroger right now, the Kroger near me, if I'm going to buy cheddar in an eight-ounce block or a shredded bag, I think there's mild, medium, sharp, and extra sharp maybe --
 - A. That is correct.
 - Q. Those would all come from a 640?
- 11 | A. Yes, but different 640s.
 - Q. Right.

And of those, would only the mild one be subject to the survey requirements, if it came from a 40-pound block?

- A. If -- if -- if the color spec was in alignment and everything else, it could be, yes. The others are all -- medium cheddar for most people is cheddar for aging that you don't think is going to quite make it to the full age, so you sell it as medium. I don't want to make it sound like it is a bad cheese. It's not. But as you grade cheese, you move -- you go, oh, this one -- and it's amazing, those guys, how good they are at it. But they will decide, this cheese is going to be sold at a 60- or 90-day cheese rather than as a fully aged cheese.
- Q. So if I'm -- if I'm able to summarize this correctly, which I might or I might not, if it's going to be aged, that wouldn't be in a survey if it was a 40-pound



block?

2.

2.1

- A. That is true.
- Q. And so what's left would be, in Kroger at least, sold as a mild cheddar, it wouldn't be aged, and the specification change might be the coloration?
- A. Probably the largest would be coloration. In some cases you have specifics on moisture that you are looking for, but generally it's color.
- Q. Now, if Kroger were ever going to buy or another entity were going to buy 40-pound blocks to cut for mild cheddar, wouldn't they have the same difference in color specifications? I mean, wouldn't there be a certain range that's acceptable within the standards?
- A. To some degree, yes. But you don't make -- 40s are made, generally, more to general spec because they have so many market opportunities, and if you have extra ones that you need to sell, you can do that. Generally, 640s are very specific. Again, I'm not saying the color is always different, by any manner of speaking. But they tend to be a little more specific, and they tend to be long-term, as I mentioned before, long-term contracts based off the CME.
- Q. Yeah, most of the 640-pound manufacturers, they are contracting their volumes out for months, if not years, correct?
- A. Yeah. Generally, I think -- I would say the majority is probably a year.
 - Q. Okay.



1	MR. MILTNER: Thank you.	
2	THE COURT: Anyone else?	
3	CROSS-EXAMINATION	
4	BY DR. CRYAN:	
5	Q. Roger Cryan with American Farm Bureau.	
6		
	Mr. Brown, you talked about long-term contracts.	
7	Are those fixed price contracts or do they or are they	
8	formulas based off of a market?	
9	A. A mix of both.	
10	Q. Okay.	
11	DR. CRYAN: Thank you.	
12	THE COURT: Anyone else?	
13	AMS.	
14	CROSS-EXAMINATION	
15	BY MS. TAYLOR:	
16	Q. Good afternoon.	
17	A. Oh, we have changed time of day.	
18	Q. Just made it. This is Erin Taylor with USDA.	
19	You had some discussion with Mr. Miltner on your	
20	comment about how 640s are custom made, and you cite a	
21	2000 decision, a line in there from USDA about the "vast	
22	majority 640s are made on a custom basis."	
23	And would you say the market has changed in the	
24	past 23 years?	
25	A. It's grown, because more plants want the	
26	automation that goes with 640s. But I think most of them	
27	are still custom. Now, custom doesn't necessarily mean i	t
28	is non-standard. It just means, I want X blocks this	



month, at whatever the agreed upon price is. In other words, you don't make 640s without knowing who is going to buy them, generally --

Q. Okay.

2.

2.0

2.1

- A. -- because -- because of their -- you have less options if someone doesn't want them.
- Q. So if I'm just looking at just the product itself, between 40s and 640s, the product itself is probably the same except for packaging costs, generally?
- A. Yeah. And possibly color, but that can be true with 40s as well. But, yes, those are the main differences with standard of identity cheese in the case of cheddar.
- Q. Okay. So I'm trying to square how -- there's discussion in your other testimony on the block-barrel issue. How, you know, there you are, more survey volume is a good thing, and so we shouldn't drop barrels.

But here, you -- IDFA makes the case to not add 640s. And assuming the product is the same, right? They both met the specs, so it's not aged or any other -- you know, long -- no long -- excluding long-term contracts, all of that stuff, exclusions apply. How would -- how does the logic not -- that same logic not fall over to the 640 discussion where at least adding some additional volume would be a good thing and help for price discovery purposes?

A. I'm not -- the market is far more limited. You have far few people that can buy and handle 640s, unlike



40s or barrels. I think that's -- that's the biggest difference. You are correct, the cheese, the standard of identity would be the same. If you -- if someone asked for a different color or other differences, they can, of course. But it is -- it is a much more limited market, which can mean two things. It -- generally I think it means that most products are going to be at a fairly stable price.

It's when you get markets out of alignment, then you have extra. Or if you have very short, but generally it tends to be a little too much, is that's going to be sold at a fairly significant discount. Is the price level that different? You know, I look at buyers. I don't think it really is. It's probably a little more volatile, which, again, if that's acceptable, that's -- it's acceptable. But that would be my same view.

The other -- other thing is having two products that are tradable at the CME, one that isn't, is -- it's kind of like the same thing with game in the barrels, it is tradeable, it would be better if they had a 640 contract. I know it's been talked about before, and who knows, maybe this will make them decide to do it. But that would be the other thing that I see. All the other four commodities, of course, five, two cheddar, have trading markets.

Q. But I think you did state in previous testimony, it's not your opinion that Federal Orders necessarily should only include products that are traded on the CME.



2.

2.1

But I guess, which one comes first, the chicken or the egg, is kind of the question.

A. Well, whey came in 2018, so whey did come after -- after the -- and part of that was the circularity of the NDPSR cause the whey price, the same thing with the powder market, why that became -- how that developed.

So there's certainly -- there's certainly precedence for that. Is this -- is this a -- is this a product -- and, again, you will find out if you do a survey how much is legally reportable -- is it a product that would meet the spec often enough to be surveyed? I would say it probably is.

- O. Probably is?
- A. Yeah.

2.

2.1

- Q. Okay. So that gets to another question -- well, you mentioned something before about how, you know, 640s, because there's no CME market, they are often sold on auction if you need to get rid of inventory, and it's market-clearing prices you would see?
- A. Yeah. I wouldn't say often. I would say it's common.
 - O. Sure. That's fair.

So I'm also trying to square how -- the argument that while Federal Order prices should be minimum prices and should reflect market-clearing prices, if I carry that thinking over here, then wouldn't those 640s, if they are market-clearing prices, be appropriate to survey for this purpose?



- A. Well, if you did, you -- we'd learn how volatile they are, I guess is what I would say.
 - Q. Okay. Let me see. I think my last kind of set of questions is on the final paragraph you have, and you say, "There's no standard of identity for a 640-pound block."

What standard of identity are you talking about there?

- A. There is a standard of identity -- again, if you have them custom made, they are not. But if a cheddar is a cheddar, it's going to have the SOI, whether it's a 40, 640 or in a loaf, it's still going to have the same general requirements.
- Q. So the -- you are talking about the FDA standard of identity --
- 15 A. Yes.

1

2.

3

4

5

6

7

8

9

10

11

- 16 Q. -- there for cheddar, which --
- 17 A. Yes.
- Q. -- to my knowledge does not include any reference to packaging?
- 20 A. No. That's why I said it can be -- any of them 21 can be.
- 22 Q. Okay.
- MS. TAYLOR: I think that's it from AMS. Thank you.
- 25 THE WITNESS: Thank you.
- 26 REDIRECT EXAMINATION
- 27 BY MR. ROSENBAUM:
- 28 Q. Steve Rosenbaum for the International Dairy Foods



Association.

2.

2.0

2.1

When you testified about why 500-pound barrels should remain in the pricing formula, you referenced that those barrels actually serve a different ultimate product than do 40-pound blocks; is that correct?

- A. That is correct.
- Q. Okay. Namely the 500-pound barrels are typically used to make processed cheese whereas the 40-pound blocks are used in a different manner, correct?
 - A. Yes. 40s are generally used as natural cheese.
- Q. And one of the reasons why you thought you needed to include the 500-pound barrels is because there are more than -- whatever the number is, a billion -- more than a billion pounds of barrel cheese sold a year, and it's an important component of the market that needs to be captured, correct?
 - A. Yes. It is a true base product.
- Q. Okay. Now, did -- do -- so that's all a lead-up in a way to the following question: Do 640-pound blocks serve some different function?
- A. Well, they certainly aren't a base product because they tend to be made to order, and that's -- and that's -- and that's the big difference. Would it have a user effect on price? I don't know. But you are not going to see 40s -- 640s -- traded or produced without an expected market because there's likely more volatility than what they will bring in price. Again, that could be good or bad depending where you are in the market, but they are



1 going to be more volatile. 2. Is the end use of 640-pound blocks different? Not really. It's just a limited number of plants Α. 3 4 have the ability to use them. You have less customers. But what they are making with it is the same? 5 Basically, yes. 6 Α. 7 MR. ROSENBAUM: Your Honor, at this point I would 8 move Hearing Exhibit 130 into evidence. 9 THE COURT: Any objections? 10 Seeing none, Exhibit 130 is admitted into the 11 record. 12 (Thereafter, Exhibit Number 130 was received 13 into evidence.) 14 MR. ROSENBAUM: Your Honor, Mr. Brown has one more 15 topic to cover. This will be the last topic of his for 16 the day. And I will -- I am distributing copies, and I 17 will bring a copy to your Honor. 18 THE COURT: Thank you. 19 DIRECT EXAMINATION 2.0 BY MR. ROSENBAUM: 2.1 Mr. Brown, I have handed you a document that's Ο. 22 marked as IDFA Exhibit 32. 23 MR. ROSENBAUM: And I would ask that it be marked 24 with the same -- the next Hearing Exhibit number, your 25 Honor. 26 THE COURT: Yes. It will be marked Exhibit 131. 27 (Thereafter, Exhibit Number 131 was marked 28 for identification.)



BY MR. ROSENBAUM:

2.

2.1

- Q. Mr. Brown, is Hearing Exhibit 131 your written testimony regarding the proposal to add unsalted butter to the price survey?
 - A. Yes, it is.
- Q. All right. And -- and as with your last testimony, I believe that the first page and -- the entire first page as well as the top half of the second page --
 - A. Is redundant.
- Q. -- is redundant of the testimony you have already given with respect to other proposals. So if you could turn to page 2, the paragraph that starts with the word "accordingly," and read your testimony.

A. Yes.

Accordingly, step one in the formulas by which USDA sets minimum price for milk used to make Class III and IV products starts with a survey of the price paid for specified manufactured dairy products. Proposal 5 would change that step in the process, by adding unsalted butter to the prices included in the price surveys.

For the reasons I shall now explain, Proposal 5 should be rejected.

In order to set the butterfat price component of the price of milk used to make Class I, II, III, and IV products, the orders since 2000 have in step one relied upon the U.S. average price for AA butter. This price is obtained through a survey of the National Dairy Products Sales Report (NDPSR).



Grade AA butter is traded on the Chicago Mercantile Exchange. Thus, by basing the butterfat price on the price of Grade AA salted butter, USDA is relying on a heavy volume of trade data of a commodity that is subject to uniform specifications, publicly traded, and for which price surveys are already conducted.

None of the foregoing attributes apply to unsalted butter. There is no uniform specification for unsalted butter. Without a uniform specification, it is impossible to derive a uniform price for purposes of a Federal Order pricing formula.

And with that specification, I'm adding this referring to the CME.

Indeed, because unsalted butter does not store as well as compared to salted butter, unsalted butter is more



17

18

19

2.0

2.1

22

23

24

25

26

27

28

The

likely to be made to order, according to the requirements of a specific buyer, and thus even less capable of providing useful uniform price information. In addition, unsalted butter tends to be priced off the CME Grade AA salted butter price, and therefore does not bring to bear any new pricing information.

Furthermore, substantial quantities of unsalted butter are exported through premium-assisted sales such as the CWT program. These sales are explicitly excluded from the NDPSR Reports, for the very reason that they are not reflective of actual competitive pricing for butter. This treatment provides further proof that unsalted butter should not be relied upon for determining the market price of butter, for milk order pricing purposes.

For these reasons, Proposal 4 should not be adopted.

Q. Once again, I think there's a typo, which I didn't see until now. I believe the last sentence should be referencing Proposal 5 rather than Proposal 4; is that correct?

Is that a correct correction we should be making, Mr. Brown?

- A. Yes, that is correct.
- Q. Okay.

MR. ROSENBAUM: We tender Mr. Brown for cross-examination.

THE COURT: Cross other than AMS?
Seeing no one, Ms. Taylor.



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

27

MS. TAYLOR: Everybody's hungry for lunch, I think.

CROSS-EXAMINATION

BY MS. TAYLOR:

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

28

- Q. Just a couple quick questions. And I do appreciate in page 3 you discuss specifically you are talking about no uniform specification on the CME for unsalted butter.
 - A. Yes.
- Q. So -- but then you make the statement, without that, "it's impossible to derive a uniform price usable for purposes of a Federal Order pricing formula."

Can you explain what you mean there and why it's impossible?

A. Well, maybe impossible is too strong a word. I think the fact that CME doesn't recognize and have a contract I think is the -- again, I do believe it's best to have a cash market available for a product if you are going to survey it. And that's one thing.

There's a couple other reasons that salt is a bit of a challenge. One of those is that it tends -- kind of like 640s, it tends to be made to order. Coming from a grocery store chain that sold lots -- millions and millions and millions of pounds of butter, one thing you will find is that you actually have to make butter ahead for fall season because no one told the cows that people eat twice as much butterfat at Christmas.

So as a result of that you do what they call --



couple different terms for it, but micro fixing, re-packaging, which uses frozen, 68- or 25-kilogram packages of butter, that is almost without exception salted, because the salted is easier to store, it stays in a specific in quality, has less issues with mold or spoilage because of that good old salt that's in it.

So if you're looking for a storable commodity, salted butter is that storable commodity. So that's one of the -- one of the reasons.

So it's kind of like 640s, it's still butter, but of course, it's salted -- I mean unsalted. But it has -- it has different storage properties.

From my personal experience I have never bought repackaged unsalted butter. I've bought many, many, million pounds of repackaged salted butter because it seems to work well.

- Q. So when you are talking about likely made to order, I won't call it just in time, but sort of, you order it when you need it, and as a purchaser, you don't plan to store that for very long?
- A. No. Generally not. Generally, even in a store, your sell-by date on unsalted butter is two months less than it is on salted, from my experience.
- Q. And so it's -- I'm trying to tie the loop. So it's the storage properties of the butter that make it, I'll say difficult instead of impossible to derive a uniform price?
 - A. It is -- it just -- it just doesn't -- it doesn't



2.

2.1

keep as well. I mean, you have more risk of spoilage with unsalted than you do salted, which is why, if you are looking at what's the true commodity in the United States, it's unsalted.

Another -- another I think factor I think about here, and maybe it doesn't matter, but most butter that's imported into the United States is unsalted. And so that trade balance can also affect that unsalted market more so than salted just because most imported butter is unsalted. Again, I'm not going to quantify what that is because I don't know. I haven't bought bulk butter from -- I bought packaged butter from overseas but not bulk butter, so I can't speak to the extent that that's an issue.

MS. TAYLOR: That's it from AMS. Thank you.

THE WITNESS: Thank you.

CROSS-EXAMINATION

BY DR. CRYAN:

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

28

Q. Roger Cryan, American Farm Bureau Federation.

Mike, you talked about storage and needing to store salted butter for the holiday bulge in demand, and when butter is produced, most butter plants are capable of producing either salted or unsalted butter; is that not right?

- A. Yeah. And it's a pretty easy switch.
- Q. And so wouldn't the relatively -- the relative ease of switching out one or the other allow for that kind of storage of the unsalted -- production of salted butter, you know, meeting the unsalted demand in the wintertime,



but still for the cost to kind of -- the prices to converge because of the ease of switching over from one to the other?

A. I -- they are just different products. And they are handled different -- again, if we're looking at the commodity, I think -- although unsalted butter is a commodity across the world, in the U.S. -- and maybe others will testify on this -- it's viewed differently because you generally don't want to store it because of risk of spoilage and because the specific markets.

And it's big, but I wouldn't say -- as far as share of retail butter, I can speak -- one of the many amazing things that happened during COVID is everybody started baking at home. And so you saw -- from my experience, you saw unsalted butter gain to where it was almost 40% of the market, and then the next year it went right back to where it was, which was 30 to 35. People I guess decided they liked -- once the bakeries opened back up again, they didn't buy it anymore. Butter sales went up, but the share of unsalted went down.

So it seems to be fairly stable. I can't speak for commercial use because I don't -- I haven't been in that business. But on a retail level, the share is pretty stable. All I do know is I don't get it packaged ahead like you do salted butter.

- Q. So in your experience, the unsalted butter share of the retail market is 30 to 35%?
 - A. Roughly.



2.

2.1

Q. Okay.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

22

23

24

25

26

27

- A. And that's going to vary by company. It's going to be -- it's going to be probably smaller in your discount stores. It's going to be larger in your gourmet stores, which I would expect, for example --
 - O. Sure.
- A. -- there would be some difference there.

 Although, again, I worked for a middle of the road one, so we had everybody.
- Q. And you said most of our imports of butter are unsalted. But those are not -- those aren't commodity American style unsalted butter, those are primarily --
 - A. Yeah. Pretend to be higher fat, you're correct.
 - Q. -- the premium products? Okay.
- A. But if you are using it for industrial use, which some of that, a lot of that is, you can usually substitute with your, whatever you're making, whatever your recipe is.
- Q. Sure. But the fact that you can easily switch out from salted to unsalted on the production side, they are easy production substitutes, doesn't that tend to lead to the prices to converge?
- A. Well, I wouldn't argue that the prices aren't close to the same, but I would argue that if we have a broadly surveyed commodity product, which is salted butter, do we need to add unsalted.
 - Q. Okay.
 - A. And what's real benefit from that. Because it



1	isn't a commodity as much. It's more made to order.
2	Q. Thank you.
3	DR. CRYAN: Thank you.
4	THE COURT: Anyone else before redirect?
5	Redirect.
6	REDIRECT EXAMINATION
7	BY MR. ROSENBAUM:
8	Q. Mr. Brown, just to clarify in case there's any
9	ambiguity, which is the product that can be stored longer?
10	A. Salted.
11	MR. ROSENBAUM: Your Honor, at this point I would
12	move Hearing Exhibit 131 into evidence.
13	THE COURT: Seeing no objection, Exhibit 131 is
14	admitted into the record.
15	(Thereafter, Exhibit Number 131 was received
16	into evidence.)
17	THE COURT: You may step down, or move on to the
18	next of your topics.
19	It's 12:29. It seems like an appropriate time for
20	lunch to me. Is that what you were going to say,
21	Mr. Rosenbaum?
22	MR. ROSENBAUM: Yes, your Honor.
23	THE COURT: Okay. So let's come back at 1:30.
24	(Whereupon, a luncheon break was taken.)
25	000
26	
27	
28	



1	TUESDAY, SEPTEMBER 5, 2023 AFTERNOON SESSION
2	THE COURT: Let's come to order. On the record.
3	Ms. Hancock.
4	MS. HANCOCK: Your Honor, we have Ms. Emma Downing
5	Reynolds here to testify.
6	THE COURT: Okay. Before we she may come up to
7	the stand, and I will swear her in in a minute.
8	I understand we have a preliminary item. I think
9	last week Mr. Crinion, Exhibit 124, we didn't have hard
10	copies of that. So I forget what we did. We may not even
11	have marked it.
12	We marked it, but we didn't yeah, we marked it,
13	but there was nothing to mark, I guess, right, which
14	explains some things on my table.
15	Do we want to take that up now as to whether it
16	should be admitted or not? Do people want some time to
17	look over it? We can take some time.
18	MR. HILL: This appears to be Edge-3?
19	THE COURT: Yes.
20	MR. HILL: Yes, sir. We do have a copy of this
21	for 124.
22	MS. TAYLOR: Last week, your Honor, Mr. Crinion
23	was one of the six dairy farmers that testified, and his
24	testimony was up on our website in advance, but we didn't
25	have paper copies. So we have printed a few just to make
26	sure we have paper copies in the record for any reference
27	later and to give you a paper copy. I don't recall if



28

that was entered into the record at the time. I do know

1	we marked it.
2	THE COURT: Okay. So I'll sua sponte move it into
3	the record. Any objection to Exhibit 124 being made a
4	part of this hearing record?
5	We can Mr. Rosenbaum, I know you stood up. I
6	mean, we can delay until the next break or whenever, too.
7	Okay. Let's just take this up at the next break
8	or some whenever someone reminds me probably.
9	Hi, welcome to the stand. Please raise your right
10	hand.
11	EMMA REYNOLDS,
12	Being first duly sworn, was examined and
13	testified as follows:
14	THE COURT: Your witness, Ms. Hancock.
15	MS. HANCOCK: Thank you.
16	DIRECT EXAMINATION
17	BY MS. HANCOCK:
18	Q. Good afternoon.
19	A. Good afternoon.
20	Q. Is it Downing or Reynolds or hyphenated?
21	A. Ms. Reynolds is fine.
22	Q. Okay. We're making the transition.
23	A. We're doing it.
24	Q. Okay. Well, good afternoon, Mrs. Reynolds.
25	A. Thank you.
26	Q. Congratulations.
27	Would you mind stating and spelling your name for
28	the record?



- 1 A. Emma, E-M-M-A, Reynolds, R-E-Y-N-O-L-D-S.
 - Q. And could you provide your business address?
- A. 1405 North 98th Street, Kansas City, Kansas,

4 | 66111.

2.

5

6

7

8

9

22

23

2.4

25

26

27

- Q. And are you here to present testimony on behalf of National Milk?
 - A. I am.
- Q. And is that what's reflected in what's previously been marked as Exhibit NMPF-11?
- 10 A. That is correct.
- MS. HANCOCK: Your Honor, if we could have for identification purposes this document marked for her testimony.
- THE COURT: Yes. Marked -- the exhibit so described is Exhibit 132 for identification.
- 16 (Thereafter, Exhibit Number 132 was marked for identification.)
- 18 MS. HANCOCK: Thank you.
- 19 BY MS. HANCOCK:
- Q. Mrs. Reynolds, would you mind providing us with your testimony.
 - A. Hello. My name is Emma Reynolds, and I work for Dairy Farmers of America, Inc. (DFA), a leading global, farmer-owned milk-marketing cooperative. I first started as an intern with the Cooperative in 2016, working in fluid milk marketing.
 - After receiving a Master of Science in

 Agricultural and Applied Economics with a Public Policy



Analysis emphasis from the University of Missouri, I transitioned into a new full-time position working on a multitude of projects focused on policy, milk analytics, and strategic initiatives.

Today, my role in dairy policy and industry relations provides an opportunity to work directly with our farmer-owners, staff across the Cooperative, and a variety of others in the industry.

I am here today representing DFA and the National Milk Producers Federation (NMPF), and I am testifying in support of the USDA Proposal 3, submitted by National Milk, to remove the USDA average survey price for 500-pound barrel cheddar cheese from the computation of the protein price, which falls within the hearing subject area of "2. Surveyed Commodity Products."

The inclusion of the barrel volume is no longer necessary to achieve a representative 40-pound block survey price. Since the price difference between blocks and barrels has diverged, it is no longer practical to convert a barrel price to a block price.

Over the last few years as the prices diverged, the Federal Order process of computing the Cheese Price by using 500-pound moisture-adjusted barrel prices have reduced the Class III price, which was not the intent when this survey convention was codified in 2000.

The National Milk proposal to delete 500-pound moisture-adjusted barrel cheddar cheese will preserve the intent of USDA to have the protein price based on the



2.

2.1

40-pound block price.

2.

2.1

As stated in National Milk's initial proposal, the Class III milk price is derived from calculations of component prices for protein, butterfat, and other solids. The protein component price formula references two survey price series for cheddar cheese submitted by manufacturers through the Dairy Product Mandatory Reporting Program (DPMRP) and reported in the weekly National Dairy Product Sales Report (NDPSR). These are the 40-pound yellow cheddar cheese (block) prices and the 500-pound moisture-adjusted barrel cheddar cheese (barrel) prices four to 30 days old.

The total cheese price used in the protein price calculation ("Cheese Price") is the weighted average of the block and the combination of moisture-adjusted barrel price plus \$0.03 per pound. The weighting is derived from the sales volumes reported in the survey.

In Section II: Discussion of Material Issues and Proposed Amendments to the Orders from the 2000 Federal Milk Marketing Order Reform document, USDA cited a concern over a "thinness" of trading when originally structuring the classified pricing formulas during Federal Milk Marketing Order Reform.

The document continued by stating, "Many commenters insisted that barrel cheddar cheese prices should be included in a weighted average with block cheddar prices since much more barrel cheese is produced than block cheese."



Given these reservations, block and barrel prices were included to encourage an adequate sample size for the data collected. The decision document reinforces this directive by stating, "Including both block and barrel cheese in the price computation increases the sample size by about 150%, giving a better representation of the cheese market." Chart 1 displays USDA NDPSR block volumes from 1999 and the survey's sales volume growth since.

Additionally, the document referenced above states: "[S]ince the Make Allowance is for block cheese, the barrel cheese price must be adjusted to account for the difference in cost for making block versus barrel cheese. The \$0.03 that is added to barrel cheese is generally considered to be industry standard cost difference between processing barrel cheese and processing block cheese." The Cheese Price within the Class III formula still applies this same price correction today, over 20 years later.

As could be expected, cheese market dynamics have heavily evolved over more than 20 years. Consumer demand is transforming to prefer more natural cheese as opposed processed cheese. Chart 1, displaying block sales volumes as reported in the NDPSR, shows continued long-term growth in volume with a compounded annual growth rate of 4.19%.

In 2022, the NDPSR reported a total block volume of 652,831,270 pounds, more than two times the volume of the 40-pound blocks in the 2000 survey. In 2000, the combined NDPSR block and barrel sales volumes totaled only



2.

2.1

769,707,920 pounds.

2.

2.1

As shown in Table 1 and Chart 2, 2022 NDPSR block sales volume was nearly 85% of the combined 2000 block and barrel total. With projected new cheddar cheese capacity coming online within the next five years, the continued growth of NDPSR block sales volumes is expected.

Given the growing capacity of block sales volume within the NDPSR, the original reasoning behind the inclusion of barrels -- the "thinness" of the block market -- is no longer valid.

In reference to the American Farm Bureau
Federation's (AFBF) proposal to incorporate 640-pound
blocks into the Cheese Price and NDPSR, the information
cited above supports the sufficiency of sole inclusion of
40-pound blocks. While AFBF's participation in this
process is appreciated and important, the current, and
anticipated future, 40-pound block volume provides an
adequate dataset.

There is currently no public spot market for 640-pound blocks, making the pricing correlation between 40-pound blocks and 640-pound blocks uncertain. Without available market information confirming prices of 640-pound blocks and 40-pound blocks move together, incorporating 640-pound blocks could promote the same market disparity as currently displayed with 500-pound barrels.

As stated in National Milk's initial proposal, the CME 40-pound block cheddar price is used as the pricing



index for most cheese produced in the United States. Cheddar 40-pound blocks, 640-pound blocks, mozzarella, other American-type cheese, and other types of cheese, including cream cheese, and Hispanic cheese, are all typically based off the CME 40-pound block cheddar price.

It is estimated that more than 80% of the natural cheese market utilizes block pricing. Given the infrequent application of barrel pricing as a price index for the majority of U.S. cheese, the continuance of moisture-adjusted barrel pricing is used in the Protein Price calculation, which factors into the Federal Milk Marketing Order Class III price, is not representative of market realities.

While the USDA decision referenced above states that the inclusion of barrels was originally done in effort to ensure adequate sales volumes for cheese, actual cheese buyers and sellers do not require such a high threshold. The daily CME Group cash block cheese market is widely recognized by market participants as heavily influencing the price of cheese across the industry.

However, as shown in Chart 3, annual CME block cheese volumes are not as large compared to NDPSR block volumes. This suggests that the marketplace acknowledges the CME, even with a smaller sample size than the current NDPSR block volumes, when determining the wholesale pricing for most of the cheese manufactured and sold in the United States.

By this comparison, the volume of 40-pound blocks



2.

2.0

2.1

included in the NDPSR survey is more than adequate to determine the cheese price for USDA to use in calculating the USDA Federal Order Protein Price.

From 2017 to 2022, NDPSR weekly average prices for block and moisture-adjusted barrels showed that blocks were more than \$0.03 per pound greater than barrels, an astounding 73% of the time.

Chart 4 displays the block and barrel spread applied to monthly USDA AMS Announced Class Cheese Prices. The two horizontal red lines outline the bounds for \$0.03 per pound and negative \$0.03 per pound. The chart shows several large divergences, especially between 2017 and 2022, suggesting the claimed predictable \$0.03 per pound price spread for blocks and barrels no longer applies.

Additionally, Chart 4 exhibits that block prices are greater than barrel prices by more than \$0.03 per pound for many months within the eight-year period analyzed. Given the Cheese Price used for the Class III price is an average of blocks and the combined moisture-adjusted barrels plus \$0.03 per pound, the inclusion of barrels at this time is misaligned with the original intent and expectations of the decision document.

Because of how the current Cheese Price is structured, when the barrel price consistently trails the block price, it results in an unintended decrease in the Cheese Price, which negatively affects the Class III price.

To further highlight this problem, Chart 5



2.

2.1

demonstrates how these variances widen when a simple annual average is taken to the block and barrel spread applied to monthly USDA AMS Announced Class Cheese Prices.

USDA's Federal Milk Marketing Order Reform decision in 1999 went to great lengths to make the barrel price "look" like a block price. It adjusted the barrel price by converting the barrel moisture content to be like blocks and it added in the \$0.03 per pound barrel discount that was representative of lower packaging costs.

For reference, the 1999 USDA decision stated, in explaining the reasoning for the \$0.03 per pound barrel discount, that "[a] number of other commenters argued that the proposed cheese Make Allowance would cover the cost of making none of the cheese made in California."

With the expansion of 40-pound block production and the growth of its reporting in the NDPSR survey, the inclusion of barrel prices is no longer necessary or helpful. Additionally, the adjustment used to convert a barrel price to a block price equivalent is no longer accurate nor required.

In fact, it is harming the proper valuation of the Class III price by failing to account for frequent dramatic block-barrel spreads that negatively impacts the Cheese Price, creating a disorderly market condition that is counter to USDA's stated intent in its 1999 decision.

In closing, the National Milk proposal to remove the U.S. average survey price for 500-pound barrel cheddar cheese from the computation of the protein price is more



2.1

representative of current marketing conditions and more consistent with USDA's intent than the computation currently used.

The fundamental purpose behind the barrel inclusion is no longer applicable more than 20 years after the original decision was made. The elimination of barrels will result in the protein price factoring into the Class III price more accurately representing how U.S. cheese is priced within the current marketplace.

Thank you for allowing me to testify today.

- Q. Thank you, Ms. Reynolds. Appreciate you reading that into the record.
- I just want to chat with you about a couple of your -- of your charts. Let's look at -- let's look at page 6 of your testimony under Chart 4.
 - A. Okay.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

- Q. And is this chart used to reflect the volatility of the barrel price spread on a monthly basis for all the months reflected there on that chart?
- A. That is correct.
- Q. So it ranges from January 1st, 2014, through September 1st of 2022?
 - A. That is correct.
- Q. Do you know what happens if you take it from January -- or I'm sorry -- September 1st of 2022 to the present?
- A. I did not look at that specifically. I believe it becomes more volatile.



Q. Okay. And you were flying this morning, so you
didn't, I'm sure, get a chance to hear. But Mr. Brown
testified, and he had reported some annual numbers
annual average weighted numbers with respect to block
or excuse me with respect to barrel pricing. And for
2022, it showed I think a difference of .01 on a weighted
average basis, and he had acknowledged that there had been
some volatility in 2022 before it netted out to be an
annual average of not very different.

I'm just wondering if -- if that has been your experience as well for 2022 through year end.

A. Correct.

2.

2.0

2.1

- Q. Do you know or do you have an opinion as to what is driving or causing that volatility?
 - A. I don't have an opinion on that.
- Q. Okay. And then let me just -- one more question here.

When we look at your Chart 5, this kind of goes to where I was just at when I was reflecting on Mr. Brown's testimony. When you look at 2022, it looks like your average annual block-barrel spread for 2022 is quite small. I'm wondering if you could talk about -- talk about that.

- A. So as you stated earlier, referencing Chart 4, you look at the monthly view, it is -- the volatility is much greater. But as you reference, you know, when you get to those annual averages, it -- it looks smaller.
 - Q. Okay. Then so on a monthly basis, though, the



experience of those who would be relying on that market, it would be much more extreme than what's reflected in the annual average?

- A. Correct. And, you know, when you are operating in the market, you don't know that things are going to wash out at the end.
 - O. Okay.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

28

MS. HANCOCK: Thank you, your Honor. We would tender Ms. Reynolds for cross-examination.

THE COURT: Cross?

CROSS-EXAMINATION

BY MR. ROSENBAUM:

Q. I'm Steve Rosenbaum for the International Dairy Foods Association.

Let me start with your chart on page 3 of your testimony, Table 1, which tracks the volume of block sales and barrel sales included in the USDA survey for setting minimum milk prices, correct?

- A. Correct.
- Q. And you provide some discussion of that, but I don't see any discussion where you simply compare the change in volume of blocks versus the change in volume of barrels. Is that correct? You don't discuss that?

 Anywhere?
- A. Change in blocks -- so within Chart 1, the change in volume of blocks is highlighted.
- Q. Your written discussion doesn't discuss that -that issue, right, how much one has grown versus how much



1 | the other has grown?

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

23

24

25

- A. Within the prior paragraph, I do point out the CAGR, so the compounded annual growth rate, of block volume.
 - Q. Right. But you didn't do anything like that for barrels, correct?
 - A. Within the content of my testimony, I only presented the chart for barrels.
 - Q. Okay. So tell me how I'm wrong but -- and this is eyeballing, I didn't have time to do the actual calculation as I was preparing -- but it looks like barrel production between 2000 and 2022 -- in terms of what's included in the survey -- the barrel production is up around 270 million pounds; is that correct?
 - A. I'm not going to attempt to do math on the stand.
 - Q. Well, is it 713 million minus 451 million? Is that the calculation?
 - A. So you said 222, barrel volume is 713 million, approximately. And you're referencing what year prior?
 - Q. 2000, the year you started with.
- A. 2000. Is the 451 million, approximately, pounds, correct.
 - Q. Right. So it's roughly an additional 270 million pounds of barrel cheese?
 - A. If you say so.
- Q. And block cheese goes from using the same years, 318 million to 652 million; is that correct?
 - A. That is what the table shows.



Q.	. And	d that	's	a roug	ghly	330	million	barrel	 excuse
me.	Start	that	que	stion	agai	in.			

That's a roughly 330-million-pound increase in blocks?

- A. Yes. As my testimony states, block volume from 2000 compared to 2022 was more than double over those 22 years when it comes to volume reported within the NDPSR.
- Q. Right. But I asked a different question. I asked you whether the increase was around 330 million barrels.

 Is that -- strike that.

I asked you whether the increase was about 330 million pounds; is that right?

- A. From 2000 to 2022, block volumes -- I'm not doing math on the stand, but I would say that's -- that's fair.
- Q. Okay. So is it -- is it fair to say that in broad strokes, the growth in block pounds and the growth in barrel pounds are pretty close, 270 million more barrels and 330 million more blocks?
- A. I would say that's fair for volume reported within the NDPSR survey. But as cited previously, there is volume outside the survey, and the majority of cheese that's priced in this country is driven by blocks.
- Q. All right. My question was very straightforward. You don't need to, you know, editorialize.

Am I correct that, roughly speaking, the increase in barrels and the increase in blocks in terms of poundage are pretty similar between 2000 and 2022?



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

2.4

25

26

27

MS. HANCOCK: Your Honor, I would object to the
characterization of the question and him instructing the
witness as to how to answer. She's entitled to provide
her answer within the context of what she's talking about,
and I think that's all she did. She answered his question
directly.

MR. ROSENBAUM: No, she didn't, your Honor. And this has gotten a little beyond appropriate behavior. I think the answers are not -- I'm not getting answers to the questions that I asked. I asked for a specific comparison between those two numbers.

THE COURT: I think it's correct that you didn't get a definitive yes or no answer to your question. I think you're entitled to that. And then I think the witness is entitled to explain what she has to explain about what that yes or no answer means.

MR. ROSENBAUM: All right.

BY MR. ROSENBAUM:

- Q. Am I correct that the increase is roughly the same, in poundage, between the two?
 - A. Within the survey, that is correct.
- Q. Okay. And by the way, do you have personal knowledge as to how cheese is priced in terms of using blocks versus barrels, versus using the Class III price, versus using the NPDES (sic) price? Do you have personal -- NDPSR price -- do you have personal knowledge about those things?
 - A. Do you mind defining "personal knowledge"?



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

2.4

25

26

27

- Q. Yeah. Personal knowledge. I mean you know about, personally.
 - A. So my role does not on the daily have me pricing cheese within those markets.
 - Q. Okay. So -- so you -- when you say, on page 4, it is estimated that "more than 80% of the natural cheese market utilizes block pricing," first of all, you have no citation for that statement, correct?
 - A. That is correct.
- Q. And you -- and you don't yourself engage personally in activities that would let you know whether that number is correct or not; is that fair?
 - A. That is fair. I will --
- 14 Q. Sorry.

1

2.

3

4

5

6

7

8

9

10

11

12

13

15

22

23

2.4

25

26

27

- THE COURT: Let's --
- MR. ROSENBAUM: Didn't mean -- I thought she was finished.
- 18 BY MR. ROSENBAUM:
- 19 O. Please, go ahead.
- 20 A. That's okay. I'm trying to talk slow for the 21 court reporter.
 - That is correct. That estimate -- estimate is based off the estimates from the national task force. So I relied on the other members of the National Milk and the expertise they personally have when providing the estimate.
 - Q. Okay. And I want to just focus on a question just so it's clear as to what it means to say they "utilized



1 | block pricing" as you understand it when you say this.

That doesn't mean that the block price actually is the price at which the other cheese is sold, correct?

- A. That is my understanding.
- Q. Okay.

2.

3

4

5

6

7

8

9

10

11

12

13

15

16

17

18

19

20

2.1

22

23

24

25

26

27

- A. From my understanding, it would be block price, plus or minus X.
- Q. Right. So I -- and that's -- that's an issue that hasn't come out much yet, so let me focus on that. I mean, if it is block price minus, okay, then in fact the block price isn't representative of the price of the other milk, the other -- other cheese -- excuse me -- the other cheese is cheaper, correct?
- 14 A. It could be.
 - Q. And if it's block plus, obviously by definition, the other cheese is more expensive, correct?
 - A. It could be. I will say, as you have referenced, you know, my daily job is not pricing cheese.
 - Q. No. But I'm just talking in -- in just general parlance, there's a difference between pricing off of block and pricing at block, correct?
 - A. Yes, that is correct.
 - Q. So my point is, if -- let's say the block cheese is \$2 a pound. Okay? Which may be an optimistic price right now, but let's say it is \$2 a pound. All right?
 - A. Uh-huh.
 - Q. Okay. I mean, you can't say, oh, well, most people price off block, so let's just use the block price



- A. That is true. I am not aware of what those -those plus or minuses are. I will say, you know, that
 block price is utilized as an index as it moves up or
 down, providing a baseline, to drive those market prices.
- Q. Right. But how much up or down you get from the block price, that's a matter of the negotiations that have been entered into between the buyers and sellers of those other cheeses, correct?
 - A. Cheese price is negotiable.
- Q. Okay. So let's now talk a bit about the purpose in which USDA was engaged in 2000 when they first decided to include both barrels and blocks. I take it that we can fairly conclude that you were not involved at that time, correct?
- A. I was three, so I wasn't paying particularly close attention at the time.
- Q. Okay. So -- all right. So you were not there in 1987 when I attended my first Federal Milk Marketing Order hearing; is that correct?
 - A. No. I'm sorry I missed out.
- Q. Okay. So the \$0.03 adjustment which you reference is explicitly described in the -- well, strike that.
- You refer -- you quote several times from the USDA's decision in 1999, that was the one that put the product pricing formulas in place, correct?



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

A. I did.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

23

24

25

26

27

28

- Q. Okay. And just for correction purposes, the date is April 2nd, not April 12, 1999. But I'm not criticizing you for a typo. I seem to have had some of those myself, so -- but just so we are working off the same document.
 - A. Great. Thank you.
- Q. You do -- and you would agree with me, just at a very basic level, there's a difference between what it costs to make cheese and the price at which cheese is sold, correct?
 - A. Those are two differences, yes.
- Q. Okay. Because on page 7, you reference that -you say USDA made -- "went to great lengths to make the
 barrel price 'look' like a block price."

Do you see that?

- A. I do.
 - Q. But, in fact, what they did is they made a \$0.03 adjustment because they understood there was a \$0.03 difference in packaging cost, correct? I mean, you say that yourself.
- 21 A. In -- yes. In reference to the quote from the 22 decision there, yes.
 - Q. Yeah. I mean, this was an effort to make the cost of cheese equivalent between blocks and barrels, not an effort to make the price the same.

Do you agree with that?

A. I don't think I necessarily agree. Dr. Vitaliano last week, I think, did a wonderful job of explaining that



into detail. But going into -- that was the understanding of creating, you know, a comparable block price due to the concern of thinness in the market.

- Q. All right. So do you have a copy of the decision -- of the April 2nd, 1999, decision in front of you?
 - A. Not in front of me.
 - Q. All right. I'm going to hand one to you.
 - A. Okay.

 Thank you.

1

2.

3

4

5

6

7

8

9

10

13

14

15

16

17

18

19

2.0

2.1

22

23

2.4

25

26

27

28

11 Q. And I have used this before, but I do have extra 12 copies.

MR. ROSENBAUM: Your Honor, would you like a copy?

THE COURT: Yeah, I would like a copy. I don't
want any favoritism towards me but --

BY MR. ROSENBAUM:

Q. And I should make clear that is an excerpt, and it is the back -- the very back page, which I believe contains the entirety of the relevant discussion.

So if you -- you see that USDA reports, quote,
"Many commenters insisted that barrel cheddar cheese
prices should be included in a weighted average with block
cheddar prices since much more barrel cheese is produced
than block cheese. National Milk Producers Federation
urged that the barrel price not be included because
barrels don't have uniform composition and because the use
of such prices would have the effect of unnecessarily
reducing prices to producers. Other commenters suggested



if barrel prices are included, they should be increased by \$0.03 per pound to make up for dis difference in packaging cost. Still other commenters argued that all varieties of cheese should be included in the NASS price survey to assure that all cheese value is captured."

Do you see that?

- A. Would you mind putting which paragraph?
- Q. I'm sorry. It is the middle column. You should have interrupted me sooner.
 - A. I should have worn my glasses.
 - O. It's the middle column.
- A. All right.

1

2.

3

4

5

6

7

8

9

10

11

12

16

17

22

23

24

25

26

27

28

- Q. It's the first full paragraph, "Many commenters," and I just read that first paragraph into the record.
- 15 A. Thank you.
 - THE COURT: Let's go ahead and give a local cite for this.
- MR. ROSENBAUM: Yes, I'm sorry. Yes, your Honor.

 This is six -- Federal Register, Volume 64, page 16098,

 and I have been reading from the middle column.
- 21 BY MR. ROSENBAUM:
 - O. Okay. And do you see that?

And do you see when the next paragraph, the USDA went on to say that they had been making -- the Make Allowance was based upon the Make Allowance block cheese and therefore, quote, "the barrel cheese price must be adjusted to account for the difference in the cost of making block versus barrel cheese. The \$0.03 that's added



to the barrel cheese price is generally considered to be the industry standard cost difference between processing barrel cheese and processing block cheese."

Do you see that?

A. I do.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

2.4

25

26

27

28

Q. I don't see one word in this where USDA says it's our expectation that the price of block cheese and the price of barrel cheese will be the same. I see them saying, we want to make sure the cost that we're deducting from those prices is the same, and we'll add \$0.03 to the block price in order to make them comparable given that block cheese costs \$0.03 less to package. Isn't that a fair characterization of what they said here?

MS. HANCOCK: Your Honor, I would object to the extent that this is -- this document is going to speak for itself. And she can talk about what she wrote in her statement or what she based it on, but he's asking -- he's essentially testifying, asking her to acknowledge that what he said has been read correctly. I don't think that's appropriate testimony for the witness.

MR. ROSENBAUM: Your Honor, most of her testimony is devoted to her stating a view of what USDA's intents were in 2000. I think this is legitimate cross-examination.

MS. HANCOCK: Well, he's just quoted a statute. It's not a cross-examination. He can argue that in his brief.

THE COURT: Well, I think it's easier -- probably



more appropriate for the record for him to cite specific language in the Federal Register than it is for him to reconfigure that language in his own words and then ask about that. This witness has -- you know, I'm just getting the testimony, so I may not be as versed as some people. I think she has relied on this order quite a bit, and I do think Mr. Rosenbaum is making the distinction between cost and price and is exploring what -- what the agency actually said about this.

Do you disagree with -- I'm just going to ask flat out: Is he misconstruing what this language says somehow to your mind?

MS. HANCOCK: No. But he's not asking her what her interpretation of this statute is. He's reading the statute, making argument about it, and then saying, "Isn't that right?"

THE COURT: Well, I --

MS. HANCOCK: That's totally appropriate for the brief.

THE COURT: No, I think he's setting up the background to say, "You testified this in your testimony, and you have relied on this Federal Register issuance quite a bit. How does that line up?" I mean it is cross, and in cross he's going to say, "I don't see that this lines up exactly. It just seems different to me. How would you explain that?" That seems fair to the witness.

MS. HANCOCK: Well, your Honor, I would proffer I don't believe that this is different than what



2.

2.1

Mr. Rosenbaum objected to when Dr. Vitaliano was asking 1 2. questions, when he was putting forth what he believed was the supporting proposition before he asked a witness if he 3 4 agreed or disagreed. And so this is the standard of consistency that I had talked about last week. 5 6 THE COURT: No, I think I remember that. That was 7 just paragraphs of discussion, and then, do you agree or 8 disagree. This is a very -- seems to me this is a fine

specific point, and it's appropriate cross-examination.

So overruled.

THE WITNESS: Do you mind restating your question?
MR. ROSENBAUM: Absolutely.

Can I have the reporter read back the question so we have the same exact question?

(The testimony was read back as requested.)

THE COURT: Do you understand the question?

THE WITNESS: I do. Thank you.

So it is true that within the roughly two paragraphs that you read to me that there is no explicit explanation of USDA stating that word for word. However, as Dr. Vitaliano stated previously, it is our understanding that was the intent. And as you mentioned in your question, it's to make both of those prices comparable. And as -- you know, as we have discussed earlier, this is an over 20-year-old decision document, and, you know, the compatibility of those two products is no longer valid as I have referenced in my testimony.



9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

BY MR. ROSENBAUM:

2.

2.1

- Q. So you're interpreting that language to say USDA was trying to make the prices comparable, not trying to make the costs comparable; is that your position?
- A. Within the final paragraph, it -- it talks about cost. My understanding is the intent was to make block and moisture-adjusted barrels equivalent.
- Q. Okay. Have you -- have you performed any analysis of the ability of barrel cheese manufacturers to continue to operate if they are required to pay for their milk based upon a formula that does not reflect block price -- excuse me. Start the question again.

Have you done any analysis of the effect on barrel manufacturers if the minimum milk price they must pay is not based upon the price at which they are able to sell barrel cheese but rather the price at which block cheese is being sold?

- A. I have not researched that.
- Q. And turning to page 6 of your testimony, you have a sentence, quote, "The chart shows" -- this is on the very first paragraph -- "The chart shows several large divergencies, especially between 2017 to 2022, suggesting the claimed predictable \$0.03 per pound price spread for blocks and barrels no longer applies."

Do you see that?

- A. I do.
- Q. And do you agree with me that the \$0.03 per pound number in the context of the April 2nd, 1999, decision, is



in all respects tied to the difference in manufacturing costs?

A. I wouldn't say I agree with that statement. As you can see, in the years prior, it was a more -- it was a widely acknowledged understanding that blocks and barrels moved together prior to 2017. That's been, you know, largely discussed in previous testimony.

As you can see from that chart, once you get into the 2017 and beyond, those block-barrel spread variances and that volatility, you know, increases substantially. And so the \$0.03 per pound reference is to that claim of most of the time they move together, but once 2017 occurred, you know, those disparities really increased, which was not the original intent of the USDA decision over 20 years ago.

- Q. Do you agree that in the April 2nd, 1999, decision, insofar as there are explicit references to \$0.03 per pound, that those references are all with respect to costs of manufacturing, including cost of packaging?
- A. Within that final paragraph that you read to me, I will agree that those few sentences have to do with cost.
- Q. Okay. And actually, when you go back to the first full paragraph in the middle column on page 16098, do you see there also a reference to \$0.03 per pound as being the difference in packaging costs?
- A. I do see that reference. I would say my understanding of that sentence is an attempt for USDA to



2.

2.1

provide context into, okay, we are taking blocks, and we are attempting to make a synthetic block, and we're trying to make it comparable. So that is my interpretation of that prior sentence.

- Q. Have you ever seen USDA in any publication, starting April 2nd, 1999, and moving forward to today, where they have stated that their effort was to create a synthetic block price?
- A. I have not read every decision since 1999, so I can't respond to that.
- Q. Do you have any examples to which you can point -point where synthetic block price or comparable words was
 used by USDA?
 - A. I have nothing I have brought here today.
- 15 Q. Okay.

1

2.

3

4

5

6

7

8

9

10

11

12

13

- 16 MR. ROSENBAUM: That's all I have. Thank you.
- 17 THE WITNESS: Thank you.
- 18 THE COURT: Further cross for this witness?
- 19 CROSS-EXAMINATION
- 20 BY DR. CRYAN:
- 21 Q. Hello, Mrs. Reynolds.
- 22 A. Hello, Dr. Cryan.
- 23 | O. How are you?
- 24 A. I'm good.
- Q. You're -- you're an economist, and a good one, so
 I'm going to ask you -- I'm going to ask you some -- don't
 laugh at that.
- 28 A. I don't know if I would claim that, but I



appreciate the note.

1

2.

3

4

5

6

7

8

9

10

11

12

15

16

17

18

19

20

2.1

22

23

24

25

26

27

28

Q. Let me ask you some questions, some economist questions.

In theory, if -- if you've got two products that have similar cost structures and -- and there's -- and there's an opportunity over time to shift all the inputs so that they have their -- a cost structure where one is -- one costs \$0.03 a pound more to make than the other one. Wouldn't the price -- wouldn't the price in the lung run be \$0.03 apart?

- A. I would say yes given you have --
- Q. All those conditions?
- 13 A. -- all those conditions and you are aware of those 14 market prices.
 - Q. Right. And before -- before 2000, there's been discussion about how there was a lot more slack capacity at cheese plants and milk could move to cheese -- to barrel production or block production as needed in the short run. And -- and if there was a cost difference of about \$0.03, would that -- that would be something that would support the Department's objective of maintaining a price relationship, a consistent price relationship; is that right?
 - A. Yes.
 - Q. But that wouldn't change the fact that their fundamental purpose was to make sure that the prices were comparable?
 - A. Correct.



1	Q. Very good.
2	Okay. You said in your testimony that we don't
3	have enough information about 640s to incorporate them
4	into the survey.
5	A. I did say that.
6	Q. How do we have how do we have price and volume
7	numbers about 40-pound blocks?
8	A. When you say "price and volume numbers," what
9	are you referring to, the NDPSR?
10	Q. Right. Is that your answer?
11	A. That's my understanding of the question. Can you
12	repeat the question?
13	Q. How do we have the price and volume numbers on
14	pounds of pounds and value of 40-pound blocks that
15	that are used in the current pricing?
16	A. We know the volumes of the NDPSR block 40-pound
17	block sales because it is reported within the NDPSR.
18	Q. Okay. And so should we never add any more
19	products to the NDPSR, so we only delete products?
20	A. I have no position on that.
21	Q. Okay.
22	DR. CRYAN: Thank you. Thank you very much.
23	THE WITNESS: Thank you.
24	THE COURT: Further cross other than AMS?
25	Sir.
26	CROSS-EXAMINATION
27	BY DR. BOZIC:
28	Q. Marin Bozic for Edge Dairy Farmer Cooperative.



A. Hello, Dr. Bozic.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

- Q. Your proposal would reduce the barrel weight from roughly 50% to 0%. Is that a way to fairly describe your proposal? Eliminating barrels is the same as having 0% barrel weight?
- A. So the National Milk proposal is to remove barrels from the protein price. I don't believe it comments on the inclusion of the survey or not.
- Q. Okay. Correct. So your proposal, would it be fair to mathematically restate that as barrels having 0% weight in the protein formula? Would that be an equivalent way to get there?
- A. Correct.
 - Q. So what I don't understand is why is 0% more representative than, for example, 5%?
 - A. So in your example, it would be 95% blocks and a 5% barrel weighting?
 - Q. I'm just trying to --
 - A. A statistical average?
 - Q. Yes. Like, so -- like, if we are looking for something that's more representative of the entire industry, what I'm struggling to understand is, like, why is 0% more representative than 5%? And I'm just listing that as an example, not saying that is the right number.
 - A. I see. So I believe the prior National Milk witnesses hit on this a little earlier. And there was discussion during the National Milk task force of, you know, do we include 10% barrels, 90% blocks? And after



the discussion took place, what is that percent, like you mentioned. Is it 10%? Is it 5%? And so due to simplicity sake, and if it is 90% -- it's around 90%, why not just have it 100% blocks factored into that cheese price. That -- that was the decision from National Milk in which I support.

- Q. But -- but would you say that 100% block is more representative than 95% block?
 - A. I can't say for sure on those percentages.
- Q. Okay. And then pricing off blocks was the topic of your cross with Mr. Rosenbaum.

Do we have any evidence that that basis over block, \$0.05 over block, \$0.10 over block, let's call it a basis, do we have any evidence that that basis is in itself uncorrelated with the block-barrel spread?

- A. As someone that doesn't operate in these markets every day, I can't provide an answer to that. I don't know.
- Q. Have you -- are you familiar with the conjecture that one of the factors driving the barrel-block spread is the oscillations in the volume of cheese exported? I'm not asking whether you agree. Are you familiar with that conjecture?
 - A. I have heard that discussed within this hearing.
- Q. Would it be fair to say that -- that going forward it is likely that a higher percent of cheese produced in the United States is going to be exported than it is today?



2.

2.0

2.1

- A. I haven't done the analysis to say one way or the other.
- Q. Let me restate. Would it be -- are you familiar with the trends in cheese exports over the previous ten years?
 - A. Not closely.
 - Q. Good answer.

Let me -- I'm not sure if your counsel will allow the next question, but let me try.

MS. HANCOCK: I say no already.

DR. BOZIC: Prophylactically object.

BY DR. BOZIC:

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

- Q. If more -- if higher percent of cheese going forward is indeed going to be exported -- and, again, I'm not asking that you agree, just to work with the conjecture -- if indeed the higher percent of cheese going forward is going to be exported, would it not then follow that it is likely that higher percent of cheese going forward would be priced off barrels?
- A. I would say I don't know enough about the topic to provide an answer to you.
- Q. Would you say that in general your organization is -- does not have definite answers on these, you know, counterfactuals or explorations?
 - A. No. I would -- I would say we haven't commented.
- Q. Is there a reason to believe that if your Proposal Number 3 is adopted that the barrels themselves, barrel cheese themselves, would become more valuable, that their



price on their own would increase?

2.

2.1

- A. I wouldn't say necessarily. There's a lot of -as you know, there's a lot of factors that come into play
 when it comes to the barrel price of cheese. And so I
 can't comment or speculate what barrel prices of cheese
 are going to be.
- Q. So -- okay. So there are no strong expectations that that would indeed happen?
- A. Not that, you know, we can provide on at anytime. I think there's been acknowledgement in prior testimonies that, you know, there will be a figuring out time period. But, again, I'm not going to speculate on what -- what the barrel price will do if -- if I knew that, I would be on a beach somewhere, so --
 - O. Yeah. Both of us.
- Well, so, next question, and I think the last one as well. If the -- if the assumption is that we should remove barrels because the current methodology results in a protein price that understates the true commodity value of protein, then I'm wondering, why doesn't that get compensated with over-order premiums to producers?
- A. So I'm not sure I would agree with the similarities you are nodding to there. There's a -- it's a multitude of factors that occur in the impact of both those scenarios. So I wouldn't say they're directly related as you stated.
- Q. But in other words, if -- if there -- if manufacturers can earn more for their product than they're



1 obliged to pay to producers, wouldn't that necessarily --2. wouldn't that lead in situations of short availability of milk to over-order premiums? 3 4 Again, I'm not sure that that's a direct correlation of this and then that happens given the 5 6 multitude of factors at play when making those decisions. 7 DR. BOZIC: That's all I have. Thank you very 8 much. 9 THE WITNESS: Thank you. 10 THE COURT: Further cross? Other than AMS? 11 I see two volunteers. 12 THE WITNESS: Everybody wants to talk to me. 13 DR. CRYAN: Yes. Of course. 14 CROSS-EXAMINATION 15 BY DR. CRYAN: 16 Roger Cryan from American Farm Bureau Federation. Ο. 17 If you have ten people in a room, nine of them are extra large and one of them is extra small, and you have 18 19 a -- and you have a bunch of large shirts, are those going 2.0 to be a good fit? Are those going to be representative of 2.1 the fit for the folks in the room? 22 Α. Is this a fat joke? 23 No, no, no. No, it's about what representative 0. 2.4 means. 25 Could you repeat the question? Α. I'm sorry. 26 DR. CRYAN: That's okay. Never mind. 27 THE COURT: The question is withdrawn.



28

CROSS-EXAMINATION

BY MR. MILTNER:

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

- Q. Ryan Miltner representing Select Milk Producers.

 So if you have got ten people in a room --
- I want to ask some questions about page 3 of your statement if I could. And Mr. Rosenbaum asked you some questions about the numbers on the table. I'm going to try and not have you do any math.
 - A. I appreciate that.
- Q. But his questions focused on the absolute pounds and the changes in the pounds on there. I want to ask about the relationships of the numbers that are included in Table 1.
- First of all, am I correct that you wanted to illustrate that on an absolute basis the volume of block cheese has doubled since 2000?
- A. That is correct.
- Q. Okay. And that you also wanted to illustrate that on a relative basis blocks now represent a greater proportion of surveyed commodity cheddar than they did in 2000?
 - A. Can you repeat the question?
- Q. Sure. So on a relative basis, the proportion of blocks to the total has increased over the last 22 years?
- A. I'm not sure that was my intent within this table. My intent within this table was showing, if you look at the year 2000, and you look at the total block and barrel volume, it is roughly 769 million. Well, if you look at the block volume in 2022 to today, it's a -- you know,



- Q. Okay. And that gets to the third thing, I think, I thought you were driving at, which is the first two things were numerical. We can establish whether that's fact or not. But your opinion then is that the volume of blocks is now sufficient for it to stand alone as the surveyed product?
 - A. That is my opinion.
- Q. In preparing your testimony, did you look at all at the proposal from the 2000 hearing on III and IV formulas to reduce the \$0.03 adjustment to \$0.01 that was proposed by IDFA?
 - A. I did not investigate that in my research.
- Q. Okay. So you did not see the testimony from IDFA's economist at that hearing that said, during the informal rulemaking process, it appears that the \$0.03 adjustment was entirely based on the historical difference between the wholesale price of cheddar sold in 40-pound blocks and the moisture-adjusted 39% moisture wholesale price for cheddar cheese sold in barrels?
 - A. I -- I did not.
- Q. Okay. Then I will not ask you any more about that. Thank you.
 - l A. Twish Tdid.
 - Q. We can talk later if you like.



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

27

1 THE COURT: Further cross? Other than AMS? 2. AMS, Ms. Taylor? 3 CROSS-EXAMINATION 4 BY MS. TAYLOR: 5 Good afternoon. Ο. Hello. Good afternoon. 6 Α. 7 Ο. Welcome back. 8 Thank you. Α. 9 I told Mr. Wilson I need to go before Mr. Miltner 0. 10 sometimes because he asks a lot of my questions and I have 11 to sort through my list. Let me see if I can skip around. 12 On page 1 at the end of the second paragraph, you 13 are talking about, "Over the last few years as the prices 14 diverged, the Federal Order process of computing the 15 cheese price by using 500-pound moisture-adjusted barrels 16 reduced the Class III price, which was not the intent when 17 this survey convention was codified." 18 Can you just expand on that -- I think you have 19 mentioned it before, but I like to make things really 2.0 clear when we have to go back and look at testimony -- on 2.1 what you mean about what was the intent back in 2000? 22 I will. So from my understanding, the intent was 23 to select two products that operated similar to one 24 As I stated in my testimony, there was concern another. 25 about the lack of volume stated in blocks alone. And so 26 due to that, you know, as referenced before, a synthetic



27

28

block was conjectured of, you know, the conversions. And

during that time over 20 years ago, they acted together

- Q. On page 4 you talk about new cheddar capacity coming online within the next five years. Could you expand on that? Are you -- is it expected that most of that capacity is in 40s? I know Mr. Cryan had on testimony and put on some references to articles, but for that it was in regards to 640s, so --
- A. You know, I'm only aware that at least for the overwhelming majority part of it is to be blocks. I can't specify nor do I have the knowledge of whether that is 40-pound blocks or 640-pound blocks.
 - Q. Okay. So it could be either in that case?
 - A. I just don't know.
 - Q. Yeah. Okay.

On page 4 you also discuss how one of the reasons USDA should not include 640s is because there's no other market information available to confirm the prices of 640s and 40s move together. That's kind of in that middle paragraph.

So is it your position then that USDA shouldn't use products in the survey that don't have other publicly traded market for these same products?

A. I don't have a position in your question in particular. My intent within this sentence was to reference back to the 500-pound moisture-adjusted barrels. So one of the challenges is, you know, unlike any other -- not butter or whey, you have two products within this



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

cheese price formula, and originally the intent was we -from my understanding, we need more volume, they move
together, let's include them both, let's make them roughly
equivalent. And, you know, over the last 23 years,
market's change, and that is no longer the situation. And
so, you know, over time, we were coming together for this
hearing, and ones that don't happen very often. And so my
intent was to show, you know, there's -- there's a risk
because we don't know enough about 640s, and you know, is
this going to be the same situation 20 years from now,
especially when we see very large disparities over the
last five years within this.

Q. On page 5, I've read this page a couple times, and I just need you to help -- I need you to help me kind of explain the link between the first and the second paragraph and what you are trying to show there with your graph, Chart 3.

A. Happy to.

My intent within these two paragraphs was to say -- and has been referenced earlier on in testimony, you know, CME blocks is a key market driver and utilized heavily as a baseline within block pricing.

And so my approach here was to say, okay, the block volume within the CME, though it, you know, largely differs over time, is much, much smaller than the NDPSR reported block volume. So if we go back to the USDA original decision over a concern over the thinness of volume within that survey price, market participants are



2.

2.1

Q. Okay. Thank you. That's helpful.

And then on page 6, you talk about the unintended decrease in the cheese price due to the low barrel prices.

And on page 8 you refer to the negative impact on cheese prices as creating a disorderly marketing condition.

So first, can you expand on what you think is the disorderly marketing condition specifically?

- A. Within page 8?
- Q. Yeah. That reference is on page 8. But the 6 and 8 kind of tie together I think.
- A. So I would -- in regards to disorderly marketing condition, you know, when the inputs of -- you know, these price are inputs into the cheese price, the protein price, and it wasn't the original expectation the large disparity between the two. You know, they were largely expected to move together. And if you, from my brief understanding, are -- operate within these markets, and the market expectation is they move together, and you see really, really large swings in spread from month to month, that's going to create disorderly marketing and how you have budgeted, how you have participated in risk management,



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

22

23

24

25

26

27

all those factors.

2.

2.0

2.1

- Q. Okay. So would you say the same -- and when we're talking about, primarily, I think blocks are above barrels but by a large degree -- would you say the same about when block prices fall below barrel prices?
- A. When you have two products factoring in to, you know, one cheese price, and they are not moving together, I would say when the spread is out of bounds, high or low, it -- you know, it creates disruption.
- Q. I'm not sure if you are the right person to ask the question on behalf of DFA, but I'll try anyways.

Can you speak to the impact to barrel manufacturers specifically if Proposal 3 is adopted and their cheese price no longer reflected their barrel market at all?

- A. I -- I would not be the person. I apologize.
- Q. A couple other follow-up questions that I forgot about, and I did ask some of the other National Milk witnesses. Could you just tell us a little bit about DFA and its membership and herd size, etcetera?
 - A. Sure.

So I would repeat all that Mr. Gallagher stated last week on Dairy Farmers of America. As I mentioned in my prior testimony -- or previously in my testimony, DFA is a farmer-owned milk marketing cooperative. I believe we operate in the majority of the states across the United States, and regulated areas and non-regulated areas.

We're owned by about 11,000 dairy farmer-owners across



6,000 farms.

2.

2.0

2.1

And I'll reference the National Milk Exhibit 4A -- I forget what that is within the master number -- of a little more information. But we have producers from coast to coast, with an expansive governance process where, you know, from the grassroots, divisional, local level farmer leadership representation across up to our corporate board of almost 50 dairy farmers. So it's -- they are a fun group. But we have several dairy farmers coming this week, and we'll be testifying later. So I'm sure they would love to talk about the co-op as well.

Q. Thank you.

And I'm not sure if Exhibit 4A covers this, but does DFA manufacture both blocks and barrels?

- A. So we are a -- within our whole-fully owned plant network of about 83, we are not a big player within this market. I think at -- you know, very, very marginally we may factor into a little bit of blocks sometimes given market conditions. So, you know, for our dairy farmers, a lot of them, you know, ship into Class III or on high Class III dosation milk sheds, and so this is important to them.
- Q. Okay. So that's from the farmer protected. But as a DFA co-op, you don't have a lot of blocks?
 - A. Not within our whole fully owned asset structure.

 MS. TAYLOR: That's it from AMS. Thank you.

THE COURT: Any additional cross? Did anyone open any doors that would justify additional cross?



1 Seeing none, redirect. 2.

REDIRECT EXAMINATION

BY MS. HANCOCK:

3

4

5

6

7

8

9

10

11

12

13

14

15

16

18

19

2.0

2.1

- Good afternoon, Ms. Reynolds. Ο.
- Good afternoon. Α.
- I know that you didn't want to do math on the Ο. I just maybe want to call your attention on -- in discussing Table 1, on the top of page -- of the -- of the writing on page 4, you talk about, "As shown in Table 1 and Chart 2, the 2022 NDPSR block sales volume was nearly 85% of the combined 2000 block and barrel total." And I think that this is what Mr. Miltner was asking about, but I think you already did the math, so I just want to make sure I'm understanding that correctly. Is that comparing the 2022 blocks as compared to what the total volume was back in 2000?
- 17 Α. That is correct.
 - Okay. And so I quess the kind of quick takeaway there is just that in 2000 the total amount surveyed was 769 thousand -- 707,920?
 - 769 million. Α.
- 22 Ο. Oh, God. I forgot my commas in there. Sorry, let 23 me say that again.
- 24 In 2000, it was -- the total pounds were 25 769,707,920?
- 26 That is correct. Α.
- 27 And then in 2022, just the cheddar alone was 0. 28 652,831,270?



- A. Just the block volume alone, yes.
- Q. Yeah. And so the point there is just that -- that
 when you say that is sufficient volume to be surveyed,
 that's what you are referring to?
 - A. That is correct.
 - Q. Thank you.

And then you got a whole bunch of questions on the meaning of the statute. Do you still have that in front of you, or the regulation, the proposed regulation, proposed rules?

A. I do.

1

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

28

Q. I want to just start off with the beginning of that section, which is the column prior. And it says, "Nearly all comments on the cheese Make Allowance proposed for use in computation of the protein price described the proposed \$0.127 Make Allowance as too low resulting in too high of a protein price."

Do you see that?

- A. I do.
- Q. And is that what you understood was the lead-in to what the calculation to follow included?
 - A. That was my understanding.
- Q. And so they were calculating a Make Allowance in order to set the protein price; is that right?
 - A. Correct.
- Q. And then we see the end of that on the next column, which is after where Mr. Rosenbaum read to you, where actually it culminates into summarizing that \$0.03,



1	and it says, "The \$0.03 that is added to barrel cheese
2	price is generally to be" "is generally considered to
3	be the industry standard cost difference between
4	processing barrel cheese and processing block cheese."
5	Is that right?
6	A. That is how it reads, yes.
7	Q. Okay. And so is that what you were referring to
8	about taking the cost into account in order to set the
9	protein price?
10	A. Yes.
11	Q. So contrary to where the questions led you into a
12	corner, it actually does talk about price and cost; is
13	that fair?
14	A. Yes.
15	Q. Okay.
16	MS. HANCOCK: That's all I have, your Honor.
17	THE COURT: Anyone else?
18	Okay. Let's move Exhibit 132 into the record.
19	Any objections?
20	Hearing none, Exhibit 132 is admitted into the
21	record.
22	MS. HANCOCK: Thank you, your Honor.
23	(Thereafter, Exhibit Number 132 was received
24	into evidence.)
25	THE COURT: You're welcome.
26	You may step down. Thank you.
27	MR. ROSENBAUM: Your Honor, we have been going for
28	an hour and a half. Would this be a convenient time for a



1	ten-minute break?
2	THE COURT: Yes, let's take ten minutes. Let's
3	come back at 3:10. Thank you.
4	(Whereupon, a break was taken.)
5	THE COURT: Let's get started. Let's go on the
6	record. Two witnesses. I need to swear in the witnesses.
7	Please, both of you raise your right hands.
8	SUE TAYLOR,
9	Being first duly sworn, was examined and
10	testified as follows:
11	ALISON KREBS,
12	Being first duly sworn, was examined and
13	testified as follows:
14	THE COURT: Your witnesses.
15	MR. NIELSEN: Erik Nielsen, counsel for the
16	Leprino Foods Company. Please don't call me doctor. I
17	can't I don't think I could save anybody's life today.
18	So I have just circulated what's marked as IDFA
19	Exhibit 34. Your Honor, I would like to have that marked
20	for identification purposes.
21	THE COURT: Yes.
22	MR. NIELSEN: And I believe we're at Exhibit 133.
23	THE COURT: We are. So marked.
24	(Thereafter, Exhibit Number 133 was marked
25	for identification.)
26	DIRECT EXAMINATION
27	BY MR. NIELSEN:
28	O. All right. Can each of you please state and spell



- 1 | your name for the record.
- 2 A. (Ms. Krebs) Yep. My name is Alison Krebs,
- $3 \mid A-L-I-S-O-N, K-R-E-B-S.$
- 4 A. (Ms. S. Taylor) And Sue Taylor, S-U-E,
- $5 \mid T-A-Y-L-O-R$.

8

9

10

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

- Q. Okay. And just quickly, Ms. Krebs, what's your professional address?
- 7 professional address?
 - A. (Ms. Krebs) Yeah. Our business address for the Leprino Foods Company is 1830 West 38th Avenue, Denver, Colorado, 80211.
- 11 Q. Ms. Taylor, same professional address for you?
- 12 A. (Ms. S. Taylor) Yes, it is.
- 13 | O. Great.
 - Ms. Krebs, I'm going to focus on you and your background for a little bit before we turn to Ms. Taylor's background. Could you tell me where you are currently employed?
 - A. (Ms. Krebs) Yes, I'm employed as the director of dairy and trade policy for Leprino Foods Company.
 - Q. And what does your role as director of dairy and trade policy for the Leprino Foods Company entail?
 - A. (Ms. Krebs) Well, I work on policy issues, specifically this being an example of one of the areas of focus that I have. I also do additional advocacy work on behalf of the company. And then I do work in dairy economics and some forecasting work as well.
 - Q. Great.
- And can you tell us, generally, the nature of the



Leprino Foods Company's business?

2.

2.0

2.1

A. (Ms. Krebs) Yes. Leprino Foods Company is a dairy manufacturer founded in 1950 in Denver, Colorado, and we manufacture mozzarella cheese and then dairy nutrition products that complement the mozzarella cheese manufacturing.

Leprino Foods has nine plants in the United States. We have three in California, two in Colorado, one in New Mexico, two in Michigan, and one that's on the state line between New York and Pennsylvania, and are currently building a tenth plant in Lubbock, Texas. We also do have a bit of an international footprint where we have some production operations in the UK, and the Republic of Ireland, as well as Brazil. But the majority of our manufacturing is done in the U.S.

Q. Great. Thank you.

Let's dive into your background a little bit,
Ms. Krebs. Before you joined Leprino Foods Company as the
director of dairy and trade policy, what was your career
leading up to your current role, both academically and
professionally?

A. (Ms. Krebs) Yes. Academically I have an undergrad in agricultural economics from the University of Wisconsin. Had the opportunity to work on a dairy farm, had some experience while I was there. And then I also have an MBA in finance from Purdue University. And then more recently, I completed another Master's degree in applied economics from the University of North Dakota.



- Q. Can you tell me about some of your professional affiliations and memberships in addition to your professional role as director of dairy and trade policy at Leprino?
- A. (Ms. Krebs) Yeah. We're active as a company in organizations across the industry. And so some of the work that I currently do for the Dairy Institute of California, for example, is I'm the chair of the economic policy committee for the Dairy Institute. I also serve on the board as well as the executive committee for the Dairy Institute. And then I am actively engaged on the economic policy committee for International Dairy Foods
 Association, and then serve on the policy committee for the Wisconsin Cheese Makers as well.
- Q. Great. Thank you.
- Ms. Taylor, I briefly want to touch on your professional career and your academic and professional background. Can you tell me where you are currently employed?
- A. (Ms. S. Taylor) Currently I'm an on-call employee at Leprino Foods, after retirement from full-time service at Leprino in the end of 2020. I grew up on a dairy farm in western New York State and worked on three other dairy farms to make my way through high school and college. My undergrad and my Master's are both from Cornell University, but they are in agricultural education with a heavy emphasis in farm management and farm finance. I taught high school agriculture for two years between my



2.

2.1

degrees.

2.

2.1

And then was a loan officer handling most of the dairy accounts during the farm crisis of the mid '80s, before shifting over to markets and policy work in 1989 working for another cheese company, which in addition to the dairy economics work, I handled production accounting and milk procurement.

From 1992 to my joining Leprino in 1995, I had a consulting business, and our clients, we worked more as an extension of their staff. And the product involvement included a bottler, soft product manufacturer, a cheddar maker and a butter powder maker, some cooperatively owned, some proprietaries, as well as a pharmaceutical company.

I joined Leprino in 1995 as manager of dairy policy and procurement handling milk procurement, dairy economics, and policy work, and progressively increased my engagement there to the point of being promoted to vice president in that same area in 2001.

My industry leadership over my career, I chaired a number of committees. The IDFA National Cheese Institute economic policy committee, I chaired for over 20 years, and the comparable committee for Dairy Institute for California for over 20 years. I chaired U.S. Dairy Export Council's trade policy committee for over 15 years. Sat on the board of USDEC Dairy Institute of California and IDFA.

Had two USDA appointments through my career. I sat on the -- or I was appointed to the Dairy Industry



- Q. Thank you for coming out of retirement for this.

 Have you -- have you participated in hearings of this nature before?
- A. (Ms. S. Taylor) Yes. I participated in all of the Federal Order hearings related to Class III pricing issues from 1995 on. Also, the Class I definition hearing, the California Federal Order hearing, the promulgation hearing. Additionally, all the California state order hearings that occurred from 1995 on, which I counted as at least 16 of them. They like to have them a little bit more frequently than the federal folks. But numerous hearings.
 - O. Great. Thank you.

Ms. Krebs, coming back to you, does the document in front of you that's been marked for identification as Exhibit 133 reflect the testimony that you intend to present today?

- A. (Ms. Krebs) Yes, it does.
- Q. Okay. Starting with the page 2, can you present that testimony for us?
 - A. (Ms. Krebs) I was going to weigh in with one more piece before we did that. I think we talked my academic



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

27

background but didn't get to sort of the professional experience piece.

Q. Yes.

1

2.

3

15

16

17

18

19

2.0

23

24

25

26

27

- (Ms. Krebs) I'll just add a bit on that. 4 Α. career has basically been in agri business and food 5 6 industry. I have had many roles. Elanco Animal Health, 7 so I actually lived here in Indianapolis for 18 years, 8 part of Eli Lilly & Company. So was involved in the 9 livestock industry from that perspective. Then I did some 10 consulting work, worked in market analysis and commodity 11 marketing consulting. Worked for CoBank in industry 12 research. And then had worked with National Cattle and 13 Beef Association in market intelligence before joining 14 Leprino Foods in 2020.
 - So, again, my experience is very broad across ag, very focused on strategy, economics across my career prior to joining Leprino.
 - Q. Great. Thank you for that.
 - And you also worked on a dairy farm as well while you were pursuing your degree?
- 21 A. (Ms. Krebs) I did for, yes, part of my time at 22 University of Wisconsin.
 - O. Great.
 - A. (Ms. Krebs) A little bit of dairy background.
 - Q. So turning to your testimony, please proceed with presenting your testimony starting on page 2.
 - A. (Ms. Krebs) Yes. Thank you.
 - And what I'm going to do, just for brevity, is I'm



going to skip through a bit of these first couple of pages, just highlight a couple of points that I would like to bring out in terms of overarching testimony principles, and then I'll get into reading specifics on specific proposal positions that we have for Leprino Foods.

So, to start off with, in terms of general overarching testimony principles, I'm going to talk about some different areas, looking at orderly marketing, importance of minimum pricing, role of balancing supply and demand, addressing regulation and markets for milk, and then finally, talking about global competitiveness.

So to start in on that, in terms of orderly marketing of milk. If milk prices are regulated -- if milk prices are regulated, the concept of those prices being set at a minimum level is essential to the orderly marketing of milk. The key driver of the minimum pricing tenet is to ensure milk is priced at a market-clearing level. If this principle is violated, the market can end up with supplies that exceed the demand for milk. This creates disorderly circumstances for the marketplace, such as milk dumping, sustained below spot pricing, and co-op reblends, other challenges for the marketplace.

As to balancing supply and demand in Federal Orders specific to dairy, the existing federally regulated pricing system is designed to balance supply and demand at the farm level. It allows farms to benefit when times are good. In a similar vein, farms feel financial strain during difficult times. The system, therefore, signals



2.

2.1

farmers to produce more or less milk depending on dairy product demand. To moderate this farm level margin risk, programs such as Dairy Margin Coverage Program, DMC, and the Dairy Revenue Protection program are available to support farmers through difficult times.

Switching to regulation and markets for milk.

Beyond setting a minimum price for milk, regulations should facilitate farmers having markets for their milk. For the industry to function efficiently, manufacturers must receive relevant compensation for the value they create in converting milk into dairy products. Fair competition, not regulation, should determine players in the dairy marketplace.

And then looking at global competitiveness, U.S. dairy industry is now a full fledged player in global dairy. Care must be taken in updating milk pricing formulas to ensure U.S. dairy remains competitive and changes must incentivize efficient investment.

So given those primary principles, I'm now going to switch to specific positions on three different proposals. First of all, I'd like to talk about our opposition to Proposal 3, removal of 500-pound barrels from the Class III formula.

So here I am starting to read from the bottom -- from the lower third of page 3.

Leprino Foods Company opposes Proposal 3 put forth by the National Milk Producers Federation to remove 500-pound barrel cheddar from the Class III formula. This



2.

2.1

proposal will both narrow the volume surveyed for price discovery and remove one of the most important milk balancing tools of the industry from a product perspective.

USDA stated in the February 7th, 2013, final decision, page 9275, "retaining the cheese barrel price in the protein price formula is necessary to ensure that the protein price is representative of the national cheese market. Eliminating the barrel price from the protein price formula would significantly and needlessly reduce the volume of cheese used in the Class III product price formula, which could lead to protein prices that are not as representative of the national cheese market."

Barrel volume is now more important today to the current milk price formula than it has been historically. Figure 3 shows the share of barrels in the National Dairy Product Sales Report (NDPSR) survey has moved from representing less than half of the surveyed cheese volume to now being the majority. Therefore, Proposal 3 seeks to remove over 50% of the volume represented in the survey, in direct conflict with the USDA's 2013 final decision.

Beyond its larger volume share, barrel cheddar continues to be a critical market-clearing format within the cheddar category as demonstrated by its price volatility. Its prices can swing from a significant discount to blocks to a premium over blocks, reflecting greater shifts in supply and demand than blocks. Removing barrels from the Class III cheese price formula removes



2.

2.0

2.1

the price that most closely reflects the supply and demand balance. Cheddar barrels are also storable and are produced and used by several buyers and sellers.

For as long as a wider spread to block price remains, barrel makers will be at a disadvantage in the marketplace as their milk costs will be higher relative to the price they receive for their product. Removal of cheddar barrels from the formulas would both shrink the survey volume and would likely result in greater production of cheddar blocks as an outlet to clear the market. This would likely add volatility to the block market, adding unnecessary stress to the U.S. marketplace, and making U.S. cheese a less attractive option for global buyers.

Dropping barrels from the survey would also create a presumption within the Class III formula that all cheese, including barrels, would then be priced off blocks. Again, in USDA's 2013 final decision, page 9274, USDA noted that blocks and barrels have different supply and demand functions. So the block and barrel markets are not expected to move in tandem, and forcing barrels to be priced off blocks could add dysfunction to the barrel market.

This could decrease competitiveness for barrel makers, as well as overprice the milk going into barrels, leading to disorderly marketing. Finally, as the Chicago Mercantile Exchange (CME) is a private entity that operates beyond the scope of the Federal Order system,



2.

2.0

2.1

continuation of the CME spot barrel market could even further compound this confusion across the marketplace.

As a final note on the widening of the block-barrel spread that merged beginning in 2017, it appears the market may be working to narrow the gap. An additional block plant came online in 2021, additional capacity is currently being ramped up in Texas, and more block capacity is being added in Kansas and South Dakota.

The supply and demand balance between these two products will likely be facilitated by adequate updates to Make Allowances as well. As a result of each of the points I have stated above, the adoption of Proposal 3 will be fraught with unintended consequences that will be distorting and risky to the industry, including a reduced volume of cheese in the survey from which to properly price milk. Accordingly, Leprino Foods respectfully requests that USDA reject National Milk Producers Federation's Proposal 3.

Opposition to Proposal 4: The addition of 640-pound blocks to the Class III formula.

Leprino Foods Company opposes Proposal 4, put forth by the American Farm Bureau Federation, to add 640-pound block cheddar to the Class III formula. Although we are generally supportive of ensuring survey volume is robust, we are aware that others will be providing additional compelling testimony relative to the inappropriateness of adding 640-pound blocks to the commodity reference price calculation in the Class III



2.

2.1

formula.

2.

2.0

2.1

Specifically, the 640-pound block market is largely a make-to-order market. The lack of equipment amongst buyers to handle 640s limits their sales to a narrow group of buyers. The balancing that occurs within the 640 market is through the cutting down of 640s into 40-pound blocks. Therefore, the balancing amongst 640 manufacturers is manifested in the 40-pound block cheddar market that is already embedded in the formula.

Opposition to Proposal 6: The addition of mozzarella cheese to the Class III formula.

Leprino Foods Company opposes Proposal 6 put forth by California Dairy Campaign, which proposes to add mozzarella to the Class III protein price formula along with the broader suggestion to include virtually all dairy products in the calculation of regulated minimum prices.

The proposal is flawed in numerous ways.

California Dairy Campaign's proposal and related testimony on this subject lack critical details, so it is difficult to interpret and evaluate. The proposal seeks creation of a survey for mozzarella prices with collection of data for moisture and fat composition. The proponent suggests that the mozzarella price should be combined with the surveyed cheddar prices based upon the national production of each in the prior year. Numerous errors and omissions in logic are embedded in the proposal.

Manufacturing Costs:

The proposal does not recognize that the



manufacturing cost of producing mozzarella is different than the manufacturing cost of cheddar. The proponents of Proposal 6 have not submitted any objective cost data. USDA stated in its letter dated July 24th, 2023, to the proponents of Proposal 6 that "USDA does not currently have the legal authority to conduct a mandatory cost survey."

Without cost data, the price data collected in Proposal 6 is worthless. While both mozzarella and cheddar can be produced in the same types of vats, the similarities end there. The manufacturing process beyond the vats differs significantly.

Pasta filata mozzarella requires curd washing, heating, and mixing to achieve the product performance (such as stretch and no burning) desired in most uses of mozzarella. This requires additional equipment that is not used in cheddar manufacturing. Similarly, the pressed curd nature of cheddar production involves some equipment not used in mozzarella production. In addition to these differences, mozzarella yields differ from cheddar yields.

Product composition:

The proposal does not define the type of mozzarella to be surveyed or how the USDA should address the diversity of mozzarella cheese types. In contrast with the dominance of a single Standard of Identity for cheddar and the uniformity of its production, the mozzarella category is a diverse category with four distinct FDA Standards of Identity and a range of similar



2.

2.0

2.1

pasta filata products that are designed for a variety of food applications with wide ranging cook conditions and performance requirements.

Performance in this range of conditions has been fine-tuned through years of research and development and the resulting cheese-make innovation. As a point of reference, given the diversity of product specifications, customizations, and other customer requirements, Leprino Foods produces nearly 400 separate pasta filata product codes.

In what appears to be an attempt to address the lack of uniformity in the mozzarella category, the proponent calls for collection of moisture and fat content in the mozzarella price survey but does not clarify how that data is to be used. Adjusting mozzarella prices based upon these parameters is inconsistent with the commercial marketplace. The primary variation within cheddar barrels is the level of moisture in the cheddar. The value of barrels in processed cheese production is the solids content.

The commercial marketplace recognizes that value equation by pricing barrel cheddar on a price-per-pound solid basis. This commercial marketplace practice is easily emulated by USDA by performing the same calculation to adjust the barrel price to a common moisture level (38%).

The performance and functionality of mozzarella drives value within the mozzarella market. Mozzarella



2.

2.0

2.1

prices in the commercial marketplace are not mathematically adjusted based upon a price-per-pound solid basis, so a moisture-based price adjustment similar to that applied to cheddar barrels is not appropriate.

Product Form:

2.

2.1

The proposal fails to identify the form of mozzarella to be surveyed. Most mozzarella is sold in a form that already includes further manufacturing beyond the base bulk format. For example, mozzarella is often shredded by the first manufacturer. Additionally, mozzarella is often molded into smaller retail or food service sizes by the first manufacturer, rather than being sold in a bulk format and sold to a secondary manufacturer for further transformation. None of these formats represent bulk product appropriate for a minimum pricing system.

To provide some price data, the proponent references the delivered price from a USDA school lunch bid for string cheese to infer that mozzarella prices far exceed prices for bulk cheddar. Effectively, the string cheese price reported by USDA is a retail level price that embodies many costs beyond those of manufacturing.

Further, string cheese represents a value-added form of mozzarella and requires additional equipment finely tuned to maintain dimension control. The string cheese specification associated with the quoted price is for one-ounce pieces in single-serve packaging, representing significantly more packaging than the minimal



packaging associated with 40-pound blocks or 500-pound barrels.

The price associated with the school lunch program is a delivered price to numerous locations for less-than-truckload quanties of product. The second price series included in the proponent's testimony is the delivered price for five- to six-pound loaves of mozzarella in mixed lots of 1,000 to 5,000 pounds, as reported by Dairy Market News. Rather than FOB manufacturer price, it is delivered and in less-than-truckload quanties.

Further, only an unweighted price range is provided. Also, this product is typically used by independent pizzerias and does not represent bulk product and therefore cannot be interpreted as such.

Further, this price series has been discredited as being based upon an outdated survey that is updated by change in the weekly CME cheddar block price. Underlying assumptions incorporated into the base survey are not available, and thus the price series should be disregarded altogether.

Applying Overarching Principles to Classes III and TV:

Class III and IV products include the market-clearing commodity products that are critical to maintaining orderly marketing conditions within Federal Milk Marketing Orders. As such, the products that represent the market value of the milk in Classes III and



2.

2.1

IV must:

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

2.4

25

26

27

28

- (1) Represent the market-clearing products within the respective categories;
- (2) Have clearly defined content specifications that facilitate matching products with their associated yields and costs of manufacturing;
- (3) Be in bulk form without value-added attributes or further processing;
- (4) Represent the value received by original manufacturers.

Therefore, product prices must represent manufacturers' value rather than distributor or retail values that incorporate additional costs in the supply chain beyond manufacturing.

Mozzarella Is Not Appropriate as a Class III Cheese Reference:

Mozzarella cheese is not suitable as a cheese price reference for the purpose of regulated milk pricing. Further work to fill the data gaps that make Proposal 6 a non-starter in this proceeding is unwarranted.

First, most mozzarella is not a market-clearing product. Most mozzarella is stored in refrigerated form and has a limited shelf life, limiting its role as a market balancer.

Second, most mozzarella is not sold in bulk form. Significant volumes of mozzarella are manufactured into value-added forms, whether as shred, string, or smaller retail or foodservice loaves by the primary manufacturer.



The volume of mozzarella production that is sold by the primary manufacturer in bulk format is comparatively small. This contrasts with cheddar cheese in which most shredding, cutting to retail or food service sizes, or conversion to other forms is performed by different companies than the original manufacturer.

Third, the category is characterized by a lack of uniformity in compositional specifications and yields, making it difficult to accurately match prices with yields and manufacturing costs.

Cheese Reference:

Cheddar cheese remains the most appropriate representative cheese within the Class III formula because of several factors.

First, cheddar is the cheese most often produced to clear the market of surplus milk, due to its storability. Use of cheddar prices is consistent with the need to set a market-clearing price within the regulated minimum milk pricing system.

Second, large volumes of cheddar cheese are sold in bulk form, either as 40-pound or larger blocks or 500-pound barrels, providing price transparency for significant volumes of the base commodity.

Third, a single product specification and common manufacturing processes facilitate associating prices with yield and manufacturing cost factors related to the same product account for virtually all cheddar production.



2.

2.0

2.1

Cheddar Is Representative of Broader Commodity
Cheese Values:

Bulk cheddar cheese remains representative of broader commodity cheese values. Margins for the most generic bulk forms of other cheeses are forced to converge with cheddar margins over time as companies seek profit opportunities by adjusting their capacity to produce the higher margin products.

Over the last several decades, many cheddar plants have been converted to mozzarella production where the profitability of mozzarella production exceeded that of cheddar cheese for sustained periods.

Some companies maintain flexible plant capacity so that they may produce cheddar or mozzarella, depending upon comparative profit opportunities on a shorter-term basis. The ultimate result is that margins for basic mozzarella and cheddar converge over time.

For these reasons Leprino Foods opposes the addition of mozzarella to the Class III formula.

Q. Thank you.

MR. NIELSEN: I yield the witnesses for cross-examination.

THE COURT: Cross?

No one has any cross for these witnesses other than AMS?

Seeing no volunteers -- oh, I'm sorry.

I'm told it's, in fact, good I name the person coming to the lectern for the folks watching at home.



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

Mr. Miltner, welcome back.

MR. MILTNER: Thank you, your Honor.

CROSS-EXAMINATION

BY MR. MILTNER:

2.

2.0

2.1

Q. I have a couple of questions on page 5 where you start talking about the mozzarella cheese proposal. And the line that caught my eye said, "Without cost data the price data collected in Proposal 6 is worthless." And may not have the worth that we want it to have, but maybe it's not worthless.

I guess my bigger question is, though, does

Leprino have a position on some of the legislation that

may be included in the Farm Bill about surveying

additional commodities to collect the type of data that

we're currently lacking?

- A. (Ms. Krebs) Leprino is in support of the proposal that is expected to be placed within the Farm Bill that I believe several organizations represented in this room have had inputs into and are in support of, and that is to allow -- or to provide authorization to the USDA to collect the mandatory -- or make mandatory -- sorry -- to authorize USDA to conduct mandatory cost and yield surveys for those products that are included in the formula.
- Q. Would you support legislation that expands that authority to commodities that are not currently in the formula but might be considered for inclusion?
- A. (Ms. Krebs) I think as far as adding additional dairy products to that mandatory authorization, I think



you could get into -- we would want to understand what the purpose of that would be.

- Q. What if the purpose were to figure out if mozzarella would be an appropriate product to include if we had the data that we're currently lacking to evaluate Proposal 6?
- A. (Ms. Krebs) I think what you start to get into at that point is it's -- there's more to it than just the fact that you don't have data right now. Mozzarella, as I mentioned, is a very, very complex cheese collection -- really it's a collection of many different cheeses. There are four major standards of identity. There is -- are -- is product that is outside of the formal standard of identity areas.

And so just the complexity of mozzarella, the fact that there is not much of the product is sold in that bulk format, much of it has additional processing that's been done. And so the expectation of the proponent in this case of adding mozzarella because there's a lot of mozzarella consumed in the country really doesn't typically -- or completely align.

I think another piece to it is that mozzarella really doesn't serve a role as being a market-clearing product in the same way that the cheddar products do, on both the barrel and block side of things.

So those are the pieces that I think would take you away from just saying, hey, if we just had the cost data or the yield data, it would be worth adding to the



2.

2.1

formula.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

28

- Q. So really the data is unimportant, it's just you don't believe mozzarella should be in the survey, period?
 - A. (Ms. Krebs) That is correct.
- Q. I had a question about Figure 1 as well. I guess really it is Figure 1 and 2, more than just Figure 1.

Figure 1 is just the Upper Midwest as you know it, correct?

- A. (Ms. Krebs) Yes.
- Q. Your mailbox price in Figure 2, is that the Upper Midwest mailbox price as well?
- A. (Ms. Krebs) No, that is a nationwide weighted average mailbox price that's been adjusted to 3.5% percent butterfat.
- Q. I think I know what you're conveying in Figure 2, but can you help me out, just explain what's in there, what you are trying to convey, what your basis is. You have basis and an asterisk, which denotes the standardization.
 - A. (Ms. Krebs) Correct.
 - Q. But what are you pegging that basis to?
- A. (Ms. Krebs) Yeah. So really what we're looking at is what's a national average mailbox price adjusted to that 3.5% percent butterfat level. You subtract out the national average blend price, and you can see that over time that premiums have been generally decreasing.
- Q. I want to ask also on page 2. You make reference to both DMC and dairy Revenue Protection, and I'm trying



to tie those programs into the Federal Order prices and what their particular relevance is.

Can you help me with that?

- A. (Ms. Krebs) Really, in this particular case, what we're trying to convey is that the Federal Order pricing system is about setting minimum prices at market-clearing levels. There's other programs that are available from within USDA that can provide support when that is needed by the farming community. But sometimes it appears that there's some misunderstanding across the industry suggesting that Federal Orders are supposed to provide a support mechanism as opposed to being that market-clearing minimum.
- Q. And you are aware that at least for DMC that coverage doesn't cover probably 80% of the milk in the country, right?
- A. (Ms. Krebs) There are some limits on it, but it covers a significant number of particularly smaller farmers that have signed up for the program.
- Q. Is it your testimony that the existence of those programs should somehow affect the decisions that USDA makes about what the formula should say?
 - A. (Ms. Krebs) Not necessarily.
- Q. Looking at Proposal 3 -- I'm sorry, Figure 3, and your accompanying testimony basically was that the share of barrels in the survey is growing, and you reflect 2009 to 2022.

Did you see the testimony from earlier today that



2.

2.1

took this data back to 2000? 1 2. Α. (Ms. Krebs) Yes. Okay. And you would agree that the barrels' share 3 4 of the survey from 2000 to now has actually declined, 5 correct? Α. (Ms. Krebs) I would have to look at that 6 7 particular chart again to confirm that that's the case. 8 Is there a reason you started your analysis at Ο. 2009? 9 10 (Ms. Krebs) That's when the current -- the Α. 11 outcome of the last hearing, this is when that 12 implementation would have taken place. So this takes us 13 back to the last decision that was made, the national 14 hearing. 15 Ο. Thanks. 16 MR. MILTNER: I don't think I have anything else. 17 THE COURT: Cross other than AMS? 18 Ms. Hancock. 19 MS. HANCOCK: Thank you, your Honor. 2.0 CROSS-EXAMINATION 2.1 BY MS. HANCOCK: 22 I'd just say I like having this panel of women up 23 here be the experts. They didn't qualify you, but I'd 24 think we'd all stipulate. 25 THE COURT: I would so rule. No one asked me to 26 but --27 MS. HANCOCK: I think they have earned it. 28 BY MS. HANCOCK:



Q. I just -- so I don't actually have all the historical knowledge that -- about your entity. I'm hoping you can help me with some of that.

Is Leprino served by a cooperative?

- A. (Ms. Krebs) Yes. Much of our milk comes from a couple of cooperatives. We do have some independent milk that is shipped to us.
- Q. Okay. And so they do most, if not all, the balancing of whatever milk needs you have to serve all of your plants?
- A. (Ms. S. Taylor) Leprino also does some balancing on behalf of the co-op. Historically the contracts have been structured to give the co-ops some discretion relative to delivery timing and volumes.
- Q. Okay. And is that where the independent suppliers come in?
- A. (Ms. S. Taylor) No. The independent suppliers are associated with one plant in California that had independents associated the time we acquired it, and we just committed that we wouldn't force them to make a change in marketing relationship.
- Q. Okay. And then the rest of the -- of your plants are all supplied by cooperative milk?
- A. (Ms. S. Taylor) That's correct. And a good portion of that same plant is also cooperative.
 - Q. Okay. More than half?
 - A. (Ms. S. Taylor) Yes.
 - Q. Okay. And are most of your plants cheese plants?



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

- A. (Ms. S. Taylor) Yes. They are all cheese, and most of them also process whey, not all.
- And actually, I should clarify that the -- one that does not process -- fully process some whey does condense it, and we transport that to an additional -- one of our other plants in the network.
- Q. Okay. And the new plant that you are constructing in Texas, I believe, would that be a cheese plant as well?
 - A. (Ms. Krebs) Yes.
 - Q. Primarily mozzarella?
- 11 A. (Ms. Krebs) Yes.

1

2.

3

4

5

6

7

8

9

10

17

18

2.0

- 12 Q. And Italian as well or just mozzarella?
- 13 A. (Ms. Krebs) Mozzarella. All pasta filata.
- Q. And then some of the materials I read online said that Leprino is the largest cheese manufacturer in the country; is that right?
 - A. (Ms. Krebs) Largest mozzarella cheese manufacturer.
- 19 | O. Okay. In the -- throughout the country?
 - A. (Ms. Krebs) Yes.
- Q. Okay. And so if, for example, including barrels,
- 22 | in the protein price for the calculation of Class III milk
- 23 | were to help bring down the overall price of Class III
- 24 | milk, then Leprino would be the beneficiary of that
- 25 | reduced price; is that right?
- A. (Ms. S. Taylor) Yes. We pay based on Federal Order pricing.
- Q. Okay. I want to ask a question, Ms. Krebs, of



your testimony on page 4, and this is under the heading of "Opposition to Proposal 3," for National Milk's removal of barrels from the Class III price calculation.

And I'm in the first -- or the third full paragraph on that page. Do you see that paragraph beginning with "dropping barrels"?

A. (Ms. Krebs) Yes.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

28

Q. And it says, "Dropping barrels from the survey would create a presumption within Class III formula that all cheese, including barrels, would then be priced off blocks."

And I thought I understood your testimony when you were talking about mozzarella saying that mozzarella was priced off the block market; is that right?

- A. (Ms. Krebs) We generally price our mozzarella off the block market in most cases. When you get to exports, again, there can be some differences in how we make approaches with that.
- Q. And that's just because that's a different market and those market factors would apply; is that right?
 - A. (Ms. Krebs) There's a lot of different dynamics.
- Q. So, for example, they are not subjected to the same Federal Order pricing mechanisms, right?
- A. (Ms. Krebs) Well, all of the milk that we process is purchased -- all of our plants are in federally regulated areas, so all the milk that we process would be subject to the Federal Order pricing.
 - Q. I guess I wasn't clear on that. I meant to say



that the competition that you are selling with on the international markets is not going to be governed by the U.S. regulations?

- A. (Ms. Krebs) If they are located outside of the United States, that would be true. If they are located in the U.S., within Federal Orders, yes. If they are in unregulated areas, then, no.
- Q. Okay. If mozzarella could be priced off the block market, couldn't barrels be priced off the block market as well?
- A. (Ms. S. Taylor) Certainly you could price barrels off of the block market, but the supply and demand factors that drive barrel are different than those same factors driving block.

And so I would expect a couple things that might happen. You may end up, first of all, with some barrel manufacturers going out of business because of the increased elevation of the class price, or they could be shifting in redeploying their milk over to the block market, which would add to the volatility of the block market as far as a market-clearing mechanism for the industry, and depress the block prices.

- Q. Is there excess capacity in the block market now?
- A. (Ms. S. Taylor) With the new plants coming online, there will be for a period. In fact, I would expect that we will see a compression in the block-barrel spread because of that new plant capacity.
 - Q. And how long will it take for that to shake out?



2.

2.1

A. (Ms. S. Taylor) I don't have a good understanding of the ramp schedule on those plants. But once they are up and running and have marketable product, I would expect that consolidation or that compression to happen.

One thing that you find typically with a plant that is starting up is that initially some of that product might actually depress the barrel market, because if it is not making grade for the intended purpose, then it gets diverted to the processed cheese market.

So some depends on the exact timing of the ramp, and it also depends upon how easily or how well the plant comes up to speed relative to quality.

- Q. And then is there any way to predict if the volatility between the spread between block and barrels re-emerges at that point?
- A. (Ms. S. Taylor) My expectation from a market perspective is that you would end up with more historic spreads over time, and that spread -- typically, I would expect barrel prices to be above blocks in the spring, while processed cheese demand is pulling at a greater level, and that spread to increase each fall.
- Q. And so that would, again, contribute to some of the same volatility that we're seeing now and it moving around?
- A. (Ms. Krebs) I don't think that's necessarily the case. There is many different market dynamics that are going on. We're not seeing or hearing of any addition of barrel capacity being added at this point. So I don't



2.

2.1

think that assumption can be made.

2.

2.0

2.1

- Q. Okay. Because the conversion tends to be going toward block manufacturing?
- A. (Ms. Krebs) At this time that's what we're seeing in the marketplace, certainly.
- Q. And so it's going to be a greater disparity between the volume of block that's on -- that's in the Class III prices as compared to barrel if the -- if the block market or production capacity continues to grow and the barrel capacity continues to either stay stable or shrink?
- A. (Ms. Krebs) Well, I wouldn't say the disparity is going to be greater because right now you have got more barrel in the survey than you have block. So perhaps a narrowing of that or a flipping from the 52% barrel, 48% block to something more level with 50/50 or perhaps the flip side of that.
- Q. So barrel becomes less reflective of the overall cheese prices than block?
- A. (Ms. Krebs) Relative to where you are today, at the 52/48%, but that's -- you know, you might be taking it to a 50/50.
- Q. In that same paragraph it goes on to say, "So the block and barrel markets are not expected to move in tandem, and forcing barrels to be priced off blocks could add dysfunction to the market" -- "or to the barrel market."

Does pricing mozzarella off the block market



1 create dysfunction in the mozzarella pricing? 2. (Ms. S. Taylor) I would say no. Thank you? 3 Q. MS. HANCOCK: That's all I have. 4 THE COURT: Yes. 5 6 CROSS-EXAMINATION 7 BY DR. BOZIC: Good afternoon, Alison and Sue, Marin Bozic for 8 Ο. 9 Edge Dairy Farmer Cooperative. And what a privilege to be 10 at the same event with you. As a young kid in dairy, I 11 used to read your testimony. 12 What -- the -- you're opposing to Proposal 3. 13 Your -- your -- in the -- in your testimony the barrel 14 share of survey cheddar volume is about 52%. National 15 Milk proposal will take it down to zero. 16 Would you agree or disagree with the statement 17 that the right way is somewhere in between those two 18 numbers? 19 (Ms. S. Taylor) Candidly, when I look at the 2.0 function, currently in the marketplace, I would say, if 2.1 anything, if you were to narrow the -- or want to narrow 22 the survey, you would eliminate blocks, not barrels, 23 because barrels are clearly the market-clearing cheese at 24 the moment. 25 We're not advocating that. We think there is



and barrels.

26

27

28

And as I already noted, I expect more price

value in a more robust survey and including both blocks

- Q. Can we pick up a little bit more on this proposal that you are not proposing, the -- to -- to -- what would be the consequence of removing blocks, for example, and pricing -- and are you suggesting that that would be a principal decision to do because barrels have recently been cheaper than blocks or because of their balancing function or what would be driving that statement?
- A. (Ms. S. Taylor) Again, we're not advocating for the removal of blocks.
 - O. Yeah, but --
- A. (Ms. S. Taylor) But I'm just saying from a market-clearing principle perspective, that would be the more legitimate proposal than removing barrels. It would be more consistent with the minimum pricing provisions. It would create disruption at many levels within the industry. Again, we're not advocating for that removal.

But we also are opposed to removing barrels and narrowing the survey by removing the probably most market-clearing product that we have in the cheese category at this point.

- Q. Would you comment on the basis between mozzarella and block cheese? How stable or volatile is it?
 - A. (Ms. S. Taylor) Well, it will shift over time.



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

- Q. Does it -- does the basis vary with how competitive U.S. is at that point in time in exports?
- A. (Ms. S. Taylor) Certainly that's a factor on the export pricing side. And we find the international prices get impacted, not only by our international competitors, whether it be New Zealand or some of the European sources, but also from other American sources and, specifically, barrel manufacturers who have dual capacity and can reallocate milk between cheddar barrels and mozzarella. So there's an element in the international market where mozzarella prices are influenced by the alternative barrel market opportunities in the U.S.
- Q. So I'm a geek, so I'm going to ask a math question next, not a counselor.

So one way to -- that I heard what you just said is that the basis between mozz and block is correlated with the block-barrel spread. In other words, when barrels drop because, for example, our frozen mozz exports are not competitive, that's also where your basis versus block gets under pressure.

Is that a fair statement?

A. (Ms. S. Taylor) The answer would vary by customer and customer type, both locationally. The U.S. pricing would not be as influenced by the block-barrel spread.



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

Internationally it is one of a great many factors that need to be considered as we assess competitive pricing.

- Q. Would it be fair to say that more -- an ever higher percent of cheese manufactured in U.S. going forward is going to be destined for overseas locations?
- A. (Ms. S. Taylor) Yes. That would be my expectation.
- Q. And then would it be fair to connect that that it is possible that a higher share of milk in the future might in some way -- might in some way be related to the block-barrel spread or the barrel prices because of the exports?
 - A. (Ms. S. Taylor) Yes.
 - O. Thank you very much.

DR. BOZIC: That's all I have.

THE COURT: Anyone else other than AMS?

AMS. Ms. Taylor.

CROSS-EXAMINATION

BY MS. TAYLOR:

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

2.4

25

26

27

28

- Q. Good afternoon.
 - A. (Ms. Krebs) Good afternoon.
- A. (Ms. S. Taylor) Good afternoon.
- Q. I'm going to try to keep this and make my way through your testimony. I'll start on page 1.

In talking about -- well, I wanted to -- your second full paragraph, which also references your Figure 2 at the back of your exhibit, the difference between the mailbox price and the blend price. And I know you



adjusted these to be at standard 3.5% butterfat.

But you draw the conclusion that this is an example of the erosion of milk premiums, and I was wondering if you could expand on how you were able to draw that conclusion.

- A. (Ms. Krebs) Well, when you look at Figure 2, what you see is that your mailbox price is decreasing relative to that blend price. And so as a result, we look at that as being an indicator of erosions of the premiums available for the -- what the farmer would be receiving relative to the Federal Order blend.
- Q. Okay. But in the next sentence you talk about some of that might be other factors. What possible other factors could -- could --
- A. (Ms. Krebs) One of the -- in talking with some others across the industry, one of the things that was suggested to me was early on, like as Dean Foods was looking to compress margins, that there's some things that were going on there that probably had some impact as well. And there was some suggestion of other pieces, quite frankly. I don't recall those offhand.

But the thinking as I have tested this with some different people across the industry that are experienced, knowledgeable, is that a significant contributor is that erosion of the premiums that have been available at the farm level.

Q. Okay. And then in the next sentence you say that this deterioration is clearly associated with increasingly



2.

2.0

2.1

outdated Make Allowances. I also wanted you to kind of expand on how you made that conclusion.

A. (Ms. Krebs) Well, I think it's -- the expectation is that we have a minimum pricing system to help ensure for the orderly marketing of milk, and that if you are to appoint where your negative -- your premiums are going into negative territory, then are you actually priced at a minimum price? And then when you combine that with the Figure 1 that we have also at the back here and looking at the example of the underpricing in the Upper Midwest, and we know there's been a lot of milk dumping this year.

And so you -- it's really putting different pieces together to say, ahh, this looks to -- to be a situation where we have very outdated Make Allowances, you have a lot of pressure on your manufacturing assets as a result, and so you don't have a marketplace that is orderly, in all cases, and you get -- you are getting away from that minimum pricing system.

- Q. Okay. So if I could kind of restate in your own words what I think I heard.
 - A. (Ms. Krebs) Yes.
- Q. How I'm interpreting what you said is that because of what you contend are outdated manufacturing allowances, perhaps that's eroded some of the premiums that were available previously because the manufacturer needs that money to cover some more of their manufacturing costs?
- A. (Ms. Krebs) We really haven't had the opportunity or the capital available to invest appropriately. And we



2.

2.1

will testify later on on Make Allowances, and I'm happy to talk about it today or we can talk about it when we get to that topic. But, yeah, it's provided a lot of stress to the industry and limited the amount of capital that's available to help the industry grow and process milk.

Q. Okay. I'm sure we'll come back to this later then.

But in the next paragraph, you state at the end, "U.S. industry is now resource driven versus market driven."

Could you expand on that a little bit?

- A. (Ms. Krebs) Well, I think it is really consistent with what I had just mentioned, is that because you have -- because of those outdated Make Allowances and because you haven't had adequate investment or capital available to invest in additional dairy processing capacity, that it's basically, well, what capacity do we have available, and then we're going to adjust our milk supply to that capacity, as opposed to saying, well, what are the opportunities we have as a marketplace, whether it be domestic or international, and then let the market react to and drive that as opposed to limitations in processing capacity.
- Q. Okay. So if there was the money to invest in plants available in recent history, you would say it would become more market driven, there would be that capacity invested to make the product that's being driven by the market?



2.

2.1

- A. (Ms. Krebs) I would suggest that economic principles would likely result in that -- in the outcome, yes.
- Q. Okay. And I think you did have testimony, or maybe a previous witness, that some of that capacity is coming online now?
- A. (Ms. Krebs) We do have some capacity that's coming online, but whether it's really sufficient or the opportunity that could be provided to farmers and to the U.S. dairy industry, I think that's still a very significant question.
- Q. Okay. And then when you talk about balancing supply and demand, you have a statement in here about "existing federal regulated pricing system is designed to balance supply and demand at the farm level." And I think there was some other pieces -- parts of your testimony that kind of talks about -- or hints about what you believe is kind of the policy objective of Federal Orders.

You know, I know there's been discussions, too, about exports and the amount of milk going to exports and somehow should Federal Orders, I don't know, acknowledge that reality in some way. Those are my words, not any used here previously.

But I wonder if you could kind of expand on what you contend is the overall policy objective of the Federal Order system that we should be striving to meet?

A. (Ms. Krebs) Yeah. Well, my understanding and -- is that there's two main premises. And maybe I should



2.

2.1

have Sue be talking to this.

2.

2.0

2.1

But one is to ensure the availability of fluid milk. And, of course, as a manufacturer of cheese, that's not the arena in which we play, so I haven't really addressed that aspect or really can't speak much to that aspect of it.

But the other piece being the orderly marketing of milk. And so it's how do we make sure that we have got the processing capacity available to --for the milk that's produced at the farm level to satisfy the demand of the marketplace, be it domestic or international.

Sue?

- A. (Ms. S. Taylor) Yeah, I think of the Federal Order system as balancing market power in its original objectives, amongst the other things that Alison already mentioned. And it's translating the revenue available in the marketplace, again, at the market-clearing levels, into the prices that dairymen will receive. And there are a number of documents and statements from USDA AMS in the past that clarified very, very clearly that Federal Orders are not a support program. They are the mechanism to transmit the market value from processors to producers.
- Q. So kind of along that line, the next page on page 3 when you talk about regulation of markets for milk, you say, "Regulation should facilitate farmers having markets for their milk. If sufficient processing capacity is not available within a reasonable distance to farms, transportation costs will make those farms uncompetitive."



- A. (Ms. S. Taylor) I believe that it is, that, A, if there isn't sufficient capacity, it's likely reflective of the fact that the regulated price has been set at too high a level, that you are not properly -- or reflecting the balance of supply and demand. The regulations should not constrain capacity development and define essentially what products are produced by those regulations distorting the marketplace.
- Q. And so that kind of ties into the next paragraph when you talk about "regulation should not be used to run into the ground manufacturers who have invested in balancing assets that benefit the overall industry"?

That's sort of a question mark at the end, but not a -- it is like a fuzzy one, I think.

- A. (Ms. S. Taylor) Yes. Again, the Federal Order regulations should not be set the prices should not be set at above market-clearing levels.
- Q. Okay. Now, moving on to your specific written opposition to Proposal 3, you talk about -- Proposal 3 would "remove one of the most important milk balancing tools of the industry from a product perspective."

Can you talk about how it will do that?

A. (Ms. S. Taylor) Barrels are clearly an important balancing product at this point in time. And, you know,



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

22

23

24

25

26

27

- Q. I have asked that similar question to others.

 Then, so what would the impact be to barrel manufacturers and kind of how would they adjust if Proposal 3 was adopted.
 - So, do you have an opinion on that?
- A. (Ms. S. Taylor) I think it could be a combination of some barrel makers going out of business and some barrel makers redeploying assets over to block, contributing to decreases in block prices and increased volatility as block increasingly became more of a balancer than it currently is.
- Q. I'm trying to decide how to word questions in my head, Ms. Taylor, so bear with me.
- On page 4, you do mention volatility, how removing barrels would add to volatility to the block market.
- So it is your opinion that that volatility is a bad thing?
- A. (Ms. S. Taylor) Volatility, if it can't be properly managed, I believe, diminishes demand. In the marketplace you have, whether it is at the retail level or food service level, where increased volatility will cause customers to look at alternative ingredients that don't have that level of volatility.
- Now, the risk management tools that we have today have provided us with an opportunity to address some of



2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

that concern. But, candidly, going back to the early period of risk management, once futures were just launched -- but it was difficult to execute -- I had a customer, who in a period of volatility told me that if we cannot better manage our price volatility on dairy, we will formulate it out of our menu. And this was a regional, midsized food service outlet restaurant chain.

So, yes, I -- I believe that volatility hurts the entire dairy industry by diminishing demand, so long as it's not managed properly.

A. (Ms. Krebs) And I'm going to add just one additional piece to that. That addresses the domestic market, but certainly on the international side of things -- and we do export quite a bit internationally -- we -- that is a challenge that we have to work with for our international customers, and competing for those international markets is the volatility that we see in the CME relative to volatility in prices out of Europe or out of New Zealand, and so that can become a competitive disadvantage for the U.S. industry.

Q. Okay. Thank you.

You mentioned too on this page in referencing, if we discontinue barrels, they will be continued on the CME spot barrel market, which could further compound the confusion across the marketplace.

Could you expand on that a little bit?

Kind of in the middle paragraph on page 4 if you are looking for it.



2.

2.0

2.1

- Α. (Ms. Krebs) Sorry. Could you repeat the question, please?
- Sure. In the bottom of this paragraph you are talking about how if we removed barrels from the NDPSR and the protein price, there would still be a CME market -spot barrel market, but that could "further compound confusion across the marketplace."

I assume that's because you are saying there would be -- there would be no NDPSR barrel price to kind of compare it to, and I just was wondering if you could just expand on how this would further compound confusion in the marketplace.

- (Ms. Krebs) I think the challenge that you would Α. have is that you do have some of the industry that does some pricing off of NDPSR as well as off of the CME. so if you have one of those tools available, the other one goes away, do you start to run into issues for different players within the marketplace, and have that added complexity. I think also the fact that you would be removing it out of the milk pricing formula and looking at it remaining within the CME could cause additional confusion for players as well.
- Because there could be two different prices for them to look at?
- Α. (Ms. Krebs) What do you do, a discount -- or a premium to blocks or do you go off the CME price?
 - Ο. On the discussion of 640s, in the top of the page,



Uh-huh.

Okav.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

22

23

24

25

26

27

I think I gather from that you were saying that 640s balance themselves because they cut -- they can cut them into 40-pound blocks and sell them as 40-pound blocks. So intuitively that balancing price is already reflected in the 40-pound block price.

Is that what I should gather from that paragraph?

- A. (Ms. S. Taylor) That's when we -- what we have been told. We are not traders specifically in the 640 market. There will be 640 producers who will be testifying later, and we believe that they will be testifying to that fact.
 - Q. Okay. Thank you.

And then I am going to ask a simple question because I'm learning a lot about cheese production these past few weeks.

Can you for the record just state what pasta filata cheese is? That's a new term for me.

A. (Ms. Krebs) Pasta filata cheese. Mike Brown talked a little bit to this earlier today, but it's basically after you have the curd washed and cleaned, then to create pasta filata cheese -- you know when you pull string cheese and it kind of peels off in strings, or when you have got melted mozzarella cheese, that stretchiness you get with the cheese? That's the result of the pasta filata process. It is a heating, a kneading, a stretching process, that aligns the proteins that give it that stringiness in the chilled product or that stretchiness that you see in the cooked product.



2.

2.1

- Q. Okay. So it's a manufacturing process?
 - A. (Ms. Krebs) Yes.
 - Q. Got you.

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

18

19

2.0

2.1

22

23

24

25

And then in your discussion on mozz, and including those, I think you basically contend -- well, a few things, but one of them is there's not really a lot of bulk sales of mozzarella, that it is already -- those manufacturers who, like yourselves, Leprino, manufacture mozzarella, you kind of do that retail packaging on your own or --

- A. (Ms. S. Taylor) There's -- within the bulk sale category. Most of that's already value-added in some format. And so there may be large volumes, but not of a generic block format, that's not value-added, whether it is an ingredient adjustment or process adjustment.
- Q. Okay. Just one last question from myself, and I think Mr. Wilson has a few questions.

On your Figure 2, your mailbox prices and your blend price, you say "Source: USDA" but -- and then I think I heard you say earlier that you took the average of all the announced mailbox prices?

- A. (Ms. Krebs) Yes, it's a weighted average.
- O. Okay. The mailbox prices?
- A. (Ms. Krebs) Uh-huh. Across the regions, yep.
 - Q. Uniform prices?
- 26 A. (Ms. Krebs) Yes. Uh-huh.
- 27 CROSS-EXAMINATION
- 28 BY MR. WILSON:



1	Q.	Todd Wilson, USDA.
2		To follow up with that real quick, you weighted
3	the mai	lbox prices that were that are announced. You
4	weighted	d it, how?
5	Α.	(Ms. Krebs) Well, by volume based on the region
6	that the	e the price comes from. So if it's by the
7	state ma	ailbox prices, whatever, that's announced.
8	Q.	Okay. So when USDA announces mailbox, it has
9	differe	nt regions or whatever, and so you group those
10	togethe	r based on
11	Α.	(Ms. Krebs) The relative volume that comes
12	Q.	What's in NASS or something?
13	Α.	(Ms. Krebs) Uh-huh.
14	Q.	And then you you adjusted those announced
15	prices	to a 3.5
16	Α.	(Ms. Krebs) Yes.
17	Q.	to a 3.5 standard
18	Α.	(Ms. Krebs) Right.
19	Q.	on a weighted basis?
20	Α.	(Ms. Krebs) That's correct.
21	Q.	All right. Thank you.
22		Back up on page 2, just to get my head kind of
23	working	in the right direction. Middle paragraph, you
24	talking	about supply, capacity, things like that.
25		Your last point is kind of that the opportunities
26	for U.S	. dairy are more abundant but are being lost
27	because	the regulated price exceeds the market-clearing



price. But we have heard testimony that there is

increased capacity coming online, but yet, I don't think that's the barrel -- from the testimony, that's not the barrel manufacturing that's coming online.

But are you implying -- are you stating that the market-clearing price is impacted by the barrel capacity?

- A. (Ms. Krebs) Not directly. This is really talking -- this particular portion of the testimony is broader, bigger picture than just block-barrel. It is basically saying, what -- do we have the capacity or what could we be doing as an industry, from the farm level and the resources and what processing manufacturing assets do we have available? And there's several indicators that we are constrained on the processing side at this point.
- Q. Okay. So the capacity you are -- that you are talking about in the paragraph, is it -- is it the dairy industry capacity --
- A. (Ms. Krebs) Yeah, overall for the industry, as far as, yeah, the processing capacity and having that capacity available to clear the market of milk, especially during the peak seasons of the year, and to process additional product.
 - MR. WILSON: That's all, your Honor. Thank you.
 - THE COURT: Mr. Miltner?
- MS. KREBS: Ms. Taylor, I think there was one other question you had earlier for Mike Brown that I'll respond to. You had asked how big is a tote?
 - MS. TAYLOR: Oh, yeah.
 - MS. KREBS: Yeah. A thousand pounds is how big



2.

2.1

1 our totes are. 2. MS. TAYLOR: Thank you. MS. KREBS: Uh-huh. 3 MS. TAYLOR: I'm glad someone remembers my 4 5 questions. 6 RECROSS-EXAMINATION 7 BY MR. MILTNER: Thank you. A couple of questions I came up with 8 Ο. 9 were prompted by some other questions. So hopefully this 10 won't take so long. Are you familiar with this concept that the last 11 12 load of milk sold sets the market? 13 (Ms. S. Taylor) I wouldn't say that the last load 14 of milk that is sold sets the market. I have heard it 15 applied to the cheese side. 16 But you don't necessarily agree with it? Ο. 17 Α. (Ms. S. Taylor) I would say that the CME spot 18 market is reflective of supply and demand, and that could 19 be the last load sold or the last load purchased in the 2.0 case of shortage situations. 2.1 Are you thinking about cheese or are you thinking Ο. 22 about raw milk? 23 (Ms. S. Taylor) Cheese. 24 Okay. On the raw milk side, have you heard a 25 similar concept, that the last load of milk that is sold sets the market for raw milk? 26 27 Α. (Ms. S. Taylor) No.



Ο.

28

Okay. You were -- in response to questions from

AMS, you suggested that -- if I could paraphrase it -- that the market -- the milk market is oversupplied relative to available plant capacity.

Is that accurate?

A. (Ms. Krebs) I think we have seen some signs recently that suggest that that is the case, that we have some indications of disorderly marketing. Probably the biggest signs that we have seen this year are the stories of milk dumping in some of the Upper Midwest. And then at Figure 1 that I have in my testimony, that shows how the Class III price or the -- sorry -- the spot price had fallen below the Class III price for an extended period of time.

So I think we are seeing -- certainly seeing symptoms of disorderly marketing and tight processing capacity.

- Q. In your Figure 1, it really doesn't look like that's a recent phenomenon, as I look at that. Would you agree that, actually, in most months, the spot milk price is below your Class III price?
- A. (Ms. Krebs) I think when you look at that particular chart, you can see that -- yeah, I -- I mean, the data is the data that we see. But I think the severity of the discounts that we have seen this year and the duration of that timing shows that we have certainly had a very, very difficult year so far, really up until August in the Upper Midwest, when you started to see supplies tighten up and get into seasonal decreases in the



2.

2.1

- Q. And Figure 1 also demonstrates, does it not, that because of the ability of manufacturers to not pool, that they have an advantage to acquire milk at substantial discounts when there is an oversupply relative to available capacity?
- A. (Ms. Krebs) I think what we are looking at here is the Federal Order system is supposed to be a minimum pricing system, and it's supposed to be at market-clearing levels. And to me, this -- this particular figure shows that we have some challenges with, actually, are we actually clearing market-clearing milk at that minimum price, and is that minimum price properly set at this time.
- Q. Within every Federal Order, perhaps with the exception of Florida, there's always a certain volume of milk that is produced but not pooled, isn't there?
- A. (Ms. S. Taylor) I don't have the data to confirm that there's always. "Always" is a very expansive descriptor.
 - O. How about most of the time?
 - A. (Ms. S. Taylor) Could you reask your question?
- Q. Sure. In -- in most situations, in most Federal Orders, there is a volume of milk that is produced, but is not producer milk, it is not pooled on the order, correct?
 - A. (Ms. S. Taylor) I don't have evidence of that.



2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

2.1

22

23

24

25

26

27

- Q. Doesn't Figure 1 suggest that whoever is clearing the market, whether it's a barrel manufacturer, a block manufacturer, or a Class IV manufacturer, they are often clearing the market with milk that is opportunistically purchased?
- A. (Ms. S. Taylor) They may be clearing the market, yes, with milk that is opportunistically purchased. It may not be a very large portion of their milk. This is —doesn't have volume indication, so it is not an indication that the minimum price is not binding, intrusive, and contributing to losses within that same manufacturing plant.
 - Q. So has the last load of milk set the market?
- A. (Ms. S. Taylor) No, if they are buying most of their milk at regulated minimums. But opportunistically taking the opportunity to buy few loads, I would say you have multiple markets, you have a regulated market, which they may be contractually obligated to, and then they -- you have the spot market that could be opportunistic.
- Q. If the markets are being cleared today with opportunistically purchased milk, how would the elimination of barrels from the survey change that reality?
 - A. (Ms. S. Taylor) The elimination of barrels would



2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

Q. And one last thing I'd like to ask about, and that's on page 3 of your statement. And it is at the bottom.

It's where you quote from the 2013 final decision. And although I don't like reading those out, I think I will because I think it's important. "Eliminating the barrel price from the protein price formula would significantly and needlessly reduce the volume of cheese used in the Class III product price formula, which could lead to protein prices, that are not as representative of the national cheese market."

And I have read that several times since you -since I've had the statement in my hand, and I'm trying to
figure out how does that establish that the barrels are
not included in the survey merely to provide volume as
opposed to price?

- A. (Ms. S. Taylor) Please ask your question again.
- Q. The statement that you included there and that I read, I don't understand how that definitively establishes that barrels are surveyed to provide price data versus a breadth of volume.
- A. (Ms. Krebs) The way I read it is that you are really putting the two together. It is the volume and the price that are needed because it talks about the volume of cheese used in the product price formula to properly price



2.

2.0

2.1

- the protein. So I -- I guess I -- that's the way I
 interpret that.
 - Q. Do you have anything to add, Ms. Taylor?
 - A. (Ms. S. Taylor) No.
 - O. Okay. Thank you.

MR. MILTNER: That will end my cross. Thanks.

THE COURT: Mr. Rosenbaum.

RECROSS-EXAMINATION

BY MR. ROSENBAUM:

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

28

Q. Steve Rosenbaum for the International Dairy Foods
Association.

I want to follow up on the very last set of questions that were being asked of you, and call your attention to -- still talking about the 2013 final decision.

And on page 9274 of that decision, there's a sentence that you quote elsewhere I believe in your testimony, where USDA states, quote, "blocks and barrels have different supply and demand functions," end quote.

Do you recall that?

- A. (Ms. Krebs) Yes.
- Q. And do you recall there making that statement in the specific context of addressing what the implications are in having both blocks and barrels in the formula?
 - A. (Ms. Krebs) Yes. That's correct.
- Q. And does that suggest that it's not merely a question of adding more volume by having barrels in, but rather, you are buying -- including barrels, incorporating



into the formula, a different set of supply and demand functions?

A. (Ms. Krebs) Yes.

1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

24

25

26

27

28

Q. And then that the -- there's a sentence that follows -- two sentences later, still on page 9274, where the USDA decision follows, quote: "Since barrel cheese prices exceed block cheese prices at certain times due to different supply and demand curves, average prices will not in and of themselves indicate cost differences."

Now, is that a further indication that from USDA's perspective the inclusion of barrel cheese in the formula, as currently exists, will, A, incorporate the different supply and demand curves that apply to barrel versus block?

- A. (Ms. Krebs) Yes.
- Q. And that barrel cheese prices and block cheese prices are not always going to be the same, correct?
 - A. (Ms. Krebs) Yes. That's correct.
- Q. And that's the very introductory phrase, quote, "Since barrel cheese prices exceed block cheese prices," end quote. Isn't that a recognition of the difference between the two products from a pricing perspective?
 - A. (Ms. Krebs) Yes.
- Q. And just to be clear -- sure that we're orienting ourselves, although this decision is dated 2013, it actually is the final decision coming out of the 2008 hearings, correct?
- A. (Ms. Krebs) That is correct.



- Q. Took five years to get to a final decision?
- A. (Ms. Krebs) 2006, 2007 hearing.
- Q. Although to be fair, there was I believe a tentative final decision that we were operating under for many years, so it's not like USDA was necessarily being dilatory. It just took a while to get to the final document, correct?

Is that your recollection, Mrs. Taylor?

- A. (Ms. S. Taylor) That's correct. It was a hearing that was 2006 and 2007, with the decision, the preliminary decision -- I may have the wrong terminology, whether it was preliminary or tentative -- implemented I believe October of 2008.
- Q. Okay. And then that -- we can look at the record. I believe this was a situation where they imposed a tentative final decision that was effective immediately, but they allowed for further comments. And we lived under that new regime for five years, and then USDA announced a final decision saying, basically, and by the way, we haven't changed our mind --
 - A. (Ms. S. Taylor) Yes.
 - Q. -- we're going to keep with this.

 Is that more or less how it worked?
 - A. (Ms. S. Taylor) Yes.
- MR. ROSENBAUM: That's all I have. Thank you.
- 26 THE COURT: Further re-cross?
- 27 Mr. Nielsen, redirect?
- 28 MR. NIELSEN: No redirect, your Honor. Just at



1

2.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

2.1

22

23

1	this time I would move to admit Exhibit 133 into evidence.		
2	THE COURT: Seeing no objections, Exhibit 133 is		
3	entered into the record.		
4	(Thereafter, Exhibit Number 133 was received		
5	into evidence.)		
6	MR. NIELSEN: Thank you.		
7	THE COURT: Thank you. Thank you for coming.		
8	Thank you for your time. You may step down from the		
9	stand.		
10	Okay. It's 4:54. I don't think we can do another		
11	witness before 5:00.		
12	Just so we all know what to do with our evening,		
13	and there's no confusion, no criticism of anybody about		
14	this, but I would ask, what is coming up next? What do we		
15	think we have on deck for tomorrow?		
16	MS. TAYLOR: According to my notes, your Honor, we		
17	have Dr. Marin Bozic who does want to testify tomorrow.		
18	His testimony is up on the website as Edge-4, Exhibit		
19	Edge-4.		
20	THE COURT: Okay.		
21	MS. TAYLOR: I think that would be and he's got		
22	printouts if anybody needs one.		
23	I'm not sure if there's any other testimony on		
24	this particular topic. Looks like it.		
25	MS. HANCOCK: I'm going to the microphone so she		
26	can hear me as well.		
27	Your Honor, we have two three rebuttal		
28	witnesses tomorrow. I think that they are all going to be		



brief well, brief on my best guess, for whatever that		
means. But and then it should close out I think it		
will close out those topics, and then we would plan to		
move to Make Allowances.		
Oh, so it will be Rob Vandenheuvel, Dr. Peter		
Vitaliano, and Christian Edmiston no, Darin Hanson. I		
apologize. It is Wednesday. Tomorrow.		
So it will be Darin Hanson, Rob Vandenheuvel, and		
Dr. Peter Vitaliano would be our three rebuttal witnesses.		
THE COURT: Okay.		
Yes, Mr. Rosenbaum.		
(Court Reporter clarification.)		
MR. ROSENBAUM: I'm just trying to plan for		
ourselves. I know you I think you have ten		
witnesses or 11 witnesses actually for on		
Make Allowance issues. I mean, are you only presenting		
those three or		
MS. HANCOCK: None of those are Make Allowances.		
MR. ROSENBAUM: Oh, those are your rebuttal		
witnesses.		
MS. HANCOCK: Those are the rebuttal witnesses,		
and then I will tell you my Make Allowances next.		
MR. ROSENBAUM: And the plan will be you all will		
go next with your Make Allowances, right, I assume?		
MS. HANCOCK: I think that's the plan.		
MR. ROSENBAUM: I mean, we have three different		
Make Allowance proposals, I guess, but National Milk has		



the lowest number, so I'm assuming that they will go

1	first.				
2	MS. TAYLOR: Yeah. That will be my				
3	MS. HANCOCK: And I think so our first our				
4	first three witnesses for Make Allowance would be				
5	Dr. Peter Vitaliano, and then Christian I knew he was				
6	here for a reason and then Christian Edmiston, and then				
7	Paul Bauer, other than the stuff he's done already.				
8	Yeah. And then we do have dairy farmers that are				
9	planning to testify tomorrow, and we'll have their				
10	testimony submitted in the morning.				
11	Tomorrow is 9/6. So we will have I think we				
12	have Kristine Spadgenske, S-P-A-D-G-E-N-S-K-E; Carl, last				
13	name W-E-D-E-M-E-Y-E-R, Wedemeyer; Brian Rexing; and then				
14	one from MMPA; Paul Windemuller; Doug Chapman.				
15	Yeah, if we get through all those.				
16	THE COURT: That sounds like a reasonable				
17	projection not that we'll get through them, but the				
18	looks like we have laid out a map forward that should last				
19	us a couple of days, I would think, maybe take us into				
20	9/7.				
21	Anyone else have anything to say?				
22	Okay. We're at 4:59. We're adjourned for the				
23	day. Thank you.				
24	(Whereupon, the proceedings concluded.)				
25					
26	000				
27					



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: September 24, 2023
11	FRESNO, CALIFORNIA
12	
13	(h) (Pa)
14	Myea & Can
15	
16	MYRA A. PISH, RPR CSR Certificate No. 11613
17	Certificate No. 11013
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	



\$0.01 1988:21 2168:14

\$0.02 1988:22.23

\$0.03 1988:12 2009:27 2012:22 2076:15 2136:16 2137:13 2140:6,10,11,13,16, 20 2141:8,11 2150:24 2151:17,18 2153:2,28 2154:10,12 2157:23,27 2158:11,18,25 2160:8,10,20 2168:14,19 2176:28 2177:1

\$0.05 2163:13

\$0.06 2015:25,27

\$0.10 2163:13

\$0.127 2176:16

\$0.20 2150:2

\$0.50 2150:3

\$1.50 2052:23

\$2 2149:24,25

\$3.6445 2052:21

(

(1) 2051:16 2195:2

(2) 2051:19 2195:4

(3) 2052:1 2195:7

(4) 2052:5 2195:9

(a) 2046:1 2053:11 2054:7 2055:22 2056:12

(b) 2046:3 2053:13

(c) 2053:14

(d) 2053:14

(e) 2053:15

(i) 1982:17 2047:1

---**00o**--- 2131:25 2236:26

--for 2217:9

0

0% 2162:3,4,10,14,23

01 2017:12 2143:6

1 1971:9 1981:9 1988:26

1

2137:7,22 2138:2 2144:16, 25 2167:12 2169:12 2175:8, 9 2200:5,6,7 2212:24 2214:9 2227:10,17 2228:4 2229:5

1,000 2194:8

1.3 2023:24

1.34 2106:4

10 1997:14 1998:7

10% 2065:18 2066:20 2067:13 2072:19 2079:12 2099:21,23 2100:10 2162:28 2163:2

10.9% 2069:25

100% 1991:16 1996:18 2033:20 2163:4,7

1000.50(n)(1) 1982:14

1000W 2063:24

11 2235:15

11% 1992:4 2005:7

11,000 2173:28

117 2009:17

1170 2071:20

1170.8 2097:23

11:47 2103:20

12 1988:25 1997:15 2151:3

1200 1970:27

124 2132:9,21 2133:3

1250 2039:10

126 1980:6.8.9

127 1980:23,24 2002:2 2042:5.7.8

128 2043:5,7,14 2062:27 2063:1.2

129 2065:4,5 2075:26,27 2076:2 2097:8 2103:12,13, 15

12:29 2131:19

13 1984:20 1988:23

13% 2073:28

130 1992:3 2104:13,14 2122:8,10,12

131 2122:26,27 2123:2 2131:12,13,15

132 2134:15,16 2177:18,20,

133 2178:22,24 2183:22

2234:1,2,4

133.113 2073:3

14 1988:23

1405 2134:3

15 1988:23 2000:10 2033:18 2182:24

15% 1998:7

150% 1983:23 2137:6

16 1988:23 2000:2 2183:16

16% 2069:24

16098 2153:19 2158:24

17 1988:24 2000:3 2010:14 2011:19 2014:6

18 1988:24 2184:7

180 1986:11

1830 2179:9

19 1988:24 **194** 2124:8

....

1950 2180:3

1956 2073:9

1958 2027:6 **1987** 2150:21

1989 2074:12 2182:4

1992 2182:8

1995 2182:8,14 2183:12,15

1999 1983:10 2044:19,27 2069:11 2105:14 2137:8 2141:5,10,25 2150:27 2151:3 2152:5 2157:28 2158:16 2159:6,9

1:30 2131:23

1st 2073:9 2142:21,22,25

2

2 1988:24 2002:8 2022:16 2054:3 2064:22 2092:6 2093:6 2104:22 2123:12 2135:15 2138:2 2175:10 2183:25 2184:26 2200:6,10, 15,27 2212:26 2213:6 2223:18 2224:22

2,000 2071:3 2097:12

20 1988:24 2019:6 2036:21 2037:26 2137:18,20 2142:5 2158:15 2169:28 2171:10 2182:21,23

20-year-old 2156:25

200 1975:27

2000 1981:9 1982:11 1983:10 1989:7 2002:3,5,9, 15,19 2003:2,16 2038:21 2045:27 2071:3 2081:8 2082:18 2097:13 2105:12 2106:19,21 2111:6 2116:21 2123:25 2135:25 2136:19 2137:27 2138:3 2145:12,20, 21 2146:6,14,28 2150:14 2154:23 2160:15 2167:15, 20,26 2168:1,13 2169:21 2175:11,16,19,24 2202:1,4

2001 2182:18

20024 2063:26

2005 2014:28

2006 2010:11 2068:6 2233:2,

2007 2233:2,10

2008 1983:28 1985:10 1989:7 2002:6,26 2006:6 2010:7 2016:4 2069:15 2232:26 2233:13

2009 1988:20,27 2009:3,10 2068:6 2201:26 2202:9

2010 1988:21 2183:1

2011 1988:22 2183:1

2012 1988:22 2069:16

2013 2069:25 2187:5,21 2188:18 2230:7 2231:14 2232:25

2014 2142:21

2015 2014:28

2016 1974:27 1993:17 1997:5 2134:25

2017 1974:12,27 1989:2 1993:15,17 1999:16 2010:16,20 2011:18 2014:1 2018:18 2019:16 2140:4,12 2157:22 2158:6,9,12 2189:4

2018 1997:5 2119:3

2020 2068:18 2181:22 2183:6 2184:14

2021 1988:25 1989:2 2003:25 2014:7 2015:24 2016:3 2189:6

2022 1984:25 1988:26 1989:3 2014:13 2017:11,15, 21 2018:9 2038:17 2069:26 2071:4 2097:13 2106:4 2124:8 2137:25 2138:2

Index: \$0.01..2022



2140:4,13 2142:22,25 2143:6,8,11,20,21 2145:12 2146:6,14,28 2157:22 2167:28 2175:10,15,27 2201:27

2023 1970:1 2017:27 2018:8 2132:1 2191:4

2025 1998:25 1999:2

21 2014:7 2048:18 2073:3

22 2034:3,8 2146:7 2167:23

222 2145:18

23 2037:26 2116:24 2171:4

24th 2191:4

25-kilo 2069:20

25-kilogram 2098:11 2124:4 2127:2

270 2145:14,23 2146:18

28 1986:11 2029:16

28-degree 2027:25

29 1986:11 2029:16

2nd 2151:3 2152:5 2157:28 2158:16 2159:6

3

3 1980:28 1982:1,4,28 1989:6 1990:9 1991:5,28 1993:2 1999:2 2022:16 2036:14,17 2040:5 2061:15 2064:23 2065:9 2066:5,14 2079:20 2093:7 2105:5,28 2126:6 2135:11 2139:21 2144:15 2164:27 2167:4 2171:17 2173:13 2186:22, 25,26 2187:16,19 2189:12, 18 2201:24 2205:2 2209:12 2217:24 2218:23 2219:6 2230:5

3.5 2224:15,17

3.5% 2200:13,24 2213:1

30 1980:19 1982:23 2036:20, 21 2047:7,21,22 2084:14 2129:17,27 2136:12

30% 2074:1

31 2104:9,21

318 2145:27

31st 2074:12

32 2122:22

33 2043:3

330 2146:1,10,13,19

330-million-pound 2146:3

34 2178:19

35 2129:17

35% 2129:27

355 2074:1

36 2053:16

360 2053:4,15

37.7% 1982:26 2047:10

375.000-foot 2068:15

38% 1982:14,20 2002:13 2047:4 2192:26

38th 2179:9

39% 2048:17 2168:22

3:10 2178:3

4

4 1988:24 2006:5 2009:20 2022:19 2064:24 2066:4,8 2072:23 2094:15 2097:7 2101:23 2104:26 2105:2,7 2106:24 2125:15,19 2140:8, 15 2142:15 2143:24 2148:5 2170:3,16 2175:9 2189:19, 21 2205:1 2219:17 2220:27

4.19% 2137:24

40 2029:11 2120:10

40% 2129:16

40- 2068:17 2072:24

40-pound 1971:12 1982:12, 18,24 1983:3,13 1984:26 1985:16,27 1986:4,12,26 1988:10,15,16,27 2002:11 2047:2,8 2051:20 2052:1 2053:10 2055:13,26 2056:19 2058:26 2060:12 2067:5,10 2068:21 2070:26 2073:13 2077:16 2082:6,24 2083:24 2085:2,4 2092:22 2101:11, 14,15,17 2106:5,9,14 2108:17,24 2114:14,28 2115:10 2121:5,8 2135:17 2136:1,9 2137:27 2138:15, 17,21,23,28 2139:2,5,28 2141:15 2161:7,14,16 2168:21 2170:12 2190:7,8 2194:1 2196:22 2222:3,5

400 2192:9

40s 2072:26 2076:23 2077:19 2078:4,8,17 2100:25 2101:2,20 2107:15, 18 2108:4 2113:8 2115:14 2117:8,11 2118:1 2121:10,

25 2170:6,19

45 2047:20,23

45% 2047:19,20,21,23 2048:20

451 2145:16,21

45th 2104:19

48% 2208:15

4:54 2234:10

4:59 2236:22

4A 2174:2,13

5

5 1970:1 1989:15 2023:28 2027:18 2064:24 2069:2 2073:26 2093:25,27 2095:25 2101:21 2123:18,21 2125:19 2132:1 2140:28 2143:18 2171:13 2198:5

5% 2162:15,17,23 2163:2

5,000 1971:7 2194:8

5.5 2020:8

50 1971:7 2002:18 2019:24 2020:6 2064:11 2174:8

50% 1984:14 2048:16 2065:16 2066:18 2067:12 2072:21 2162:3 2187:20

50,000 2068:3

50/50 2025:18,19 2040:1 2041:10 2208:16,22

500-pound 1981:1 1982:13, 19,25,26 1983:1,4,26 1984:21,23,27 1985:7,16,25, 27 1986:6,9,19,25 1987:1 1988:6,11,15 2002:13 2029:18 2047:3,9,10 2051:20 2052:2 2053:10 2055:14,27 2082:7 2106:5, 14 2121:2,7,12 2135:13,23, 26 2136:10 2138:25 2141:27 2169:15 2170:26 2186:22,28 2194:1 2196:23

52 2047:19,21

52% 2047:20,23 2048:21 2208:15 2209:14

52-week 2012:16 2069:22

52/48% 2208:21

55 2020:7

5:00 2234:11

6

6 1988:26 2043:14 2044:12 2059:12 2064:11 2142:15 2157:19 2172:8,16 2190:10, 12 2191:3,5,9 2195:19 2198:8 2199:6

6.000 2174:1

60% 2047:19.22 2048:21

60- 2114:24

600 2063:24 2082:6

63% 1992:7

64 2153:19

640 2068:7 2073:21 2106:20 2110:3 2112:15 2113:9 2114:10 2117:24 2118:20 2120:11 2190:6,7 2222:8,9

640- 2073:13

640-pound 2066:3,9,24 2067:6,7,16,26,28 2068:4,9, 17,21,26 2070:27 2072:23, 24 2079:1 2081:6,9,14,25 2083:20,24 2084:26 2085:1, 5 2093:9 2101:9,17 2104:28 2105:7,9,16 2106:7,8,16,17, 28 2109:25 2110:12 2115:23 2120:5 2121:19 2122:2 2138:12,20,21,23,24 2139:2 2170:12 2189:20,23,27 2190:2

640s 1996:24,25 2035:28 2036:2 2072:27 2073:23,24, 25 2076:23 2077:16,19,23 2078:1,4,6,7,16,19,25,26 2079:14,21,26 2083:16 2092:24 2093:15,19,22 2100:4,15,26 2101:1,2,5,7, 18,20 2105:22 2106:12 2107:3,14,19,23,26 2108:4, 5,9,14 2110:5 2112:3,12 2113:3,8 2114:11 2115:18 2116:20,22,26 2117:2,8,19, 28 2119:16,26 2121:25 2126:22 2127:10 2161:3 2170:8,17,18 2171:9 2190:4, 6 2221:28 2222:1

643 1984:26

65,000 2071:3 2097:13

652 2145:27

652,831,270 2137:26 2175:28

66% 2005:20

66111 2134:4

68- 2127:2



68-pound 2069:20 2098:11 2124:4

7

7 1982:14 2009:1,2 2012:11 2029:17 2030:6 2056:26 2059:13 2060:3 2151:12

701,415,050 1984:27

707,920 2175:20

713 2145:16.18

73% 2140:7

75 1987:18 2032:13 2034:14, 18

769 2167:27 2175:20,21

769,707,920 2138:1 2175:25

7th 2187:5

8

8 2068:16 2172:10,15,16,17

80% 2069:19 2087:17,21,27 2088:5,11,22 2089:11,17,20, 23 2096:3,18 2097:24,28 2098:4,18 2124:2 2139:6 2148:6 2201:15

80211 2179:10

80s 2182:3

81.8 1992:6

82% 2087:27,28 2088:15,17, 26,28 2089:1,7,8,10,12,20 2096:26 2097:17

83 2174:16

85% 2138:3 2168:1 2175:11

850,000 2068:17

88 2049:28

9

9 2002:26

9% 2038:18

9.4% 2069:26

9/6 2236:11

9/7 2236:20

90 2032:13 2034:17

90% 1987:18 2032:16 2034:14 2065:21 2066:23 2100:28 2162:28 2163:3

90-day 2114:25

90/10 2100:13

91/9 2032:5

9274 2188:18 2231:16 2232:5

9275 2187:6

95 2053:7

95% 2162:16 2163:8

98th 2134:3

9:55 2042:21

Α

A-L-I-S-O-N 2179:3

a.m. 2103:20

AA 2074:6 2087:17,21 2094:26 2095:1 2123:26 2124:3,7,14,16 2125:4

ability 1976:22 1978:28 2027:19 2035:19 2041:18 2107:7 2122:4 2157:9 2228:5

absence 2059:5 2081:25 2106:16,21

absolute 2003:19 2167:9,14

absolutely 1976:19 1978:20 1996:7 2000:9 2019:6 2033:15 2055:17,26 2156:12

abundant 2224:26

academic 2181:17 2183:28

academically 2180:20,22

acceptable 2115:13 2118:15,16

accepted 2099:26

access 2095:5,11

accompanying 2201:25

account 1985:20 2024:7 2025:14 2045:7 2076:15 2137:11 2141:22 2153:27 2177:8 2196:28

accounting 2182:6

accounts 2182:3

accurate 2032:6 2034:15 2108:21 2141:20 2227:4

accurately 2023:25 2142:8 2196:9

achieve 2054:28 2055:27 2135:17 2191:14

achieved 2045:15 2077:23

acid-producing 2049:9 2050:2

acidity 2049:17

acknowledge 2077:5 2154:18 2216:21

acknowledged 2143:7 2158:5

acknowledgement 2165:10

acknowledges 2139:23

acknowledging 2172:1

acquire 2228:6

acquired 2203:19

acted 2076:23 2169:28

action 2049:8 2050:1

active 1986:15 1989:17 2181:5

actively 2181:11

activities 2148:11

activity 2069:1

actual 1989:4 2009:21 2013:24,28 2066:27 2100:5, 6,7,13 2106:17 2125:11 2139:16 2145:10

add 1977:19 1979:24 2009:27 2014:6 2015:6 2022:22 2043:15 2044:12 2067:25 2072:23 2074:2 2078:26 2079:28 2081:6 2103:6 2105:7 2117:18 2123:3 2130:26 2154:10 2161:18 2184:4 2188:11,22 2189:22 2190:13 2206:20 2208:26 2219:18 2220:11 2231:3

added 1998:18 2012:2,3 2049:10,24 2050:3,16 2066:4,9 2079:26 2089:25 2090:1 2096:2 2099:10 2137:13 2141:8 2153:28 2177:1 2189:8 2207:28 2211:3 2221:18

adding 2066:24 2067:6 2068:26 2069:3 2073:23,26 2079:13 2093:18 2100:4,15 2101:21 2104:27 2117:24 2123:19 2124:25 2188:12 2189:27 2198:27 2199:19,28 2231:27

addition 1997:25 2067:16 2069:28 2071:2 2097:11 2106:19 2125:3 2181:2 2182:5 2189:19 2190:10 2191:19 2197:19 2207:27

additional 2045:7,27 2050:20 2051:24 2063:28 2071:21 2090:5,8 2091:13 2103:9 2106:10 2117:24 2145:23 2174:27,28 2179:24 2189:6,26 2191:16 2193:24 2195:13 2198:14,27 2199:17 2204:5 2211:3 2215:16 2220:12 2221:21 2225:21

Additionally 2137:9 2140:15 2141:18 2183:14 2193:10

address 1980:4 2039:9 2063:24 2067:9 2069:16 2079:8 2134:2 2179:7,8,11 2191:23 2192:11 2219:28

addressed 1983:6 2000:7 2105:11 2217:5

addresses 2220:12

addressing 2185:10 2231:23

adds 1988:12 2109:12

adequate 2055:3 2137:2 2138:18 2139:16 2140:1 2189:10 2215:15

adequately 2047:26

adjourned 2236:22

adjust 1993:5 2041:5,10 2045:6 2058:9 2192:25 2215:18 2219:6

adjusted 1982:20 2030:3 2075:3 2137:11 2141:6 2153:27 2193:2 2200:13,23 2213:1 2224:14

adjusting 2192:15 2197:7

adjustment 2012:22 2016:13 2067:1 2141:18 2150:24 2151:18 2168:14,20 2193:3 2223:15

adjusts 2210:1

administration 2092:15

admission 2042:5 2062:27

admit 1980:6 2234:1

admitted 1980:8 2042:7 2103:13 2122:10 2131:14 2132:16 2177:20

adopt 2079:20

adopted 1973:4 1984:21 1986:18 1990:10 1991:5 1993:2 1999:3 2036:14,17 2045:4,13 2076:26 2082:26 2099:10 2106:25 2125:16 2164:27 2173:13 2219:7



adopting 1983:11

adoption 1973:3 1990:19 1991:28 2189:12

advance 2044:5 2132:24

advanced 1983:27 2105:16

advantage 1988:10 2228:6

advantages 2101:12

advisory 2183:1,2,4

advocacy 2179:24

advocating 2209:25 2210:13,21

AFBF 2138:12

AFBF-2 2065:1,2 2076:2

AFBF'S 2138:15

affect 1996:9,13 1997:28 2035:19 2092:24 2128:8 2201:21

affected 2064:14

affecting 1987:4 2092:26

affects 2014:2 2140:26

affiliations 2181:2

afraid 2102:26

afternoon 2116:16 2132:1 2133:18,19,24 2169:5,6 2175:4,5 2209:8 2212:20,21, 22

ag 2183:4 2184:15

age 1982:22 2001:1,2 2023:5 2047:6 2084:22 2110:16 2114:19

ageable 1972:20,25

aged 1972:20 2027:26 2028:8 2029:15 2114:2,25, 28 2115:4 2117:20

agency 2155:9

aggregate 2026:22

aging 1972:21 1986:13 2021:17 2023:1,7 2113:26 2114:18

agree 2018:3 2044:4 2056:5 2087:4,16 2097:4 2151:7,26, 27 2156:7 2157:27 2158:3, 16,22 2163:22 2164:15 2165:22 2202:3 2209:16 2226:16 2227:19

agreed 2105:21 2117:1 2156:4

agreement 1991:15 2109:1

agreements 1984:4 2036:5 2044:26

agri 2184:5

agricultural 2069:10 2134:28 2180:23 2181:26 2183:2

agriculture 2181:28

aha 1974:19

ahead 2077:11 2094:3 2095:1 2110:7 2113:6 2126:25 2129:24 2148:19 2153:16

ahh 2214:13

aim 2073:15 2075:4

aimed 2091:14

Alabama 2053:17

align 2058:7 2199:21

alignment 1991:1 2018:20 2019:22 2026:3 2114:16 2118:9

aligns 2222:26

Alison 2178:11 2179:2 2209:8 2217:15

All-jersey 2002:5

Allowance 1981:21 2046:3,6 2048:7,12 2137:10 2141:13 2153:25 2176:14,16,23 2235:16,27 2236:4

allowances 2030:2 2050:28 2189:11 2210:5 2214:1,14, 23 2215:1,14 2235:4,18,22,

allowed 2015:19 2072:7 2233:17

allowing 2011:16 2142:10

alternative 1995:15 2056:18 2211:15 2219:25

altogether 2079:4 2194:21

amazing 2023:24 2114:23 2129:13

ambiguity 2131:9

ameliorate 2031:21

amendments 1983:19 1984:3 2044:26 2045:27 2105:18 2136:19

America 2134:23 2173:23

American 2063:8,23,25 2064:10 2065:13 2066:8 2069:2 2070:3 2091:14

2097:3 2107:4 2109:20 2116:5 2128:18 2130:12 2138:11 2166:16 2189:22 2211:11

American-type 2139:3

amount 1993:26 2001:17 2002:15 2017:2 2020:20 2027:1 2039:13 2075:2 2175:19 2215:4 2216:20

AMPI's 2068:2

AMS 1970:15 1989:25 2001:23 2022:7,8 2023:12 2039:1 2052:22 2053:8,24 2061:2,3 2062:23 2069:14, 26 2073:8,10 2074:11,13 2075:22 2081:1 2084:5 2099:13,14 2102:27 2109:6 2116:13 2120:23 2125:27 2128:14 2140:9 2141:3 2161:24 2166:10 2169:1,2 2174:26 2197:25 2202:17 2212:16,17 2217:19 2227:1

analogous 2096:5

analysis 2135:1 2157:8,13 2164:1 2184:10 2202:8

analyst 2068:25

analytics 2135:3

analyzed 2140:18

anecdotal 2067:27 2071:12

anecdotally 2078:6

anhydrous 2089:9

Animal 2184:6

announced 2058:3 2078:25 2140:9 2141:3 2223:21 2224:3,7,14 2233:18

announces 2224:8

annual 2069:23 2108:6 2137:24 2139:21 2141:2 2143:3,4,9,21,27 2144:3 2145:3

answering 2085:11

answers 2000:13 2147:9 2164:23

anticipate 1997:18 2078:3 2094:10

anticipated 2138:17

anybody's 1975:1 2178:17

anymore 2086:14 2095:18 2129:19

anytime 2030:15 2077:15 2165:9

apologize 2075:24 2173:16 2235:7

appearance 1970:5

appears 2053:6 2132:18 2168:19 2189:5 2192:11 2201:9

applicable 2142:5

application 2139:8

applications 2192:2

applied 2085:1,2 2134:28 2140:9 2141:3 2180:28 2193:4 2226:15

applies 2083:24 2137:17 2140:14 2157:24

apply 2084:8 2096:20 2117:22 2124:20 2205:20 2232:13

applying 2050:27 2194:22

appoint 2214:6

appointed 2182:28

appointments 2182:27

appreciated 2138:16

approach 2046:8 2171:23

approaches 2205:18

approaching 2078:7

appropriately 1985:9 2214:28

appropriateness 2075:16

approximately 2049:28 2145:19,21

April 2044:27 2111:6 2151:3 2152:5 2157:28 2158:16 2159:6

apt 2022:28

area 2101:10 2135:15 2182:18

areas 1970:28 1977:8 1983:18 1984:2 2015:13 2044:25 2105:17 2173:27 2179:23 2185:8 2199:14 2205:26 2206:7

arena 2217:4

argue 2017:2 2031:10 2032:19 2059:22,28 2130:23,24 2154:26

argued 1983:12 2044:22 2052:19 2141:12 2153:3

argument 2008:27 2119:23 2155:15



arguments 1981:8

article 2068:1,12 2091:22

articles 2093:7,9,13 2170:7

ascribe 1993:15

asks 2169:10

aspect 2217:5,6

aspects 2107:9

assertion 1987:15

assess 2212:2

assesses 1985:21 2024:7

asset 2174:25

assets 2214:15 2218:16 2219:11 2225:11

associate 2099:1,3

associating 2196:26

Association 1980:3 2039:6 2043:2 2044:11 2081:5 2095:23 2104:7 2121:1 2144:14 2181:13 2184:13 2231:11

assume 2036:23 2056:16 2093:8 2221:8 2235:24

assuming 1992:4 2086:10 2117:19 2235:28

assumption 2078:26 2165:17 2208:1

assumptions 1981:23 2194:19

assure 2044:24 2070:22 2153:5

asterisk 2200:18

astounding 2140:7

ATAC 2183:4

attempt 1973:20 2145:15 2158:28 2192:11

attempted 1976:13

attempting 2159:2

attended 2150:21

attention 2150:19 2175:7 2231:14

attorney 2078:1

attractive 2188:13

attractiveness 2229:4

attributes 2124:20 2195:8

auction 2036:2 2060:15 2108:10,11,20 2109:2

2110:13,20,21,26 2111:16, 18 2119:18

auctions 1996:24 2036:1 2110:23 2111:11

audited 2023:13 2076:28 2090:26 2102:23

audits 2023:19

August 2074:12 2227:27

authority 1978:5,13 2077:7 2191:6 2198:25

authorization 2198:20,28

authorize 2198:22

automation 2116:26

availability 1998:13 2166:2 2217:2

avenue 2063:24 2108:27 2179:9

average 1982:11,12,13 1988:18,21 2002:11,12 2012:17,25 2013:2,3,6,14,22 2014:4 2015:27 2017:12,19, 25,28 2018:11 2030:7,16 2031:19 2046:27 2052:21 2123:26 2135:12 2136:14,26 2140:4,19 2141:2,27 2143:4, 7,9,21 2144:3 2152:22 2162:19 2200:13,23,25 2223:20,22 2232:8

averages 2030:12 2143:27

avoid 2067:8,18,19,20,22 2073:23 2092:10

avoiding 2092:9

aware 1978:15,18 1997:10 2011:28 2044:4 2059:21 2077:20 2081:7,24 2089:24, 28 2090:3,4,6,28 2092:12 2150:4 2160:13 2170:9 2189:25 2201:14

awful 2098:23

В

back 1970:2 1980:11
1988:26 1989:3 1999:12
2002:26 2003:25 2014:28
2015:2 2016:5,27 2018:20,
23 2019:22 2021:15 2022:14
2031:6 2035:7,18 2038:15,
22 2042:20,27 2056:1
2057:21 2060:2 2061:3
2072:10 2076:2 2081:8
2088:3 2103:19,20 2108:23
2129:17,18 2131:23 2152:18
2156:13,15 2158:23 2169:7,
20,21 2170:26 2171:26

2175:16 2178:3 2183:20 2198:1 2202:1,13 2212:27 2214:9 2215:6 2220:1 2224:22 2229:1

backdrop 1988:6

background 2064:3 2155:21 2179:15,16 2180:17 2181:18 2184:1,24

bacterial 2049:9 2050:2

bad 2114:21 2121:28 2219:20

bag 2114:7

bakeries 2129:18

bakers 2070:3

baking 2129:14

balance 1976:9,23 1977:1 1986:20,23 1989:9 1996:20 2003:28 2008:21 2014:15 2015:2 2026:27 2028:20 2029:26 2058:6 2060:27 2066:26 2100:4 2128:8 2185:25 2188:2 2189:9 2216:15 2218:9 2222:2

balanced 2008:18

balancer 2195:24 2219:13

balancing 1976:8 1977:5,23 1979:13,25 1994:6 1999:7 2004:13,18 2015:15 2019:2 2028:22 2036:5,28 2072:13 2185:9,23 2187:3 2190:5,7 2203:9,11 2210:11 2216:12 2217:14 2218:16,24,28 2222:4

barrel 1971:22 1972:28 1973:5,10,16,17,19,23,25,28 1974:27 1975:3,6,9,10,13,22 1976:1.4 1979:4 1981:1 1982:13,19 1983:1,4,14,22 1984:8,13,15,27 1985:1,11 1986:17,19,21 1987:28 1988:3,4,11,13 1989:8,20,21 1990:18,23,27,28 1995:4,12 1997:5.8 1998:11.16 1999:11,18,27 2000:16,20, 23,24,27 2001:16,19 2002:13,16 2003:12 2004:2, 4.22 2005:5.16 2006:27 2007:3,11 2009:21 2010:27 2011:15 2012:2,3 2014:11, 16 2015:19 2016:5 2018:22 2020:14 2021:10 2024:18,24 2025:1,3,28 2026:1,15,16 2027:3,12,16,19 2028:2,4 2029:3,15 2030:23,26 2031:7 2032:27 2033:8,17 2034:12,28 2036:15,16,18, 23 2038:1,18 2039:13,17,18,

27 2040:2,6,10,12,24 2041:1,2,4,19,20,22 2047:3 2057:22 2065:11,15,19,22, 28 2066:17,21 2067:11 2071:23,24 2072:9,18,20 2077:24 2080:21 2099:22 2100:22 2121:14 2135:13, 16,20,23,27 2136:11,15,25, 27 2137:1,4,11,12,13,15,28 2138:4 2139:8,10 2140:8,16, 24 2141:2,5,6,7,8,11,17,19, 27 2142:4,18 2143:5 2144:17 2145:11,13,18,24 2146:1,18 2151:14 2152:21, 23,25 2153:1,26,28 2154:1, 3,8 2157:9,13,16 2160:18 2162:2,5,17 2164:27 2165:4, 5,13 2167:26 2172:9 2173:5, 12.14 2175:11 2177:1.4 2186:28 2187:6,9,14,22 2188:5,20,22,24 2189:1 2192:22,25 2199:25 2206:13,16 2207:7,19,28 2208:8,10,14,15,18,24,26 2209:13 2211:12.15 2212:11 2219:3,5,10,11 2220:24 2221:6,9 2225:2,3,5 2229:6 2230:10 2232:6,11,13,16,20

barrel-block 2041:8 2163:20

barrel-only 2010:28

barrel-producing 1993:16

barrels 1971:18,19,20,25,26 1972:6,9 1973:2,4,17 1974:4,9,10 1975:15,21,28 1977:12,15 1979:5,20 1982:25,26 1983:15,27 1984:21,23 1985:7,16,25,27 1986:6,9,20,25 1987:1,3,6,9, 16,21 1988:7,15 1990:10,11, 17 1991:2,5,9,22,25 1992:20,28 1993:1,3 1994:1, 4.6.16.23 1995:16.23 1996:4,11,16 1997:28 1998:6 1999:10 2000:22 2001:2 2003:21,23,25,27 2004:3,6,7,9 2005:1,12,17, 18 2006:9 2007:15 2009:28 2010:6.18 2011:6.19 2012:22 2013:25 2014:23,25 2015:8,18 2017:1,10,23,24 2018:21,27,28 2019:1,7 2020:26 2021:3,5 2022:27 2024:1 2025:15 2026:5,24, 25 2027:1,13,20 2028:12,20, 28 2029:6,9,10,18 2030:20 2031:27 2032:1.18 2033:10. 16 2035:26 2036:22 2037:1, 15 2040:23,25,27 2041:16 2047:9,10 2051:20 2052:2 2053:10 2055:14,27 2056:18,23 2060:13,22 2066:2,13,26,28 2068:4,28 2071:22,27 2072:15,20



2073:4 2075:11,12 2076:14 2077:16 2078:2,19,24,27 2079:3,9,10,21,26 2082:7,24 2100:2,4,11,12,14,19 2106:5,14 2117:17 2118:1, 19 2121:2,4,7,12 2135:19 2138:9,26 2139:15 2140:5,6, 14,20,21 2142:7 2144:23 2145:6,8 2146:10,18,27 2147:24 2150:15 2151:24 2152:26 2157:7,24 2158:5 2162:4,6,10,28 2164:19,27 2165:18 2168:23 2169:15 2170:26 2173:3 2174:14 2186:22 2187:16,28 2188:2, 8,15,17,19,21,25 2192:18,19 2193:4 2194:2 2196:23 2201:26 2204:21 2205:3,6,8, 10 2206:9.11 2207:14 2208:25 2209:22,23,27 2210:10,18,22 2211:13,22 2218:27 2219:1,18 2220:23 2221:4 2229:26,28 2230:17, 23 2231:18,24,27,28

barrels' 2202:3

base 1987:22,24 1991:18 1998:11,16 2023:26 2032:17 2054:12 2071:7 2121:17,21 2193:9 2194:19 2196:24

based 1977:6 1982:18 1987:16 1990:15 1992:27,28 2007:18 2011:23 2016:12 2023:26 2034:28 2035:23 2045:5 2052:24,28 2055:20 2058:3 2059:10 2063:28 2069:22 2070:21 2073:15 2082:15,26 2085:5,9 2100:25 2108:6,16 2115:22 2116:8 2135:28 2139:5 2148:23 2153:25 2154:17 2157:11,15 2168:20 2190:24 2192:16 2193:2 2194:17 2204:26 2219:2 2224:5,10

baseline 2150:7 2171:22

basic 2151:8 2197:16

basically 1971:19 1995:9 1998:8 2000:10 2001:19 2014:9 2015:26 2041:5 2056:10 2058:11 2087:20 2107:22 2108:11 2110:26 2113:20 2122:6 2184:5 2201:25 2215:17 2222:20 2223:5 2225:9 2233:19

basing 2048:10,12 2124:15

basis 2034:25 2035:16 2046:11 2057:22 2073:9 2077:19 2083:16 2086:9 2105:23 2108:6 2116:22 2142:18 2143:7,28 2163:12, 14 2167:14,18,22 2192:23 2193:3 2197:16 2200:17,18, 21 2210:26 2211:5,20,23 2224:19

Bauer 1973:11 2236:7

Bauer's 1974:8

beach 2165:14

bear 2106:11 2125:5 2219:16

beauties 2035:13

beauty 2111:26

Beef 2184:13

beg 2063:15 2077:26 2088:27

beginning 1974:12 2076:1 2093:6 2176:12 2189:4 2205:6

begins 2054:6 2093:6

behalf 1970:7 2044:10 2063:8 2134:5 2173:11 2179:25 2203:12

behavior 2147:8

believed 1978:8 2156:2

believes 1983:7 2059:28

benchmark 1990:25 2025:2 2080:8,11 2100:23

beneficiary 2204:24

benefit 2130:28 2185:26 2218:16

bid 2193:19

bids 2062:16

big 1997:16 2027:16 2030:19 2032:8 2035:17,27 2062:14 2121:23 2129:11 2174:16 2225:26,28

bigger 1972:25 1977:23 1979:16 2010:23 2027:23 2037:27 2112:19 2198:11 2225:8

biggest 2118:1 2227:8

Bill 2198:13,17

billion 1992:3,6 2000:10 2019:24 2020:6,7,8 2023:24 2106:4 2121:13.14

billions 2023:23

binding 2001:15 2229:14

bit 1970:25 1972:5,14 1976:1,12 1977:4 1992:15 2024:4,19 2036:12 2037:8, 23 2054:10 2087:3 2126:20 2150:13 2155:6,23 2173:19 2174:18 2179:15 2180:12,17 2183:17 2184:4,24 2185:1 2210:6 2215:11 2220:14,26 2222:19

blend 2029:14 2034:2 2040:1 2200:25 2212:28 2213:8,11 2223:19

blended 2017:7

block 1971:12 1973:27,28 1982:12,18 1983:22 1984:26 1985:1 1986:13,16,26 1987:3,8,13,16 1988:2,4,10, 17 1989:17,19 1992:27 1994:3 1995:4 1996:5,16 1997:12,26 1998:12,25 1999:18,28 2000:14 2002:12 2003:1,2,15,28 2004:22 2009:20 2010:5 2011:16 2012:20 2013:3,7,14,21,24 2014:10.17.22 2015:18.23. 27 2016:2,22 2017:11,12,18 2018:19 2019:20 2020:14,26 2021:9 2022:2 2025:3,6 2029:24 2030:20 2031:7 2032:23,26 2033:11,14,17 2034:13,25,28 2035:4,5,25 2040:2,10,18 2047:2 2057:22 2058:21,26 2065:19,23,25 2066:3,21 2067:10,18,26,28 2071:23, 24,25 2072:9,25 2079:15 2092:9 2093:10 2100:16,21 23.25 2101:9.15.17 2108:17. 24 2109:24.25 2114:6.15 2115:1 2120:5 2135:17,20 2136:1,10,15,26,28 2137:1, 4,7,10,12,16,22,25,28 2138:2,3,6,7,9,17,28 2139:5, 7,18,21,22,25 2140:5,8,15, 25 2141:2.6.15.19 2143:4 2144:16 2145:3,26 2146:5, 14,17 2148:7 2149:1,2,6,10, 11,15,21,23,28 2150:6,9 2151:14 2152:2,22,24 2153:25,28 2154:3,7,11,12 2157:6.11.16 2159:2.8.12 2160:18 2161:16.17 2163:7. 8,13 2167:14,26,28 2168:2 2169:27 2171:22,24,26 2172:1,6 2173:5 2175:10,11 2176:1 2177:4 2188:4,11,20 2189:6,8,23 2190:2,8 2194:18 2199:25 2205:14,16 2206:8,9,12,14,19,20,22,23 2207:14 2208:3,7,9,14,16, 19,24,28 2210:27 2211:1,20, 24 2219:11,12,13,18 2222:5 2223:14 2229:6 2232:7,14, 16,20

block-barrel 1980:4 1993:14 1997:25 1998:24 1999:22 2000:7 2012:17,21 2015:9 2025:20 2117:15 2141:23 2143:21 2158:9 2163:15 2189:4 2206:26 2211:21,28 2212:11 2225:8

blocks 1971:17,23,28 1972:8,10,17,18,19,22 1973:1,27 1975:15,21 1977:13,16 1982:24 1983:3, 13 1985:16,27 1986:4,5,13 1987:6,21 1988:15,16,20,28 1990:12,27 1991:2,24 1992:11,26,27 1995:26 1996:5,10 1998:8 2003:3 2004:1,7,9 2005:18 2010:5 2011:6,19 2012:10,21,24 2013:1 2014:24 2015:6,13 2016:6 2017:10,23,24 2018:28 2020:27 2021:2,5 2022:27,28 2023:15 2024:1, 26 2025:15 2027:1,12 2028:25,26 2031:4,28 2032:18 2035:25 2036:24 2040:14,21,23 2041:15 2047:8 2051:20 2052:1 2053:10 2055:13,27 2056:20 2057:4 2060:12,22 2066:4,9, 24,25,26 2067:2,6,7,17,20 2068:4,6,9,17,21,26 2070:26,27 2071:26 2072:16,23,24 2073:13 2075:11,12 2076:14 2077:16 2078:23,26 2079:1 2081:6,9, 15,25 2082:6,7,24 2083:20, 24,25 2084:26 2085:2,4,5 2092:22,27 2100:4,12,14 2101:6,11,16,18 2104:28 2105:8,9,16 2106:5,7,9,14, 16,17,20,28 2108:12,16 2110:12 2113:8 2115:10 2116:28 2121:5,8,19 2122:2 2135:18 2137:27 2138:13, 15,20,21,23,24 2139:2,28 2140:5,14,19 2141:8 2144:22,25,26 2146:4,19,23, 27 2147:24 2150:15 2151:24 2157:24 2158:5 2159:1 2161:7,14 2162:16,28 2163:4,10 2167:18,23 2168:9,22 2169:25 2170:10, 12 2171:21 2172:4 2173:3 2174:14,18,24 2175:15 2187:26,27 2188:10,18,19, 22 2189:20,27 2190:7 2194:1 2196:22 2205:11 2207:19 2208:25 2209:22,26 2210:8,11,14 2221:26 2222:3 2231:18,24

board 2174:7 2181:10 2182:25

bolstered 2052:11

bottler 2182:11

bottom 1971:9 1981:9

Index: barrels'..bottom



1989:15 2027:18 2093:6 2101:23 2186:24 2221:3 2230:6

bought 1998:12 2005:27 2017:9 2062:5 2108:5 2111:16 2127:13,14 2128:11

bounce 2036:3

bounds 2140:10 2173:8

box 1988:25 2053:5,15

boxes 2053:16 2069:20 2098:11 2124:4

Boy 1997:27

Bozic 1990:1 2001:21 2076:6,7 2080:27 2161:27, 28 2162:1 2164:11,12 2166:7 2209:7,8 2212:15 2234:17

Brazil 2180:14

breadth 2230:24

break 2042:12,17,22 2103:20,21 2131:24 2133:6, 7 2178:1,4

brevity 2184:28

Brian 2075:23 2236:13

briefly 1997:3 2181:16

bring 2018:20 2019:22 2057:12,14 2106:10 2121:27 2122:17 2125:5 2185:3 2204:23

broad 1991:18 2146:16 2184:15

broader 2190:15 2197:1,4 2225:8

broadly 2130:25

broker-managed 2028:17

brokers 2034:18

brought 2043:23 2159:14

Brown 1980:4,11,13,18,27 1989:12 2001:27 2038:11,12 2042:10,12,16,26 2043:13, 28 2044:8 2053:22,28 2063:4 2080:6 2103:25 2104:1,8 2106:27 2112:10 2116:6 2122:14,21 2123:2 2125:22,25 2131:8 2143:2 2222:18 2225:25

Brown's 2109:4 2143:19

budgeted 2172:28

build 2210:3

building 2025:6 2180:11

built 1997:14 2011:11 2094:28

bulge 2128:20

bulk 2051:19,21 2052:8,13 2053:9 2062:8 2128:11,12 2193:9,13,15,20 2194:14 2195:7,25 2196:2,22 2197:3, 5 2199:16 2223:7,11

bullet 2056:27 2059:14

bulleted 2060:2

bunch 2166:19 2176:7

bundles 2050:8

Bureau 2063:8,23,25 2064:10,25 2065:13,27 2066:8 2069:2 2109:20 2116:5 2128:18 2138:11 2166:16 2189:22

Bureau's 2064:23 2078:1

burning 2191:15

business 1970:4 1998:19 2011:26 2014:11 2015:20 2021:22 2129:23 2134:2 2179:8 2180:1 2182:9 2184:5 2206:17 2219:10

butter 1981:18 2004:17 2031:17 2045:11 2055:11 2058:16 2060:23,26 2069:3, 5,7,9,15,20,21,23,24,28 2070:2.3.5.10.12.13.14.15. 16,18,20,28 2071:2,4,6,9,10, 12,13,14,15,17,19 2073:27, 28 2074:1,2,4,5,8,10,16,22 2075:1,6,7,9,10,14,16,17 2082:24 2085:18,20,23,24, 28 2086:9,10 2087:5,12 2088:4,11,15,17,25 2089:8, 9,20,21,24,28 2090:4,9,10, 12,15,17 2091:1,6,12,15 2093:28 2094:1,7,8,16,18, 20,23,25,27 2095:1,2,3,24 2096:2,4,5,7,9,10,18,21,24, 27 2097:4.5.10.11.12.14.17. 24 2098:4,10,18,23 2099:9 2101:22,24 2102:5,18 2123:3,19,26 2124:1,5,6,7, 11,13,14,16,21,22,27,28 2125:4,5,8,11,12,14 2126:8, 24,25 2127:3,8,10,14,15,22, 25 2128:6,9,11,12,20,21,22, 27 2129:6,12,15,19,25,26 2130:10,12,26 2170:28 2182:12

butter/nonfat 2045:21 2051:9

butterfat 2069:4 2071:7 2075:9 2087:21,28 2088:5,7, 15,18,28 2090:9 2096:3,18 2097:6,17,24 2098:4 2102:19 2113:11 2123:23 2124:2,15 2126:27 2136:4 2200:14,24 2213:1

buy 1975:28 2016:11,26 2021:27 2028:14 2062:1 2101:17 2102:4 2111:19,20 2113:3 2114:6 2115:9,10 2117:3,28 2129:19 2229:20

buyer 1990:20 2036:1 2052:10 2060:10 2107:28 2108:28 2111:3,5,12 2112:21 2125:2

buyers 1986:18 1990:24 2036:11 2107:25 2111:9 2118:13 2139:17 2150:10 2188:3,14 2190:4,5

buying 1995:1 2000:24 2021:27 2022:1 2029:5 2036:11 2229:18 2231:28

byproducts 1974:23

С

C-R-Y-A-N 2063:23

CAGR 2145:3

calculated 2017:27 2041:15 2045:5

calculating 2050:27 2140:2 2176:23

calculation 1981:22 2002:10 2066:11,12 2069:4 2136:14 2139:11 2145:11,17 2176:21 2189:28 2190:16 2192:24 2204:22 2205:3

calculations 2065:12 2136:3

calendar 2017:21

California 1971:1,4 1976:25 1977:21 1979:19 2053:17 2141:14 2180:8 2181:8 2182:23,25 2183:13,14 2190:13,18 2203:18

call 1977:20 1998:9 2022:1 2029:2 2038:12 2083:28 2092:2,3 2096:10 2107:13 2113:28 2126:28 2127:18 2163:13 2175:7 2178:16 2231:13

called 2091:23 2111:8

calling 2013:13

calls 2070:26 2192:13

Campaign 2190:13

Campaign's 2190:18

candidly 2209:19 2220:1

capabilities 2011:12

capable 2125:2 2128:21

capacities 2019:20

capacity 1974:27 1986:26 1993:16 1997:3,5,9,12,26 1998:19,23,26 1999:8,25 2004:15,20 2010:27 2011:3, 7,16 2012:2,4 2014:22,26 2015:1,3,7 2018:19 2019:21 2020:21,25,26,27,28 2021:1, 4.9.12 2036:26 2041:9 2051:4 2060:19 2072:5,7,10 2110:5 2138:4,7 2160:16 2170:3,6 2189:7,8 2197:7,13 2206:23,27 2207:28 2208:9, 10 2211:3,12 2215:17,19,23, 26 2216:5,7 2217:9,26 2218:3,6,10 2224:24 2225:1, 5,9,14,16,18,19 2227:3,16 2228:8

capital 2072:4 2210:4 2214:28 2215:4,15

capture 1972:11 1987:4 2079:17

captured 1986:28 2044:24 2121:16 2153:5

captures 2069:20

card 2100:27

care 2021:27 2063:25 2186:16

career 2005:28 2077:15 2180:19 2181:17 2182:19,27 2184:5,16

careful 2032:22

Carl 2236:12

Carlisle 1976:26,28 1977:21

carry 2044:20 2119:25

case 1987:17 1993:10 1995:22 2002:19 2018:3,12 2033:1,24 2036:4 2037:19, 20 2058:24 2062:12 2064:21 2078:10 2081:19 2082:3 2096:16 2102:23 2106:19 2117:12,18 2131:8 2170:13 2199:19 2201:4 2202:7 2207:26 2226:20 2227:6

cases 2000:8 2011:4 2041:12 2082:8 2113:7 2115:7 2205:16 2214:17

cash 1975:3 1985:19 2024:6 2027:3 2058:3 2113:2 2126:18 2139:18

Index: bought..cash



categories 2051:2 2094:17 2124:6 2195:3

category 1972:26 1987:10 2038:19 2050:28 2064:20,22 2187:24 2191:27 2192:12 2196:7 2210:25 2223:12

Cattle 2184:12

caught 2198:7

causal 1992:19

causing 2143:14

cease 1985:25

Central 2024:5

certainty 2018:7 2033:4

certify 2089:16

CFR 1982:8,14,27 2048:18 2073:3 2097:23

chain 2126:23 2195:14

2220:7

chair 2181:8

chaired 2182:19,21,23

chalk 2033:28

challenge 1992:2 2080:5 2107:23 2126:21 2220:15 2221:13

challenges 2170:27 2185:22 2228:13

chance 2143:2

change 1975:10 1982:1 1990:11 1991:13,17,23 1994:25 1995:23 2002:27 2006:21 2026:3 2028:5 2031:1,3 2033:22 2037:13 2104:27 2113:7,21,22,23,24 2115:5 2123:19 2144:22,25 2160:25 2171:5 2194:18 2203:21 2229:26

changed 2006:1,21 2009:6 2020:20,21 2116:17,23 2233:20

changing 2035:17

channels 1987:11

Chapman 2236:14

characteristics 2110:18

characterization 2147:2 2154:13

characterized 2196:7

chart 1988:14,17 2008:28 2009:2 2010:8 2030:6 2137:7,22 2138:2 2139:21

2140:8,11,15,28 2142:15,17, 19 2143:18,24 2144:15,25 2145:8 2157:20,21 2158:8 2171:17 2175:10 2202:7 2227:22

charts 2142:14

chasing 2000:1

chat 2002:1 2142:13

cheaper 2149:13 2210:11

cheddar 1971:12,22 1973:27,28 1981:1,17 1982:12,13,18,19,28 1984:25,26 1985:4,21 1986:2,9,13,19,26 1987:6,8, 15 1989:9 1995:4 2000:27 2002:12 2003:2,19,28 2004:11 2005:13.20 2006:4 2010:18 2011:16 2022:1,17, 23 2023:1,7 2024:8,18 2026:11,23 2027:26 2029:15 2032:18 2034:6 2035:5,20, 21 2044:16 2045:5 2046:7, 10.13.16.21 2047:2.3.5 2048:7,11,13,16 2049:3,4 2050:19,21 2051:14,16,19, 22 2052:1,5,7,8,12,22,24 2053:1,9 2055:11,12 2056:7, 8 2057:9 2059:10,11,14,24 2060:4,11,21,24 2065:19 2066:10.22 2068:6 2070:25 2073:7 2079:14,15 2083:22, 28 2084:3,6,12 2101:16 2105:7 2106:2 2113:26 2114:1,6,18 2115:4,11 2117:13 2118:24 2120:9,10, 16 2135:13,27 2136:6,10,11, 25,27 2138:4,28 2139:2,5 2141:27 2152:21,23 2167:19 2168:21.23 2170:3 2175:27 2182:11 2186:28 2187:22.24 2188:2,8,10 2189:23 2190:8, 24 2191:2,10,17,18,20,26 2192:18,22 2193:4,20 2194:18 2196:3,11,13,16,18, 21,28 2197:1,3,6,9,12,14,17 2199:24 2209:14 2211:13

cheddars 2021:17

cheese 1971:12,16,17,21
1972:18,20,28 1973:28
1974:1 1975:27 1977:10
1981:1,18 1982:7,12,14,18,
19,21,28 1983:2,4,22,24
1984:7,10,12,15,17,20,25
1985:1,4,12,15,18,21
1986:7,8,22,23 1987:7,8,10,
13,15,20,21,24 1988:14,15,
18,28 1989:9 1990:20,21,23
1991:1 1992:4,10 1994:5,9,
24 1996:16,23,27 1997:11
1998:1,4,6,11,12,15
2000:11,14,16,24 2001:2,8,

9,11,15,16 2002:12,13 2004:11,19 2005:5,18,21,22, 23 2008:1,11,19 2011:5 2015:26 2016:7,12,16,26 2017:6,7,9 2019:25 2020:8, 21,22 2022:17,25 2023:23, 26 2024:5,8 2025:3,7,13,19, 28 2027:25 2028:5,8,14 2029:26 2031:6,15,16,23 2032:3,4,7,9,10 2034:12,21 2036:5,10,12,25 2037:25 2038:19,20 2039:13,24 2040:2,6 2043:15 2044:12, 23,24 2045:10,20 2046:6,7, 11,13,15,17,21,27 2047:2,4, 6,12,17,27 2048:3,6,7,11,13, 20 2049:4,25 2051:9,15,16, 24 2052:6,10,12,13 2053:9, 10.11.19.2054:18.20 2055:11,12 2057:7,16,26 2058:11 2059:15,26 2060:4, 16,25,27 2062:6 2065:11,15, 18,20,21,24 2066:11,18,20, 22,23 2067:11,13 2068:3,12, 19 2070:26 2071:23,24,26 2072:2,6,12,19 2073:7,16 2074:25 2077:25 2078:25 2079:11,14,15 2080:21 2083:22.28 2084:3.6.12.13 2099:23 2100:23,24 2101:10 2105:7,9 2106:3 2107:4,9 2108:27.28 2109:3 2110:8. 16 2111:14,16,18,19,20 2112:28 2113:1,5,28 2114:21,22,24,25 2117:12 2118:2 2121:8,10,14 2135:13,22,27 2136:6,10,11, 13,14,25,27,28 2137:5,7,10, 11,13,15,16,19,21,22 2138:4.13 2139:1.3.4.7.9.16. 17,18,20,22,26 2140:2,9,18, 23.26 2141:3.13.14.24.28 2142:9 2145:24,26 2146:22 2147:23 2148:4,6 2149:3,12, 13,16,18,23 2150:1,12 2151:9,24 2152:21,23,24 2153:4,5,26,28 2154:1,3,7,8, 12 2157:9,16 2160:17 2163:4,21,26 2164:4,13,16, 18,28 2165:4,5 2167:15 2168:23 2169:15 2171:1 2172:9.11.20 2173:7.14 2176:14 2177:1,4 2180:4,5 2181:14 2182:5,20 2187:6,8, 11,13,18,28 2188:13,17 2189:15 2190:11 2191:24 2192:19 2193:19,21,23,26 2195:16,17 2196:3,12,13,14, 16,21 2197:2,3,4,12 2198:6 2199:10 2203:28 2204:1,8, 15,17 2205:10 2207:9,20 2208:19 2209:23 2210:24,27 2211:1 2212:4 2217:3 2222:14,17,18,21,22,23,24

2226:15,21,23 2230:11,14,

28 2232:6,7,11,16,20

cheese-make 2192:6

cheeses 1982:7 1987:9 2021:18 2029:12 2044:15 2045:28 2046:9 2048:14 2051:18 2057:20 2058:5 2059:16,18 2150:2,11 2197:5 2199:11

Chicago 1985:17 2106:15 2124:14 2188:26

chicken 2119:1

chilled 2222:27

Chip 2086:28

choice 2057:26

choices 2057:12

choose 2025:25

Christ 2032:21

Christian 2004:17 2235:6 2236:5.6

Christmas 2126:27

chunks 1987:8

circularity 2119:4

circulated 2178:18

circumstances 2185:20

citation 2068:13 2148:8

citations 2069:17

cite 1972:24 2006:5,8 2022:21 2061:15 2071:5 2093:7 2094:11 2099:21 2116:20 2153:16 2155:1

cited 2071:5 2136:20 2138:14 2146:21

cities 2053:5

citing 2022:19

City 2134:3

claim 2158:11 2159:28

claimed 2140:13 2157:23

clarification 1990:16 2044:28 2105:20 2235:12

clarified 2217:20

clarify 2059:12 2131:8 2192:14 2204:3

class 1971:21 1973:5 1977:14,22,23 1979:8,15,17, 23,24 1981:27 1982:6,10 1984:10,18 1985:6,13 1987:24,25 1990:10 2013:8 2017:6,10 2020:20 2035:9,



11 2037:18,22 2043:16 2044:13.18 2045:4 2046:4. 28 2048:8 2053:21 2055:10 2057:18 2058:14 2065:11,26 2066:11 2067:24 2104:24 2105:13 2123:16,24 2135:24 2136:3 2137:16 2139:12 2140:9,18,26 2141:3,22 2142:8 2147:24 2169:16 2174:20,21 2183:11,12 2186:23,28 2187:11,28 2188:16 2189:20,23,28 2190:11,14 2194:24 2195:15 2196:11,14 2197:19 2204:22,23 2205:3,9 2206:18 2208:8 2227:11,12, 20 2229:7 2230:12

Classes 2194:22,28

classified 2136:22

cleaned 2222:20

clear 1992:19 2045:24 2051:13 2052:6 2056:2,6 2060:4,7,9,18 2083:26 2148:28 2152:17 2169:20 2188:10 2196:17 2205:28 2225:19 2232:24

cleared 2229:24 2230:2

clearing 1979:16 2228:14 2229:5,8,10

clients 2015:10 2182:9

close 1998:3 2003:8,15 2012:26 2021:2,12 2062:10 2066:27 2130:24 2146:18 2150:18 2235:2,3

close-use 2071:27

closely 1975:19 2164:6 2188:1

closer 2034:20 2066:26 2100:5

closing 1999:27 2141:26

clotting 2049:10 2050:3

Clovis 2068:5

Club 2111:9

CM- 1990:15

CME 1975:3,7,8,13 1979:4 1985:19,24 1987:2,13 1988:4 1990:18,23 1991:8, 12,13 1992:27 1996:25,28 2003:21 2024:2,6,13,17,18 2025:1 2026:1 2027:2,3 2035:5,13,28 2037:7 2052:2 2060:14 2066:1 2070:20,25 2075:7 2081:15,22,26 2082:6,9,12 2083:1,3 2085:21 2108:6,11,15,16,21, 22 2110:11 2111:24,26 2115:22 2118:18,28 2119:17 2124:26 2125:4 2126:7,16 2138:28 2139:5,18,21,24 2171:21,24 2172:1,4 2188:27 2189:1 2194:18 2211:1 2220:18,23 2221:5, 15,21,26 2226:17

CME-BASED 2110:7

co-op 1974:8 1975:16 2174:11,24 2185:21 2203:12

co-ops 2203:13

coast 2174:4,5

coastal 1977:20

Cobank 2184:11

Code 2047:18

codes 2051:28 2192:10

codified 2135:25 2169:17

cohesive 2049:15

Colby 2021:27 2034:26

cold 2050:7,15

coliform 2029:3

collect 1978:5,9,26,28 2026:15 2198:14,21

collected 1978:19 2050:8 2137:3 2191:8 2198:8

collecting 1978:16 2071:9

collection 1978:14 2069:7 2070:19 2190:21 2192:13 2199:10,11

collects 2069:19

college 2181:24

color 1982:23,24 2047:8 2113:16,24 2114:16 2115:8, 11,18 2117:10 2118:4

Colorado 2179:10 2180:3,8

coloration 2115:5,6

column 2012:16,24,28 2013:4,10,12,20 2153:8,11, 20 2158:24 2176:13,27

columns 2012:14,15

combination 2029:27 2058:28 2136:15 2219:9

combine 2214:8

combined 2035:6 2078:3 2137:28 2138:3 2140:19 2175:11 2190:23

comfortable 2035:9

commas 2175:22

comment 2044:19 2116:20 2165:5 2210:26

commented 2164:25

commenters 2044:22 2136:25 2141:12 2152:21,28 2153:3,13

comments 2056:17 2071:21 2107:18 2162:7 2176:14 2233:17

commercial 2047:12 2069:1 2129:22 2192:17,21,23 2193:1

commissioned 1997:20

committed 2203:20

committee 2181:9,10,12,13 2182:21,22,24 2183:1,3,5

committees 2182:20

commodities 2006:4 2024:19 2055:26 2082:21 2118:24 2198:14,25

commodity 1985:18,28 1986:2 1989:9 1990:14,20, 22 1991:2 1995:3 2003:19 2004:4 2023:7,26 2024:5,21 2026:4,8,11,22 2031:8,23 2032:9,10,18 2033:24 2034:6 2035:21 2045:10.12 2051:16 2054:12 2055:15.18 2056:7,8 2059:15 2062:9 2064:22 2070:2,10 2075:5 2082:5,9 2083:6,7 2088:21 2090:10 2112:20 2124:17 2127:7,8 2128:3 2129:6,7 2130:11.25 2131:1 2135:15 2165:19 2167:19 2184:10 2189:28 2194:25 2196:24 2197:1.4

commodity-based 2056:22

common 2001:4 2011:18 2071:16 2119:21 2192:25 2196:25

commonly 1981:12,20

community 2201:9

companies 1974:5 2051:22 2052:13 2054:24 2088:16,17 2196:6 2197:6,13

company 1970:7 2051:27 2068:14 2130:2 2178:16 2179:9,19,21,25 2180:2,18 2181:5 2182:5,13 2184:8 2186:26 2189:21 2190:12

Company's 2180:1

comparable 2046:15 2053:18 2152:2 2154:11 2156:24 2157:3,4 2159:3,12 2160:27 2182:22

comparative 2197:15

comparatively 2196:3

compare 2144:21 2221:10

compared 2052:22 2053:8 2124:28 2139:22 2146:6 2175:15 2208:8

compares 1988:17 2002:24

comparing 2175:14

comparison 2052:15 2069:22 2139:28 2147:11

compatibility 2156:26

compelling 2189:26

compensated 2165:21

compensation 2186:10

compete 2039:18 2041:20, 24

competing 2220:16

competition 2186:12 2206:1

competitive 1988:1,2 1992:24 1994:21,27 1995:1, 13 2005:27 2020:6,10,15 2021:16,21,26 2022:2 2037:25 2040:18,28 2108:3 2125:11 2186:17 2211:3,6, 23 2212:2 2220:19 2230:3

competitiveness 2185:11 2186:14 2188:24

competitors 1990:28 1994:21 2211:9

complement 2180:5

complete 2048:13

completed 2180:27

completely 2199:21

complex 2199:10

complexity 2199:15 2221:19

complicate 2051:1

complicated 2059:1

component 1982:9 2051:17 2059:16 2065:11 2082:4 2121:15 2123:23 2136:4,5

components 2075:5

composition 1983:15 2057:3,6 2152:26 2190:22 2191:21



compositional 2196:8

compositions 2045:3

compound 2189:2 2220:24 2221:6.11

2221.0,11

compounded 2137:24 2145:3

2145.5

comprehensive 2046:11

compress 2213:18

compression 2206:26

2207:4

computation 1983:22 2135:13 2137:5 2141:28

2142:2 2176:15

computing 2135:22 2169:14

concentrated 1970:28

concept 2185:14 2226:11,25

concern 1990:26 2003:14 2136:20 2152:3 2168:4 2169:24 2171:27 2218:1 2220:1

conclude 2000:6 2100:22

2150:16

concluded 2045:1 2236:24

concluding 1983:21 1984:6

conclusion 1983:8 2052:25 2081:11 2213:2,5 2214:2

conclusions 2046:22

concur 2034:5

condense 2204:5

condensed 2057:15

condition 2141:24 2172:12, 14,19

conditions 1987:4 1989:4 1999:19 2085:25 2142:1 2160:12,13 2174:19 2192:2, 4 2194:26

conduct 2191:6 2198:22

conducted 2124:19

conducts 2084:12

confectioners 2070:3

confidence 2052:9,11

confident 2023:20

confirm 2170:18 2202:7 2228:20

Confirmed 2124:11

confirming 2098:2 2138:22

conflict 2187:21

conforming 2071:19

confusion 2189:2 2220:25 2221:7,11,22 2234:13

Congratulations 2133:26

Congress' 2044:20

Congressional 2105:13

conjecture 2163:19,23

2164:16

conjectured 2169:27

connect 2212:8

connection 1983:27

conscious 2109:9

consensus 1991:7,11,13

consent 2064:5

consequence 2033:9 2210:8

consequences 2026:2 2033:26 2034:2 2189:13

consideration 1975:21 2219:1

considerations 1975:24

considered 2006:9 2025:8 2031:25 2045:26 2102:18 2137:14 2154:1 2177:2 2198:26 2212:2

consist 1982:6

consistency 2156:5

consistent 1987:17 1995:9 2015:11 2066:13 2100:1 2142:2 2160:22 2196:18 2210:19 2215:12

consistently 2044:15 2072:15 2140:24

consolidate 2044:20

consolidation 2105:15 2207:4

constrain 2218:10

constrained 2225:13

constraint 2210:4

construct 2054:26

constructing 2204:7

construction 1997:19

consulting 2182:9 2184:10,

11

consumed 1987:10 2199:20

consumer 2107:8 2112:17 2137:20

consumes 2070:1

contend 1972:7 2214:23 2216:25 2223:5

content 1982:25 2047:9 2048:15,19,21,23 2050:17 2054:19 2084:16 2113:12 2141:7 2145:7 2192:13,20 2195:4

contention 2025:27

context 2002:3 2147:4 2157:28 2159:1 2231:23

continuance 2139:9

continuation 2189:1

continue 1974:4 1975:9 2018:17 2037:5 2063:14,16 2069:28 2070:8 2096:20 2101:27 2102:1,8 2157:9

continued 2049:12 2070:19 2136:24 2137:23 2138:5 2220:23

continues 1983:8 2073:24 2187:23 2208:9.10

continuing 1991:4 2018:22 2093:7

continuous 2049:19

contour 2045:2

contract 2036:4 2059:6 2083:9 2108:5,6 2109:1 2110:9 2118:21 2126:17

contracting 2115:24

contracts 1993:26 2036:6 2058:3 2110:4 2113:4 2115:21 2116:6,7 2117:21 2203:12

contractually 2229:22

contrary 2177:11

contrast 2048:19 2051:24 2052:14 2191:24

contrasts 2196:3

contribute 2065:23 2207:22

contributing 2219:12 2229:15

contributions 1974:24

contributor 2213:24

control 2094:28 2193:25

convenient 2177:28

convention 2070:17 2089:23 2135:25 2169:17

conventional 2100:11

converge 2072:15 2129:2 2130:22 2197:5,17

convergence 2075:15 2210:1

conversation 1974:18 2004:1

conversations 1974:17

conversion 2196:5 2208:2

conversions 2169:27

convert 2135:20 2141:18

converted 2197:10

converting 2141:7 2186:11

convey 2200:17 2201:5

conveying 2200:15

cook 2029:4 2192:2

cooked 2222:28

cooker 1998:10 2029:1

cooperative 1991:24 1992:1,26 2064:12 2076:7 2088:17 2095:15 2134:24,25 2135:7 2161:28 2173:25 2203:4,23,25 2209:9

cooperatively 2182:12

cooperatives 1976:7 1991:8 2095:12,16 2203:6

copies 2122:16 2132:10,25, 26 2152:12

copy 1989:14 2043:9 2053:6 2103:27 2122:17 2132:20,27 2152:4,13,14

core 1981:8

Cornell 2181:25

corner 2177:12

corporate 2174:7

correct 1971:24 1989:21 1992:17 1994:19 1995:17 2006:11,26 2007:13 2009:4 2013:15,23,26 2030:8 2039:15,16 2040:3,4,7,8,13 2042:2 2044:3 2055:16,19 2058:15,17 2060:23 2076:16 2084:9,14,17,20,26 2085:21, 22,23 2087:17,22,24 2088:5, 8,12,22,26 2089:1,2,11 2091:8 2096:21,26 2098:6 2114:4,9 2115:25 2118:2 2121:5,6,9,16 2125:20,21,23



2130:13 2134:10 2142:20,23 2143:12 2144:4,18,19,23 2145:6,14,22,27 2146:26 2147:12,19,21 2148:8,9,12, 22 2149:3,13,16,21,22 2150:3,11,17,22,28 2151:10, 19 2160:28 2162:9,13 2167:13,16 2175:17,26 2176:5,25 2200:4,8,20 2202:5 2203:24 2224:20 2228:27 2231:25 2232:17, 18,27,28 2233:7,9

correction 1989:13 2043:28 2125:21 2137:17 2151:2

corrections 2043:22,26

correctly 1997:4 2093:8 2094:14 2095:28 2114:27 2154:19 2175:14

correlated 2211:20

correlation 2138:20 2166:5

cost 1981:19,20 2014:8 2037:5 2046:5 2047:28 2048:2,7,10,12,28 2050:21, 22,23,25 2052:27 2056:5 2057:8 2076:16 2086:19,21, 22 2087:16 2088:13 2089:25 2102:16 2129:1 2137:12,14 2141:13 2151:19,23 2153:3, 27 2154:2,9 2155:8 2157:6 2158:19,22 2160:5,7,19 2177:3,8,12 2191:1,2,3,6,8 2196:27 2198:7,22 2199:27 2232:9

costs 2027:27 2046:20,21, 24 2048:27 2071:25 2072:1 2076:19,22 2077:1,3 2090:1, 8,24,27 2091:7 2102:13 2117:9 2141:9 2151:9 2154:12 2157:4 2158:2,19, 26 2160:8 2188:6 2190:27 2193:22 2195:6,13 2196:10 2214:26 2217:28

Council's 2182:24

counsel 2095:15 2109:10 2164:8 2178:15

counselor 2211:18

counted 2183:16

counter 2141:25

counterfactuals 2164:24

counting 2013:17

country 1992:3 1998:22 2146:23 2199:20 2201:16 2204:16,19

couple 1975:26 1994:28 2002:1 2004:27 2032:5 2054:3 2059:12 2099:19

2107:5,23 2109:12 2126:5, 20 2127:1 2142:13 2171:13 2173:17 2185:1,2 2198:5 2203:6 2206:15 2226:8 2236:19

court 1970:2,8,10,14,17 1977:26 1979:28 1980:7,11, 22 1989:25 1990:16 2001:23 2022:7 2039:2 2042:6,10,16, 20,23 2043:6,10,20 2044:7, 28 2053:24 2061:2,6 2062:25,28 2063:4,6,10,14, 16,18,21 2064:2,5,8,26 2065:1,3,8 2074:14,22,26 2075:21,27 2076:1 2081:1 2095:21 2099:13 2103:1,11, 17,19,22,26 2104:12,16 2105:20 2109:6 2116:2,12 2122:9,18,26 2125:27 2131:4,13,17,23 2132:2,6,19 2133:2,14 2134:14 2144:10 2147:12 2148:15,21 2152:14 2153:16 2154:28 2155:17,20 2156:6,16 2159:18 2161:24 2166:10,27 2169:1 2174:27 2177:17,25 2178:2,5,14,21, 23 2197:23 2202:17,25 2209:5 2212:16 2225:23 2231:7 2233:26 2234:2,7,20 2235:10,12 2236:16

cover 2029:12 2066:6 2122:15 2141:13 2201:15 2214:26

coverage 2186:3 2201:15

covered 1981:7

covers 2046:28 2064:22 2174:13 2201:18

COVID 1988:25 2129:13

cows 1971:7 2126:26

Cow's 2049:6,27

crazy 2029:23

cream 1982:6 2057:12 2111:6,9 2139:4

creamier 2096:10

create 1987:11 2026:1 2051:23 2068:10 2159:7 2172:27 2186:11 2188:15 2205:9 2209:1 2210:20 2222:21 2230:2

creates 2065:19 2066:22 2173:9 2185:20

creating 2141:24 2152:2 2172:11

creation 2190:20

credentials 2064:3

Crinion 2132:9,22

crisis 2067:20 2182:3

criteria 1982:22 2046:14,23, 25,26 2047:6,14,25 2124:2

critical 2187:23 2190:19 2194:25

Critically 1986:9

criticism 2234:13

criticizing 2151:3

cross 1989:25 1990:4 2053:24 2061:2 2075:22 2081:1 2109:6 2125:27 2144:10 2155:23,24 2159:18 2161:24 2163:11 2166:10 2169:1 2174:27,28 2197:23, 24 2202:17 2231:6

cross-examination 1970:18 1989:24,27 1990:6 2001:25 2022:9 2038:7 2053:23,25 2061:9 2075:20 2076:5 2081:2 2086:26 2091:17 2095:26 2099:15 2109:5,18 2112:7 2116:3,14 2125:26 2126:3 2128:16 2144:9,11 2154:24,26 2156:9 2159:19 2161:26 2616:14,28 2169:3 2197:22 2198:3 2202:20 2209:6 2212:18 2223:27

crumbled 1982:8

Cryan 2063:7,11,15,17,19, 22 2064:7,9,28 2065:2,7,9 2074:21,25,27 2086:28 2091:20 2109:7,10,15,17,19, 20 2112:5 2116:4,5,11 2128:17,18 2131:3 2159:20, 22 2161:22 2166:13,15,16, 26 2170:6

cuff 2061:18

culminates 2176:28

culture 2000:24 2049:9 2050:2 2089:26 2090:1 2113:25

cultures 2113:26

curd 2049:13,14,21 2050:6, 7,9,11,14 2191:13,18 2222:20

Curds 2004:28

curious 2061:16

current 1973:9,15 1986:6 2018:23 2069:26 2070:19 2080:22 2084:23,24,25 2106:1 2138:16 2139:24 2140:23 2142:1,9 2161:15 2165:18 2180:20 2187:15 2202:10

curves 2232:8,13

custom 2083:16 2105:23 2112:15 2116:20,22,27 2120:9

customer 1991:18 2029:10 2037:11 2058:18 2059:7 2083:17 2112:24 2192:8 2211:26,27 2220:4

customer-driven 2027:4

customers 1977:9 1991:19 2027:4 2029:9 2051:26 2068:8,10 2070:16 2072:26 2122:4 2219:25 2220:16

customers' 2105:23

customizations 2192:8

cut 1986:5 2049:12,15,17 2050:4,11,14 2051:23 2053:13 2101:18 2107:19 2115:10 2222:2

cut-and-wrap 1998:7 2028:7 2062:4

cutting 2107:18 2190:6 2196:4

CWT 2086:2,12,15 2125:9

cycles 1987:12

D

daily 2139:18 2148:3 2149:18

Dairies 2068:24

dairy 1970:26 1978:22 1980:3 1981:28 1982:17 1993:10 1999:1 2012:19 2027:6 2039:5 2043:2 2044:11 2045:16 2047:1 2049:6,11,27 2050:3 2051:21 2058:2 2064:13 2065:16 2066:10,19 2068:15 2069:7,23 2076:7 2081:4 2095:23 2096:17 2104:6,26 2111:2,28 2120:28 2123:18, 27 2132:23 2134:23 2135:5 2136:7,8 2144:13 2161:28 2173:23,28 2174:8,9,19 2179:19,20,25 2180:3,4,19, 24 2181:3,7,9,10,12,22,23 2182:3,6,14,15,22,23,25,28 2184:19,24 2185:24 2186:1, 3,4,11,13,15,16,17 2187:16 2190:13,15,18 2194:9 2198:28 2200:28 2209:9,10 2215:16 2216:10 2220:5,9 2224:26 2225:15 2231:10 2236:8



dairy.com 2111:1

dairymen 2217:18

Dakota 1971:2 1997:14 2180:28 2189:8

Dalhart 2068:20,21

Darigold 2006:18,24,26

Darin 2235:6,8

data 1978:5,9,16,19,26,28 1984:28 2008:23 2034:16 2046:6 2048:2,4 2050:25 2070:19,28 2073:27 2074:5 2078:5 2086:14,15,23 2095:5 2097:10 2099:28 2101:4 2102:22 2106:6 2124:17 2137:3 2190:21 2191:3,8 2192:15 2193:17 2195:19 2198:7,8,14 2199:5, 9,28 2200:2 2202:1 2227:23 2228:20 2230:23

database 1985:1

Datamart 1984:28 2124:9

dataset 2138:18

date 1982:23 2047:7 2127:22 2151:2

dated 2191:4 2232:25

day 1997:15 2036:20,22 2060:16 2068:4,16 2116:17 2122:16 2163:17 2236:23

daylight 2085:16

days 1982:23 1986:11 2001:18 2029:9,10,11 2047:7 2084:14 2109:28 2136:12 2236:19

DC 2039:10 2063:26

dealing 2016:3

Dean 2213:17

decade 1986:16

decades 2197:9

decent 1976:27 2025:19

decide 2034:4 2114:24 2118:22 2219:15

decided 2006:9 2066:28 2129:18 2150:14

decides 2030:3

decision 1984:2,7,22 2007:23 2043:25 2044:25 2057:16 2069:13,16 2105:18 2116:21 2137:3 2139:14 2140:22 2141:5,10,25 2142:6 2150:27 2151:22 2152:5 2156:25 2157:28 2158:14,17 2159:9 2163:5 2171:27 2187:6,21 2188:18 2202:13 2210:10 2230:7 2231:15,16 2232:6,25,26 2233:1,4,10,11,16,19

decisions 1974:6 1983:18 2025:6 2166:6 2201:21

deck 2234:15

decline 2073:1

declined 2072:25 2085:7 2202:4

declines 2073:25

declining 2069:21

decrease 2140:25 2172:9 2188:24

decreases 2014:10 2219:12

2227:28

decreasing 2168:3 2200:26 2213:7

deduct 1972:26

deducted 2046:3

deducting 2154:9

deducts 1972:21

deep 2062:13

deeper 2067:7,22 2096:15

define 1979:20 2073:16 2090:19 2191:22 2218:10

defined 2073:2 2195:4

defining 2075:4 2147:28

definite 2164:23

definition 2070:18 2084:27, 28 2085:1 2149:15 2183:12

definitive 2147:13

definitively 2230:22

degree 2019:28 2031:1 2033:24 2115:14 2173:4 2180:27 2184:20

degrees 1986:11 2029:16 2049:28 2091:24 2182:1

delay 2133:6

delayed 2210:2

delete 2135:26 2161:19

deli 2021:28 2034:26

deliver 2092:22,24

delivered 2052:21 2053:15 2062:18 2193:18 2194:4,7,

delivery 2203:14

demand 1986:23 1987:12 1989:8 1990:4,6 1993:8 1994:9,10 1996:12,27 1998:14,18 1999:5 2003:18 2004:6,10 2005:25 2011:9 2014:26 2021:25 2026:22 2029:25 2030:1 2032:17 2033:18 2036:12 2045:23 2051:11 2059:9 2071:1 2075:11,12 2097:11 2111:25,26 2113:9 2128:20, 28 2137:20 2185:10,19,23, 25 2186:2 2187:27 2188:1, 20 2189:9 2206:12 2207:20 2216:13,15 2217:10 2218:9 2219:22 2220:9 2226:18 2231:19 2232:1,8,13

demands 2054:24

demarcation 2019:16

demonstrate 2071:1 2097:10

demonstrated 2187:24

demonstrates 2141:1 2228:4

denotes 2200:18

Denver 2179:9 2180:3

Department 2077:5,6 2078:22

Department's 2160:21

depend 1994:28 1998:13 2057:16 2066:15

depending 1999:19 2004:8 2030:3 2054:13 2058:27 2060:19,20 2062:6 2092:23 2121:28 2186:1 2197:14

depends 1994:14 1995:27 1999:8 2004:15 2014:19 2021:6,7 2111:25 2112:24 2207:10,11

depooled 2019:27

depress 2206:22 2207:7

derivatives 2058:13

derive 2124:23 2126:11 2127:26

derived 2136:3,16

deriving 2048:28

describe 2094:16 2162:3

descriptions 2046:16

descriptor 2228:22

designed 1989:5 2185:25

2192:1 2216:14

desire 2092:16

desired 2191:15

destination 1977:11

destined 2212:5

detail 2066:5,6 2076:24

2152:1

details 2078:13 2190:19

deterioration 2213:28

determine 1981:11 2012:23 2013:7 2106:2,7,23 2140:2 2186:12

determines 1984:12 2035:8

determining 2106:17 2124:12 2125:13 2139:25

develop 2048:5 2093:2

developed 2069:10 2083:13 2105:26 2119:6

development 2049:17 2192:5 2218:10

developments 2000:8

deviations 2030:17

devoted 2154:22

DFA 2007:3,10 2134:23 2135:9 2173:11,19,24 2174:14,24

diced 1986:4 differ 2191:20

difference 2000:4 2010:17 2030:19,21 2031:16 2052:27 2057:19 2073:12,13 2075:13 2076:15,20 2078:16 2085:7 2086:21 2087:16 2101:20 2102:17 2108:4 2115:11 2118:2 2121:23 2130:7 2135:18 2137:12,15 2143:6 2149:20 2151:8,19 2153:2, 27 2154:2 2158:1,26 2160:19 2168:20 2177:3 2212:27 2232:21

differences 1987:2 2010:6 2048:23,26 2050:17 2051:2 2052:28 2076:19,22 2102:17 2117:12 2118:4 2151:11 2191:20 2205:17 2232:9

differential 2077:19

differently 2032:9 2129:8

differs 2171:25 2191:12

difficult 2038:15 2041:23 2070:13 2127:26 2185:28



2186:5 2190:19 2196:9 2220:3 2227:26 2228:2

difficulties 2080:6

difficulty 2210:3

dilatory 2233:6

dimension 2193:25

diminishes 2219:22

diminishing 2220:9

direct 1980:16 2016:21 2043:11 2059:5 2075:19 2104:4 2122:19 2133:16 2166:4 2178:26 2187:21

direction 2012:1,9 2224:23

directions 2011:17

directive 2137:4

directly 1981:8 2015:4 2016:9 2052:4 2056:28 2057:1 2064:14 2135:6 2147:6 2165:25 2225:6

director 2179:18,20 2180:19 2181:3

2101.0

dirty 2100:20

dirtying 2079:11

dis 2153:2

disadvantage 1992:15 1995:13 2020:10,15 2188:5 2220:20

disagree 2019:3,8 2155:10 2156:8 2209:16

disagreed 1983:20 2156:4

disappearing 2071:15

disclosure 2006:17

disconnect 1976:3

discontinue 2220:23

discount 2035:26,27 2118:12 2130:4 2141:8,12 2187:26 2221:25

discounts 1992:16 2227:24 2228:7

discover 2029:14

discovered 2028:2

discovery 1979:2,5 1991:27 1993:1 2067:17 2074:3 2079:1,23 2080:1 2083:1 2096:15 2117:25 2187:2

discredited 2194:16

discretion 2203:13

discuss 2101:3 2126:6 2144:23,27 2170:16

discussed 1985:24 2030:14 2053:2 2156:24 2158:7 2163:24

discussing 2040:6 2175:8

discussion 1972:5 1976:14, 15 2024:1 2031:26 2072:14 2102:11 2116:19 2117:15,24 2136:18 2144:20,21,27 2152:19 2156:7 2160:16 2162:27 2163:1 2221:28 2223:4

discussions 2216:19

disorder 2230:2

disorderly 2067:22 2141:24 2172:11,14,18,27 2185:20 2188:26 2227:7,15

disparities 2158:13 2171:11

disparity 2138:25 2172:21 2208:6,12

displayed 2138:25

displaying 2137:22

displays 2137:7 2140:8

dispose 2110:15

disregarded 2194:20

disruption 2024:25 2025:10 2173:9 2210:20 2230:2

dissimilar 1987:11

dissimilarity 2025:12

distance 1976:27 2217:27 2218:4

distinct 2055:26 2191:28

distinction 2155:7

distorted 1986:2

distorting 2189:14 2218:11

distributing 2070:12 2122:16

distributor 2195:12

dive 2180:17

diverged 2135:19,21 2169:14

divergence 2049:3 2065:18 2066:21

divergences 2140:12

divergencies 2157:22

diverse 1987:7 2191:27

diversity 2191:24 2192:7

diverted 2207:9

divided 2106:4

divisional 2174:6

DMC 2186:3 2200:28

2201:14

doctor 2092:3 2178:16

doctorate 2091:23

doctors 2091:23

document 1980:19,21,27 1983:24 2104:8 2122:21 2134:12 2136:20,24 2137:3, 9 2140:22 2151:5 2154:15 2156:25 2183:20 2233:7

documents 2217:19

domestic 1994:10 2032:10 2070:16 2086:16 2087:23, 24,25 2088:4 2107:27 2215:21 2217:11 2220:12

dominance 2191:25

doodle 2013:19

doors 2174:28

dosation 2174:21

double 2146:6

doubled 2003:5,12 2167:15

doubling 2003:8

doubt 2058:23

Doug 2236:14

Downing 2132:4 2133:20

dozen 2053:5

DPMRP 2136:8

drainage 2049:16,19 2050:8

drained 2049:14,22 2050:6, 7.15

7,10

dramatic 2141:23

draw 2213:2,4 2229:4

drive 2150:7 2206:13

2215:22

driven 1993:7,8 2146:23 2215:9.10.26.27

driver 1974:25 2171:21 2185:16

drivers 1974:21 2172:2

drives 2192:28

driving 1974:16,20 1976:4 2143:14 2163:20 2168:6

2206:14 2210:12

drop 1972:9 2065:10 2079:3, 20 2117:17 2211:22

dropped 2066:2 2078:3 2079:27

dropping 2066:13 2071:22 2188:15 2205:6,8

dry 1981:18 2004:17 2045:11,21 2051:9 2057:15 2058:14 2082:7,8,11

dual 2211:12

due 2054:23 2152:2 2163:2 2169:26 2172:9 2196:17 2232:7

duly 1980:14 2063:12 2133:12 2178:9,12

Dump 2111:8

dumping 1998:23 2185:21 2214:11 2227:9

duration 2049:20 2227:25

dwindling 2067:9,20

dynamics 2006:1 2137:19 2205:21 2207:26

dysfunction 2188:22 2208:26 2209:1

Ε

E-M-M-A 2134:1

e.g 2050:17

earlier 2004:2,16 2029:8 2032:6,25 2034:14 2038:14 2043:21 2055:16 2063:19 2076:17 2080:7 2098:2 2102:21 2109:14 2143:24 2156:25 2162:26 2171:20 2201:28 2222:19 2223:20 2225:25

early 2017:17 2213:17 2220:1

earn 2165:28

earned 2202:27

ease 2128:26 2129:2

easier 2025:11 2043:22,26 2068:9 2127:4 2154:28

easiest 1996:1 2060:12

easily 2005:17 2072:8 2101:5 2130:19 2192:24 2207:11

easy 2052:3 2128:24 2130:21



eat 2126:27

economic 2087:20 2181:8, 11 2182:21 2216:1

economics 2134:28 2179:26 2180:23,28 2182:6,16 2184:16

economist 1994:11 2159:25 2160:2 2168:18

Edge 2076:7 2161:28 2209:9

Edge-3 2132:18

Edge-4 2234:18,19

editorialize 2146:25

Edmiston 1978:1 1980:1 2235:6 2236:6

education 2181:26

effect 1983:16 2008:20 2015:18 2121:24 2152:27 2157:13

effective 2051:6 2073:9 2074:11,12 2233:16

effectively 2058:13,25 2193:20

efficacy 1988:8 2029:18

efficiency 1988:7

efficient 2061:5 2108:20 2186:18

efficiently 2186:9

effort 2051:1 2109:9 2139:16 2151:23,25 2159:7

egg 2119:2

eight-ounce 2114:6

eight-year 2140:17

Elanco 2184:6

elastic 1994:10

elected 2003:24

element 2087:4 2088:25 2211:14

elevation 2206:18

Eli 2184:8

eligible 2086:10

eliminate 1982:28 1983:26 1984:21 2040:6 2209:22

eliminates 1987:25

eliminating 1982:2 1984:15 1985:6,10 1988:6 2029:18 2162:4 2187:9 2219:1 2230:9 **elimination** 1980:28 2006:28 2007:4,12 2065:22,28 2142:6 2229:26,28

em 2004:28

embedded 2190:9,26

embodies 2193:22

Emma 2132:4 2133:11 2134:1,22

emphasis 2135:1 2181:27

emphasize 2066:25

emphasized 2045:9 2051:7

employed 2002:4,5,6 2053:1 2179:17,18 2181:19

employee 2181:20

employer 2006:22

employment 2183:5

emulated 2192:24

enable 2045:6

enacted 1991:13

encompassed 2106:3

encounters 2052:16

encourage 2137:2

end 1977:10 1979:8 1987:7 2018:8 2024:24 2035:7 2095:7 2097:14 2105:27 2113:5 2122:2 2143:11 2144:6 2169:12 2176:26 2181:22 2183:6 2185:18 2191:11 2206:16 2207:17 2215:8 2218:17 2231:6,19

ended 2006:18 2072:28

ends 1998:9,10 2094:20

engage 2148:10

engaged 2150:14 2181:11

engagement 2182:17

England 1983:18 2044:25

English 2034:15 2074:24 2086:25,27,28 2087:2 2091:10,16 2096:1

enhance 2096:14

ensure 1984:9 2139:16 2185:17 2186:17 2187:7 2214:4 2217:2

ensuring 2189:24

entail 2179:21

entailed 2053:3

enter 2075:8

entered 2063:1 2132:28 2150:10 2234:3

entering 2100:16

entire 2030:5 2123:7 2162:21 2220:9

entirety 2152:19

entities 2091:5

entitled 2092:1 2147:3,14,15

entity 2115:10 2188:27 2203:2

enzymes 2049:10 2050:3

equal 2088:28

equally 1984:23

equation 2192:22

equipment 2050:20 2052:28 2053:12 2190:3 2191:16,18 2193:24

equivalent 2077:22 2078:17, 18 2141:19 2151:24 2157:7 2162:12 2171:4

equivalently 2077:24

Erik 1970:6 2178:15

Erin 2116:18

eroded 2214:24

erosion 2213:3,25

erosions 2213:9

error 2044:5

errors 2190:25

essential 2185:15

essentially 2024:20 2154:18 2218:10

establish 2043:16 2044:13, 17 2046:4 2051:6 2053:20 2069:14 2168:7 2230:17

established 2045:10 2046:26 2089:22

establishes 2230:22

establishing 2055:9

establishments 2101:16

estimate 2038:18 2078:12 2148:22,26

estimated 2139:6 2148:6

estimates 1987:18 2034:14 2148:23

etcetera 1992:28 2031:28 2173:20

Europe 2220:18

European 2070:17 2088:15 2096:9 2211:10

evaluate 2190:20 2199:5

evaluation 2002:28

evening 2234:12

evenly 2106:5

event 1989:3 2066:27 2209:10

eventually 2026:18 2033:10

everybody's 2019:13 2126:1

everyone's 2037:10 2061:6

everything's 1972:7

evidence 1980:10 1984:13 2008:22 2042:9 2063:3 2067:27 2071:12 2077:13,14 2086:18 2093:21 2103:16 2122:8,13 2131:12,16 2163:12,14 2177:24 2228:28 2234:1.5

evident 2057:27

evolved 2137:20

evolving 2071:9

exacerbated 2049:2

exact 1971:6 2000:18 2059:3 2068:10 2156:14 2207:10

EXAMINATION 1977:27 1980:16 2039:3 2043:11 2104:4 2120:26 2122:19 2131:6 2133:16 2175:2 2178:26

examined 1980:14 2063:12 2104:2 2133:12 2178:9.12

examples 1978:18 2159:11

exceed 1973:2 2045:23 2051:12 2185:19 2193:20 2232:7.20

exceeded 2197:11

exceeds 2041:26 2224:27

Excel 2013:16

excellent 2090:26

exception 2127:3 2228:18

exceptions 1984:4 2004:27 2105:19

Index: eat..excerpt

excerpt 2006:5 2152:17



excess 1984:14 1996:7 2206:23

exchange 1985:17,19 2024:6 2027:3 2070:25 2105:27 2106:15 2124:15 2188:27

exchanged 2003:21

exchanges 2110:24 2111:1

excludable 2086:9

exclude 2086:5 2097:15

excluded 2000:14,16 2075:6,7 2114:2 2124:5 2125:9

excluding 2069:15 2117:21

exclusion 1972:20

exclusions 2117:22

exclusively 2072:19

excuse 1986:16 2022:19 2030:7 2036:21 2143:5 2146:1 2149:12 2157:12

execute 2220:3

executive 2181:10

exhibit 1980:6,8,9,19,21,22, 24 1989:14 2002:2 2009:17 2042:5,7,8 2043:3,4,7,14 2053:7 2062:27 2063:1,2 2065:3,5 2097:8 2103:12,13, 15 2104:9,11,13,14,21 2122:8,10,12,22,24,26,27 2123:2 2131:12,13,15 2132:9 2133:3 2134:9,14,15, 16 2174:2,13 2177:18,20,23 2178:19,22,24 2183:22 2212:27 2234:1,2,4,18

exhibits 2140:15

exist 2050:26 2086:14 2096:20 2110:24 2111:17

existence 2027:2 2046:24 2083:20 2201:20

existing 2044:21 2185:24 2216:14

exists 1990:27 2027:8 2047:11 2232:12

expand 1971:11 1974:14 1975:5 1979:11 2024:3 2029:20 2054:9 2066:24 2068:3 2071:7 2099:25 2100:6 2101:28 2106:27 2169:18 2170:5 2172:13 2213:4 2214:2 2215:11 2216:24 2220:26 2221:11

expanded 1999:18

expanding 1999:28

expands 2198:24

expansion 1974:26 1997:8 2010:23 2012:3,4 2018:19 2141:15

expansions 1997:12 1998:27

expansive 2174:5 2228:21

expect 1972:25 1975:6 1991:6 2031:2 2033:8,10,13 2037:10,14 2058:22 2059:27 2062:21 2065:21 2067:16 2077:18 2078:16 2094:10, 11,26 2130:5 2206:15,26 2207:3,19 2209:28

expectation 2154:7 2172:21, 25 2199:18 2207:16 2212:7 2214:3

expectations 2140:22 2165:7

expected 2094:14 2121:25 2137:19 2138:6 2170:5 2172:22 2188:21 2198:17 2208:24

expensive 2070:13 2071:13 2072:5 2088:8 2089:11 2149:16

experience 1971:11,16 1987:19 1990:20 1993:11 1997:27 2001:16,18 2016:11 2020:12 2027:3 2028:6 2035:3 2058:10 2062:3 2085:14 2100:1 2107:2 2127:13,23 2129:15,26 2143:11 2144:1 2180:25 2184:2,15

experienced 2213:23

experiment 1991:5,23

experimented 2027:28

expertise 2035:23 2148:25

experts 2202:23

explain 1982:4 1991:27 2024:10 2092:18 2105:2 2123:21 2126:13 2147:15 2155:26 2171:15 2200:16

explained 2045:26 2054:6 2056:11

explaining 2141:11 2151:28

explains 2132:14

explanation 2030:18 2056:18 2156:20

explicated 2046:8

explicit 2156:19 2158:17

explicitly 2081:8 2125:9 2150:25

explorations 2164:24

explore 1972:16 2087:3

explored 1974:22 1997:2

exploring 2155:8

exponentially 2038:20

export 1988:1 1993:19,20, 21,23 1994:7,9 1995:18 1997:2 2014:24 2060:11 2087:5,13 2089:25 2090:1,5 2091:12 2096:27 2097:16,21 2107:25 2182:23 2211:8 2220:14

exported 2031:6 2086:1 2089:1,10 2096:25 2125:8 2163:21,27 2164:14,17

exporter 1994:26

exporters 1987:28

exporting 1995:25

exports 1993:25 1994:17,24, 27 2010:23 2032:8 2036:13, 28 2071:2 2087:28 2088:2 2089:7,9 2097:4,12 2107:24, 27 2164:4 2205:16 2211:6, 22 2212:12 2216:20

expression 2004:10

extended 2052:7 2070:14 2227:12

extends 2095:16

extension 2182:10

extensive 1976:20

extent 1993:15 2004:19 2016:23 2046:20 2079:8 2098:17 2128:13 2154:15

extra 2004:6 2072:10 2108:12 2109:3 2110:10 2114:8 2115:16 2118:10 2152:11 2166:18

extreme 2031:20 2144:2

eve 2198:7

eyeballing 2145:10

F

face 2219:1

facilitate 2050:5 2186:8 2195:5 2196:26 2217:25

facilitated 2189:10

facilities 1986:24 2106:11

facility 2068:7,16

fact 1978:18 1986:24 2004:16 2008:4 2010:11 2025:10 2028:25 2052:11 2055:25 2079:10 2082:3,8 2083:6 2085:6 2088:7 2096:24 2097:15 2108:2,8 2126:16 2130:19 2141:21 2149:10 2151:17 2160:25 2168:8 2172:5 2197:27 2199:9,15 2206:25 2218:7 2221:19 2222:11 2229:2

factor 1974:17 2019:28 2128:5 2174:18 2211:7

factored 2163:4

factoring 2142:7 2173:6

factors 1981:24 2139:11 2163:20 2165:3,24 2166:6 2173:1 2196:15,27 2205:20 2206:12,13 2212:1 2213:13,

facts 2007:19

failing 2141:22

fails 2193:6

failure 1986:1

fair 1992:18,21 1993:26 1994:8 1998:24 1999:14 2000:6 2008:25 2011:13 2017:2,16 2019:15 2030:1 2097:17 2119:22 2146:15, 16,20 2148:12,13 2154:13 2155:26 2162:10 2163:25 2177:13 2186:11 2211:25 2212:3,8 2233:3

fairly 1975:19 1999:13 2001:4 2003:8,22 2005:3 2012:25 2118:7,12 2129:21 2150:16 2162:3

fall 1978:27 2017:17 2030:19 2036:24 2117:23 2126:26 2173:5 2207:21

fallacy 2017:25

fallen 2036:13 2069:24 2227:12

falls 2135:14

familiar 2009:10 2014:25 2163:19,22 2164:3 2226:11

Farenheit 2050:1

farm 1981:19 2016:27,28 2063:8,23,25 2064:10,23,25 2065:13,27 2066:8 2068:22 2069:2 2076:7 2078:1 2109:20 2116:5 2128:18

Index: excess..farm



2138:11 2166:16 2180:24 2181:22,27 2182:3 2184:19 2185:26 2186:2 2189:22 2198:13,17 2213:26 2216:15 2217:10 2225:10

farmer 1970:26 2161:28 2174:6,23 2209:9 2213:10

farmer-owned 2134:24 2173:25

farmer-owners 2135:7 2173:28

farmers 1981:12,15 1989:1 1999:1 2035:8 2045:16 2064:13 2095:11 2132:23 2134:23 2173:23 2174:8,9, 19 2186:1,5,8 2201:19 2216:9 2217:25 2236:8

farming 2201:9

farms 1971:5 2174:1 2181:24 2185:26,27 2217:27,28 2218:4

farther 2017:4

fat 2023:3 2047:17,20,21,23 2048:16,19 2057:6,15 2058:6,9 2069:19 2087:17 2088:12 2089:9 2091:2 2113:27 2130:13 2166:22 2190:22 2192:13

favor 1983:6

favoritism 2152:15

FDA 2047:15 2048:18 2083:27 2084:2,19 2120:13 2191:28

February 2187:5

federal 1981:9 1983:28 1985:20 1988:19 1992:6 1995:11.12 2019:26 2020:2. 4,5 2024:7,12 2025:23 2029:22 2035:14 2037:26 2039:15,17,21,25,28 2040:12,19,20 2041:1,2,7, 17,19,20,22 2044:21 2045:7 2064:15 2069:11 2070:6 2080:4 2101:25 2118:27 2119:24 2124:23 2126:12 2135:22 2136:19.22 2139:11 2140:3 2141:4 2150:21 2153:19 2155:2,22 2169:14 2183:11,13,17 2185:23 2188:28 2194:26 2201:1,5, 11 2204:26 2205:23,27 2206:6 2213:11 2216:14,18, 21,25 2217:13,20 2218:1,19 2228:10,17,25

federally 2025:23 2185:24 2205:25

Federation 2063:9,23,25 2064:10 2066:9,15 2069:3 2109:20 2128:18 2135:10 2152:24 2166:16 2186:27 2189:22

Federation's 2065:10 2189:18

Federation's 2138:12

feed 2108:23

feel 1991:19 1995:28 2006:3 2024:28 2083:2 2109:11 2185:27

fewer 1979:14 2052:16 2091:6

figure 2187:16 2199:3 2200:5,6,7,10,15 2201:24 2212:26 2213:6 2214:9 2223:18 2227:10,17 2228:4, 12 2229:5 2230:17

figured 1990:8 2016:25

figuring 2165:11

filata 2191:13 2192:1,9 2204:13 2222:17,18,21,25

File 1984:3 2105:18

fill 2106:8 2195:19

final 1984:2 1985:1 2105:14 2120:4 2157:5 2158:21 2187:5,21 2188:18 2189:3 2230:7 2231:14 2232:26 2233:1,4,6,16,19

finally 2068:24 2073:20 2093:18 2108:2 2185:11 2188:26

finance 2180:26 2181:27

financial 2185:27

financially 1975:17

financials 2014:12

find 2028:11,12 2031:12 2043:22,26 2052:10 2093:21 2094:17 2095:13 2108:13,28 2111:3,5,11 2119:9 2126:25 2207:5 2211:8

finding 2210:3

finds 1984:7

fine 2037:6 2042:19 2066:5 2092:5 2098:6,7 2133:21 2156:8

fine-tuned 2192:5

finely 2193:25

finished 1981:10,17,20,23 2048:9,10 2091:7 2148:17

firmed 2050:14

fish 2100:21

fit 2166:20.21

five- 2194:7

fix 2098:25

fixed 2035:1 2116:7

fixing 2127:1

flat 2155:10

flavor 2001:7,14 2028:6,13, 26 2029:15 2113:24

flavored 1986:8 2000:23

flawed 2190:17

fledged 2186:15

flex 1995:8,15,25 1996:4 2020:3,10,16 2113:4

flexibility 1976:22 1995:7 1999:12,15,20 2011:3,10,12 2029:1 2034:4

flexible 2032:8 2034:22 2197:13

flip 2208:17

flipping 2208:15

Florida 2228:18

flourish 2037:5

flowing 1997:20

fluctuations 2010:15

fluid 2134:26 2217:2

flying 2143:1

FMMO 2071:7

FOB 2053:9 2194:9

focus 2030:10 2148:27 2149:9 2179:14,24

focused 2135:3 2167:9 2184:16

folks 1974:18 2020:10,13,16 2028:2 2059:2 2093:17 2094:24 2166:21 2183:17 2197:28

follow 1993:22 2015:4 2077:22 2078:17 2164:17 2176:21 2224:2 2231:12

follow-up 1978:3 2095:24 2173:17

food 1988:25 2052:14,19 2054:23 2061:21 2068:11,18 2101:16 2184:5 2192:2 2193:11 2196:4 2219:24 2220:7

foods 1970:7 1980:3 2039:5 2043:2 2044:11 2081:4 2095:23 2104:6 2120:28 2144:14 2178:16 2179:9,19, 21 2180:1,2,7,18 2181:12,21 2183:3 2184:14 2185:5 2186:26 2189:16,21 2190:12 2192:9 2197:18 2213:17 2231:10

foodservice 2195:28

foot 2068:15

footprint 2180:12

force 2148:23 2162:27 2203:20

forced 2197:5

forcing 2188:21 2208:25

forecast 2018:14

forecasting 2179:26

foreclose 2048:27

foregoing 2124:20

foremost 1984:24

forever 2018:14

forget 2132:10 2174:3

forgive 2064:26

forgot 2076:1 2173:17 2175:22

form 1986:6 1988:5 2051:17, 19 2052:15 2059:16 2193:5, 6,8,24 2195:7,22,25 2196:22

formal 2093:22 2199:13

format 2187:23 2193:9,13 2196:2 2199:17 2223:13,14

formats 2193:14

forms 1984:24 1985:3 2022:17,23 2049:22 2054:19 2195:27 2196:5 2197:5

formula 1981:14 1983:2 1984:8,11,16,18 1985:11,13 2025:28 2031:25 2040:28 2041:13 2048:25 2049:1 2058:27 2071:7 2081:27 2102:14 2105:8 2121:3 2124:24 2126:12 2136:5 2137:17 2157:11 2162:11 2171:1 2186:23,28 2187:7, 10,12,15,28 2188:16 2189:20,23 2190:1,9,11,14 2196:14 2197:19 2198:23,26 2200:1 2201:22 2205:9 2221:20 2230:10,12,28 2231:24 2232:1,11



formulas 1981:13,25 1983:11 1985:26 1986:1 1987:1 1988:8,13 1989:5 2029:19 2065:20 2066:22 2075:5 2077:10 2083:14 2104:23 2105:14 2106:1 2116:8 2123:15 2136:22 2150:28 2168:14 2186:17 2188:8

formulate 2220:6

fortunate 2027:27

forward 1999:22 2016:15,26 2018:15 2019:10 2159:6 2163:25 2164:14,17,19 2212:5 2236:18

found 2028:2 2043:28 2044:1 2047:18 2068:15

foundation 2065:25 2067:23

founded 2180:3

four- 2028:12

fourth 1989:16 2013:4 2061:24

fowl 2100:21

frankly 1993:19 2213:21

fraught 2189:13

free 2000:8 2049:19 2050:13 2088:8,9

frequent 2141:22

frequently 2183:17

fresh 2001:15 2004:28 2022:1 2023:6 2028:9 2029:8 2114:1 2124:3

freshness 2107:21

Friday 1970:23 2073:27

friends 2019:3,9

front 2003:7 2009:12 2018:5 2038:26 2152:5,7 2176:8 2183:21

frozen 2127:2 2211:22

full 1975:1 2006:17 2023:28 2056:27 2072:3 2105:6 2114:19 2153:13 2158:24 2186:15 2205:4 2212:26

full-time 2135:2 2181:21 2183:5

fully 2079:8 2114:25 2174:25 2204:4

fun 2174:8

function 2025:4 2029:7 2051:15 2072:13 2121:20

2186:9 2209:20 2210:12

functional 2078:17

functionality 2001:2,14 2192:27

functions 1985:28 1986:28 2055:19 2056:9 2188:20 2231:19 2232:2

fundamental 2142:4 2160:26

funding 2210:3

future 2018:15 2067:9,21 2073:24 2138:17 2212:9

futures 1987:13 2057:5,26 2058:7 2082:15,20 2083:9 2220:2

fuzzy 2218:18

G

gain 2129:15

Gallagher 2173:22

game 2118:19

gap 2106:8 2189:5

gaps 2195:19

gather 2222:1,6

gave 2001:3

geek 2211:17

general 2030:28 2115:15 2120:12 2149:19 2164:22 2185:6

generalization 2099:26

generally 1971:15 1975:22 1990:17 1993:22 1994:14 1995:21 1998:16 2016:12 2025:14 2028:7 2035:27 2037:3 2066:25 2107:5,15, 24 2108:26 2110:17 2111:20 2113:13,15 2115:8,15,17,26 2117:3,9 2118:6,10 2121:10 2127:21 2129:9 2137:14 2154:1 2177:2 2179:28 2189:24 2200:26 2205:15 2211:1

generic 2197:5 2223:14

generous 1992:5

geography 1977:6

get-go 2099:4

give 2027:24 2028:12 2030:17 2034:10 2043:9 2055:3 2132:27 2153:16 2203:13 2222:26 giving 1983:23 1989:12 2137:6

glad 2226:4

Glanbia 1990:21 2002:7 2006:19 2023:14 2029:8 2068:5

glasses 2153:10

global 2134:23 2185:11 2186:14,15 2188:13

goal 1974:7 1985:5

God 2006:14 2021:2 2175:22

good 1970:6,13,14,20,21 1971:16 1972:19 1978:1,2 1980:18 1986:21 1990:2,3 1995:4,5 1998:3 2001:27,28 2004:3 2006:3 2022:13,14 2031:11,21 2032:12 2034:3, 9 2038:4,9,10 2042:12 2053:28 2054:1 2061:11,12 2068:27 2076:8,9,11 2086:25.28 2087:2.25 2091:20,21,25 2094:17 2095:2 2099:17,18 2102:6 2103:10 2107:6 2114:23 2116:16 2117:17,25 2121:27 2127:6 2133:18,19,24 2159:24,25 2161:1 2164:7 2166:20 2169:5,6 2172:1,5 2175:4,5 2185:27 2197:27 2203:24 2207:1 2209:8 2212:20.21.22

goose 2096:13

gourmet 2130:4

governance 2174:5

governed 2206:2

government 2086:7,13

grade 2074:6 2087:17,21,26 2089:20 2094:25,26 2114:21 2124:3,5,7,14,16 2125:4 2207:8

graded 2073:3,5,28 2074:1, 2,5,8 2086:16 2088:5 2089:21 2094:23 2095:1,3

grades 2073:7 2074:10

grading 2070:28 2073:19 2074:4,22,25 2084:5,21 2088:1 2094:22 2097:10

graph 2171:17

grassroots 2174:6

grated 1982:8

great 2019:28 2022:15 2046:20 2095:9 2141:5

2151:6,13 2179:13,27 2180:16 2181:15 2183:19 2184:18,23 2212:1

greater 2021:4 2065:23 2088:26,28 2140:6,16 2143:26 2167:18 2187:27 2188:9 2207:20 2208:6,13 2230:2

grew 2181:22

grocery 2126:23

ground 2218:15

group 2070:20,25 2087:1 2139:18 2174:9 2190:5 2224:9

groups 2107:16

grow 1997:15 2015:11 2102:1,5,9 2208:9 2215:5

growing 1987:19 2019:20 2069:5 2070:2,9 2088:16,18 2101:27 2102:7 2138:7 2201:26

grown 2020:18 2038:20 2070:7 2071:2 2090:13 2097:12 2101:26 2116:25 2144:28 2145:1

grows 2075:9

growth 1998:22 2005:26 2015:12 2037:3 2067:28 2070:9 2071:1 2073:21 2093:9,21 2097:10,16 2137:8,23,24 2138:6 2141:16 2145:3 2146:17 2168:2

guaranteed 1994:18

guess 1970:11 1976:9 1977:26 1980:11 1999:4 2013:13 2015:15 2026:24 2030:17 2033:23 2037:26 2042:24 2063:16 2093:14 2102:2,21 2108:25 2119:1 2120:2 2129:18 2132:13 2175:18 2198:11 2200:5 2205:28 2231:1 2235:1,27

guessing 2018:13

guy 2014:10,11 2016:2

guys 2014:16,17 2015:23 2016:5 2017:18 2030:21,23 2114:23

Н

half 1985:7 1997:22,23 2010:6 2078:10 2079:5 2123:8 2177:28 2187:18 2203:26



Hancock 1977:28 1979:27 1980:5 2001:24,26 2022:6 2132:3,4 2133:14,15,17 2134:11,18,19 2144:8 2147:1 2154:14,25 2155:13, 18,27 2164:10 2175:3 2177:16,22 2202:18,19,21, 27,28 2209:4 2234:25 2235:18,21,25 2236:3

hand 1980:12 2063:10 2133:10 2152:8 2230:16

handed 2122:21

handle 2106:12 2107:26 2117:28 2190:4

handled 2049:16 2101:5 2129:5 2182:6

handlers 1981:16,17,19 2045:6,24 2051:12 2095:13

handling 2101:12 2182:2,15

hands 2178:7

Hanson 2235:6,8

Hanson's 2009:14

happen 1999:1,11 2027:11 2033:4 2037:10 2107:20 2108:26 2165:8 2171:7 2206:16 2207:4

happened 2006:1 2010:20 2017:24 2023:14 2108:9 2129:13

happening 2019:5 2092:13

happier 2101:7

happy 2171:18 2215:1

hard 1975:22 1982:7 2024:16 2132:9

harder 2112:21

harming 2141:21

hate 2111:27

head 1997:17 2010:1 2012:6,7 2219:16 2224:22

heading 2093:27 2205:1

Health 2184:6

hear 1976:17 1981:6 2033:27 2034:9,19 2077:21 2102:26 2104:18 2143:2 2234:26

heard 1973:10 2001:10 2015:17 2026:12 2030:9 2038:14,17 2072:2,5 2073:20 2078:7 2080:17 2099:22,27 2101:7,8,9 2102:23 2163:24 2211:19

2214:20 2223:20 2224:28 2226:14.24

hearing 1980:21 1989:14 2006:6,13,18,28 2007:5,9, 15,23 2008:23 2026:17 2034:14,18 2042:5 2043:4, 13 2046:13 2048:3 2050:26 2053:6 2059:17 2062:27 2063:20 2064:1 2067:8 2103:14 2104:11,13 2109:12 2122:8,24 2123:2 2131:12 2133:4 2135:14 2150:22 2163:24 2168:13,18 2171:7 2177:20 2183:13,14 2202:11,14 2207:27 2233:2,

hearings 1983:28 2105:12 2183:8,11,15,18 2232:27

heat 2029:2

heated 2049:12 2050:12

heating 2191:14 2222:25

heavily 2015:14 2072:20 2137:20 2139:19 2171:22 2172:3

heavy 2124:17 2181:27

hedge 2016:28 2058:8,13,25 2059:7.8

hedgeable 2052:4 2056:28 2057:1

hedged 1996:15

hedging 1987:14,23 2025:18,19 2035:15 2052:3 2057:21.27

held 2050:9 2105:12

helpful 2006:23 2072:13 2141:18 2172:7

helps 2014:11

herd 2173:20

heterogeneity 2049:2

heterogeneous 2048:24

hey 2199:27

high 1990:4,6 1991:16 2096:6 2139:17 2173:8 2174:20 2176:17 2181:24,28 2218:7

higher 1988:11 1992:20 2005:21,23 2012:27 2022:24 2023:2 2026:6 2040:10,14 2057:28 2087:21 2088:11 2090:8 2091:2,13 2092:23 2094:12,13 2096:7 2097:5 2108:18 2113:27 2130:13 2163:26 2164:13,16,18 2188:6 2197:8 2212:4,9

highlight 2140:28 2185:2

highlighted 2144:26

Hill 2064:4 2075:23,28 2132:18,20

Hilmar 2068:19,20

hints 2216:17

Hispanic 2139:4

historic 2207:17

historical 2076:20 2168:20 2203:2

historically 1990:14 2010:16 2187:15 2203:12

history 1991:12 2026:5 2215:25

hit 2091:2 2162:26

hold 2036:2 2060:10 2108:10,11 2109:1 2110:20

holder 2114:1 hole 2022:1

holiday 2128:20

home 1977:12 1979:17 2129:14 2197:28

honest 1996:1 2043:27

honestly 2023:11 2056:14 2062:16 2110:2

Honor 1970:6,13 1979:27 1980:2,5,20 1989:23 2042:4, 11 2043:9,27 2053:22 2062:26 2063:7 2064:4 2065:7 2074:28 2075:20 2086:25 2103:24,27 2104:10 2109:4 2122:7,14,17,25 2131:11,22 2132:4,22 2134:11 2144:8 2147:1,7 2152:13 2153:18 2154:14,21 2155:27 2177:16,22,27 2178:19 2198:2 2202:19 2225:22 2233:28 2234:16,27

hoping 2203:3

horizontal 2140:10

horns 2021:28

hot 2050:12

hour 2177:28

huge 1975:24,25

hundred 1975:27

hundreds 2051:27 2053:16

hung 2030:21,23

hungry 2126:1

hurts 2220:8

hydrated 2042:16

hydrogen 2049:7

hyphenated 2133:20

hypothetically 2092:21

1

i.e. 1988:15

iced 2050:9

Idaho 2023:15

idea 1979:13 2005:8 2014:20 2038:21 2068:8 2098:17

identical 1983:26

identification 1980:25 2043:8 2065:4,6 2075:25 2104:13,15 2122:28 2134:12,15,17 2178:20,25 2183:21

identified 2073:22

identify 2067:27 2193:6

identifying 2046:11

identity 2047:15 2061:16,20, 24 2073:3,18 2084:2,19 2105:24,25 2106:20 2107:9 2112:25 2117:12 2118:3 2120:5,6,8,14 2191:25,28 2199:12.14

IDFA 1980:19 1981:7 1983:7 1985:23 1988:8 2005:4,5 2026:25 2027:13 2038:1 2043:3 2044:11 2104:9,18 2117:18 2122:22 2168:15 2178:18 2182:20,26

IDFA's 2168:18

IDFA-31 2103:28 2104:12

ignore 2026:23

Ignoring 2033:25

ii 1982:18 1985:13 2047:2 2123:24 2136:18

III 1971:21 1973:5 1977:14, 23 1979:17,23 1981:27 1982:6,10 1984:10,18 1985:6 1987:24,25 1990:10 2013:8 2017:6,10 2020:20 2035:9,11 2037:18 2043:16 2044:13,18 2045:4 2046:4, 28 2048:8 2053:21 2055:10 2057:18 2058:14 2065:11,26 2066:11 2067:24 2104:24

Index: Hancock..III



2105:13 2123:16,24 2135:24 2136:3 2137:16 2139:12 2140:18,26 2141:22 2142:8 2147:24 2168:13 2169:16 2174:20,21 2183:11 2186:23,28 2187:11,28 2188:16 2189:20,23,28 2190:11,14 2194:22,24,28 2195:15 2196:11,14 2197:19 2204:22,23 2205:3,9 2208:8 2227:11,12,20 2230:12

illustrate 2093:9 2167:14,17

imagine 2110:21

immediately 2007:24 2067:8 2233:16

immersed 2050:12

immersion 2050:14

impact 1973:3 1975:25 1996:17,20 1997:24 1999:21 2020:9 2030:11 2033:21 2036:15,18 2037:28 2041:18 2067:16 2092:7 2165:24 2172:10 2173:12 2213:19 2219:5

impacted 1975:4 2211:9 2225:5

impacts 2092:19 2141:23

implementation 2082:27 2202:12

implemented 2233:12

implications 2231:23

implied 2014:9

implying 2225:4

importance 2007:28 2045:19 2051:7 2185:9

important 1989:8 1990:22 1991:20 2014:4 2019:2 2021:22,24 2026:7 2030:4 2034:5 2035:12 2074:7 2121:15 2138:16 2174:21 2187:2,14 2218:24,27 2230:9

importantly 2072:14

imported 2128:7,9

imports 2130:10

imposed 2233:15

impossible 2047:24 2106:22 2124:22 2126:11,14,15 2127:26

impression 2097:19,20

improve 2074:3 2079:1,23

improvement 2079:7 2080:21.26

impute 2080:18

inaccurate 2034:17

inappropriateness 2189:27

incentive 1996:21 2010:27 2032:24 2087:20 2088:10

incentivize 2186:18

include 1984:22 1986:1 2009:27 2026:15 2030:5,28 2048:25 2076:28 2078:1 2081:27 2088:1 2090:7,9,14, 15 2091:11 2092:27 2093:15,17 2096:4 2097:20 2102:12 2105:16 2118:28 2120:18 2121:12 2150:15 2162:28 2170:17 2171:3 2190:15 2194:24 2199:4

included 1982:2,21 1983:4, 14 1985:26 1988:16 2044:18,23 2045:28 2046:10,12,13,16,27 2047:5 2053:20 2056:19 2067:26 2070:10 2077:9 2079:12 2081:13 2082:12 2084:11,27 2090:10 2093:23 2096:7,11, 19 2098:3,9 2105:1,10,14 2123:20 2124:1 2136:26 2137:2 2140:1 2144:17 2145:13 2152:22,25 2153:1, 4 2167:11 2176:21 2182:11 2194:6 2198:13,23 2230:18, 21

includes 2012:22 2048:2 2064:23 2193:8

including 1982:22 1983:21 1987:1 1996:23 2044:15 2047:6 2064:12 2068:1 2075:16 2077:23 2078:15, 19,25 2079:21 2080:2 2093:28 2100:19 2124:2 2137:4 2139:4 2158:19 2188:17 2189:14 2204:21 2205:10 2209:26 2223:4 2231:28

inclusion 1983:7 2046:23,25 2047:25 2081:9 2084:8 2086:11 2099:6 2135:16 2138:9,14 2139:15 2140:21 2141:17 2142:5 2162:8 2198:26 2232:11

inconsistent 2192:16

incorporate 2138:12 2161:3 2195:13 2232:12

incorporated 2194:19

incorporating 2071:6 2138:24 2231:28 incorrect 2009:26

increase 1991:28 1993:16 1997:5 2021:4 2079:22,23 2100:15 2146:3,10,12,26,27 2147:19 2165:1 2207:21 2230:1

increased 1974:11,15 2003:2 2153:1 2158:13 2167:23 2182:16 2206:18 2219:12,24 2225:1

increases 1983:22 1997:3 2014:9,10 2137:5 2158:10

increasing 2014:22

increasingly 2069:8 2070:11,15 2213:28 2219:13

incur 1981:19

independent 1992:8 2045:15 2064:12 2108:22 2194:14 2203:6,15,17

independents 2203:19

index 2027:7 2139:1,8 2150:6

Indiana 2022:14

Indianapolis 2184:7

indicating 2068:2 2072:2 2100:18

indication 1985:24 2067:2 2077:14 2094:22 2229:13 2232:10

indications 2227:7

indicator 2213:9

indicators 2225:12

indirectly 2016:21 2055:11 2064:13

individual 1974:5.6

individually 2053:14

industrial 2130:15

industry 1973:15 1974:17 1983:20 1986:14 1989:10 1991:7,14 1993:13 1999:15, 26 2083:2 2093:18 2135:5,8 2137:14 2139:20 2154:2 2162:22 2177:3 2181:6 2182:19,28 2184:6,9,11 2186:9,15 2187:3 2189:14 2201:10 2206:22 2210:21 2211:4 2213:16,23 2215:4,5, 9 2216:10 2218:16,25 2220:9,20 2221:14 2225:10, 16,17

industry's 1973:16

inefficient 2107:16

infer 2052:23 2060:6 2193:19

inflation 2014:8

inflationary 2015:18

influenced 2211:15,28

influencing 2139:20

informal 2168:19

information 1985:8 2009:2 2022:22 2027:14 2034:11 2048:1 2053:18 2055:5 2094:19 2095:13 2099:25 2100:7 2101:1 2106:8,10 2107:1 2108:23 2125:3,6 2138:13,22 2161:3 2170:18 2174:4

informed 2051:26

infrequent 2139:8

ingredient 2049:7,28 2057:8 2059:25 2223:15

ingredients 2049:11,23 2050:4,16 2055:20 2058:15 2219:25

initial 2136:2 2138:27

initially 2207:6

initiate 2010:20

initiating 2007:4

initiatives 2135:4

innovation 2087:1 2192:6

input 2058:12

inputs 2160:6 2172:19,20 2198:19

insisted 2136:25 2152:21

instance 2084:1

instances 2059:18 2060:6 2092:12

Institute 2181:7,9,11 2182:20,22,25

instructing 2147:2

integrate 2067:1

intelligence 2184:13

intend 2183:22

intended 2072:16 2095:4 2096:4 2207:8

intent 1979:1 2090:7,9 2091:11 2094:5 2096:12,14 2097:21 2098:8 2135:24,28 2140:22 2141:25 2142:2



2156:22 2157:6 2158:14 2167:24,25 2169:16,21,22 2170:25 2171:1,8,19

intention 2092:25

intents 2154:22

interacted 1976:1

interchangeable 2004:23,26 2067:3 2101:3

intercompany 1971:27 1972:1,2,12,22 1976:8

interest 1975:10 1998:21 2057:28

intern 2134:25

internally 1976:10 1977:2,3

international 1980:3 2039:5 2043:2 2044:11 2081:4 2095:23 2104:6 2120:28 2144:13 2180:12 2181:12 2206:2 2211:8,9,14 2215:21 2217:11 2220:13,16,17 2231:10

internationally 2212:1 2220:14

interpret 2190:20 2231:2

interpretation 2155:14 2159:3

interpreted 2194:15

interpreting 2157:2 2214:22

interrupted 2153:9

interruption 2075:15

introduce 2076:4 2103:12

introductory 2064:16 2232:19

intrusive 2229:14

intuitive 1973:2

intuitively 2222:4

inventories 1986:20

inventory 1986:16,17 1989:18 2027:19,22,26 2028:20 2110:15,22 2119:18

inverted 1998:25

invest 2214:28 2215:16,24

invested 2215:27 2218:15

investigate 2076:26 2168:16

investment 1996:22 2072:4 2186:18 2215:15

investments 2037:21

involve 1996:22

involved 2006:13 2150:16 2184:8

involvement 2182:10

involves 2191:18

Ireland 2180:14

issuance 2155:22

issue 1980:4 1985:24 2028:10 2031:12 2100:10 2117:16 2128:13 2144:28 2149:8

issues 2010:25 2052:18 2101:11 2127:5 2136:18 2179:22 2183:12 2210:4 2221:17 2230:3 2235:16

Italian 1975:22 2204:12

item 2068:19 2132:8

IV 1977:22 1979:8,15,24 1981:27 2104:25 2105:13 2123:17,24 2168:13 2194:23,24 2195:1 2229:7

.

January 1981:9 2142:21,25

JD 2092:2

job 2031:11 2149:18 2151:28

joined 2180:18 2182:14

joining 2182:8 2184:13,17

joke 2166:22

July 2191:4

June 2031:4

justify 2174:28

Κ

K-R-E-B-S 2179:3

Kansas 1997:13 2134:3 2189:8

keeping 2008:21 2028:26 2072:4

key 2057:10 2075:13 2171:21 2185:16

kid 2209:10

Kiel 1976:25,27,28 1977:2

kind 1970:27 1973:13,16 1974:8,23 1976:14,17 1977:11 2000:3 2001:6,12

2005:18 2015:2,15 2021:18 2023:26 2026:17 2027:10 2028:4 2077:7,18 2079:4,17 2092:28 2093:2 2094:9,28 2099:26 2100:19 2102:11 2107:13 2110:14 2118:19 2119:2 2120:3 2126:21 2127:10 2128:26 2129:1 2143:18 2170:19 2171:14 2172:17 2175:18 2214:1,19 2216:17,18,24 2217:23 2218:13 2219:6 2220:27 2221:9 2222:22 2223:9

kinds 1977:10 2028:9

kneaded 2050:12

2224:22,25

kneading 2050:18 2222:25

knew 2028:4 2032:21 2165:13 2236:5

knowing 2078:13 2117:2

knowledge 1991:12 1997:7 2010:19 2062:13 2120:18 2147:23,26,28 2148:1 2170:11 2203:2

knowledgeable 2213:24

Krebs 2178:11 2179:2,6,8, 14,18,22 2180:2,18,22 2181:5 2183:20,24,27 2184:4,21,24,27 2198:16,27 2199:7 2200:4,9,12,20,22 2201:4,17,23 2202:2,6,10 2203:5 2204:9.11.13.17.20. 28 2205:7,15,21,24 2206:4 2207:25 2208:4,12,20 2212:21 2213:6,15 2214:3, 21,27 2215:12 2216:1,7,27 2220:11 2221:1,13,25 2222:18 2223:2,22,24,26 2224:5,11,13,16,18,20 2225:6,17,24,28 2226:3 2227:5,21 2228:9 2230:25 2231:21,25 2232:3,15,18,23, 28 2233:2

Kristine 2236:12

Kroger 1986:11 1990:21 2001:11 2005:28 2027:20,24 2036:4 2062:4 2107:3 2111:8,22 2113:3 2114:5 2115:3,9

Kroger's 2027:19

L

labeled 2053:14

labeling 2074:6

labor 2091:7 2107:16

laborious 2053:13

lack 2021:12 2168:4 2169:25 2190:3,19 2192:12 2196:7

lacking 2048:24 2198:15 2199:5

lacks 2051:4

lactic 2049:9 2050:1

laid 2236:18

Land 1970:26 1971:23 1975:15 1976:2,13

language 2006:12 2067:25 2071:17 2096:22 2155:2,3, 11 2157:2

large 1996:19 1999:13 2005:16 2010:15 2020:19 2025:11 2067:21 2139:22 2140:12 2157:21 2166:18,19 2171:11 2172:21,26 2173:4 2196:21 2223:13 2229:3,12

largely 2063:28 2158:7 2171:24 2172:22 2190:3

larger 2018:2,7 2037:4 2067:1 2079:11,13 2098:20 2101:5,6,13 2130:4 2187:22 2196:22

largest 2115:6 2204:15,17

laugh 2159:27

launched 2220:3

lawyers 2091:23,27

lay 2077:21

laying 2068:25

lays 2068:8

lazy 2058:2

lead 1984:18 1985:13 1992:16 2130:21 2166:2 2187:12 2230:13

lead-in 2176:20

lead-up 2121:18

leadership 2174:7 2182:19

leading 2134:23 2180:20 2188:26

leads 2075:15 2092:6

lean 1971:14 1977:3

learn 2120:1

learned 2027:25

learning 1995:21 2222:14

leave 2091:5



leaves 1995:12

lectern 2197:28

led 1983:28 2033:7 2177:11

left 1970:23 2115:3

legal 2191:6

legally 2119:10

legislation 2198:12,24

legislatively 2077:8

legitimate 2154:23 2210:18

lengths 2141:5 2151:13

Leprino 1970:7 2178:16 2179:9,19,21 2180:1,2,7,18 2181:4,21,22 2182:8,14 2184:14,17 2185:5 2186:26 2189:16,21 2190:12 2192:8 2197:18 2198:12,16 2203:4, 11 2204:15,24 2223:8

less-than-truckload 2194:5,

letter 2191:4

level 2035:16 2045:14,17,23 2051:12 2091:2 2113:20,28 2118:12 2129:23 2151:8 2174:6 2185:15,18,26 2186:2 2192:18,25 2193:21 2200:24 2207:21 2208:16 2213:26 2216:15 2217:10 2218:8 2219:23,24,26 2225:10 2229:2

levels 2201:7 2210:20 2217:17 2218:21 2228:12 2229:2

lever 1977:3

life 2052:16 2178:17 2195:23

Lilly 2184:8

limit 2093:3,4

limitations 2215:22

limited 1983:3,13 1987:26 2046:20 2049:20 2052:15 2107:13,26 2112:22 2117:27 2118:5 2122:3 2195:23 2215:4

limiting 2195:23

limits 2190:4 2201:17

lines 2102:20 2105:6 2109:12 2140:10 2155:25

link 2171:15

liquid 1987:27

list 2169:11

listed 1984:5 2030:6

listing 2162:23

lived 1999:21 2184:7 2233:17

livestock 2184:9

load 2226:12,13,19,25 2229:17

loads 1996:10 2092:22,24 2229:20

loaf 2120:11

loan 2182:2

loaves 1987:8 2062:1 2194:7 2195:28

local 2153:16 2174:6

locality 2021:8

located 2025:26 2060:20,21 2206:4,5

locationally 2211:27

locations 2053:16 2194:4 2212:5

logic 2069:14 2117:23 2190:25

long 1976:6,26,28 1992:7 1994:2 1995:7,20 1999:21 2007:6 2021:28 2025:1 2027:4 2028:4 2035:1 2036:10,12,27 2060:10 2076:20 2093:19 2108:27 2109:13 2111:28 2117:21 2127:20 2188:4 2206:28 2220:9 2226:10

long-term 2115:21 2116:6 2117:21 2137:23

longer 1985:26 1990:10 1991:6,25 1993:23 2014:14 2083:2 2110:4 2131:9 2135:16,19 2138:10 2140:14 2141:17,19 2142:5 2156:27 2157:24 2171:5 2173:14

looked 2032:1 2077:15 2082:5

loop 2127:24

lose 2107:20

loss 2219:3

losses 2229:15

lost 2224:26

lot 1972:11 1973:27 1975:28 1976:22 1993:22 1995:2,14 1998:20 2004:2 2005:26,28 2010:17 2011:4 2013:18 2014:13,24 2015:13 2016:10,24 2017:22 2021:12,17 2022:25 2023:9 2028:16,17 2030:20,23,25 2032:20,25,26 2033:2 2037:15,27 2041:12 2054:23 2055:1,13 2085:26,28 2094:24 2095:5 2096:27 2098:23 2107:2 2108:7 2111:10 2112:28 2130:16 2160:16 2165:2,3 2169:10 2174:20,24 2199:19 2205:21 2214:11,15 2215:3 2222:14

lots 2032:7 2062:2 2126:23

love 1992:12 2102:22 2111:27 2174:11

loves 2011:6

2223.6

low 2001:6 2020:14 2061:22 2172:9 2173:8 2176:16

low-moisture 2047:20,22

lower 1988:11 2023:2 2026:6 2031:6 2037:5 2068:9 2091:6 2092:23 2094:4,7 2108:18 2111:13, 24 2141:9 2186:25

lowest 2235:28

Lubbock 2180:11

lumps 2050:13

lunch 2126:1 2131:20 2193:18 2194:3

luncheon 2131:24

lung 2160:9

luxury 1976:19

М

made 1971:21 1981:24 1989:13 1999:9 2000:2 2021:20 2022:26 2027:1 2036:25 2039:14 2051:5,25 2056:9 2064:23 2072:19 2079:16 2083:16,19 2085:11,28 2087:5 2089:28 2090:4 2096:27 2098:18,24 2105:22 2107:5,10 2115:15 2116:18,20,22 2120:9 2121:22 2125:1 2126:22 2127:17 2131:1 2133:3 2141:14 2142:6 2151:13,17 2202:13 2208:1 2214:2

made-to-order 2106:21,28 2112:12

Magazine 2068:11,23

magic 2078:23

mailbox 2200:10,11,13,23 2212:28 2213:7 2223:18,21, 23 2224:3,7,8

main 2000:22 2079:22 2117:11 2216:28

maintain 1973:1 2193:25 2197:13

maintaining 2160:21 2194:26

major 2199:12

majority 1971:17 1997:18 2012:8 2058:20 2105:22 2115:27 2116:22 2139:9 2146:22 2170:10 2173:26 2180:14 2187:19

make 1974:5 1975:17 1977:10 1981:21.22.26 1982:10 1983:2 1985:17 1986:7 1989:13 1991:17,24 1992:4,20 1994:1,17 1996:5 1998:5.8 2000:4.23 2004:5. 7,9 2005:17 2012:13 2014:9 2020:5 2021:13,16,21,25 2024:4 2026:20.24.27 2029:17 2030:2,19 2031:16 2033:23 2035:17 2037:21 2041:6 2042:16 2045:20,25 2046:3,6 2048:7,10,12,23 2050:28 2051:9,13 2052:8 2053:1 2054:23 2055:1 2057:11 2058:1,9 2068:9 2071:8 2077:2 2079:14 2081:14,22 2083:19 2084:23 2087:20 2090:1.28 2091:9 2092:16 2093:3 2100:26 2104:24 2105:9 2108:1 2112:20,21 2113:8 2114:19, 20 2115:14 2117:2 2118:22 2121:8 2123:16,24 2126:10, 25 2127:25 2132:25 2137:10 2141:5,13 2151:9,13,23,25 2152:17 2153:2,25 2154:9, 11 2156:23 2157:3,4,6 2159:2,3 2160:8,26 2169:19 2171:3 2175:13 2176:14,16, 23 2181:24 2189:11 2195:19 2198:21 2200:27 2203:20 2205:17 2210:5 2212:23 2214:1,14 2215:1,14,27 2217:8,28 2235:4,16,18,22, 24,27 2236:4

make-to-order 2190:3

maker 2182:12

makers 1973:4,23 2026:17 2027:16 2036:15 2038:1 2070:15 2109:24 2181:14 2188:5,25 2219:10,11

Index: leaves..makers



makes 1973:2 1975:22 2011:26 2016:3,14 2020:7,8 2029:28 2033:22 2034:2 2035:15 2041:23 2046:14 2072:12 2077:10 2090:13 2091:4 2100:20 2106:17,22 2117:18 2201:22

makeup 2027:13

making 1980:5 1997:8 2001:1,9 2048:3,7,13 2050:21,22 2052:13 2060:12 2091:5 2109:9 2112:15 2122:5 2125:21 2130:17 2133:22 2137:12 2138:20 2141:14 2153:24,28 2155:7, 15 2166:6 2188:13 2196:9 2207:8 2231:22

manage 1976:10,18 1994:26 2027:19 2031:19 2092:17 2220:5

managed 2028:20 2219:22 2220:10

management 1986:16,17 1989:18 2016:11 2034:21,24 2035:3 2172:28 2181:27 2219:27 2220:2

manager 1991:24 1992:26 2182:14

manages 2027:22

mandate 2044:20 2077:9 2105:13

mandatory 1978:14 2049:5 2076:28 2090:26 2102:23 2136:7 2191:6 2198:21,22, 28

manifested 2190:8

manner 2115:19 2121:9

manufacture 1981:21 2014:8 2041:17 2046:24 2047:28 2048:27,28 2072:12 2086:19 2174:14 2180:4 2223:8

manufactured 1981:28 2005:5 2038:18 2045:15 2056:10 2094:18,20 2104:26 2123:18 2139:26 2195:26 2212:4

manufacturer 1998:16 2004:2,5 2011:5 2036:1 2039:27 2041:19,20,22 2058:12,19 2059:7 2088:4 2092:21 2180:3 2182:11 2193:10,12,13 2194:10 2195:28 2196:2,6 2204:15, 18 2214:25 2217:3 2229:6,7

manufacturers 1973:20

1976:1,4 1986:18,26 1987:8, 22 2027:12 2028:18 2034:19 2039:17,19 2040:12,18 2041:1,2,4 2054:22 2067:18 2092:10 2110:5 2113:6 2115:23 2136:6 2157:9,14 2165:28 2173:13 2186:9 2190:8 2195:10 2206:17 2211:12 2218:15 2219:5 2223:8 2228:5 2230:3

manufacturers' 2195:12

manufacturing 1973:10 2046:19 2049:3,5,26 2056:4 2102:13,16 2158:1,19 2180:6,15 2190:27 2191:1,2, 11,17 2193:8,22 2195:6,14 2196:10,26,27 2208:3 2214:15,23,26 2223:1 2225:3,11 2229:15

map 2236:18

margin 2020:28 2034:27 2057:10 2108:15,19 2186:2, 3 2197:8

marginally 2072:13 2174:17

margins 1995:9 2014:3 2015:10 2197:4,6,16 2213:18

Marin 2032:26 2076:7,9,10 2161:28 2209:8 2234:17

mark 2132:13 2218:17

marked 1980:19,21,23,24 2043:4,6,7,13 2064:27 2065:3,5 2075:25 2076:2 2104:9,11,12,14 2122:22,23, 26,27 2132:11,12 2133:1 2134:9,12,14,16 2178:18,19, 23,24 2183:21

market 1971:13 1972:11 1973:16,17,25 1974:8 1975:3,6,9,10,12,13 1976:15 1977:23 1978:22 1979:4.5. 15 1983:24 1984:10,12,20 1985:4,8,15,21 1986:3,21, 23,28 1987:4,20 1989:4,8 1990:14,18,23,28 1991:9,20 1992:24 1993:8,19,20,27 1994:4 1995:1,28 1996:8,12, 25 1998:13,17,25 1999:19 2000:1,8 2002:16 2003:24 2004:8,9,13,18 2006:1,4 2008:1,11,18,21 2011:8,25 2014:26 2016:1,6,7,22 2017:3 2018:16,27,28 2019:2,10,22 2020:1,9,14, 17,18,23 2021:19,26 2022:4 2023:9,22 2024:7,21,22,23, 24,25 2025:1,3,24 2026:1,11 2027:5 2029:25,27 2030:1,5, 25 2031:7,9,22,23,27

2032:8,11,24,26,27 2033:11, 17,20,21 2034:6,12,23,25 2035:4,5,6,23 2036:1,7,16, 23 2037:2,6,12,16,28 2040:16 2041:6 2045:18,25 2047:13,26 2051:13 2052:6 2056:24 2057:23 2058:11,21 2059:10,11 2060:5,8,9,18 2062:11,14 2065:18,24,28 2066:20,27 2067:14 2069:6 2070:4,21,23 2071:9,11 2075:7 2079:11 2080:9 2082:11,15,17,18,20,23,26 2083:8,12 2085:15 2087:5 2088:11,14,19,20,21 2089:1, 5,7,25 2090:1,5,12 2092:24 2093:10 2095:4 2097:6 2098:26 2100:5,6,7 2102:3 2106:2.7.12.16.18.2107:12. 27 2108:3,6,8,21,23 2110:8 2111:26 2112:22 2113:2 2115:16 2116:8,23 2117:27 2118:5 2119:6,17 2121:15, 26,28 2124:13 2125:13 2126:18 2128:8 2129:16,27 2137:7,19 2138:10,19,22,25 2139:7,13,18,19 2141:24 2144:1,5 2148:7 2150:7 2152:3 2160:14 2170:18,23 2171:21,28 2172:2,4,24 2173:14 2174:17,19 2184:10.13 2185:18 2187:9. 13 2188:11,12,23 2189:1,5 2190:2,3,6,9 2192:28 2194:9,28 2195:24 2196:17 2205:14,16,19,20 2206:9,12, 20,21,23 2207:7,9,16,26 2208:9,26,27,28 2210:1 2211:2,14,16 2215:9,21,26, 28 2217:14,22 2219:18 2220:13,24 2221:5,6 2222:9 2225:19 2226:12.14.18.26 2227:2 2229:6,8,10,17,21,23 2230:14

market almost 2006:2

market alone 2003:28

market's 2025:11 2171:5

market-clearing 1977:16 1979:7,9,21 2045:12,14,20 2051:4,6,8,15 2119:19,25,27 2185:17 2187:23 2194:25 2195:2,21 2196:19 2199:23 2201:6,12 2206:21 2209:23 2210:17,24 2217:17 2218:21 2224:27 2225:5 2228:11,14

marketable 2207:3

marketers 2072:25

marketing 1981:10 1983:18 1984:1,2,4 2029:22 2044:25, 26 2064:15 2067:22 2069:12 2071:11 2094:27,28 2105:17 2134:26 2136:20,23 2139:12 2141:4 2142:1 2150:21 2172:11,14,18,27 2173:25 2184:11 2185:8,13,16 2188:26 2194:26,27 2203:21 2214:5 2217:7 2227:7,15

marketplace 1985:19 1987:3 2024:5 2067:6 2139:23 2142:9 2185:20,22 2186:13 2188:6,12 2189:2 2192:17, 21,23 2193:1 2208:5 2209:20 2214:16 2215:20 2217:11,17 2218:12 2219:23 2220:25 2221:7,12,18

markets 1987:21 1988:1 1993:5 1995:2,19 1996:21 1999:5 2003:18 2005:27 2015:4 2020:11 2021:9 2022:2 2025:13,14,22,23 2026:8 2033:25 2035:14 2036:8 2037:3 2038:5 2057:5 2060:7,27 2082:28 2083:1 2097:1 2118:9,25 2129:10 2148:4 2163:16 2172:24 2182:4 2185:10 2186:6,8 2188:20 2206:2 2208:24 2217:24,26 2220:17 2229:21,24

marks 1989:14

marvelous 2061:8

Maryland 2063:24

mass 2049:11,15 2050:4

master 2134:27 2174:3

Master's 2180:27 2181:25

match 2196:9

matching 2070:17 2195:5

material 2048:26 2136:18

materially 2040:10

materials 2204:14

math 2145:15 2146:15 2167:7 2175:6,13 2211:17

mathematically 2162:10 2193:2

matted 2049:14

matter 1991:21 1996:9 2014:18 2021:27 2048:28 2106:22 2128:6 2150:9

mature 2028:8

maximum 2048:17

MBA 2180:26

MCT 2068:24

meaning 2176:8



means 2008:19,20 2015:25, 28 2020:4 2026:6 2072:14 2107:27 2116:28 2118:7 2147:16 2148:28 2166:24 2235:2

meant 1975:8 2040:23,24 2043:20 2069:6 2080:19 2205:28

measure 2066:16 2079:5

measures 1975:16

mechanism 1981:12 1992:19,23 1993:6 2083:1 2201:12 2206:21 2217:21

mechanisms 2205:23

medium 2001:7 2029:15 2114:7,18,20

meet 1982:22 2003:24 2011:4 2023:3 2032:11 2041:5 2047:6 2051:20 2061:19 2083:28 2097:6 2111:14 2112:17 2119:11 2124:2 2216:26

meeting 2124:3 2128:28

meets 2033:18 2046:14 2059:3 2060:13 2087:27 2091:1 2107:9

Melrose 1976:25,27 1977:2

melted 2222:23

melting 1986:10

members 1970:26,27 1972:7 1985:23 2027:13 2031:14 2038:1 2064:11 2111:8,10 2148:24

membership 2005:14 2173:20

memberships 2181:2

memories 1970:22

mentality 2034:24

mention 2219:17

mentioned 1973:13,18 1976:23 1977:7 1979:18 1993:20 2029:8 2032:25 2087:15 2115:21 2119:16 2156:22 2163:2 2169:19 2173:23 2199:10 2215:13 2217:16 2220:22

menu 2220:6

Mercantile 1985:17 2106:15 2124:15 2188:27

merged 2189:4

met 2083:28 2108:24

2117:20

method 1986:12,15 2047:28 2048:15 2054:26

methodology 2165:18

methods 2053:1

meticulousness 2023:19

metric 2071:3 2097:12,13

Mexico 2068:5 2180:9

mic 2033:27

Michigan 2180:9

micro 2098:25 2127:1

microphone 2234:25

mid 2182:3

middle 2097:9 2130:8 2153:8,11,20 2158:24 2170:19 2220:27 2224:23

midsized 2220:7

Midwest 1971:1,2 2021:10, 20 2030:26 2068:13,14 2200:7,11 2214:10 2227:9, 27 2228:2

Mike 1980:4,13 1990:2 2038:9 2103:24 2104:1 2109:21 2128:19 2222:18 2225:25

mild 2114:7,13 2115:4,10

milk 1971:21 1972:7 1973:7, 24 1976:8,15,21,23,24 1977:1,4,5,7,8,11 1979:16, 18,25 1981:10,11,16,18,19, 24.26 1982:10 1983:2,12,17, 28 1984:1,12 1985:5,22,26 1986:21,28 1988:3,7,8,13 1989:1 1992:3,8 1995:1,7 1997:15,20 1998:23 1999:9 2000:10 2003:25 2004:6,17 2010:5 2015:7 2016:26 2019:25 2020:7 2021:11 2023:25 2025:12 2026:13 2028:21 2029:19 2030:14 2036:20,21,25 2037:14,17, 27 2038:2 2039:28 2040:11 2041:21 2044:24 2045:3,9, 11,18,20,21,22,24,27 2046:4,7,28 2048:9,16,19 2049:6,27 2050:24 2051:1,8, 9.10.13 2052:7.9.24 2053:27 2057:15,18,25 2058:14 2060:5,8,19,20 2064:15,24 2065:10,26 2066:6,14 2067:24 2068:16 2069:11 2071:12 2072:8 2080:4 2082:4.8.22 2083:7 2084:9 2085:6 2087:1 2089:9 2091:19 2104:24 2105:8,10,

15,17 2112:9 2123:16,24 2125:14 2134:6.26 2135:3. 10,12,26 2136:3,20,22 2139:11 2141:4,26 2144:18 2148:24 2149:12 2150:21 2152:24 2157:10,14 2160:17 2162:6,25,27 2163:5 2166:3 2167:2 2173:18,25 2174:2, 21 2182:7,15 2185:10,13,14, 16,17,19,21 2186:1,6,7,8,11, 16,27 2187:2,15 2188:6,25 2189:16,17 2194:27,28 2195:18 2196:17,20 2201:15 2203:5,6,9,23 2204:22,24 2205:24,26 2206:19 2209:15 2211:13 2212:9 2213:3 2214:5,11 2215:5,18 2216:20 2217:3,8,9,24,26 2218:24 2219:2 2221:20 2225:19 2226:12,14,22,24, 25,26 2227:2,9,19 2228:6, 14,19,26,27 2229:8,11,12, 17,19,25 2235:27

milk's 1978:27 2020:20 2075:4 2079:3 2136:2 2138:27 2205:2

milk-marketing 2134:24

million 1975:27 1984:26 1997:15 2036:20,21 2064:11 2068:16 2074:1 2124:8 2127:15 2145:14,16,18,21, 23,27 2146:1,10,13,18,19 2167:27 2175:21

millions 2019:7 2126:23,24

Miltner 2053:26,27 2061:1 2091:18,19,21,25 2095:18, 20 2112:8,9 2116:1,19 2167:1,2 2169:9 2175:12 2198:1,2,4 2202:16 2225:23 2226:7 2231:6

mind 2015:24 2020:5,14 2029:28 2035:18 2043:24 2112:25 2133:27 2134:20 2147:28 2153:7 2155:12 2156:11 2166:26 2233:20

mine 1971:15

minimal 2193:28

minimum 1981:11,15,26 1983:12 1985:5,22 1989:1 2018:25 2024:8,26 2039:26, 28 2040:11 2041:21,24,26 2043:16 2044:13,18 2045:2, 5,7,9,19,28 2046:4,7,28 2047:19,20 2048:8,17,19 2050:24 2051:1,8 2052:24 2053:21 2058:4 2082:21 2083:7 2084:9 2104:24 2105:10 2112:26 2119:24 2123:16 2144:18 2157:14 2185:9,15,16 2186:7 2190:16 2193:15 2196:20 2201:6,13 2210:19 2214:4,8, 18 2228:10,14,15 2229:1,2,

minimums 2229:19

Minnesota 1971:2 1976:25 2001:12 2053:17

Minnesota's 2068:2

minority 1971:22

minus 1981:18 1988:26 2013:7,14 2033:11,18 2036:6 2048:9 2145:16 2149:7,10 2211:1

minuses 2150:5

minute 2132:7

minutes 2042:17 2178:2

mirrors 1975:20

misaligned 2140:21

misconstruing 2155:11

mismatch 2048:13

missed 2075:24 2150:23

missing 2052:23

Missouri 2135:1

mistake 2044:5

mister 2092:3,5

misunderstanding 2201:10

mix 1995:4,5 1999:26 2001:10,13 2020:12 2029:13 2066:27 2076:14 2100:5,7,9, 13 2116:9

mixed 2194:8

mixing 2191:14

MMPA 2236:14

moderate 2186:2

moisture 1982:14,20,25,26 2002:13 2023:2 2047:4,9,10, 17,19,21,22,23 2048:17,21 2057:6 2058:6 2061:22 2084:16 2113:14,28 2115:7 2141:7 2168:22 2190:22 2192:13,18,25

moisture-adjusted 2135:23, 27 2136:11,15 2139:10 2140:5,20 2157:7 2168:22 2169:15 2170:26

moisture-based 2193:3

mold 2107:19 2127:5

molded 2050:14 2193:11



molding 2050:18

moment 1974:19 2209:24

money 2021:13 2214:26 2215:24

month 2030:18 2031:3 2117:1 2172:26

monthly 1988:17 1989:10 2006:2 2017:25 2030:6,10, 15 2031:12 2140:9 2141:3 2142:18 2143:25,28

months 1986:11 2001:3,5 2018:6,10 2029:15 2115:24 2127:22 2140:17 2142:19 2227:19

morning 1970:1,6,13,14,20, 21 1978:1,2 1980:18 1990:2, 3,4,7 2001:27,28 2022:11, 13,14 2026:13 2038:9,10 2042:12 2053:28 2054:1 2055:16 2061:11,12 2076:8, 9 2086:25,28 2087:2 2091:20,21,25 2099:17,18 2143:1 2236:10

mouth 2033:28

move 1976:22 1980:6 1990:26 1992:10,13 1993:24 1994:6 1995:10 1999:12 2042:5 2062:26 2066:26 2093:25 2094:15 2100:4 2103:11 2112:27 2114:22 2122:8 2131:12,17 2133:2 2138:23 2158:12 2160:17 2170:19 2171:2 2172:23,25 2177:18 2188:21 2208:24 2234:1 2235:4

moved 2027:27 2158:6 2187:17

moves 1988:3 1994:13 2018:23 2150:6

moving 2026:28 2100:15 2101:21 2159:6 2173:7 2207:23 2218:22

mozz 1994:17,27 1995:15, 16,25 2079:28 2211:20,22 2223:4

mozzarella 1973:26,27 1977:13,17 1994:1,2 2005:25,28 2043:15 2044:12,16 2046:17 2047:11,12,17,19,20,21,22, 25,27 2048:1,3,6,11,20 2049:4,25 2050:19,22 2051:3,4,5,14,18,24,27,28 2052:4,14,20,25 2053:1,4, 11,19 2054:15,17,21,27 2055:23 2056:2,27 2057:3,8, 11 2058:10,12,18,21,25 2059:5,18,25 2060:7,17,21 2061:16,17,19,22,27 2062:9, 14,15,19 2080:8,9,12 2139:2 2180:4,5 2190:11,14,21,23 2191:1,9,13,16,19,20,23,24, 27 2192:12,14,15,27,28 2193:7,9,11,19,24 2194:8 2195:15,17,21,22,25,26 2196:1 2197:10,11,14,17,19 2198:6 2199:4,9,15,19,20,22 2200:3 2204:10,12,13,17 2205:13,15 2206:8 2208:28 2209:1 2210:26 2211:2,13, 15 2222:23 2223:7,9

multiple 2008:6 2022:3 2229:21

multitude 1974:21 2135:3 2165:24 2166:6

myriad 2061:28

N

narrow 2187:1 2189:5 2190:5 2209:21

narrowing 2208:15 2210:23

NASS 1984:14 2023:15 2044:23 2046:10,13 2069:14,23,25 2153:4 2224:12

national 1972:7 1978:27 1982:17 1984:10,20 1985:15 2002:5 2026:13 2030:14 2047:1 2051:21 2064:24 2065:10,16 2066:6,10,14,19 2069:7,10 2075:3 2079:3 2085:6 2096:17 2123:27 2134:6 2135:9,11,26 2136:2, 8 2138:27 2141:26 2148:23, 24 2152:24 2162:6,25,27 2163:5 2173:18 2174:2 2182:20 2184:12 2186:27 2187:8,13,16 2189:17 2190:24 2200:23,25 2202:13 2205:2 2209:14 2230:14 2235:27

nationwide 2200:12

natural 1987:9 2016:28 2035:7 2121:10 2137:21 2139:6 2148:6

nature 2060:27 2084:17 2103:3 2179:28 2183:9 2191:18

NDA 2006:25,26,27 2007:3, 10 2008:26

NDPSR 1972:13,22 1975:20 1982:19 1984:26 1987:22 1988:17 1989:10 1991:6,25 1992:21,27 1994:23 1995:23

1996:17 2000:17 2010:4 2012:20 2013:6,21,22 2014:4 2016:8,9,12,25,27 2017:9 2022:21 2023:11 2031:10 2047:1,3 2057:26 2067:12 2068:27 2069:19, 22,24 2070:10,24 2082:28 2086:5 2090:10 2092:15 2119:5 2123:28 2124:7 2125:10 2136:9 2137:7,23, 25,28 2138:2,6,8,13 2139:22,25 2140:1,4 2141:16 2146:8,21 2147:26 2161:9,16,17,19 2171:25 2172:6 2175:10 2187:17 2221:4,9,15

necessarily 1975:11 1999:27 2003:17 2005:23 2026:5 2048:23 2050:19 2078:22 2095:11 2108:17 2116:27 2118:27 2151:27 2165:2 2166:1 2201:23 2207:25 2226:16 2233:5

needed 2045:11,24 2051:13 2106:8 2121:11 2160:18 2201:8 2230:27

needing 2128:19

needlessly 1984:17 1985:12 2187:10 2230:11

negative 2017:12 2140:11 2172:10 2214:6,7

negatively 2140:26 2141:23

neglected 2039:7

negligible 2086:23 2090:23 2102:21

negotiable 2150:12

negotiations 2150:9

netted 2143:8

network 1976:20 2174:16 2204:6

neutral 2000:4 2001:8

News 1978:22 2194:9

nice 2093:22

Nielsen 1970:6,7,9 2178:15, 22,27 2197:21 2233:27,28 2234:6

NMPF 1983:12,13 1987:17 1989:6 2065:15 2066:17 2067:11 2135:10

NMPF's 1972:18 1973:3 1983:21 2073:15

NMPF-11 2134:9

nodding 2165:23

non-regulated 2173:27

non-standard 2116:28

non-starter 2195:20

nonfat 1981:18 2004:17 2045:11 2057:14 2058:14 2082:8

normal 1996:12

North 2134:3 2180:28

Northeast 1971:1,3 1984:1 2021:20 2105:17

note 2008:6,9 2074:7 2160:1 2189:3

noted 1987:2 2007:19 2017:19 2027:17 2044:22 2051:7 2105:28 2188:19 2209:28

notes 2007:28 2234:16

notice 2044:19 2046:13 2073:6 2074:9,15,20

notify 2113:6

noting 2100:19

NPDES 2147:25

number 1971:10 1980:9,21, 22,24 2017:26 2018:4 2034:20 2042:8 2043:4,7 2063:2 2065:5 2069:2 2093:17 2094:18 2099:21,25 2101:21 2103:15 2104:11,14 2121:13 2122:3,12,24,27 2131:15 2134:16 2141:12 2148:12 2157:28 2162:24 2164:27 2174:3 2177:23 2178:24 2182:20 2201:18 2217:19 2234:4 2235:28

numbers 1971:6 2009:10, 21,25 2082:16 2088:1 2094:22 2143:3,4 2147:11 2161:7,8,13 2167:6,11 2209:18

numerical 2168:7

numerous 2183:18 2190:17, 25 2194:4

nutrition 2180:5

0

O'LAKES 1970:26 1971:23 1975:15 1976:2,13

oath 2042:26 2104:16

object 2074:15,19 2147:1 2154:14 2164:11

objected 1982:5 2156:1



objection 2103:13 2131:13 2133:3

objections 1980:7 2042:6 2062:28 2122:9 2177:19 2234:2

objective 2078:28 2160:21 2191:3 2216:18,25

objectives 2217:15

obligated 2229:22

obliged 2166:1

obtainable 2048:2

obtained 1982:16 2123:27

obvious 1974:25

occasions 1983:6

occur 2165:24

occurred 2017:21 2158:13 2183:15

occurring 2092:20

occurs 2103:5 2190:5

October 2233:13

off-grade 1998:4,15

Off-the-record 2103:18

offer 2096:22 2111:1

offered 2007:11,20 2102:4

offering 2070:15

offhand 2213:21

officer 2182:2

official 2073:6 2074:9,15,20

oftentimes 2011:15 2013:27

oil 2089:9

old-fashioned 2091:14

older 2001:16 2023:4,5 2110:21

omissions 2190:25

on-call 2181:20

one-ounce 2053:4,13 2193:27

one-third 2078:19,24,26,27

online 1987:14 2102:3 2108:11 2110:12,24 2138:5 2170:4 2189:6 2204:14 2206:25 2216:6,8 2225:1,3

open 2057:28 2072:28 2111:25 2174:27

opened 2068:6,15,18

2129:18

operate 2018:23 2157:10 2163:16 2172:24 2173:26

operated 2169:23

operates 2188:28

operating 2101:13 2144:4 2233:4

operation 2098:25 2170:2

operations 2180:13

operator 2101:15

operators 2072:3 2101:6

opinion 1990:11 1992:22 2000:16 2004:22 2019:13 2024:11 2026:7 2031:10 2032:28 2033:12 2034:8 2068:26 2093:15 2118:27 2143:13,15 2168:8,11 2219:8,19

opponents' 2105:21

opportunistic 1992:12 1993:4 2229:23

opportunistically 2229:8,11, 19,25 2230:1

opportunities 1987:26 2115:16 2197:7,15 2211:16 2215:20 2224:25

opportunity 1984:3 2014:23 2093:4 2105:18 2135:6 2160:6 2180:24 2214:27 2216:9 2219:28 2229:20

opposed 1971:18 2098:11, 20 2137:21 2201:12 2210:22 2215:19,22 2230:19

opposes 2186:26 2189:21 2190:12 2197:18

opposing 2209:12

opposite 2024:14 2092:25

opposition 2007:15 2186:22 2189:19 2190:10 2205:2 2218:23

optimistic 2149:24

option 2108:15 2112:2 2188:13

optional 2049:23 2050:16

options 2082:15 2117:6

order 1970:2 1982:9 1985:20 1988:7,13,19 2019:26 2020:3 2024:7,12 2025:24,26 2029:19 2035:14,15 2037:26 2039:15,18,21,26,28

2040:12,19,20 2041:1,2,7, 17,19,21,22 2042:23 2044:21 2045:8,27 2046:4 2069:12,13 2070:6,22 2072:6 2080:4 2082:25 2084:22 2090:28 2091:2 2096:13 2098:3 2100:26 2101:25 2107:5 2119:24 2121:22 2123:23 2124:23 2125:1,14 2126:12,22 2127:18,19 2131:1 2132:2 2135:22 2136:20,23 2139:12 2140:3 2141:4 2150:21 2154:11 2155:6 2169:14 2176:24 2177:8 2183:11.13. 15 2188:28 2201:1,5 2204:27 2205:23,27 2213:11

orderly 2029:23 2071:11 2185:8,12,15 2194:26 2214:5,16 2217:7

2228:10,17,27

2216:26 2217:14 2218:19

orders 1981:10 1982:10 1984:1,4 1992:6 1995:11,12 2002:9 2014:3 2015:16 2020:4,6 2029:22 2044:21, 26 2064:15 2071:18 2082:5 2105:15 2118:27 2123:25 2136:19 2185:24 2194:27 2201:11 2206:6 2216:18,21 2217:20 2218:2 2228:26

organic 1986:12 2027:26

organization 2164:22

organizations 2181:6 2198:18

oriented 2091:12

orienting 2232:24

original 2069:25 2110:18 2138:8 2140:22 2142:6 2158:14 2171:27 2172:21 2195:9 2196:6 2217:14

originally 2136:21 2139:15 2171:1

oscillations 2163:21

ourself 2031:5

outcome 2202:11 2216:2

outdated 2070:19 2194:17 2214:1,14,23 2215:14

outfit 2068:25

outlet 1986:21 1994:5 2188:10 2220:7

outlets 1986:27 2052:17

outline 2140:10

outlines 2065:15 2067:11

over-order 2165:21 2166:3

over-the-counter 2059:3

overarching 2185:3,7 2194:22

overdue 2093:19

overhead 2091:7

overlooked 2089:19

overprice 2188:25

overrepresented 2072:20

overruled 2156:10

overseas 1988:4 1994:9,21, 27 2070:16 2097:1,6 2128:12 2212:5

Oversimplifying 1981:14

overstated 2045:21 2051:10

oversupplied 2227:2

oversupply 2228:7

overvalue 2029:26

overwhelming 2012:8 2170:10

owned 2173:28 2174:15,25 2182:12

owner 1995:24

owns 2006:26

Р

package 2062:9 2073:12,14, 17,19 2154:12

packaged 2053:14,15 2061:28 2098:10,11,19 2099:4 2124:4 2128:12 2129:24

packages 2068:10 2085:3 2098:19 2107:8 2127:3

packaging 2054:19 2076:16, 19,22 2077:3 2099:5 2102:20 2117:9 2120:19 2141:9 2151:19 2153:2 2158:20,26 2193:27,28 2194:1 2223:9

pages 2022:18 2059:12 2185:2

paid 1981:12,15,28 1982:19 2045:6,16 2047:2,3 2057:25 2104:25 2123:17

panel 2202:22

paper 2132:25,26,27

paragraph 2007:24,27



2008:7 2023:28 2028:19 2054:6 2092:6 2093:27 2101:23 2104:22 2105:4,6 2120:4 2123:12 2145:2 2153:7,13,14,23 2157:5,21 2158:21,24 2169:12 2170:20 2171:16 2205:5 2208:23 2212:26 2215:8 2218:13 2220:27 2221:3 2222:6 2224:23 2225:15

paragraphs 2156:7,19 2171:19

parameters 2047:18 2192:16

paraphrase 2227:1

pardon 1990:5 2015:24 2063:15 2077:26 2088:27

parenthetical 2054:7 2055:22

parlance 2149:20

part 1972:15,16 1973:22 1979:22 1986:15 1989:8,10, 17 1991:6,25 1992:9 1997:5 2001:4 2004:13 2010:24 2011:23 2012:2,4 2014:13, 20,21 2015:18 2021:22 2024:17 2032:8,27 2034:5,7, 24 2036:16 2061:22,27 2068:26 2081:28 2087:6 2089:14 2101:20 2119:4 2133:4 2170:1,10 2184:8,21 2229:3

part-skim 2047:21,22

Partial 1984:2

participants 1983:20 2139:19 2171:28

participated 2172:28 2183:8,10

participation 2138:15 2229:3

partners 1977:4,8

parts 2216:16

party 2048:3

past 2016:12 2018:21 2025:5 2026:4 2037:28 2116:24 2217:20 2222:15

pasta 2191:13 2192:1,9 2204:13 2222:16,18,21,24

pathway 1997:2

Paul 1973:11,13 2032:21 2236:7,14

pay 1996:17 2014:3 2016:13 2037:18 2045:24 2051:12

2057:24 2157:10,14 2166:1 2204:26

paying 2150:18

Paynesville 2068:1,2

peak 2225:20

peels 2222:22

pegging 2200:21

Pennsylvania 1971:3 1976:26 1977:21 1979:19 2180:10

penny 1988:22,23

people 1981:6 2007:14 2014:23 2016:10,13,23 2018:26 2020:9 2022:3 2025:1 2028:4,16 2034:22 2035:5 2057:9 2061:17,18 2062:15 2074:16 2085:11 2102:8 2107:14,16 2114:18 2117:28 2126:26 2129:17 2132:16 2149:28 2155:6 2166:17 2167:3 2183:3 2213:23

percent 2000:15 2005:14 2008:19 2034:12 2036:6 2094:18 2163:1,26 2164:13, 16,18 2200:13,24 2212:4

percentage 1972:10,22 2000:20 2002:14 2005:4 2012:28 2016:7,18 2031:27 2038:21

percentages 2002:25 2094:16 2163:9

perfect 1998:2 2029:24 2058:2

perfectly 2001:7 2058:7

perform 2051:23 2055:19 2056:8

performance 2054:25 2191:14 2192:3.4.27

performed 2157:8 2196:5

performing 1981:22 2192:24

period 2023:6 2040:9 2140:17 2165:11 2200:3 2206:25 2220:2,4 2227:12

periods 1994:20,26 2052:8 2197:12 2229:1

permitted 1978:26 2050:10

peroxide/catalase 2049:8

persist 1975:14

person 2076:13 2173:10,16 2197:27

personal 1987:19 2001:17 2031:10 2032:28 2062:12 2127:13 2147:22,26,28 2148:1

personally 2032:28 2058:22 2059:21,27 2091:26 2094:17 2148:2,11,25

persons 2000:13

perspective 1977:14 2184:9 2187:4 2207:17 2210:17 2218:25 2232:11,22

peruse 1972:4

Peter 2235:5.9 2236:5

pharmaceutical 2182:13

phenomenon 2227:18

phrase 2102:24 2232:19

pick 2054:15 2056:3 2210:6

picked 2023:16 2110:1

picture 2225:8

picturing 2013:16

piece 1970:4 1987:20 2183:28 2184:2 2199:22 2217:7 2220:12

pieces 2049:18,21 2053:14 2193:27 2199:26 2213:20 2214:12 2216:16

piled 2049:16

pizzerias 2194:14

place 1979:9 2023:11 2036:3 2150:28 2163:1 2202:12

places 1994:14

plan 2045:13 2127:20 2235:3,13,23,25

planning 1999:24 2236:9

plant 1975:22 1976:20 1994:1 1995:24 1997:11 1998:1,7,14 2001:11,20 2010:28 2011:15 2017:5 2018:22 2023:4 2037:21 2053:9 2057:10,24 2060:19 2062:6 2068:3,5,20 2072:2 2091:2,6 2098:24 2174:15 2180:11 2189:6 2197:13 2203:18,25 2204:7,8 2206:27 2207:5,11 2227:3 2229:16

plants 1973:1 1976:21,24 1977:20,22 1979:13,18 1987:26 1992:8,14 1998:22 1999:10,12,17,27,28 2000:11 2010:23 2011:11,28 2019:25 2020:5,22,23 2021:12,16,21,23 2041:16 2060:20 2068:20 2070:13 2072:3,6 2107:3 2113:9 2116:25 2122:3 2128:21 2160:17 2180:7 2197:9 2203:10,22,28 2204:6 2205:25 2206:24 2207:2 2210:3 2215:25

plausible 1992:19

play 1985:3 1999:6 2003:27 2008:18 2019:2 2021:23 2165:3 2166:6 2217:4

played 1997:5

player 2174:16 2186:15

players 1994:12 2186:12 2221:18.22

playing 1977:23

plays 1979:15 1993:18,19

plenty 1974:17 2059:2

point 1972:28 1973:8 1990:22 1994:4 1998:20 1999:5 2000:12 2037:12 2056:27 2057:21 2059:14 2060:2 2081:14 2086:15 2087:25,26 2090:13 2094:21 2112:2 2122:7 2131:11 2145:2 2149:23 2156:9 2159:11,12 2172:3 2176:2 2182:17 2192:6 2199:8 2207:15,28 2210:25 2211:6 2218:28 2224:25 2225:13

pointed 2081:25

pointing 2168:2

points 1975:3 2059:12 2185:2 2189:12

policy 2080:2 2081:23 2134:28 2135:3,5 2179:19, 21,22 2180:19 2181:3,9,12, 13 2182:4,15,16,21,24 2216:18,25

pool 1973:23,24 2019:27 2020:2 2038:2 2228:5 2229:4

pooled 1992:7 2019:25,26 2020:20 2037:15,17 2228:19,27

portion 1971:16 1972:19,24 1977:15 1979:25 2005:3 2023:22 2083:16 2203:25 2225:7 2229:12

position 1983:21 1988:9 2037:25 2105:22 2135:2 2157:4 2161:20 2170:21,24 2198:12



positions 2006:21 2185:5 2186:20

possibly 2113:17 2117:10

post 2009:6

potential 2033:26 2052:16 2067:18 2079:17 2092:9

pound 2052:21,23 2062:17 2101:10 2136:16 2140:6,11, 13,17,20 2141:8,11 2149:24, 25 2150:3 2153:2 2157:23, 27 2158:11,18,25 2160:8

poundage 2098:27 2099:3,9 2146:27 2147:20

pounds 1975:27 1984:27,28 1992:3,6 1997:15 2000:10 2003:20 2019:7,25 2020:6,8 2023:23 2036:20,21 2068:3, 7,16,17 2074:2 2091:6 2106:4 2121:14 2124:8 2126:24 2127:15 2137:26 2138:1 2145:14,21,24 2146:13,17,18 2161:14 2167:9,10 2175:24 2194:8 2225:28

pouring 2049:18

powder 2026:10 2060:22,26 2082:24 2119:5 2182:12

power 2217:14

practical 2048:28 2080:14 2106:22 2135:19

practicality 2080:6

practice 1986:14 2001:4 2192:23

practices 2091:13

preamble 2069:12

precedence 2119:8

precedes 2007:24

predict 1975:12 2207:13

predictable 2140:13 2157:23

predominant 2059:25

prefer 2092:5 2137:21

preferred 2004:18

preliminary 1970:4,10 2132:8 2233:10,12

premises 2216:28

premium 2016:13 2071:14 2096:11,12 2130:14 2187:26 2221:26

premium-assisted 2086:1

2125:8

premiums 2165:21 2166:3 2200:26 2213:3,9,25 2214:6, 24

preparing 2145:11 2168:12

present 2014:1 2103:4 2134:5 2142:26 2183:23,25

presentation 2064:24

presented 2145:8

presenting 2184:26 2235:16

preserve 2135:27

preserves 2028:5

president 2182:18

pressed 2049:22 2191:17

pressure 1996:28 1998:17 2016:4,5 2019:21 2211:24 2214:15

presumption 2188:16 2205:9

Pretend 2130:13

pretty 1998:3 2017:15,18 2023:10,24 2038:3 2109:28 2128:24 2129:23 2146:18,28

previous 2000:13 2030:9 2064:1,3 2118:26 2158:7 2164:4 2168:3 2216:5

previously 1983:5 2104:2 2105:11 2134:8 2146:21 2156:21 2173:24 2214:25 2216:23

price 1971:19 1973:5.8.23 1974:10 1979:2,5 1981:1,10, 13,14,15,16,26,28 1982:2,3, 9.12.13 1983:1.2.3.11.14.22 1984:8,9,10,15,16,18 1985:11,13 1987:22,24,25, 28 1988:2,3,10,11,13,14,17, 18,28 1989:11 1990:25 1991:1,27 1992:13,16 1993:23 1994:3,9 1995:8 1996:5,9,13,17,18,28 1998:11,16 2000:11 2002:11,12 2005:21,23 2007:28 2010:5 2012:17.20. 21,22,23 2013:7,8,21 2014:5 2015:26,27,28 2016:12,25, 27 2017:6,7,8 2018:24,26 2025:28 2026:25 2030:22 2031:2,25 2033:14 2034:7, 26,27,28 2035:1,8,9 2036:2, 16,18 2037:18,22 2039:28 2040:2,10,11,14,28 2041:7, 14.21.24.26 2044:17.23 2045:5,10,12,14,17 2046:1, 4,12,18,24,27 2048:6,9,11

2051:6 2052:21,22,27 2053:8,9,18,20 2054:8,11, 15,28 2055:9,23,28 2056:19, 23 2057:23,24 2058:14,26 2065:11,18,20,22,25,26 2066:11,21,22 2067:1,3,17, 19,24 2069:7,9 2070:26 2071:6,8 2072:14,15,19,20, 26 2074:3 2075:9,15 2076:20 2077:17,18 2078:18,25 2079:1,19,23 2080:1,4 2083:1,13 2084:9, 23,24 2085:5,15 2092:11,23, 26 2094:4,7,8,12 2096:13,14 2100:17,20,22,23,24,28 2104:24,25 2105:1,8 2106:2, 3,9,23 2108:14,16 2111:24 2116:7 2117:1,25 2118:8,12 2119:5 2121:24.27 2123:4. 16,17,20,23,24,26 2124:13, 15,16,19,23 2125:3,5,13 2126:11 2127:27 2135:12, 14,18,20,22,24,28 2136:1,3, 5,6,13,14,16 2137:5,11,16, 17 2138:13,28 2139:5,8,11, 12,20 2140:2,3,14,18,19,23, 24,25,26,27 2141:6,7,19,22, 24,27,28 2142:7,8,18 2147:24,25,26 2149:2,3,6, 10,11,24,28 2150:1,6,9,12 2151:9,14,25 2152:2,25 2153:4,26 2154:1,7,8,11 2155:8 2157:11,14,15,16,23 2159:8,12 2160:9,22 2161:6, 8,13 2162:7 2163:5 2165:1, 4,13,19 2168:21,23 2169:15, 16 2171:1,28 2172:9,20 2173:7,14 2176:15,17,24 2177:2,9,12 2186:7 2187:1, 6,7,8,9,10,11,15,24,28 2188:1,4,7 2189:16,28 2190:14.23 2191:8 2192:14. 25 2193:3,17,18,21,26 2194:3,4,5,7,10,12,16,18,20 2195:18 2196:19.23 2198:8 2200:10,11,13,23,25 2204:22,23,25 2205:3,15 2206:11,18 2209:28 2212:28 2213:7,8 2214:8 2218:7 2220:5 2221:5,9,26 2222:4,5 2223:19 2224:6.27.28 2225:5 2227:11.12.19.20 2228:15 2229:14 2230:10, 12,19,23,27,28

price-discovery 2052:3

price-per-pound 2192:22 2193:2

priced 1971:12,16,17 1972:8,18 1973:26 1974:4 1987:20 1990:10,12,17 1991:26 1992:14 1993:4 2000:25,26 2015:28 2016:8 2021:18 2031:15,27 2032:7, 9,16 2033:11 2035:25 2057:4 2058:11,21 2062:17 2082:4 2085:15 2100:2,9,12, 14 2108:7 2125:4 2142:9 2146:23 2147:23 2164:19 2185:17 2188:17,22 2205:10,14 2206:8,9 2208:25 2214:7

prices 1973:5 1981:11 1982:16,17,19 1983:12,16, 17 1984:19 1985:2,6,14,22 1987:16 1989:1 1993:21 2006:10 2018:20 2024:9,12 2026:15 2031:6 2033:8 2034:12,13 2041:12 2043:16 2044:14,18 2045:3,6,8,19,21 2046:1,4,7,14,28 2047:2,3 2048:8 2050:24 2051:1,8,10 2052:24 2053:21 2054:14 2058:4,5 2059:10 2065:17, 19,24 2066:20,21 2067:13 2069:19 2071:10 2072:17,18 2082:22 2083:7 2084:9 2097:24 2100:25 2104:28 2105:10 2106:7,18 2111:14, 27 2119:19,24,25,27 2123:20 2129:1 2130:22,23 2135:21,23 2136:4,10,11,25, 27 2137:1 2138:22 2140:4,9, 15,16 2141:3,17 2144:18 2150:7 2152:22,23,27,28 2153:1 2154:10 2156:23 2157:3 2160:14.26 2165:5 2169:13 2170:18 2172:9.11 2173:5 2185:13,14 2187:12, 25 2190:16,21,24 2192:15 2193:1,19,20 2195:11 2196:9,18,26 2201:1,6 2206:22 2207:19 2208:8.19 2211:8,15 2212:11 2217:18 2218:20 2219:12 2220:18 2221:23 2223:18,21,23,25 2224:3,7,15 2229:1 2230:13 2232:7,8,16,17,20

pricing 1973:17 1975:24 1985:8,26 1986:1 1988:8,19 1989:5 1990:14 1992:9 1993:5 1995:10 2009:7 2010:5 2014:2 2020:2,3,11 2024:17 2029:19 2030:28 2033:16 2034:21 2035:15 2041:5,17 2045:13 2047:26 2048:1,25 2049:1 2058:27 2064:14 2081:27 2100:16 2105:14,26 2106:1 2121:3 2124:24 2125:6,11,14 2126:12 2136:22 2138:20,28 2139:7,8,10,26 2143:5 2148:3,7 2149:1,18,20,21 2150:28 2161:15 2163:10 2171:22 2183:11 2185:9,16, 21,25 2186:16 2192:22 2193:15 2195:18 2196:20 2201:5 2204:27 2205:23,27



2208:28 2209:1 2210:9,19 2211:8,27 2212:2 2214:4,18

2211:8,27 2212:2 2214:4,18 2216:14 2219:2 2221:15,20 2228:11 2232:22

primarily 2004:19 2070:1 2087:5 2130:12 2173:3 2204:10

primary 1979:2,5 1993:1 2029:22 2078:28 2086:21 2093:20 2094:24 2186:19 2192:17 2195:28 2196:2

principal 2210:10

principally 1982:6

principle 2075:3 2080:5 2092:21 2185:18 2210:17

principles 2185:3,7 2186:19 2194:22 2216:2

printed 2132:25

printouts 2234:22

prior 1971:15 2071:22 2145:2,19 2158:4,6 2159:4 2162:25 2165:10 2172:2 2173:24 2176:13 2184:16 2190:25

private 2086:7 2108:28 2188:27

privilege 2209:9

Pro 2068:18

problem 2018:24 2030:14 2098:1 2140:28

problems 2025:9 2045:27 2073:24

procedure 2049:24 2050:16

proceed 2064:8 2184:25

proceeding 2195:20

proceedings 2236:24

process 1976:10 1982:1 1983:11 1985:5 1986:19,25 2000:28 2004:7 2015:4 2017:5 2029:2 2104:27 2108:20 2123:19 2135:22 2138:16 2168:19 2169:14 2174:5 2191:11 2204:2,4 2205:24,26 2215:5 2222:25, 26 2223:1,15 2225:20

processed 1975:27 1986:7, 10 1987:10 1991:1 1998:6, 10 2000:23 2001:1,8,9,11 2005:1 2028:14 2051:18 2059:16,18,26 2071:26 2121:8 2137:22 2183:3 2192:19 2207:9,20 **processes** 2196:26

processing 1998:16 2001:19 2011:12 2046:5,21 2050:17 2051:23 2054:19,20 2068:11 2072:10 2076:28 2090:27 2107:3 2137:15 2154:2,3 2177:4 2195:8 2199:17 2215:16,23 2217:9, 26 2225:11,13,18 2227:15

processor 2052:8 2095:12

processors 1988:10 1990:24 1991:7 1996:20 2005:17 2015:19 2016:10,19 2217:22

procurement 2052:20 2182:7,15

produce 1971:23 1975:20, 26 2011:16 2027:13 2068:21 2078:24 2088:11 2186:1 2197:7.14

produced 2020:22 2032:4 2052:6,16 2060:4,25 2068:7 2070:5 2101:24 2121:25 2128:21 2136:27 2139:1 2152:23 2163:26 2188:3 2191:10 2196:16 2217:10 2218:11 2228:19.26

producer 2057:25 2228:27

producers 1983:17 1995:12 1996:14 2037:5 2041:14 2045:6 2053:27 2057:24 2065:10 2066:15 2112:9 2135:10 2152:24,28 2165:21 2166:1 2167:2 2174:4 2186:27 2189:17 2217:22 2219:3 2222:9

produces 1975:15 2068:17 2070:1 2192:9

producing 1995:25 2070:12 2088:10,17 2128:22 2191:1

product 1975:23 1976:16 1979:21 1981:13.14.23 1982:17 1983:11 1984:10, 18,23 1985:13,18 1989:4 1990:25 1991:22 1992:13 1993:20,24 1996:8 2003:19 2008:18 2013:1 2015:28 2023:1,9,20 2024:4,16 2025:4 2026:4 2028:24 2031:9,17,25 2034:23 2041:28 2043:15 2044:13 2045:4 2046:1,2,3,19 2048:9,10 2049:1 2050:28 2051:16,27 2053:20 2054:8, 9,12,28 2055:4,8,14,22,24, 28 2056:21 2059:3,15 2060:9 2065:17 2066:19 2070:23 2073:16,18 2075:1, 4 2080:10,12 2083:27

2085:3 2086:16 2088:21 2089:10,17 2090:2 2091:7 2094:9 2096:11,17 2102:13 2104:27 2105:25,27 2106:21,28 2110:17 2112:12 2117:7,8,19 2119:9,10 2121:4,17,21 2126:18 2130:25 2131:9 2136:7,8 2150:28 2165:28 2168:10 2182:10,11 2186:2 2187:3, 11,17 2188:7 2191:14,21 2192:7,9 2193:5,15 2194:5, 13,14 2195:11,22 2196:25, 28 2199:4,13,16,24 2207:3,6 2210:24 2215:27 2218:25,28 2222:27,28 2225:21 2230:12,28

production 1972:24 1975:19 1984:13 1992:5 1994:15 2000:20,21 2005:5,13,20,21, 22,24 2021:1,4 2022:23 2030:26 2035:25 2037:3 2048:15 2049:4 2054:27 2060:7 2061:17,18 2067:28 2068:3 2069:5,21,25 2070:7 2071:1,25,26 2072:8,9 2073:21 2075:10 2084:23,24 2087:14,23 2093:21 2094:16 2097:11 2099:22.23 2101:26 2102:17 2128:27 2130:20,21 2141:15 2145:12,13 2160:18 2180:13 2182:6 2188:10 2190:24 2191:18 19 26 2192:19 2196:1,28 2197:10, 11 2208:9 2222:14 2228:1

products 1977:13,18 1979:10 1981:11,17,20,27, 28 1982:2,6,10 1985:28 1986:8 1987:7 1988:3 1995:16 1999:6 2004:18.23 2008:17 2012:19 2016:17 2024:13,22 2031:18 2035:22 2041:6,25 2045:15,16,22 2047:1 2048:24 2051:11,21, 24,28 2052:8,14 2056:3,8,22 2057:5 2060:23 2064:22 2066:10 2067:26 2068:22 2069:7,23 2077:9 2080:3 2086:5,19 2090:7 2096:12 2097:21 2100:9,13 2102:11, 15 2104:25,26,28 2111:2 2118:7,17,28 2123:17,18,25, 27 2129:4 2130:14 2135:15 2156:26 2160:4 2161:19 2169:23 2170:22,23,28 2173:6 2180:5 2186:11 2189:10 2190:16 2192:1 2194:24,25,27 2195:2,5 2197:8 2198:23,28 2199:24 2218:11 2232:22

professional 1990:11 2000:16 2179:7,11 2181:1,3, 17 2184:1

professionally 2180:21

proffer 2155:27

proffered 1978:8

profile 2001:7,15 2028:11,27 2107:8

profit 2045:25 2051:13 2197:6,15

profitability 1973:1 1976:4 2197:11

profitable 1994:2

program 1988:25 2086:2 2092:15 2125:9 2136:7 2186:3,4 2194:3 2201:19 2217:21

programs 1972:21 2086:4,7 2093:3 2186:3 2201:1,7,21

Progress 2068:22

progressively 2182:16

project 2102:1

projected 2070:8 2101:27 2102:5 2138:4

projecting 2102:8

projection 2102:2 2236:17

projects 1997:8,11,19 2135:3

promote 2049:13,16 2138:24

promoted 2182:17

prompted 2226:9

promulgation 2183:14

pronounced 2067:5

proof 2125:12

proper 2001:13 2052:25 2141:21

properly 2109:13 2189:15 2218:8 2219:22 2220:10 2228:15 2230:28

properties 2127:12,25

Prophylactically 2164:11

proponent 2052:23 2190:22 2192:13 2193:17 2199:18

proponents 2006:27 2007:20 2052:19 2053:3 2191:2.5

proponent's 2194:6

proportion 2041:15 2167:19,22



proposal 1973:3,4 1978:27 1980:28 1982:1.4.28 1983:26 1984:6,20 1989:6 1990:9,19 1991:5,28 1993:2 1999:2 2007:4,7 2032:14 2034:3 2036:14,17 2040:5 2042:14 2043:14,15 2044:12 2046:12 2064:18,23 2065:9, 10,13,15 2066:4,5,8,13,14, 17 2067:11 2069:2 2072:23 2073:26 2076:26 2077:3 2078:2 2079:3,20 2081:5 2093:25,27 2095:25 2096:2, 19 2097:15 2099:10 2101:21 2104:26 2105:2,7,15,28 2106:24 2123:3,18,21 2125:15,19 2135:11,26 2136:2 2138:12,27 2141:26 2162:2,4,6,9 2164:26 2168:13 2173:13 2185:5 2186:22,26 2187:1,19 2189:12,18,19,21 2190:10, 12,17,18,20,26,28 2191:3,5, 9,22 2193:6 2195:19 2198:6, 8,16 2199:6 2201:24 2205:2 2209:12,15 2210:6,18 2218:23 2219:6

proposals 2064:24 2102:12 2123:11 2186:21 2235:27

proposed 1980:28 1983:18 1984:3 2044:26 2105:18 2136:19 2141:13 2168:15 2176:9,10,14,16

proposes 2066:9 2069:3 2190:13

proposing 2079:1 2210:7

proposition 2006:8 2156:3

proprietaries 2182:13

proprietary 1981:16 2088:16 2095:12

protected 2174:23

Protection 2186:4 2200:28

protein 1982:9 1983:1 1984:8,9,16,19 1985:11,14 1996:18 2007:28 2012:23 2013:8 2035:8 2044:17 2055:9 2057:7 2065:26 2066:11 2067:24 2069:4 2105:8 2135:14,28 2136:4,5, 13 2139:10 2140:3 2141:28 2142:7 2162:7,11 2165:19, 20 2172:20 2176:15,17,24 2177:9 2187:7,8,9,12 2190:14 2204:22 2221:5 2230:10,13 2231:1

proteins 2222:26

provide 1974:24 1986:2,21 2026:27 2039:8 2047:16

2048:4 2059:3 2067:7,23 2079:5 2134:2 2144:20 2147:3 2159:1 2163:17 2164:21 2165:9 2193:17 2198:20 2201:8,11 2230:18,

provided 1974:28 1988:13 2073:27 2194:13 2215:3 2216:9 2219:28

providing 2125:3 2134:20 2148:25 2150:7 2189:26 2196:23

provision 1978:25

provisions 2064:14 2210:19

provoking 2103:9

provolone 2023:8

proxy 2050:23

prudent 2076:25

public 2073:22 2095:13 2106:16 2134:28 2138:19

publication 2159:5

publicly 2124:18 2170:22

published 2041:13,14 2073:8 2074:10

publishing 2071:9

Puerto 2064:11

pull 2024:22 2222:21

pulled 1984:28

pulling 2207:20

pulls 2015:7

purchase 2027:20 2038:2 2053:4 2106:12

purchased 2113:1 2205:25 2226:19 2229:9,11,25

purchaser 2058:24 2127:19

purchasing 2058:13

Purdue 2180:26

purported 2048:4

purpose 2022:28 2031:7 2077:10 2079:13,22 2093:8 2094:24 2119:28 2142:4 2150:13 2160:26 2195:18 2199:2,3 2207:8

purposes 1985:6,21 2024:8 2050:24 2070:24 2096:28 2117:26 2124:12,23 2125:14 2126:12 2134:12 2151:2 2178:20 pursuing 2184:20

put 1973:14 1980:18 1996:28 1998:17 1999:10 2001:19 2002:3 2008:22 2009:1 2010:27 2011:7 2014:28 2016:4 2019:21 2020:9,13 2022:2 2029:1 2030:17 2038:25 2104:8 2107:8 2113:19 2150:27 2170:7 2186:26 2189:21 2190:12 2219:3

putting 1976:16 2109:24 2153:7 2156:2 2214:12 2230:26

O

qualify 2099:5 2202:23

quality 2094:28 2101:11 2127:5 2207:12

quanties 2194:5,11

quantify 2128:10

quantities 2070:6 2101:24 2125:7

quantity 1981:24 2086:9 2124:11

question 1972:8 1983:5 2007:2 2009:28 2021:15 2023:5 2033:7 2034:11 2037:9,23 2039:7,26 2055:2 2077:27 2081:7 2083:5 2084:10 2085:7,27 2094:14 2097:22 2105:11 2112:10 2119:2,15 2121:19 2143:16 2146:2,9,24 2147:2,5,13 2148:27 2156:11,13,14,16, 23 2157:12 2161:11,12 2164:9 2165:16 2166:25,27 2167:21 2170:24 2173:11 2198:11 2200:5 2204:28 2211:17 2216:11 2218:17 2219:4 2221:2 2222:13 2223:16 2225:25 2228:24 2230:20 2231:27

questioner 1970:12

questioners 2103:9

questions 1970:16 1978:4 2001:21 2022:7,12 2054:2 2056:26 2061:13,14 2080:28 2085:11 2091:10,16 2095:19,24 2096:1 2099:19, 20 2103:5 2112:11 2120:4 2126:5 2147:10 2156:2 2160:2,3 2167:4,6,9 2169:10 2173:17 2176:7 2177:11 2198:5 2219:15 2223:17 2226:5,8,9,28 2231:13 quick 2027:27 2043:20 2126:5 2175:18 2224:2

quickly 2179:6

quit 2023:16

quo 2079:7 2080:23,25,26

quote 2072:26 2097:9,14 2105:27 2150:26 2151:21 2152:20 2153:26 2157:20 2230:7 2231:17,18,19 2232:6,19,21

quoted 1987:13 2007:25,27 2154:25 2193:26

quoting 2093:8

R

R-E-Y-N-O-L-D-S 2134:1

R-O-G-E-R 2063:23

raise 1973:7 1980:12 2040:11,14 2063:10 2087:26 2133:9 2178:7

raised 2041:21 2080:6

ramp 2207:2,10

ramped 2189:7

range 1974:27 1982:24 2005:9 2032:13 2047:8 2089:22 2115:12 2191:28 2192:4 2194:12

ranges 1971:5 2142:21

ranging 1987:18 2053:16 2192:2

rarely 2036:7

rate 2137:24 2145:3

rating 2074:16

rational 1994:25 1995:24

raw 2068:16 2226:22.24.26

re-cross 2233:26

re-emerges 2207:15

re-enter 2067:19 2092:11

re-packaging 2127:2

reach 1972:22 2052:26

reaching 1983:8

react 1974:6 2215:22

reaction 2210:2

read 1981:3,4 2007:23 2024:3 2043:19 2063:27 2091:22 2101:9 2123:13 2153:14 2154:19 2156:13,



15,19 2158:21 2159:9 2171:13 2176:27 2186:24 2204:14 2209:11 2230:15, 22,25

readily 1986:27 2052:7

reading 2044:1 2142:11 2153:20 2155:14 2185:4 2230:8

reads 2060:3 2177:6

real 1977:2 2024:25 2034:20 2041:11 2079:13 2130:28 2224:2

realistic 2026:26

realities 2139:13

reality 1992:13 2058:4 2216:22 2229:27

reallocate 2211:13

reask 2228:24

reason 1972:15,16 1978:24 1990:13 1998:1 2014:13 2024:28 2029:3 2037:13 2058:23 2059:28 2069:27 2073:1 2081:26 2094:6 2125:10 2164:26 2202:8 2236:6

reasonable 2008:12,14 2052:9 2070:22 2077:2 2078:12 2081:11 2102:8 2217:27 2218:4 2236:16

reasoning 1983:7 2138:8 2141:11

reasons 1982:4 1984:22 1989:7 2000:15,17 2025:17 2029:11 2035:4 2053:19 2105:2 2106:24 2107:6 2121:11 2123:21 2125:15 2126:20 2127:9 2170:16 2197:18

reblends 2185:22

rebuttal 2234:27 2235:9,19, 21

recalibrating 2068:28

recall 1978:6 1980:3 2002:14 2009:18,23 2059:17 2076:17,19 2081:10 2082:10 2103:24 2132:27 2213:21 2231:20.22

receive 1981:17 2186:10 2188:7 2217:18

received 1978:4 1980:9 2042:8 2063:2 2103:15 2122:12 2131:15 2177:23 2195:9 2234:4 receives 2068:16

receiving 1976:21,24 1979:18 2134:27 2213:10

recent 1998:2 2011:1 2038:17 2052:19 2215:25 2219:3 2227:18

recently 2180:27 2210:10 2227:6

recipe 2130:17

recognition 2232:21

recognize 2035:20,21 2086:4 2126:16 2190:28

recognized 2139:19

recognizes 2192:21

recollect 2007:7

recollection 2008:26 2233:8

recommended 2069:13

reconcile 2055:25

reconfigure 2155:3

reconsider 2105:13

reconvene 2103:22

record 1970:3 1974:14 1980:8 1981:5 1984:13 2007:18 2022:22 2039:9 2042:7 2043:19 2048:4 2050:26 2063:1 2082:1 2086:18 2092:18 2095:7 2099:24 2103:12,14,17,19, 22 2122:11 2131:14 2132:2, 26,28 2133:3,4,28 2142:12 2153:14 2155:1 2177:18,21 2178:6 2179:1 2222:16 2233:14 2234:3

recorded 2001:20

records 2023:19

recovering 2061:7

RECROSS-EXAMINATION 2226:6 2231:8

red 2140:10

redeploying 2206:19 2219:11

redirect 1977:26,27 2039:3 2062:25 2103:1,3 2120:26 2131:4,5,6 2175:1,2 2233:27,28

reduce 1972:6 1984:17 1985:7,12 1988:7,28 1989:1 2029:18 2077:24 2162:2 2168:14 2187:10 2230:11

reduced 2135:24 2169:16

2189:14 2204:25

reduces 2080:20

reducing 1983:17 2078:18 2152:28

redundant 2123:9,10

refer 1971:11 2053:3 2104:20 2150:26 2172:10

reference 1979:12 1990:23 2054:15 2056:15 2083:19 2085:11,12 2092:9 2120:18 2124:9 2132:26 2138:11 2141:10 2143:26 2150:24 2151:12,21 2158:11,25,27 2170:26 2172:16 2174:2 2189:28 2192:7 2195:16,18 2196:12 2200:27

referenced 2121:3 2137:9 2139:14 2149:17 2156:27 2169:26 2171:20 2172:2

references 2136:5 2158:17, 18 2170:7 2193:18 2212:26

referencing 2085:10 2125:19 2143:24 2145:19 2220:22

referred 1981:12,20

referring 2002:9 2124:26 2161:9 2176:4 2177:7

reflect 1973:5,25 1989:4 2003:18 2020:2 2023:25 2026:8 2029:25 2031:8,9 2032:17 2036:17 2037:24 2041:25 2045:3,22 2051:11 2054:12 2069:1 2072:17 2102:14 2119:25 2142:17 2157:11 2183:22 2201:26

reflected 2050:19 2134:8 2142:19 2144:2 2173:14 2222:4

reflecting 2003:27 2059:9 2143:19 2187:26 2218:8

reflective 2017:20 2046:5 2125:11 2208:18 2218:6 2226:18

reflects 2003:26 2020:12 2036:16 2052:27 2188:1

reform 2037:26 2069:12,13 2070:7 2072:6 2077:23 2082:25 2101:25 2105:15 2136:20,23 2141:4

reforms 2044:21

refresh 1970:22

refrigerated 2052:15 2195:22

refrigeration 2050:10

regime 2233:18

region 2224:5

regional 2070:4 2220:7

regions 2223:24 2224:9

Register 2153:19 2155:2,22

regular 2036:11 2073:9

regulate 2049:13

regulated 2000:11 2015:15 2018:24 2020:23,24 2021:16 2024:26 2025:13 2030:25 2036:22 2037:4 2058:4 2173:27 2185:13,14,24 2190:16 2195:18 2196:19 2205:26 2216:14 2218:7 2224:27 2229:19,21

regulation 2048:18 2176:9 2185:10 2186:6,12 2217:24, 25 2218:14

regulations 2035:15 2047:16,18 2069:15 2186:7 2206:3 2218:9,11,20

regulatory 1993:9

reinforce 2073:23

reinforces 2137:3

reinforcing 2065:24

reject 2189:17

rejected 1983:21 1984:6 1989:6,7 1999:2 2044:15 2081:9 2105:3 2123:22

rejecting 2046:8

related 2165:26 2183:11 2190:18 2196:27 2212:10

relates 2046:7

relations 2135:6

relationship 1989:2 2026:7 2040:18,28 2160:22 2203:21

relationships 2167:11

relative 2006:3 2014:23 2037:24 2057:7,17 2128:25 2167:18,22 2188:6 2189:26 2203:14 2207:12 2208:20 2213:7,11 2220:18 2224:11 2227:3 2228:7

relevance 2201:2

relevant 2047:13 2152:19 2186:10

reliable 2067:21



reliably 2050:23

reliance 2065:23

relied 1982:11 2002:10 2046:6 2123:25 2124:12 2125:13 2148:24 2155:6,22

relies 1985:9

reluctant 1991:20

rely 2064:2

relying 1974:9 1976:9 2124:16 2144:1

remain 1975:17 1984:25 1989:10 2018:17 2020:6 2022:18 2028:21 2046:22 2121:3

remaining 2221:21

remains 1993:27 2057:26 2186:17 2188:5 2196:11,13 2197:3

remarkable 2001:17

Remarkably 2017:17

remarks 2063:28

remember 1976:5 1998:5 2005:24 2007:13 2009:19 2019:24 2023:12 2036:19 2063:21 2156:6

remembers 2226:4

reminds 2133:8

removal 2006:9 2040:27 2186:22 2188:7 2205:2 2210:14.21

remove 1991:8,21 1994:16, 23 2006:10 2066:28 2135:12 2141:26 2162:6 2165:18 2186:27 2187:2,20 2218:24

removed 1996:16 2025:28 2033:8 2049:21 2221:4

removes 2187:28

removing 1995:23 2003:12 2007:15 2187:27 2210:8,18, 22,23 2219:17 2221:20

repackaged 2127:14,15

repeat 2105:4 2161:12 2166:25 2167:21 2173:22 2221:1

repeated 2064:17

rephrase 2077:28

reply 2106:1

report 1982:17 2047:1,11 2051:21 2065:17 2066:10,19

2069:8 2096:17 2123:28 2136:9 2187:17

reportable 2048:5 2119:10

reported 1972:13 1984:25 2010:4 2012:21 2013:1 2014:12 2022:25 2023:20 2033:20 2046:15,18 2048:2 2053:8 2108:25 2136:8,17 2137:23,25 2143:3 2146:7, 20 2161:17 2171:26 2193:21 2194:9

reporter 1990:16 2044:28 2105:20 2148:21 2156:13 2235:12

reporting 2022:26 2023:15, 17 2069:23 2109:28 2111:14 2136:7 2141:16

reports 1982:21 2047:5 2102:3 2124:1,6 2125:10 2152:20

represent 1980:27 2010:7 2047:26 2064:19 2079:11 2167:18 2193:15 2194:14,28 2195:2,9,11

representation 1983:24 2030:1 2137:6 2174:7

representative 1984:9,11,19 1985:14 2008:1,10,15,16,24 2032:3 2045:17 2046:2,18 2054:8,28 2055:24 2065:21 2066:23 2071:8 2135:17 2139:12 2141:9 2142:1 2149:11 2150:1 2162:15,21, 23 2163:8 2166:20,23 2187:8,13 2196:14 2197:1,3 2230:13

represented 2074:4 2187:20 2198:18

representing 2002:15 2053:27 2091:19 2095:10 2112:9 2135:9 2142:8 2167:2 2187:18 2193:28

represents 2065:16 2066:18 2067:12 2099:23 2193:23

Republic 2180:14

republish 2073:8

request 1991:8

requested 2068:8 2112:15 2156:15

requests 1991:10 2189:17

require 2045:23 2051:12 2058:5 2071:19 2081:13 2096:18 2139:17

required 2049:26 2092:26

2141:20 2157:10

requirement 2071:18 2089:6 2098:6,10

requirements 2022:26 2051:21 2090:5 2114:14 2120:12 2125:1 2192:3,8

requires 2191:13,16 2193:24

research 2168:16 2184:12 2192:5

researched 2157:18

resembles 2090:9

reservations 2137:1

reset 2073:8

resolved 1983:6 2078:15 2105:11

resort 1976:16,17 2110:14 2111:13

resource 2215:9

resources 2012:17 2095:12 2225:11

respect 2044:11 2046:23 2075:19 2123:11 2143:4,5 2158:19

respectfully 2189:16

respective 2195:3

respects 2158:1

respond 1999:26 2083:3 2159:10 2225:26

responding 2014:26

response 2011:8,24 2014:22 2064:23 2065:9 2083:13 2095:28 2105:12 2226:28

responsibility 1977:16 1979:22,25

rest 2064:16 2070:1 2100:10 2203:22

restate 1994:8 2077:26 2162:10 2164:3 2214:19

restatement 1992:18

restating 2156:11

restaurant 2220:7

restricting 1998:21

restriction 1998:21

restrictive 2070:24

result 1998:3,25 2024:21 2045:16 2048:26 2057:26 2070:9,18 2077:22 2079:6

2108:13 2111:13 2126:28 2142:7 2188:9 2189:11 2197:16 2213:8 2214:15 2216:2 2222:24

resulted 2052:20

resulting 2046:1 2054:8 2055:22 2176:16 2192:6

results 1988:9 2092:17 2140:25 2165:18

retail 2061:22 2074:5 2094:19,20,24,25,26 2095:4 2098:12,19,24,26 2099:5 2129:12,23,27 2193:11,21 2195:12,28 2196:4 2219:23 2223:9

retailers 2094:26

retaining 1984:7 2187:6

retired 2183:5

retirement 2181:21 2183:7

return 1987:26 1997:3

reveals 1984:13 2010:8

revenue 1992:1,20,25,26,28 1993:1,7 1994:26 2000:3 2186:4 2200:28 2217:16

reverse 2092:25

revert 2080:17

revision 1983:28

reweighting 2079:4

Rexing 2236:13

Reynolds 2132:5 2133:11, 20,21,24 2134:1,20,22 2142:11 2144:9 2159:21 2175:4

Rico 2064:11

rid 2037:8 2119:18

right-sided 2031:5

rigorous 2023:10

rinsed 2049:18 rinsing 2049:20

ripen 2050:11

ripening 2050:9

rise 1978:27

rising 2074:24

risk 2016:10 2032:3,25 2033:5 2034:21,24 2035:3, 16 2059:7,8 2128:1 2129:10 2171:8 2172:28 2186:2 2219:27 2220:2

Index: reliably..risk



risky 2189:14

road 2130:8

Rob 2235:5,8

robust 1972:17 1984:25 2022:18 2079:16,19 2080:1 2106:6 2124:11 2189:25 2209:26

robustness 2079:24

Rochester 2001:11

Roger 2063:7,11,22 2076:8 2109:20 2116:5 2128:18 2166:16

role 1977:23 1979:16 1985:3 1993:18,19 1997:6 2003:27 2008:19 2019:2 2021:24 2036:28 2135:5 2148:3 2179:20 2180:20 2181:3 2185:9 2195:23 2199:23

roles 1999:6 2029:22 2184:6

room 2050:10 2064:5 2092:28 2166:17,21 2167:3 2198:18

Rosenbaum 1974:2 1978:4 1980:2,17,20,26 1989:23 2039:2,4,5 2042:4,11,24 2043:1,9,12,27 2044:4 2053:22 2062:26 2081:3,4 2086:24 2090:22 2095:21. 22,27 2103:23,24,27 2104:5, 6,10 2106:26 2109:4 2112:12 2120:27,28 2122:7, 14,20,23 2123:1 2125:25 2131:7,11,21,22 2133:5 2144:12.13 2147:7.17.18 2148:16,18 2152:13,16 2153:18,21 2154:21 2155:7 2156:1,12 2157:1 2159:16 2163:11 2167:5 2176:27 2177:27 2231:7,9,10 2233:25 2235:11,13,19,23,

roughly 2005:12 2010:6 2025:19 2040:1 2041:10 2065:16 2066:18 2067:3,12 2129:28 2145:23 2146:1,3, 26 2147:19 2156:18 2162:3 2167:27 2168:1 2171:3

routinely 2051:19,22

rule 2105:14 2202:25

rulemaking 2044:20 2069:14 2168:19

rules 2035:14 2176:10

run 2002:17 2072:3 2091:1 2160:10,19 2218:14 2221:17

running 1998:7 2207:3

Ryan 2053:27 2091:19 2112:9,19 2167:2

S

S-P-A-D-G-E-N-S-K-E 2236:12

S-U-E 2179:4

S]ince 2137:10

safety 2032:27

sake 2163:3

sale 1977:4,8 1982:23 2047:7 2094:25 2102:4 2110:8 2223:11

saleable 2052:11

sales 1971:27 1972:1,12
1977:7 1982:17,21 1984:26,
27 2010:24 2022:17,22
2046:15 2047:1,5 2051:21
2053:18 2065:17 2066:10,19
2069:8 2070:7 2086:1
2096:17 2101:26 2102:5
2106:2,4 2123:28 2124:1,7,
12 2125:8,9 2129:19 2136:9,
17 2137:8,22,28 2138:3,6,7
2139:16 2144:16,17 2161:17
2172:6 2175:10 2187:17
2190:4 2223:7

salt 2075:2 2085:26 2086:22 2090:23 2113:18,20 2126:20 2127:6

salt's 2113:19

salted 2049:22 2069:6,19 2070:14,20 2071:10,13,18 2074:7 2075:1,10,14 2085:24 2086:19 2088:4,11, 18 2090:18 2094:8,12 2102:18 2124:3,16,28 2125:5 2127:4,8,11,15,23 2128:2,9,20,22,27 2129:25 2130:20,25 2131:10

sample 1983:23 2023:10,23, 24 2137:2,5 2139:24

sampled 2003:13,14,16

sampling 2003:13

sat 2182:24,28

satisfactory 2079:5

satisfy 2217:10

satisfying 2096:28

save 2178:17

scale 2101:6,13

scanner 2095:5

scenarios 2165:25

schedule 2207:2

school 2181:24,28 2193:18

2194:3

science 2000:19 2134:27

scope 1971:20 2188:28

sea 1970:27,28

seal 2074:6 2094:26

season 2126:26

seasonal 1986:20 1987:12

2227:28

seasons 2225:20

secondary 2193:13

section 2064:17 2071:20 2097:23 2136:18 2176:13

sections 2104:19

sector 1989:9

seek 2197:6

seeks 2187:19 2190:20

select 2047:24 2053:27 2091:19 2112:9 2167:2 2169:23

sell 1992:11 1995:28 1996:10,11,23 1998:15 2011:6 2016:26 2024:22 2033:17 2034:26 2036:2 2041:25,28 2057:12 2060:14,15 2085:5 2108:10, 12,28 2109:3 2110:11,17 2111:5 19 2112:22 2114:20

2115:17 2157:15 2222:3

sell-by 2127:22

seller 2035:7 2053:15

sellers 2139:17 2150:10 2188:3

selling 1976:15 1990:21 1992:20,26 2001:16 2048:9 2111:23 2150:2 2206:1

sells 2023:4 2228:2

semisolid 2049:11 2050:4

sense 1973:2 1985:18 2000:2 2011:26 2024:4 2026:20,27 2029:28 2033:23 2034:3 2077:11 2090:13 2091:4,9

sentence 1989:17 2024:2 2054:5 2101:22 2125:18 2157:20 2158:28 2159:4 2170:25 2213:12,27 2231:17 2232:4

sentences 2158:22 2232:5

separate 1983:6 2071:10 2192:9

separation 2049:13 2050:5

September 1970:1 2095:8 2132:1 2142:22,25

series 1981:1 1983:1 2084:8 2136:6 2194:6,16,20

serve 1986:27 2051:14 2121:4,20 2181:9,13 2199:23 2203:9

served 2183:2 2203:4

service 1991:18 2054:23 2061:21 2069:11 2101:16 2110:26 2181:21 2193:12 2196:4 2219:24 2220:7

SESSION 1970:1 2132:1

set 1982:9 1983:12 2040:1,7 2046:6,28 2050:3 2051:1 2062:7 2065:17 2066:19 2067:13,25 2074:11 2082:21 2083:7 2084:9,25 2105:10 2106:6,11 2107:13,17,26 2111:27 2113:26 2120:3 2123:23 2176:24 2177:8 2185:15 2196:19 2218:7,20 2228:15 2229:2,17 2231:12

sets 1981:15,26 2104:24 2123:16 2226:12,14,26

setting 1985:4,5,22 1988:1 2024:8 2044:18 2045:28 2050:24 2144:17 2155:20 2186:7 2201:6

settle 2019:17 2058:3

severity 2227:24

shake 2206:28

shape 2021:19

shaped 2053:12

share 1975:16 2038:4 2069:21 2070:7 2101:25 2129:12,20,23,26 2187:16, 22 2201:25 2202:3 2209:14 2212:9

sharp 2114:7,8

sheds 2174:21

shelf 2052:15 2195:23

shift 2067:5 2160:6 2210:28

shifted 1989:2,3 2072:9

shifting 2182:4 2206:19



shifts 1989:3 2187:27

shining 1970:28

ship 2174:20

shipped 2001:19 2203:7

shirts 2166:19

shocked 2022:11

shocks 1993:9 1999:21

short 1981:4 2022:1 2028:13 2043:18 2047:24 2114:1 2118:10 2160:19 2166:2

short-term 1997:24 2031:9 2072:16,17

shortage 2226:20

shorter-term 2197:15

shoulder 1977:17 1979:22

shouldering 1977:15

show 1972:25 2171:8,16

showed 2140:5 2143:6

showing 2167:25

shown 1988:27 2138:2 2139:21 2175:9

shows 1988:14 2137:23 2140:11 2145:28 2157:20,21 2187:16 2227:10,25 2228:12

shred 2005:2 2051:23 2195:27

shredded 1982:8 1986:5 2114:7 2193:10

shredding 2196:4

shreds 1987:9

shrink 2188:8 2208:11

sic 2046:10 2147:25

side 2002:18 2016:28 2058:13 2130:20 2199:25 2208:17 2211:8 2220:13 2225:13 2226:15,24

sides 1974:18

signal 2011:25

signals 2015:5 2185:28

signature 2088:21

signed 2201:19

significant 1995:13 1996:19 1997:7,11 2013:28 2014:8 2024:18 2025:9 2033:21,25 2071:25 2072:1 2083:16 2087:4,6 2088:20,25 2118:12 2187:25 2195:26 2196:24 2201:18 2213:24 2216:11

significantly 1984:16 1985:12 2019:20 2020:18 2022:24 2187:10 2191:12 2193:28 2230:11

signs 2227:5,8

similar 2027:7 2047:11 2146:28 2160:5 2169:23 2185:27 2191:28 2193:3 2219:4 2226:25

similarities 2048:24 2165:23 2191:11

Similarly 2191:17

simple 1990:13 2016:15 2141:1 2222:13

simpler 2083:5

simplicity 1987:23 2163:3

simply 1985:25 1987:16 1988:2 1994:5 1998:18 2003:23 2019:14 2054:20 2055:4 2067:9 2073:19 2075:2 2107:17 2112:19 2144:21

single 1974:16 2051:26 2055:28 2073:16 2075:4 2082:4 2191:25 2196:25

single-serve 2193:27

sir 2063:17 2074:27 2092:8 2132:20 2161:25

site 2057:14

situation 1973:18 2080:22 2171:5,10 2214:13 2233:15

situations 2166:2 2226:20 2228:25

six-month 1993:26 2027:26

six-month-old 2028:12

six-pound 2062:1 2194:7

size 1971:5 1983:23 2003:13 2022:21 2023:23,24 2025:10 2062:9 2073:12 2099:5 2137:2,5 2139:24 2173:20

sizeable 2024:23

sizes 2067:3,19 2073:14,17, 19 2092:10 2098:12,20,25 2193:12 2196:5

skews 2100:27

skim 2057:12 2061:22 2065:26 2067:24

skip 1981:7 2064:16 2104:19 2169:11 2185:1

slabs 2049:15,17

slack 2072:5,7 2160:16

sliced 1986:4

slices 1998:9

slighted 2109:11

slightly 1981:14 2071:13

2072:12

slow 2148:20

slower 2091:2

slows 2028:5

small 1972:23 1987:21 2005:3 2010:26 2013:18 2017:5 2023:22 2027:27 2067:20 2069:21 2070:5 2101:24 2143:22 2166:18 2196:3

smaller 1972:9 1979:24 1986:5 2016:9,18,19 2021:24,25 2101:15 2108:5 2130:3 2139:24 2143:27 2171:25 2172:5 2193:11 2195:27 2201:18

smart 2028:3

smooth 2050:13

snack-size 1987:9

so-called 2088:14 2096:9

soft 2182:11

soften 2031:1

SOI 2120:10

sold 1986:5 1987:16 1998:10 2001:18 2051:22,25 2052:12 2070:4 2077:17 2086:3 2089:24 2094:18 2097:2 2098:24 2110:6 2111:18 2114:24 2115:4 2118:12 2119:17 2121:14 2126:23 2139:26 2149:3 2151:10 2157:17 2168:21,23 2193:7,13 2195:25 2196:1, 21 2199:16 2226:12,14,19,

sole 2138:14

solely 1974:10 2046:7 2048:12

solicitation 2052:20 2053:3, 6.11

solid 2192:23 2193:2

solids 1988:3 2048:17,20 2057:13,17 2136:4 2192:20

solution 2016:15 2029:24 2078:18 2080:20

solve 2037:1

sooner 2153:9

sort 2026:18 2076:20 2079:17,18 2097:8 2100:26 2127:18 2169:11 2184:1 2218:17

sound 1983:8 2010:9,13 2114:20

sounds 2094:4 2236:16

source 2093:23 2095:6 2102:6 2223:19

sources 2067:22,27 2073:22 2211:10,11

South 1971:2 1997:13 2189:8

Southwest 2063:24 2068:12

Spadgenske 2236:12

speak 2000:15 2030:13 2038:15 2061:21 2111:15 2128:13 2129:12,21 2154:15 2173:12 2217:5

speaking 1975:13 2115:19 2146:26

spec 2023:3 2033:19 2059:4 2060:13 2108:24 2109:27 2112:17,23 2114:16 2115:15 2119:11

special 2023:8

specialty 2004:3 2021:18,23 2071:14

specific 2022:28 2046:26 2049:5,26 2051:25,26 2053:13 2099:28 2115:18,20 2125:2 2127:5 2129:10 2147:10 2155:1 2156:9 2185:4,24 2186:20 2218:22 2231:23

specifically 1972:21 1976:21 2021:23 2044:16 2054:17 2056:2 2081:10 2091:14 2097:24 2124:5 2126:6 2142:27 2172:14 2173:13 2179:23 2190:2 2211:11 2218:2 2222:8

specification 2070:20,21 2090:21 2115:5 2124:21,22, 25 2126:7 2193:26 2196:25

specifications 2051:25 2070:25 2083:17,27 2090:20 2097:23 2105:23 2113:23 2115:12 2124:18 2192:7 2195:4 2196:8

specifics 2115:7 2185:4



specs 2024:20 2111:14 2112:26 2117:20

speculate 2018:4,12 2165:5, 12

speculating 2019:11 2033:3

speed 2207:12

spell 2178:28

spelled 2025:5

spelling 2133:27

spoilage 2107:19 2127:6 2128:1 2129:10

spoke 2019:3

spoken 2034:14

sponte 2133:2

spot 1991:9 1993:24,27 2065:28 2070:25 2072:17 2075:7 2082:11,17,18,20,23, 25 2083:1,8 2108:8 2110:8 2138:19 2185:21 2189:1 2220:24 2221:6 2226:17 2227:11,19 2228:3 2229:23

spread 1975:18,20 1993:14 1997:6,25 1999:16,22 2000:7 2009:21 2010:8,11, 25 2013:24,28 2014:9,14 2015:9,25 2016:14 2018:7, 23 2031:1 2041:8 2091:7 2140:8,14 2141:2 2142:18 2143:21 2157:23 2158:9 2163:15,20 2172:26 2173:8 2188:4 2189:4 2206:27 2207:14,18,21 2211:21,28 2212:11

spreadable 1982:7

spreads 2018:13 2030:7,10 2141:23 2207:18

spreadsheet 2013:16,19

spring 2021:11,14 2108:9 2207:19

sprinkling 2049:18

square 2068:15 2117:14 2119:23

squares 1998:8

squeaky 2004:28

stable 1974:13 1993:15 1994:24 2118:8 2129:21,24 2208:10 2210:27

staff 2135:7 2182:10

stand 1980:4 2039:8 2103:25 2132:7 2133:9 2145:15 2146:15 2168:9 2175:7 2234:9

standard 2000:27 2030:17 2046:14 2047:15 2052:12 2054:20 2055:3 2061:15,19, 24 2070:22 2073:2,4,14,18, 19 2074:8,11 2075:2,6 2080:8 2083:3,20,22,25,27 2084:2,5,21,22 2087:11,15, 17,19,21,26,27,28 2088:22 2089:7,20,21,23 2091:1 2094:9 2096:19 2097:3 2105:24,25 2106:20 2109:24,27 2112:25 2113:1, 20 2117:12 2118:2 2120:5,6, 8,13 2137:14 2154:2 2156:4 2177:3 2191:25 2199:13 2213:1 2224:17

standardization 2200:19

standardized 2105:26

standards 2073:4,7 2074:10,12,16,22,25 2084:8, 13,16,19,25 2086:5 2090:8 2091:13 2096:18,28 2097:3, 5 2107:9 2115:13 2124:3 2191:28 2199:12

standpoint 2035:12

start 1997:20 1998:1 2010:15 2035:17 2039:26 2063:16 2081:5 2085:26 2096:12 2144:15 2146:2 2157:12 2176:12 2185:6,12 2198:6 2199:7 2212:24 2221:17

started 1993:14 1999:16 2006:18,24 2009:6,7 2014:7 2019:17 2129:14 2134:24 2145:20 2178:5 2202:8 2227:27

starting 2040:1 2159:6 2183:25 2184:26 2186:24 2207:6

starts 1981:27 2009:3 2104:25 2123:12,17

startups 1998:2

state 1973:9 1975:2 2022:18 2118:26 2178:28 2180:10 2181:23 2183:15 2215:8 2222:16 2224:7

stated 1971:18 1974:3 2034:13 2088:24 2136:2 2138:27 2141:10,25 2143:24 2156:21 2159:7 2165:26 2168:2 2169:24,25 2173:22 2187:5 2189:12 2191:4

statement 1971:9 1975:8 1979:1 1992:21 1994:8 1997:4 2009:16 2022:16

2029:17 2033:13 2043:18 2054:2 2064:21,27,28 2073:22 2085:4 2098:3 2106:27 2126:10 2148:8 2154:17 2158:3 2167:5 2209:16 2210:12 2211:25 2216:13 2230:5,16,21 2231:22

statements 2054:3 2217:19

states 2039:14 2053:6 2064:11 2073:7 2074:10 2086:1 2096:25 2098:18 2128:3,7 2137:10 2139:1,14, 27 2146:5 2163:27 2173:26, 27 2180:8 2206:5 2231:18

stating 2133:27 2136:24 2137:4 2154:22 2156:20 2225:4

statistical 2162:19

statistically 2023:22

Statistics 2069:10

status 2079:7 2080:23,25,26

statute 2154:25 2155:14,15 2176:8

stay 2014:11 2015:20 2021:21 2027:5 2208:10

stays 2127:4

steam 2050:12

step 1980:1 1981:25 1982:1, 11 1985:5 1996:27 2002:9, 10 2017:4 2042:10 2063:6 2068:27 2104:23,27 2123:15,19,25 2131:17 2177:26 2234:8

steps 2049:3,5,26

Steve 1980:2 2039:5 2043:1 2081:4 2095:22 2104:6 2120:28 2144:13 2231:10

sticks 2053:4

stipulate 2202:24

stirred 2049:12,22 2050:5

stirring 2049:12

stood 2133:5

stop 1978:16 2074:14

storability 2196:18

storable 2052:7 2127:7,8 2188:2

storage 1986:15 2019:7 2067:4 2070:15 2124:3 2127:12,25 2128:19,27

store 2028:11 2060:28 2085:24 2124:27 2126:23 2127:4,20,21 2128:20 2129:9

stored 1986:10 1999:7 2052:14 2131:9 2195:22

stores 2130:4,5

stories 2227:8

story 2003:20 2027:24

straight 2025:21

straightforward 2052:3 2146:24

strain 2185:27

strategic 2135:4

strategy 2001:5 2184:16

Street 2039:10 2134:3

strengthen 2067:17

stress 2188:12 2215:3

stretch 2191:15

stretched 2050:13

stretchiness 2222:23,27

stretching 2050:18 2222:25

strike 2099:8 2146:11 2150:25

string 2053:4 2193:19,20,23, 25 2195:27 2222:22

stringiness 2222:27

strings 2053:12 2222:22

strive 2072:3

striving 2216:26

strokes 2146:17

strong 1991:15 1996:11 2001:3 2003:22 2008:27 2030:20 2126:15 2165:7

stronger 1999:10 2067:23

strongly 2024:28 2031:24 2072:27

structure 1973:15 1975:12, 13 2160:7 2170:2 2174:25

structured 2035:13 2140:24

structures 2160:5

2203:13

structuring 2136:21

struggle 1973:1

struggling 2162:22



stuck 1973:16

stuff 2013:18 2117:22 2236:7

style 2088:15 2096:9,10 2107:4 2130:12

sua 2133:2

subject 2049:4,25 2052:2 2090:26 2114:13 2124:18 2135:14 2190:19 2205:27

subjected 2049:8 2050:1 2205:22

submitted 2044:10 2063:27 2064:25 2135:11 2136:6 2191:3 2236:10

subsequently 1983:27

subset 2054:27 2091:27

substantial 1985:3 2070:9 2072:4 2073:21 2075:14 2080:10,11 2087:14 2089:9 2101:19 2106:1 2124:8 2125:7 2228:6

substantially 2070:8 2094:7, 12 2101:26 2158:10

substitute 2071:27 2130:16

substituted 2071:28

substitutes 2072:25 2075:10,11,12 2130:21

substitution 2072:8

subtract 2013:13 2200:24

subtracted 2013:10,21

success 1986:12

successfully 1986:20 1999:7

Sue 2178:8 2179:4 2209:8 2217:1,12

sufficiency 2138:14

sufficient 2048:25 2081:12 2106:6 2168:9 2176:3 2216:8 2217:26 2218:3,6

sufficiently 2105:24

suggest 2006:15 2008:24 2032:2 2088:1 2093:28 2216:1 2227:6 2229:5 2231:26

suggested 1978:25 2078:7 2152:28 2213:17 2227:1

suggesting 1978:10 2018:16 2109:23 2140:13 2157:22 2201:11 2210:9 suggestion 2190:15 2213:20

suggests 2071:12 2072:27 2139:23 2190:22

suitable 2107:25 2111:12 2195:17

suite 2047:25 2063:24

sum 2025:7

summaries 2102:5

summarize 2114:26

summarizing 1997:4 2176:28

summation 2056:16

summer 2021:11

Sunday 2062:5

supermarket 2068:10

supplanted 2082:28

supplied 2071:4 2097:14 2203:23

suppliers 2203:15,17

supplies 1976:8 2185:19 2227:28

supply 1976:11 1989:8 1993:5,8 1994:14 1995:7 1998:18 2003:18 2004:10 2005:24 2029:25 2032:17 2045:22 2051:11 2059:9 2111:25 2185:9,23,25 2187:27 2188:1,19 2189:9 2195:13 2206:12 2215:19 2216:13,15 2218:9 2224:24 2226:18 2231:19 2232:1,8,

support 2007:11,21 2008:22 2064:19 2069:11 2079:3 2080:2,5,13 2086:13 2099:25 2100:8 2135:11 2160:21 2163:6 2186:5 2198:16,19,24 2201:8,12 2217:21

supported 1986:24 2086:6

supporters 2007:3 2032:14

supporting 2156:3

supportive 2189:24

supports 2065:13,27 2138:14

supposed 2201:11 2228:10,

surface 2037:22 2049:21 2101:10

surplus 2028:21 2033:16 2052:6,9 2060:5,8,19 2108:9 2111:23 2196:17

surprised 2061:3

survey 1972:6,10,17 1981:27 1982:16 1983:3,13 1984:14 1988:28 1994:17 2006:2 2023:12 2024:12 2026:16 2028:22 2029:11 2032:2 2044:23 2046:10,14, 15,24,27,28 2047:26 2048:2, 4 2052:22 2054:14,27 2064:22 2065:22 2066:2,14, 24,28 2067:2,8,17,19,21,23, 26 2068:27 2069:8,9,24,25, 26 2070:11,24 2071:7,8,18 2072:21,23 2073:14,23 2074:3 2075:6,17 2076:14, 28 2077:7 2078:4,20 2079:12,15,16,24 2082:27 2084:9.11.28 2086:11 2089:15,16,22 2090:14,16, 17,26 2092:11,26,27 2093:23 2094:10 2096:6,13, 19 2098:3,9 2099:6,10 2102:22,23 2104:25 2105:10.16 2114:3.14.28 2117:16 2119:10,27 2123:4, 17,27 2126:19 2135:12,18, 25 2136:5,17 2137:27 2140:1 2141:16,27 2144:17 2145:13 2146:21,22 2147:21 2153:4 2161:4 2162:8 2168:4 2169:17 2170:22 2171:28 2187:17,20 2188:9, 15 2189:15,24 2190:21 2191:7 2192:14 2194:17.19 2200:3 2201:26 2202:4 2205:8 2208:14 2209:14,22, 26 2210:23 2229:26 2230:18

survey's 2137:8

surveyable 2055:4

surveyed 1972:10 1984:15 2002:15 2006:10 2032:4 2046:20 2102:11 2119:11 2124:7 2130:25 2135:15 2167:19 2168:10 2175:19 2176:3 2187:1,18 2190:23 2191:23 2193:7 2230:23

surveying 2198:13

surveys 1982:3 1983:5 1984:23 2026:26 2043:16 2044:13,17 2053:20 2056:5 2072:16 2080:3 2105:1 2106:3 2123:20 2124:19 2198:22

sustained 2185:21 2197:12

swear 1980:12 2042:24 2132:7 2178:6 Swell 2076:12

swing 2187:25

swings 2172:26

Swiss 2000:23

switch 2067:18 2075:13 2085:17 2092:10 2128:24 2130:19 2186:20

switching 2079:17 2128:26 2129:2 2186:6

sworn 1980:14 2063:12 2104:2 2133:12 2178:9,12

symptoms 2227:15

synthetic 2056:19,23 2159:2,8,12 2169:26

system 1985:20 2024:7 2039:15,18,21,26,28 2040:12,19,20 2041:1,3,4,9, 19,21,22 2045:2,4 2080:4 2108:23 2185:25,28 2188:28 2193:16 2196:20 2201:6 2214:4,18 2216:14,26 2217:14 2219:2 2228:10,11

systems 1992:9

Т

T-A-Y-L-O-R 2179:5

table 2009:19,20 2012:11 2038:25 2132:14 2138:2 2144:16 2145:28 2167:6,12, 24,25 2175:8,9

tail 1979:7

takeaway 2024:11 2028:19 2175:18

takes 2030:16 2062:11 2202:12

taking 2011:15 2033:12 2111:24 2159:1 2177:8 2208:21 2229:20

talk 1971:10,13 1972:14 1974:11 1976:5,12 2002:2 2020:25 2022:16 2027:18 2037:16 2061:17,27 2100:3 2143:22 2148:20 2150:13 2154:16 2166:12 2168:28 2170:3 2172:8 2174:11 2175:9 2177:12 2185:7 2186:21 2213:12 2215:2 2216:12 2217:24 2218:14, 23.26

talked 2011:10 2032:6 2033:9 2037:10 2110:10 2116:6 2118:21 2128:19 2156:5 2183:28 2222:19

Index: stuck..talked



talking 1979:6 2025:22 2026:14 2027:10,11 2037:22 2083:26 2084:2,5 2093:18 2094:8 2101:2 2120:6,13 2126:7 2127:17 2147:4 2149:19 2169:13 2173:3 2185:11 2198:6 2205:13 2212:25 2213:15 2217:1 2221:4 2224:24 2225:7,15 2231:14

talks 1972:28 2157:5 2216:17 2230:27

tandem 2188:21 2208:25

targeted 2091:12

targets 2091:3

task 2148:23 2162:27

taught 2181:28

Taylor 1970:13,15,17,19 1977:25 1979:7 2022:10 2038:6 2039:1 2061:4,10 2062:23 2063:7 2099:16 2102:27 2116:15.18 2120:23 2125:28 2126:1,4 2128:14 2132:22 2169:2,4 2174:26 2178:8 2179:4.11.12 2181:16,20 2183:10 2203:11,17,24,27 2204:1,26 2206:11,24 2207:1,16 2209:2,19 2210:13,16,28 2211:7,26 2212:6,13,17,19, 22 2217:13 2218:5.19.27 2219:9.16.21 2222:7 2223:11 2225:24,27 2226:2, 4,13,17,23,27 2228:20,24,28 2229:10,18,28 2230:20 2231:3,4 2233:8,9,21,24 2234:16,21 2236:2

Taylor's 2179:15

technical 2183:2

technology 2068:11 2070:21

temperature 2001:6 2050:11

temperatures 1986:14

temptation 2092:16 2093:4

ten 1996:10 2042:17 2164:4 2166:17 2167:3 2178:2 2235:14

ten-minute 2103:20 2178:1

tend 1971:19 1986:25 2015:14 2021:24 2110:4,6 2115:20 2121:22 2130:21

tender 1989:23 2125:25 2144:9

tendered 2053:22 2109:4

tenet 2185:17

tentative 1984:2,4 2105:17 2233:4,12,16

tenth 2180:11

term 1993:23 2110:4 2222:17

terminology 2233:11

terms 1977:4 2127:1 2145:12 2146:27 2147:23 2183:2 2185:3,6,12

territory 2214:7

test 2096:7 2102:19

tested 2213:22

testified 1980:15 2007:14 2046:9 2063:13,19 2104:3 2121:2 2132:23 2133:13 2143:3 2155:21 2178:10,13

testify 2007:1 2037:7 2062:15 2063:8 2129:8 2132:5 2142:10 2215:1 2234:17 2236:9

testifying 2062:20 2135:10 2154:18 2174:10 2222:10,11

testimonies 2000:13 2038:17 2165:10

testimony 1971:14 1972:18 1973:19 1974:22 1978:25 1980:28 1981:3,5 1989:12 1993:21 2002:2,8 2006:5 2007:11.20 2009:14 2026:12 2030:9 2034:10 2038:14 2039:12 2043:3,14,28 2044:1.10 2055:13.17 2058:19 2059:17 2063:27 2064:1,3,18 2069:18 2071:22 2072:24 2073:20 2075:19 2077:21 2081:18 2097:8,19 2099:27 2101:3,8 2104:20 2105:5,28 2109:21 2117:15 2118:26 2123:3,7, 10,13 2132:24 2134:5,13,21 2142:15 2143:20 2144:16 2145:7 2146:5 2154:20,21 2155:5,21 2156:15,27 2157:19 2158:7 2161:2 2168:12,17 2169:20,24 2170:7 2171:20 2173:24 2183:22,26 2184:25,26 2185:3,7 2189:26 2190:18 2194:6 2201:20,25,28 2205:1,12 2209:11,13 2212:24 2216:4,16 2224:28 2225:2,7 2227:10 2231:18 2234:18,23 2236:10

testing 2090:5

tests 2097:6

Texas 1997:13 2053:17 2180:11 2189:7 2204:8

texture 2028:6

theory 2090:23 2107:13 2160:4

thing 1977:19 1990:22 1993:18 1995:6 1998:5 2000:22 2014:6,27 2019:24 2023:21 2028:26 2031:22 2032:20 2035:7 2036:19 2076:27 2092:28 2093:2,20 2110:3 2112:13,19 2117:17, 25 2118:17,19,23 2119:5 2126:19,24 2168:5 2207:5 2219:20 2230:4

things 1972:12 1994:28 2002:1 2003:26 2017:4 2019:22 2032:5 2079:18 2084:16 2093:4 2095:5 2109:9 2112:27 2118:6 2129:13 2132:14 2144:5 2147:27 2168:7 2169:19 2199:25 2206:15 2213:16,18 2217:15 2220:14 2223:6 2224:24 2228:1

thinking 1994:11 2032:23 2043:25 2081:28 2109:8,12 2119:26 2213:22 2218:2 2226:21

thinner 2106:13

thinness 2136:21 2138:9 2152:3 2171:27

third-party 1977:4

thought 1973:14 1979:8 1991:4,23 2027:28 2028:3, 13 2029:20 2035:5 2038:16 2043:20 2121:11 2148:16 2168:6 2205:12

thoughts 1976:18 2103:10

thousand 2018:8 2175:20 2225:28

thousands 1971:7 2064:12

three- 1993:25

three-day 2061:8

three-year 2015:4

threshold 2139:18

throughput 2091:6

throwing 2096:12 thrown 2100:27

thumbs 2030:21.24

tie 2127:24 2172:17 2201:1

tied 2041:7 2158:1

ties 2035:11 2218:13

tight 2003:25 2036:8 2109:28 2227:15

tighten 2227:28

time 1974:15 1976:2 1979:14 1983:11 1995:20 1996:7 1997:16 2007:6 2009:6 2015:9 2017:23 2020:19 2021:6 2023:6,14 2028:4 2031:2,20 2035:24 2037:20 2038:4,15 2039:8 2040:9 2042:12 2043:24 2067:15 2069:9 2070:6 2072:6 2076:21 2081:12 2093:15 2101:25 2104:19 2107:22 2110:7 2111:28 2113:6 2116:17 2127:18 2131:19 2132:16,17,28 2140:7,21 2145:10 2150:16, 19 2158:12 2160:6 2165:11 2168:3 2169:28 2171:6.25 2177:28 2184:21 2197:6,17 2200:26 2203:19 2207:18 2208:4 2210:28 2211:2.6 2218:28 2227:13 2228:16,23 2234:1.8

times 1977:12 2000:20 2008:6 2015:20,23 2036:7 2099:22 2102:25 2137:26 2150:26 2171:13 2185:26,28 2186:5 2230:15 2232:7

timing 2203:14 2207:10 2227:25

titled 2013:21

today 1973:26 1983:9 1984:24 1996:6 1999:15,20 2002:25 2003:14 2019:6 2037:25 2039:28 2046:22 2055:5 2080:7 2081:19 2082:20 2083:6,10 2088:23 2090:11 2096:25 2098:19 2110:24 2135:5,9 2137:17 2142:10 2159:6,14 2163:28 2167:28 2178:17 2183:23 2187:14 2201:28 2208:20 2215:2 2219:27 2222:19

Todd 2038:13 2224:1

told 2126:26 2169:9 2197:27 2220:4 2222:8

tomorrow 2234:15,17,28 2235:7 2236:9,11

tons 2071:3 2097:13

tool 1986:23 1987:14 2025:19

tools 2059:6 2187:3 2218:25 2219:27 2221:16

Index: talking..tools



top 1997:16 2009:28 2012:6 2094:15 2123:8 2175:8 2221:28

topic 1974:2 2031:26 2122:15 2163:10 2164:20 2215:3 2234:24

topics 2131:18 2235:3

total 1979:25 1984:14 2000:21 2002:15 2003:1,13, 14 2023:23 2026:22 2030:1 2069:24 2136:13 2137:25 2138:4 2167:23,26 2168:1 2175:11,15,19,24

totaled 1984:26 2137:28

totality 2007:18

totally 2020:23 2155:18

totals 2069:22

tote 2062:14 2225:26

totes 2062:1,4,8 2226:1

touch 2181:16

tough 2015:20,23 2017:18

track 2086:12

tracks 2144:16

tradable 2118:18

trade 1975:9 1994:7 2106:9 2110:12 2124:17 2128:8 2179:19,21 2180:19 2181:3 2182:24 2183:3,4

tradeable 2118:20

traded 1985:17,19 2024:2,6, 13 2051:19 2052:2,4 2056:28 2060:16 2081:15 2082:5,9 2083:8 2085:20 2105:27 2106:15 2108:2,21 2118:28 2121:25 2124:14,18 2170:23

traders 2222:8

trades 2024:19 2057:28 2058:28 2080:9

trading 1985:25 2081:25 2111:1 2118:25 2136:21

traditional 1992:23 2097:3

traditionally 1995:16

trails 2140:24

transcript 2109:13

transfer 1971:27 1972:23 2057:24

transformation 2193:14

transforming 2137:21

transition 2026:14,16,18 2133:22

transitioned 2135:2

translating 2217:16

transmit 2217:22

transparency 2071:11 2196:23

transport 2204:5

transportation 2217:28

transportation-wise 1992:15

treated 2049:7

treatment 2125:12

tremendous 2039:13

trend 2069:27

trends 1987:12 2019:19 2164:4 2219:3

trim 1998:7 2028:8,9

trouble 1998:14 2028:25

true 1991:22 2007:17
2010:19 2011:11,14,26
2016:16 2017:22 2021:7
2027:9 2029:27 2032:17
2037:22 2048:14 2051:16
2058:16,22 2059:15,20
2060:24 2083:6,10 2088:23
2111:23 2115:2 2117:10
2121:17 2128:3 2150:4
2156:18 2165:19 2206:5

truth 1992:23

tubes 2021:28

Tuesday 1970:1 2022:11 2132:1

Tulare 1976:24,26 1977:21

tuned 2193:25

turn 2071:23 2123:12 2179:15

turning 1981:19 1987:22 2157:19 2184:25

tweaking 2071:17

two- 2015:3

two-thirds 2078:11,12,15,24

type 2025:22 2090:17,19 2191:22 2198:14 2211:27

types 1982:7 2031:18 2045:28 2046:9,16 2112:14 2139:3 2191:10,24 typical 2004:4

typically 1986:4,6 1987:7 2070:14 2106:9 2121:7 2139:5 2194:13 2199:21 2207:5,18

typo 2125:17 2151:4

U

U.s 1982:12

U.S. 1982:13 2002:11,12 2065:18,24 2066:20 2067:14 2069:6,9,21 2070:6,7,15 2071:2 2074:5 2087:11,15, 16,20 2088:11,22 2089:23 2090:12 2094:1 2097:12 2099:24 2101:25,26 2123:26 2129:7 2139:9 2141:27 2142:8 2180:15 2182:23 2186:14,17 2188:12,13 2206:3,6 2211:6,16,27 2212:4 2215:9 2216:10 2220:20 2224:26

Uh-huh 2098:14 2149:26 2221:27 2223:24,26 2224:13 2226:3

UK 2180:13

ultimate 2121:4 2197:16

ultimately 2076:27 2102:15

ultra-filtered 2057:13

uncertain 2138:21

uncertainty 2035:16

uncompetitive 2217:28

uncorrelated 2163:15

undergrad 2180:23 2181:25

Underlying 2194:18

underpricing 2214:10

underrepresented 2070:11

underrepresents 2069:8 2094:1

understand 1970:3 1973:22 2012:13 2076:16 2087:16 2088:6 2095:28 2097:19 2098:13,16 2109:3 2132:8 2149:1 2156:16 2162:14,22 2199:1 2230:22

understanding 1993:13 1995:18 2059:22,24 2060:26 2087:10 2089:5,19 2096:6,8 2101:4,14 2149:4,6 2152:1 2156:22 2157:6 2158:5,28 2161:11 2169:22 2171:2 2172:23 2175:14 2176:22 2207:1 2216:27

understates 2165:19

understood 1978:10 2039:12 2056:6 2151:18 2176:20 2205:12

undertaking 2053:13

underway 2007:9

undoubtedly 1985:28

unduly 2051:1

unfiltered 2057:14

uniform 1983:15 2048:28 2070:23 2105:24 2106:23 2124:18,21,22,23 2125:3 2126:7,11 2127:27 2152:26 2223:25

uniformity 2106:22 2191:26 2192:12 2196:8

unimpacted 1979:3

unimportant 2200:2

unintended 2026:2 2140:25 2172:8 2189:13

unique 1987:11 2045:3

uniquely 2074:4

United 2039:14 2053:5 2073:7 2074:9 2085:28 2096:25 2098:18 2128:3,7 2139:1,27 2163:27 2173:26 2180:7 2206:5

University 2135:1 2180:23, 26.28 2181:26 2184:22

unknowns 2033:2

unlawful 1978:9,12

unlike 2026:10 2037:25 2117:28 2170:27

unnecessarily 1983:16 2070:23 2152:27

unnecessary 2188:12

unregulated 1992:8 1994:4 1995:2 2015:14 2020:1,16, 18 2025:11,13,14,23 2027:1 2037:2,16,27 2038:5 2206:7

unrepresentative 2079:9

unsalted 2069:3,5,15,28 2070:2,5,12,16 2071:1,4,6, 10,13,15,19 2073:26,28 2074:2,8 2075:1,6,7,9,10,14, 16,17 2085:18,20,23,28 2086:9,10,20 2087:5,14 2088:18,25 2089:24,28 2090:4,11,12,15,18,28 2091:5,14 2093:28 2094:6

Index: top..unsalted



2095:24 2096:1,20,25 2097:11,14 2098:18 2101:22,24 2102:5,18 2123:3,19 2124:5,20,21,27, 28 2125:4,7,12 2126:8 2127:11,14,22 2128:2,4,7,8, 9,22,27,28 2129:6,15,20,26 2130:11,12,20,26

unstick 1974:7

unsuitable 2051:5 2106:17

untenable 1973:10

unwarranted 2195:20

unweighted 2194:12

unworkable 2045:2

up-to-date 2210:5

updated 2016:3 2194:17

updates 2189:10

updating 2186:16

Upper 1971:1 2200:7,10 2214:10 2227:9,27 2228:2

urged 1983:14 2152:25

URL 2124:10

usable 2051:17 2059:15 2126:11

usage 1987:3

USDA 1978:5,9,13,16,27 1981:22,26 1983:5,10,17,20 1984:6 1985:8,10 1989:7 2000:26 2006:9 2007:19,28 2022:26 2024:20 2025:5.15 2030:3 2032:1 2038:13 2044:15,19 2045:1,4,9,13,26 2046:8,22,26 2047:11 2050:26 2051:7 2052:19 2053:2,11 2054:6 2055:9 2056:11 2066:28 2070:28 2071:5 2073:8,10,27 2074:11 2079:20 2081:8,22, 24 2082:16,27 2083:2,7 2084:12 2093:12 2095:1 2097:10 2104:24 2105:11, 12,16,21 2109:28 2111:14 2116:18,21 2123:16 2124:3. 9,16 2135:11,12,28 2136:20 2137:7 2139:14 2140:2,3,9 2141:3,10 2144:17 2150:14 2151:13 2152:20 2153:23 2154:6 2156:20 2157:2 2158:14,28 2159:5,13 2170:17,21 2171:26 2182:27 2183:1 2187:5 2188:19 2189:17 2191:4,5,23 2192:24 2193:18.21 2198:20,22 2201:8,21 2217:19 2223:19 2224:1,8

2231:18 2232:6 2233:5,18

USDA's 1983:7 1984:22,28 2015:26 2033:19 2056:12,15 2083:13 2112:25 2150:27 2154:22 2187:21 2188:18 2232:10

USDA'S 2106:1 2141:4,25 2142:2

USDEC 2182:25

user 2121:23

users 2101:6

utilize 2055:9

utilized 1981:10 2049:1 2148:28 2150:6 2171:21 2172:3

utilizes 2139:7 2148:7

٧

valid 1983:9 1984:24 2046:22 2138:10 2156:27

valuable 2164:28

valuation 2141:21

value-added 2193:23 2195:7,27 2223:12,14

values 1988:1 2024:25 2029:26 2045:18 2195:13 2197:2,4

valve 2032:27

Vandenheuvel 2235:5,8

variability 2047:13

variances 2141:1 2158:9

variants 2047:16 2052:1

variation 2031:21 2192:17

variations 2113:11

varies 1988:11 2071:25 2229:3

varieties 1987:13 2044:22 2054:22 2153:3

variety 2000:14 2052:12,13 2068:22 2080:7 2084:12 2110:24 2111:2 2135:8 2192:1

vary 2130:2 2211:5,26

varying 2047:17

vast 2105:22 2116:21

vats 2191:10,12

vein 2185:27

versed 2155:5

versus 1988:16 1999:22 2010:5 2012:24 2013:3 2014:26 2015:18 2017:12 2027:12 2030:15 2034:13 2041:2 2049:4 2053:1 2057:17,22 2076:23 2086:20,22 2100:10 2102:18 2137:12 2144:22,28 2147:24,25 2153:28 2211:1, 23 2215:9 2230:23 2232:13

viable 1975:18

vice 2182:17

view 1979:4,15 1986:2 1993:3 2118:16 2143:25 2154:22

viewed 2000:26 2011:8 2129:8

violate 2073:15 2075:3

violated 2185:18

virtually 2190:15 2196:28

Vitaliano 2151:27 2156:1,21 2235:6,9 2236:5

voice 2015:25

volatile 1996:6,16 1997:6 1999:16 2010:24 2017:16 2018:17 2108:19 2118:14 2120:1 2122:1 2142:28 2210:27

volatility 1974:12,15 1987:25 2000:7 2010:17,21 2011:23,24 2017:9,20 2019:10,17 2030:11 2031:12 2032:26 2033:14 2108:14 2121:26 2142:17 2143:8,14, 25 2158:10 2187:25 2188:11 2206:20 2207:14,23 2219:13,17,18,19,21,24,26 2220:4,5,8,17,18

volume 1972:6 1984:15,17 1985:12 2003:1,13,14,15 2016:22 2022:17 2057:27 2065:16 2066:7,18,25 2067:7,10,12,21 2069:5 2070:10 2073:24 2074:2 2075:9 2078:5,8 2079:14,15 2080:10 2081:12 2087:13 2090:13 2096:15 2097:2 2100:16 2117:16,25 2124:17 2135:16 2137:8.24.25.26 2138:3,7,17 2139:28 2144:16,22,26 2145:4,18 2146:5,7,20,22 2153:19 2161:6,8,13 2163:21 2167:14,27,28 2168:1,3,4,8 2169:25 2171:2,24,26,28 2175:10,15 2176:1,3 2187:1, 11,14,18,20,22 2188:9 2189:15,25 2196:1 2208:7

2209:14 2224:5,11 2228:18, 26 2229:13 2230:1,11,18,24, 26,27 2231:27

volumes 1984:24 2022:21 2070:2 2086:13 2106:2 2115:24 2136:17 2137:7,22, 28 2138:6 2139:16,22,23,25 2146:14 2161:16 2172:1,6 2195:26 2196:21,24 2203:14 2223:13

voluntarily 1978:16,19

volunteers 2166:11 2197:26

vouch 2002:21

w

W-E-D-E-M-E-Y-E-R 2236:13

w]ithout 2105:25

wait 2077:2

walk 2012:14

wand 2078:23

wanted 1976:17 2029:9,10 2033:12 2092:23 2093:12,25 2103:8 2167:13,17 2212:25 2214:1

warm 2050:10

warmed 2049:7,28

wash 2144:5

washed 2050:6 2222:20

washing 2050:18 2191:13

Washington 2039:10 2063:26

waste 2068:9

watching 2005:28 2197:28

water 2042:15 2049:18 2050:7,12,15

wave 2078:23

ways 1996:23 2008:18 2014:20 2016:25 2017:9 2019:4 2032:7 2061:28 2062:2,5,6 2190:17

weakened 2036:12

weaker 2014:13

website 2068:1,2 2071:5 2073:10,11 2074:13 2132:24 2234:18

Wedemeyer 2236:13

Wednesday 2235:7



week 1976:6 1978:3 2026:12 2061:5 2101:8 2132:9,22 2151:28 2156:5 2173:23 2174:10

weekend 2061:8

weekly 1985:1 2136:8 2140:4 2194:18

weeks 2222:15

weigh 2183:27

weighing 2068:7

weight 2048:16,20,22 2068:10,28 2072:21 2077:24 2078:4,19 2162:2,5,11

weighted 1982:11 1988:18, 21 2002:11 2012:24 2013:2, 3,5,6,14,22 2014:4 2015:27 2017:11,19,28 2018:11 2136:14,26 2143:4,6 2152:22 2200:12 2223:22 2224:2,4,19

weighting 2032:2 2136:16 2162:17

weights 2080:21

West 1971:3 2179:9

western 2181:23

whey 1974:23 1981:18 1987:25,27 1996:2 2014:27 2017:5,6,7,8 2031:17,18 2045:11 2049:13,14,16,20 2050:5,6 2068:14 2082:7,11, 18,26 2083:12,13 2119:3,5 2170:28 2204:2,4

white 1982:25 1996:2 2023:15 2047:9

who've 2019:9

whole-fully 2174:15

wholesale 2139:25 2168:21,

wide 1986:14 2016:14 2047:13 2192:2

widely 1986:18 2047:17 2139:19 2158:5

widen 2141:1

widening 2189:3

wider 2188:4

widespread 2041:8

wild 2100:27

Wilson 2038:8,13,27 2169:9 2223:17,28 2224:1 2225:22

Windemuller 2236:14

wintertime 2128:28

Wisconsin 1971:2 1976:25 2011:1 2180:24 2181:14 2184:22

wisdom 2100:11

withdrawn 2166:27

witness's 2064:2

witnesses 1987:17 2026:13 2030:10,14 2032:13 2033:9 2043:21 2046:9 2062:19 2072:2 2085:6 2162:26 2173:19 2178:6,14 2197:21, 24 2234:28 2235:9,15,20,21 2236:4

women 2202:22

wondered 1976:12 2038:16

wonderful 2058:3 2076:27 2151:28

wondering 1971:10 1972:14 1975:5 2002:14 2024:10 2030:13 2099:24 2143:10,22 2165:20 2213:4 2221:10

word 1989:19 2076:13 2081:15 2123:12 2126:15 2154:6 2156:20 2219:15

worded 2056:5

words 1974:9 1985:10 1989:16 1992:17,18 1994:6, 16 2056:12,13,14,15 2080:18 2117:2 2155:3 2159:12 2165:27 2211:21 2214:20 2216:22

work 2035:6 2058:1,9 2092:19 2127:16 2134:22 2135:6 2164:15 2172:4 2179:22,24,25,26 2180:24 2181:7 2182:4,6,16 2184:10 2195:19 2220:15

worked 2130:8 2181:23 2182:9 2184:10,11,12,19 2233:23

working 2006:18,19,24 2007:10 2023:13 2134:25 2135:2 2151:5 2182:5 2189:5 2224:23

works 2014:20 2025:17 2027:8,25 2057:23 2058:8

world 1994:15 2029:23 2032:11 2068:18 2070:1 2089:1,7 2091:1 2107:25 2129:7

worn 2153:10

worry 2017:8

worse 1998:17 1999:4

worth 1996:2 2065:27 2100:18 2198:9 2199:28

worthless 2191:9 2198:8,10

WPCA 2014:28

write 2056:27 2059:14

writing 2043:25 2175:9

written 1984:3 2009:16 2064:18 2065:14 2069:17 2073:22 2097:20 2105:19 2123:2 2144:27 2218:22

wrong 2022:19,20 2040:26 2145:9 2233:11

wrote 2154:16

Υ

year 1975:28 1988:12,25 1992:3,6 1997:22,23 1999:4, 11 2000:10 2002:17 2009:22 2014:16 2017:15,16,21 2021:13 2030:15,20 2031:3 2069:23 2115:27 2121:14 2129:16 2143:11 2145:19,20 2167:26 2190:25 2214:11 2225:20 2227:8,24,26 2228:2

year-round 1997:14

year-to-date 2017:28

yearly 2030:7,12

years 1988:20,27 1989:2 1997:22 1999:23 2000:2 2003:22 2005:26 2010:14 2011:1,22 2012:25,26 2013:14 2014:1,6,17,27 2015:1 2016:1 2017:22 2019:6 2026:24 2028:1 2030:24 2037:26 2082:28 2086:13 2100:1 2115:25 2116:24 2135:21 2137:18,20 2138:5 2142:5 2145:26 2146:7 2158:4,15 2164:5 2167:23 2169:13,28 2170:1, 4 2171:4,10,12 2181:28 2182:21,23,24 2184:7 2192:5 2210:2 2233:1,5,18

yellow 2136:9

yield 1981:24 1992:4 2102:17 2196:27 2197:21 2198:22 2199:28

yields 2077:1 2090:27 2102:13 2191:20 2195:6 2196:8.9

York 1971:3 2180:10 2181:23



Ζ

Index: week..Zealand

Zealand 2211:10 2220:19

