

1 U.S. COMMODITY FUTURES TRADING COMMISSION (CFTC)
2 AGRICULTURAL ADVISORY COMMITTEE (AAC)

3

4 Wednesday, December 7, 2022

5 9:02 a.m.

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9

10 BEFORE:

11 Rostin Behnam, Chairman, CFTC and AAC Sponsor

12 Kristin N. Johnson, Commissioner, CFTC

13 Christy Goldsmith Romero, Commissioner, CFTC

14 Summer K. Mersinger, Commissioner, CFTC

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1 P R O C E E D I N G S

2 ACTING CHAIR WEYLS: Good morning. And
3 welcome to the CFTC's Agricultural Advisory Committee
4 meeting. As the designated federal officer and acting
5 chair of this Committee, I note that we have a quorum
6 with 34 members currently present, either in person or
7 virtually. And I hereby call this meeting to order.

8 I would like to extend a warm welcome to
9 Chairman Behnam, who is the sponsor of this Committee;
10 and Commissioners Johnson, Goldsmith Romero, and
11 Mersinger for attending today's meeting with us today.

12 This is the first Agricultural Advisory
13 Committee meeting with Chairman Behnam as the sponsor.
14 I would also like to thank our members and our guest
15 speakers for being with us today.

16 To begin the meeting, we are pleased to first
17 recognize Chairman Behnam for his opening remarks,
18 followed by the Commissioners. Chairman Behnam?

19 COMMISSIONER BEHNAM: Thanks, Brigitte. Good
20 morning, everyone. This might take a while because, as
21 Brigitte pointed out, it has been a long time since we
22 have gotten together. So I do want to thank everyone

1 for being here. I want to thank the new members, but I
2 will say all of this in my prepared remarks and look
3 forward to saying hello to everyone individually as we
4 have a few breaks between now and the close.

5 So, with that, good morning and welcome to the
6 first Agricultural Advisory Committee meeting of 2022.
7 The AAC fortifies the strong connection between the CFTC
8 and its historic responsibilities in ensuring that
9 America's farmers, ranchers, manufacturers, and other
10 commercial end-users continue to have cost-effective
11 access to CFTC-regulated markets to manage risk and
12 provides an active forum to discuss and address emerging
13 issues and impacts to the agricultural markets in near
14 real time.

15 Before we move into the substance of today's
16 meeting, I do want to thank Commissioners Johnson,
17 Goldsmith Romero, Mersinger, and Pham for participating
18 today and, of course, for their contributions to this
19 discussion.

20 I also want to thank today's presenters and
21 panelists. As you know, we have gathered together a
22 distinguished group of speakers. And their readiness to

1 participate is greatly appreciated.

2 And I also want to thank Brigitte Weyls, the
3 Committee's Designated Federal Officer. Brigitte joined
4 the Commission in 2008 and brings a wealth of market
5 knowledge and experience to the AAC.

6 I also want to thank the AAC members. Today
7 we welcome many new members to the Committee which was
8 recently reconstituted following its September 2021
9 expiration. You are here today representing a broad
10 range of interests and perspectives, which illustrates
11 the diversity of our agricultural markets. From
12 producers to consumers, credit servicers, major market
13 participants, including derivatives market
14 intermediaries, and exchanges, and representatives from
15 the U.S. Department of Agriculture, our 35 members will
16 draw on the depth and breadth of their market expertise
17 to provide diverse and invaluable insight into the
18 issues of greatest impact and concern. I understand
19 that your service on this Committee is in addition to
20 many obligations at work and at home. I appreciate your
21 commitment to ensuring the CFTC remains fully informed
22 as to what is affecting members and participants in our

1 agricultural markets so that as we consider regulatory
2 and policy steps aimed at addressing issues and
3 improving market structures, our efforts are targeted
4 and effective. I look forward to continuing the
5 important work of this Committee.

6 The Committee last met in June of 2021. At
7 the time, we were beginning to recover from the pandemic
8 and examining the uncertainty and significance of supply
9 chain disruptions. Since then, significant volatility
10 has remained a fixture in many of the agricultural and
11 related markets due to the ongoing recovery as well as
12 growing impacts of extreme weather events and
13 geopolitics. To provide a baseline for us to consider
14 throughout today's meeting, we will begin with a
15 presentation by Dr. Cynthia Nickerson, Deputy Chief
16 Economist with the Department of Agriculture, on the
17 agricultural economy with a focus on the impacts of
18 weather-related and geopolitical events.

19 Extreme weather events in the U.S. and across
20 the globe continue to impact crop and livestock
21 production resulting in supply shortages and price
22 increases on everything from butter to baby formula.

1 For example, at the AAC's last convening, David Rossen,
2 global hedging manager for cotton at Louis Dreyfus,
3 reported that global futures and cash prices for cotton
4 had plummeted when the textile industry ground to an
5 abrupt halt during the pandemic. Now droughts worldwide
6 are causing the smallest cotton yields in over a decade,
7 with prices increasing but tempered, in part, by
8 warehouse supplies. However, the loss of crops is
9 devastating. While crop insurance helps farmers,
10 thousands of jobs throughout the supply chain will be
11 affected from farm workers and truckers to cotton gins
12 and warehouses. It all then trickles down through the
13 economy to the small-town businesses, where impacted
14 employees spend their paychecks to the regional banks
15 that hold their mortgages and auto loans. Even if crop
16 yields rebound, affected regions, such as the Texas High
17 Plains, will take years to recover, especially in small
18 towns whose economies are especially dependent on
19 cotton.

20 The livestock markets are also being hit hard
21 by extreme and unpredictable weather, and the impacts
22 will likely be felt for years to come. With ranchers

1 making the difficult choices between bringing in
2 expensive feed to supplement pasture loss or thinning
3 their herd, this year the livestock market has
4 reportedly auctioned off nearly 20 percent more cattle
5 than it did at this point last year. With so many
6 ranchers selling animals ahead of schedule, predicted
7 cattle shortages will likely mean higher beef prices in
8 the future. There are, however, sustainable
9 agricultural plans and programs being implemented by
10 stakeholders across the ag community to address these
11 issues. And we will explore sustainability in the
12 agricultural supply chain with a presentation by Scott
13 Herndon, president of Field to Market.

14 As severe drought continues to cut river
15 traffic through vital transportation arteries like the
16 Mississippi River basin, half of all U.S. grain exports
17 and roughly 500 million tons of goods annually are
18 estimated to be impacted, which could cost the economy
19 \$20 billion in damages and losses. With a majority of
20 food distribution in the U.S. being tied to the river at
21 some point, this suggests that cost increases to
22 shipping companies will ultimately reach consumers at

1 the grocery store. And again, there are impacts to
2 cities all along the river whose workers and businesses
3 depend on the steady flow of traffic.

4 Since droughts historically occur less
5 frequently than floods, it has been pointed out that
6 federal resources and alternative compensation are
7 simply not available to businesses that are equally
8 harmed by drought. As the frequency of these extreme
9 weather events picks up, there is an increasing call for
10 policy solution at the national level. On these issues,
11 we will hear from Jessica Stephan, Chair, National Grain
12 and Feed Association Waterborne Commerce Committee; and
13 former CFTC Commissioner Tom Erickson, of Erickson Law
14 and Consulting, on the increasingly critical domestic
15 and international shipping, freight, and storage impacts
16 of the grain trade.

17 The impacts of weather and the fallout from
18 the pandemic have been amplified this year by
19 geopolitical events. Russia's aggression against
20 Ukraine has led to extreme uncertainty in the global
21 markets for energy, agriculture, and metals, often
22 leading to unanticipated movements in commodity prices

1 because of shifting market sentiment. Any decision at
2 any time can and could move markets in extreme ways.
3 This is coupled with shifting monetary policy tightening
4 by the U.S. Federal Reserve and other principal
5 economies around the world, aimed at slowing inflation
6 levels, and, in doing that, resulting in macroeconomic
7 effects on the same commodities and associated consumer
8 and producers more generally.

9 Price movements in these markets are for those
10 outside of this country further affected by exchange
11 rates, with the U.S. dollar recently rising to a 20-year
12 high against many other major currencies, putting
13 additional upward pressure on price increases. While
14 this trend may provide an offset to inflationary
15 pressures for companies that rely on overseas sales and
16 exports for revenues, a strong dollar environment can
17 mean lower earnings, compounding the negative impacts of
18 higher U.S. interest rates and inflation. Supply-side
19 decisions bring us to a final factor in energy price
20 pressure and uncertainty, with OPEC's recent decision to
21 decrease production by two million barrels per day, even
22 while the Ukraine invasion continues having knock-on

1 effects across all commodities.

2 According to the OECD, Russia's aggression
3 against Ukraine has undermined the latter's capacity to
4 harvest and export crops, sunflower seed and wheat among
5 them. Russia plays a key role in global energy and
6 fertilizer markets, acting as the world's top exporter
7 of natural gas and nitrogen fertilizers, and the second
8 and third leading supplier of potassic and phosphorous
9 fertilizers, respectively. Since the agri-food sector
10 is highly-energy intensive, the reduced export capacity
11 and rising energy and fertilizer prices translates into
12 higher production costs, further increasing food prices
13 and threatening global food insecurity.

14 What does all of this mean for our
15 agricultural derivatives markets when it comes to the
16 potential for market disruption? Later this morning, we
17 will hear from Tim Andriesen, managing director for ag
18 products at CME Group, with an overview of how the
19 agricultural derivatives markets have addressed the
20 impact of these geopolitical events through evolving
21 price limits in the agricultural markets.

22 Understanding and discussing the impacts of

1 extreme weather events and geopolitics and the ongoing
2 recovery from the pandemic and how these market forces
3 will continue to impact American farmers, ranchers, and
4 other market participants throughout the ag supply chain
5 is crucial and highlights the importance of this
6 Committee.

7 We have an aggressive agenda for our short
8 meeting today, and I look forward to hearing from all of
9 you during the discussions that accompany each
10 presentation. And I also look forward to using our last
11 session of the day to scope the AAC's agenda for 2023.

12 Before moving forward, in looking back on the
13 last several years of historically high volatility in
14 response to the global pandemic, various extreme weather
15 events, and geopolitical issues, the ag futures markets
16 have continuously provided transparent price discovery
17 and accurately reflected supply and demand fundamentals
18 with convergence at expiration. Our goal should not be
19 limited to ensuring that the derivatives markets
20 continue to serve their risk management and price basis
21 functions. We should examine and explore ways that we
22 can build even greater resilience, usability, access,

1 and availability into our markets and market structures
2 so that the benefits can reach the widest breadth of
3 potential users and market participants. If there are
4 ways in which our coming together can benefit the ag
5 community beyond direct derivatives market participants,
6 whether through developing policy recommendations or
7 through strategic partnerships, then we should all
8 collectively explore these issues and opportunities.

9 Again, I wish to thank all of you for being
10 here today: our participants; our distinguished guests;
11 and, of course, my colleagues at the CFTC who have
12 worked in front of and behind the scenes to bring this
13 meeting together.

14 Thanks and look forward to the discussion.

15 ACTING CHAIR WEYLS: Thank you, Chairman
16 Behnam.

17 Commissioner Johnson?

18 COMMISSIONER JOHNSON: Good morning. I am so
19 pleased to welcome so many of you joining us in the
20 building today and virtually for the Agricultural
21 Advisory Committee meeting. I want to thank Chair
22 Behnam and Brigitte Weyls, designated Federal officer

1 for the AAC, for their efforts to organize today's
2 meeting. I look forward to hearing from and learning so
3 much from each of you today about the topics outlined in
4 our meeting agenda.

5 The CFTC's role in price discovery and market
6 oversight is critical to ensuring the stability and
7 integrity of agricultural markets. The safety and
8 soundness of agriculture markets is a top priority for
9 this Commission, and this commitment is especially
10 critical during times characterized by persistent
11 volatility and risk, inflation, and geopolitical events
12 that deeply impact the prices paid for raw materials and
13 basic resources that fuel production in agricultural
14 markets as well as pricing of deliverables.

15 The Commission plays a key role in reducing
16 market volatility and mitigating risk by ensuring that
17 our derivatives markets are fair and transparent,
18 promoting responsible innovation, and protecting end-
19 users through enforcement.

20 Over the last several years, as the Chair
21 mentioned and each of you is deeply familiar with, the
22 impact of the continuing COVID pandemic, geopolitical

1 events in Europe, inflation, and a number of other
2 macroeconomic conditions have led to increasing
3 unpredictability in the prices for agricultural
4 commodities and food insecurity in a number of regions
5 around the world. On March 11, 2020, the World Health
6 Organization declared COVID-19 a global pandemic. In
7 the period immediately prior to and following WHO's
8 declaration, markets witnessed unprecedented volatility
9 in the prices for critical inputs. For nearly three
10 years following this announcement and the onset of
11 COVID-19, speculation, uncertainty, and volatility have
12 continued to characterize markets.

13 The sustained periods of volatility have
14 created enormous pressure for many markets and unique
15 challenges for agricultural markets, disrupting supply
16 chains, prompting surges in demand for agricultural
17 resources or periods of decline in prices, and reducing
18 fundamental supplies. Coupled with these events, the
19 pandemic, geopolitical events, including Russia's
20 invasion of Ukraine, have triggered further disruptions.

21 For months, we have witnessed precarious
22 uncertainty surrounding the production, distribution,

1 and pricing of a basic food source: wheat. Reduced
2 access to energy exacerbated production and distribution
3 challenges. A sustained drought, including limited
4 transport along the Mississippi River and skyrocketing
5 prices for fertilizer, have further created further
6 challenges. Other factors have also contributed to the
7 tightening of supply and the rise of prices, including
8 challenges in China's pandemic response.

9 I would highlight at this point that many of
10 you are tremendously familiar with all of these issues,
11 but I would like to acknowledge comments raised by a few
12 of you, in particular, who have been here to visit us at
13 the CFTC since we arrived, our newly empaneled
14 Commission. Commodities are vital for livestock feed
15 that have also been deeply impacted. For instance,
16 global wheat production creates challenges for producers
17 of many agricultural products. We are thoughtful about
18 the extent to which we spent time here at the CFTC
19 meeting with the National Farmers Cooperative and
20 others, discussing some of these challenges. If we
21 began at the beginning, we would note that the CFTC's
22 oversight of agricultural commodities began almost a

1 century ago, when Congress enacted the Grain Futures Act
2 in 1922 and later expanded oversight with the adoption
3 of the Commodities Exchange Act in 1936. Thereafter,
4 Congress has continued to reinforce its expectation of
5 our commitment to oversee and monitor pricing and risk
6 in these markets.

7 The Commission, as I noted, plays a critical
8 role in derivatives markets by overseeing exchanges that
9 allow for price discovery and risk mitigation in
10 futures, options, and swaps markets. The CFTC's mission
11 is to protect and ensure orderly markets; foster, as I
12 mentioned, responsible innovation. And to achieve these
13 goals, the CFTC has a number of specific
14 responsibilities that I am personally committed to
15 ensuring we effectively evaluate over the course of our
16 tenure as a Commission; monitoring trading activity;
17 conducting investigations into potential violations of
18 the CEA; educating the public; and providing guidance to
19 market participants. The CFTC collaborates with a
20 number of financial regulators around the world, as the
21 Chair intimated in his opening remarks. And we also are
22 deeply thoughtful about the necessity of engaging all

1 stakeholders as we're mindful about the creation of
2 policy and its impact on markets.

3 Today, agricultural markets face new
4 challenges but remain resilient due to market structures
5 and principles established over 100 years ago. When the
6 question arises of how we are going to feed the world's
7 nine billion people, all eyes turn to this community.

8 I would also just note quickly that the CFTC's
9 work in this space as we engage all stakeholders must
10 contribute to the building of a sustainable future. The
11 Commission must work with all stakeholders to promote
12 responsible innovation that effectively ensures
13 sustainability. The American Farm Bureau Federation
14 reports that greenhouse gas emissions are going down in
15 the livestock sector as farm efficiencies increase. The
16 AFBF also notes that American farmers and ranchers are
17 leading the way in sustainable practices that reduce
18 emissions, enrich the soil, and protect our water and
19 air, while producing more fiber, food, and renewable
20 fuel than ever before.

21 To build a sustainable future, we must all
22 work together. We must maintain an open dialogue with

1 all stakeholders to find innovative solutions that
2 address the macroeconomic challenges that face the
3 agricultural industry today.

4 To ensure the Commission's policy decisions
5 are well-informed, this and many other discussions are
6 necessary. A part of the Commission's mandate is to
7 support the community that is represented here in the
8 diverse stakeholders and voices around this table and
9 joining us virtually. Innovation is important, but it
10 shouldn't come with the negative costly impacts that
11 harm commercial end-users and hedgers.

12 I want to highlight here that I spent some
13 significant portion of the summer, a week, traveling
14 through Texas, visiting farmers and ranchers, and
15 discussing with them the challenges that they faced in
16 the context of ensuring sufficient fertilizer for crops
17 in the context of ensuring or making hard decisions
18 about how best to use the resources that are available
19 to them.

20 One farmer, a really fantastic woman who has
21 taken over her family's -- rancher -- sorry -- who has
22 taken over responsibility for her family's ranch,

1 described the very difficult decision to continue with
2 production as they have over the last several years or,
3 as the Chair intimated, to acknowledge the challenges
4 and costs of feed and, as a result, reduce their
5 livestock inventory.

6 I believe that there are a number of policy
7 approaches that could have a positive impact in the
8 agricultural community. I am excited to work with the
9 Chair and the members of the AAC as we begin to discuss
10 and explore some of those solutions today.

11 In addition, the Commission has undertaken
12 under the Chair's leadership a number of initiatives
13 that I believe are important and directly impact the
14 agricultural industry. I believe the agricultural
15 industry is in a unique position to inform our thinking
16 about a number of issues that we began as a Commission
17 to explore, including our RFI soliciting feedback from
18 the community on the best ways to attempt to address
19 climate-related risks that face our markets as well as
20 the voluntary carbon market convening held earlier this
21 year, on June 2nd.

22 I am grateful that the Chair is deeply

1 thoughtful about ensuring that the community's voice is
2 heard and included in these discussions. I believe that
3 any legitimate solutions and longstanding sustainable
4 solutions will be the result of the conversations we
5 have today and many others. The Commission is deeply
6 thoughtful about the extent to which emerging
7 technologies will impact all of our markets,
8 agricultural markets included, in the long run.

9 I believe it's important that we think
10 carefully about efficient, cost-effective ways to
11 transport and track commodities across the global
12 economy, but we must also be mindful of the dangers
13 presented by these emerging technologies, such as
14 blockchain and digital assets.

15 In conclusion, I believe a key to building a
16 sustainable, vibrant agricultural market is for the
17 Commission to do, as we are doing today, to engage
18 directly with stakeholders; to ensure our derivatives
19 markets are fair and transparent; promote responsible
20 innovation; and aggressively pursue bad actors.

21 I again thank the Chair for his leadership and
22 my fellow commissioners as well as Brigitte and the AAC

1 members for joining us in today's meeting. I look
2 forward to hearing from many of you and learning so very
3 much about the issues that are deeply impacting our
4 agricultural markets.

5 ACTING CHAIR WEYLS: Thank you, Commissioner
6 Johnson.

7 Commissioner Mersinger?

8 COMMISSIONER MERSINGER: Good morning. It's
9 great to see so many folks here in person and also those
10 of you that are joining us virtually. I appreciate
11 having everyone here today. I want to say thank you to
12 the Chairman for holding this important meeting.

13 There are a lot of topics to discuss today.
14 And I am certain the meeting will be extremely
15 interesting, and I am looking forward to hearing from
16 those who will present before the Advisory Committee.

17 As many of you know, the agricultural
18 derivatives markets we regulate at the CFTC are near and
19 dear to me. The markets, the agricultural markets, are
20 truly the backbone of this agency, just like agriculture
21 is the backbone of our economy. Well-functioning
22 agriculture derivatives markets have a direct impact on

1 the prices for consumers from everything to the
2 hamburger that you buy at a fast food restaurant to the
3 cup of coffee many of us require to start our day or
4 maybe two or three. These issues certainly relate to --
5 they are truly pocketbook issues that hit everyday
6 Americans.

7 Today's agenda for the AAC hits on a number of
8 issues that are top of mind for those in production
9 agriculture. From the economic impact agriculture faces
10 from extreme weather to the risk of market
11 destabilization caused by unpredictable geopolitical
12 events, the topics discussed today will paint a picture
13 of the hardships and hurdles that this sector must
14 manage day in and day out.

15 I know I have said this before. Many of you
16 know that I grew up on a farm, where my family is still
17 back in South Dakota farming. And I remember when my
18 dad would come home at night from the fields. If I was
19 still awake, I would often ask him, "How was your day?
20 How did today go?"

21 And many of you who have been around the farm
22 community and farmers will know the answer is usually

1 something like "Well, hopefully tomorrow is better."

2 And I used to get really upset and say, "Can't you be

3 more optimistic? You know, it's a very pessimistic

4 outlook on life." But the more I think about it, I

5 actually think that's a very positive perspective. My

6 dad knew that the storm clouds would clear. He knew

7 that the yields would increase. And he knew that prices

8 would eventually go up. And I think anyone in

9 production agriculture, you have to have a positive

10 outlook on the future. Otherwise, you would probably

11 give up on farming the first year you were involved.

12 But with so many factors out of your control,

13 optimism might seem misguided. But it is really the

14 grit and strength of those in the agriculture industry

15 that keeps them going in their rough times. I think it

16 is also the ingenuity in this field of the economy,

17 which brings about new technology advances that improves

18 everything from the types of seeds that are planted to

19 the equipment used to harvest. This ingenuity is also

20 at work in identifying new ways of farming and new

21 opportunities for revenue on the farm, and I believe we

22 will see this reflected in the presentation on

1 sustainable agriculture today.

2 Finally, our role at the CFTC is to make sure
3 that the agriculture futures markets serve their role
4 with price discovery and risk mitigation. Hearing
5 directly from the exchange about price limits and how
6 they have evolved in the ag markets and fully
7 understanding how well those markets are meeting their
8 intended goals, especially during volatile times, will
9 be very helpful. And I appreciate the focus on that
10 today in the agenda.

11 Each of the five advisory committees at the
12 CFTC provides numerous benefits to the public and to
13 this agency. And, as I have said before, government
14 regulation without public stakeholder input is destined
15 to fail. The AAC provides a meaningful forum for the
16 Commission to learn from those intimately and
17 significantly involved in the production of food and
18 fiber here in the U.S. and around the world.

19 So again I want to say thank you to Chairman
20 Behnam for convening today's meeting, thank you to all
21 the staff here at the CFTC who make these meetings
22 possible, a special thank you to Brigitte, the new

1 designated federal officer of the AAC. Brigitte, I
2 would like to say you have big shoes to fill, but that
3 seems kind of self-serving.

4 And last, but not least, thank you to all of
5 you who are here. We value your input, the support of
6 our mission at the CFTC. And we are grateful for your
7 public service.

8 Thank you.

9 ACTING CHAIR WEYLS: Thank you, Commissioner
10 Mersinger.

11 Commissioner Goldsmith Romero?

12 COMMISSIONER GOLDSMITH ROMERO: Hello. Isn't
13 it great to be here together today? I think it's
14 terrific that you made the effort to come, and it makes
15 a difference. It makes a difference to be here
16 together. It makes a difference to talk about these
17 things, to be in the same room, even those who are
18 appearing virtually. It is good to get together and
19 talk about these things because these are markets that
20 are facing significant challenges and this is an
21 agricultural sector that faces significant challenges
22 right now.

1 Thank you, Chairman Behnam and Brigitte and
2 all of the staff who have worked hard to get us here
3 together.

4 As I went around the room this morning and met
5 people and talked to people or saw people I've already
6 met before, the question was asked sort of, what am I
7 looking forward to today or what would be most helpful.
8 And it is really for me, what I am most excited about is
9 hearing the current issues that you are facing. We get
10 to shine a spotlight on the agricultural markets that
11 are central to the CFTC's mission. And the market
12 activity that has happened in the recent months and
13 years but certainly the recent months that I have been
14 here really remind us that our core obligation is to
15 promote the proper functioning of derivatives markets.
16 And that's our job. So it is important that we do that
17 well because agricultural markets and agricultural
18 sector is really the lifeblood of our economy.

19 I look at it as our Nation's agricultural
20 community is filled with true American heroes,
21 hardworking families and small-and mid-sized businesses,
22 who put tremendous effort into feeding us and clothing

1 us and helping drive our economy. But I understand that
2 these heroes face unprecedented circumstances. I mean,
3 we started with the pandemic. And then, of course, the
4 supply chain issues, the geopolitical events, the
5 extreme price volatility, and the escalating impacts of
6 climate change. I think just one of those challenges
7 would be tough, but together, all at once, they can feel
8 insurmountable. Now, more than ever, farmers, ranchers,
9 and producers need derivatives markets to work well for
10 hedging and price discovery. And I am very committed to
11 making sure that markets are working well for them, that
12 the markets are resilient, that they are transparent,
13 and they have integrity.

14 This summer, I had the wonderful opportunity
15 to visit farmers and producers in Michigan and Arkansas.
16 On the Arkansas trip, I had the distinct pleasure of
17 visiting with, going around with Senator Boozman and
18 Commissioner Mersinger. And we had a blast, I will tell
19 you. I very much appreciate Commissioner Mersinger's
20 background, the way she grew up, her experience, her
21 family. And I really benefit from it.

22 On those trips, I did hear about difficult

1 choices that are having to be made in the face of rising
2 input costs and a lot of concern about extreme price
3 volatility. So you can read about supply chain
4 disruptions, but it takes on a much stronger meaning
5 when a farmer is telling you that a part on the tractor
6 broke and that they cannot get a replacement part in
7 time for the harvest or I heard a grain producer who was
8 telling me about how a train company cut a major rail
9 line that went down to New Orleans and that the trains
10 that are left do not show up on time, there are not
11 enough truckers. I learned that grain producers then
12 will have to store grain longer and may not be able to
13 accept additional grain from a farmer, who then may have
14 to drive longer distances at the time when there was
15 rising fuel costs. I talked to commodity traders who
16 had become really deep experts on the impact of Russia's
17 invasion of Ukraine, especially in the Black Sea
18 blockade of the Ukraine grain ships.

19 And what I heard universally was that margins
20 are razor thin and that the continuing price
21 fluctuations make the future uncertain. This
22 uncertainty is compounded by severe climate events, such

1 as the drought that lowered water levels on the
2 Mississippi River to historic lows, disrupting the
3 passages of barges carrying corn, soybeans and other
4 crops downriver for export.

5 On my ag tours, when I asked, the first
6 question I asked was how are you doing. Farmers always
7 answered in terms of inches of rain that week. This is
8 probably something many of you are familiar with. So I
9 want to hear from you about the challenges that you are
10 facing and what you are doing to meet these challenges.

11 I think the good news is that our American
12 farmers and ranchers and producers are resilient. And
13 during my ag tours, I heard about new technology
14 developed to enhance efficiency and sustainability. So
15 I went to the University of Arkansas and learned about
16 the research they are doing in using drones to limit the
17 use of fertilizer. So the drones would have thermal
18 imaging on them. They would fly over a field to see the
19 hot spots that needed fertilizer, rather than the whole
20 field, very important at a time of rising input costs
21 with fertilizer. I learned about research into
22 microbiomes in livestock to help prevent disease. And

1 this research and this use of technology has been
2 fascinating. I learned about sustainability efforts to
3 make the land more resilient to climate events. I
4 learned about how distributed ledger technology, or
5 blockchain, is used to trace individual livestock from
6 birth and to limit food recalls to specific farms,
7 rather than -- if you remember, we used to have, like, a
8 recall of all Romaine lettuce, which was a waste, a
9 significant waste, of food and dollars. And as the
10 sponsor of the CFTC's Technology Advisory Committee, I'm
11 really interested in understanding the applications of
12 new and emerging technologies for our agricultural
13 sector.

14 So these are the types of initiatives that
15 really reflect the ingenuity and resourcefulness of our
16 American hero farmers, ranchers, and producers, who are
17 finding inventive, tech-forward ways to adapt to
18 evolving conditions. So to support them during this
19 time of challenge, the CFTC should always have top of
20 mind how we can best ensure that the agricultural
21 derivatives markets that they rely on are well-
22 functioning.

1 In these times of razor-thin margins and high
2 volatility, the CFTC must make it a priority to ensure
3 that commodity markets reflect the legitimate forces of
4 supply and demand. I can vividly recall being on the
5 Crumbaugh family farm, where Mr. Crumbaugh pointed right
6 at me and told me he expected the CFTC to do its job to
7 make sure that markets are free from manipulation and
8 price distortion that could artificially raise prices.
9 He was not the only one to tell me that.

10 I came right back from my ag tours and
11 recommended that the CFTC conduct deep-dive studies into
12 trading in key commodities that have experienced
13 significant volatility, starting with wheat, oil, and
14 natural gas. We need to use the resources at our
15 disposal, our authority, data, and expertise, to fulfill
16 this core responsibility. Conducting these studies
17 could bring confidence to markets and market
18 participants that our agricultural derivatives markets
19 have integrity and they are not subject to manipulation
20 or excess speculation.

21 We owe this to the hardworking families and
22 small-and mid-sized businesses at the heart of our

1 agricultural sector. These American heroes must never
2 lose faith that their interests are central, truly
3 fundamental to the CFTC's mandate.

4 So thank you so much for coming here today,
5 and I look forward to the discussions.

6 ACTING CHAIR WEYLS: Thank you, Commissioner
7 Goldsmith Romero.

8 Before we begin today's presentations, I just
9 would like to remind everyone to be mindful of your
10 microphone, when it's muted and unmuted, because we are
11 recording this event.

12 And, also, we will have an opportunity for
13 members of the Committee to make comments or ask
14 questions along with the Commission after each
15 presentation.

16 And, for the record, I would also like to note
17 now that we have all 35 members in attendance.

18 Now for our first presentation, we will hear
19 from Dr. Cynthia Nickerson, the deputy chief economist
20 of the Office of Chief Economist at the USDA, for an
21 update on the agricultural economy.

22 DR. NICKERSON: Thank you, Brigitte, Chairman

1 Behnam, Commissioners. Thank you for having me here.

2 I'm delighted to participate in the meetings today.

3 And the Office of the Chief Economist is a
4 small office within USDA. And within OCE sits the world
5 Agricultural Outlook Board, which is responsible for
6 producing the world agricultural supply and demand
7 estimates every month. We serve as a coordinating
8 committee. And we're drawing on expertise across the
9 department to produce this trusted source of
10 information.

11 I have a lot to talk about today. So let me
12 just hop right into it. Okay. Obviously, with farming
13 being such a diverse sector, I can't talk about
14 everything. So I use my title slide with lots of
15 pictures to try and be a little bit more inclusive. Let
16 me just jump right in.

17 I'm going to talk today about the outlook,
18 focusing on some of the major crops and livestock in the
19 Northern Hemisphere. Harvest is largely wrapped up. So
20 I'll talk about where we are with production for the
21 year. I will focus on some of the climate and weather-
22 related issues that we are facing in the U.S. and some

1 of the geopolitical risks that farmers are facing and
2 touch briefly on some of the tools farmers are using to
3 address these risks. And I'll wrap up with some
4 highlights from the farm income forecast that USDA
5 released last week.

6 This slide shows corn, soybean, and wheat
7 production, giving you a trend to put the current year
8 production in perspective. Corn ended up at 13.93
9 billion bushels in 2022. This is the seventh highest on
10 record, down about 7.6 percent from last year's 15.07
11 billion on both areas as well as yield. In the U.S.,
12 one of the factors contributing to these results were
13 poor planting conditions at the beginning of the season
14 and some warmer than average temperatures during July
15 and August, contributing to a below-trend yield. Areas
16 have declined as well. And this has led to supplies
17 falling to nearly the lowest in a decade.

18 Soybean ended at 4.35 billion bushels in 2022,
19 down from last year's record high, again due to declines
20 on both area and yield; wheat, 1.65 billion bushels,
21 essentially flat, up just two-tenths of a percent from
22 the previous year. Most of this is winter wheat.

1 Production was down for winter wheat, largely due to
2 drought conditions, but we did see some offset due to
3 increases in other spring wheat and Durham wheat.

4 Of course, when Russia invaded Ukraine, there
5 was huge concerns about global food security, lots of
6 attention paid to U.S. wheat and supplies for the
7 market. In 2022, wheat-planted acreage was down. But
8 what we have seen is that harvested acreage, especially
9 for other spring wheat and Durham wheat, was up,
10 offsetting some of that decline for winter wheat. And
11 drought conditions were the major factor contributing to
12 these wheat production results, as you all know.

13 Turning to where we are with the current
14 winter wheat crop, this was NASS' crop condition index
15 from last week. It's the last that they have produced
16 for the season. You can see the results for 2022, the
17 red line at the bottom. Winter wheat has essentially
18 gotten off to a pretty tough start this year, again due
19 to drought on the Plains. Now, we have had some rain in
20 the Southern Plains, snow in the Northern Plains helping
21 winter wheat, but this crop is going to need quite a bit
22 of assistance over the winter and into the spring to

1 increase production. Last week, about 40 percent of the
2 crop was rated very poor to poor in 5 of the major
3 producing states 2 weeks ago. And then last week, only
4 in Kansas did that characterize conditions. So we are
5 seeing some progress.

6 For cotton, weather has cut crops in the
7 United States. Drought is a major factor, especially in
8 Texas. The U.S.-planted acreage in 2022 is down and
9 planted area in 2023-2024 is expected to contract
10 sharply, to its lowest level since 2015-16.

11 Weather is affecting not just U.S. production
12 but world production, as you know. In Pakistan,
13 Australia, and Western Africa, rain has been the issue,
14 but we have had improved weather conditions, largely
15 accounting for larger crops, in China, India, and
16 Brazil.

17 Rice production is down 13.7 percent from the
18 prior year on both lower acreage and yields. Weather
19 again plays a role here. Rice-planted acreage in
20 California, in particular, has declined about 50 percent
21 over the past several years. That's due to lower water
22 allocations.

1 Turning now to the livestock side, this slide
2 shows cattle inventories on the left, hog inventories on
3 the right. The cattle market has natural cycles.
4 That's a little bit evident in this slide with the peaks
5 and valleys. And you can see right now, we are coming
6 off a recent peak. Among other factors, drought is
7 playing a contribution to the downswing in the markets,
8 as was mentioned in some of the remarks by the
9 commissioners. Poor pasture conditions are resulting,
10 and this is coupled with high feed costs that's causing
11 early placements and decreases in breeding stock.

12 For hogs, we're also seeing a pretty sharp
13 decline in inventory. Some of that is a reflection of
14 biological lags and some recovery from what happened
15 during the pandemic. Higher feed costs are also clearly
16 playing a role there. But we're also likely seeing some
17 uncertainty with other factors over the last 12 months.
18 So we'll see where we head up.

19 And I would like to just say at the outset,
20 too, that these results are as of the November WASDE.
21 You all know that we have the December WASDE being
22 released on Friday. So I am not previewing any of that.

1 I will leave that to our analysts.

2 Taking a look now at where we are with prices,
3 this slide shows season average prices. So a lot of the
4 entry-year volatility in prices gets a bit washed away
5 in these numbers. But what this shows is if you look at
6 the far right column, it shows the percent change in
7 prices. And, essentially, what we are seeing is
8 strength across the board.

9 Wheat, in particular, for the 2022-2023 season
10 average price, we are projecting that to reach a record
11 \$9.20 a bushel. Now, again, in November, this was prior
12 to knowing the outcome of the U.N. grain, flaxseed,
13 grain, initiative that was set to expire on the 19th.
14 We know that has been extended. So we will see what the
15 projection is with the December WASDE on Friday. But,
16 still, we have already heard and everybody in this room
17 is aware of the continued volatility in these markets.
18 There's just a huge amount of uncertainty around the
19 stability of that agreement contributing to that
20 volatility.

21 Now, these high grain prices are obviously
22 going to weigh on production of beef, pork, broilers,

1 and turkeys. Looking at those prices, again, season
2 average prices, these are for the calendar year.
3 Looking into '22-'23, with the exception of steer
4 prices, prices are expected to decline across the board.
5 But I would note that they are still well above the 2015
6 to 2019 average as well as 2020 and 2021 for the most
7 part.

8 For steers, the tighter supplies are due to us
9 being in the contractionary phase of the cycle, the
10 forage issues that are pulling cattle forward into
11 feedlots. So slaughter rates are higher now. And the
12 forecast is for some tightening into next year with
13 continued high demand.

14 For hogs, production this year is happening.
15 Previous years cut back on farrowing, small pig crops,
16 supporting prices into 2022. So we are expecting,
17 looking forward, for there to be larger farrowings and
18 higher hog supplies that will put downward pressure on
19 prices.

20 Broilers, we're anticipating that the
21 producers are working through some of the hatchability
22 issues that have affected them this year, so increased

1 egg sets. We have had relatively strong prices as well.
2 We are expecting to see some increase in broiler
3 production going into 2023, but we are expecting to be
4 coming down off some of the high 2022 prices.

5 So in terms of a trend in broiler production,
6 it has been increasing slightly over the past few years,
7 up 2 and a half percent in 2022. But, again, we expect
8 prices to decline going into 2023.

9 I will just touch briefly on turkeys. We have
10 tight supplies due, in part, to the HPAI outbreak that
11 has affected that crop.

12 Dairy cow inventories, relatively steady
13 state, not dramatic increases in production. This year,
14 in 2022, the industry was declining, but we are
15 expecting it to stabilize, slight increase in average
16 cow numbers, increase in milk per cow.

17 And in the interest of time, I am going to
18 flip to the next slide here. There we go. We have been
19 talking about the drought. This slide puts that drought
20 in perspective. This is the U.S. drought monitor map,
21 which USDA has helped support. And we have had access
22 to this tool since around 2000. So in terms of the

1 perspective, this year, we are in our longest streak of
2 widespread drought. Drought has covered more than 40
3 percent of the continental U.S. for 114 consecutive
4 weeks, far exceeding the Twenty-First Century record
5 that was previously established in the 2012-2013 period,
6 when widespread drought lasted 68 weeks. So we're over
7 two years into the current drought that's been this
8 widespread. And I would also say this 40 percent
9 threshold, we have been well above that lately with 59
10 percent of the continental U.S. experiencing some level
11 of drought in the last week.

12 As you can see from this map, the darker red,
13 the more intense the drought. Most of the intense
14 drought has affected the Western half of the Mississippi
15 River Basin, although in recent months, that drought has
16 been expanding eastward.

17 Another factor is that we are entering our
18 third straight La Niña winter, which has not happened in
19 20 years. And these weather patterns are affecting the
20 drought in the West, in particular. Topsoil moisture
21 conditions are also declining.

22 So the economic impacts of the drought matter

1 significantly as to when the drought happens in terms of
2 production cycles. This chart, the map on the left
3 shows corn areas in drought as of November 15th. And at
4 that point, drought was affecting about two-thirds of
5 the Corn Belt. But the thing here is that most of the
6 drought didn't affect corn until late in the growing
7 season. The chart on the right, the tan line at the top
8 is a summation of the drought categories, the share of
9 corn area that is experiencing drought. And you can see
10 relative to harvest that this significant share of corn
11 areas in drought increase substantially after that
12 point. So conditions were pretty good in the Eastern
13 Corn Belt but dry in the West Corn Belt. So drought
14 didn't affect corn production as much as other crops,
15 like wheat and cattle. And that's what this map shows.
16 Seventy-three percent of the cattle production areas
17 were subject to drought this year. And the line chart
18 on the right shows that there's just a lot more
19 stability in the share of production area experiencing
20 drought. So those poor pasture and range conditions led
21 to higher placements in feedlots, and those conditions
22 are going to matter significantly going into winter,

1 particularly with higher feed costs.

2 We have heard comments already about drought
3 in the Mississippi River levels. This map is a snapshot
4 of where the basin boundaries are. The basin drains
5 about 31 states in the U.S., and it's led to significant
6 challenges for grain movements to export markets. So we
7 have been tracking effects on basis, barge rates, pace
8 in export shipments, as well as fertilizer movements
9 back up the river.

10 Let me see here. I seem to have lost my
11 mouse. There we go. Okay. This map shows soybean
12 basis movements. And I would note that the challenges
13 that we faced with the Mississippi River low levels, we
14 hit record lows in October, which was happening just as
15 we were faced with a potential rail strike that led to
16 some challenges for soybeans, in particular, because
17 this, the window, the October-January window, is when a
18 significant share of soybeans are exported. This chart
19 shows basis for the Gulf, which is in green, versus the
20 interior markets, which are all the other colored lines.
21 And typically at this time of year, inland soybean cash
22 prices along the river carry a basis of -20 cents a

1 bushel. And we can see here into June, July, and August
2 some strengthening of inland prices under the
3 expectation of strong export demand, but since August,
4 they sharply deteriorated. But we see a sharp rise in
5 basis at the Gulf. What this translates into is about a
6 \$2 per bushel in interior basis swing, coinciding with
7 surge in barge rates. And in October, farmers looking
8 to sell would have been getting \$1 to \$2 a bushel lower.
9 That's about 10 percent of the cash price than what they
10 would have gotten without the disruption. And what we
11 can see here is that the basis in the Gulf has been
12 extremely strong. Of course, it always carries a
13 premium relative to interior markets given its more
14 lucrative location. But typically the Gulf basis hovers
15 about 60 cents a bushel this time a year plus 16. But
16 this year, it surged to almost \$2 to \$3 a bushel. And
17 that obviously is because not enough grain was moving
18 down to the Gulf. And the weak basis in interior
19 markets is indicative that rail and trucking options
20 were just not good alternatives.

21 So we are also tracking inland fertilizer
22 prices and movements back up the Gulf. The Mississippi

1 River issues are a particular challenge for fertilizers
2 and other inputs. And in the case of fertilizers, about
3 25 to 40 percent of U.S. consumption of DAP and MAP goes
4 through the Mississippi and about a third of urea
5 consumption. And these charts show the prices of
6 fertilizers across different regions. The black line is
7 the Gulf. Prices are cheaper at the Gulf because that
8 is their import point. And prices get more expensive
9 the further away from the Gulf given the additional
10 transportation costs.

11 What we see here is that fertilizer prices in
12 general, urea on the left and DAP/MAP on the right, have
13 been falling lately. This is due to softening demand,
14 some easing of energy prices. Obviously the prices
15 further from the Gulf have been more expensive. What we
16 see here, especially in the right chart, is Gulf prices,
17 in black, have been falling a lot more, but inland
18 prices are staying a bit flatter. And that is a
19 reflection of the increased transportation costs.

20 Let me turn now to some geopolitical risks.
21 There are a number I could talk about. I am going to
22 focus on two. The first is the Russian invasion of

1 Ukraine. As we have talked about, this is contributing
2 to a lot of turbulence we are seeing in commodity
3 markets, leading to concerns about fertilizer supplies.
4 And, of course, globally, a main concern here is food
5 security. I also talk a bit about China and the
6 lockdowns that are happening.

7 Not necessarily a geopolitical risk at the
8 outset, but whether we have drought in South America
9 could lead to tightened global supplies. I would just
10 note that countries react to whether in different ways
11 that could have global implications. India is an
12 example. They had a devastating drought. And, as a
13 result, they restricted supplies of wheat and more
14 recently rice, including broken rice, to the markets.
15 And it is because of their enormous food assistance
16 program and trying to protect food for their people.

17 We have talked about volatility in the markets
18 and what has been happening. A big question in
19 commodity markets regarding Ukraine is really what is
20 moving and what is not. What this map shows is some of
21 the intelligence that we are using to develop our
22 estimates. This is a map that shows export routes,

1 which are the arrows. And in yellow, throughout
2 Ukraine, are the grain silos, with the size of the dot
3 reflecting capacity. Prior to the U.N. grain deal,
4 Ukraine was exporting 1.5 to 2 million metric tons
5 monthly using these overland routes, which is about a
6 third of normal.

7 This chart shows Ukraine's top exports by
8 commodity. Not surprisingly, exports are down for
9 nearly every commodity. Corn and wheat in terms of
10 volume are top exports. Corn is down over 10 million
11 metric tons relative to the latest 5-year average.
12 Russia and Ukraine together are accounting for a large
13 share of wheat production.

14 Ukraine I would also note is the fourth
15 largest corn exporter. So these contractions in exports
16 have big implications for global supplies and prices.
17 Ukraine also contributes significantly to world exports
18 of sunflower seed oil and meal. We also have concerns
19 going into the next growing season for farmers in
20 Ukraine.

21 This chart shows export pace by month for
22 calendar year 2022 for wheat and corn. The blue line is

1 the average volume over the 2019 to '21 period. And the
2 dark orange bar is for January and February, shows the
3 pace pre-war. The gray bars are exports by means other
4 than the Black Sea corridor. But I would note we have
5 data only through August at this point. And the yellow
6 were exports via the Black Sea corridor. The point of
7 this slide is, clearly, exports are off their normal
8 pace, as we know, also some challenges, not just with
9 exports but problems moving grain, even before getting
10 them to the ports.

11 And when we think about geopolitical risks, it
12 is helpful to think in terms of the shares of production
13 that actually are exported. And that is what this map
14 shows, is the share of U.S. ag production that is
15 exported. Overall, about 20 percent is exported by
16 crop, overall, rather. Some crops are more dependent on
17 exports than others. Cotton, wheat, soybeans, rice are
18 our principal field crops with high shares, cotton
19 leading the way at 83 percent. We also see a number of
20 high-value crops that are highly dependent on exports.
21 And as economies of developing countries continue to
22 grow, we expect there will be a trend for more diverse

1 food options and exports where these crops are likely to
2 remain strong.

3 So where are our exports going? This chart
4 shows the progression over the last roughly 20 years.
5 China is the top ag export market. The shares going to
6 China has increased from 3 percent in 2001 to 19 percent
7 in 2021. China is top market for U.S. soybeans and
8 cotton and near the top for corn with Mexico, but
9 China's corn exports are highly variable and subject to
10 a TRQ. So that is limited quantities in recent years.

11 This chart shows U.S. market share in China
12 relative to our competitors. The dotted line represents
13 the U.S. market share. And in terms of the area chart,
14 the U.S. is in yellow. What this chart is showing is
15 that U.S. market share has not fully recovered since the
16 start of the trade war in 2018. In terms of some of our
17 competitors, Brazil, which is the light green area at
18 the bottom of this chart, is the biggest competitor to
19 the U.S., followed by the EU, which is in purple.

20 Now, China COVID restrictions have had an
21 effect on demand, as we all know. And that is one of
22 the biggest risks going forward, especially with the

1 recent lockdowns that they have imposed to try and
2 control the spread of coronavirus. And if the economy
3 falters due to these COVID policies, they may continue
4 to impose strict lockdowns or move back to strict
5 lockdowns for any length of time, the expectation is
6 that it will squeeze demand for a number of key
7 commodities.

8 And I would also note that China did have a
9 major issue with African swine fever a couple of years
10 ago and they're still in the process of rebuilding their
11 herd. We are expecting that to generate new soybean
12 demand. Stocks are low. We are also expecting to see
13 China take maybe a wait-and-see approach with the South
14 American crop following what happens in Brazil. And if
15 there are record crops in South America, China could buy
16 from them. But if crops decline, subject to some of the
17 drought conditions that could happen, especially with
18 the La Niña conditions, this year. That could mean
19 stronger demand for U.S. products.

20 Just a quick note on the various tools
21 producers are using to manage risks. We have a number
22 of USDA programs: crop insurance, farm safety net

1 programs, lending and disaster programs, marketing
2 contracts, different market mechanisms. Futures and
3 options are used primarily by the larger corn and soy
4 farms. Farmers are also using on-farm storage, which
5 became critical during the low water levels on the
6 Mississippi. Farmers were actually even looking to rent
7 storage at that point.

8 This slide shows trends in acreage enrolled in
9 Federal crop insurance. It is up over time, but you can
10 see from this chart that it is largely flat for crops.
11 About 60 percent of crop acres are insured. Pasture,
12 rangeland, and forage index products started back in
13 2007. About 248 million acres are insured.

14 Disaster program expenditures. We have some
15 standing ag disaster assistance programs, but the point
16 of this chart is just to show that these expenditures
17 vary quite significantly over time.

18 Now, just to give you some topline forecast
19 that was released last week, this is the forecast for
20 the sector as a whole, the profit forecast. It suggests
21 a very positive picture overall if this is realized. We
22 can see that net cash farm income, the orange line, is

1 expected to hit a record. But I will note that farmers
2 are facing not just the high prices, as we have been
3 talking about, but high input costs. But, taking the
4 two together, the expectation is that there will be
5 positive outcomes for the sector as a whole.

6 I do just want to take a minute to unpack this
7 a little bit because not all farms benefitted equally.
8 This slide shows average net cash farm income, the
9 forecast for crop farm businesses. So this is including
10 about the 50 percent of farms where farmers either have
11 stated that cropping is their main source of business.
12 It excludes the smaller farms, where production farming
13 is not the main source of business.

14 So, looking at this 50 percent of farms, we
15 see a bit of a mixed picture here. We see wheat is down
16 a little bit, but corn, soybeans are up. Cotton and
17 specialty crops are forecast down, as are other crops.
18 On the livestock side, also a mixed picture. For cattle
19 and calves, the forecast is for a 16 percent increase;
20 hogs down 11 percent, poultry businesses up 8 percent;
21 and dairy up 64 percent, largely on high demand.

22 This final slide just wraps things up by just

1 making the point that, even though we have strength in
2 the farm sector overall, there are still a substantial
3 share of farms that don't have positive farm income.
4 Residence farms, about half of residence farms, a little
5 over half, are not forecast to have positive farm
6 income; intermediate farms, 51 percent; commercial
7 farms, 13 percent. So, really, the strength in the farm
8 sector is being driven by the 87 percent of commercial
9 farms that are forecast to have positive farm income as
10 well as the 49 percent of intermediate farms.

11 And, with that, I will conclude by just making
12 a note that on Friday, we do have the WASDE release. We
13 are now broadcasting those briefings. So you're welcome
14 to participate virtually or in person. We have had some
15 groups coming in. And, also, registration for our Ag
16 Outlook Forum is open. And we are delighted to announce
17 that we are holding that in a hybrid format this year.
18 So we hope to see many of you in person, and if you
19 can't make it in person, hope to see you online.

20 Thank you.

21 ACTING CHAIR WEYLS: Thank you, Dr. Nickerson.

22 We will now open the floor to discussion from

1 members of the Committee. If you are attending
2 virtually, please raise your hand in the Zoom to be
3 called upon. Do we have any questions or comments from
4 the members in person?

5 MR. WESTON: I was just going to say thank you
6 very much, appreciate the Chairman and the
7 commissioners.

8 Excellent presentation. I think that net farm
9 income study is very important, and I appreciate you
10 unpacking that a little bit about what really happened
11 there.

12 And I apologize for being the last person to
13 make it in person, but my phone rang at 7:28 this
14 morning, and it was about drought and crop insurance and
15 all of these things that are being covered. And it was
16 6:28 in Texas, where my crew was calling from.

17 So I just want to say thank you. That was
18 very helpful. I think that will be a great presentation
19 for people to see all around D.C. And I really
20 appreciate the commissioners. I know between a lot of
21 other issues that you're dealing with, it is fantastic
22 to see you all setting here really spending the time to

1 see what affects all of us. And I don't care if it's
2 your coffee or whatever else. I really appreciate the
3 comments you all made, realizing how important this is.

4 Thank you.

5 ACTING CHAIR WEYLS: Thank you, Ryan.

6 Do we have any more questions or remarks from
7 anyone in person? Joe Barker?

8 MR. BARKER: If I may, I was a little confused
9 by your data as it relates to dairy. You were showing
10 dairy prices were down 10 to 16 percent, I believe, on
11 your dairy slide. You were showing grain prices up, I
12 believe, on your grain slide. But then you showed dairy
13 income up dramatically. That data doesn't make sense to
14 me.

15 DR. NICKERSON: We're looking into that,
16 actually. I was surprised by the height of the bars.
17 But dairy prices in 2022 were pretty strong --

18 MR. BARKER: Yes.

19 DR. NICKERSON: -- across the board. And it's
20 the strength in those prices that is outweighing.

21 MR. BARKER: That's a marketing issue.

22 DR. NICKERSON: Yes.

1 MR. BARKER: So is it a marketing year issue?

2 Is that the issue?

3 DR. NICKERSON: Yes. That is part of the
4 issue, yes.

5 MR. BARKER: So as you look at the marketing,
6 you're going forward. We're looking at a very different
7 situation --

8 DR. NICKERSON: That is correct.

9 MR. BARKER: -- for the dairy farmer.

10 DR. NICKERSON: That is correct.

11 MR. BARKER: That's what I was wondering --

12 DR. NICKERSON: Yes.

13 MR. BARKER: -- if it was embedded in that
14 data. Thank you.

15 DR. NICKERSON: Thank you for bringing the
16 question out.

17 ACTING CHAIR WEYLS: Thanks, Joe.

18 We also have a question from Ed Gallagher, who
19 is attending virtually. Ed, if you want to unmute your
20 microphone?

21 MR. GALLAGHER: Good morning, everyone. It is
22 a pleasure to be here. I'm assuming you can hear me.

1 DR. NICKERSON: Yes.

2 MR. GALLAGHER: Yes. Okay. Dr. Nickerson,
3 thank you for your excellent presentation. It is very
4 thought-provoking. I think the group of us could spend
5 the rest of the day and into the afternoon just
6 dissecting it and talking about our own sort of
7 commodity businesses.

8 So I represent the National Milk Producers
9 Association. And I work for Dairy Farmers of America.
10 And I run their commodity risk management program. And
11 so I have got a question about, have you and your team
12 thought about -- so I live in the future, right? So it
13 was a great presentation. I'm trying to take that and
14 look into the future. And one of the challenges that I
15 am trying to think through is the impact on corn and
16 soybean meal commodity prices as biofuel mandates
17 increase. And there is growing greenfield and other
18 production of soy plants to crush plants.

19 I was curious if you had thought much about
20 that yet and if you could help us think through a little
21 bit about what that may mean going forward for feed
22 prices and basis.

1 Thank you.

2 DR. NICKERSON: Yes. So farmers will be
3 reacting to prices, obviously, when they are making
4 their decisions. And we do expect demand to remain
5 strong going forward. Obviously, EPA's decisions around
6 renewable fuel standards will matter here, too.

7 I'd like to actually encourage you to come in
8 Friday and join us with the WASDE release and see what
9 our analysts have to say. I had hoped to bring one of
10 them with me here today, but it's a little too close to
11 WASDE to actually have them come and talk with you
12 folks. So I would invite you to come on Friday to get a
13 little more insights into that.

14 MR. GALLAGHER: Fair enough. Thank you.

15 ACTING CHAIR WEYLS: We now have a question
16 from Michelle Mapes, who is attending virtually.

17 MS. MAPES: Thank you, Brigitte. And thank
18 you, Dr. Nickerson, for your excellent presentation and
19 the information.

20 With respect to Mr. Gallagher's comment, I
21 work for Green Plains as the chief legal and
22 administration officer and am delighted to be on this

1 Committee. And thank you for that appointment.

2 I simply wanted to pass along a comment. With
3 the RVOs, the renewable volume obligations, coming out
4 from EPA just last week, what we saw as an industry in
5 the ethanol renewables fuel industry was an effort to
6 essentially by reason of where the RVOs were being set
7 what looks like a dampening effect on renewable diesel
8 at a limited level by the E-RIN program that will be
9 available for the electric vehicles and, therefore, the
10 RINs available for renewable diesel, will flow into
11 what's called a D6 RIN. And those prices then should
12 come down; therefore, probably lowering the profit
13 margins some of the RD producer. And, to Mr.
14 Gallagher's concern, that should be a welcome relief for
15 those in the ag sector who have alternative uses for
16 some of the co-products used in those functions.

17 So I was just passing along what we were
18 seeing as an industry, albeit ethanol continues to be a
19 very challenging industry with many of the things you
20 spoke of, Dr. Nickerson, with the rail pressures, the
21 interior basis levels of corn being extremely high due
22 to drought in the West, in particular.

1 Thank you.

2 ACTING CHAIR WEYLS: Thank you, Michelle.

3 We are running a little behind schedule. So
4 now we would like to open it up to the Chairman or the
5 Commissioners to see if there are any questions.

6 COMMISSIONER GOLDSMITH ROMERO: I know that
7 time is short, but I do want to say that was a fantastic
8 presentation. And I am very glad that you address China
9 with the COVID lockdowns. I just returned from Asia,
10 and it's all I heard about and am sort of very
11 interested. And I know we don't have time to discuss
12 this now but whether the market is starting to price
13 that uncertainty in the same way that the uncertainty
14 related to Ukraine and Russia's invasion of Ukraine is
15 being priced in. I know we don't have time to get into
16 that, but I spent a lot of time over the last week in
17 Asia talking to them about markets and the continuing
18 COVID lockdown in China and how that is likely expected
19 to continue and how that will affect prices.

20 So thank you but thank you on all of this.

21 This was really great.

22 DR. NICKERSON: Well, to that, I will just say

1 cotton. Textile demand, in particular, is going to
2 potentially seal up more volatility due to those
3 policies.

4 COMMISSIONER JOHNSON: I just want to say
5 thanks so much, Dr. Nickerson. That was tremendously
6 interesting. One tiny piece of information that I will
7 look for maybe covered in WASDE or if you have time
8 later during one of the breaks, but I am just thoughtful
9 that the data you shared regarding where production is
10 and export is with respect to Ukraine. I think you
11 mentioned that your data closed out in August. And we
12 have seen sort of some significant number of mints in
13 that region since that time. Again, acknowledging the
14 limitations of time here, if you want to offer a word or
15 two, that would be great, but I am happy to also find
16 you during one of the breaks and just hear what your
17 estimations or reflections might be on what would be the
18 quarter since your data closed out.

19 DR. NICKERSON: Yes. The overland routes are
20 where we were lacking data up through November. And
21 it's a little hard to say what that situation is without
22 actually seeing the data.

1 ACTING CHAIR WEYLS: Thank you to the
2 commissioners for their comments.

3 I think now we will move to our second panel
4 to keep on schedule. And we will hear from Scott
5 Herndon, the president of Field to Market, on a
6 wholistic view of how the value agricultural chain works
7 together on sustainability issues.

8 MR. HERNDON: Thank you all very much. It is
9 an honor to be with you here this morning as one of the
10 newest members of the Agricultural Advisory Committee.
11 I am in the hot seat immediately. But I appreciate the
12 opportunity. Chairman Behnam, Commissioner Johnson,
13 Commissioner Goldsmith Romero, and Commissioner
14 Mersinger, and Brigitte, thank you so much for helping
15 me design this presentation today.

16 So, again, my name is Scott Herndon. I am the
17 president of Field to Market: The Alliance for
18 Sustainable Agriculture.

19 So, to kick it off today, I would like to
20 provide a general overview of Field to Market and who we
21 are. So our membership is split into five distinct
22 sectors. Each of these sectors has a voice in shaping

1 our programs in governance. The grower sector is
2 comprised of national level commodity groups, including
3 several members of the AAC here today. This includes
4 Cotton, Inc., the National Corn Growers Association, and
5 more, as well as a handful of state-level organizations.

6 The affiliate-level, the affiliate sector, is
7 comprised of public sector partners, including many
8 major lands grant universities. This includes
9 universities; Cotton Trust Protocol; USDA NRCS; and some
10 media groups, like Trust in Food.

11 Our civil society sector includes The Nature
12 Conservancy; the World Wildlife Fund; and working lands
13 groups, like Ducks Unlimited.

14 Our agribusiness sector is our largest sector.
15 And it is defined broadly as any company that provides a
16 tool or service to farmers. And that includes
17 aggregators; processors, like ADM; Bunge; Cargill.
18 That's seed and input companies, like Bayer or Nutrien;
19 equipment manufacturers, like John Deere; and smaller ag
20 and startup companies, like Sound Agriculture or CIBO.

21 And, last, but certainly not least, our brands
22 and retail sector includes retailers, like Targets and

1 Walmarts; as well as major brands, like PEPSICO and
2 Unilever.

3 Across our membership, each sector has
4 balanced representation and engagement so that the full
5 agricultural value chain is involved in shaping the work
6 of our organization.

7 So this is my favorite slide in the
8 presentation. This shows who our members are. And it
9 is pretty overwhelming because there are a lot of folks
10 there. This is the entire agricultural value chain. We
11 don't have everyone, but we've got a lot of folks here.
12 And I won't spend time calling out each member, but
13 Field to Market was formed first as a working group of
14 interested stakeholders, bringing together a handful of
15 grower organizations, brands, agribusinesses, and
16 environmental groups to think about how we could
17 collectively align and advance sustainability as an
18 industry, but simply we were born out of the belief that
19 no one organization can meet the challenges our industry
20 faces alone.

21 For over 15 years, we have grown to represent
22 nearly 170 member organizations. And we have become our

1 own standalone nonprofit. However, our vision to unite
2 the full value chain has stayed the same.

3 We currently have 168 member organizations
4 uniting in our mission to meet the growing demand for
5 food, feed, fiber, and fuel in a sustainable and
6 responsible way. And I might add that this year alone,
7 we have added 27 new member organizations. So the
8 interest in sustainability is that it is very high. So
9 together, our membership is united to balance the two
10 parts of our vision by supporting a resilience and
11 ecosystem in enhancing farmer livelihoods.

12 I told you about who we are, but now I will
13 dive into what we do. So Field to Market's programs and
14 told are focused on building a bridge between our
15 credible science and our member sustainability goals.

16 I won't read this definition, but I will leave
17 it up there for a minute for you all to read. This is
18 our definition of sustainable agriculture. There are
19 many definitions of sustainable agriculture, but this is
20 one that has been bought into by our large and diverse
21 membership. And we define sustainability as meeting the
22 needs of the present while improving the ability of

1 future generations to meet their own needs, with some
2 additional detail behind that.

3 And then we took about a year to develop a
4 definition of regenerative agriculture. And there was a
5 little bit of push and pull, but ultimately we came up
6 with this definition here on the board. And that is
7 supported by principles. And we found that this gave a
8 lot of folks comfort because it is broad enough and
9 flexible enough to accommodate different areas and
10 different local needs.

11 So what makes Field to Market unique is that
12 our approach is quantitative, grounded in science as our
13 metrics are science-based. We prioritize outcomes-based
14 approach. And we are not a checklist of practices. And
15 we never tell farmers how to farm. We say that we are
16 technology-neutral so that we have no preference whether
17 a farmer's management is conventional, organic, or
18 anything in between. Rather, we meet farmers where they
19 are in the value chain and help them find opportunities
20 for continuous improvement.

21 So we currently have 11 commodity crops
22 represented in our programs. And we plan to add some

1 new crops, such as pulses, flax, and oats. The list
2 evolves over time, but these are basically the major
3 commodities by acreage in the United States.

4 This is the crux of what we do. We have eight
5 sustainability metrics that are tracked in our program.
6 Each of them undergoes a review process by our member-
7 led Metrics Committee every three years as new science
8 is available, such as our biodiversity metric, which was
9 only added in 2019. And biodiversity measures the
10 capacity of a farm to support habitat for plants and
11 animals. This could look at things like flooded rice
12 fields that support migrating waterfowl or edge-of-field
13 areas that allow for wildlife to form habitat.

14 Energy use calculates all energy used in the
15 production of one crop in one year from preplanting
16 activities to the first point of sale. This means that
17 it considers the embedded energy used to produce seed,
18 fertilizer, and chemicals applied to the field. And
19 greenhouse gas emissions calculates the total greenhouse
20 gas emissions from four main sources: energy use,
21 nitrous oxide emissions from soils, methane emissions
22 from flooded fields, and emissions from residue burning.

1 Irrigated water use uses a simple equation to account
2 for the amount of water used to achieve an increase in
3 crop yield. Land use looks at productivity by
4 accounting for how much land is used to produce a crop.
5 Soil conservation measures soil loss to erosion from
6 water and wind, which is shown to a farmer as tons of
7 soil lost per acre. Soil carbon uses a USDA NRCS tool,
8 the Soil Conditioning Index, to analyze whether a field
9 is gaining or losing carbon. We also incorporate the
10 COMET planner tool as an optional feature. COMET
11 planner provides farmers with an estimate of the
12 potential amount of carbon that could be stored in their
13 soils following a practice change. And, finally, water
14 quality provides a detailed assessment of the risk of
15 nutrient loss in local waterways and shows how well
16 practices are mitigating that risk.

17 Now, how do we measure the sustainability
18 metrics? We measure them through our Fieldprint
19 Platform, which provides farmers with a field-level
20 assessment of how their management practices affect our
21 eight metrics. The platform benefits the entire
22 agricultural value chain from the farm gate to the

1 retail and restaurant counter. The Fieldprint Platform
2 is available online for free. It's confidential. And
3 any farmer can log in to use it at any time. You can
4 also log in as a guest to test some hypotheses and play
5 around with it.

6 I would like to highlight the chart on here.
7 This is what we call our spidergram. This shows
8 benchmarks. So the blue is the farmer, the individual
9 farmer. And the green is the state benchmark, and the
10 orange is the national benchmark, which we get from USDA
11 data. We publish a national indicators report every
12 five years that is based on the USDA ag census and other
13 USDA surveys. And so it provides a farmer with a lot of
14 different information so they can have a project
15 benchmark so they can just know where they stand
16 compared to their peers.

17 In addition to our Fieldprint Platform, we
18 also offer an API service where members can integrate
19 our sustainability metrics into their own tools. We
20 currently have eight API partners, which we call
21 qualified data management partners. If a project is
22 using one of these tools you see on the slide, then they

1 have access to our metrics as well as their own special
2 capabilities. The idea is that wherever farmers are
3 already turning for their agronomic insights, they can
4 now see sustainability analyses in the same tool.

5 Now I would like to dive into our Continuous
6 Improvement Accelerator project framework. This is the
7 other side of what we do, the actual projects. So our
8 members are able to measure and track impacts through
9 our program framework called the Continuous Improvement
10 Accelerator, which allows member organizations to
11 implement locally led conservation projects. Here, our
12 member organizations come together in precompetitive
13 collaborations to support farmers across the country in
14 adopting sustainability practices.

15 To give our member organizations room for
16 flexibility depending on their goals and needs, we offer
17 three different project pathways. Incubation projects
18 are the projects that don't have to use the Fieldprint
19 Platform and focus on educating growers on at least one
20 particular natural resource concern, which can be to
21 improve water quality or soil carbon or habitat. Here,
22 for example, an agribusiness company could work with 100

1 farmers to increase understanding of soil carbon
2 improvement by supporting them to complete soil testing
3 and analysis.

4 Insight projects are really measurement
5 projects where annual data entered year over year into
6 the Fieldprint Platform is used to benchmark progress
7 against environmental goals. Here, for example, an
8 agtech provider could support 50 participating farmers
9 in demonstrating sustainability performance through the
10 Fieldprint Platform, capturing the impact on
11 sustainability and bringing agronomic advice and value
12 to the clientele.

13 Innovation projects are where our members are
14 providing in-depth technical or financial assistance to
15 help farmers reduce the risk associated with trying new
16 practices. So, for example, we have some projects cost
17 sharing for cover crop seeds, and we have other state
18 grow organizations focused on supporting farmers through
19 in-depth technical assistance. Here is an app that
20 shows all of our active projects. And to date, we have
21 66 active projects across 37 states. And in 2021, we
22 had growers enrolled in 4.6 million acres in locally led

1 projects. And projects range from -- you know, there is
2 no limit or there is no parameters for project sizes,
3 but currently our smallest project is 300 acres and our
4 largest project is 1.3 million acres. Within those 66
5 active projects, there are about 100 different
6 organizations participating.

7 In addition to supporting members in the
8 implementation of projects, we also want to make sure
9 that our members can tell the story of their project
10 from year to year. From participation claims to impact
11 claims, projects can transparently communicate about
12 their progress in achievements at different stages in
13 their efforts to improve environmental outcomes. That
14 might be demonstrating that the company supports a large
15 number of farmers and acres in learning about
16 sustainability. It may be that they have successfully
17 increased the adoption of practices like no-till or
18 cover crops or it may be collecting several years of
19 data to tell a story of sustained environmental
20 improvement.

21 A lot of our members are implementing projects
22 through Field to Market to reduce greenhouse gas

1 indirect emissions. And I would like to run you through
2 where we fit in the process of Scope 3 inventories.

3 They use the greenhouse gas protocol to
4 measure and account for their Scope 3 emissions. As you
5 may know, the greenhouse gas protocol land sector
6 removal draft guidance has been released recently for
7 pilot testing and explains how companies should account
8 for and report greenhouse gas emissions and removals
9 from land-based activities in their inventories.

10 Following that, some of them set up a science-
11 based target to play their part in helping keep global
12 warming at or below 2 degrees Celsius. The flag SPTI
13 explains how companies can set science-based targets to
14 reduce land-based emissions. They report and disclose
15 their reduction target using different voluntary
16 reporting frameworks, and this is where we fit in. We
17 can help them reduce emissions and reach their science-
18 based targets. And this cycle is repeated annually.

19 I would like to provide you with some specific
20 member examples. In September, ADM and PEPSICO, two
21 longstanding Field to Market members, announced a
22 groundbreaking seven and a half-year strategic agreement

1 to collaborate on projects that aim to significantly
2 expand regenerative agriculture across their shared
3 North American supply chains. This strategic
4 partnership is expected to reach up to two million acres
5 by 2030. Both entities will be using Field to Market to
6 track their efforts and goals. This agreement and the
7 projects within it will initially enroll corn, soy,
8 wheat, and wheat farmers across Kansas, Minnesota, Iowa,
9 Illinois, Indiana, and Nebraska to increase visibility
10 across the supply chain and integrate a range of
11 multiyear farmer-first regenerative agriculture
12 initiatives, including cover crops, reduced tillage,
13 nutrient management, diverse rotations, and responsible
14 pesticide use.

15 Reaching this strategic partnership's goals
16 could eliminate 1.4 million metric tons of greenhouse
17 gases, equivalent to the amount of electricity used to
18 power 275,000 homes per year at the farm level while
19 creating meaningful shared value directly to farmers.

20 However, this groundbreaking agreement isn't
21 the beginning of the ADM and PEPSICO partnership. To
22 date, ADM and PEPSICO have worked together on 25

1 projects registered within Field to Market's Continuous
2 Improvement Accelerator. You can see that these
3 projects range in their geography. Projects have
4 focused on corn, wheats, and/or soybean and have been
5 tracking a variety of Field to Market metrics, including
6 greenhouse gas emissions, irrigation, water use, land
7 use, soil carbon, water quality, and soil conservation.

8 For the past two years, ADM's and PEPSICO's
9 work together on various projects has awarded them and
10 their additional partners the title of Collaboration of
11 the Year. Just a few weeks ago, Field to Market
12 announced that our 2022 collaboration of the year was
13 supporting Nebraska farmers to boost resiliency by cover
14 cropping projects. This project honored ADM and PEPSICO
15 as well as practical farmers of Iowa and Keurig-Dr.
16 Pepper for their work to advance corn and soybean
17 sustainability in Nebraska. Farmers Business Network
18 has joined this partnership in 2022.

19 Enrolled in Field to Market's Continuous
20 Improvement Accelerator, this project has united cross-
21 sector collaboration, cross-sector organizations, and
22 competitors to continuously improve productivity,

1 profitability, and environmental outcomes for farmers
2 through direct contribution of funds to provide
3 technical assistance to growers in subsidized cover crop
4 seed. The project provides a cost share on up to 200
5 acres for the adoption of a soil health practice.

6 In 2021, the project's first year, 38 farmers
7 enrolled in the project, planning over 15,800 acres of
8 cover crops, surpassing the goal the partners set in
9 2021. Beyond improving environmental outcomes, this
10 year's collaboration of the year also focuses on
11 achieving behavioral change among farmers, showcasing
12 the environmental and economic benefits of soil health
13 practices to encourage practice adoption and
14 maintenance.

15 Farmers enrolled in the project are given a
16 membership to Practical Farmers of Iowa, allowing them
17 to access the peer-to-peer learning opportunities PFI
18 provides. Upon joining, each farmer is also given a
19 welcome call from another farmer, who has experience
20 with cover crops. These efforts help to build a peer
21 network for farmers within the project, hopefully
22 removing some of the isolation some producers may feel

1 when trying a new or different practice compared to
2 their neighbor.

3 Opportunities exist within the program to
4 attend cover crop and soil health field days and
5 workshops. Each participant can also develop cover crop
6 plans with PFI cover crop agronomic experts.

7 Another project ADM and PEPSICO have been
8 working on together is the ADM and Illinois Corn Growers
9 Association Corn Illinois Project. Registered as an
10 innovation project, ADM, PEPSICO, and the Illinois Corn
11 Growers Association are using a cost-share mechanism to
12 increase the adoption of cover crops. This mechanism
13 provides cost-share funding for new cover crops in
14 nitrogen per acre.

15 Another Field to Market, Mondel.z, has been
16 tracking sustainability through a number of projects in
17 our Fieldprint Platform. I would like to share a little
18 bit more about one of their projects. This one,
19 operating in Michigan, is titled, "The Mondel.z Michigan
20 Wheat Project." Registered as an insight project in our
21 accelerator, this project aims to support participating
22 farmers in understanding the greenhouse gas emission

1 impacts of their current management decisions through
2 use of the Fieldprint Platform, incentivize the adoption
3 of nutrient management and soil health practices that
4 reduce greenhouse gas emissions.

5 Project data generated is given to a third
6 party sustainability consultant to help with data
7 analysis. The Field to Market data is used to generate
8 supplier-specific emissions factors. Mondel.z is
9 working with Co-Op Elevator, who provides agronomist
10 expertise and helps with data entry in sharing with
11 growers, and Michigan State University, who assists with
12 grower outreach on this project.

13 In 2021, there were about 150 growers involved
14 in this project, who enrolled approximately 30,000
15 acres. And 2022's numbers look similar. The winter
16 wheat sources through this project is utilized for
17 Mondel.z Triscuit crackers.

18 Shifting gears, I would like to finish out by
19 talking about Field to Market's work in the innovative
20 finance space. Field to Market spent a lot of time over
21 the last few years working with experts across our
22 membership to uncover some of the key barriers to

1 scaling sustainable and climate-smart practices. In
2 2022, we partnered with Trust in Food to conduct a
3 survey of more than 500 farmers across the Nation within
4 their network. Farmers understand the long-term benefit
5 of conservation practices, but the short-term risks of
6 productivity and profitability often create barriers to
7 adoption. I would like to dig into a little bit of that
8 right now.

9 So what we found was that 62 percent of
10 farmers believe that implementing conservation practices
11 improves their long-term profitability and 74 percent of
12 farmers believe that they should receive monetary
13 incentives for adopting certain practices that benefit
14 the public good. Nearly all respondents indicated they
15 are currently implementing to some extent or have tried
16 at least one conservation practice. Where farmers see
17 value, they are not seeing a return on that value,
18 unfortunately. Only 15 percent of farmers in the survey
19 have received better market access or additional revenue
20 due to implementing conservation practices. That study
21 drove the point home for Field to Market and our members
22 that we must all share in the risk and reward of

1 sustainable agriculture and have laid the groundwork for
2 Field to Market's work in innovative finance, showing
3 that there is a growing attention on the financial
4 barriers to adoption. There are growing questions about
5 how financial innovation can overcome these barriers.
6 There is a need for targeted solutions to address key
7 farmer barriers. And there is an opportunity to map out
8 some innovative finance mechanisms to target and solve
9 key challenges.

10 Throughout 2021, Field to Market formed an
11 innovative finance working group and worked to identify
12 some of these financial strategies to help producers
13 overcome barriers to adoption. In that report, created
14 from the innovative finance workgroup, we provided 12
15 key blueprints for companies across the supply chain to
16 explore as they consider how to harness different
17 financial mechanisms to support farmers. It shares
18 concrete strategies for overcoming key barriers to
19 farmer adoption of conservative practices moving beyond
20 early adopters and addressing the agronomic and
21 financial risk farmers face in transitioning to these
22 practices necessary for a more resilient agricultural

1 system. Since the publishing of that report, the
2 workgroup has now become a full standing committee
3 within Field to Market so that they can continue this
4 valuable work.

5 The innovative finance workgroup examines
6 solutions and blueprints in five area: blended finance
7 sustainable finance, transition risk sharing, and land
8 tenure and leasing incentives. Each of the 12
9 blueprints created falls into one of these categories.

10 The report concluded with three key
11 recommendations to guide the action and implementation
12 plans of companies interested in harnessing innovative
13 financial incentives to accelerate sustainable outcomes.
14 Those were to engage existing financial partners
15 throughout the value chain in discussions about
16 sustainability; experiment and pilot innovative
17 financial mechanisms in diversified incentive strategies
18 tailored to address farmer needs, challenges, and
19 motivations; and, finally, share the results to spur
20 adoption and innovation across the industry. Be sure to
21 check out the full report on our website.

22 Tied to that report is Field to Market's

1 Partnerships for Climate-Smart Commodities USDA grants.
2 We were awarded with a funding ceiling of up to \$70
3 million. Our proposal was built off our innovative
4 finance report. Our project will center around the
5 climate-smart agriculture innovative finance initiative,
6 which will use innovative finance mechanisms to
7 accelerate climate-smart practice uptake by farmers,
8 leveraging private sector demands to strengthen markets
9 for climate-smart commodities. While we have had our
10 initial meeting with USDA, there are several details we
11 were still working through. And we look forward to
12 sharing more information about the final projects in the
13 coming weeks.

14 This project will cover more than 30 states
15 and reach over 10 commodities. The project will use
16 innovative finance mechanisms to accelerate climate-
17 smart practice uptake by farmers, leveraging private
18 sector demands to strengthen markets for climate-smart
19 commodities. Partners will provide technical assistance
20 and additional financial incentives to a diverse array
21 of producers across the commodities, tying climate-smart
22 practices to commodity purchases in creating a scalable

1 model for private sector investment. A portion of the
2 awarded funds will specifically support black and Native
3 producers, assisting underserved producers in adopting
4 climate-smart practices.

5 In addition to our own led project, we were
6 named as a major partner in five other projects with
7 National Association of Conservation Districts as one,
8 ADM as another, National Sorghum Producers as another,
9 USA Rice as another, and Wolfe's Neck Center as the
10 final one.

11 In closing, I would just like to say that no
12 one sector can do it alone. It is going to take each of
13 us to reinvest and reinvigorate our work into
14 understanding the barriers and opportunities because
15 there's a lot of opportunity here facing agriculture as
16 we seek to shape a more resilient, equitable, and
17 sustainable future. We must work across the supply
18 chain to achieve necessary outcomes. And Field to
19 Market is the right organization at the right time to
20 lead the value chain toward sustainability.

21 Before taking questions, I would like to turn
22 to Robbie Boone to talk about our USDA program.

1 MR. BOONE: Well, thank you. Thank you,
2 Scott. And what was echoed earlier, I want to thank the
3 Commission, the Chairman, and all the Commissioners for
4 taking time, particularly in the midst of everything
5 else going on. Just your dedication, your agricultural,
6 the Commission's agricultural, roots is much
7 appreciated.

8 With respect to Field to Market, I just wanted
9 to add that Farm Credit Council was very pleased to join
10 Field to Market earlier this year. We are participating
11 in the Innovative Finance Committee. As many of you
12 know, Farm Credit has been providing for the credit
13 needs of rural communities in agriculture for over a
14 century. But there were \$360 billion in gross loans.
15 We are excited about this work related to climate-smart
16 commodities, particularly the grants, and see as we are
17 partnering with our local institutions just to better
18 understand the intersection of farm profitability,
19 environmental impacts, sustainability. We're excited to
20 see how this plays out over the next year.

21 ACTING CHAIR WEYLS: Thank you, Scott and
22 Robbie.

1 Let's go to members in person. Are there any
2 questions?

3 MR. ELFMANN: I have one question.

4 MR. HERNDON: Yes?

5 MR. ELFMANN: On the finance side of it --

6 MR. HERNDON: Yes.

7 MR. ELFMANN: -- because I'm the other half
8 the equation here --

9 MR. HERNDON: Yes.

10 MR. ELFMANN: -- from the Farm Credit guys,
11 have you started talking to lenders about how they're
12 changing underwriting practices and some of the things
13 they are looking at because from the banking side of the
14 world, some of our larger institutions are really
15 looking at, do we change our underwriting to better
16 reflect sustainability and things that are happening,
17 especially across the ESG space, right? So I was just
18 curious if you had reached out or I guess, second part,
19 how can I be a resource to help you reach out to some of
20 those institutions?

21 MR. HERNDON: Yes. Thank you, Ed. I would
22 like to turn it back to you.

1 Like, we have started initial discussions.

2 And in developing recommendations for our innovative
3 finance report, we certainly took input from financial
4 lenders. But I think that there is a fear from farmers.
5 They want it to be an incentive, not a mandatory angle.
6 And so that is something that we want to hold true to.
7 That is the feedback I've gotten.

8 MR. ELFMANN: I will say from our end, too, we
9 don't want it to be a mandatory thing either. We want
10 it to be -- one thing that happens a lot in the banking
11 industry is there is a separation between agricultural
12 underwriting and commercial underwriting, right?

13 MR. HERNDON: Yes.

14 MR. ELFMANN: So I think part of it is
15 connecting with groups like yours to make sure that our
16 agriculture underwriters understand the dynamics that go
17 into some of this stuff, so would just love to find ways
18 to connect.

19 And, then, I will say from where we stand, we
20 have been working with EDF a lot on some of this, too.
21 So I think there are some things we are already working
22 on that will line up very nicely with what you are doing

1 as well.

2 MR. HERNDON: Yes, absolutely. EDF was
3 instrumental in our innovative finance report. So
4 probably a lot of the input that you provided made it in
5 our report. But I look forward to collaborating with
6 you directly going forward.

7 MR. ELFMANN: Thank you.

8 MR. HERNDON: Yes.

9 ACTING CHAIR WEYLS: Let's now turn to our
10 virtual participants. We have a question from Hayden
11 Wands.

12 MR. WANDS: Yes. So I'm representing the
13 American Bakers Association. So I appreciate your
14 comments, Scott.

15 Just a question. Obviously, a lot of our
16 members are looking at regenerative agriculture. And I
17 guess, really, a two-part question I have for you is,
18 does Field to Market -- are you going to be coming out
19 or do you have a definition of what you feel qualifies
20 as an RA acre? In other words, if a producer has
21 instilled these farming practices, once they have
22 instilled these farming practices, they can say that the

1 production on that acre is produced using regenerative
2 agricultural practices. I guess, do you have a
3 definition or are you going to have a definition of what
4 Field to Market feels is a qualified RA acre?

5 MR. HERNDON: Yes. Thank you for the
6 question, Hayden. Yes. I think we are giving this to
7 members to define. They could come up and say that
8 something is a regenerative acre based on this
9 definition. And we are currently operationalizing the
10 definition, if that is even a word, into our metrics,
11 but it's not too dissimilar from sustainable
12 agriculture. But there was a need and a demand for us
13 to adopt a regenerative ag definition.

14 But yes, it's flexible. It's principles. But
15 yes. So I think we couldn't say today that, but I think
16 it is something we are looking at.

17 It is a good question.

18 MR. WANDS: And the second follow-up question
19 -- and thank you. So you are in the same boat that we
20 are. The second question, we have had the USDA come in
21 and define what an organic acre is or what an organic
22 agricultural product is. Do you feel that that is going

1 to be the way regenerative agriculture is going to go or
2 do you have a sense that it is going to be more like the
3 non-GMO project, where it is more of a private-based
4 enterprise that the industry adopts as the "seal of
5 approval" for RA, like they did for non-GMO?

6 MR. HERNDON: Yes. So nothing would lead me
7 to believe at this point that USDA is going to adopt a
8 regenerative agriculture definition, but that might be a
9 better question for Dr. Nickerson.

10 DR. NICKERSON: Or perhaps my colleague Erin
11 but don't have any comment at the time on that one.

12 MR. HERNDON: And I will say that our
13 definition is new and we try to get something that would
14 be supported by our 168 members. So it has got
15 widespread support and lots of push and pull developing
16 it. So I think folks have comfort that our definition
17 is a good workable one. But certainly if USA wanted to
18 adopt the definition, we would help them with that
19 process for sure.

20 ACTING CHAIR WEYLS: Thanks, Scott.

21 MR. WANDS: Thank you very much. Yes.

22 ACTING CHAIR WEYLS: I'm going to now turn it

1 over to the Chairman and the Commissioners to see if
2 there are any questions.

3 COMMISSIONER MERSINGER: I have a couple of
4 questions. I will try to consolidate them for the sake
5 of time. I am always interested in the way -- that
6 calculation for the carbon output of the soil. Is that
7 calculated based on the soil when it is not planted and
8 not producing or how do you bring in the carbon kind of
9 absorption that comes with planted acres into that soil?
10 And what really goes into that data?

11 MR. HERNDON: That's a great question. Thank
12 you, Commissioner Mersinger.

13 So ours is all modeling. So we are not doing
14 any soil testing. And just yesterday along, we
15 conducted a webinar for our members that was run by
16 PEPSICO and ADM describing how they would measure their
17 reductions in greenhouse gas inventories. So that is
18 not directly soil carbon. That's more emissions. But,
19 basically, they would have a control field, a field that
20 wasn't adopting any of the cover cropping or reduced
21 tillage. And they would set that as a control. And
22 then they would have the field with the intervention.

1 And then they would measure the difference between the
2 two. And that would allow them to come up with a
3 measurement.

4 But we are using NRCS' Soil Conditioning Index
5 for our soil carbon metric. So we haven't created our
6 own at this point. We are using USDA's. And I think
7 that's important because COMET Planner is being utilized
8 throughout the USDA partnerships for climate-smart
9 commodities. So the USDA models are the baseline for
10 all of the money out there. And some of that we're
11 supplementing with our own individual metrics.

12 COMMISSIONER MERSINGER: Thank you. That's
13 really helpful.

14 The other thing I was interested in, when you
15 talk about some of the innovative finance and that some
16 of this has to do with your looking at leases and in
17 those setups for family farms, I hadn't really thought
18 about this until we were in Arkansas and we met with
19 their legal agriculture team at the university there.
20 And they had mentioned about how they are trying to
21 reach out to a lot of family farms and offer legal
22 advice because there are folks in the industry who are

1 coming forward with land leases and contracts that are,
2 one, just not favorable to the farmers; but, two, also
3 don't recognize the difficulties that some of these
4 farms face when they go into a situation where there is
5 estate planning or when the head of the family passes
6 away and suddenly the farm is now divided between
7 numerous siblings and so just wondering if you all are
8 working on that and talking to farmers and offering any
9 help on looking at some of these leasing and tenure
10 options that are being put forward for some of the
11 carbon capture projects that are starting up.

12 MR. HERNDON: Yes. Thank you very much for
13 the question. And I am an attorney. So I certainly
14 appreciate the value of contracts and a well-written
15 contract and certainly contract that is reviewed by your
16 own personal counsel. I would always recommend that
17 anybody who is going to sign a land tenure or leasing
18 incentive review that with their own counsel.

19 But we were part of a group called the Climate
20 Markets Collaborative, which adopted a framework. And
21 one of the key issues was transparency of contracts
22 because I've heard similar stories. And there is

1 certainly a fear about farmers potentially not knowing
2 what they are signing up for. So our farmers share the
3 same concern. So we have been active in the Climate
4 Markets Collaborative. You could look online and look
5 at what they have outlined. We helped with that. And
6 it calls for transparency.

7 COMMISSIONER MERSINGER: Thank you.

8 ACTING CHAIR WEYLS: Thank you, Commissioner
9 Mersinger. And thank you, Scott, again.

10 We're going to now take a short, 10-minute,
11 break. It is 10:59, for the record.

12 (Recess taken from 10:59 a.m. to 11:13 a.m.)

13 ACTING CHAIR WEYLS: Let's get started again.
14 Now for our third presentation, we will hear from Tim
15 Andriesen from the CME Group, the managing director of
16 their agricultural products on evolving price limits in
17 the ag markets.

18 MR. ANDRIESEN: Commissioners, Mr. Chairman,
19 and the Committee, we appreciate the opportunity to be
20 here today. We really appreciate the opportunity to be
21 part of this Committee. Historically, we have been
22 sitting at this chair on frequent opportunities talking

1 to the Committee and haven't been a part. And we
2 appreciate having a voice in the Committee in a way that
3 we haven't in the past.

4 I have been around the agricultural markets
5 for a really long time, about 40 years. And as long as
6 I can remember, markets have had price limits. In many,
7 many years of those, those limits were determined by
8 member committees. This is back when commodity
9 exchanges were mutualized organizations. They would get
10 together on some reason and decide to change the price
11 limits. When I joined in 2009, I really couldn't
12 understand what the logic was behind that, but it was
13 simply the way that the exchange had operated.

14 Shortly thereafter, myself and our team of
15 economists got together and said there really needs to
16 be a different way to think about price limits and to
17 make decisions around price limits. The challenge that
18 we have with price limit is that, on one hand, we have
19 to have price discovery. And we want to have markets
20 that discover price, particularly in times when markets
21 have extreme moves. When markets are moving, extreme
22 price discovery and the ability to execute in those

1 marketplaces is very, very important. On the other
2 hand, we have a lot of customers and a lot of concerns
3 about markets that move significantly and the impact,
4 particularly on the smaller player in the marketplace.
5 A smaller market participant typically may not be as
6 well-capitalized when markets start to move
7 significantly. And here we are talking about smaller
8 commercials, producers, folks like that. Markets start
9 to move significantly. They have to talk to their
10 banker, make sure that they have the ability to maintain
11 credit lines to meet margins.

12 So we are constantly trying to find a balance
13 in between of how do we ensure both of those things take
14 place. How do we ensure that price limits can at least
15 slow down significant moves in the marketplace but at
16 the same time, we continue to maintain price discovery?

17 The other thing we felt it was really
18 important for us to do is to create clarity of process.
19 It is really difficult as a trader to say, "Here's where
20 I am. Here is what is going on. Here is what I expect
21 tomorrow" and, then, all of a sudden, the exchange comes
22 along and says, "Guess what. You have a new price

1 limit." And that was the environment that we lived in
2 for quite some time.

3 So we went about trying to develop a process
4 that would allow us to have a clear mechanism and a
5 clear approach to price limits and beyond that, one that
6 had some sort of mathematical basis to it. So we took
7 the approach of what we called variable price limits.
8 We have been phasing these into our markets since 2012
9 in the agricultural markets or in the grain markets and
10 most recently, a few years ago, in the livestock
11 markets.

12 The idea is quantitative in that we believe
13 that you are going to have limit movements in the
14 marketplace. That is just the nature of markets. But
15 you should have or at least target some mathematical
16 number of limit moves. There is no right answer to this
17 question. What is the right number of limit moves or
18 how tight should the bands be?

19 But the approach we have taken, we said, look,
20 if we have 1 out of 100 sessions where we hit limits 2
21 to 3 days a year, that is probably reasonable. It
22 continues to allow the market to move. But we are going

1 to have events pretty much every year that probably
2 warrant hitting a price limit. So we took the approach
3 of saying let's see if we can solve so that 1 out of 100
4 days mathematically, we would hit a limit.

5 We recognize that markets aren't normal. You
6 don't have a standard distribution. You don't even have
7 log-normal distribution. You have crazy distributions,
8 like we have seen in this year, where that isn't going
9 to work. You are not going to have one price limit move
10 in 100 days. You are going to have four or five when
11 you have something significant happen in the
12 marketplace. So we recognize that it is not always
13 going to work as nicely as you could mathematically
14 model it.

15 The second thing we said is when you are
16 looking at volatility, it needs to be relative to the
17 price. So a 25 percent volatility on a \$2.50 corn is a
18 whole lot different than 25 percent volatility on \$10
19 corn. You know, mathematically, it is just simply four
20 times as much. So the price limit needs to be tied to
21 the price of the underlying so that as the price of the
22 underlying goes up and down, the price limit also

1 expands and contracts.

2 We know that that happens over time. We had a
3 lot of discussions as to whether it should change every
4 day. And we finally settled on the idea that about
5 twice a year, we should look at the price of the
6 underlying, figure out what it is, apply a percentage to
7 that, and come up with a price limit that would be the
8 band for the next six months. We could do it more
9 frequently. We could do it less frequently. In fact,
10 in lumber, we do it daily. But for the most part, the
11 feedback we got from customers was twice a year,
12 particularly with grains looking in the spring, where we
13 can get some forward look as to what we would expect the
14 crop to be and in the fall, where we have a general
15 sense of what the harvest was going to be would be
16 reasonable windows to look at the price.

17 So we put in place this concept of variable
18 price limits. In the case of grains, that is 7 percent.
19 So twice a year, we will look at the underlying price of
20 grain. We will calculate a limit based on 7 percent of
21 that price. There will be some rounding numbers to make
22 sure that it is a nice, round number. You don't want a

1 price limit that is 37 and a half cents or something
2 like that. So there are some rules in play. And then
3 we will publish those price limits.

4 That process worked particularly well. And we
5 still believe it works particularly well. But this year
6 we had obviously some levels of volatility in the
7 marketplace that we had never anticipated before. And
8 what I wanted to do is take a couple of minutes and
9 actually walk you through what we saw in the marketplace
10 and our thought process around that in terms of price
11 limits and also why we decided to make a change in price
12 limits.

13 I want to emphasize that what I can tell you
14 about it is from the business side. Clearly, while all
15 things are going on, there is a very significant amount
16 of communication with CME, with the clearinghouse, not
17 between us but with the clearinghouse, looking at these
18 things and looking at margins. And margins are
19 completely calculated independent of the business. The
20 clearinghouse does not communicate with the business of
21 CME about what margins should be. Their whole goal is
22 to place margins and set margins at a level that ensures

1 the integrity of the clearinghouse and the clearing
2 process.

3 Secondarily, market reg. Market reg and the
4 business talk a little bit, but, essentially, market reg
5 is I believe always having a conversation around the
6 CFTC around issues. And that is, again, independent of
7 the conversations we were having. Predominantly were we
8 are engaged is through my team and through our team
9 economists engaging with the CFTC. And in the case of
10 this, it was with Christa Lachenmayr, who I know is no
11 longer with the CFTC.

12 So let's see if we can switch over to Tableau.
13 This is going to take a second here. So there is a lot
14 on here. Let me kind of explain to you what you are
15 looking at. So there are two contracts here. The top
16 three sections are May wheat. The bottom three sections
17 are July wheat. The blue represents price. And each
18 line of blue is one day. The red represents bids and
19 asks, depth of the book. And the purple represents
20 trade on a minute-by-minute basis.

21 So what we are looking at here is this is the
22 week of the invasion. The Monday, Tuesday I cut off.

1 There is nothing exciting happening. Wednesday, you
2 could see the markets start to anticipate the invasion
3 happening. Prices rallied. The book was fairly orderly
4 throughout that. And we saw volumes.

5 I would also like to point out that this is
6 the whole trading day. So this is from the evening
7 through the close the next day. So if you look at this
8 section of this line, that typically represents the day
9 trade, as opposed to what is happening overnight.

10 This is the day of the invasion. And you can
11 see that very early in that day, as a matter of fact, at
12 10:35 -- these are all Central Time -- the market went
13 limit. And the market stayed limit throughout the
14 night. The bid, one of the things we look at is how
15 deep is the bid at limit. So we saw at this point in
16 time, we literally had 66,000 contracts bid at limit.

17 When we look at how well the market is
18 discovering price or handling limits, there is a couple
19 of things we look at. Number one, we look at trade.
20 Even when the market is at limit, it will occasionally
21 trade at limit or it will come off at limit and trade.

22 Number two, we look at spread trade. If you

1 are a trader and a market is limit, one of the ways you
2 can execute is that you can go back to one of the back
3 months, execute in a back month, and then trade a spread
4 against the front month. So, effectively, you are still
5 being able to hedge in the front month, but, you know,
6 you have to go a little bit more complicated to get
7 there.

8 The third thing we look at is we look at the
9 synthetics. So you can look at an option, you can look
10 at it deep in the money option and look at the futures
11 price it is implying. And that tells you what the
12 market is suggesting that the market should be trading
13 at if the futures were trading.

14 So those are three things that we are
15 constantly looking at when we start to get into a limit
16 condition to see what we need to do or what is going on
17 with the marketplace.

18 So as we look at that day, we saw a pool of
19 about 66,000 develop. When the day session came along,
20 we started to see trade. We didn't see near as much a
21 pool in the July contract. And, again, we saw a good
22 amount of trade. Typically, if you look at a pattern of

1 trade on the exchange, you will see a lot of trade near
2 the open, you will see a lot of trade near the close,
3 and you will see trade during the course of the day.

4 So, clearly, what was going on was on a radar
5 screen as to this is not a normal market condition, we
6 need to be looking at what is happening. The Friday
7 was, quite frankly, not a particularly remarkable day.
8 We didn't see limits. We saw the market trade lower.
9 So I think the market started to digest what was going
10 on and decided that maybe there wasn't as much here to
11 see as they thought.

12 Starting with Monday, the next day -- so this
13 is actually starting Sunday night, the next day --
14 again, that Monday was a pretty noneventful day.
15 Tuesday, you'll note we started to trade up higher. And
16 toward the end of the day Tuesday, we started to hit
17 limits again. And we hit limit significantly on the
18 nearby contract, on the May contract. We did see a
19 little bit of trade, not much. And, then, we also
20 started to see pools build in the July contract, 32,000
21 bid.

22 So what we are starting to see is we are

1 starting to see in our mind, wait a minute, maybe there
2 is more of a response in the marketplace to what is
3 going on than the last two days have shown.

4 If you move on to Wednesday, you can see that,
5 again, overnight, we traded. We hit limits again. And
6 during the day, we hit limits in a very significant way
7 with an even bigger pool building, about 160,000
8 contracts, same thing in the May. What we were also
9 seeing as this took place is we were starting to see the
10 synthetics, the synthetic options, implying a price that
11 is significantly higher than where the futures price was
12 showing.

13 So about Wednesday or so, we were meeting on a
14 pretty regular basis. And what's going to happen here,
15 this is clearly an unprecedented event. It is clearly
16 having a significant market impact. What, if anything,
17 do we need to do?

18 We then went into Thursday. Again, we saw --
19 hang on a second here -- overnight hit limits. Thursday
20 afternoon, we saw again significant limits with
21 significant pools. We are 173,000 contracts bid. And
22 we also continue to see a big build. There is another

1 50,000 there. At that point in time, we decided that
2 looking at how our limits had been working, how our
3 markets were working, that we probably needed to figure
4 out a way to create more expansion in our limits.

5 Now, normally for us to change our limit
6 scheme, it is a 45-day process. We come up with what we
7 want to do. We submit it to the CFTC. Forty-five days
8 later, they say yes or no.

9 I want to give the most amazing kudos to the
10 CFTC because Friday morning or Friday night and then
11 Friday morning, we opened up limit on both of these
12 contracts. As you can see, there was virtually no trade
13 in both of the contracts. And we had significant pools.
14 We had up to 200,000 bid there. We had up to 50,000 bid
15 there.

16 Friday morning, we engaged with the CFTC and
17 said, look, we need to change the limit structure. We
18 think the market is not discovering price the way we
19 would like it to. And here is our proposal. Now,
20 coming to that, we had gotten a lot of feedback from
21 customers.

22 And I will tell you the feedback is in

1 completely different directions. We had a lot of
2 customers saying, you just simply need to take all the
3 limits off the market. Particularly, some of the
4 financial participants were saying from an instant
5 standpoint, we're having market disruption events. We
6 can't settle products. We can't settle indexes that we
7 are running. We need price discovery.

8 On the other end, we had smaller participants
9 saying you need to -- these limits are too tight. You
10 need to tighten the market up. Okay? We are having to
11 go to a banker virtually every day to get more money to
12 try to be able to meet our margin calls.

13 And there was a lot of people sort of in the
14 middle who were saying, look, the market's working, but
15 it probably needs a little bit more breathing space.

16 We are always trying to listen to all of those
17 and weigh across those different interests what should
18 we do. At the same time, I might also point out that
19 the clearinghouse independent of any action we're taking
20 had significantly increased margins. So I think margins
21 were at about a day and a half's worth of moves.

22 So we got to the point where Friday morning,

1 we engaged with the CFTC. And we said we want to change
2 the limit structure. Again, this is a 45-day process.
3 On Saturday, they approved it. So I will tell you that
4 when things need to move, things move. And I really
5 appreciate that because I think how that happened was
6 pretty phenomenal.

7 So Sunday night, we went into the marketplace
8 with expanded limits, with expanded beyond what we
9 typically would have had expanded. On Sunday and
10 Monday, we continued to see the market hit limits, but
11 we saw the synthetics come in significantly. We saw a
12 significant amount more of spread trade in the
13 marketplace. And we saw pools only in the nearby and no
14 pools in the next contract. And we definitely saw trade
15 in the next contract. So we're feeling much more
16 comfortable.

17 On Tuesday of that week, as you can see, we
18 went back to a situation where we had definitely two-
19 sided trade in the marketplace. We didn't have pools
20 build. We saw good volume as people were trying to
21 catch up in terms of risk management. And,
22 interestingly, on the following Wednesday, we saw a

1 fairly tight range. And then we saw the market go limit
2 down. So the market was still again trying to adjust
3 for and digest what it was hearing in the marketplace
4 relative to what is going on in the Ukrainian situation.
5 From that point forward, there weren't any really
6 significant limit events in multiples like that.

7 I can switch back to the other presentation.
8 So what we did in that movement and what we then kind of
9 codified and cleaned up and are looking to do in all of
10 our products is based on a couple of learnings we had.
11 And we also had a similar situation in lumber earlier in
12 the year, too, where we saw lumber. The whole idea of
13 variable price limits hinges upon the value of the
14 asset.

15 Lumber, we saw the value of the asset go from
16 \$600 to \$1,300. So if you think of a percent, if your
17 limit is 10 percent of \$600 and you go to \$1,300, it has
18 functionally become 4 and some percent of that. In the
19 case of wheat, we saw a 40 percent increase. So,
20 essentially, our 7 percent limit became a 4 percent
21 limit. So we said we need to think of a way to allow
22 the market to adapt to a situation where we have a

1 significant move in the underlying.

2 So the other thing that we found is we found
3 that the way the limit rules worked is it was very easy
4 to retract and snap back to original limits, but we
5 wanted to be able to within the rules maintain expanded
6 limits for a longer period of time so that we would have
7 the ability to discover price. So we have made some
8 changes. And these are changes we would expect to
9 implement across all of our agricultural products.

10 Historically, there was a situation where we
11 would have to have two contract months hit limit and
12 stay at limit before we would expand to the expanded
13 limits. And now it's only one contract month.

14 In terms of the expanded limits, it used to be
15 that to remain in effect on the next business day, one
16 has to settle at least initial to the limit price. So,
17 in other words, if the limit was \$5, it would have to
18 settle at \$5. So it couldn't be anything less than an
19 expanded limit. Now we have changed that so that if it
20 is anything above the original limit, it continues to
21 stay expanded.

22 And, third, we have implemented a mechanism

1 that says if you have the market where it hits expanded
2 limits two days in a row, then we further expand that
3 and make that the base limit. And I'll walk you through
4 an example of what that would look like.

5 So if on day one, the limit was 50 cents, the
6 expanded limit was 75 cents and the price was \$5, then
7 on day 2, if the market went to 5.50, it would have hit
8 the 50-cent regular limit. And because of that, because
9 it is a limit move, it would expand to 75 cents. On day
10 2, let's say that the market went to 6.25. So it went
11 up 75 cents, hit the expanded limit. The limit would
12 continue to be expanded on day four. Let's say it went
13 to \$7, hit the 75-cent limit. Now what would happen is
14 the limit structure itself would change to where the
15 base limit becomes 75 cents and the expanded limit
16 becomes \$1.12. And this process can continue as long as
17 the market moves.

18 We went back historically. This would have
19 happened maybe twice in the last 20 years. So this
20 isn't something that we expect is going to happen very
21 often, but, as you are all aware, when those tail events
22 happen in the market is when you need things to be

1 predictable and you need things to work. And so that is
2 why we have taken this approach.

3 So right now, if you look at the limit
4 structure we have in place, we have the base. We still
5 have a base 7 percent limit for most of the grains.
6 Cattle is 4 and a quarter percent. Hogs are 4 and a
7 half percent. Lumber is in a completely different mode.
8 So the expansion goes to plus 50 percent. So currently,
9 limits are corn 45 cents and 70. Beans are \$1-\$1.50,
10 wheat .65 to a dollar. Meal is .30 to .45. Oil is four
11 and a half to seven. Cattle is five and three-quarters
12 to eight and a half. Hogs are four and three-quarters
13 to seven.

14 Now, I've got to tell you as somebody that has
15 been around a long time, these look big. And,
16 particularly, producers look at these limits and say
17 that's a really big limit. But, again, you know, the
18 approach we have taken is with -- where the underlying
19 prices are and mathematically, we think that these are
20 the right limits to get the right outcome in the
21 marketplace.

22 That is all I really had to cover, but I am

1 certainly happy to take questions.

2 ACTING CHAIR WEYLS: Do we have any questions
3 from the members in person? Yep, Liam Smith?

4 MR. SMITH: Sure. Liam Smith from the FIA
5 Principal Traders Group. Really appreciate the
6 Commission, Chair, and the other Commissioners for
7 setting this up and allowing us to participate in this
8 event. And, Tim, good to see you.

9 I think one thing on this that we wanted to
10 talk about is, you are right, it is a really tough
11 dynamic managing both those price limits. And what
12 happened during the Russian aggression is something that
13 had a very positive outcome, but it relied on, as you
14 said, extraordinary action. So I think a few questions
15 in there would be, one, what is the game plan going
16 forward for those extraordinary actions?

17 MR. ANDRIESEN: Yes.

18 MR. SMITH: Is it going to be the same
19 process? Is there any change to that because it did
20 work out but, again, over a weekend, as an example.

21 And the a few other pieces of questions there.
22 Why did we settle, just curious, on the biannual

1 lookback would be one versus, like, a more quarterly
2 process?

3 MR. ANDRIESEN: Yes.

4 MR. SMITH: And then, last piece, a lot of the
5 other commodity sets have added something like
6 philosophy logic or kind of level 2 market mechanisms to
7 help with this exact, like, moving too fast, too quick,
8 giving the market a breather but not closing it down. I
9 would be curious to hear if that exists in, again, say,
10 energy and metals, et cetera, just curious why I don't
11 believe that's in ags just yet but curious to hear your
12 thoughts on that.

13 MR. ANDRIESEN: Well, that covers pretty much
14 everything right there. So going forward, we are
15 changing all of our other commodities to the model that
16 we have in wheat. So, literally, you will know that if
17 you get two expanded limits, that the limit structure
18 will reset. So, instead of counting on us to do that,
19 you know that, hey, listen, I'm sitting here at limit on
20 day two. Tomorrow, the limit is going to be that is
21 going to be the base limit, and it has the ability to
22 expand further from that.

1 We don't like being in a place where market
2 participants have to guess about what we are going to
3 do. We want to be in a place where you have 100 percent
4 certainty that if this occurs, then this is how the
5 limit scheme is going to be changed.

6 Why twice a year? That's a really good
7 question. We could do it more frequently. And we have
8 had a lot of discussion. There's literally been
9 discussion of, should we change the limit every single
10 day? And I think the consensus has been and it has been
11 very much driven, particularly by some of the smaller
12 customers, that -- listen, it's really hard to keep
13 track of where limits are. I get you need to change it,
14 but can we keep that to a reasonably small number of
15 times? And so in grains, in particular, we looked at,
16 well, where does it make sense to change? Historically,
17 where do we see the changes in prices?

18 So the window that we used in the beginning of
19 the year incorporates the crop planting report, and it
20 incorporates a lot of information that should tell you,
21 hey, this is what we think the price is going to do
22 going forward. So we think that price is reasonably

1 informed. The price in the fall is based on harvest.
2 So we think that price is reasonably informed. We are
3 not locked down to twice a year. We're happy to look at
4 other intervals.

5 The third question, we do actually have
6 velocity logic. It tripped in this case. But the
7 velocity logic doesn't really do that. If you're
8 looking at things like circuit breakers, that is
9 something that we would certainly think about. We think
10 in general that the approach with circuit breakers would
11 be to put circuit breakers in place so that we are
12 stopping the market for a period of time, if it moves,
13 stopping the market again, but ultimately, even if it is
14 at a fairly significant amount, we would probably want
15 to have some sort of limit scheme in place just because
16 we do have a strong view and a strong desire to make
17 sure that the small market participants eventually have
18 something that stops it for the day and lets them go
19 talk to their bank or do whatever they need to.

20 ACTING CHAIR WEYLS: Thanks for that question,
21 Liam.

22 We have a question now from a virtual

1 participant. Justin Tupper, you have the floor.

2 MR. TUPPER: Thank you. Appreciate that. I
3 appreciate the Chairman for convening this meeting and
4 apologize for not being able to be there in person.

5 My question to Tim would be, do you think that
6 the market limits are causing some issues for
7 convergence? For example, into the live cattle markets
8 today, we see a board at 1.51 and actual trade in the
9 1.57 range. So because of the expanded limits, do you
10 see problems that allows the board to be quite a ways
11 apart and then converge hard at the end of a month?
12 Curious what your thoughts are.

13 MR. ANDRIESEN: So with contracts, as you get
14 into the delivery period, the rules change. So what you
15 don't want is a situation where the limits prevent the
16 market from converging. So, as a matter of fact, when
17 you get to literally the last day of convergence, there
18 are no limits. So that it does allow that to do that.

19 For the most part, limits are not affecting
20 things in the delivery period. For the most part,
21 limits are affecting things well out of the delivery
22 period. So we don't think that limits actually have a

1 significant impact when it comes to convergence in the
2 marketplace.

3 ACTING CHAIR WEYLS: We are short on time. So
4 let's move over to the Chairman and the Commissioners to
5 see if we have any questions. Commissioner Johnson?

6 COMMISSIONER JOHNSON: Thanks so much,
7 Brigitte.

8 So I want to thank Justin, Mr. Justin Tupper;
9 and Mr. Liam Smith for their questions. They were my
10 questions, in fact. I think the smartest question I
11 would have been able to come up with was about
12 convergence. So thanks so much for that and, Tim, for
13 your response.

14 But I also want to just sort of elevate the
15 conversation sort of back to a point you made earlier,
16 Tim, on circuit breakers, not necessarily focusing
17 specifically there but on the broader question of
18 macroeconomic conditions that are unique in that there
19 is this sustained and persistent volatility that has led
20 to some significant pressure. A number from this
21 community have been in this room in conversation with
22 myself, the Chair, and other Commissioners to talk about

1 how that has affected them and their ability to meet
2 margins. And so I am just thoughtful as we think about
3 what isn't sort of a momentary shock -- right? -- sort
4 of that March 2020 moment but what really has come to be
5 our new normal if there are thoughts about addressing
6 sort of this sustained set of macroeconomic conditions
7 that seems to be so persistent that it isn't an outlier.

8 MR. ANDRIESEN: That's a good question. I
9 mean, as long as we have high prices, unfortunately, we
10 are going to have high margins. It is just it is a
11 natural fact. I'm not the clearinghouse. So they could
12 answer this question with much more detail and skill
13 than I could.

14 If you look at what drives the margin, it is
15 two things. It is the absolute price, and it is the
16 volatility. It was interesting because as a lot of this
17 went on, the clearinghouse would have a briefing with
18 the rest of the business and would look at and say,
19 well, look, the fact of the matter is margins are up in
20 a significant way simply because the underlying asset is
21 up.

22 I don't think people appreciate how much the

1 implications of that are on the marketplace. Case in
2 point, we definitely see a lot of people participate
3 less in the market at higher prices, some people because
4 of margins. So, for example, if you are an index
5 player, you think in terms of dollars of exposure. Hey,
6 I've got a million dollars exposure to corn. That used
7 to be 40 contracts. Now it's 25 contracts. So you are
8 seeing a lot of participation. A lot of the prop
9 community, they are really good at framing the market
10 and trading the market, but their approach gets really
11 difficult when you have geopolitical events and the
12 shock movements in the marketplace. So, not
13 surprisingly, they will step back when that happens. So
14 I don't really have any good answers as to how to
15 address that.

16 I think eventually one of two things happens.
17 Either we get back to a lower volatility environment or
18 this just simply becomes the new normal and people start
19 to adapt to it. For a big part of my life, corn was
20 2.50. And that kind of ages me. But it is definitely a
21 different world that we live in now.

22 ACTING CHAIR WEYLS: Thanks, Commissioner

1 Johnson.

2 Do we have any more questions from the
3 Commissioners? Commissioner Mersinger?

4 COMMISSIONER MERSINGER: I have a question. I
5 hope it is simple to answer. When you have contracts
6 where there is a lot of kind of interconnectedness, like
7 if you're looking at the soybean complex, those
8 contracts, are they always considered individually or do
9 you look at the entire kind of complex when you are
10 trying to set those limits?

11 MR. ANDRIESEN: That's a good question. Meal
12 and oil are tied to beans. Feeder cattle and live
13 cattle are tied together for that reason, because there
14 is a spread relationship. And if you have one of the
15 legs limit, then what you end up with is the spread
16 getting out of shape for a while and creating some
17 margin implications because you may have the cattle
18 spread on. And then, all of a sudden, one leg if it
19 gets way out of whack, you end up getting margin because
20 one of your legs on that spread can't move with it. So
21 yes, we do look at those things.

22 ACTING CHAIR WEYLS: Thank you, Commissioner

1 Mersinger.

2 We don't have any other questions from the
3 Commissioners. Thank you, Tim.

4 We will now move to our fourth presentation
5 for the day. We will hear from Jessica Stephan and Tom
6 Erickson regarding the domestic and international
7 shipping, freight, and storage impacts on the grain
8 trade. Tom Erickson is outside counsel for NAEGA and
9 with Erickson Law and Consulting. And Jessica Stephan
10 is the chair of the National Grain and Feed Association
11 Waterborne Commerce Committee.

12 MS. STEPHAN: Hi, everybody. Again, my name
13 is Jessica Stephan. I just want to thank the Commission
14 and the Committee for having us here today to talk about
15 something that has been in the news a lot lately.

16 And I work for a company, Bunge North America.
17 I am logistics director. So today, I do represent the
18 1,000 members of National Grain and Feed Association as
19 chair of their Waterborne Commerce Committee, who have
20 been battling some of these low water and trading market
21 conditions alongside of me.

22 So, with that, I just wanted to talk a little

1 bit about who NGFA is. It's a very vital member-driven
2 organization. It has been around for a long time. We
3 are a nonprofit trade organization. And we represent
4 thousands of companies, over 7,500 facilities amongst
5 the various country elevators, feed mills, exporters,
6 commissioned brokers, banks, transportation, insurance,
7 industries within agriculture.

8 The focus of the member-driven organization is
9 to enhance and grow the economic performance of U.S.
10 agriculture. And we do that in a number of ways. And
11 one of the ways is really to engage with membership,
12 such as myself, where we serve on committees assisting
13 the association in their grassroots campaign, their
14 education campaign, however we can service our
15 membership on key industry issues or providing our
16 subject matter expertise.

17 America's waterways system is super crucial,
18 obviously, to the economy. We have talked a lot about
19 that today. And I'm going to go in detail of, again,
20 what makes that the case as well as what were some of
21 the more detailed issues that we were battling this year
22 because it does really kind of tie into what Tom is

1 going to talk about later about the impact of trade as
2 well as tie back to a lot of the previous presentations
3 today.

4 As we have said several times, the waterways
5 system across the United States is about 12,000 miles.
6 So we always think of the major rivers, obviously. And
7 I will talk most specifically about the Mississippi
8 River, but the inland waterways system is very
9 important. Most of it connected. And there's a lot of
10 tributary rivers that go into the larger rivers that are
11 more of the navigation-critical ones across 28 states.
12 Annually, this system moves over 500 million tons. And
13 the value of those commodities, again, this is on an
14 average. So the share of the value would be
15 significantly higher, obviously, as we talked about, is
16 on average \$130 billion a year.

17 The river provides a lot to the economy in
18 regards to jobs and moves, as we have said, 60 percent
19 of Americans' grain exports, mostly out of the Gulf of
20 Mexico. It is by far -- and I will talk a little bit
21 about this -- the most cost-effective, safe, and
22 efficient, and sustainable mode of transportation. I

1 will also cover some of the risks to that and all of us
2 trying to meet some of those sustainability initiatives.

3 Keying in on the Mississippi River, again,
4 this is what is known as in the industry America's water
5 highway. It is the path of the darker blue line in the
6 map. It spans a little over 2,300 miles, starts in Lake
7 Itasca up in Minnesota and drains into the Gulf of
8 Mexico in New Orleans. It is a very important trade
9 corridor for energies, ags, and tons of other raw and
10 manufactured goods specific to different industries:
11 cement, a lot of building supply materials, and rock
12 salt for the winter months. It is one of the largest
13 rivers in the world. And, as discussed in the first
14 slide, the basin stretches between the Appalachian and
15 the Rocky Mountain ranges. And this part of the region
16 is responsible for over 92 percent of the total ag
17 products that are grown. So the drought is important
18 for crop production, but the drought is also important
19 for the transportation of all of these products.

20 It is important to note that the Army Corps of
21 Engineers oversees and has regulatory jurisdiction over
22 the river, its levees, and its locks and dams and is in

1 charge to maintain the channel depth, which is 9 foot
2 deep and 300 foot wide for this entire region of the
3 Mississippi River.

4 This is probably one of my favorite slides.
5 And there are different versions of this, but I think
6 this, from our friends at the Waterways Council, really
7 drives home the economies of scale. When we talk about
8 how vital these three modes of transportation are to
9 agriculture and when one or all of them is experiencing
10 issues, just how significant that can be felt on the
11 various ends of the supply chain. Again, one of my
12 favorite examples is 115 barge tow, which is the amount
13 of barges that a towboat can push north of St. Louis.
14 It is only a quarter-mile long. That is equivalent to 2
15 of the 108 car trains, so 216 railcars, which is almost
16 3 miles long. And then, more astounding, another stat
17 that I just love, is 1,050 equivalent semitrucks. So
18 that is 15 miles long. So if you take the thousands of
19 tows that transit materials up and down the river every
20 year and, all of a sudden, the waterways became not
21 viable, can you imagine the amount of congestion we
22 would have had on the rail and on the highways today?

1 And this is way. The waterway network is
2 fairly simple. It is vertical. It is not complicated.
3 It has been standardized for hundreds of years since the
4 Corps of Engineers was tasked back in the early 1800s
5 with creating a safe and efficient navigable waterway.
6 It has become the sustainable and the lowest carbon way
7 to transport goods up and down the river as well as the
8 commodities that are grown in the basin. Again, it is
9 pretty self-sufficient. You can see from kind of the
10 heat-mapping index where the bulk of the tons come from
11 feeding into the river.

12 Quite differently, as of 2020 from the
13 Department of Transportation, this is a map of the rail
14 network. So if you think back to the simplicity of the
15 waterway map, this is one that definitely has a lot more
16 complexities, not just to the agriculture sector but
17 also the energy sector. The railroad, along with the
18 waterways, these are old modes of transportation.
19 Again, starting in around 1800s, when we were looking at
20 ways to make the river more navigable, rail lines were
21 working with government on some of the charters to
22 develop more efficient ways to service industry.

1 One thing to note about the rail industry of
2 itself is that the hubs -- and you can kind of see the
3 color concentrations throughout the United States, but
4 rail was designed around the services and the industries
5 where they were located. So it is not always as viable
6 to switch between, say, waterways and rail, or vice
7 versa, when one of them or both of them has their issues
8 because the rail doesn't go everywhere. Along with the
9 major class, six Class One, railroads, there's lots of
10 other smaller regional players that service this
11 network. And, again, it is not as easy to take grain or
12 any type of other commodity off the river and throw it
13 on a railcar.

14 And something that I am sure that most
15 everybody feels if you have driven on a road, which I am
16 sure everybody in the room has, the daily, the average
17 daily, truck traffic. There was a study done back in
18 2022 highlighting again this very horizontal mode of
19 transportation. The Highway Department started
20 designing the highways from coast to coast versus the
21 waterway, obviously, is more of a vertical mode of
22 transportation. So there's a lot of complexities. This

1 is an expansive network full of many national highways
2 as well as smaller rural roads. And you can definitely
3 see where the concentrations are, and it matches up with
4 some of the higher concentration living areas across the
5 United States.

6 And, just to reflect back on my favorite slide
7 of the economies of scale, one barge tow of 15 barges is
8 the equivalent of 1,050 trucks. So if we, again, had to
9 replace the thousands of barge tows that are on the
10 river today and offload them or put them onto trucks to
11 get them to their final destination, I can't imagine
12 what this map would look like.

13 So, changing gears a little bit and kind of
14 looking at this both from somebody that is managing a
15 business through it but also somebody that's very
16 interested in the long-term sustainable future state of
17 the waterways, here are some of the major concerns.
18 Again, we focus in on the here and now of droughts and
19 floods that create supply chain disruptions. And those
20 are the ones that usually catch press and a lot of
21 attention because they're the here and now. But for
22 many years, the industry, including the members of

1 National Grain and Feed Association, have been working
2 to make sure that organizations like the CFTC and other
3 parts of the government know that the waterways have had
4 a track record of being underinvested. And that's no
5 news. So one aspect after today is if you hear the
6 terms "WRDA" or "NESP," you would stop, take a look, and
7 figure out what they are talking about because those are
8 some of the major congressional bills and legislation
9 that we watch closely that funds the waterways today.

10 Lock and dam maintenance, again, we talk a lot
11 about the environmental impacts to floods and droughts,
12 but the same can be said if we have long delays at locks
13 or closures because of a breakdown. And we have talked
14 a lot about dredging this year. I challenge everyone in
15 the room to research this more. But there's very much a
16 limited capacity when it comes to dredging. There's
17 been a lot of studies from the Army Corps of Engineers
18 and several other agencies that have shown that it is
19 challenging to get ample budget and capacity to dredge
20 the river and keep it at that 9-foot depth and 300-foot
21 width in a normal year, let alone when some of the
22 emergency situations arise and we need to deploy those

1 dredges away from port facilities to unstrand tows that
2 are stuck.

3 I have to mention, too, that along the same
4 lines, we have seen just dramatic infrastructure boons
5 in China and South America as well as the Chinese
6 government investing in other regions to try to make
7 their modes of transportation match ours. This is one
8 thing that I'll touch on here in this slide. Again,
9 there is a lot going on here, but this is a study from
10 my friends with the Ag Marketing Service, the USDA. It
11 was put out in 2019. And I think it's very telling.
12 Any time that I am asked to go to the Hill and lobby for
13 the waterways, this is one that I always either have or
14 speak to because this drives home the importance of the
15 river, not just from an infrastructure funding but also
16 from a navigability perspective. The landed costs --
17 and this is, again, back in 2018 is when the study was
18 commissioned, but it's the first of its kind. And,
19 then, there hasn't been an update since, but it still
20 drives the message home.

21 The Mato Grosso, Brazil landed costs into
22 China, so the costs on the axis on the left is going to

1 represent the landed costs of soybeans in Shanghai,
2 China. And that cost at the time was \$402.80 per ton.
3 And the cost of beans coming out of Davenport, Iowa was
4 significantly less. And, then, what the study did was
5 look at, okay, if we just keep up with the status quo of
6 funding for infrastructure and then we maybe increase
7 the funding or we decrease the funding, what does that
8 do to the transportation costs, which are the other
9 parts of the bar? And what does that do to farm value?
10 I think the biggest takeaway, again, that we can look
11 at, from an economy is that if we do not have an
12 efficient running waterway, whether that is due to lack
13 of infrastructure funding or, again, droughts. The
14 landed costs from that will likely be higher than what
15 it will be in Brazil. So if you look at it by 2045 and
16 2050, with the pace that Brazil is investing in the
17 Amazon River, that is a huge concern for anybody to take
18 back to their teams to figure out how we continue to
19 allow our farmers and other people in this sector to
20 have access to the export market without losing market
21 share to Brazil.

22 So, again, switching gears more to the here

1 and now, what happens when the river cannot facilitate
2 barge movements? Again, it is that growing issue. And
3 we kind of talk about it. As Tim was talking with the
4 CME presentation, I was thinking about this the same.
5 You have a small blurb. You have a supply chain
6 disruption. It creates a market fluctuation. Those
7 happen all of the time. It could be something small.
8 It could be a geopolitical event. But that happens.
9 But what happens when there's compounding impacts?
10 Sometimes you have an inability to execute trades, which
11 is going to impact that price discovery that we have
12 been talking about. As transportation costs increase,
13 that is going to drastically impact both the value to
14 the producer and the costs that the consumers are paying
15 all over the system. What that can do and has the
16 potential to do -- and we have started seeing it -- is
17 limiting market access and reducing those trading
18 opportunities.

19 So, to kind of sum up, again, from a river
20 perspective, but it also touches the previous
21 presentations. What led to some of this on the river?
22 And what was really driving the issues? We can talk

1 about the below-average rainfall of course, with the
2 lack of precipitation in the river basin, which
3 restricted the depth and the width. We know there have
4 been continued challenges with COVID-19 and the Great
5 Resignation and all of the global issues related to the
6 Black Sea and various supply chain imbalances and the
7 energy crisis. And that has created what we have been
8 talking about is a very uncertain market. We also are
9 in a very inflationary period. People are having
10 trouble with financing, and the cost of capital has
11 definitely increased from years ago. And so that is
12 pushing users and everyone to run very hand-to-mouth
13 inventories. So when you have disruptions in this type
14 of marketing situation, the impacts are felt a little
15 harder because the market has been telling you to run
16 hand to mouth, but when you do and then, all of a
17 sudden, that market access is gone, that is really what
18 drives some of the volatility that we have seen with the
19 river.

20 I think going back and comparing, I say, "Lack
21 of U.S. production issues." And it is not to discount
22 that, yes, we have had droughts across the growing

1 regions, as illustrated by the USDA. However, when you
2 compare that to the last significant drought issue with
3 the river in 2012, the production was not nearly as
4 impacted as it was in 2012. So you still had a supply
5 push at harvest time, which was also when the river
6 started experiencing the drought issues and the low
7 water. We also had going into Q4 of this year demand at
8 or above average, as mentioned previously.

9 So more specifics to what some of the river
10 operators and other people that are reliant upon river
11 transportation were watching closely and continue to
12 watch closely today, our river draft reductions. Just
13 of note, again -- and it is hard to put it in
14 perspective, but when you can't load a barge to the
15 maximum depth, that means you need more barges to
16 transit the same amount of grain. So when barges are in
17 tight supply, again, that goes in that compounding
18 impact. And what we saw at the late summer/early fall,
19 when we really were seeing the low river, is a 25 to 30
20 percent reduction in the depth that a barge could be
21 loaded. And, again, that was due to the river being low
22 and not having enough water for the barge to float down.

1 Of note, in those regions, some significant
2 areas for river transportation are St. Louis and the
3 Mississippi and Ohio River Confluence, which is around
4 Cairo, Illinois. And having those areas as bottlenecks
5 really create issues for the upper Mississippi, parts of
6 the industry, as well as the Ohio River, which then
7 starts impacting, as mentioned, auto, mechanical,
8 because a lot of the supplies are moving up the Ohio and
9 down the Ohio on barge.

10 At the same time that we had drafts reduced,
11 where barges couldn't be loaded as deep as normal and
12 because of the river level, because the width of the
13 river was also constricted, towing capacity was reduced.
14 And in some places, that was a 40 to 50 percent
15 reduction in the amount of barges that could be moved
16 northbound and southbound. And this is significant
17 because, again, it is going to take more line boats to
18 move the same amount of barges. But what was also
19 happening at the same time is that some of the larger
20 horsepower line boats that are moving these barge tows
21 were also offline because they drafted too deep.

22 This amounted to a lot of river closures.

1 There were several during the months of September and
2 October, where at multiple periods of time, there were
3 multiple closures where tows ran aground and those
4 dredges had to be deployed in their emergency situation
5 to clear the sediment to allow the tows to pass. That
6 resulted in hundreds of tows and barges stuck, both
7 going northbound and southbound. So it was just at a
8 complete standstill. And that backed up into the entire
9 chain, all the way to the farm field, because in this
10 time period where farmers are running a mix of what
11 needs to go to market and what needs to go to my own
12 personal storage, if a river shipper doesn't have access
13 to an empty barge to load the grain, that really does
14 impact what the farmer can do with that overflow grain.

15 Another significant issue that is going to be
16 touched on a little bit by Tom here is that loaded
17 barges were not able to be transited. So barges that
18 were loaded were stuck inland for over 60 days. And,
19 again, as an exporter, this is a significant issue. It
20 really makes you think twice about making a new sale.
21 It really makes you think twice about what you feel like
22 you can execute and how much money you are willing to

1 risk for demurrage because you have a lot of uncertainty
2 of when those barges are going to be able to be picked
3 up.

4 As mentioned previously, dredging was a
5 concern. There is not enough capacity for a normal
6 program and, thanks to, again, some of the emergency
7 funding released to the Corps of Engineers, but it is
8 still something that we continue to monitor and that is
9 going on today.

10 So, again, some of the impacts have already
11 been discussed, but more specifically -- and we will get
12 into these details as this is what happens, again, to
13 that cash basis, so the price that the farmer is
14 getting.

15 Barge freight during this time traded at all-
16 time highs, really due to lack of equipment to load
17 those newly harvested bushels. Along the same times as
18 mentioned previously, there were threats of a nationwide
19 rail shutdown. And, of course, we know that there is an
20 ongoing shortage of trucks. So the other modes of
21 transportation, while it is hard to flip between river,
22 rail, and truck, those modes were not available as well.

1 Again, speaking about the port facilities
2 specifically and our members that are exporters, the
3 capacity was reduced simply because of lack of supply.
4 Mechanically, they were able to load ships and get
5 product to end-users around the globe, but physically,
6 we couldn't because of the supply delays. This had a
7 drastic impact to customers, again, on all side of the
8 supply chain, from domestic to international consumers
9 as well as the farmers, because of delays or inability
10 to receive commodities because of lack of
11 transportation. The farmers did struggle to access
12 markets for this time. And that is a big concern, as we
13 have discussed, for them, especially at harvest.

14 And, then, along with the market impacts, we
15 have had a lot of environmental. And something that I
16 have not seen in my 15 years in managing logistics is
17 what they have called saltwater intrusion. This posed a
18 huge threat to the City of New Orleans due to the low
19 river levels on the Mississippi allowing saltwater from
20 the Gulf to infiltrate. And this meant that Army Corps
21 of Engineers not only had to worry about the
22 navigability of the inland river but also had to work

1 with the Coast Guard and other contractors to build what
2 they called a saltwater sill to try and limit some of
3 that saltwater from coming in and impacting the drinking
4 water. Of course, as we all know, with drought comes
5 drastic impacts to the river ecosystems and wildlife.
6 So that goes unsaid.

7 And, again, teeing up Tom to talk a little bit
8 more about the market impacts, a few slides from our
9 friends at the Ag Marketing Service, who put out a
10 weekly grain transportation report, I encourage everyone
11 to either subscribe or tune into that periodically
12 because it does show a lot of really great data and
13 graphics to show some of the cyclical patterns. The
14 chart on the left is a good one. So this is your
15 northbound empty barge transit up the Mississippi River
16 just north of St. Louis on the Arkansas River as well as
17 on the Ohio River up to go in. So this would be empty
18 barges available to be reloaded with something. You can
19 see there towards the end of September and October, that
20 availability was significantly less than last year's
21 time. And, again, this is what drove a lot of the basis
22 moves as well as you can see the chart on the right.

1 This is Illinois River barge freight rates. So this is
2 the value that barge lines were having to charge in
3 order to try to get a barge in place. And you can see,
4 looking at it from a rolling 12-month towards the left
5 of the chart, that represents a more normal timeframe
6 during this same harvest cycle, which I would say last
7 year, there was significant, more, business versus the
8 same time this year, where there was an unavailability
9 of the equipment.

10 And then just of note, again, to kind of
11 further drive this home, we were doing this calc on a
12 daily basis, but one ton of soybeans from St. Louis,
13 Missouri to New Orleans during this time cost right
14 around \$80 a ton, which is 400 percent more than 2021.
15 And it actually reached a high of \$105 in mid-October.

16 I will leave you with a few really sad
17 pictures of the state of the river. I am sure that the
18 news and the press did a very good job covering this,
19 but a traffic jam on the river, you can see the ones to
20 the middle and the right, that's what a river traffic
21 jam looks like. You can see how tows are still trying
22 to transit between some of those really silted-in

1 regions. And that's just, again, in a normal year,
2 those would be covered with water and available to have
3 twice that many barges on.

4 I am going to kick it over to Tom.

5 MR. ERICKSON: Thanks, Jessica.

6 I am Tom Erickson. And today, I am here in
7 the capacity as outside counsel and advisor to the North
8 American Export Grain Association. It is a pleasure to
9 be back.

10 Jessica has done a terrific job in giving us
11 all of the foundational information about the struggles
12 on the river system but also, really, about the value of
13 the river system to the U.S. economy and, in particular,
14 the agricultural economy in the United States.

15 So we will now transition a little bit from
16 the inland waterway system and its value domestically to
17 really kind of the why. And that really is the export
18 market and the flow. The reality is that the river
19 system, the Mississippi River system, does feed
20 ultimately the export market, which the ports in the
21 Gulf take about 50 percent of more of U.S. export
22 capacity.

1 Briefly, I just want to take a moment just to
2 introduce the NAEGA and its membership. NAEGA is the
3 trade association representing exporters in North
4 America. You can see the companies that it represents.
5 It represents also those that serve and support the
6 export market and industry. And those are all shown
7 here.

8 If we can, one of the things that is often
9 forgotten is that the agricultural commodities, agri-
10 bulk commodities are, in fact, part of the fungible
11 supply domestically. So exports, whether commodities of
12 corn and soybeans are going into domestic export, it is
13 all the same fungible commodity. This chart just
14 illustrates those decision points in terms of where the
15 commodities go in terms of the actual infrastructure.

16 So this is a graphic. I know it's a little
17 hard probably to see, but the river system is really
18 powered by exports and export demand. A couple of
19 things that are I think key for the conversation today
20 is this recognition that the river system is, in fact,
21 basically flushing the agri-bulk commodities into the
22 demand locations in New Orleans. The other key about

1 the river system is that because of its vibrancy and its
2 commercial activity, it is the delivery mechanism for
3 the futures markets in soybeans and corn. And so when
4 you have issues -- and I'm sure, Tim, that you're well-
5 aware that when you get into delivery months and these
6 kinds of events occur, which they do, it is an issue
7 directly related to the performance of futures.

8 So with that chart there, the one back, the
9 graphic there was showing effectively broker indications
10 on CIF transactions out of Port of New Orleans. The top
11 line there you can see is 2022. Those numbers have come
12 down in the last week or so, but what they are showing
13 is that the actual prices of commodities for
14 international customers was increasing significantly.
15 And it is one of those indicators where the river is
16 saying we cannot take anymore. And so it is a
17 discipline in the market in terms of recognizing the
18 difficulties and the destructions in the underlying
19 transportation on the river itself.

20 Turning to the next slide, we look at two
21 graphics. And, again, they tell kind of the same story.
22 And Jessica showed us earlier a little bit about barge

1 freight rates. This graphic demonstrates that same
2 indication in terms of what barge freight rates did this
3 fall on the top red line on the left chart. Those, too,
4 have fallen off in the last week or so, but this is
5 reflective of the lack of availability of barges,
6 whether they were stranded or otherwise not in position
7 or unable, really, to transit the river in that period
8 of time. And, again, it is a signal that the river
9 can't take anything. In this case, it is not just
10 drought-related. It is related to river levels and the
11 availability of the barges on any given day.

12 The right-hand chart is indicative of the
13 corresponding-in-time effect on basis at river
14 locations, which is, again, you see the bottom blue line
15 with the steep drop in basis relationships, which is
16 markets mechanism again of telling producers that the
17 system can't take any deliveries and, in part, because
18 there's a lack of an availability of barges and that the
19 barge freight rates are saying that. And then you on
20 the slide before saw their direct relationship with the
21 prices of commodities, soybeans in that case, for
22 delivery and shipment out of the Gulf being at a higher

1 rate.

2 Next slide. This is just continuing to build
3 on the theme here where we're showing from USDA data
4 U.S. Gulf vessel Loadings, actual loadings of vessels in
5 the Gulf. And the line that runs across, that is the
6 four-year average. The purple bar is current year, and
7 the other one was the year before. Is that right, the
8 light bar?

9 MS. STEPHAN: That's due in the next 10 days.
10 So it shows kind of that --

11 MR. ERICKSON: Oh, yes. Right.

12 MS. STEPHAN: -- we got a lot of boats coming
13 in, but we're not loading very many.

14 MR. ERICKSON: Right. So it shows that the
15 pent-up demand in the light blue and the four-year
16 loading average versus actual, which, as Jessica alluded
17 to in the prior part of the discussion is about 25
18 percent less, which, coincidentally, corresponds to the
19 lighter load that the barges were actually able to carry
20 as well.

21 So there are also global responses to the
22 difficulties that we experience and the challenges that

1 we have with the river system and the inability or the
2 disruptions here. So on the chart in the right, we have
3 got China's share of global grain stocks by commodity.
4 And these are the best estimates that folks can really
5 come up with in terms of estimating China's grain
6 reserves. But you see the various commodities. The
7 lower red line is soybeans. And the chart itself
8 doesn't really reflect this tremendously because of the
9 scale, but one of the observations that we have seen
10 here in the last year is that China has begun selling
11 some of its soy reserves domestically. And it,
12 arguably, is reflective of a couple of things. One is
13 the general unavailability of soybeans out of South
14 America at this time but also the effects of the
15 Mississippi River situation that we are seeing with the
16 disruption in the short term.

17 Before getting to this invitation, one of the
18 things from a NAEGA member perspective is the critical
19 nature and role that the river system plays in
20 supporting exports of U.S. agri-bulk commodities from
21 this country. Jessica showed you the investments that
22 are made in this river system provide farmers and the

1 entire industry with a competitive advantage. And it is
2 about maintaining the resilience of the infrastructure.
3 The NAEGA members continue to demonstrate that when we
4 face similar kinds of situations with hurricanes. You
5 have these disruptions that occur.

6 I think that one of the issues on the table in
7 terms of contract performance in the future side and the
8 relative commercial viability of the river is the
9 industry has the capacity to respond very well to these
10 short-term kind of events. And we talked about this in
11 terms of what is this event. And so investments in the
12 river and continuing to support this incredibly robust
13 commercial channel is important for the economy, but it
14 also is important for I think right now the performance
15 of the underlying futures contracts. It does beg the
16 question if this is a long-term trend or if this is also
17 just a short-term situation, like we deal with in
18 hurricanes or other weather events.

19 Finally, the North American Export Grain
20 Association does have online and available to anyone a
21 library on food security. It covers anything from
22 summaries of the last COP in Egypt related to climate

1 change to information related to global food security
2 and other issues of interest to the trade.

3 With that, we can take questions.

4 ACTING CHAIR WEYLS: Thank you, Tom and
5 Jessica.

6 Are there any questions from any of the
7 members participating in person? And, yes, Buddy Allen,
8 you have the floor.

9 MR. ALLEN: Thank you, Chairman,
10 Commissioners, Brigitte, all the collective staff that
11 support us. We really appreciate the opportunity to be
12 here and convene. Glad to be in person.

13 Jessica and Tom, that was outstanding. I am
14 with American Cotton Shippers Association, based in
15 Memphis. My office overlooks the river. I have seen
16 this. It is truly something to behold. It is a
17 phenomenon of nature.

18 Related, we don't ship any cotton on the
19 river, but I can certainly appreciate how supply chain
20 disruption causes market risk. And I think very related
21 to the topic you have so well-described is the ongoing
22 work by the Federal Maritime Commission right now as

1 they make rules and implement the Ocean Shipping Reform
2 Act. So whether it is chassis provisioning, categorical
3 denial of service, redefining the rules for detention
4 and demurrage I think would be valuable subject matter
5 for this Committee to consider as we move forward.

6 And while I have the mike, a related idea that
7 I had listening to the insightful comments earlier
8 concerning the renewable fuel obligations from EPA, I
9 know that I and several of my colleagues whom I've
10 discussed this with on this Committee are struggling to
11 reconcile those numbers to the administration's broader
12 sustainable aviation fuel grand plan. And I think if we
13 could focus resources to learn more about that, it would
14 be worthy of consideration. So I would appreciate that,
15 Mr. Chairman.

16 Thank you.

17 ACTING CHAIR WEYLS: Thank you, Buddy.

18 Do we have any other questions from any of the
19 members participating in person?

20 MR. BARKER: So just one comment. Again, an
21 excellent presentation, but the impending impact of what
22 is coming is crop nutrients. And so as we talk so much

1 about the Southern-bound traffic, the Northern-bound
2 traffic and availability of crop nutrients for what's
3 coming is right in our face right now. And I would hate
4 for that to be lost in this room. Farmers rely on crop
5 nutrients to produce. And if we don't fix the river
6 problems, it is going to spiral. So I just want to make
7 that point.

8 ACTING CHAIR WEYLS: Thank you, Joe Barker.

9 Do we have any more comments or questions from
10 anyone participating in person?

11 (No response.)

12 ACTING CHAIR WEYLS: I do not see any
13 questions from any of the virtual participants. Does
14 the Chairman or the Commissioners have any comments?
15 Yes, Commissioner Johnson?

16 COMMISSIONER JOHNSON: So, first, I just want
17 to say thank you so much for this tremendously rich and
18 helpful presentation, Tom and Jessica. We will have
19 closing remarks, and I will say then again also thank
20 you to everyone else, a very rich and thoughtful day.
21 But here I have to be a little more personal than I
22 might have been in other contexts. I think you guys are

1 preaching from my sermon or singing from the same page
2 in my songbook somewhere because we as a Commission have
3 been focused and thoughtful about the water level
4 issues. And just during the last break, I was having
5 this conversation with Dr. Nickerson and others and just
6 want to emphasize.

7 And I appreciate, Jessica, your linking this
8 presentation to the earlier presentations for the
9 following reason. Macroeconomic indicators do not
10 happen in a silo. The reality is things that are
11 occurring in one area of markets, just as Buddy has
12 mentioned a moment ago, even if it is not the case that
13 cotton is shipped on the river, there are direct impacts
14 ultimately that could come or indirect impacts from
15 correlations in how different assets function in
16 markets.

17 And so one of the things I am very deeply
18 thoughtful about and really hopeful that I can be
19 supportive to the Chair and this Committee in
20 considering and reflecting on is this interconnectedness
21 and, also, to my earlier question, sort of the reality
22 of sustained and persistent changes in macroeconomic

1 indicators and conditions that can't be seen as a
2 snapshot or a singular shock when the reverberations of
3 that shock persist for a period of time that's a year or
4 two years or three years.

5 I also found the data very compelling that you
6 shared, Jessica, regarding infrastructure investment by
7 other countries who are competitors in markets where we
8 have had a comparative advantage historically. That was
9 very useful and I think tremendously important for us to
10 be thoughtful about.

11 Finally, I feel like I would be remiss if I
12 didn't just say a very positive word about the Army
13 Corps of Engineers. You referenced this in your
14 presentation. And I just want to emphasize our
15 thankfulness as a Nation for their continued efforts
16 over a period of time; that is, some 200 years now, in
17 ensuring inland waterways are functional and facilitate
18 the successful production and distribution of
19 agricultural and other goods. I think that it is easy
20 to lose sight of the work that they do. Just the naming
21 of it, "dredging," doesn't inspire that level of sexy
22 Hollywood interest that might be captured in other

1 contexts. I will leave you to imagine a couple of
2 spaces we have been navigating that are overly fraught
3 with that salaciousness in the most recent moments. But
4 the work that they do is critical. It is critical to
5 the production of food resources in our Nation and
6 export of food around the world. It directly impacts
7 food and security in many parts of the world that we are
8 not necessarily covering directly today but are
9 impacted. So I just want to acknowledge and be mindful
10 about and thankful for the work that they do and the
11 really rapid intervention that they engaged in to ensure
12 the continued access to the Mississippi River over this
13 period.

14 ACTING CHAIR WEYLS: Thank you, Commissioner
15 Johnson.

16 Any other comments from the Commissioners?

17 (No response.)

18 ACTING CHAIR WEYLS: No. All right. So we
19 are a little overdue. We are past time. So I think we
20 are going to skip the break, and we are going to now let
21 the members discuss potential topics for discussion at
22 the next meeting in 2023. We can start with members in

1 person if anyone wants to make a recommendation.

2 MR. PROSSER: Hello. I'm Ed Prosser from The
3 Scoular Company. I appreciated especially all of the
4 comments today, insightful information.

5 I would like to raise one of the things that
6 we haven't talked about yet today, and it is a byproduct
7 of all of the volatility that has been created, not only
8 from climate but also from the politics, the
9 geopolitical conflicts that we have seen. Our access to
10 FCMS and their involvement in our markets and,
11 therefore, our conduit to those contracts that we use to
12 offset risk were compromised in different ways as we
13 went through that little scary part of the move in
14 wheat. And I think that understanding not only the
15 availability of how many FCM members we have that are
16 participating, their commitment to the business and as
17 we look forward, where that is going to be for all of
18 the end-users in the contract makes really good sense
19 for us to understand and for the Commission to see where
20 that vital function is going to play out.

21 ACTING CHAIR WEYLS: Thank you, Ed.

22 Do we have any more topics to discuss, in-

1 person members?

2 COMMISSIONER BEHNAM: Yes, Brigitte.

3 ACTING CHAIR WEYLS: Thank you.

4 MR. BARKER: Okay. So I had an idea as they
5 were doing their presentation. They're changing the way
6 they do SPAN margining. And it is having an impact on
7 energy today. But an understanding of the industry to
8 see what is coming on the SPAN 2 margining and how it
9 can impact agriculture I think would be a very
10 informative session.

11 And, then, there is an overriding fundamental
12 in agriculture right now as states are making different
13 -- and we have talked about it multiple times but just
14 the impact of this biodiesel renewable diesel and how
15 that is going to impact the soybean market I think could
16 be very informative for this Committee.

17 So those are my two ideas.

18 ACTING CHAIR WEYLS: Thank you, Joe.

19 Do we have any more comments from members?

20 Tommy Hayden?

21 MR. HAYDEN: Yes. I want to echo what Buddy
22 said. I think we should continue to focus on the supply

1 chain issues that we see as I am working for a very
2 large container exporter, as Ed does, too. I think we
3 should focus on that because the volatility that we have
4 seen and the impact that it has on the price at the farm
5 gate is huge. So I would like to continue to focus on
6 that.

7 ACTING CHAIR WEYLS: Thank you, Tommy.

8 Michael Ricks?

9 MR. RICKS: Yes. Hello. I am Michael Ricks.

10 And I work with Cargill in Minneapolis.

11 I am just wondering. One potential area to
12 look at is -- and it has always been there, but it seems
13 to have accelerated here in the last six months is just
14 the strength of the U.S. dollar on a relative basis,
15 what that does to encourage non-U.S. production and what
16 that does maybe to even reduce worldwide demand simply
17 because products are traded in dollar terms. So, I
18 mean, it gives signals to competitors that to expand
19 production and maybe to consumers to reduce. Maybe it
20 is something we can look into more or not.

21 It does impact exports. And exports seem to
22 have an outsized impact on market movements just because

1 they are more volatile than domestic demand. So just
2 some thoughts.

3 ACTING CHAIR WEYLS: Thank you.

4 I guess Liam Smith?

5 MR. SMITH: Yes. Playing along with some of
6 the other comments that got made, to add to that,
7 probably large single-execution events happening in the
8 marketplace. That is probably worth looking at, both in
9 exchange-level and OTC, around kind of the sizing-
10 associated costs as well as some of the other things of
11 how that data is disseminated to the entire industry, I
12 think probably worth it since it does correlate back to
13 some of the other topics.

14 ACTING CHAIR WEYLS: Thank you, Liam.

15 Do we have any other topics for discussion by
16 members in person? Robbie Boone?

17 MR. BOONE: Yes. I'll just add and applaud
18 the Commission's interest in infrastructure lending. We
19 have coordinated a rural infrastructure coalition for a
20 number of years called Rebuild Rural, which NGFA has
21 been a member of. And there are a lot of issues out
22 there for rural communities. I understand there can be

1 some jurisdictional impact or things to think about but
2 certainly a topic worth considering.

3 Thanks.

4 ACTING CHAIR WEYLS: Thanks, Robbie.

5 Anyone else in person?

6 MR. ELFMANN: Carbon credits and the markets
7 around carbon credits and some of the things there. I
8 think there are still some gaps in understanding of how
9 it might work, what those contracts will look like, and
10 then, speaking from a lender perspective, how we are
11 going to get tied into some of this long-term as well.

12 ACTING CHAIR WEYLS: Could you just expand
13 upon -- specifically, you are saying carbon credits and
14 what those contracts might look like?

15 MR. ELFMANN: Yes. What they might look like,
16 what the expectations are, maybe from companies, kind of
17 what they are looking for from that standpoint, what the
18 expectations on farmers would be because that is one
19 question we get a lot in the lending community, is,
20 "Well, should I sign this contract or not? How will it
21 change my practices? Are there going to be advantages
22 as a borrower?"; things like that, so just kind of

1 filling those gaps in between.

2 ACTING CHAIR WEYLS: Thank you.

3 Any other comments from members attending in
4 person?

5 (No response.)

6 ACTING CHAIR WEYLS: No? Okay. I see we have
7 a hand up from Mr. Mark McHargue, who is attending
8 virtually.

9 MR. MCHARGUE: Well, thank you. Mark
10 McHargue, representing American Farm Bureau, a farmer
11 here in Nebraska.

12 One of the things that we have been talking
13 about fairly significantly is just potential cyberattack
14 threats on agriculture. It doesn't seem like we have a
15 concerted group that is watching that as far as the
16 industry as a whole. We are concerned that if we do
17 have attack on potentially our equipment, maybe during
18 planting season, our harvest season, that certainly
19 could influence the markets. And a bad actor could take
20 a position in the futures market and take advantage of a
21 market move. And so I think just some conversation
22 about how we protect against some of those threats.

1 And, then, I would agree with some of the
2 conversations, maybe not around carbon treading but just
3 the conversation of carbon intensity scores and how that
4 affects on, again, probably the financial sector,
5 banking sector, the burden on agriculture of having to
6 potentially come up with those scores and some of the
7 sustainability scores that we may be burdened with and
8 how that affects the market.

9 So thank you.

10 ACTING CHAIR WEYLS: Thank you, Mark.

11 Do we have any more -- I'm just looking --
12 comments from any of the others attending virtually?

13 (No response.)

14 ACTING CHAIR WEYLS: And last call for anyone
15 in person.

16 (No response.)

17 ACTING CHAIR WEYLS: No? We have a couple of
18 minutes left. If anyone is interested in proposing a
19 couple of days for our next meeting in 2023, we would be
20 open to hearing that right now.

21 MR. BARKER: Just a point of inquiry. Is the
22 Kansas State CFTC event going to happen in April? Has

1 there been any discussion of that?

2 COMMISSIONER BEHNAM: We would not be able to
3 do it in at least the Spring of 2023. We are going to
4 look at potentially Fall of 2023. And, then,
5 practically speaking, 2024 becomes -- as you can
6 imagine, it is a bear of an event to organize. We have
7 to get through some appropriations issues and work from
8 there, but certainly appreciate. And I would think that
9 most of all of you enjoyed that event. I did.
10 Certainly, I know this would be new to most of the
11 commissioners here, but we're going to try our best to
12 get it back on board as soon as possible.

13 ACTING CHAIR WEYLS: Thanks for raising that,
14 Joe Barker.

15 Do we have -- yes, Willis Kidd?

16 MR. KIDD: Just a comment on the timing. Dr.
17 Nickerson mentioned that she would have been able to
18 have an analyst or two here if it was not so close to
19 the USDA reports. And so maybe a suggestion that these
20 are held a week after the USDA reports, instead of two
21 to three days before. I know some of us that come into
22 town, we would have had meetings with people at USDA if

1 it wasn't so close.

2 ACTING CHAIR WEYLS: Thank you.

3 Do we have any other comments or date
4 proposals for our next meeting in 2023, either from in-
5 person members or virtual members, members attending
6 virtually?

7 (No response.)

8 ACTING CHAIR WEYLS: No? Okay. Well, the
9 meeting does end in four minutes. We will skip to the -
10 - Chairman, would you like to make a -- okay. Let's
11 start with Commissioner Goldsmith Romero.

12 COMMISSIONER GOLDSMITH ROMERO: Like I said,
13 this was great. You did not disappoint. I am very
14 grateful for the information that you shared today and
15 also just how it impacts, how everything we talked about
16 really impacts not only our markets but our economy.

17 I mean, I worked at Treasury for 12 years
18 before coming to this job. So I tend to think about all
19 of these issues as they impact our economy. And I thank
20 you for bringing that home in all of the presentations
21 today.

22 So, I mean, we have consumers facing increased

1 costs and either delays or an inability to get the goods
2 that they need in our businesses. Our agriculture
3 businesses and others are facing the same thing. And so
4 understanding with granularity how these specific
5 events, whether it is related to the drought or related
6 to Russia, Ukraine, China, or the ongoing supply chain
7 issues -- and I appreciate you raising the labor issue,
8 which is something that has come up in several
9 discussions with me. How that in granularity is
10 actually carrying through to impact businesses and
11 consumers is really important. And I am glad that that
12 was brought out today.

13 So I am grateful for us as a Commission
14 focusing on what I see as the backbone of what we do,
15 the core part of our mission. I want to make sure that
16 you understand that is a priority to us. So you could
17 read speeches and we can talk about digital assets or
18 other things, but this is never anything that is on the
19 back burner. This is something that I work on every
20 day, get up and look at markets and paying attention to
21 what is happening. And I care about what you care about
22 and will always endeavor to keep that as a priority.

1 So I am grateful to be here today. Thank you
2 for the chairman. Thank you for Brigitte and my fellow
3 commissioners, your input but, really, really grateful
4 to have this time to share with you. And my door is
5 always open.

6 ACTING CHAIR WEYLS: Thank you, Commissioner
7 Goldsmith Romero.

8 Commissioner Mersinger?

9 COMMISSIONER MERSINGER: Just to echo
10 Commissioner Goldsmith Romero, thank you all for being
11 here. I know this is a time commitment. And you all
12 have very important day jobs. So we always are
13 appreciative of you sharing some of your time and
14 knowledge with us so we can better do our jobs.

15 I have to say today this conversation is
16 probably one of the more comfortable conversations I
17 have been in where I understood all of the acronyms. I
18 pretty much was able to follow what folks were saying.
19 I got really excited when they started talking about
20 WRDA and NESP. And we could go on and on about Army
21 Corps of Engineers river management, especially as
22 someone who lived upriver. And there are certainly some

1 competing interests from those who are upriver versus
2 those who are downriver. It was a great discussion, a
3 lot of interesting information shared today, which is
4 stuff that we don't normally get to see. So I thought
5 that was incredibly helpful.

6 And just based on some of the ideas that came
7 up for future topics, I am definitely looking forward to
8 the next Ag Advisory Committee meeting. So just thank
9 you again and look forward to seeing everyone again next
10 meeting.

11 ACTING CHAIR WEYLS: Thanks, Commissioner
12 Mersinger.

13 Commissioner Johnson?

14 COMMISSIONER JOHNSON: Thanks so much,
15 Brigitte. Thanks so much, Chair. Thank you to everyone
16 who did take tremendous time out of your very busy
17 schedules to join us here today.

18 I am a native Michigander. And though my
19 family didn't have a farm, my grandma grew strawberries.
20 And that felt like something big when I was tiny and we,
21 like, gathered them every summer at the end of the
22 summer in her yard. I grew up in Texas, though, and

1 spent a lot of time in Georgia and am deeply thoughtful
2 about all of the issues that are top of mind for each of
3 you.

4 I really echo Commissioner Mersinger's
5 reflections she described getting excited about. I
6 would just say I nerd out on all things risk management.
7 And I don't know that there is a business or I have to
8 just explicitly say among the most risk management-
9 intensive businesses is certainly agriculture.

10 When I taught as a law professor derivatives
11 and commodities law, the example I began the
12 conversation with is an agricultural derivatives
13 example. I talk about Aristotle writing in ancient
14 Greece about Thales. And I describe contracts for
15 access to an olive press, which is to say from the
16 earliest civilizations, this has been one of the most
17 critical industries in market infrastructure. It has
18 been one of the most critical industries at the center
19 of our economy. And I just am deeply appreciative of
20 the hard work that it takes every day to deliver food to
21 the Nation and around the world. And I think that is
22 something that really deserves every minute of the time

1 we took today and even more.

2 So thank you for your expertise, your
3 knowledge, your experience, and being so generous as to
4 come and to share it with us and for the active public
5 service that you have undertaken in agreeing to serve on
6 this Committee. I think we as a Commission are
7 tremendously grateful, and I think the Nation is very
8 well-served by your participation.

9 ACTING CHAIR WEYLS: Thank you, Commissioner
10 Johnson.

11 Go ahead, Chairman.

12 COMMISSIONER BEHNAM: Thanks. I'll be brief.
13 Just, first of all, thanks to all of the speakers.
14 Great presentations, I think timely, obviously, given
15 what we are dealing with globally and from a markets
16 perspective, also just echo a thanks for all for being
17 here.

18 This is a good group that I think we are going
19 to obviously be able to add a lot of dynamic
20 conversations over the next couple of years. And I
21 think the ideas that we even suggested in the 5 or 10
22 minutes, that's a few meetings right there. But they

1 are all critically important. I was thinking about we
2 got a farm bill coming out next year.

3 And the interconnections, not only, Robbie,
4 you mentioned jurisdiction -- right? -- but whether it
5 is the Maritime Commission or any other, EPA, Farm
6 Credit, we have that ability and that need to convene
7 and bring our friends here. And, you know, thanks to
8 USDA for being here. They are certainly a huge partner
9 in our efforts. So we will continue to think about
10 these issues and see if we can get some of our sister
11 agencies outside of the financial market space to help
12 and contribute and to give us ideas about what they are
13 doing so that we can be better informed about our rules
14 and regulations.

15 The last thing I will say is we are going to
16 need a chair. So to the extent that one of you is
17 willing and desires to be in that position, let me and
18 Brigitte know or if you have any recommendations of your
19 colleagues who you think would be a good chair as we get
20 into 2023, please feel free to send us a name or two.
21 That will be, obviously, a critical component of
22 leadership in getting these issues out.

1 So, lastly, I just do want to thank Brigitte
2 and everyone who helped put this together. Brigitte is
3 based out of Chicago. So she was kind enough to come
4 out here. And many of you have probably worked with
5 Christa Lachenmayr a lot over the years. Christa,
6 unfortunately, left us a few months ago, but we are in
7 good hands with Brigitte. She has been a DMO for a
8 number of years. She knows ag markets well. And we are
9 going to be able to make sure that we prioritize these
10 issues and, of course, be responsive to all of you,
11 whether from a markets perspective or a commercial
12 perspective.

13 So, with that, thanks for your time. Thanks
14 for your patience. Thanks for your service and look
15 forward to 2023 and digging into a lot of these issues.

16 ACTING CHAIR WEYLS: Thank you, Chairman.

17 The meeting is now adjourned.

18 (Whereupon, at 12:50 p.m., the meeting was
19 adjourned.)

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