RISING RISKS: MANAGING VOLATILITY IN GLOBAL COMMODITY DERIVATIVES MARKETS

HEARING

BEFORE THE

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HOUSE OF REPRESENTATIVES

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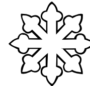

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RISING RISKS: MANAGING VOLATILITY IN GLOBAL COMMODITY DERIVATIVES MARKETS

THURSDAY, MARCH 9, 2023

HOUSE OF REPRESENTATIVES,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Committee met, pursuant to other business, at 10:14 a.m., in Room 1300 of the Longworth House Office Building, Hon. Glenn Thompson [Chairman of the Committee] presiding.

Members present: Thompson, Lucas, Austin Scott of Georgia, Crawford, DesJarlais, LaMalfa, Rouzer, Bacon, Bost, Johnson, Baird, Mann, Feenstra, Miller of Illinois, Moore, Finstad, Rose, Jackson of Texas, Molinaro, De La Cruz, Langworthy, Duarte, Nunn, Alford, Van Orden, Chavez-DeRemer, Miller of Ohio, David Scott of Georgia, Costa, McGovern, Adams, Hayes, Brown, Davids of Kansas, Slotkin, Caraveo, Salinas, Perez, Davis of North Carolina, Tokuda, Budzinski, Vasquez, Crockett, Jackson of Illinois, Casar, Carbajal, Craig, Soto, and Bishop.

Staff present: Paul Balzano, Caleb Crosswhite, Kevin Webb, Erin Wilson, John Konya, Emily German, Josh Lobert, Amar Nair, Ashley Smith, and Dana Sandman.

OPENING STATEMENT OF HON. GLENN THOMPSON, A REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA

The CHAIRMAN. With the consideration of our budget views and estimates letter complete, the Committee will now proceed to our hearing today entitled, *Rising Risks: Managing Volatility in Global Commodity Derivatives Markets.* After brief opening remarks, Members will receive testimony from our witnesses today, and then the hearing will be open to questions.

So with that, I call this hearing to order on behalf of the House Committee on Agriculture.

Over the past several years, we have seen unexpected events that have shocked global commodity markets. The COVID–19-related shutdowns and Russia's invasion of Ukraine have each caused significant global disruptions to the supply and demand of commodities. We are fortunate our derivatives markets showed resiliency throughout these events. There is perhaps no greater testament to the importance of well-regulated, professional, and liquid derivatives markets than their continued operation during times of significant market stress.

Yet, the strength of our derivatives markets should not be taken for granted. Building deep, liquid, and safe derivative markets is the result of informed trade-offs and negotiated compromises be-

tween the needs of different market participants. It takes constant work to uncover, understand, and manage the risks that can develop.

Widespread clearing is one reason for the success of our derivatives markets despite the recent turmoil. Clearing provides access to essential risk management tools for hedgers and creates a safe financial system for all Americans. Our cleared markets perform so well due to the public servants and the professionals who work every day to understand and manage market risks, both at the Commodity Futures Trading Commission and across the derivatives industry, including our five witnesses here today.

Clearing manages risk by spreading it through multiple layers of market participants, recalibrating risk levels daily, and putting money aside in the form of initial margin and the default fund. This system is well-understood and has proven resilient time and time again. But after all that work, residual risks remain. One risk is the timely cash margin payments demanded by the clearing system will not be made on time or in full. This risk is remote but also expected. There is no way to completely eliminate risk from derivatives markets, only ways to better manage it. As clearing continues to grow in size and importance, the needs for this Committee to better understand its value and its mechanics, especially under times of extreme stress, grows, too.

And I want to thank our witnesses for joining us today. Each of them is an expert in cleared markets, and I am looking forward to hearing the discussion today.

[The prepared statement of Mr. Thompson follows:]

PREPARED STATEMENT OF HON. GLENN THOMPSON, A REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA

Over the past several years, we've seen several unexpected events that have shocked global commodity markets. The COVID–19 related shutdowns and Russia's invasion of Ukraine have each caused significant global disruptions in the supply and demand of commodities.

We are fortunate our derivatives markets showed resiliency throughout these events. There is perhaps no greater testament to the importance of well-regulated, professional, and liquid derivatives markets than their continued operation during times of significant market stress.

Yet, the strength of our derivatives markets should not be taken for granted. Building deep, liquid, and safe derivatives markets is the result of informed tradeoffs and negotiated compromises between the needs of different market participants. It takes constant work to uncover, understand, and manage the risks that can develop.

Widespread clearing is one reason for the success of our derivatives markets, despite the recent turmoil. Clearing provides access to essential risk management tools for hedgers and creates a safer financial system for all Americans.

Our cleared markets perform so well due to the public servants and professionals who work every day to understand and manage market risks, both at the Commodity Futures Trading Commission and across the derivatives industry, including our five witnesses.

Clearing manages risk by spreading it through multiple layers of market participants, recalibrating risk levels daily, and putting money aside in the form of initial margin and the default fund. This system is well understood and has proven resilient time and time again.

But, after all that work, residual risks remain. One risk is the timely cash margin payments demanded by the clearing system will not be made on time and in full. This risk is remote, but also expected. There is no way to completely eliminate risk from derivatives markets, only ways to better manage it.

As clearing continues to grow in size and importance, the need for this Committee to better understand its value and its mechanics, especially under times of extreme stress, grows, too.

I want to thank our witnesses for joining us today. Each of them is an expert in cleared markets and I am looking forward to hearing the discussion today.

The CHAIRMAN. And with that, I would like to once again welcome the distinguished Ranking Member, the gentleman from Georgia, Mr. Scott, for any opening remarks he would like to give.

OPENING STATEMENT OF HON. DAVID SCOTT, A REPRESENTATIVE IN CONGRESS FROM GEORGIA

Mr. DAVID SCOTT of Georgia. Yes, thank you, Chairman Thompson, for convening this very important and timely hearing today, *Rising Risks: Managing Volatility in Global Commodity Derivatives Markets,* very important. We are dealing with an $800 trillion piece of the world's economy here.

Global commodities markets help consumers and producers manage price risk and protect them from exposure to global events, such as a time as this. The past several years have been rife with uncertainty and volatility that has tested the strength and resiliency of our derivatives markets. This uncertainty and volatility has been driven by unexpected global challenges such as the devastating and ungodly Russian war in Ukraine and the COVID–19 pandemic. These events have disrupted global trade and the transportation of food, fuel, and fertilizer, creating supply shortages and price fluctuations. This is arena in which we have to deal now with derivatives.

Now, as we examine the reactions of our global commodity derivatives markets to these major events, it is very important that we also take the time to focus on other sources of volatility and uncertainty that have emerged in recent years and will continue in the years ahead such as an increase in the occurrence of extreme weather events, cybersecurity concerns, and the growth of fintech, and the preeminent impact of Russia producing nearly 66 percent of the ammonium nitrate that we need to produce our own fertilizer. This is a very critical issue, to have this kind of power over fertilizer concentration in the hands of Russia. And we are moving expeditiously with our own agriculture system to put in encouragements and support funding so we can produce our own fertilizer and not have to depend on Russia or anybody else.

These concerns and challenges have presented a new test for our agriculture markets, from historically low water levels that have cut river traffic in the Mississippi River Basin, to reduced access to critical crop inputs and energy as a result of global trade restrictions and interruptions. For example, wheat prices have experienced historic swings due to the disruption caused by Russia's invasion of Ukraine and fears of a global wheat shortage. And that is the other reason, because when you put Russia and Ukraine together, they produce a gigantic amount of the world's wheat. Ensuring the orderly operation of our derivatives markets and preserving their role as a tool for price discovery and crisis management is most important, now more than ever.

And finally, I want to note that this year marks 10 years since the expiration of the Commodity Futures Trading Commission's reauthorization. I chaired this Committee, this subcommittee. And

time after time, I have tried to put through legislation to reauthorize. And when we had the threat from the European Union of wanting to take over from the CFTC, their authority, to operate in Europe as the source because Congress has failed to reauthorize the CFTC. Let's get it done this time.

I work closely with our Republican colleagues to pass reauthorization, and I appreciate that it is a bipartisan effort to get this done. And I know that Chairman Thompson agrees with me, and we need to reauthorize the CFTC, and that is one of my major priorities.

The testimony of each of you, our distinguished witnesses here today, will be very critical for our Committee to guarantee that the CFTC has all the necessary and appropriate tools to ensure the integrity, the resilience, and the vibrancy of the U.S. derivatives market. And I look forward to hearing from this distinguished panel. I met several of them and had a brief conversation with them before we started, and they are here to share their expertise, their knowledge of the state of our commodity derivatives markets and the effectiveness of our existing tools for risk management.

I yield back, and deeply apologize for my cold.

The CHAIRMAN. No need to apologize for what we can't control. And I thank the gentleman, and I share your commitment. In addition to obviously an on-time, good, bipartisan farm bill, we need to get the CFTC reauthorized. I share that priority with you.

The chair would request that other Members submit their opening statements for the record so that the witnesses may begin your testimony and to ensure that there is ample time for questions.

Our first witness today is Mr. Michael Gelchie, the Group Chief Executive Officer of the Louis Dreyfus Company. Our next witness then will be Mr. Derek Sammann, Senior Managing Director, Global Head of Commodities, Options, and International Markets for the CME Group. Our third witness today will be Ms. Alicia Crighton, the Chair of the Board of the Futures Industry Association. Our fourth witness today will be Mr. Christopher Edmonds, the Chief Development Officer of the Intercontinental Exchange. And our fifth and final witness today is Hon. Dan Berkovitz, who is a former Commissioner of the Commodity Futures Trading Commission.

Thank you to all of our impressive witnesses for joining us today. We are now going to proceed your testimony. You will each have 5 minutes. The timer in front of you will count down to 0, at which time I may give a little bit of a tap and reminder to wrap up whatever thought that you are on so that we have lots of time for questions. I assure you, your written testimony has been circulated. All Members of the Committee have that in front of them. And your efforts at that were greatly appreciated.

So with that, Mr. Gelchie, please begin when you are ready.

STATEMENT OF MICHAEL "MIKE" GELCHIE, GROUP CHIEF EXECUTIVE OFFICER, LOUIS DREYFUS COMPANY, WILTON, CT

Mr. GELCHIE. Chairman Thompson, Ranking Member Scott, and Members of the Committee, thank you for holding this hearing on topics relevant to global market risks for agricultural commodities. I am honored to have the opportunity to contribute my testimony

and appreciate your attention to these acutely important matters in the context of the extreme market volatility we have seen in recent years.

My name is Mike Gelchie. I serve as Group Chief Executive Officer for Louis Dreyfus Company. We are a 172 year old agribusiness active in over 100 countries with approximately 17,000 employees worldwide, including more than 1,000 right here in the United States. Our North American headquarters is in Wilton, Connecticut.

LDC is a leading merchant and processor of agricultural goods. We absorb and manage risks on our customers' collective behalf, provide liquidity to all value chain participants, and execute logistics services to deliver essential commodities domestically and globally in a safe, timely, and reliable manner. We are proud to fulfill these roles, the effective execution of which acts as a shock absorber by both buyers and sellers along the food and agricultural value chain, ultimately contributing to competitive agriculture in the United States, which is particularly important in today's volatile and challenging markets.

With regards to global market volatility, I feel compelled to give a broad response that recognizes the significant macroeconomic and geopolitical factors that have, in our opinion, been the primary contributors to contemporary market volatility. I will do my best to summarize our observations.

Since 2018, agriculture in the United States has ridden a roller coaster of macroeconomic and geopolitical market impacts and challenges. These started with trade tensions between the United States and China, followed by acute and unprecedented supply chain disruptions as a result of the COVID–19 pandemic. Today, global stagflation and resulting currency crises around the world are negatively impacting the availability of U.S. dollar currency reserves required to execute contractual obligations that govern agricultural trade. Additionally, over ten percent of the world's calories are held in uncertain availability due to the Russian-Ukraine crisis.

Each of these topics individually warrants the attention of this Committee, and while I have mentioned them expeditiously, I hope that each Member and guests here today will consider the depth and magnitude of their influence on all aspects of global agri-commodity markets.

Like many other participants in the agricultural sector, LDC relies on derivatives markets to hedge risk of the underlying cash commodity. It is important to acknowledge the value that speculative traders provide by injecting liquidity into derivatives markets. Many are also quick to blame speculative traders in times of volatility. However, we feel strongly that the recent volatility in agri-commodity markets is primarily due to the various risks and uncertainties facing the agricultural sector, some of which I have already mentioned.

I would also be remiss not to take this opportunity to applaud this Committee's collective work and oversight of the Commodity Futures Trading Commission. The hierarchy of jurisdiction from your Committee to the Commission to the self-policing efforts of commodity exchanges and the National Futures Association brings

a level of market certainty that we depend upon to accurately hedge our significant risks and continue to serve both producers and consumers of agricultural products.

The system has shown remarkable resilience in the face of extraordinary pressure and has created the gold standard for risk management around the world. Your leadership and that of the CFTC is critical to maintaining these benchmarks in the United States, where users like us benefit from clear rules and proper market oversight without stifling innovation and development. Maintaining liquid, agile, and well-functioning markets will allow the U.S. to continue leading in risk management.

Mr. Chairman, I have intentionally kept these comments at a high altitude to provide an overview of the matters addressed by this hearing, and I look forward to responding to your questions, and I am prepared to give more granular analysis during our dialogue. Thank you.

[The prepared statement of Mr. Gelchie follows:]

PREPARED STATEMENT OF MICHAEL "MIKE" GELCHIE, GROUP CHIEF EXECUTIVE OFFICER, LOUIS DREYFUS COMPANY, WILTON, CT

Regarding Global Market Volatility and Its Impact on Commercial End-User Risk Management

Chairman Thompson, Ranking Member Scott, and Members of the Committee, thank you for holding this hearing on topics relevant to global market risks for agricultural commodities. I am honored to have the opportunity to contribute my testimony and appreciate your attention to these acutely important matters, in the context of the extreme market volatility we have seen in recent years.

My name is Mike Gelchie. I serve as the Group Chief Executive Officer for Louis Dreyfus Company, or LDC, which is a 172 year old agribusiness, active in over 100 countries, with approximately 17,000 employees worldwide, including more than 1,000 in the United States. Our North American headquarters are in Wilton, Connecticut.

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marily due the various risks and uncertainties facing the agricultural sector, some of which I have already mentioned.

I would be remiss not to take this opportunity to applaud this Committee's collective work and oversight of the Commodity Futures Trading Commission (or CFTC). The hierarchy of jurisdiction—from your Committee to the Commission, to the self-policing efforts of commodity exchanges and the National Futures Association—brings a level of market certainty that we depend upon to accurately hedge our significant risks and continue to serve both producers and consumers of agricultural products.

The system has shown remarkable resilience in the face of extraordinary pressure and has created the gold-standard for risk management around the world. Your leadership and that of the CFTC is critical to maintaining these benchmarks in the United States, where users like us benefit from clear rules and proper market oversight, without stifling innovation and development. Maintaining liquid, agile and well-functioning markets will allow the U.S. to continue leading in risk management.

Mr. Chairman, thank you for this opportunity to offer my testimony and I look forward to addressing your questions.

The CHAIRMAN. Thank you, Mr. Gelchie. That is much appreciated.

Mr. Sammann, please begin when you are ready with 5 minutes.

STATEMENT OF DEREK SAMMANN, SENIOR MANAGING DIRECTOR, GLOBAL HEAD OF COMMODITIES, OPTIONS, AND INTERNATIONAL MARKETS, CME GROUP INC., CHICAGO, IL

Mr. SAMMANN. Chairman Thompson, Ranking Member Scott, and Members of the Committee, I am Derek Sammann, Senior Managing Director and Global Head of Commodities, Options, and International Markets for CME Group, the world's leading and most diverse derivatives marketplace. Thank you for the opportunity to testify today.

Commodity derivatives markets are essential to both consumers and producers to help manage price risk and hedge exposures to rising input costs. America's agricultural and energy producers and end-users compete on a global level and are affected by trade policy, geopolitics, and weather events that can cause demand shocks and supply disruptions. These events directly impact prices for commodities, which are linked to real economies in the U.S. and worldwide, therefore impacting main street consumers.

To combat these global uncertainties, commodities market participants need tools to deal with instability that creates unwanted price risk. U.S. derivatives markets provide market participants with a robust and well-regulated venue to efficiently hedge price risk, effectively discover prices, and powerfully mitigate unwanted counterparty risk. Derivatives exchanges like those at CME Group allow both commodity producers and end-users to lock in future prices, providing predictability of both input and output costs.

Over the last 3 years, we have seen significant disruptions to global commodities markets. While the war in Ukraine created supply shocks in markets like wheat and crude oil, the global pandemic similarly created significant demand shifts in energy markets, all of which created record levels of volatility across commodities.

Thanks to the well-functioning and well-regulated derivatives markets that this Committee oversees, U.S. and global market participants were able to accurately determine prices of core commodities and manage risk with minimal disruptions during these un-

precedented events. Let me provide three examples of how these markets and the risk controls and financial safeguards functioned effectively over the past year, focusing on markets for wheat, energy, and metals.

Before the war, Russia and Ukraine contributed roughly 25 percent of total global wheat exports. Following Russia's invasion of Ukraine, wheat prices increased 70 percent from their January 2022 levels. CME Group's clearinghouse followed transparent margin practices, which helped our markets to operate smoothly during this volatile period. The ability to adapt margin requirements is an important risk management tool that helps our clearinghouse assess overall risk portfolio risk to protect market participants.

In March 2022, we saw the largest daily price move in wheat triggering a price limit in our wheat futures, one of the pre-trade risk controls used by CME Group to maintain an orderly market. We promptly worked with the CFTC to get expedited approval to increase price limits and later to implement a dynamic price limit mechanism in the wheat market that allows the price limit to adjust with volatility and restore trading more quickly. These actions respectively allowed market participants to effectively manage risk and discover prices as markets normalized and will prepare the market for future events.

Turning to the crude oil market, the story is largely the same. Trade in energy spiked as the war in Ukraine broke out. As with wheat, prices in our West Texas Intermediate, or WTI, crude oil contract, a global benchmark for the price of oil, increased over 60 percent. This is the largest upside move in over 10 years. But thanks to our market risk controls and the clear, predictable margin practices employed by CME Group's clearinghouse, market participants were able to effectively hedge, and our markets accurately reflected the price of this core commodity.

Last, the invasion of Ukraine constrained Russia's ability to trade, which was felt by players across the metals supply chain in markets like aluminum and nickel. In addition, China, the world's largest consumer of many industrial metals, continued a zero-COVID policy that led to fears of significant demand destruction. By early March of 2022, new all-time highs were observed in the nickel market, contributing to an unprecedented disruption in the trade of nickel at one of the world's largest metals exchanges in London. Independent reviews of that disruption have specifically noted the absence of market oversight and risk management procedures such as those routinely deployed by CME Group's exchange and clearinghouse, including, for example, position limits, assessing concentration risk, liquidity-based margin add-ons, and daily price bands.

CME Group's clearinghouse provides sophisticated financial safeguards and risk management and has a long history of successfully handling extreme market events. CME clearing was well-prepared for the commodities market events that began last March, making multiple proactive margin increases leading up to Russia's invasion in Ukraine so that customers would be prepared for market changes as volatility grew.

In conclusion, as CME Group's CEO Terry Duffy recently wrote in a *Financial Times*[1] op-ed piece, "With near constant market challenges ahead, effective risk management will be crucial. To navigate this new age of uncertainty . . . ." U.S. derivatives markets, as regulated by the CFTC and overseen by this Committee, are essential to ensure that global market participants can continue to manage those risks confidently and securely.

Thank you for inviting me today, and I look forward to taking any questions you may have.

[The prepared statement of Mr. Sammann follows:]

PREPARED STATEMENT OF DEREK SAMMANN, SENIOR MANAGING DIRECTOR, GLOBAL HEAD OF COMMODITIES, OPTIONS, AND INTERNATIONAL MARKETS, CME GROUP INC., CHICAGO, IL

Chairman Thompson, Ranking Member Scott, and Members of the Committee, I am Derek Sammann, Senior Managing Director and Global Head of Commodities, Options, and International Markets for CME Group. As the world's leading and most diverse derivatives marketplace, CME Group offers the widest range of global benchmark products across all major asset classes and provides clearing services for our customers around the globe through our clearinghouse, CME Clearing. Thank you for the opportunity to testify today regarding global commodity markets, volatility, and the importance of robust, secure, well-regulated and deeply liquid derivatives markets.

Commodity Derivatives Markets in Times of Volatility

Commodities derivatives markets are essential to both consumers and producers to help manage price risk and hedge exposures to rising input costs. Given the importance of U.S. agricultural production and the magnitude of U.S. exports of agricultural products to global consumers, America's agricultural producers and global end-users are not strangers to market volatility. They compete on a global level and are affected by trade policy, geopolitics and weather events half-a-world away.

Similarly, energy products like crude oil and natural gas, as well as metals products like silver, copper and aluminum, are also affected by global demand shocks and supply disruptions. These events directly impact prices for those commodities as well as agricultural products, which are directly linked to the real economies in the U.S. and worldwide—therefore impacting Main Street consumers.

To combat these global uncertainties, commodities market participants need robust tools to deal with instability that creates unwanted price risk. U.S. derivatives markets provide market participants all over the world with a robust and well-regulated venue to efficiently hedge price risk, effectively discover prices and powerfully mitigate unwanted counterparty risk. Derivatives exchanges like those at CME Group offer futures and options contracts that allow both commodity producers and end-users to lock in future prices, providing predictability on both input and output costs.

As regulated derivatives markets enable open and transparent price discovery, they also help to support price stability. In turn, market participants and end-users benefit from these markets, even those that do not directly buy or sell futures contracts.

Recent Commodity Markets Volatility

Over the last 3 years, we have seen significant disruptions to global commodities markets. While the war in Ukraine created supply shocks in markets like wheat, crude oil and natural gas, the global pandemic similarly created significant demand shifts in energy markets, all of which created record levels of volatility across commodities. Thanks to the well-functioning and well-regulated listed futures and options markets that this Committee oversees, U.S. and global market participants were able to accurately determine prices of core commodities and manage risk with limited disruptions during these unprecedented events. Let me provide three examples of how these markets and their risk controls and financial safeguards functioned effectively over the past year, focusing on the markets for wheat, energy, and metals.

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[1] **Editor's note:** the FINANCIAL TIMES article entitled, *Risk management is the alpha for a time of uncertainty,* dated February 28 2023, is retained in Committee file and is available at: *https://www.ft.com/content/a3459cb1-b98c-457a-8e4a-e99860709b88*.

Before the war, Russia and Ukraine contributed roughly 25% of total global wheat exports. Following Russia's invasion of Ukraine, wheat market prices increased 70% from their January 2022 levels. During this time, CME Group's clearinghouse followed transparent margining practices, notifying market participants of incremental margin increases 24 to 48 hours in advance, which helped our markets to operate smoothly during this volatile period. Initial margin deposits (also called "performance bonds") by clearing members vary according to product and market volatility and ensure that a clearing member can cover potential losses and meet its obligations to customers and the clearinghouse. The ability to adapt margin requirements is an important risk management tool that helps our clearinghouse assess overall portfolio risk to protect market participants and the market as a whole.

In March 2022, we saw the largest daily price move in wheat—with an implied price up 26% *vs.* a 7.1% hard limit that day—triggering a price limit on wheat futures. Price limits are one of the pre-trade risk controls used by CME Group exchanges to maintain an orderly market. Price limits cause trading to temporarily stop, preventing a market from moving too far too fast and helping to recover market equilibrium. We promptly worked with the CFTC to get expedited approval to increase price limits and later to implement a "dynamic" price limit mechanism in wheat that allowed the price limit to adjust with volatility and restore trading more quickly following limit events. The first action allowed market participants to effectively manage risk and discover prices as they returned to normal, while the second will prepare the market for future events.

Turning to oil markets, the story is largely the same. Trading volumes in energy spiked as the war in Ukraine broke out. As with wheat, prices that February in our West Texas Intermediate (or WTI) crude contract, a global benchmark for the price of oil, increased over 60% from their January levels. Both wheat and oil had the same high spikes and implied volatility. These were the largest upside price risks that we have seen in over 10 years. Thanks to our market risk controls and the clear, predictable margin practices employed by our clearinghouse, market participants were able to effectively hedge, and our markets accurately reflected the prices of this core commodity.

Finally, the invasion of Ukraine constrained Russia's ability to trade, which was felt by players across the metals supply chain and their end customers in markets like aluminum and nickel. In addition to the geopolitical constraint, China—the world's largest consumer of many metals—continued a [COVID]-zero policy that severely restricted economic activity and led to fears of demand destruction for many industrial metals. By early March of 2022, new all-time highs were observed in palladium and nickel markets. These dynamics contributed to an unprecedented disruption in the trading of nickel at one of the world's largest metals exchanges in London. Independent reviews [1] of this disruption have specifically noted the absence of market oversight and risk management procedures such as those routinely deployed by CME Group's exchanges and clearinghouse. These tools include assessing concentration risk, margin add-ons, liquidity-based margin add-ons, daily price bands, daily variation margin calls, setting price limits guided by volatility dynamics, and utilizing mechanisms such as dynamic circuit breakers and velocity logic to manage market moves.

Central Clearing in Extreme Market Conditions

During times of extreme market volatility, central clearing, which is required for all listed futures contracts, is a critical component of a secure derivatives marketplace. Clearing helps to ensure that each party to a futures contract lives up to its financial obligations, thereby mitigating counterparty risk. CME Group's clearinghouse provides sophisticated financial safeguards and risk management and has a long history of successfully handling extreme market events.

CME Clearing takes extensive steps to ensure markets run smoothly, including during times of exceptionally high market volatility as we have seen recently. In addition to responsible margining practices, the clearinghouse provides risk monitoring 24 hours a day, 6 days a week, daily mark-to-market monitoring of clearing members' and customers' exposures, margin review and maintenance, trend analysis of clearing members, stress testing, back testing, risk reviews, and default management—to name just a few.

CME Clearing was well prepared for the commodities market events that began last March. We were in regular contact with the CFTC throughout these periods of

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[1] *https://www.lme.com/-/media/Files/Trading/New-initiatives/Nickel-independent-review/Independent-Review-of-Events-in-the-Nickel-Market-in-March-2022---Final-Report.pdf; https://www.bankofengland.co.uk/news/2023/march/boe-announces-supervisory-action-on-lme-clear; https://www.fca.org.uk/news/statements/update-our-public-statement-london-metal-exchange.*

heightened volatility, while following our standard practice when dealing with event risk. We made multiple, proactive margin increases leading up to Russia's invasion of Ukraine, so that customers would be prepared for market changes as volatility grew.

Importance of Market Liquidity

While risk controls and central clearing are essential components of the safety and security of derivatives trading, there would be no market, no risk mitigation, and no price discovery without adequate market liquidity. It is liquidity that enables the kind of trading volumes that normally accompany markets in times of stress. Market participants must have absolute confidence that when they are ready to either establish a position to lock in a price or close out their position, a counterparty will be there to take the other side of their trade. Without this liquidity, markets would not exist.

A record of over 23 million contracts were traded on CME Group every day, on average, in 2022. These deeply liquid markets are possible because buyers and sellers trust in the investor protections and safeguards that CME Group, in partnership with the CFTC as our regulator, and the critical intermediaries like our clearing firms, offers market participants. CME Group markets provide exemplary risk management standards and create tailored products that meet the market's risk hedging and price discovery needs.

Conclusion

As we move forward in an ever more uncertain world, commodity risk management will continue to be a focus in 2023 and beyond. Due to the integrated nature of commodity markets, all global events will reverberate through America's markets. U.S. derivatives markets, as regulated by the CFTC, and overseen by this Committee, are essential to ensure that global market participants can continue to manage those risks confidently and securely.

Thank you for inviting me to testify today and I look forward to taking any questions you may have.

The CHAIRMAN. Mr. Sammann, thank you so much for your testimony.

Now, I am pleased to recognize Ms. Crighton. Please begin your testimony whenever you are ready.

STATEMENT OF ALICIA CRIGHTON, CHAIR, BOARD OF DIRECTORS, FUTURES INDUSTRY ASSOCIATION, NEW YORK, NY

Ms. CRIGHTON. Chairman Thompson, Ranking Member Scott, and Members of the Committee, thank you for the opportunity to testify. It is an honor to be here.

My name is Alicia Crighton. I am head of the clearing and co-head of the futures businesses for Goldman Sachs. I am testifying today as Chair of the Futures Industry Association, the FIA, which is the leading global trade organization for the futures, options, and centrally cleared derivatives markets.

During periods of increased market volatility, including the pandemic and the Russian invasion of Ukraine, futures markets take on additional importance as a critical risk management tool for agriculture and energy end-users. Markets function well, but our experience also underscored ways in which we can strengthen the resilience of the cleared derivatives markets. Today, I will explain the role of clearing members in helping end-users manage risk. Then, I will discuss margin as a foundational component of clearinghouse risk management, also commonly referred to as CCPs. Last, I will briefly touch on diversity and inclusion in the industry, an issue that is personally important.

Through connectivity to exchanges and CCPs around the world, clearing members provide end-users access to global markets to

manage risk. We are intermediaries and stand between an end-user and the CCP and act as the first and last line of defense for the cleared ecosystem.

As the first line of defense, we underwrite the risk of a client's portfolio before it ever reaches the CCP and monitor it on an ongoing basis. This includes determining suitability of leveraged products, monitoring clients for money laundering, and other risks to market integrity, collecting and safeguarding customer margin, and guaranteeing the performance of clients to CCPs.

Perhaps less known is that clearing members are also the last line of defense. We contribute substantially all of the financial resources that backstop the CCP in the event of a major market disruption or default. For CFTC-regulated clearinghouses alone, clearing members contribute close to $50 billion in default funds. The volume of transactions flowing through clearinghouses globally has increased significantly in the last decade in large part due to post-financial crisis clearing mandates. While this has a positive and risk-reducing effect for markets, it also increases the systemic relevance of central clearinghouses and the market's exposure to them.

Clearing members, end-users, and investors must rely on the strength of a clearinghouse's risk management, and ensuring the regulatory and risk management framework for CCPs is keeping pace with their role in the market is essential. For example, margin is the primary tool available to clearinghouses to manage credit risk and the first layer of resources that they can access in the event of a default. Following the market volatility that stemmed from the Russian invasion of Ukraine, we saw dramatic margin increases by CCPs across futures contracts globally. To meet margin calls, end-users need high-quality liquid assets, driving up demand and at the same time scarcity of those assets. This can intensify market turmoil, cause a spill-over into other markets, and potentially create systemic risk.

European energy companies sought liquidity support from central banks and governments to ensure they could maintain their hedges and meet their margin calls. While margin requirements for listed futures contracts should increase during volatile periods and decrease when markets normalize, the magnitude of the increases signal that margin levels had fallen too low. Improving the transparency of CCP margin models and the opportunity for market participants to provide input to the clearinghouse will help clearing members and end-users be better prepared for periods of volatility.

The CFTC proposed enhanced clearinghouse governance rules last year and outcome of market participants and clearinghouses working together through the Market Risk Advisory Committee. In addition, margin floor is designed to ensure baseline levels remain appropriately calibrated and more stable through time will help to dampen these extreme swings in margin.

Clearing members provides substantially all of the resources available to a CCP to manage a default, but there is a layer of capital contributed by the CCP itself. The skin in the game is essential to align the incentives between a clearinghouse and its members for effective risk management, including the adequacy of margin requirements. Some progress is being made globally, and the FIA

looks forward to continuing to work with regulators and clearinghouses to advance these discussions.

As the first female Chair of the Board in FIA's 68 year history, I can attest that we are making progress in enhancing diversity in our industry. The face of our industry is changing, and we don't have to look any further than the CFTC and the historic confirmation of four female Commissioners last year. There is clearly more we need to do, and I am happy to discuss this further.

Again, it is an honor to be with you today and to work with this Committee as you consider these important issues. Thank you.

[The prepared statement of Ms. Crighton follows:]

PREPARED STATEMENT OF ALICIA CRIGHTON, CHAIR, BOARD OF DIRECTORS, FUTURES INDUSTRY ASSOCIATION, NEW YORK, NY

Chairman Thompson, Ranking Member Scott, and Members of the Committee, thank you for the opportunity to testify.

I am the head of the clearing businesses for Goldman Sachs and the co-head of its Global Futures business. I am testifying as Chair of the Futures Industry Association (FIA), the leading global trade organization for the futures, options and centrally cleared derivatives markets.

During periods of economic stress and increased market volatility, futures markets take on additional importance because they serve as a critical risk management tool for agricultural and energy end-users. Through the market volatility related to the pandemic in March 2020, and the Russian invasion of Ukraine in 2022, futures markets continued to function amid tremendous stress in the financial system.

However, these experiences have also driven the industry to consider what can be done to put cleared derivatives markets, and the end-users that rely on them, on even stronger footing through future cycles of volatility.

Today, I'll start by explaining the role of clearing members [1] in helping end-users manage risk and supporting market resilience. Then I'll highlight issues that warrant additional attention from policymakers. And lastly, I'll talk about diversity and inclusion in the futures industry, an issue that is personally important to me.

The Role of Clearing Members

Through connectivity to exchanges and clearinghouses around the world, clearing members provide customers, including agricultural and energy end-users, with access to global markets to manage the risks of their operations. For example, many FIA members participate in clearinghouses across dozens of jurisdictions to ensure their clients have the ability to transact in any region in which they do business.

Clearing members are intermediaries, which means we stand between an end-user and the clearinghouse, and we act as the first and the last line of defense in fostering stability in cleared derivatives markets.

We act as a first line of defense by underwriting the risk of a client's portfolio before it ever reaches the clearinghouse and monitoring that risk on an ongoing basis. This includes determining the appropriateness and suitability of leveraged products, monitoring clients for money laundering and other risks to market integrity, collecting and safeguarding customer margin and guaranteeing the performance of clients to the clearinghouse.

Perhaps less known is that clearing members contribute substantially all the financial resources that backstop the clearinghouse in the event of a major market disruption or default by a market participant. Looking at just the ten clearinghouses regulated by the CFTC, clearing members contribute $47.6 [2] billion in default funds.

Clearing members also hold a significant amount of regulatory capital, which serves as an additional layer of protection to the system that helps ensure clearing members themselves can withstand a severe market disruption. The total amount

[1] For this testimony, the use of "clearing members" is intended to include futures commission merchants (FCMs).

[2] The clearinghouses included are: CME, Eurex, Ice Clear Credit, Ice Clear Europe, Ice Clear U.S., LCH LTD, LCH SA, MGEX Clearing, Nodal Clearing, OCC. Clearinghouse financial data is sourced from the Q3 public quantitative disclosures, published at year end. These calculations do not include the default insurance policy taken out by ICE as an additional layer of defense, to complement its "Skin-in-the-Game."

of capital held by the clearing members regulated by the CFTC was $175 billion as of December last year.[3]

Together, these financial resources reduce the risk that a major market event or default creates wider market contagion.

The Importance of Robust Exchange Risk Controls

Volatility control mechanisms including exchange risk controls provide important protections against extreme price volatility that can disrupt markets and create systemic risk. A recent example of this: over the course of 3 days in March last year, the price of nickel increased by over 270% on the London Metals Exchange (LME). As a result of the volatility and market disruption, LME took the extraordinary step of halting trading for 5 days but also canceled potentially billions of dollars of trade notional that had taken place during the twelve hours prior to the halt.

It's important to note that CFTC regulated exchanges have a long history of supporting robust volatility control mechanisms, especially in the agricultural markets. This brings confidence to our markets and supports the needs of commodity end-users. FIA is working in partnership with exchanges to develop global best practices for exchange risk controls.

Clearinghouse Resilience

The volume of transactions flowing through clearinghouses around the world has increased significantly in the last decade, in large part due to post-financial crisis clearing mandates. While this has had a positive and risk reducing effect for derivatives markets, it has also increased the systemic importance of clearinghouses.

Around the world, regulators continue to make progress in enhancing the regulatory standards applicable to clearinghouses, and there are international standards in place to foster consistency among jurisdictions. But recent market events underscore that more can be done to strengthen the resilience of clearinghouses, and by extension, cleared derivatives markets.

In addition, over the last twenty years, the number of clearing firms in the U.S. futures industry has decreased significantly. Using data from the CFTC, we estimate that the total number of clearing firms that clear futures for their customers has decreased by half, while the amount of customer margin held by these clearing firms has increased by almost six times, from $60 billion in March of 2002 to $347 billion this past December.

Clearing members, end-users and investors have to rely on the strength of a clearinghouse's risk management, particularly as many products by regulation require clearing. A core feature of a clearinghouse is its ability to spread losses incurred from a default across non-defaulting clearing members, known as "loss mutualization." This makes it essential that the risk management standards and regulatory frameworks governing a clearinghouse are sufficiently robust to safeguard their role as a critical market infrastructure, including membership criteria, the risk profile of new products it clears and, as I'll discuss more later, margin practices. FIA supports greater strengthening and standardization of these requirements globally.

Transparency and Adequacy of Margin

Margin is the first layer of resources available to a clearinghouse if a participant defaults, and it is foundational to the risk management of the clearinghouse. In recent periods of volatility, such as the onset of the pandemic or the Russian invasion of Ukraine, we saw significant margin increases across futures contracts globally.

In October 2020, FIA released a white paper[4] that examined the increase in margin requirements at derivatives clearinghouses during the first quarter of 2020 due to increased market volatility related to the pandemic. Although the clearing system performed well, the increase in margin requirements created a large and sudden demand for liquid assets that added stress in markets.

To highlight key findings:

- Initial margin requirements for certain benchmark contracts in the U.S., Europe and Japan jumped by more than 100% between the beginning and the end of the first quarter of 2020 with most of the increase happening during the month of March

[3] Source: The CFTC's Financial Information for FCMs report for December 2022. Total capital is the aggregate amount of "adjusted net capital" reported by the 63 FCMs registered with the CFTC as of that date.

[4] *https://www.fia.org/sites/default/files/2020-10/FIA_WP_Procyclicality_CCP%20Margin%20Requirements_1.pdf.*

- Initial margin held by the ten major derivatives clearinghouses in those jurisdictions rose from $563.6 billion at the end of 2019 to $833.9 billion at the end of the first quarter of 2020, an increase of $270.3 billion or 48%

More recently, we experienced a very sharp increase in margin requirements in the European power and gas and oil markets in 2022 after the Russian invasion of Ukraine. Several large European energy companies that use these markets to hedge their risks faced extremely large margin calls, and in some cases they had to turn to their governments for financial support.[5] This experience demonstrated how margin calls can drive up demand for high quality liquid assets and intensify market turmoil. While margin requirements for listed futures contracts certainly should increase during volatile periods and decrease when markets are under normalized conditions, the magnitude of the increases that we saw in the European power and gas markets were a sign that margin levels had fallen too low.

There are a few ways in which this can be addressed. First, improving the transparency of clearinghouse margin models, as well as the opportunity for market participants to provide input to the clearinghouse, will help clearing members and end-users be better prepared for periods of volatility. The Commodity Futures Trading Commission (CFTC) issued a proposal last year to enhance clearinghouse governance that was the outcome of market participants and clearinghouses working together towards a solution through its Market Risk Advisory Committee[6] (MRAC).

Second, implementing margin floors that are designed to ensure baseline levels remain appropriately calibrated and more stable through time will help to dampen extreme swings in margin.

In our October 2020 white paper, FIA identified several additional recommendations for regulators to improve the transparency and adequacy of clearinghouse margin models to drive this outcome in the future. Additionally, in February 2021, the MRAC approved several consensus recommendations[7] for the CFTC to consider related to clearinghouse margin methodologies. Recommendations include:

- Clearinghouse margin methodologies should be sufficiently transparent to market participants so they can understand how models react to certain market conditions for liquidity planning and risk management purposes
- The CFTC should enhance its flexible approach to supervising how CCPs manage procyclical margin requirements that prioritizes the desired outcome of reducing procyclicality, not the specific means of reducing it

Third, the role of incentives in driving prudent margin practices by clearinghouses has been an important topic for the industry and regulators for many years.[8] This is because nearly all of the capital that would be used to manage a default comes from the clearing members[9] and not the clearinghouses. In other jurisdictions, regulators are in the process of developing new policy[10] to require clearinghouses to put more of their own capital at risk[11] to better align their incentives for strong risk management practices, including strong margin models.

Bank Capital

Capital levels for banks have significantly increased since the financial crisis due to the adoption of Dodd-Frank, Basel III and other reforms. These reforms have made the banking system more resilient to volatility and extreme shocks.

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[5] For examples, see: *https://www.bankofengland.co.uk/markets/energy-markets-financing-scheme; https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2022/06/20220617-new-hedging-instrument-margining-launched-by-the-german-federal-government-to-protect-companies-affected-by-war.html; https://www.ft.com/content/4ea1dab0-d1a8-4324-97e2-22caed5ed55c.*

[6] *https://www.cftc.gov/media/6201/MRAC_CCPRGS_RCCOG022321/download.*

[7] *https://www.cftc.gov/media/5706/MRAC_CRGSubcommittee-DiscussionPaperOnBestPracticesinCCPMarginMethodologies022321/download.*

[8] *https://www.bis.org/publ/work866.pdf.*

[9] While the rate of contributions varies among CFTC-regulated clearinghouses, on average, clearinghouses contribute less than 5% of their own capital to their default funds. The clearinghouses included in this analysis are: CME, Eurex, Ice Clear Credit, Ice Clear Europe, Ice Clear U.S., LCH LTD, LCH SA, MGEX Clearing, Nodal Clearing, OCC. Clearinghouse financial data is sourced from the Q3 public quantitative disclosures, published at year end. These calculations do not include the default insurance policy taken out by ICE as an additional layer of defense, to complement its "Skin-in-the-Game."

[10] *https://www.risk.net/regulation/7955130/boe-official-signals-tough-stance-on-ccp-skin-in-the-game.*

[11] Last year, European authorities took steps to require European CCPs to hold an additional amount of pre-funded dedicated own resources and noted "This additional layer of capital, or 'second skin-in-the game', exposes the CCP's capital before relying on further contributions from clearing members and is meant as an incentive for proper risk management." *https://www.esma.europa.eu/sites/default/files/library/esma91-372-1706_fr_rts_ssitg_art_915.pdf.*

The U.S. banking agencies are in the process of developing a proposal to revise the capital regime for banks that has the potential to further increase the cost of capital.

It will be important that the forthcoming proposal be calibrated correctly so that it does not increase the cost for banks to provide commodity derivatives to end-users to meet their hedging needs.

Diversity & Inclusion

As the first female Chair of the Board in FIA's 68 year history, I can attest that we are making progress in enhancing diversity in our industry. There are many signs that the face of our industry is changing. We don't have to look any further than the CFTC and the historic confirmation of four female Commissioners last year. I do think there's a lot more we need to do, and I have some practical ideas drawn from my own career that I would be very happy to discuss further with any Members or staff on the Committee.

Conclusion

FIA greatly appreciates the Committee's interest in these topics that affect global derivatives markets and the end-users who rely on derivatives products to hedge their risks.

It is an honor to be with you today and to work with this Committee as you consider these important issues.

The CHAIRMAN. Ms. Crighton, thank you, and thanks so much for your testimony.

I am now pleased to recognize Mr. Edmonds. Please begin when you are ready.

STATEMENT OF CHRISTOPHER S. EDMONDS, CHIEF DEVELOPMENT OFFICER, INTERCONTINENTAL EXCHANGE, INC., ATLANTA, GA

Mr. EDMONDS. Chairman Thompson, Ranking Member Scott, Members of the Committee, I am Chris Edmonds, Chief Development Officer for Intercontinental Exchange, or ICE. I appreciate the opportunity to be here before you today as this Committee looks at the global commodity market volatility and the impacts on central clearing and margin.

Clearinghouses play a critical role in the financial markets that serves the needs of participants around the globe. Policymakers across the world, including this Committee, have an interest in safe and efficient markets, and commercial market participants rely on ICE's exchanges and clearing services to assess price risk, find market opportunities, and transact with confidence.

ICE has a successful and innovative history of clearing exchange-traded and OTC derivatives across a spectrum of asset classes, including energy, agriculture, and financial products. Today, ICE owns and operates six geographically diverse clearinghouses that serve markets and customers across North America, Europe, and Asia.

The risk-reducing benefits of central clearing have long been recognized by users of exchange-traded derivatives, you know as futures, and the performance of the clearing model throughout the even most challenging financial situations made it the foundation of financial reforms. As part of the increased use of clearing, clearinghouses and market participants have worked to make the clearing process robust and resilient, supported by suitable financial risk management and operational resources.

The combination of market events in 2022 have been unique. The uneven and unpredictable reopening of global economies following

the COVID–19 pandemic, the Russian invasion of Ukraine significantly reconfigured global energy supply, rising inflation, and subsequent central bank tightening of monetary policy, and increasing political and investor pressure around energy markets, energy security, affordability, and sustainability. These events have impacted the financial and commodity markets and have combined to create significant uncertainty, high levels of volatility, and high energy prices at a time where the cost of capital has also increased. Despite the challenges related to these events, derivative markets have again proven to be resilient, liquid, and well-functioning and continue to provide transparent price discovery.

As a result of market events, volatility increased and market participants faced increased liquidity demands, including risk-based initial and variation margin calls. Market participants made these margin calls—or paid their bill—or received margin payments—or were paid what they were owed. The fact these parties paid their margin calls is further evidence the markets operated as expected and market participants confidently relied on ICE's markets to manage the risk.

ICE recognizes the volatile situation occurring in the energy markets and its subsequent impact on consumers. We also acknowledge the responsibility governments have to combat inflationary natural gas prices and supply concerns for their citizens. ICE, however, does not support the recent imposition of a market correction mechanism in the European Union and believes it will fail to achieve its primary objective of lowering energy prices and could distort the trading of EU natural gas derivatives. The market correction mechanism incentivizes market participants to use less transparent over-the-counter hedging tools or refrain from hedging, which could have a detrimental impact on liquidity and market confidence, resulting in long-term damage to the functioning and competitiveness of the global natural gas market.

Clearinghouses collect and manage billions of dollars in customer funds pledged as collateral against derivative positions, including margin posted by commercial hedgers and farmers. The amount of collateral posted to clearinghouses has substantially increased due to the recent market volatility. Accordingly, expanding clearinghouse access to central bank deposit accounts for client margin is an important systemic risk mitigation tool and a means to protect client funds held by clearinghouses and ensure liquidity of these funds during stressed market conditions.

For this reason, ICE, along with other non-systemically designated central counterparties, support legislation providing central counterparties registered with the CFTC and the SEC access to deposit accounts offered by the Federal Reserve, as it is the safest and most liquid place to hold U.S. dollar client funds and ask this Committee to assist in advancing such legislation as you have in the past.

We look forward to continuing to work closely with governments and regulators at home and abroad to address evolving challenges and to expand the use of demonstrably beneficial clearing services, underpinning the best and safest marketplace as possible.

Mr. Chairman, Members of the Committee, thank you for the opportunity to share our views. I would be happy to answer any questions you and the Members may have.

[The prepared statement of Mr. Edmonds follows:]

PREPARED STATEMENT OF CHRISTOPHER S. EDMONDS, CHIEF DEVELOPMENT OFFICER, INTERCONTINENTAL EXCHANGE, INC., ATLANTA, GA

Introduction

Chairman Thompson, Ranking Member Scott, I am Chris Edmonds, Chief Development Officer for Intercontinental Exchange, or ICE. I appreciate the opportunity to appear before you today, as this Committee looks at the global commodity market volatility and the impacts on central clearing and margin.

Clearing houses play a critical role in the financial markets that serve the needs of participants around the globe. Policy makers across the world, including this Committee, have an interest in safe and efficient markets. To further the common interest of well-functioning markets and well-regulated clearing houses, we appreciate the opportunity to participate in this hearing.

Background

Since launching an electronic over-the-counter (OTC) energy marketplace in 2000 in Atlanta, Georgia, ICE has expanded both in the U.S. and internationally. Over the past seventeen years, we have acquired or founded derivatives exchanges and clearing houses in the U.S., Europe, Singapore and Canada. In 2013, ICE acquired the New York Stock Exchange, which added equity and equity options exchanges to our business.

ICE has a successful and innovative history of clearing exchange-traded and OTC derivatives across a spectrum of asset classes, including energy, agriculture and financial products. Today, ICE owns and operates six geographically diverse clearing houses that serve markets and customers across North America, Europe and Asia. Each of these clearing houses is subject to direct oversight by local national regulators, often in close coordination and communication with other regulatory authorities with important interests, and subject to regulations reflective of the G20 reforms and IOSCO principles.

- ICE acquired its first clearing house, *ICE Clear U.S.,* as a part of the 2007 purchase of the New York Board of Trade. ICE Clear U.S. clears a variety of agricultural and financial derivatives and is primarily regulated by the Commodity Futures Trading Commission (CFTC) and is recognized by the European Securities and Markets Authority (ESMA).
- In 2008, ICE launched *ICE Clear Europe,* the first new clearing house in the UK in over a century. ICE Clear Europe clears derivatives in several asset classes, including energy, interest rates, equity and credit derivatives, and is primarily supervised by the Bank of England, in close cooperation with the CFTC, the Securities and Exchange Commission (SEC) and ESMA.
- *ICE Clear Credit* was established as a trust company in 2009 under the supervision of the Federal Reserve Board and the New York State Banking Department and converted to a derivatives clearing organization (DCO) following implementation of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act). ICE Clear Credit clears a global set of credit default swaps on indices, single names and sovereigns, and is primarily regulated by the CFTC and SEC and is also recognized by ESMA. ICE Clear Credit has been designated as "systemically important" by the Financial Stability Oversight Council (FSOC).
- In 2017, ICE acquired *ICE NGX.* ICE NGX operates a non-intermediated model for clearing of North American energy products and is regulated by the Alberta Securities Commission and the CFTC.
- ICE also operates *ICE Clear Netherlands* under the regulatory supervision of De Nederlandsche Bank, Autoriteit Financiële Markten and ESMA, and *ICE Clear Singapore* which is overseen by the Monetary Authority of Singapore.

Clearing Houses Vital Role in the Derivatives Market

Clearing has consistently proven to be a fundamentally safe and sound process for managing systemic risk. The risk-reducing benefits of central clearing have long been recognized by users of exchange-traded derivatives (futures), and the performance of the clearing model throughout even the most challenging financial situations

made it the foundation of financial reforms. Observers frequently point to non-cleared derivative contracts as a significant factor in the broad reach and complexity of the 2008 financial crisis, while noting the relative stability of cleared markets.

The disciplined and transparent risk management practices of regulated clearing houses serve to reduce systemic risk. A clearing house, by acting as a central counterparty, to clearing members' transactions, eliminates the bilateral counterparty credit risk and imposes on clearing members a transparent set of rules and prudent risk management practices, such as margin requirements, to minimize risks managed by the clearing house. Clearing house risk management practices have been repeatedly tested and proven in resolving defaults including large bankruptcy proceedings, such as Lehman Brothers and MF Global, and during extreme market events such as the COVID–19 pandemic and the Russian invasion of Ukraine.

As part of the increased use of clearing, clearing houses and market participants have worked to make the clearing process robust and resilient, supported by suitable financial, risk management, and operational resources. The Principles for Market Infrastructure (PFMI) represent the internationally agreed-to framework for achieving these goals and are designed to ensure that fundamental protections apply internationally. National regulators in G20 jurisdictions have reduced the risk of regulatory arbitrage by implementing the key aspects of the PFMIs into their regulatory frameworks. This process has set an appropriate standard across numerous jurisdictions for the regulation of a clearing house.

The Purpose of Liquid Markets

This past year is a reminder that well-hedged utility and energy firms serve a wider public good by increasing resilience of the energy supply chain and serving the interests of many stakeholders. In periods of heightened uncertainty and volatility, risk transfer mechanisms are most needed as the risks in the underlying commodity markets are most acute. The primary objective of market operators and policymakers should be to keep markets open and available to all market participants, especially during times of increased stress.

Commercial market participants rely on ICE's exchanges and clearing services to assess price risks, find market opportunities and transact with confidence. Futures markets allow market participants to manage their risk of adverse price moves by securing the price for future consumption or delivery of a commodity. By managing price risk, market participants can make business decisions with more confidence, creating an environment that is conducive to infrastructure investments that reinforce the security of supply or that facilitate the energy transition. ICE is proud to operate the liquid markets that contribute to energy security, which in turn promotes national security and allows policy makers to make informed decisions.

In addition, futures markets provide commercial market participants with tools for effective hedging and price certainty, which reduces the cost of capital and, in turn, reduces costs to consumers. ICE's global exchanges offer commodity derivative contracts such as power, gas and oil which enable commercial market participants including utility and energy firms to optimize cash flows associated with underlying physical deals through buying and selling futures and options.

Market Performance and Central Clearing

The combination of market events in 2022 has been unique—the uneven and unpredictable reopening of global economies following the COVID–19 pandemic, the Russian invasion of Ukraine significantly reconfiguring global energy supply, rising inflation and subsequent central banks tightening of monetary policy and increasing political and investor pressure around energy markets and energy security, affordability and sustainability. These events have impacted the financial and commodity markets and have combined to create significant uncertainty, high levels of volatility and high energy prices at a time where the cost of capital has also increased.

Despite the challenges related to these events, derivative markets have again proven to be resilient, liquid and well-functioning and continue to facilitate price discovery through liquid and fair markets. As a result of market events, volatility increased and market participants faced liquidity demand increases including initial and variation margin calls. Margin levels were near record highs, as clearing houses' margin requirements responded as designed to protect against rapidly shifting prices. Clearing house margin requirements are risk-based and respond on a dynamic basis to changing market conditions. These margin models are designed by risk experts, vetted with clearing members, approved by regulators, and regularly back-tested in compliance with international standards and regulatory requirements.

Market participants made variation margin calls (paid their bill) or received variation margin payments (were paid what they were owed). The fact that these parties paid their margin calls is further evidence that the markets operated as expected and that market participants confidently relied on ICE's markets to manage their risks. Global regulators and market operators have also observed and acknowledged that the derivative markets operated efficiently and effectively as intended.[1]

European Price Caps

ICE recognizes the volatile situation occurring in energy markets and its subsequent impact on consumers. We also acknowledge the merits of governments exploring solutions to address high natural gas prices and supply concerns. ICE however does not support the recent imposition of a market correction mechanism in the European Union ("EU") and believes it will not achieve its primary objective of lowering energy prices and could distort the trading of EU natural gas derivatives.

The implementation of the market correction mechanism undermines the ability of the market to perform vital risk transfer mechanisms resulting in commercial market participants being unable to manage their risk. Gas derivatives, such as the ICE TTF futures contract, are a crucial tool for producers and consumers to hedge against the risk of changes in future gas spot prices. If a change to future supply or demand occurs, market participants need the ability to react to these changes in order to remain properly hedged. Imposing a price limit on exchange-traded products subjects market participants to greater risk exposure and uncertainty. The market correction mechanism incentivizes market participants to use less transparent over-the-counter hedging tools or refrain from hedging, which could have a detrimental impact on liquidity and market confidence and result in long-term damage to the functioning and competitiveness of the European gas market.

Furthermore, a critical feature of central clearing is the ability to manage the default of market participants and to prevent systemic risk by unwinding the positions of a defaulting clearing member and returning the market to a balanced book. The introduction of a price cap on a contract prevents the clearing house from performing this function, increasing risks to the clearing house and systemic risks to the broader market. A price cap undermines financial stability with no remedy. It is critical that the U.S. not jeopardize robust and well-functioning markets through government intervention.

Central Counterparties Access to Central Bank Accounts

Clearing houses collect and manage billions of dollars in customer funds pledged as collateral against derivatives positions including margin posted by commercial hedgers and farmers. The amount of collateral posted to clearing houses has substantially increased due to recent market volatility. Accordingly, expanding clearing house access to central bank deposit accounts for client margin is an important systemic risk mitigation tool and a means to protect client funds held by clearing houses and ensure liquidity of these funds during stressed market conditions.

Clearing houses without access to central bank deposit accounts rely on alternatives for cash management of client funds, such as money market funds, repurchase agreements, and deposits at commercial banks. Jurisdictions including the United Kingdom and EU allow clearing houses access to central bank deposit accounts under certain circumstances. In the U.S., under Title VIII of the Dodd-Frank Act, the Federal Reserve was authorized to provide deposit account access only to financial market utilities deemed systemically important by the FSOC. During times of stress and increased market volatility, access to a Federal Reserve deposit account for all clearing houses will improve liquidity across the cleared derivatives ecosystem and reduce the systemic risk created by the interconnectedness of clearing houses and banks. It will also protect customers and end-users using the derivatives markets to hedge risk.

ICE supports legislation providing all central counterparties registered with the CFTC and SEC access to deposit accounts offered by the Federal Reserve as it is the safest and most liquid place to hold U.S. dollar client funds and asks the Committee to assist in advancing such legislation.

Conclusion

ICE has always been, and remains, a strong proponent of open and competitive markets with appropriate regulatory oversight. As an operator of global futures and derivatives markets, ICE understands the importance of confidence in its markets,

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[1] Please refer to the testimony of Chairman Benham at the 2022 U.S. Treasury Market Conference where he discussed the resiliency and well-functioning of markets during recent market volatility. *https://www.cftc.gov/PressRoom/SpeechesTestimony/opabehnam27*.

and we take seriously our obligations to mitigate systemic risk. ICE has observed its markets operating efficiently and effectively especially in times of market stress. To that end, we have worked closely with regulatory authorities in the U.S. and abroad to ensure they have access to all relevant information available to ICE regarding trade execution and clearing activity on our markets. We look forward to continuing to work closely with governments and regulators at home and abroad to address evolving challenges and to expand the use of demonstrably beneficial clearing services that underpin the best and safest marketplaces possible.

Mr. Chairman, thank you for the opportunity to share our views with you. I would be happy to answer any questions you and Members of the Committee may have.

The CHAIRMAN. Mr. Edmonds, thank you so much for your testimony, much appreciated.

And now I am pleased to recognize the former Commissioner, Mr. Berkovitz. Please begin when you are ready.

STATEMENT OF HON. DAN M. BERKOVITZ, FORMER COMMISSIONER, COMMODITY FUTURES TRADING COMMISSION, BETHESDA, MD

Mr. BERKOVITZ. Chairman Thompson, Ranking Member Scott, and Members of the Committee, thank you for the invitation to appear before you today. I offer you my perspective on the recent volatility in the commodity derivative markets after having spent the past 20+ years in various regulatory, oversight, and private-sector capacities related to these markets. My appearance before you today is in my own personal capacity. I am not representing or speaking on behalf of any other person, governmental agency, or private-sector entity.

I am particularly pleased to be appearing again before this Committee. The Agriculture Committee's oversight of, guidance to, and support for the Commodity Futures Trading Commission has been critical to the CFTC's ability to fulfill its mission to ensure that commodity derivative markets operate in a fair and secure manner to discover prices and manage commodity price risks.

Commodity markets and the associated commodity derivative markets have experienced extraordinary volatility in recent years. Increasing demands for commodities as the U.S. and other economies recover from the shutdowns caused by the COVID–19 pandemic, the Russian invasion of Ukraine, monetary tightening by central banks, China COVID policies, and extreme weather all have contributed to this volatility. This price volatility has caused financial hardships across many sectors of the economy, including the agricultural sector, as well as for the American families and households who will ultimately pay the bill for higher commodity prices.

In addition to the carefully constructed derivatives contracts that are traded on commodity derivatives exchanges, these exchanges have a variety of tools to help ensure market prices and volatility reflect the true forces of supply and demand and that market activity does not present systemic risks. Margin levels, speculative position limits, daily price limits, and trading halts can help ensure that prices are not caused by artificial means such as manipulation, fraud, or other disruptive trading practices, that market participants have a sufficient opportunity to respond to changing market conditions, and that counterparties will not default.

None of these tools, however, can insulate market participants from price changes due to the basic forces of supply and demand,

and each must be carefully calibrated so that they accomplish their intended purpose of limiting excessive speculation, ensuring orderly trading, and avoiding systemic risks, while also not unnecessarily impairing the basic price discovery or risk management functions of the markets, as prices change rapidly to reflect changes in supply and demand.

The mission of the CFTC is to ensure the integrity of the commodity derivative markets, prevent manipulation, avoid systemic risks, protect market participants from fraud and other abuses, and promote innovation and fair competition among market participants and markets. CFTC regulations established the basic requirements for margin position limits and orderly trading.

The CFTC conducts market surveillance to ensure that trading is fair, orderly, and not subject to manipulation or other artificial disruptions and brings enforcement actions for violations of its regulations in the Commodity Exchange Act. The CFTC must vigorously pursue its surveillance and enforcement responsibilities to ensure the integrity of these markets and maintain public confidence in the markets it regulates.

Generally, the types of risks affecting commodity prices in recent years are not unique. Political disputes, general economic fluctuations, disease, war, transportation disruptions, and extreme weather have affected commodity markets and indeed mankind throughout history. However, severe weather events are increasing in unprecedented intensity and frequency. There is substantial evidence that climate-related risks now pose a recurring existential threat to many households, businesses, and communities and threaten the stability of financial markets.

It is prudent, therefore, that we improve our tools to manage such risks in the commodity derivative markets. This work includes the development and use of new risk management products and markets, increased disclosures regarding climate-related risks, and vigorous oversight of these products and markets by the CFTC to ensure the integrity of new markets and products. The CFTC has begun this important work with the assistance of public input, and I look forward to the progress of the agency and market participants in this area.

Thank you again, Mr. Chairman, and Ranking Member, and I look forward to any questions you might have.

[The prepared statement of Mr. Berkovitz follows:]

PREPARED STATEMENT OF HON. DAN M. BERKOVITZ, FORMER COMMISSIONER, COMMODITY FUTURES TRADING COMMISSION, BETHESDA, MD

Chairman Thompson, Ranking Member Scott, and Members of the Committee, thank you for the invitation to appear before you today to discuss managing the risks arising from the recent volatility in the global commodity derivatives markets. I offer you my perspective on the current market volatility after having spent the past twenty-plus years in various regulatory, oversight, and private sector advisory capacities related to the commodity derivative markets. My appearance before you today is in my own personal capacity; I am not representing or speaking on behalf of any other person, governmental agency or private sector entity.

I am particularly pleased to be appearing again before this Committee. The Agriculture Committee's oversight of, guidance to, and support for the Commodity Futures Trading Commission (CFTC) has been critical to the CFTC's ability to fulfill its mission to ensure the commodity derivative markets operate in a fair and secure manner to discover prices and manage commodity price risks. This Committee's jurisdiction over these markets is not only a reminder of the historical origins of the

futures markets in the agricultural markets of the 19th and early 20th centuries, but also reflects and emphasizes the continued importance of those agricultural derivative markets—and the people who produce the commodities underlying these markets—to our national well-being and economy.

In my testimony today I will discuss the factors contributing to the recent spike in volatility in the commodity markets, describe the regulatory and market-based tools for managing volatility and price risks in the derivative markets, and offer some suggestions on how some of those market-based tools could be improved.

Summary

Commodity markets and the associated commodity derivative markets have experienced extraordinary price volatility in recent years. In the past year, factors contributing to this price volatility have included increasing demands for commodities as the U.S. and other economies recover from the shutdowns caused by the [COVID]–19 pandemic, the Russian invasion of Ukraine, monetary tightening by central banks, China [COVID] policies, and extreme weather. This price volatility has caused financial hardships across many sectors of the economy, including the agricultural sector, as well as for the American families and households who ultimately pay the bill for higher commodity prices.

In addition to the derivatives contracts themselves that are traded on commodity derivative exchanges, these exchanges have a variety of tools to help ensure market prices and volatility reflect the true forces of supply and demand. Margin levels, speculative position limits, daily price limits and trading halts can help ensure that prices are not caused by artificial means, such as manipulation, fraud, disruptive trading practices, and that market participants have a sufficient opportunity to respond to changing market conditions. None of these tools, however, can insulate market participants from price changes due to the basic forces of supply and demand, and each must be carefully calibrated so that they accomplish their intended purpose of limiting excessive speculation, ensuring orderly trading, and avoiding systemic risks, while also not unnecessarily impairing the basic price discovery or risk management functions of the markets.

The mission of the CFTC is to ensure the integrity of the commodity derivative markets, prevent manipulation, avoid systemic risks, protect market participants from fraud and other abuses, and promote innovation and fair competition among market participants and markets. CFTC regulations establish the basic requirements for margin, position limits, and orderly trading. The CFTC also is responsible for conducting market surveillance to ensure that trading is fair, orderly, and not subject to manipulation or other artificial disruptions, and for bringing enforcement actions for violations of its regulations and the Commodity Exchange Act (CEA).

Generally, the types of risks affecting commodity prices in recent years are not unique. Political disputes, general economic fluctuations, war, transportation disruptions, and extreme weather have affected commodity markets throughout history. However, severe weather events are increasing in unprecedented intensity and frequency. There is substantial evidence that climate-related risks now pose a recurring existential threat to many households, businesses, and communities, and threaten the stability of financial markets. It is prudent, therefore, that we improve our tools to manage such risks in the commodity derivative markets. This work includes the development and use of new risk-management products and markets, increased disclosures regarding climate-related risks, and vigorous oversight of these products and markets by the CFTC to ensure the integrity of new markets and products. The CFTC has begun this important work with the assistance of public input, and I look forward to the progress of the agency and market participants in this area.

Recent Commodity Market Volatility

Several factors have contributed to commodity market volatility in 2022 and continuing into 2023. These include:

Post-pandemic economic recovery. As consumer spending increased and the U.S. and other economies recovered from the shutdowns caused by the [COVID]–19 pandemic, supply-chain bottlenecks contributed to supply shortages, increased storage and transportation costs, increased counterparty risks, and therefore, ultimately, increases in prices.[1]

[1] See, *e.g.,* Oya Celasun, Niels-Jakob Hansen, Aiko Mineshima, Mariano Spector, and Jing Zhou, *International Monetary Fund, Supply Bottlenecks: Where, Why, How Much, and What Next?,* Working Paper, Feb. 2022, available at: *https://www.imf.org/-/media/Files/Publications/WP/2022/English/wpiea2022031-print-pdf.ashx.*

Russian invasion of Ukraine. The Russian invasion of Ukraine in late February 2022 and the resulting U.S. and European Union economic sanctions led to significant increases in prices and volatility in a variety of key commodities, including oil, wheat, and corn. As the notional value of these commodities increased, due both to inflation and the Russian invasion, margin levels increased as well.[2]

Monetary tightening. Beginning in March 2022, the Federal Reserve began to raise short-term interest rates by increasing its Federal funds target interest rate. Overall, in the past year the Federal Reserve has increased short-term interest rates by 4.25%. One effect of the increase in these rates has been the strengthening of the dollar against other major currencies. Over the long term the increased rates and the resulting increase in the cost of credit are anticipated to reduce investment and consumption, thereby lowering inflation and prices.[3]

China [COVID] policies. The reopening of the Chinese economy after several years of [COVID]-related restrictions has contributed to commodity price volatility. As the world's second-largest economy, and largest consumer of a variety of commodities, including soybeans and copper, changes in China's demand for industrial, energy, and agricultural commodities can significantly affect global supply chains and prices.[4]

Severe weather. As the National Oceanic and Atmospheric Administration (NOAA) reports, "[r]ecord drought gripped much of the U.S. in 2022," "the nation [was] struck with $18 billion disasters," and "[t]he year was also marked by numerous severe weather events, devastating hurricanes and deadly flooding across parts of the country."[5] The extreme drought conditions in the west, high plains, and several southern states led to the smallest hard red winter wheat crop since 1963, lowest corn yields since possibly 2012, and the smallest U.S. cotton crop in 12 years.[6] The drought led to historically low levels of the Mississippi River, disrupting barge traffic and increasing transportation and storage costs for agricultural commodities normally transported downriver. Flows along the Colorado River in the western U.S., as well as water levels at the Glen Canyon and Hoover dams also have been significantly reduced, [threatening] the supply of water and power for communities, industries, and ranching and farming in the Colorado River basin.

Severe weather struck globally in 2022. Extreme heat, drought, and wildfires plagued Europe, reducing electricity generation and affecting agricultural production, leading to increased imports of corn.[7] "Relentless drought" in Brazil is expected to limit soybean production; in previous years the drought also affected coffee and orange juice supplies.[8] Devastating floods in Pakistan that submerged ⅓ of the country, killed thousands of people and displaced millions, damaged or destroyed over 8 million acres of agricultural lands, affecting cotton, rice, and wheat produc-

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[2] CME, Commodity Market Performance, Presentation to the CFTC Global Markets Advisory Committee, Feb. 13, 2023, available at: *https://www.cftc.gov/PressRoom/Events/opaeventgmac021323*.

[3] See, *e.g.,* Juan M. Sanchez and Olivia Wilkinson, Federal Reserve Bank of St. Louis, *Tightening Monetary Policy and Patterns of Consumption,* Feb. 9, 2023, available at: *https://www.stlouisfed.org/publications/regional-economist/2023/feb/tightening-monetary-policy-patterns-consumption*.

[4] See, *e.g.,* Ann Cooban, CNN, *China's reopening isn't all good news. Inflation could get a second wind,* Jan. 27, 2023 ("The revival of the world's second largest economy—and its biggest consumer of commodities—threatens to push up global prices for fuel, industrial metals and food this year."), available at: *https://www.cnn.com/2023/01/27/business/china-commodities-energy-inflation/index.html;* Carl Surran, Seeking Alpha, *Commodities surge as China cools COVID restrictions,* Nov. 11, 2022 ("Commodity prices are popping Friday after China took significant steps to ease COVID–19 lockdowns and optimism from lighter-than-expected U.S. inflation data that sparked yesterday's huge stock market rally and sent the dollar sharply lower overnight.", available at: *https://seekingalpha.com/news/3906371-commodities-surge-as-china-cools-covid-restrictions*.

[5] NOAA, *Record drought tripped much of the U.S. in 2022,* Jan. 10, 2023, available at: *https://www.noaa.gov/news/record-drought-gripped-much-of-us-in-2022*. According to NOAA, Hurricane Ian was the single most costly event of 2022, with a cost of $113 billion. Severe weather events have been recurring in recent years. Over the past 7 years, "122 separate billion-dollar disasters have killed at least 5,000 people, with a total cost of more than $1 trillion in damages." *Id.*

[6] Source: CFTC.

[7] World Meteorological Organization, *Climate and weather extremes in 2022 show need for more action,* Dec. 23, 2022, available at: *https://public.wmo.int/en/media/news/climate-and-weather-extremes-2022-show-need-more-action;* Marianne Lehnis, *2022 Was A Year Of Record-Breaking Extreme Weather Events,* FORBES, Dec. 29, 2022, available at: *https://www.forbes.com/sites/mariannelehnis/2022/12/29/2022-was-a-year-of-record-breaking-extreme-weather-events/?sh=66128a65736b*.

[8] Nayara Figueiredo, REUTERS, *Brazil drought threatening national output potential, southern farmers say,* Feb. 14, 2023; available at: *https://www.reuters.com/world/americas/brazil-drought-threatening-national-output-potential-southern-farmers-say-2023-02-14/;* CFTC.

tion and exports.[9] A record heatwave in India "is threatening to damage grains and dent the country's wheat production for the second straight year."[10] China experienced a record heat wave.

Risk Management in Derivative Markets

Commodity derivative markets enable market participants—such as farmers, ranchers, producers, manufacturers, processors, marketers, and consumers—to discover prices and manage commodity price risks. For example, by selling contracts for future delivery on a futures exchange (a "designated contract market" or "DCM") a farmer can, in effect, lock in a sales price for a commodity such as wheat to be delivered at a future time, thereby hedging against price changes (decreases or increases) between the time of sale and the time of actual delivery of the commodity. Similarly, a buyer of a futures contract on the exchange, such as a food processor, can lock in a purchase price for wheat to be delivered at a specific time in the future, thereby hedging against any price increases (or decreases) between the time of the purchase of the futures contract and the delivery of the wheat. Because in a commodity market there often is not an exact balance between purchasers and sellers, speculators play an important role in providing liquidity and assuming price risks that physical market participants may be unwilling or unable to assume.

Indeed, futures markets in the United States developed in the mid-18th century—including the use of standardized contracts for future delivery, the development of quality standards and inspections, and the establishment of the Chicago Board of Trade—in order to enable buyers and sellers of agricultural commodities to manage the very same type of price risks prevalent in today's markets. For example, just as these new types of contracts were being developed to manage prices risks from storage and transportation, the Civil War broke out, leading to substantial volatility, price increases, and trading, including speculative trading, for key agricultural commodities, particularly oats (which the Union army needed to feed its horses), corn, and wheat.[11] By 1875, "trading rules were fairly complete, there was a substantial volume of trading, and merchants used futures to hedge inventories to earn carrying charges . . . ."[12]

One of the leading authorities on the futures markets described the beginnings of the futures markets as follows:

> [F]utures trading evolved out of risk financing, inventory, and pricing problems of handlers and processors of cash commodities . . . . The first fifty years of the history of futures trading in the U.S. is the history of feverish speculative activity, of contests among giants, and of attempts to manipulate prices. These contests resulted in the evolution of a set of competitive rules.[13]

Congress has recognized the price discovery and risk management purposes of the commodity derivative markets, and it has charged the CFTC with the regulation and oversight of those markets. Section 3(a) of the Commodity Exchange Act (CEA) declares: "The transactions subject to this Act are entered into regularly in interstate and international commerce and are affected with a national public interest by providing a means for managing and assuming price risks, discovering prices, or disseminating pricing information through trading in liquid, fair and financially secure trading facilities."[14] Section 3(b) states that the purpose of the CEA is to serve this national interest "through a system of effective self-regulation of trading facilities, clearing systems, market participants and market professionals under the oversight of the [CFTC]." Section 3(b) states the further purpose of the CEA "to deter and prevent price manipulation or any other disruptions to market integrity," to "ensure the financial integrity of transactions . . . and avoidance of systemic risk," to protect market participants from fraud and abusive practices, and to "promote

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[9] jaz Nabi, Brookings, *Responding to Pakistan floods,* Feb. 10, 2023, available at: *https://www.brookings.edu/blog/future-development/2023/02/10/pakistan-floods/;* CFTC.

[10] Rajendra Jahav, *India's wheat output dented by heatwave, could limit government stock building,* REUTERS, March 3, 2023, available at: *https://www.reuters.com/world/india/indias-wheat-output-dented-by-heatwave-could-limit-government-stock-building-2023-03-03/*.

[11] William G. Ferris, *The Grain Traders, The Story of the Chicago Board of Trade* (Michigan State University Press, 1988), at pp. 21–26. *See also,* G. Wright Hoffman, *Future Trading Upon Organized Commodity Markets in the United States* (University of Pennsylvania Press, 1932).

[12] Thomas A. Hieronymus, *Economics of Futures Trading For Commercial and Personal Profit* (Commodity Research Bureau, 1971), at p. 74.

[13] *Id.* at pp. 81–2.

[14] 7 U.S.C. Sec. 5(a).

responsible innovation and fair competition amongst boards of trade, other markets, and market participants."[15]

The CFTC and the designated contract markets (*i.e.,* exchanges licensed to trade contracts for future delivery, referred to hereinafter as "exchanges") have established a number of requirements for and parameters around the trading of futures contracts to ensure the futures markets continue to perform their intended function of facilitating price discovery and risk management.[16] These include margin requirements, speculative position limits, price limits and "circuit breakers" or trading halts. Both the CFTC and the exchanges also conduct market surveillance, potentially followed-up with enforcement activity or, in the case of the exchanges, disciplinary action, to detect, deter, and prevent fraud, manipulation, and other disruptive trading activity.

Margin requirements. The purpose of margin requirements in the commodity derivative markets is to help ensure that a market participant with a long position (*i.e.,* buyer of a contract for future delivery) or short position (*i.e.,* seller of a contract for future delivery) in a commodity has posted sufficient funds to the clearinghouse so that the participant will not default upon an adverse price movement. CFTC regulations establish minimum margin requirements for futures contracts traded on an exchange; the clearinghouses have flexibility to adopt higher margin requirements, but they cannot establish lower margin requirements.

Futures commission merchants ("FCMs") are critically important intermediaries that execute trades on an exchange on behalf of their customers, post the requisite amount of margin to the clearinghouse, and collect the margin for those trades from their customers. FCMs also guarantee the performance of their customers to the clearinghouse, providing another level of protection to exchange participants if a participant defaults. FCMs also may be called upon to contribute funds in the event of a default of another FCM. FCMs also perform a variety of other critical functions to and for market participants. They provide information, analyses, and advice to their customers, safeguard customer funds, and they are responsible for "know-your-customer" requirements and preventing money-laundering.

In times of significant increases in prices and volatility, margin levels generally will increase. Increases in margin requirements as prices are increasing can place significant financial burdens on market participants at a time when they can least afford it, as well as potentially create systemic risks as many market participants may be seeking additional funding for margin requirements at the same time. Increases in margin levels also can place stresses on FCMs, who must carry larger amounts of funding and capital to temporarily cover the increases in margin requirements for their customers.

One way to potentially avoid sharp increases in margin requirements would be to raise margin requirements generally, so that the increases would not be so sharp when prices and volatility increase. However, this would raise costs generally for end-users in the futures markets, as well as increase costs for many of the FCMs that serve these end-users, at a time when these end-users and intermediaries already are under financial stresses. Margin levels therefore require careful calibration to ensuring that margin requirements continue to mitigate counterparty risk, help prevent systemic risks, yet do not unduly impair market liquidity or the availability of intermediaries to serve end-users.

Speculative position limits. Limits on the amount of speculative positions a person may hold or control on an exchange are intended to ensure that prices on the exchange reflect the forces of supply and demand rather than distortions due to excessive speculation in the price of the commodity. Speculative position limits also help prevent price manipulation, particularly squeezes and corners as futures contracts near expiration. In conformance with the requirements of the Dodd-Frank Act, in January 2021, the Commission finalized the most recent revisions to its speculative position limit rules. As provided by the CEA and the Dodd-Frank Act, positions that constitute *bona fide* hedging are exempt from the speculative position limits. Although the CFTC establishes the overall requirements for position limits, the exchanges are responsible for implementing those limits.

Price limits and circuit breakers. Daily price limits (*i.e.,* limits on how much the price of a contract can increase or decrease in a single day) and circuit breakers (*i.e.,* pauses in trading for limited periods of time following extreme price moves) serve to pause trading during extraordinarily large price movements or periods of extreme volatility, to help ensure the price movements accurately reflect the forces of supply and demand rather than speculative excesses or panic buying and selling,

[15] 7 U.S.C. Sec. 5(b).

[16] Similar requirements and parameters apply in the swaps markets; for ease of reference, I only refer to the futures markets here.

or "fat-finger" or other types of errors in trade execution.[17] These pauses in trading and price movements enable exchanges and the CFTC to review such movements and respond as may be appropriate, provide market participants with a "cooling-off period" to analyze the recent changes in price, adjust their positions accordingly, and meet any additional margin requirements resulting from such movements. As with margin levels, price limits and trading halts must be calibrated so that such limits or halts accomplish their purpose in a manner that does not unduly interfere with the price discovery or risk management functions of the market.

Market surveillance. Both the exchanges and the CFTC have a responsibility to conduct market surveillance to detect fraud, manipulation, or other artificial disruptions to the legitimate forces of supply and demand as expressed through prices on the exchange. The CFTC's market surveillance program monitors trading activity, large trader positions, and deliverable supplies as physical commodity contracts near expiration to ensure the integrity of settlement prices as contracts near expiration, the relationships between cash markets and futures markets generally, and, working in conjunction with the Securities and Exchange Commission, monitors the arbitrage between the equities markets and the exchanges that trade indexes based on those equities.[18]

The CFTC's market surveillance program also is responsible for monitoring compliance with CFTC or exchange-set position limits. Although positions that constitute *bona fide* hedging are exempt from the speculative position limits, the CFTC also monitors hedgers' compliance with their exemption levels.[19]

During times of unusual market activity or extraordinary price movements, the Commission may conduct detailed investigations or examinations to traders' positions and market activity to determine whether there has been any artificial disruption to or interference with the normal forces of supply and demand. In addition to detecting potential wrongdoing, these investigations and examinations may reveal issues in contract or market design that can cause disruptions under certain market stresses or conditions, and that can be remedied to improve market operation. Vigorous surveillance of the derivative markets, including detailed examination or investigation of unusual or extreme market conditions, is necessary not just to detecting wrongdoing and improving market design, but also to maintaining public confidence—and thereby liquidity—in these markets.

Enforcement actions. Investigations of market disruptions and enforcement actions for violations of the CEA and Commission regulations is critical to preserving market integrity. Punishing violators deters future violations and provides market participants with confidence that the derivative markets reflect legitimate forces of supply and demand and are not determined by manipulation, fraud, or other disruptive activity. Traders that engage is disruptive, fraudulent, or manipulative behavior on an exchange may also be subject to disciplinary action by the exchange, which has the front-line responsibility to monitor trading on the exchange to ensure it is conducted in accordance with the rules of the exchange.

Need for Improvements in Risk Management for Climate-Related Events

Although the particular way in which the particular risks leading to price increases and volatility over the past several years have become manifest may have been idiosyncratic, the general nature of these risks is new or unique. War, bad weather, disease, political strife, and economic ups and downs have been prevalent for as long as civilization has existed. Over the past century and a half our derivative markets and the regulatory system overseeing those markets have developed a variety of tools, as described above, to enable producers, marketers and consumers of commodities to manage these risks. Further, as described above, these tools need continuous oversight and calibration to ensure that they continue to serve their intended function.

Of these general risks, however, there is one significant qualitative and quantitative difference: the severity and frequency of weather-related disruptions has increased significantly in recent years and is anticipated by many to continue to increase in severity and frequency in the future. There are a number of ways existing risk management tools potentially could be improved to enable market participants to better to manage these increasingly severe weather or climate-related risks. These include the development of new products and markets to manage climate-re-

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[17] *See* IOSCO, *Principles for the Regulation and Supervision of Commodity Derivatives Markets, Final Report* (Jan. 31, 2023), at p. 51, available at: *https://www.iosco.org/library/pubdocs/pdf/IOSCOPD726.pdf*.

[18] CFTC, CFTC Market Surveillance Program, available at: *https://www.cftc.gov/IndustryOversight/MarketSurveillance/CFTCMarketSurveillanceProgram/index.htm*.

[19] *Id.*

lated risks, and improved disclosures of climate-related risk data. In light of the potential magnitude of the threat posed by these climate-related risks to individual businesses and overall financial stability, it is critical that work continue towards these improvements in our risk management capabilities.

There is substantial evidence that climate change poses significant risks to communities across the United States, including "growing challenges to human health and safety, quality of life, and the rate of economic growth." [20] With respect to agriculture, in 2019 the Fourth National Climate Assessment reported, "Rising temperatures, extreme heat, drought, wildfire on rangelands, and heavy downpours are expected to increasingly disrupt agricultural productivity in the United States. Expected increases in challenges to livestock health, declines in crop yields and quality, and changes in extreme events in the United States and abroad threaten rural livelihoods sustainable food security, and price stability." [21]

In September 2021, the CFTC's Market Risk Advisory Committee (MRAC) issued a Report titled "Managing Climate Risk in the U.S. Financial System," which concluded that "Climate change poses a major risk to the stability of the U.S. financial system and to its ability to sustain the American economy." [22] The MRAC noted that derivative markets "can be part of the solution," and suggested new derivative contracts could be developed to manage these new climate-related risks. The MRAC also recommended that "[f]inancial regulators, in coordination with the private sector, should support the availability of consistent, comparable, and reliable climate risk data and analysis to advance the effective measurement and management of climate risk." [23]

In October 2021, the Financial Stability Oversight Council (FSOC) identified climate-related financial risks as an emerging threat to the financial stability of the United States.[24] The FSOC assessed the actions-to-date of the council members to incorporate climate-related financial risk into their regulatory or supervisory activities, and recommended a variety of additional measures for the council members to take, either individually or in coordination with other members, to improve the identification, consideration and management of these risks. Public disclosure of climate-related financial risks was one of the key measures identified by the FSOC as integral to sound risk management practices for climate-related risks. The FSOC stated:

> The resiliency of the financial system is, in part, dependent upon the resiliency of the firms that comprise it. In general, an individual firm is more resilient when it has sound processes for assessing risks and applies appropriate risk management practices. The disclosure of risks, and plans for managing them, can help foster the resilience of the financial system by allowing investors and market participants to factor that risk into their decision-making. This, in turn, facilitates better pricing of that risk information into financial markets. This pricing of climate-related risk can help reduce the likelihood of a financial shock associated with a sudden repricing of assets exposed to climate-related risks.[25]

During my tenure as a Commissioner of the CFTC, I had the privilege of sponsoring the Energy and Environmental Markets Advisory Committee (EEMAC). In 2021, during my sponsorship, the EEMAC held several meetings to explore how new derivative products and new derivative markets can help manage climate-related financial risks. At the time, I recommended three principal ways for the CFTC to improve the management of climate-related risks. First, the Commission must ensure the integrity of the markets it regulates, including any markets associated with climate-related derivatives. Second, the CFTC should work with exchanges and market participants in the development of new products that will help companies man-

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[20] U.S. Global Change Research Program, *Fourth National Climate Assessment* (June 2019), at p. 25; available at: *https://nca2018.globalchange.gov/downloads/*.

[21] *Id.,* at p. 29.

[22] Market Risk Advisory Committee, CFTC, *Managing Climate Risk in the U.S. Financial System* (Sept. 2021), at p. 1; available at: *https://www.cftc.gov/sites/default/files/2020-09/9-9-20%20Report%20of%20the%20Subcommittee%20on%20Climate-Related%20Market%20Risk%20-%20Managing%20Climate%20Risk%20in%20the%20U.S.%20Financial%20System%20for%20posting.pdf*.

[23] *Id.,* at p. 70.

[24] FSOC, *Report on Climate-Related Financial Risk* (2021), at pp. 1–2; available at: *https://home.treasury.gov/system/files/261/FSOC-Climate-Report.pdf*.

[25] *Id.,* at p. 68. *See also,* The Task Force on Climate Related Financial Disclosures, Final Report, *Recommendations of the Task Force on Climate-related Financial Disclosures* (June 2017).

age climate-related risks. And third, the CFTC should "ensure appropriate management and disclosure of climate-related risks." [26]

I am pleased that the Commission is continuing to make progress in these areas. In June 2022, the CFTC issued a Request for Information (RFI) to better inform the agency's understanding and oversight of climate-related financial risk related to the commodity derivatives markets. The Commission stated the responses to the RFI will help to inform the Commission's next steps in this area and its response to the FSOC's recommendations. The RFI asked questions and sought information in a variety of areas, including with respect to risk management regulations and industry practices as they relate to climate-related financial risks, disclosure requirements regarding climate-related financial risks, and risk management product innovation. I understand that the Commission staff is currently reviewing the public responses to the RFI, and I look forward to the Commission's next steps in this area. It is imperative for our commodity derivative markets and our financial system in general that we continue to make progress in the development of these mechanisms for managing climate-related financial risks.

Thank you again for providing me with the opportunity to appear before the House Agriculture Committee.

The CHAIRMAN. Well, Mr. Berkovitz, thank you so much for your testimony. And thank you to all of you for your testimony today.

At this time, Members will be recognized for questions in order of seniority, alternating between Majority, Minority Members and in order of arrival for those who joined us after the hearing convened. You will be recognized for 5 minutes each in order to allow us to get to as many questions as possible. And so given what so far—since we started the 118th Congress—has been outstanding participation, and I want to continue to encourage that on both sides of the aisle. I will try to be prompt with letting you know when the 5 minutes are done.

So with that, I am going to recognize myself for 5 minutes. Let me start by thanking our witnesses again, and we really appreciate you all being here. I know you all have busy schedules, but what an impressive panel that we have gathered today.

We have a lot of new Members this year, and I recognize that this is a very complex topic, so I am going to use my time to try to level set a bit before we dive deeper into the substance of the hearing with additional questions from the Members.

Mr. Gelchie, in your testimony, you mentioned the hierarchy of oversight in the derivatives market, and I can't reiterate it enough that this concept is so important for market integrity. The layers of responsibilities, risk management, incentives, and oversight are essential to understanding how this industry protects the market and participants within the market.

So my question is—and it will be for each of you. Hopefully, we can get some comments from each. Could each of you briefly describe your role in the marketplace and, importantly, how you interact with each other from market participant, the FCM, to the exchange, to clearinghouse, to regulators? And, Mr. Gelchie, we will start with you.

Mr. GELCHIE. Sure. Thank you, Mr. Chairman, Louis Dreyfus' role in the market is essentially a commodity merchant. We essentially buy from the farmer, sell to the end-user. Through that, we use financial derivatives to hedge those risks. We trade in a multitude of commodities across the agricultural spectrum. And from

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[26] Opening Statement of Commissioner Dan M. Berkovitz before the Energy and Environmental Markets Advisory Committee, June 3, 2021, available at: *https://www.cftc.gov/PressRoom/SpeechesTestimony/berkovitzstatement060321*.

that perspective, we use what I would say the financial derivatives both on the long, short side, as well as down the curve, if you will, most agricultural futures markets have long dated futures positions. And in effect, we act as that intermediary or shock absorber, as I had mentioned earlier on, where a producer may be looking to sell a given commodity at a specific period in time, perhaps much further out in time, and a user or a consumer may be looking to buy a specific commodity at a different point in time. So we essentially bridge that gap. To that extent, we will, as I mentioned, use commodity futures. Those ultimately get cleared by the FCM that we ultimately give the derivatives up to, and essentially, that is what we do in brief.

The CHAIRMAN. Very good. Mr. Sammann?

Mr. SAMMANN. So as a vertically integrated model, that owner of a clearinghouse, as well as our four underlying exchanges, we provide, as I mentioned in my written and oral testimony, platforms and products for customers to trade. Now, we service all customers, the entire ecosystem from producers, end-users, farmers, ranchers, all the way through to financial intermediaries like Louis Dreyfus, like large E&P folks in the energy space, all the way through to financial players that are looking to gain access to different asset classes, whether it is hedge funds, asset managers, pension funds, long-only funds, *et cetera,* all the way through to retail. So our mission and purpose is to provide price transparency and price discovery mechanisms in lit electronic markets 23½ hours a day so that as global risk travels, risk mitigation travels with customers as well.

We also engage with folks across the table here at multiple levels. FIA is an industry body that brings all interested participants together. We don't always agree on everything, but it is a forum to work out those disagreements, and that is okay. We have constant client communication. We are constantly engaged via our sales force to understand what is driving them and what they need. We have a number of client advisory forums where we bring customers in to hear what is challenging them, what has been difficult to them.

And finally, as it relates to Mr. Berkovitz's previous role as a Commissioner in the CFTC, we participate in all of the CFTC's advisory committees that also brings together stakeholders across the industry, so lots of ways in which we engage, serve, and understand the needs of different constituents in our market.

The CHAIRMAN. Very good. I don't have much time left, but, Ms. Crighton, I would love to have you respond.

Ms. CRIGHTON. Sure. Just briefly, I guess the best way to describe the role of the FCM is we stand in between firms like Louis Dreyfus and Mr. Gelchie, his peers, other types of financial institutions, we stand in between them, exchanges, and clearinghouses. We do that not only for CFTC-regulated clearinghouses, but for clearinghouses and exchanges globally.

The CHAIRMAN. Very good. Thank you very much. My time has expired. I am pleased to recognize our Ranking Member for 5 minutes.

Mr. DAVID SCOTT of Georgia. Thank you. Thank you, Mr. Chairman.

Mr. Berkovitz, let me start with you. In your testimony, you mentioned severe weather events occurring with unprecedented intensity and frequency, and the need to update the tools of the CFTC to manage such risk. Last June, the CFTC issued a request for information, an RFI to solicit public input on climate-related financial risk. So Mr. Berkovitz, as a previous sponsor of the CFTC's Energy and Environmental Markets Advisory Committee, during your tenure as Commissioner, are there any specific actions, updates to risk management tools, or market surveillance that you would like to see come out of this process?

Mr. BERKOVITZ. Thank you. Thank you, Ranking Member Scott, for the question. Yes, as you mentioned, during my service, my term at the CFTC, I had the privilege of sponsoring the Energy and Environmental Markets Advisory Committee, and in 2021, just a couple years ago, indeed, we had an advisory committee meeting that the other witnesses at this table have mentioned that—the CFTC has advisory committees, which are composed of a wide diversity of market participants, academics, and other persons familiar with the commodity markets, examining the topic, as you mentioned, new products and markets to deal with climate-related risks. And we heard some testimony of that—or some presentations. It wasn't testimony. It was presentations by the advisory committee members. I think Mr. Sammann participated in that by the exchanges, a variety of exchanges and markets as to the products they are developing. So that was a very encouraging development. New products don't always take on immediately. Sometimes they take a while for the market to see the wisdom of the products or the need for the products. But I was very encouraged that there is active engagement by the exchanges and by market participants to develop these products and market, so I find that encouraging. And I am looking forward to the CFTC's analysis of the request for information in terms of what market participants are suggesting and offering.

And I would say the other thing I think is very important is the increased disclosures of risk so that people are aware of where the impacts of weather-related events might be and things like that so they can take proper—so that these tools that are developed, they can use, or the existing tools as well.

Mr. DAVID SCOTT of Georgia. And to the rest of the panel, as I noted earlier, this year is 10 years since the expiration of the last CFTC reauthorization legislation. Can each of you discuss the impacts that you have seen or experienced as a result of Congress' inability to get together and pass the reauthorization legislation specifically as it relates to the effectiveness of the industry's risk and management tools? And as I mentioned to you, the European Union used this as a weapon to take away the authority of the CFTC in our cross-border negotiations. And with the help and the combined help of our Republican Chairman at that time, Mike Conaway, and Collin Peterson, my good friend Austin Scott, and Chairman Thompson, we stopped it. But they are still using it. What is the impact of our failure here in Congress to reauthorize the CFTC? Please, any of you.

Mr. BERKOVITZ. I will take a shot at that, Ranking Member Scott, and I will tell you a story about you. I had the opportunity

to oversee six clearinghouses and not all of them are in the U.S., and one of the other regulators once pulled me aside across the pond and said we don't have a Congressman David Scott who is willing to stand up and say what he did about what others maybe see as opportunistic opportunity to impact legislation and the certainty that provides.

I think the short way to answer your question is the lack of certainty. And we all deal in a level of certainty, whether it is Mr. Gelchie wants to know exactly what it is going to cost him to put a hedge on my competitor, and Mr. Sammann wanting to make sure he knows what we are doing under the regulation so he can compete, and I do the same thing. Our members, represented by Ms. Crighton, we all look for certainty. That is what is expected of us. And if you can't provide it within the regulatory means that we have, it becomes more difficult to explain exactly the behavior you are going to receive or observe at exactly the highest moment of stress in the marketplace.

Mr. DAVID SCOTT of Georgia. Thank you very much. My time has expired. But as Chairman Thompson said, we are working together here. We have to get this done. It is an international issue now and an international embarrassment for us here in Congress. And I appreciate working with you on this subject.

The CHAIRMAN. Absolutely. Thanks. I thank the gentleman. The Ranking Member asked an incredibly important question, and your input on making sure we have the continuity, the reauthorization of CFTC, your thoughts and inputs on that, I think we would really welcome that. And I would just ask, the witnesses that didn't get an opportunity to respond, if you would do that in writing for us because this is a task that we need to complete. And having your input would be very helpful.

Now we recognize another former Chairman and the gentleman from Oklahoma, Mr. Lucas, for 5 minutes.

Mr. LUCAS. Thank you, Chairman Thompson, for holding this hearing. And thank you to our witnesses for appearing before the Committee.

The U.S. banking regulators are in the initial phases of proposed changes to bank capital requirements. And as I raised to the Federal Reserve Chairman Powell yesterday during his testimony before the Financial Services Committee, I am concerned that this could increase the cost of hedging to end-users. Ms. Crighton, could you discuss potential adverse consequences to reducing access to these products, particularly during periods of financial uncertainty? If we make it harder to hedge, what is going to happen when things get tough?

Ms. CRIGHTON. Yes, thank you very much for the question. I think it is a topic we think about certainly within the firm and across the membership of FIA and I think really across the panelists sitting at this table.

When we think about the impact of bank capital on clearing members, one of the first topics that comes to mind is the amount of capacity that we are able to provide in the system. When we engage with clients, when we work with clients and we think about providing access to global markets, there are a few lenses that we think about and analyze their portfolio. The first is from an ex-

change margin perspective, the second is from a risk perspective, and the third is from a bank capital perspective. One of those three will ultimately define the amount of capacity that we give. The more punitive bank capital becomes, the harder it is for us to be willing to stand in and continue to provide that capacity. So we do urge policymakers, going forward, as capital rules are considered and reconsidered to not continue to increase bank capital because it will further impact banks in providing the amount of capacity that they do.

Mr. LUCAS. Thinking about my colleague's comments, as we have seen over the past several years, it is essential for U.S. customers to be able to hedge risk on a global basis. Again, Ms. Crighton, could you discuss the importance of cross-border access for U.S. customers, particularly as it relates to non-U.S. swap markets?

Ms. CRIGHTON. Sure, and thank you again, for that question. I think, as I mentioned in my opening statements as well, part of what we do as a clearing member and other clearing members that are members of FIA, is provide access to clients globally. And when we think about the importance of U.S. clients, CFTC, and U.S. regulated markets, our role is to facilitate access to those markets and access from U.S. clients to global markets. In addition, we also sit in the role of providing access to global clients into U.S. markets, so it is very interconnected, and it is also critically important to be able to facilitate clients trading across the globe to facilitate what their risk management needs are.

Mr. LUCAS. The swaps market faces a tremendous technical challenge as we transition away from LIBOR. Mr. Sammann, could you broadly discuss CME's conversion plan for LIBOR swaps? How big of an undertaking is this going to be?

Mr. SAMMANN. Yes, we thank you for that question, Congressman. This has been a huge undertaking for CME Group. As you know, the LIBOR that has underpinned the short-term U.S. dollar market in U.S. dollars on our market had been around for over 40 years. Now that has had to move to a secured overnight funding rate, or SOFR (Secured Overnight Financing Rate), market. We have been working with the industry since 2015. We have been a member of the Fed's ARRC, the Alternative Rate Reference Committee, since 2015 with all the stakeholders in determining where and at what point does this mechanism need to move away from LIBOR-based into SOFR-based. We have been a member of the CFTC's MRAC interest rate subcommittee since 2018. It has been a massive undertaking. We have had to work with all stakeholders, central banks, and all participants from vendors, clearing firms, all the way through to other exchanges.

To the extent that this was a heavy lift that we have undertaken over the last 5 years, we have actually almost completely converted everything in our short-term interest rate complex from LIBOR-based over to SOFR-based over the last 8 months. We are almost complete with the balance of our Euro dollar that hasn't yet already converted to SOFR, and our market will convert on April 1, and the balance of the swaps that haven't converted will be converted over on April 15th as well. This is not something that has happened in the last 6 to 12 months. This has been a 7 to 8 year process of working with all industry participants. I am happy to

say that our term SOFR licenses now total over 2,200 firms in 88 countries, and our licensing term SOFR there is over 6,000 loans with a face value of $3.5 trillion tied to CME SOFR. That is according to Refinitiv deal screen data. And if you look at the amount of open interest that has transitioned inside of our exchanging clearinghouse, almost 90 percent of that is now complete. So job converted, and certainly the final transition phase we are in right now. So relatively smooth, thanks to those in FIA and the CFTC to help us get that done.

Mr. LUCAS. Thank you for those insights. And I yield back, Mr. Chairman.

The CHAIRMAN. I thank the gentleman.

I am now pleased to recognize the gentlelady from Ohio, Congresswoman Brown, for 5 minutes.

Ms. BROWN. Thank you, Mr. Chairman. And thank you, Ranking Member Scott, for holding this hearing today. And thank you to our panel of witnesses for being here.

The financial markets in our country have been turbulent and unpredictable in recent years. From the COVID–19 pandemic to Putin's war on Ukraine, commodity markets have taken a hit. As of late, it appears that the only predictable thing about our markets is that they will be unpredictable.

So I would love to hear from anyone on the panel because yesterday I met with the Ohio Farm Bureau, and they expressed concerns about mandatory climate incentives tied to crop insurance. So while we may face restrictions in predicting global pandemics or certain natural disasters, to what extent can markets prepare for those events to improve resilience?

Mr. SAMMANN. So maybe I will take the first crack at that. Since agriculture is a huge part of what we do, it is also the history of CME Group going back 170 years now. We have the physical agricultural markets in our blood. It is the lifeblood of what we do. The focal point is that rancher, farmer family that has exposure to crop risk. We have been in the business of effectively providing deep, liquid, globally traded derivatives markets in markets like corn, wheat, and beans. The U.S. under CFTC jurisdiction runs the world's largest grains markets on CME Group exchanges. Those are providing critical access to end-users or co-ops to manage their risk. As Ranking Member Scott mentioned before, we saw moves in wheat this year alone, not to mention soybeans have been extreme both up and back down. So our goal is to continue to create as much liquid deep market access to all consumers, and firms like Louis Dreyfus and others in that space are critical intermediaries for providing the tools to manage that risk and exposure.

That is important for everybody, whether you are in the wholesale futures markets or not. Customers that find themselves able to access these markets are able to manage that price risk, and that gets handed down to the eventual end consumer. This hits main street America 100 percent, so our goal is to continue to provide as much access in our liquid grains markets and ag markets, whether it is cheese, livestock, dairy products, or grains and oilseeds to create as much access to price certainty through derivatives. And that is our core mission for end-users.

Ms. BROWN. All right. Thank you for that. Dodd-Frank was passed over 10 years ago, and we have had time to understand what worked well and what could use improvement to make our financial systems stronger and more resilient. Ms. Crighton—is it Crighton or Crighton? I want to make sure I am saying it correctly.

Ms. CRIGHTON. Crighton.

Ms. BROWN. Okay. Ms. Crighton, looking ahead, what should we be thinking about over the next 10 years to make our system more durable?

Ms. CRIGHTON. Thank you for the question. We do think some of the benefits of Dodd-Frank have certainly been reduced risk in the markets and greater transparency. We also think the systemic importance of clearinghouses has dramatically increased given the amount of products that have moved to clearing and the amount that are continuing to be contemplated to be moved to clearing.

So we think there are a couple of things that we can focus on as the markets continue to evolve. One is continued transparency from a clearinghouse perspective on margin models, and we think better calibration of margin, particularly focused on commodities markets. If we look at what has happened over the course of the last few years, we can go back as far as Brexit or certainly through the pandemic and the Russian invasion of Ukraine, we continue to see significant increases in margin. When we get into a period of extreme volatility or a shock to the system, margin levels increase dramatically. As we get back into calm markets, they slowly drift down into what we think are at times artificially low levels.

So our goal here is to encourage stability and resilience of the cleared markets. We think that has a direct benefit and impact to end-user clients, and we think further transparency and potentially the introduction of margin floors and other mechanisms that we have talked about through the CFTC's MRAC would really be an added benefit as we think about how to evolve further and deal with sustained shocks.

Ms. BROWN. Thank you very much. And finally, Ms. Crighton, I see you are the only woman on the panel today. And I know from your testimony that you are the first female Chair of the FIA board in almost a 70 year history. So first of all, congratulations on your accomplishment.

Ms. CRIGHTON. Thank you.

Ms. BROWN. But can you tell me why is having more women and people from underrepresented groups in the industry important, and what can be done to address the opportunity and equity gaps?

Ms. CRIGHTON. Thank you so much for the question. I feel like it is certainly an important question, particularly during Women's History Month, as we acknowledged, International Women's Day yesterday, so it is pretty historic to be here. I think it is, as I mentioned before, a topic incredibly important to the firm, to Goldman Sachs, to FIA, and certainly to me, as I think about my two daughters and opportunities that they may have, going forward.

I will speak primarily about FIA. When I first joined the board, I was one of two and then quickly the only woman in the room. And when I sat with FIA leadership, we quickly recognized that were probably pretty representative of the industry and that more needed to be done to be able to think about ways to begin to ad-

dress that. As a trade organization, it is difficult to think of the role that we play and how do we actually drive the way maybe the clearinghouses think about it or clearing members think about it.

And when I looked at my own sort of almost 25 year career at Goldman, I thought of a few key things that were so critical. Really, it is information, access, mentorship, and opportunity. So the programs that we have designed in launching the FIA's Diversity Committee are really geared towards that. We don't think we can solve this alone. It really takes everyone around the table. We have partnered with a lot of groups where we have offered mentorship. We know some of you in this room, on this panel, have participated with us in that, so thank you. And we have offered mentorship opportunities, internships that have been converted to full-time offers. We are so excited about what we can do on the forward. It does take a lot of people to be able to participate in that, and we think FIA is uniquely positioned to help drive that going forward.

Ms. BROWN. I see my time has expired. Thank you so much. And with that, Mr. Chairman, I yield back.

The CHAIRMAN. I thank the gentlelady. I now recognize the gentleman from Georgia, Mr. Scott, for 5 minutes.

Mr. AUSTIN SCOTT of Georgia. Thank you.

Madam Chairman, Ms. Crighton, I am coming right back to you because Mr. Edmonds spoke directly to my question. And I will tell you just briefly, my degree is risk management from the University of Georgia. And aside from being the best football team in the country, they have one of the best risk management schools there. And I will tell you that my good friend, David Scott, went to Wharton, so I would put my University of Georgia education not quite up to yours.

But anyway, enough of that. Just the risk levels throughout the world are higher today than I recall them being in many years. And they seem to be coming faster, right? I mean, COVID happened and the war in Ukraine. And if you go back prior to that, we didn't have really a major occurrence other than the 2008; but, they seem to be coming faster and with much more risk and volatility.

So clearinghouses, they hold billions of dollars in customer funds. They are pledged against derivative positions. And under title VIII of the Dodd Frank Act, the Federal Reserve was authorized to provide deposit accounts to some of the clearinghouses that hold U.S. customer funds but not all of them. Would access to Federal Reserve deposit accounts for all clearinghouses improve liquidity during times of incredible volatility across the cleared derivative ecosystem? Is there any safer place in the world for deposits than the Federal Reserve?

Ms. CRIGHTON. I think the answer is we fully support access by all clearinghouses or U.S.-regulated clearinghouses to have access to the Fed deposit window. We agree with your sentiments that there is no safer place in the world, particularly during times of stress, that will increase market stability and resilience, so we fully support that.

Mr. AUSTIN SCOTT of Georgia. Because it would protect customer funds, and that should be one of our goals as a Committee.

Ms. CRIGHTON. That is right.

Mr. AUSTIN SCOTT of Georgia. Mr. Edmonds, you hit on the issue directly. Do you have anything else to say about it?

Mr. EDMONDS. Well, look, we want to mandate more products if we don't provide that opportunity. I mean, I have one clearinghouse that is systemically important, Derek and his organization, they are systemically important. But if we don't make it all, you are creating a bifurcation there, and the level of protection is different. And there is not really a great reason for it. So you can't explain it, so then why is it there?

Mr. AUSTIN SCOTT of Georgia. Mr. Gelchie, we talked in New York about Vladimir Putin's invasion of Ukraine and the disruption. You mentioned that ten percent of the calories in the world come out of the Ukraine. That whole Black Sea region is extremely important to the global food system. Could you speak to how the war in that part of the world has created market disruptions not just in the United States but abroad? And last year, there was actually some reprieve that allowed some of the grain to move out of the ports in Ukraine. Could you speak to the shipping issues and whether or not people are actually willing to send ships back into the Ukraine to load?

Mr. GELCHIE. Thank you for the question, Congressman. Look, let's start perhaps with the second question here. As you may know, the export corridor is scheduled to close on March 20, right, or the agreement that both sides have is scheduled to stop on that day. So there have no doubt been discussions as to whether or not that export corridor will remain open. The delay time from the standpoint of putting a vessel into the export corridor has tended to be anywhere from 10 to 12 days from the time that it goes into inspect to ultimately the time that it begins to load grains. That delay has resulted in an increase in freight costs out of Ukraine that has been to the detriment of the farmer and also impacts bases in international markets. So the prospect of that closure can have very extreme volatile effects on futures markets, going forward.

Mr. AUSTIN SCOTT of Georgia. My time is expiring. I would just tell you that the issue of shipping through there is an extremely important part of the cost to the end-user.

Mr. GELCHIE. Yes.

Mr. AUSTIN SCOTT of Georgia. My concern is that you are not going to be able to get the ships insured, even to go into the Black Sea in the future. And that disruption in transportation even if the crop is grown is going to create very serious problems for the world. I appreciate all of you being here. Thank you.

The CHAIRMAN. All right. I thank the gentleman.

I now recognize the gentlelady from Oregon, Congresswoman Salinas, for 5 minutes.

Ms. SALINAS. Thank you, Mr. Chairman. Thank you to all the panelists. As a new Member, this has been quite an education this morning.

These questions are for both Mr. Edmonds and Mr. Berkovitz. We have discussed the role of volatility a lot here this morning from whether it is energy or commodity markets, and particularly unpredictable volatility poses the risk of affecting prices and stability. And we have heard again in the conversation this morning

that large events such as the war in Ukraine and the COVID pandemic, those are events that really could not have been predicted. So to what extent can the markets prepare for events such as these and the volatility that they could bring?

Mr. EDMONDS. I think the most important thing that our clients—and when I say *our clients,* we have members represented by Ms. Crighton. We have clients of a firm like Mr. Gelchie there. They need to have certainty, and they need to understand how the model is going to react, how we are going to call them for more margin.

If we looked at some of the prudential requirements placed on the members, that sometimes is not as clear as it can be. In the time of stress, typically, the most blunt instrument is more is better. I can't really tell you why more or how much more, it is just more. I get to sleep a little bit better at night.

Statistically, the way the models work, we go out there, we provide offsets, so we got to correlate a position where you have a long here and a short there, and different products that are highly correlated, you get a benefit of that on the capital side. So we end up in a healthy tension. And I like to think that if you would walk away from here with one thing, it is probably right for Mr. Sammann and I if Ms. Crighton and Mr. Gelchie are both equally unhappy, okay? That is a healthy tension in the ecosystem that we work in where they would like for us to charge more because they have a prudential requirement on the other side, and Mr. Gelchie would like to be less because he has more business that he needs to facilitate along the way. Sometimes that is possible, sometimes it is not, and we find ourselves in that vise, typically on a daily basis, especially those days that are stressed.

Ms. SALINAS. Thank you.

Mr. BERKOVITZ. Thank you. Let me provide the perspective of a former regulator what the agency would do in the situation. So at least when I was on the Commission—and I believe they have continued it, although I am not sure—we would have regular, once a week, every Friday, a briefing by our Market Intelligence Bureau on current events in the markets. And that is a function of that division within the CFTC, market intelligence. A number of economists and other market analysts try to look ahead both for the staff level and provide the Commission with a look ahead at what is happening in the markets. Market Intelligence staff gets their information. They read the press, they follow current events, but they also talk to the exchanges. They talk to market participants, "What are you seeing, what is on the radar screen, what might be coming up," events such as—we even talked about closures in the Black Sea, other possible events, and they are particularly focused on contract settlements.

When these futures contracts go to settlement and people actually have to deliver the physical commodity in the case of physically delivered commodities or financial contracts that are priced off of certain physical events, those times, the prices at those times are very critical, so our staff or the CFTC staff works very closely with the exchange staff to see what is going on in the market, whether there is—maybe even call a market participant. If you have a large position, why do you have such a large position at this

point in time? And maybe you should think of gradually reducing it or gradually change the position. So your particular trading does not unduly impact market volatility.

So from the regulator's perspective, that is what—I will use the *we,* although it is not me anymore, but that is what we would do. We would work with the markets, work with the exchanges, work with the clearinghouses, follow the data, and try to have a look ahead to avoid disruptions to trading. Obviously, things occur that are not always anticipated, and then the Commission will do retrospective analyses and try to figure out what happened. Potentially, if there is wrongdoing involved, that will be a matter for the investigation staff, but otherwise, it would be the economists and the market surveillance folks who would examine those events.

Ms. SALINAS. Thank you both. I yield back.

The CHAIRMAN. I thank the gentlelady.

I now recognize the gentleman from North Carolina, Mr. Rouzer, for 5 minutes.

Mr. ROUZER. Thank you, Mr. Chairman. I appreciate all of our panelists for being here.

Mr. Berkovitz, quick question for you, and I will open this up to the others on the panel, too. A lot of my constituents back home are quite concerned about the increase in interest rates. I personally anticipate those rates will continue to go up. What type of impact is this going to have on the commodity markets, on the financial markets in general, but the derivative markets specifically do you think?

Mr. BERKOVITZ. Well, if the interest rates go up, the costs for consumers and producers all along the value chain ultimately will go up. And at the end of the day, it is going to be the American consumer who is going to pay higher prices for commodities when there are higher interest rates.

Mr. ROUZER. Anybody else want to comment on that real quick?

Mr. SAMMANN. Yes, I think it is worth noting, I know we are here to talk about commodities markets, but CME runs the world's largest fixed income market as well, and derivatives risk covers any unexpected or potentially expected risk that you would want to manage. So no one can control for those level of rates, but our job as a market provider, as we talked about earlier, is to provide a full suite of products and tools for customers, end-users to be able to hedge as best as possible and eliminate whatever—it could be price risk in corn, it could be price risk in gold, it could be price risk in rates going up or down. So I think it is a proof point for the validity and the need and the power of derivatives markets and the effect it can have on mitigating the significant swings in underlying balance sheets of a home, a corporation, a farm, or otherwise.

So I think it is important to note that this Committee oversees the regulatory body that oversees the world's largest U.S. interest rate market in both the short and the long end of the curve, and those markets had an extraordinary year in volume and open interest last year for that very reason, that rates are back on the move right now.

Mr. ROUZER. So, Mr. Gelchie, in your testimony, you discuss the importance of speculators in the market. Most of my constituents back home, they don't like speculators. They think they manipulate

the market. Talk about that a little bit. This is a big topic for a lot of people.

Mr. GELCHIE. Sure. Thank you, Congressman. Look, the role of speculators are essentially to provide liquidity in the market, right? And in order to have deep, robust markets, speculators have a role. There are times—typically what we tend to see, speculators engage during more volatile times than not, but the effect of that tends to enable consumers as well as producers to hedge their price risks in an effective manner. In a rising market, if you will, many of the farmers if you will are on the other side of that speculative purchasing. And conversely, on the sell side, there are many consumers that take the other side of speculative activity. So we see speculators as just providing an essential role from a liquidity standpoint and are often on the other side of many of our hedges in the derivatives market.

Mr. ROUZER. So would that be fair to say that they are not the ones causing the wild swings in the market?

Mr. GELCHIE. I wouldn't attribute wild swings in the market to speculators. I would attribute the wild swings in the market to many of the factors that I had addressed previously, geopolitics, weather, COVID–19, supply chain disruptions. They are to me the underlying reasons as to why the volatility exists.

Mr. SAMMANN. And, Congressman, I think it is worth noting that the importance of—if you talk about speculators and you talk about the regulatory infrastructure that manages their ability to impact markets, whether it is—in our markets, for example, we have position limits, so the maximum amount of positions that anyone can hold in markets. We have smaller position limits for speculators than hedgers, hedgers that have underlying physical exposures, whether it is wheat, whether it is corn, gold, or otherwise. They can show that underlying physical exposure, they can carry larger positions. So I think unregulated, unmanaged speculation is very different than the critical role that risk transfer agents that is served by speculators is important, with the caveat of appropriate regulatory controls around how they actively participate in markets.

Mr. ROUZER. Yes. Anybody else want to comment on that?

Mr. EDMONDS. I would just say, simply put, without the speculators in the market, your price disparity is going to be much wider, and you are going to be paying much, much larger prices on an everyday basis. The shock absorber analogy Mr. Gelchie uses is correct.

Mr. ROUZER. Anybody else? With that, my time has expired, Mr. Chairman. I yield back.

The CHAIRMAN. Well, I thank the gentleman. And keeping with the North Carolina theme, I am pleased to recognize the other gentleman from North Carolina, Mr. Davis, for 5 minutes.

Mr. DAVIS of North Carolina. Thank you so much, Mr. Chairman, and to the Ranking Member.

As we come together today, I want to thank the witnesses, too, and have a question I would like to direct towards Mr. Edmonds, Ms. Crighton, and Mr. Sammann. Soybeans are a top three crop in my district in North Carolina's First Congressional District. Unfortunately, soybean farmers had to cope with the fallout of the U.S.-

China trade war that commenced in 2017. From where you sit, are tariffs on agricultural imports, including soybeans, a threat to stability and commodity derivatives markets, or are they a necessary tool that our government can selectively utilized to combat unstable regimes like the PRC, who pose a threat to market fundamentals?

Mr. EDMONDS. Well, I am going to defer soybeans directly to Mr. Sammann because I know that is where they trade, but let me just make a point on tariffs in general. Anytime that there is an additional market price impacting activity, it is going to be passed through to the end consumer. That could be a higher price. That could be a lack of supply, which typically leads to higher prices along the way. Typically, you will find tariffs in that arena that causes that stress on the marketplace that have to be taken into consideration, and those who are ultimately making the trading price decision factor that into the price they are willing to pay or which they are willing to sell.

Ms. CRIGHTON. Thanks. I guess I will comment on it from the perspective of volatility. And I think similar to comments Mr. Edmonds made earlier, we prepare for various types of volatility in the markets. It is how we partner with clients. It is how we think about our own risk management tools, whether that is driven by terrorists or other types of factors, we are constantly thinking about and evaluating what are the different ways that we can be prepared and appropriately prepare our clients for different shocks that may impact the market, and how does it impact them, and how does that impact us in our role as a clearing member to be able to facilitate the capacity they need to continue to execute and maintain the hedges that are so critical to their price management?

So I think some of the points that we talked about, and I know you mentioned earlier the healthy tension, and I would agree, there is a healthy tension. There is a lot of robust discussion about the different ways that we think about this. From a cost perspective, one of the things that we think we can do is really stabilize the costs for end-users. Part of the way that we stabilize the cost is having more predictable margin levels, more transparency in that, and then that ultimately leads to more capacity that clearing members can provide.

I will hand it to you for soybeans.

Mr. SAMMANN. Yes, so thank you. Yes, we run the world's largest market for soybeans. And just to level set in 2022 I believe Secretary Dan Glickman just penned a piece on this last week confirming that there was a record of $36.4 billion of agricultural exports to China last year, biggest ever. I think that follows up on maybe 2020 as the new number one year. There were significant disruptions to market.

I would echo what Mr. Edmonds said earlier about any impacts that interfere with price discovery and artificial impacts to trade are extremely difficult to manage. And what we certainly support is open, free access to markets, and where that can be enabled, we see that as the best outcome. Layers of impacts, be they taxes or tariffs otherwise that disrupt market, creates that very regulatory uncertainty the markets dislike. Our customers and market participants are used to price uncertainty, rates uncertainty, regulatory

uncertainty, which is why the CFTC is so critical as a leader in this space. That is what market participants need. With the regulatory uncertainty in a jurisdiction, customers know that they have access to risk mitigation tools, whatever come.

So I am not sure that fully answers your question, but we can certainly say that the export markets to China just reflective of the dollars exported this past year, absolutely crucial, and both ends of that hedging takes place on our markets.

Mr. DAVIS of North Carolina. Yes, thank you.

And, Mr. Edmonds, real quick, energy markets are still reeling as a result of Russian-Ukraine war that is taking place and remains a protracted stalemate, and the economic aftershocks following the pandemic continue to reverberate. Mr. Edmonds, do you think an 83 percent annualized volatility rate for natural gas is sustainable? I am hearing from folks back home that instability in the energy markets is putting the squeeze on fertilizer production and resulting in high prices. Farmers can't break-even if their input costs continue to outpace price points for their products. And what stabilizing factors exist in the energy markets that can help give our producers some assurance of price stability?

Mr. EDMONDS. Well, I will be very quick because I know your time has expired, but I would tell you at the end of the day, it is not 100 percent because of what is happening. The face of it right now is the Russian invasion of Ukraine and where that is going. There are also a number of regulatory challenges here in this country that we need to address in order to provide clarity for those willing to make the investment and do that. We haven't seen that yet. Last year, we were looking at $7.50 natural gas, everyone thought it was going to $10. This year, we have people going is it going to less than $1? So while the volatility is great, the price has been reduced here. We have a lot of it. What are we going to do with it?

Mr. DAVIS of North Carolina. Thank you so much. I yield back, Mr. Chairman.

Mr. CRAWFORD [presiding.] Thank you. I recognize myself for 5 minutes.

And I got here a little bit late, so if I am repeating myself, forgive me. But I got in on the tail end of Mr. Rouzer's questions. Mr. Edmonds, you said that spec trading actually increased or improved liquidity? Is that right?

Mr. EDMONDS. It does improve liquidity from our vantage point because what it does is reduces the level that you see because you have people willing to stand in and take a price that if you are purely a commercial player, are you going to share your very best price all the time? Is it going to be as transparent? Typically, it is not, and that is the role the speculator provides to frame that up.

Mr. CRAWFORD. Got you. Let me ask you this. So we use this term *liquidity,* but liquidity does not necessarily equate to stability, correct?

Mr. EDMONDS. Well, I will say without liquidity, you are not going to get stability.

Mr. CRAWFORD. Correct. But they are not one in the same? They are not——

Mr. EDMONDS. They are not one in the same, no.

Mr. CRAWFORD. So here is my concern. And obviously, we need spec traders to take the other side of the trade in either case, but my concern with volatility is the lack of actuals in the marketplace. Does that create a volatile climate? And what do we need to do to incent more actuals? And where I am going with this if you can follow me is farmers, for example, they don't hedge on the scale, on the level that they should, and so that means the actuals, they are long actuals but they are not short in the market.

Mr. EDMONDS. And I am trying to make sure I understand your question correctly. When you say actuals, are you talking about the end-user on the production side.

Mr. CRAWFORD. The underlying crops.

Mr. EDMONDS. The underlying crops.

Okay. So I think at the end of the day the value that speculators like Mr. Gelchie's firm provides is they don't have to operate there because he has given them a price, and they can make the decision to go out at their own. He has a lot of sophisticated tools available to him and a lot more access that maybe one single farm can't really afford to put into place. So they have a choice to make. They are now educated. They know what is there through this process. They know what they can do on their own. They can make a rational decision when they get to that point.

Now, in the purest form, if the end-user, instead of me going to the grocery store, I can buy directly from the farm, I understand that transaction. I go to the farmers' market. I can do that on a daily basis. I understand. Do I know exactly what they paid for fertilizer, how much they watered the plant, whatever? No, I want an ear of corn, I get an ear of corn, I put it on the grill and have a good time with it, a party. But at the end of the day, in mass bulk, it is very difficult to do it. As the cost of that infrastructure continues to increase, the number of parties able to do that effectively and engage with the right risk limits when they go through a membership review and things of that nature becomes incredibly difficult. And that is just the term that we have built over a long time. But the price transparency that the exchange groups and the clearing mechanisms provide is the benchmark they go to look at in order to evaluate whether that offer from Mr. Gelchie's firm *versus* doing it on their own is appropriate.

Mr. CRAWFORD. So I guess my concern is how integral a role do farmers actually play in price discovery today? So, I mean, if basically these transactions are taking place with hedge funds on either side of the trade, I know you are looking at fundamentals, I know you are looking at technicals, and you are making evaluations, and so on. But at the turn row level, a lot of times farmers are—their risk management strategy consists of a basis contract that is local. However, that is pegged to the board, right? So there is still an element of that connectivity there, but I am just wondering, what is the direct role that farmers have in price discovery today?

Mr. EDMONDS. I would just take this and I will turn it over to Mr. Sammann. If they don't deliver the crop, it doesn't matter what the price is. It all falls apart. They have to deliver the crop. And that is why they are so critical, and that is why we have to do all

that we can to make sure that they have a path to participate in a way that works for their size operation.

Mr. SAMMANN. So I think this ties back a little bit to your question on speculation as well. When we think about what a healthy market looks like, it has to be a full healthy ecosystem of all participants. You need market makers, you need market takers, those that have the risk, whether they are E&P energy firms on the production side or farmers or miners or whether it is a mortgage servicer for that matter, or you need somebody on the other side to take that price. I am looking to get exposure to a particular asset class. So we think about how to build that healthy, diversified ecosystem of participants so that price transparency can take place so farmers know the price of soybeans for this particular product and it is worth X. And I think that price transparency piece is critical so that they are informed about what the value of their product is. Whether they can directly impact those markets or not is a question of their intermediary access to these markets.

Mr. CRAWFORD. What would you estimate the percentage of participants in the market today are *bona fide* hedgers?

Mr. SAMMANN. So I would probably say—it is going to vary by product—probably 20+ percent of end-users. And you can see some of that from the CFTC's Commitment of Traders Report. It will vary by product. It will be higher in commodities markets. It will be lower in financial markets, between 20 and 40 percent, but I would rather come back to you with a more specific answer.[2] But if I were to spitball, that is where I would put it.

Mr. CRAWFORD. Thank you. I appreciate it. Thank you all.

Ms. Budzinski, you are recognized for 5 minutes.

Ms. BUDZINSKI. Thank you, Mr. Chairman. And thank you, Ranking Member, for putting together this very informative hearing today. I appreciate that.

We have spent a lot of time obviously talking about market volatility and the different factors. We know obviously a war in Ukraine is contributing, also a public health emergency. The energy markets, though, are no stranger as well to volatility. And my colleague, Congressman Davis, also touched a little bit on that related to natural gas. My district, the 13th District of Illinois, is really a hub for innovations in our energy markets, specifically around biofuels and other sustainable fuels. And that can help increase what I would hope is certainty and security in these markets. And so maybe I could start by directing this question to Mr. Berkovitz but then open it up to the rest of the panel on your thoughts on the impacts of biofuels and how they relate to the commodity markets as well.

Mr. BERKOVITZ. Thank you, Congresswoman. So biofuels are incredibly important as part of the energy mixture and part of the input into fuel, people driving their cars and other vehicles. So as another input, it affects a number of other commodities, too. It is related to the price of corn, increases demand. The price of corn and other biofuels people plant for biofuels in addition to agricultural demand, it affects the price of gasoline. It is another component there and reduces the demand for oil to a certain extent, so

[2] **Editor's note:** the information referred to is located on p. 82.

it affects that commodity. So it is an absolutely critical component. And I know, like other folks on the panel who are actually from the exchanges can explain, well, the actual interaction the exchange and the suite of fuels and the interactions between these various commodities, but it is well-studied economically how increases or decreases in demand for biofuels affect the demand for gasoline. But it is an integral part the energy risk management sector, as well as the agricultural sector.

Mr. SAMMANN. Yes, I think it is a great question. It speaks to the broader question of energy transition and what is this market going to look like in 20, 30 years? There are very different opinions on the timeline of that and the shape and the scope and the scale and the speed with which we will get there.

Specifically to your point, soybean oil is a critical feedstock for products like renewable diesel. It is also in and of itself hugely important to the ag market. Our bean complex is effectively three products. It is soybeans, it is crush, and its meal, and those are used for very different reasons. And increasingly, kind of the differences between what used to be an energy market and an ag market are now blurring because of markets like biofuels and ethanol. Is ethanol a corn product or is it actually a fuel product that should be run inside an energy business, for example? Ethanol feedstock for gasoline—and this is a global product. There is a European ethanol market. There is a U.S. ethanol market, and those are being derived from U.S. stocks here as well. Methanol, biofuel feedstock used in bunker fuel, for example, so there are a number of products out there that I think are also, well, these are still relatively small, probably soybean oil is the biggest of these, are rising in importance. And at various points in time we have had discussions, food *versus* fuel, where is that efficient frontier, and what is the best outcome for use of these products? So it is a changing time for the environmental products market. We partner with our customers, end-users, and intermediaries to develop those products that reflect the risks that they are trying to manage through an uncertain speed and shape of what will be an energy transition story.

Ms. BUDZINSKI. Thank you. I don't know if any other panelists would like to add, and if not, I have one other question maybe for Ms. Crighton.

It is very clear in the global derivatives markets that practices abroad can have a domino effect across the sector. In the same light, inconsistency among risk management methods can stifle securities and the derivatives market's ability to withstand volatility. Can you speak to the work that is being done across the globe that can add to protections for our participants here at home?

Ms. CRIGHTON. Sure, thank you. It is a great question. I guess I will use a couple of examples. One is—and I think Mr. Sammann referred to it in his testimony—the events that we saw on the London Metal Exchange in March of last year. We have been asked many times as an industry, I think as individuals, does that have the ability—can that happen here? Can that happen in U.S. markets? I think first thing we would point to is the volatility control mechanisms that many of us refer to. Whether it is risk controls,

price controls, position limits, we think they are all critically important to helping resilient and stable markets.

We think the U.S.-regulated, CFTC-regulated exchanges and clearinghouses do a terrific job in that regard, and we think they do—and FIA is doing a lot of work to kind of create that as a set of global standards to be able to share with that global community. When we think about how we provide global access, that really becomes critically important of having a set of standards, right? We operate a portfolio of providing access to exchanges and clearinghouses globally. For many of us, that is north of 60 and dozens of jurisdictions around the world. You want to know that you have the same set of principles that govern how we think about risk, how we think about the volatility control mechanisms. All of those are consistent really around the globe.

I think the other good example to highlight when we debate skin in the game, for example, it has been a longtime discussion in the U.S. We think that will continue to evolve. If we look at regulation that is happening across Europe from a European perspective, the EU has passed regulation where they are actually mandating clearinghouses to have more skin in the game. The UK is actually looking at similar regulation as well. We think that is an important step forward, and we look forward to continuing the discussion here.

Ms. BUDZINSKI. Thank you so much. I will go ahead and yield back my time. Thank you.

Mr. CRAWFORD. Thank you.

Mr. Bost, you are recognized.

Mr. BOST. Thank you, Mr. Chairman. And I would like to put on the record and thank Chairman Thompson for allowing me to be back on this vitally important Committee to my district. I spent 6 years on the Committee right after being elected, and then I have spent 2 years and 2 months off and begging the whole time to get back, so I am really feeling great about being back on the Committee. And reason being is my district in southern Illinois is one of the most diverse agricultural districts in the country. And I am happy to provide them a voice here on this Committee.

Now, one of the things that I hear about often from the producers back in the district is the importance of liquidity and access to capital. Mr. Sammann, in your written testimony, you referred to an independent review of what happened in the London nickel market in March 2022 as an example of the need for strong oversight and risk management. Did that study provide any more details about what we can learn from the distribution in that market, and also, as input prices go up like what my constituents are seeing with fertilizer prices and—how does that work and what the CFTC is doing to mitigate some of the effects on the producer?

Mr. SAMMANN. So that is great question, Congressman. Thank you for that. I think the importance of what we saw happen in London in the nickel market, really, as I mention in my testimony, written specifically is to highlight the incredible importance of the risk mitigation tools both at the exchange level and at the clearinghouse level to ensure orderly markets. I will give you a quick rundown of a couple of things, your position limits, number one. There were not necessarily a position limits regime on that market, in

that market. This is something that is part and parcel of CFTC regulation. We have different size limits for speculators and hedgers, as I mentioned before. That is critically important. If you are carrying a large amount of physical underlying, then you should have access to an appropriately off-size position as long as you can show market reg departments that here is my risk, here is my offset, and that is why I am carrying that. Speculators have smaller positions. We have position limits that differ by spot month *versus* deferred month across all contract months. That is important to make sure that there is not an outsized impact of any position holder in the market. Things like daily price limits, and we have those in enumerated commodities like eggs where we have hard limits where, as you know, Congressman, wheat, corn, beans, there is only a set amount that market can move on a daily basis. And then we have very clear, transparent rules for if we lock limit up consecutive days, how that opens the following day.

Determination and a deterministic market behavior is what market providers need and users need. They did not have that in the case of the London market. Other areas, circuit breakers, things like Velocity Logic in our market that slow market moves that if a market moves beyond a specified amount in a specified time period, we implement market halts. So at the exchange level, we are slowing markets before they start to run away where we don't have hard limits in certain markets.

We have talked a lot about margin today, talked about initial margin. Variation margin is critical. Variation margin is what flows every day to top up accounts that have lost money on that day and credits for those customers that have seen gains in their positions every day. CME Group runs twice daily variation margin runs to ensure that no excess loss is built up in the system anywhere, also something that was missing at that other particular exchange.

Market reg oversight to ensure not just appropriate activity for users in our market but positions that they are holding as well, and they have the power to go investigate what those customers claim they have. Proactive margin management, liquidity-based margin add-ons, concentration-based add-ons, all of the ways in which we ensure that our markets are safe, secure, deterministic for users and people know what the rules are going to be and how markets will react when you have market stress. Mr. Edmonds mentioned that before. That is what users flock to. That is what the CFTC has helped us provide. That is why we are in this regulatory framework the benchmark globally of derivatives markets.

Mr. BOST. I appreciate that. Thank you. I also have heard from my constituents obviously with serious concerns about the recent action taken by Mexico in banning GMO corn. This is serious concern of mine, and I have joined with several of my colleagues in writing a letter to the Administration calling for action from the USMCA.[3] What effects has the CME seen on the global—I am not sure what my tongue is doing—derivative markets so far based on Mexico's action, and if no substantive effects have occurred, can the CFTC help absorb any changes in the market?

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[3] **Editor's note:** the letter referred to is located on p. 81.

Mr. SAMMANN. Great question. I think relative to how we answered the question earlier on tariffs and kind of market disruptions, we see disruptions to free trade flow and price setting as problematic for all users and that just increases instability. It increases the eventual price that gets—cost passed on to the end consumer is not good for anybody. We have not seen a direct impact on our corn market, which is we run the largest corn market in the world. We haven't seen that yet. That said, we are in constant conversation with both the farmers, producers, end-users, folks like Louis Dreyfus and how that impacts them, and the agency. And I would probably defer to Mr. Berkovitz for his thoughts on how to answer a CFTC perspective on that.

Mr. CRAWFORD. We will have to defer that.

Mr. BOST. I think we will have to wait on that because I am out of time.

Mr. CRAWFORD. We have run out of time. Thank you, Mr. Bost. Ms. Adams, you are recognized.

Ms. ADAMS. Thank you, Mr. Chairman and Ranking Member. Let me also thank all of our witnesses today. And I want to address my questions to Mr. Berkovitz first.

In your testimony, sir, you noted the need for improvements to our risk management tools in order to adequately and accurately respond to severe weather or climate-related risks. So would you elaborate on what updates are necessary and the extent to which the CFTC has the authority to implement such changes?

Mr. BERKOVITZ. Thank you, Congresswoman. So the three areas that I outlined in my testimony are, one is the development of new products and markets to provide better risk management tools to address severe weather-related events. The CFTC doesn't have authority to mandate new products or new markets, but it can encourage it and facilitate it. And that is what the advisory committee process is for. And the CFTC has put out a request for information, asking the very questions that you just identified, what can the CFTC do? What is the CFTC's role? But this is really a market-based solution that—the products in the markets and the markets themselves to develop.

So my suggestion or my encouragement is for the CFTC to work closely with market participants and try to facilitate the development. To the extent that there are regulatory issues or obstacles to the development of any of these products or it needs expedited approval, the CFTC can certainly expedite the approval.

Ms. ADAMS. So let me ask you, where should the focus of Congress be to ensure the effectiveness of commodity markets and derivatives products as tools for risk management and price discovery?

Mr. BERKOVITZ. So I think continued support of the Committee, which this Committee has always been very, very supportive of the efforts of the CFTC and providing direction to the CFTC in the areas that the Committee believes the Commission should focus on. So if the Committee were to believe that this is an area that the Commission should focus on and work with the private-sector to develop these new products and to develop these new markets and to oversee these new markets, that would be of great assistance to the Commission in conducting those activities.

Ms. ADAMS. Thank you, sir. Let me move quickly to Mr. Sammann. I appreciate your focus on the importance of the U.S. agricultural production to global economy, commodity markets, and their vulnerability to trade policy. It speaks to the importance of the work that this Committee and our nation's farmers do. Farmers are long-experienced with the risk posed by weather events, and as a result, the Agriculture Committee and USDA have focused on improving our commodity safety net through investment in title I commodity programs.

Last summer, CFTC issued a request for information soliciting public input on climate-related financial risks, including physical and transitional risks. To what extent has CME participated in conversations on climate risk with the CFTC, and what has been your primary focus? And what role if any can Congress play in providing guidance to CFTC?

Mr. SAMMANN. So terrific question. Thank you for that. As actually Mr. Berkovitz indicated, I represent CME Group on his old committee, the Energy and Environmental Markets Advisory Committee that is chaired by Commissioner Mersinger now. And the point of that is to actually address some of these issues head on. So we are very deeply involved with the CFTC both at the committee level, but also bilaterally in terms of issues that we see, whether that is on the product development side. And products that we are hearing from our customers, we have been asked to develop transition fuels, things like battery metals and how those markets evolve. It is critical for us that we not only go through that due diligence process for validating an idea, we then go to the CFTC, as this Committee knows, and have to approve that these markets are ready for a derivative contract, that they are deep and liquid, satisfy all the core principles of the CFTC. So from product development and a solutions point of view, that is a direct dialogue.

At the committee level and at the enterprise level, CME Group is very actively involved in not only managing and reporting on our own client, or say, risks around environmental change but those in the industry as well. And I think the industry is communicating on these issues. There are a number of regulatory bodies bringing this discussion together so that we understand what the impacts are in industry as a whole and how we each individually contribute to that.

Ms. ADAMS. Thank you, sir. And thank you both. And, Mr. Chairman, and I am out of time. I yield back.

Mr. CRAWFORD. Thank you.

Mr. LaMalfa, you are recognized.

Mr. LAMALFA. Thank you, Mr. Chairman. Apologies for missing much of this hearing, as there are always multiple committees going on. So I do have a couple of questions we prepared on the topic, so let me go to Mr. Gelchie.

With the Russian invasion of Ukraine, we have ripple effects through many aspects of our economy and our industries, but agriculture has been hit hard, as well as energy. What policies can Congress implement to better reduce the volatility in our food and fiber markets? What should we be doing to have more integrity and fewer ups and downs?

Mr. GELCHIE. Thank you, Congressman. I think, really, some of the factors that they perhaps have related to Russia-Ukraine clearly impacts the consumers here in the United States, as you mentioned. But what I think is important to also note is that the wheat, the corn markets are global markets, right? And so while the U.S. farmers are essentially also—and the U.S. users are also participants in these, the volatility that you mentioned is just a function of these markets in order to attempt to find what its proper price should be, given those circumstances insomuch as the geopolitics does create uncertainty of supply out of Russia, out of Ukraine. At the same time, as I had mentioned earlier, the notion of the prospect of closing the export corridor can have further impacts on not only supply coming out of Ukraine, but then it shifts the focus in terms of where the demand base needs to originate from such as Central America, South America, and in the U.S.

And so, really, I think in terms of factors that can reduce that volatility, we had mentioned the various inputs from the exchanges, in terms of position limits for speculative purposes. But ultimately, I think the market will set the price of what those commodities need to be.

Mr. LAMALFA. Certainly, all right. Well, as a farmer, I certainly understand the aspect that on the farming side, at least we are price takers, not price makers, applies more widely to.

Ms. Crighton, what can end-users do to better prepare for the next period of volatility? The end-users, what can they do?

Ms. CRIGHTON. Yes. Thank you. It is a great question. We do spend a lot of time with our clients, end-users included, to think about how to prepare for the next round of volatility. Really where we focus is predominantly around margin. What is the sufficiency of margin that the clearinghouses are charging on the portfolios? What do we think are potential shocks? What are the sizes of those shocks? And how much may that increase exchange margin? We work with end-users to think about what their liquidity needs and to appropriately forecast what those are. We think that is the best way for end-users and clients to prepare for periods of volatility, being prepared from a liquidity and funding standpoint to withstand that.

Mr. LAMALFA. Excellent, thank you. Thank you.

Mr. Edmonds, derivative markets are evolving faster than the regulations can keep up with, so what would you propose for us at the Federal level and the state regulators as well to follow and ensure that developments are being kept up with at least in a somewhat timely fashion?

Mr. EDMONDS. I think you are seeking certainty at the end of the day. And when proposed regulation comes before you and you haven't a chance to opine on that, asking the question, why is this helping the question of certainty? And if you can get a very good answer you have confidence in, it is probably worthwhile. And if you get an answer that you walk away from very confused, it is probably not worthwhile at the end of the day. The healthy tension we talked about, there are all agendas that are represented here, and we see things in a very different lens that sometimes has an impact on the regulatory process. Sometimes that is captured correctly, and sometimes that is captured incorrectly, and that is

where we spend lots of our time debating that issue. But ask the question why and make sure for certainty.

Mr. LAMALFA. I appreciate that. I just came up the hall from the Natural Resources Committee where I am constantly confused at some of the environmental regulations and how they have been reinterpreted over 50 years and come out of there a little confused as what their goal is there.

So, Mr. Chairman, I appreciate it. Thank you, and thank you to our panelists. I yield back.

Mr. CRAWFORD. The gentleman yields back.

Ms. Crockett, I have to apologize. I should have recognized you the last time. I hope you will forgive me, but you are recognized for 5 minutes.

Ms. CROCKETT. Do not apologize. I will always defer to Ms. Alma. Good morning, and thank you so much to all of you being here, and thank you, Mr. Chairman.

We have heard a lot today about the benefits farmers get from using futures contracts because it creates stability. I have heard so many farmers and ranchers concerned about changing global conditions. In fact, our first hearing was on the uncertainty facing American agriculture. So it seems to me that all farmers would stand to benefit from being able to hedge against this uncertainty, which is what these products that we have been talking about, what they do. Do I have that right, Ms. Crighton?

Ms. CRIGHTON. You do, yes.

Ms. CROCKETT. Thank you. But I do have some concerns. As I was reviewing the USDA report from October of 2020, it states that less than three percent of farmers are using these options. Does that sound about right to you?

Ms. CRIGHTON. I don't actually have that information, but we would be happy to look into it and follow up with you.

[The information referred to is located on p. 83.]

Ms. CROCKETT. What is concerning if this is accurate is that for decades, small farmers have lost their farms because they can't compete with larger, better-resourced competitors. In human terms, these farms, they represent someone's hopes and dreams. In the case of new farmers, they don't have the same opportunities. And so I am concerned that our small and/or underserved farmers aren't using these tools because we know that, sadly enough, the lender of last resort, the USDA, has a troubled history when it comes to serving minority farmers specifically.

So I must ask, Ms. Crighton, what is your firm doing and what can this Committee do to increase utilization of these financial products for beginning and underserved farmers?

Ms. CRIGHTON. Sure. I will provide perspective from the FIA's standpoint, and I will answer that really in two ways. One, the FIA—and I think there are resources across the exchanges and clearinghouses that provide information and educational resources about how to effectively use these markets for risk management purposes. Part of the challenge we find at times is the amount of information that persists throughout the system of what is available and how to access the capacity that is available.

The other perspective that I will answer it from is, what we think about really is providing access and how do we ensure that

we and other clearing members can continue to stand in and provide capacity, and a lot of that really comes down to the risk management topics that we are discussing today.

I think in terms of some more specifics to your question, again, I think there are others within FIA and the firm that can help provide information on follow up, and we are happy to do that.

Ms. CROCKETT. I appreciate that. It just feels sometimes—and not just in this space, I want to be clear—that there are multiple financial services, right? Like there is one for the largest growers, which we are hearing a lot about today, and then there are ones for the hundreds of millions of small farmers who face the same hardships with fewer resources at their disposal.

Mr. Chairman, I hope that this Committee can work on these issues to set our farmers up for success for generations to come. And with that, I will yield back. Thank you so much.

Mr. JOHNSON [presiding.] Thank you very much, Ms. Crockett.

I will recognize myself for 5 minutes. Mr. Jackson, you are on deck.

Ms. Crighton, you talked about the importance of analyzing the sufficiency of margin and that that requires obviously analyzing the potential shocks. I mean, give us some sense, what types of events are assessed to create the most shocks? I mean, not black swan events because I guess you guys are thinking about them and talking about them, but what gray swan events are most concerning to the system?

Ms. CRIGHTON. Yes, thank you for the question. It is something that we spend a lot of time thinking about, again, really across our members and certainly internally. When we look at what has happened over the course of the last few years, I think as we have discussed over time, the number of shocks, the number of 1-in-100-year events seem to happen more and more frequently. So how do we prepare for those?

Again, the exchanges run their margin models. In addition, clearing members typically run their own margin models, and we compare and contrast those, right? We think there are a number of different ways to be informed on better ways and more efficient ways to risk manage, and we do take into account a number of macroeconomic factors as we think about what are the shocks to apply to a particular portfolio.

Mr. JOHNSON. But is there a particular type of event that shocks the system in a particularly egregious way?

Ms. CRIGHTON. I think we are finding there are multiple types of events that can shock the system in an egregious way. And we try and take into account what has history informed us of the types of shocks, the magnitude of those shocks, and what do we need to be prepared for on the forward? I don't think we focus on any particular type of event, just the fact that they can occur, they seem to occur more frequently, and ensuring that margin models can predict or help users predict what their margin requirements may move to.

Mr. JOHNSON. And you talked about the LME situation with nickel in your testimony. On its surface it seems like the cause is pretty obvious. People were concerned about the availability of

Russian nickel. Is there more to it, more nuances to the causation that we should keep in mind?

Ms. CRIGHTON. Yes, I think it goes back to a number of items that we are discussing today. In terms of the volatility control mechanisms that we have talked about the benefits of from price banding, price controls, circuit breakers, position limits, all of those are a crucial layer of controls that exist at the exchanges themselves. We think U.S.- and CFTC-regulated exchanges do a particularly good job in that regard. We think in that vein they continue to be informed by market events and refine those controls and improve them on the forward. That was largely unavailable on the LME.

In addition, we looked at the size of the margin that was being charged on the contracts themselves. We view that to be insufficient. And then if we think about the skin in the game layer that was available, and this is all publicly reported, LME had $25 million as their capital at risk. Clearing members, there was roughly 40 at the time, had $1 billion at risk. At the end of the month, that was March of 2022. At the end of the month margin levels had increased. Some circuit breakers were put in place. The CCP capital at risk stayed the same at $25 million. Member contributions were doubled to $2 billion, right? So it highlights the importance——

Mr. JOHNSON. So there were some impacts and some improvements, lessons learned if you will?

Ms. CRIGHTON. I think it highlighted some of the deficiencies and the reactions to those deficiencies. And that is what we are trying to really highlight here in our conversations, ensuring that can't happen anywhere else.

Mr. JOHNSON. I mean, I am a lay person, but when I look at $4 billion worth of trades canceled, that seems to me to be a critical failure. But that is like the last place you want to get to.

Ms. CRIGHTON. We would agree.

Mr. JOHNSON. I can't imagine that happens very often with American-based exchanges.

Ms. CRIGHTON. We don't think it does, and we wouldn't expect it to happen here.

Mr. JOHNSON. Yes.

Ms. CRIGHTON. Again, the importance of each of those layers of controls working in coordination with each other are critically important. It is about aligning incentives from a risk perspective, but each of those layers is foundational to ensuring that that doesn't happen here.

Mr. JOHNSON. So we had some good back-and-forth with I think Mr. Bost, Mr. Sammann about some of the differences. But, Mr. Edmonds, let's talk about ICE. Could something like that happen on ICE?

Mr. EDMONDS. Just to be clear, your question is could something like LME happened at ICE?

Mr. JOHNSON. Right.

Mr. EDMONDS. We have all the same controls that have been referenced by Mr. Sammann and Ms. Crighton here. I have said this a couple of times today. It is about certainty. It is about certainty of how we are going to behave. It is about certainty that we, the clearinghouse or the exchange, are going to execute our rulebook

because that is what all of the members and the customers expect us to do at the moment in time. And in the case of LME, I think it is pretty clear in what is being publicly reported that that did not happen.

Mr. JOHNSON. Last question, Ms. Crighton. We talked about some of the reforms LME has made to learn lessons from that shock to the system. What percentage of the way are they to completely have integrating these lessons learned?

Ms. CRIGHTON. We think they have made a number of improvements. They still have a number of things to do. There have been studies that have been conducted by independent consultants that we are continuing to wait for data from the market to inform additional steps that they need to take. The Bank of England has also been doing a review and recommending actions that they need to take as well. So we think they are part of the way through. They are not all the way through.

Mr. JOHNSON. Thanks very much. I am over time. Mr. Jackson and then Mr. Mann is on deck.

Mr. JACKSON of Illinois. Thank you very much. Thank you, Mr. Chairman. Thank you, Ranking Member Scott.

I have the great opportunity to be a runner at the Chicago Board of Trade, a runner at the New York Stock Exchange, and now that world has gone away because of technology and electronics. And so let us say that evolution is natural and *risk* is not a bad four-letter word, that it is something that we have to live with. We are going to have risk in energy, risk in weather. Risk is here to stay.

Mr. Gelchie, I would like to first direct a question to you and your testimony. You reference the self-policing effort of the commodities exchanges. I would like to get further information on why you would say that we can look forward to self-policing as a good thing. We have seen in our lifetime the long-term capital, we've seen Morgan Stanley, we have seen Lehman Brothers, we have seen risk that was supposed to have been contained because of self-interest and some economic theories. How can we ensure that self-policing is the best mechanism to have an orderly market?

Mr. GELCHIE. Sure. Thank you, Congressman. I think when I refer to self-policing and the gold standard of risk management, I think many of the comments today, by the panelists here I think reflect the notion of position limits that the oversight here of this Committee, to the CFTC, the interrelationship that they have with the various exchanges, the compliance, individuals within the exchanges and their interaction with the various members. So to me, it is that regard of being as close to the trading itself that ensures a robust discussion should volatility come up that reflects the need to elevate and escalate. I think we have the appropriate mechanisms in place within the U.S. markets here to address that. And thus, my point being the self-policing methodology is best-in-class.

Mr. JACKSON of Illinois. Okay. Thank you.

Ms. Crighton, we have seen a concentration now, the clearinghouses after market shocks and after market challenges. Is this a good trend or is it a bad trend in your opinion?

Ms. CRIGHTON. Yes, thank you for the question. It is definitely something we worry about. The area specifically that we focus on is the concentration or the reduced number of clearing members

that are providing capacity to the system. If we look at the last 20 years, the number of clearing members providing capacity has reduced by about half while the margin in the system has increased by about 600 percent. Just by that magnitude alone, you can see that there are some capacity considerations. There are really high barriers to entry. There are high barriers to continuing to wanting to provide capacity. But it is something that we do worry about, and it is a concerning trend.

Mr. JACKSON of Illinois. Thank you.

Mr. Sammann, thank you for your leadership at the CME.

That is a shameless plug for the Chicagoans that are in the Agriculture Committee. But I am proud to be on the Agriculture Committee from the First District of Illinois in the City of Chicago. And Chicago still has the leadership for the nation and the world in this market in these derivative products. Anything on the horizon that you can see that would be a challenge or what we can do as regulators to make sure that we keep this great financial piece of architecture in the City of Chicago, more importantly, in the United States, that we continue to have the edge, if you will, on this open market with securitization and transparency and liquidity?

Mr. SAMMANN. Yes, we absolutely support the engagement we have with the CFTC. As we have talked about tangentially, but I just want to say directly, coming through Dodd-Frank, speaking from an exchange point of view, we were concerned that coming out of the financial crisis of 2008 and 2009 that with the U.S. regulatory jurisdiction going first and what looked like a significant lift and change to how margin practices and how businesses are run, we thought that there was a real danger that that would push markets out into less well-regulated jurisdictions and outside of the U.S.

In the reality how it worked out is Dodd-Frank was the first to be minted to the point that you have heard from all of us today and in our testimony, market participants need determinism. They need to know the governance of the clearing firms and the clearinghouses and the exchanges on which they operate. So when something happens, they know the rulebook says it is going to do this. That is, coming back to the standing Chairman's point, did not exist in the LME, kind of made up rules on the fly.

So I think to answer your question directly, the most important thing we can do to maintain leadership in the global derivatives industry to make sure that markets trade on CFTC-regulated markets that are represented across this panel here today, well-regulated markets continue to partner with the industry and with the providers through FIA, through the exchanges, through the clearinghouses and the Commission through commitments, to make sure that we are listening to customers, we are being innovative in how we develop and advance our markets in light of what is certainly not a decreased amount of risk in the world. Energy transition is tangential to what we talked about today, but it impacts everything. So we think that is an important part to get in front of. So thank you for your support, and hopefully, that answered your question.

Mr. JACKSON of Illinois. Thank you for your participation and all of the witnesses that gave testimony today. I think someone is knocking on the door.

Mr. JOHNSON. Thank you, Mr. Jackson.

Mr. Mann will be followed by Mr. Casar.

Mr. MANN. Thank you, Chairman Johnson. Thank you all for being here this morning. I represent the First District of Kansas, which is about ⅔ of our state, one of the biggest ag-producing districts in the country. My district is about the same size as Illinois, which is large for some, small compared to Dusty Johnson's district of South Dakota.

But, we grow a lot of beef, number one wheat producer in the country, number one sorghum producer in the country. I am constantly viewing all these issues through the eyes of our ag producers, making sure that these markets function for the folks that are growing these crops.

First question would be for you, Mr. Gelchie. I understand when you started off with your company, you came to Kansas and were auditing the grain levels in some of our elevators. How would you say what you do today impacts producers in Kansas and throughout this country? And explain the important role that your company plays in these markets and everyone's interest in making sure all these markets are functioning effectively?

Mr. GELCHIE. Sure. Thank you, Congressman. Again, what I would say is Louis Dreyfus harmonizes the very different needs of its customers. I had mentioned earlier as to the fact that we have buyers, sellers that we transact with on a variety of different agricultural products on a minute-by-minute basis, right, whether that is at our production facility in Claypool or at our ethanol facility in Grand Junction, for example. But also from a global standpoint, as these markets are global, we have producers from Brazil that may be hedging through and selling us cash contracts that we in turn hedge into the futures markets.

So what I think our role, if you will, is to provide them with the services, understanding of what is happening in our view in terms of the underlying markets that are most interesting to them to give them the information they need to hedge and price effectively. And then at the same time, we warehouse much of that risk in our book as a hedger. And so we are perpetually getting in and out of these derivatives markets as a result of the transactions that our group is involved in.

Mr. MANN. And then if you could speak to speculation a little bit, in your testimony you discussed the importance of speculators in the market. Can you elaborate on why you believe speculators are important to a healthy market and how that impacts our ag producers all over the country?

Mr. GELCHIE. Yes, thank you. Again, it is our view that in order to encourage deep and robust markets that speculation is a required element of the market. As a hedger, we often rely also on that speculative activity to provide enough volume for us to hedge into those markets. So in our view, the necessity of the speculator, provided that they are managed appropriately by the exchanges, *vis-à-vis* position limits, is a crucial part to market participation.

Mr. MANN. Yes, I agree. And I think it is an important thing that we have to keep bringing up and making sure that everyone involved understands their important role.

Next question would be for you, Ms. Crighton. In your testimony, you mentioned forthcoming revisions to the bank capital standards. Can you elaborate more on the interaction between capital standards and access to clearing services and what you kind of see happening here moving forward?

Ms. CRIGHTON. Sure. We think bank capital standards have a direct impact on the amount of clearing capacity that clearing members can provide. The more punitive those capital standards are, the less ability clearing members have to potentially provide much needed capacity to end-users and other investors.

As we think forward, and we know there are new phases of the Basel rules coming, we would encourage policymakers and regulators to ensure that bank capital rules don't become even more punitive to banks. Otherwise, that will impact their ability to provide capacity.

Mr. MANN. Great, thank you.

One last quick question for you, Mr. Edmonds. How can we best anticipate and manage the emerging risks to cleared markets? What is the best way in your view that we look ahead? It is easy to look back. How do we anticipate what is coming down and how we manage that risk?

Mr. EDMONDS. Well, we look around every corner, right? I mean, ultimately, at the end of the day, that is our job to make sure that we are prepared for as many things defined, as Mr. Johnson was asking earlier about, what are we looking for, it can be anything that impacts the price. It can be regulation, it can be the lack of regulation, it can be disruption in shipping lines, it could be cyber, as we have learned as an industry over the past month or so. All of those things have an impact that we have to be prepared for, and we are never going to know everything, but we have to let people know how we are going to behave when something unknown is staring us in the face.

Mr. MANN. Great. Thank you. With that, Mr. Chairman, I yield back.

The CHAIRMAN [presiding.] I thank the gentleman. I am now pleased to recognize the gentleman, Mr. Casar, for 5 minutes.

Mr. CASAR. Thank you, Mr. Chairman. I am still getting used to this microphone.

So egg prices, as we know, have doubled for consumers in the course of about a year, going from $1.78 in December of 2021 to $4.25 in 2022 for a dozen eggs. And the production and distribution of eggs, as we know, is dominated by just a handful of companies. The Big Four meatpacking corporations control, as we heard in recent testimony, about 85 percent of the beef market. Beef prices are up by double digits, and these company's net profits have increased considerably, potentially by over 300 percent through the course of the pandemic. In my view, it is up to us to help working families and to set up an economy that works for small businesses and agriculture, not just the big guys.

So, Mr. Berkovitz, my question is for you, sir. Thanks so much for your service and for your testimony. We have heard a lot and

talked a lot about in this Committee and others about Russia's war on Ukraine and its contribution to inflation, supply chains, the pandemic, but haven't heard as much about how anticompetitive practices and market consolidation also contribute to the volatilities that we have seen for consumers and in commodities markets. So in your view, to what extent does market consolidation contribute to those price increases and to market volatility?

Mr. BERKOVITZ. Thank you, Congressman. I can't really separate out that component in terms of all the factors that you have mentioned in terms of the risks and whether indeed—I wouldn't be the appropriate person to say exactly what that impact would have been, particularly in light of all the other factors that have contributed to the price.

But each one of these components itself contributes to a certain degree, and that is why the markets exist. To say, well, there is a whole world of risk out there. I am a small business, I am a small farmer, I might not have all these tools, but if I can access a market and I can go on a futures market and get certainty as to what price I am going to get for my product, then I am going to go on the market and lock in that price.

Mr. CASAR. Understood. And I appreciate that is part of the mission of the CFTC, as you so perfectly put in your testimony, that the mission is the integrity of those commodity markets, to prevent manipulation, and promote fair competition amongst market participants. I saw in your testimony—good work—and conversation about regulating rampant speculation, regulating against fraud. But in your view, does the CFTC have a mandate to think about competition when they are trying to achieve that mission of making sure there is fairness amongst market participants? So do you think that there is a mandate to better regulate competition in those markets?

Mr. BERKOVITZ. Competition in terms of the services we are talking about in terms of access to the market and getting access to the market and clearing—there are multiple clearinghouses, there are multiple exchanges, there are multiple futures commission merchants, there are different people competing within the derivatives markets in the futures industry for customer business to provide services. The CFTC's mission and charge in the statute is to provide fair competition in the provision of those services. We are not a fair competition in terms of the Federal Trade Commission in terms of generalized economic competition in the economy.

Mr. CASAR. But when the underlying economic conditions have had such consolidation, do you not think that within the CFTC's mandate that should be something that you are ultimately——

Mr. BERKOVITZ. Well, one of the things I was particularly concerned about is something that has been mentioned by other panelists here, consolidation in the futures commission merchant sector in terms of the availability of multiple futures commission merchants, particularly for farmers and the smaller traders. We have seen a large shrinkage in the number of FCMs over the past decade or so. The number continues to decrease. It hasn't been a particularly profitable business, so that is the type of competition that the CFTC should be focused on.

In terms of whether there is too much consolidation in an industry like an airline industry or some other types of industries, that is not really the CFTC's mandate.

Mr. CASAR. Well, and I think there is a storied history to all of these agencies. There is a lot in the authorizing bills, and so it is something we would like to continue to dig in on the issues you have raised but some of those underlying issues where might we have the ability to stand up for some of these smaller businesses, smaller market participants to have a fair shake. Thank you. And I yield back my time. Made it right at 5.

The CHAIRMAN. There you go, perfect. The gentleman yields back.

Now, I am pleased to recognize the gentleman from Iowa, Mr. Feenstra for 5 minutes.

Mr. FEENSTRA. Thank you, Chairman Thompson and Ranking Member Scott. And I want to thank our witnesses for being here today and discussing these important issues. They are very critical.

In my district, the global commodity markets play a critical role in mitigating risk and providing certainty for our farmers, our producers, and obviously, our small businesses. And during periods of extreme volatility derivative markets provide predictability and allow our rural communities to prosper. It all goes together.

So my question, Ms. Crighton, following the market disruptions we saw during the early days of the pandemic and Russia's invasion of Ukraine, end-users saw clearinghouse initial margin requirements rise significantly. Both events caused liquidity demands totaling over $100 billion for market participants. In order to hopefully lessen the severity for future liquidity crunches, do you think it makes sense for clearinghouse margins to be enhanced so that there are more robust and stable market cycles, both in the good times and the bad times?

Ms. CRIGHTON. Yes, thank you very much for the question. As I mentioned before, margin generally is something we spend a lot of time thinking about and discussing and as FIA working with the clearinghouses and suggesting different ways to improve the margin regimes.

I think I will credit the CFTC's MRAC committee. Through that committee, originally under the sponsorship of then-Commissioner Behnam, now under the sponsorship of Commissioner Johnson, we convened a group of clearinghouses, end-users, and FCMs to discuss topics under the guise of CCP risk and governance. One of the most critical topics we discussed in our view was margin, and we produced a paper that is in front of the CFTC now. We are hoping that we will have further consideration as we get through the governance proposals that they have moved forward.

To your point specifically on the large and dramatic increases in margin, it is something that we do worry about. We think it increases costs to end-users. We think it creates a destabilizing effect, ultimately having the potential for systemic risk, right? In times of low volatility, we think margin levels decrease, and they ultimately end up too low. In times of high volatility, margin rates ultimately end up needing to chase the risk, becoming incredibly high, increasing short-term funding demands on clients. As you have multiple end-users and clients looking to source those same

short-term liquidity, it increases costs for end-users across the board.

So what we want to do is we are encouraging for the introduction of floors, the constant reevaluation for the CCPs that do have them in place so margin levels can't go too low in times of low volatility. It sort of mutes the impact when the margin increases need to chase that risk up and we think creates a more stable funding environment for end-users.

Mr. FEENSTRA. So for the CFTC, I mean, what do you think— your paper that was sent to them, when do you think we will hear from them? Have they given you any information that or——

Ms. CRIGHTON. We are hoping for the second half of this year. We had provided some recommendations from a governance standpoint, that, and we had also provided rule text in that regard. That is being considered by the CFTC for vote on those rule proposals shortly. We hope once that moves through, then we can focus as a group on the margin recommendations that were made. So we are hoping for the second half of this year.

Mr. FEENSTRA. Thank you, Ms. Crighton.

Ms. CRIGHTON. Thank you.

Mr. FEENSTRA. Very valuable. I have a quick question for Mr. Gelchie. In your testimony, you discussed the limited availability of the dollar currency exchange. Can you quickly expand on that point and how it impacts your ability to manage your business?

Mr. GELCHIE. Sure, thank you, Congressman.

It strengthened the U.S. dollar, but relative to interest rates here have actually created a void of dollars overseas with respect to end-users. So from that standpoint, it has made it a bit challenging for some users overseas of the U.S. products in terms of opening up letters of credit, for example. So that in and of itself has been one of the challenges that we have faced as a result of perhaps an accelerated interest rate increase. That is right, yes.

Mr. FEENSTRA. Thank you.

Ms. Crighton, just one more question. I have 40 seconds left. A recent survey by the Committee on Payments and Market Infrastructures indicated that only around 20 percent of the clearinghouse provides tools for end-users to estimate how their margin requirements could change during periods of market volatility. I am going back to this. Can you speak more about the possible solution clearinghouses could make to enhance the transparency of margin requirements to help farmers and ranchers and other users better prepare for these future stress events? Ms. Crighton?

Ms. CRIGHTON. Apologies. I wasn't sure if that was for Mr. Edmonds. Yes, we do think tools from clearinghouses would be helpful, web-based tools, information that is provided to the clearing members to be able to then share with their end-users and clients. We think there are a number of different ways that that information can be disseminated through the system. We think the education needs to happen. The transparency needs to happen up-front rather than through disclosures that happen multiple months or quarters behind.

Mr. FEENSTRA. That is right. Thank you so much, Ms. Crighton.

Ms. CRIGHTON. Thank you.

Mr. SAMMANN. Can I just add one thing to that very quickly?

Mr. FEENSTRA. Sure.

Mr. SAMMANN. I know the question came how can you sort of get an assessment for that margin requirement, just to be clear, at least on the CME Group side, we have a tool to allow customers to upload a portfolio that will calculate the margin. This is a pre-trade tool because margin has become an important part in cost of capital, as you talked about today.

Mr. FEENSTRA. Right.

Mr. SAMMANN. It is making everything more expensive. So from a transparency point of view, enable customers to upload portfolios that they might trade and say this is what the margin requirement would be.

Now, in terms of forward-looking how that might change, that is less clear, but in terms of the ability to have an assessment, this is the margin that would be required to carry this sort of position. Those tools exist. And that is an important pre-trade risk decision that customers have access to.

Mr. FEENSTRA. Significant. Glad to hear that. Thank you, and I yield back.

The CHAIRMAN. I thank the gentleman.

Now, I am pleased to recognize the gentleman from California, Mr. Carbajal, for 5 minutes.

Mr. CARBAJAL. Thank you, Mr. Chairman. And thank you to all the witnesses being here today.

Mr. Berkovitz, you mentioned that some of the events leading to market volatility could not have been predicted like COVID and Russia's war in Ukraine. Could you speak to what extent you have seen the volatility in agricultural commodity markets impact farmers' and producers' ability to use the derivatives market for price risk management?

Mr. BERKOVITZ. Thank you, Congressman. I think one of the items that has been mentioned by a number of panelists is the margin requirements, the certainty of margin requirements, but also the level of margin requirements as volatility goes up and prices go up. These margin requirements, which is how much money you have to put up when you place a trade, increases and therefore makes the cost of hedging more expensive. So the time you need the hedging the most, the price increases, which makes it even more difficult to use these risk management tools. So I think that is the primary concern that I have heard regarding margin and prices.

Now, generally, it is also talked about, it is a fairly sophisticated market. These tools, it takes a fair degree of sophistication to use them, so there needs to be, also has been discussed, an educational effort to make sure that the market participants and farmers know what the advantages of the tools are and know how the tools can benefit them.

Mr. CARBAJAL. And how do you think we could expand that education?

Mr. BERKOVITZ. Well, I think market participants have a function in that, and CFTC has a component. If you look at the CFTC's website, it has educational materials on the markets. So I think it is a combined effort to make CFTC transparency and benefits but also the industry and I know the exchanges and the brokers, the

futures commission merchants also have a program to do that as well.

Mr. CARBAJAL. Thank you. In your testimony, you spoke to systemic risks and the tools we have in place to avoid them. Could you elaborate further on the nature of these systemic risks and the barriers to their mitigation?

Mr. BERKOVITZ. Well, there are a number of risks, and one of the critical functions of the markets and the other witnesses at the table is the system that we have of clearing. So when you put on a trade, the clearinghouse, your trade actually of the counterparties is assumed by the clearinghouse. So it is basically guaranteed. And we have a system of futures commission merchants that if you are a farmer and you want to trade and you want to hedge your crop on the exchange, you go to a futures commission merchant, the futures commission merchant will trade on the exchange, the futures commission merchant will post margin and then collect the margin from you, the farmer. So at the clearinghouse is all the funds deposited by the futures commission merchants and ultimately, the customers, and it is guaranteed by the futures commission merchants, and that has been discussed also. So all the trades on the clearinghouse are guaranteed.

Now, in extreme market events when people are stressed and there is a lot of stress in the system and possibly there might be adverse price movements that somebody might default on, that places stress on other members. And in times of extreme stress when many people are stressed, then other people have to put up money for the defaulted trades, and that creates systemic risks because it is the system. Somebody has got to pay for it, and if it is a very large market participant that fails, then other people have to put up a large amount of money for it.

So those types of systemic risks and these extreme events where a lot of people are losing money and other people might have to cover the trades, those are the types of systemic risks that the regulatory system is concerned about and has all sorts of mechanisms to prevent those buildups and all sorts of mechanisms to ensure that there is trade on the performance because the last thing you want is a domino effect where failure of one person means another person fails and their failure means another person, and that is a systemic failure.

So we have built up a system that was strengthened by the Dodd-Frank Act to prevent those types of consecutive or multiple failures. But nonetheless, we are always looking at it and always looking for ways because each time there has been a failure, each time there has been a systemic risk, it hasn't been anticipated before. So we are trying to anticipate the unanticipated and build robustness in the system and always have to look and see whether it can be improved.

Mr. CARBAJAL. Thank you, Mr. Chairman. I yield back a whole 6 seconds.

Mr. BAIRD [presiding.] Thank you for your testimony, and I appreciate all the witnesses being here. Mr. Moore, I think you are up next.

Mr. MOORE. Thank you, Mr. Chairman.

Mr. Sammann, energy prices are important to families and businesses in my district. How have the disruptions from COVID and the Russian invasion impacted American energy policies? That is pretty broad.

Mr. SAMMANN. I am sorry. Can you repeat the question?

Mr. MOORE. Yes. That is pretty broad. So how has the war in Russia and COVID–19 impacted American energy prices? You can talk about policy as well, but I would like to hear your take.

Mr. SAMMANN. Yes. So I will take a stab at that. Chris, you can take a stab at that. We talk to customers every day about what rising prices, what rising interest rates, what change in value of the dollar means for our customers. There are so many ways in which the U.S. economy and users and, frankly, the infrastructure is impacted by this, number one. And certainly, Mr. Edmonds can talk about this. With Russian crude oil and gas coming off the global market due to sanctions, that fundamentally has shifted the physical flows of crude oil. Now the U.S. exported, I believe, a record for 4.1 million barrels a day of U.S.-sourced WTI out of the U.S. just last month. Natural gas sourced here in the U.S. is being exported at record capacity right now only limited by the LNG facilities to liquefy and ship that gas out to Europe and Asia as that market has lost its ability to import piped gas from Russia. So you have some structural shifts in the global energy market. You have crude oil coming out of the Gulf and Saudi Arabia, which that takes on a very vastly different important impact, given the fact that oil can't go from Russia into so many other sanctioned countries right now.

So you have a structural shift in energy markets, you have had a significant impact, which initially drove energy prices up, well, energy is an input cost to almost everything. We talked about the impact of fertilizer, the impact of farmers running diesel in your tractors, what we pay at the pump, what we pay at the store for bread. It has impacted almost everything. It is integrated into the risk that we engage in our lives. So that war has impacted, taken 25 percent of the global wheat off the market. You have sunflower oil and rapeseed oil not coming out of the Black Sea. So it impacts us in so many ways.

The one thing that I would say is the biggest impact is the structural change in global flows of energy, particularly crude oil and natural gas. And as I think Mr. Edmonds mentioned before, there are some decisions around infrastructure here in the U.S. that will impact those decisions and what that looks like over time.

Mr. MOORE. Yes, input costs in the data—and my cousin is trying to start. He is a young farmer. And he told me, I asked him, I said, how is it going, Garrett? And he said, well, he said I budgeted for $3.31 a gallon diesel fuel when I was starting, and he said that certainly—he is missing a number. I had a great crop but no profit at the bottom end.

Mr. Edmonds, do you want to touch on any input that we missed on——

Mr. EDMONDS. The input is the point that we have made. I mean, the margin, all of what Mr. Sammann just said creates volatility, margins go up. It is not just the clearinghouses that were represented here that are the margin. It is also the clearing mem-

bers. The clearing members also from time to time, based on their risk profile, maybe of your cousin, maybe of other participants that are out there make their own credit decision, and they add on top of that. So as margins increase because of the general market volatility, so does the review the clearing members put on there. So there are constraints on that, but we have to react to what is out there because what you don't want is us sitting in front of you explaining why we didn't execute our rulebook and there has been a large systemic issue that Mr. Berkovitz just explained in the previous question.

Mr. MOORE. Mr. Edmonds, to follow up, I had a question I wanted to address to you. How can we best anticipate and manage emerging risks in cleared markets?

Mr. EDMONDS. Well, we have to learn from our history, A. We have to make sure that our models take into consideration things that we have observed in the history. We also have to make sure that we are doing an appropriate level of discounting of some of those events that, because of regulatory changes, are unlikely to happen again. It is not zero, but instead of it happening every day and impacting the price and margin every single day, we might discount that because we learn from the past. We put that into the go forward look at it, as Ms. Crighton referenced earlier.

So we are not going to anticipate everything, but what we can do is be crystal clear of when something like that happens, how we are going to respond to it. And I think that becomes the most critical point of it, of how we respond to the unknown that is now coming and staring us in the face.

Mr. MOORE. Thank you. Mr. Sammann, do you want to follow up?

Mr. SAMMANN. I will just add one more thing. We have talked a lot about margin here today, and I think what we haven't differentiated is initial margin, which is the amount of collateral you put up to carry against taking on a derivative position, and variation margin. And to be very, very clear, if you look at the variation margin that flows, the variation margin is the value that is exchanged between winning positions and losing positions every day. That is a daily mark-to-market. Now in the CME Group exchanges, it is twice a day mark-to-market.

So when we talk about margin going up, a portion of that, yes, is initial margin where, as volatility goes up, you expect as a Prudential Regulator or the Committee that oversees our Prudential Regulator, that we would require more collateral in the system, which is still a low percentage of face value of the overall contract value. But it is critical that we understand that variation margin, *i.e.,* mark-to-market twice a day every single position, eliminates and pulls that systemic risk out of the system so enormous losses are not allowed to accrue. That is the danger of bilateral transactions, so we want to be very clear about initial margin. That is a conversation that we are going to have, but the variation margin is that daily mark-to-market. You want us to be doing that every single day to make winners whole and make losers pony up more funds to make sure they are making whole on the other side.

Mr. MOORE. Thank you. I am out of time. I appreciate the panel being here. You all are one of the best I have heard in a while. Thank you. I yield back, Mr. Chairman.

Mr. BAIRD. Thank you. And the gentlelady from Connecticut, Representative Hayes, is up next.

Mrs. HAYES. Thank you, Mr. Chairman. And I know that Chairman Thompson left, but I do want to note that I appreciated the way that he used his time in today's hearing. It was very helpful for me. Thank you, Ranking Member Scott, for holding this very important hearing and to all the witnesses who are testifying today.

A 2020 study by USDA's Economic Research Services found that small farms with less than $350,000 in gross cash farm income are less likely to use futures or option contracts in their businesses. Small farms account for 89 percent of the farms in the United States and 93 percent of the farms in my district in Connecticut. My district's small farms and dairies are particularly susceptible to market volatility and rely on robust and well-regulated commodity markets to keep their businesses afloat. But unfortunately, the Commodity Futures Trading Commission, the agency tasked with overseeing this activity, has not been fully authorized in over 10 years.

Ms. Crighton, in your testimony, you pointed to international events which contributed to market volatility like the Russian invasion of Ukraine and the volatility of nickel on the London Metals Exchange. You went on to mention several instances where CFTC led the way to risk controls and market transparency. In 2013, when the last long-term authorization of the CFTC lapsed, the Futures Industry Association submitted a letter to the Senate Agriculture Committee making recommendations for the reauthorization. In your view, has the CFTC had the necessary tools to be an effective global leader? And is a full reauthorization necessary to update their authority? And before you start your answer, just congratulations on being the lone woman on that panel.

Ms. CRIGHTON. Thank you very much, and I appreciate the question. I will answer it in two parts, one for the topics that we have talked about today. We actually think the CFTC is fully authorized to interact all the topics and the issues that we raised. Consistent with the letter that FIA filed in 2013, FIA fully supports the reauthorization of the CFTC. But thank you again for the question and the congratulations.

Mrs. HAYES. Thank you. Mr. Gelchie, what impact does global commodity volatility have on smaller producers that may not directly interact with futures or options contracts? And do you agree that properly updated practices protect everyone in the agricultural sector?

Mr. GELCHIE. Congresswoman, thank you for the question. I think first, to your point in terms of small farmers' access to futures markets, that also is perhaps a service that Louis Dreyfus has provided to those farmers. To that point, I mean, I think some of the inputs that we get from small farmers is that hedging and/or having positions with FCMs is expensive and it does require cash management. And from our standpoint, we feel that we have been essentially that shock absorber to that community.

Mrs. HAYES. Thank you. And I think that is why I noted my appreciation for Chairman Thompson's comments. Much of what we are talking about is very high level, but somebody has to advocate for the little guy. And we have to make sure that the work that we are doing goes all the way down and reaches those 93 percent of farmers in my district.

It looks like you want to—go ahead.

Mr. SAMMANN. I just want to add a quick point. So this has been raised two or three times. I have been remiss in not saying this before, but you make a really, really good point.

Mrs. HAYES. Well, thank you.

Mr. SAMMANN. There are a number of small ranchers and farmers out there that don't have access to the wholesale market. So one of the things we do, we try to meet the needs of all of our customers, especially farmers, ranchers, small family farmers. We have partnered with land-grant universities, agricultural trade associations, regional introducing brokers, those intermediaries, co-ops to get education, training, understanding. We send our agricultural sales team out to 4–H club and every state fair to get the word out. It is such a dispersed group of users, so we have to go through not just our own channels but sort of those institutional sales channels and access points to make sure that there is an understanding for these tools being available and how do we connect those end-users.

So it is a great point that I am sorry I hadn't said it before, but I just didn't want to miss that opportunity to talk about the ways that we are using our own sales efforts that connect with those folks to connect them with the markets.

Mrs. HAYES. You just said 4–H clubs. You are speaking my love language. But I really do appreciate that because it is one of my priorities as we go into the next farm bill to make sure that farmers at every level of the sector, all markets get the benefit of the work that we do here and that we are intentional in the way that we legislate to make sure that the impact is felt across the whole agricultural sector.

I have another question. I have 3 seconds. I want to be a good student, so I am going to submit it for the record and look forward to hearing a response to that. Thank you Mr. Chairman. I yield back.

Mr. BAIRD. Thank you, Madam Hayes, and I appreciate you being here with us today.

Next up is Mr. Rose, Representative John Rose from Tennessee.

Mr. ROSE. Thank you very much, Mr. Chairman. Thanks, Chairman Thompson and Ranking Member Scott, for holding this important hearing, and thanks to our witnesses for your valuable time today.

Mr. Berkovitz, the U.S. is unique in that we have separate securities and derivatives regulators. Do you think that having separate regulators promotes market efficiencies?

Mr. BERKOVITZ. Historically, the reason we have separate markets is because the commodity futures markets started in agriculture with agricultural commodities and then securities market developed differently. I think the system we have here actually is very beneficial to our capital markets and promotes both our secu-

rities and our commodity markets. I have worked at both agencies. Both agencies are excellent agencies. Maybe if we were starting out historically, had a clean slate, you might put them both in the same agency, it would make sense from an academic point of view, but I think as things have developed and as things as they are now, I think the system is working very well. I think each agency is doing its mission, and I think that having a separate CFTC gives the prominence and attention to the derivative markets that it deserves and the farm communities and the importance of these markets to the farmers and ranchers and agricultural sector is reflected in that there is an agency, the Commodity Futures Trading Commission, whose mission is to ensure that their interests and the markets are fair and working for them. I think if you combined both agencies and had one big agency, that mission may not be as important as it is in the CFTC's mission right now.

I think the proof is also in the pudding is we have the strongest and most liquid and safest capital formation requirements globally, and we have the strongest, most liquid, most efficient price discovery and risk management markets in the world. This country and our markets are the leader globally both on the derivatives side, on the securities side, and it is due both to the market participants, but it is also to the strength of the regulatory system. So I think our regulatory system is actually very effective and enabled this country to be a leader in all those markets.

Mr. ROSE. Thank you. And I am curious about the opinions of the other witnesses on the panel. So if you might just go from my left, your right across, combined or separate, one word answer.

Mr. GELCHIE. I would agree with his statement.

Mr. SAMMANN. Remain separate.

Ms. CRIGHTON. I would defer to Congress on that.

Mr. EDMONDS. I will go with separate.

Mr. ROSE. All right. Thank you very much. One of the major themes of this hearing are the risks of black swan events to the global derivatives markets. I would like to ask each of you, are there any unlikely but plausible black swan events that could pose a systemic risk to the global financial system that any of you are worried about but that have not yet been raised in this hearing today? And again, we will start on the left, and you can go across with the limited time we have.

Mr. GELCHIE. I would just say continued and increased geopolitical tensions.

Mr. SAMMANN. Yes, I am not in the habit of being good about figuring out the unknown unknowns. However, I would say something that we haven't really talked about today is cyber risk, and that is something that I know that we all are cognizant of, and it is an industry body issue. It is an individual firm issue. Every one of us faces that at a personal level and on a corporate level, so that is one that it is a known unknown, and I think that is something that is systemically important to us. And I think we have working groups across our industry, as well as with the government as well to do the best we can to prepare for if and when that happens.

Ms. CRIGHTON. Two items I will touch on, one is clearly cyber. I think Mr. Sammann said it well. The other is really the systemic risk that we think a large default or other market destabilizing

event at a clearinghouse would have on the ecosystem at large. I referenced Mr. Berkovitz's comments as well in that regard. I think that is something that is worthy of more exploration and discussion.

Mr. EDMONDS. We are all going to say cyber, but I am going to tell you that because of the global nature of our markets and the interconnectedness of the players in these markets that we have today, inconsistent regulation that is out of scope is a big unknown that you don't know how other regulators are going to react in a moment of stress.

Mr. ROSE. I have other questions, but in view of the time remaining, I might just end by saying I know by definition I am asking you to think about the *unknown* unknowns, but I would just ask you all to go back and contemplate that and share with us anything that we might be missing that comes to mind.[4]

Thank you, and I yield back.

Mr. BAIRD. Thank you. The gentleman yields back.

And next up, we have the gentleman from Georgia, Representative Bishop.

Mr. BISHOP. Thank you very much, Mr. Chairman. I apologize for my tardiness in getting to the hearing. I want to, again, welcome the witnesses and thank you for your contribution to this very important discussion.

Market volatility obviously is something that affects all of agricultural production and products, and I would just like to—as you talk about the risk management that accrues to all of our producers across the world but particularly here in America, and as we lean into our preparation for the next farm bill, I would like to ask each of you from your perspectives, and you, of course, at the high level, but as we focus on the farm bill and the safety net for American farmers and how the farm bill will ultimately impact the global market in agriculture, if you could just reflect quickly on what we need to really focus on in the farm bill in terms of the ag marketing services, its management, Farm Credit in order to have the safety net built into our farm bill and our preparations going forward. What do you think we need to make sure that we take into account from your perspective, each of you, if you would?

Mr. GELCHIE. Thank you, Congressman. I would say, first, support prices and stability in terms of, again, understanding what the rules look like in that farm bill, right? That, to me, is the most important thing that you can communicate in the farm bill.

Mr. SAMMANN. I will specifically talk about some of the pieces around the strengthening of the USDA. There are a number of reports and ways in which our grain markets, our livestock markets, and our dairy markets rely on reporting functions inside the USDA, so it is important that continues to be robust and is funded, to make sure that our markets that use those as inputs into settlement prices and the daily price element are continuing to be funded and supported.

Ms. CRIGHTON. Thank you for the question. I think for us from a clearing member perspective, given the importance of cleared de-

[4] **Editor's note:** the responses to the information referred to are located: for Mr. Gelchie, on p. 82; Mr. Sammann, on p. 83; Ms. Crighton, on p. 84; Mr. Edmonds, on p. 84; and Mr. Berovitz, on p. 85.

rivatives markets in risk management, price discovery, certainty of access to those risk management functions is critical, so ensuring capacity is available to farmers, end-users, and ensuring the resilience and stability of exchanges and cleared markets.

Mr. EDMONDS. I would say education, making sure that there is a component within there that is educating the potential users of the product and those who use the product today. We all do what we can individually, but understanding how that goes within the policy objectives contained in the bill will be massively important.

Mr. BERKOVITZ. Thank you, Congressman. And from my perspective as someone who has worked with the CFTC and the Agriculture Committee for many years, I am just very encouraged by the statements today by Committee Members about the importance of CFTC reauthorization. The CFTC can legally operate without it, but it is so important that it get its direction from Congress and any fine tuning. But when I was at the Commission, we sent up a number of legislative proposals to fine tune the Commodity Exchange Act. I leave it to the current CFTC as to whether they have any of those that they are going to propose, but to the extent they believe those would be helpful, that would be really helpful as well.

Mr. BISHOP. Thank you. I am not going to belabor the point, but I was interested to know from your perspectives what you thought we needed to do so that, through the farm bill, we could help to reduce the market volatility of which we have been discussing all day. So thank you very much.

I yield back, Mr. Chairman.

Mr. BAIRD. Thank you. The gentleman yields back.

And next up we have the gentleman from New York, Representative Langworthy.

Mr. LANGWORTHY. Thank you, Mr. Chairman. And thank you very much for all of our witnesses for your testimony here today and taking the time to be with us.

Global commodity markets play an important role in risk management on the farm, and whether it is producers using hedging or other risk management strategies directly or through their co-op or other input suppliers or buyers of the commodities that they produce, being able to mitigate the price risk for their inputs and what they produce is critically important, given the tight margins in the volatile markets.

Commodity price risk management is also important for our food processors and our manufacturers, and commodity markets are really the underpinning for these activities, so it is important that they are reliable and they are transparent.

While beyond the scope of today's hearings, I really hope that what we have heard today will inform us as we move forward in our work on the farm bill for the next 5 years. It is, we think, in the future direction of the programs that can help producers mitigate the prices in the production risk.

And with that, Mr. Sammann, one insurance product that provides price protection for some dairy farmers in my district is the Dairy Revenue Protection product, which is linked to the futures price of the dairy products traded on the CME. Given that dairy doesn't have the history that grains and oilseeds have on the futures market or the volume traded, what is your long-term view of

dairy products on the CME, and what can be done to ensure that it is a stable, reliable market to ensure that they can continue to play a part in risk management for dairy producers and dairy processors?

Mr. SAMMANN. Yes, no, terrific question, Congressman. Thank you for that. Dairy is an important part of our business. It is not the biggest part of our business. It is smaller than livestock, a lot smaller than grains and oilseeds, but it is still an important part of the service we provide.

We continue to evolve the transparency, access, and price provision in dairy markets, whether it is in the cheese market or in the other parts of dairy, milk, for example. We have actually migrated that price provision platform from what used to be a PIP-traded platform now to a platform-based on what is called Elysian technology within CME Group. So that is an auction process, so there is clear, open, transparent mechanism for setting that price, seeing that price.

As I mentioned before to the question about what the farm bill could do, reauthorizing the USDA, making sure that is robust so it connects our dairy market, which have struggled setting the price of—85 percent of the price of cheese in the U.S. is based on our settlement price. So to the extent that it is an important part of our market, we continue to innovate and make it as transparent as possible, it is never going to be a market the size of even livestock, not to mention grains, oilseeds, or treasury bonds. But it is a critical component of price setting for the vast majority of cheese and dairy products that are sold in the U.S.

So I am happy to go deeper with you and the groups that are looking for better understanding for how that auction process works, but we continue to evolve that, and we know electrifying that process, bringing more people into that price provision process and disseminating those prices as quickly as possible creates that very transparency and I think market trust that is critical to enable dairy producers to operate profitably.

Mr. LANGWORTHY. Thank you. Thank you. And in speaking with you, Mr. Sammann, how does crude oil in natural gases and input price play a direct and indirect role as it relates to agriculture production?

Mr. SAMMANN. It is probably one of the bigger—other than fertilizer, it is one of the biggest changes and impacts to the cost base of every farmer, every consumer in America, frankly. This has been a wild ride. Natural gas, I believe Mr. Edmonds mentioned before, 8 months ago, we were knocking on the door of $9 an MMBtu here in U.S. natural gas, and now we are around to $2, $2.50 with some downward pricing pressure now. That was thanks largely to a very mild winter and well-supplied going into what was a scary moment of losing Russian flows into Europe. But I think the increase and now decrease as a tail effect that has whipped some folks, and that is hard.

So markets can't mitigate all your risk, but market providers like CME Group and ICE can provide tools to help end-users that are reliant on volatile pricing cost inputs to their business to at least mitigate price certainty around those things. And it has just been

hard for everybody, and it has impacted the farmers themselves very drastically.

Mr. LANGWORTHY. Well, having had the opportunity to spend time in the district traveling to our farms in western New York and the southern tier counties along the Pennsylvania line, they are feeling those high prices, whether it be from rubber or fuel prices or transporting feed, operating farms. I mean, these things can't be any higher, and we have to do everything we can to get things under control.

But I really thank you very much for your testimony, and, Mr. Chairman, I yield back.

Mr. BAIRD. Thank you. The gentleman yields back.

And the next individual we have is Representative Nunn from Iowa.

Mr. NUNN. Thank you very much, Mr. Chairman. I appreciate it.

Thank you very much for providing your testimony today and spending some time with the Agriculture Committee. This is going to be an exciting year for the farm bill. This is a bipartisan effort to really drive home where we can find relation the farm bill and ideally move forward a farm bill that will help all of our producers across the country.

I represent Iowa's Third Congressional District, and we are proud to be the home of one of the leading producers of corn, soybean, egg, pork and I am a sheep-farming family, so a little bit of that as well.

With respect to corn specifically in 2022, Iowa produced roughly 2.4 billion bushels, and this is seen as the nation's most valuable crop going forward. As each of you know, our farmers have faced several years of skyrocketing input costs, both to the grower, to the producer, and ultimately to families like mine with five girls and one 13 year old boy that really make things expensive. The global market volatility, the lack of competition, the consolidation, supply chain disruptions, and ongoing war in Eastern Europe, and the continued placement of increased strains on our producers that feed and fuel the world has taken a toll.

You have mentioned this before, and so, Mr. Sammann, I would like to begin with you. As we move deeper into our farm bill discussions this year, what can Congress do to ensure that farmers have access to the tools that best protect them from a volatile commodities market and price risks? And further, how might our producers best access and utilize future markets for the purpose to manage these risks?

Mr. SAMMANN. So great question. I think we have touched on this a little bit in different pieces. And this is why it is important that, as an industry, we come before you because we represent kind of the full ecosystem here, clearinghouses, exchanges, industry bodies, end-users. And I think that, relative to the farm bill piece, I mentioned some of the specifics, very granular on the USDA side. There are so many ways in which we are dependent on a fully functioning farm bill to make sure that our processes work and create price transparency and hedging tools available to all producers and end-users.

I think Mr. Edmonds made a really good point, and I touched on this before. Education and access: CME Group has 3,600 employees

globally. We don't have enough to canvass every single co-op across the U.S., so we rely on intermediaries, regional co-ops in introducing brokers. As I mentioned, I am not kidding, we canvass state fairs and 4–H clubs and we hand out ribbons for prized heifers and things like that——

Mr. NUNN. That is right.

Mr. SAMMANN.—to make sure that people understand there is a connection between family farms and setting the wholesale price of that particular commodity, whether it is livestock, whether it is dairy, whether it is grain. So, we can't do that alone. We are simply not big enough, so we have worked through partnerships of intermediaries introducing brokers that are themselves not clearing members. They themselves use clearing members to get access to our markets, so it is a long chain of access and education.

So I just, again, come back to the point that Mr. Edmonds said. It is very much down to educating people on both the benefits of hedging. And I think this is a case study of the last 2 years of why hedging can help manage some of these costs. Number two, how you access these markets, what it means to you. Even if you are not a direct consumer of trading futures and options on derivatives changes, how you can benefit from the transparency of standardized pricing so you know what your crop is worth because you have some basis of differential to a standardized crop. All of those pieces matter. And I think education, access is things that we work at but we can't do alone.

So anyway, we would welcome a discussion where we could use that farm bill reauthorization and get that through to say we need troops of folks to go out there and educate and train and create more access. We would love to be a part of that conversation.

Mr. NUNN. Thank you so much. I appreciate that.

And, Ms. Crighton, for you, according to a recent survey by the Committee on Payments and Market Infrastructure, roughly 20 percent of our clearinghouses provide tools for end-users to estimate how their margin requirements might change during a period of market volatility. So staying on the same theme, can you walk us through the possible solutions clearinghouses can take to enhance transparency of margins required for farmers, ranchers, and others to better help us prepare for future stress events?

Ms. CRIGHTON. Sure, thank you. Great question. Again, I think we talked a bit about this before, but I think to add a few points to the overall discussion, we think there are tools that certain exchanges and CCPs have that they provide to end-users and customers to be able to model their margin. We think part of the benefit of what we can do on the forward is to be able to provide tools and more transparency about what happens during extremely volatile markets, right? How do margins move in order to be able to help them project what their funding needs are? That is what we think about when we risk manage our clients directly. We spend a lot of time educating them on what our risk models do, how they react during certain stresses so they can appropriately understand what are the guardrails and what is the funding that they need on hand to be able to adequately prepare for that. So I think web-based tools, interaction, and preparing clearing members and providing us with access to that information so we can then further

educate clients, will be an important way to leverage the ecosystem and to be able to provide that education back.

Mr. NUNN. That is wonderful. Thank you very much for being here today. I hope your farming season goes well.

With that, Mr. Chairman, I yield back my time.

The CHAIRMAN [presiding.] All right. The Ranking Member has an urgent conflict here, so I am going to ask him—we are kind of kind of jumping ahead, and then we will come back to Members. I recognize the Ranking Member for a closing statement.

Mr. DAVID SCOTT of Georgia. Yes. And first, thank you, Mr. Chairman, for giving me this opportunity. We have a group of veterans' organizations waiting on me, and we are putting together a great event to help our veterans who need help getting food and shelter. And so this is very important. Thank you so much, Mr. Chairman.

I did not want to leave without saying thank you and let you know just how important your testimony has been. And I thank you, Mr. Chairman, for pulling this group together. They are very knowledgeable. Your insights have been brilliant, and you have opened many of our eyes because we have newer Members on board. Two aspects of derivatives are cross-border, and this burgeoning area, as I say to people, remind them, we are dealing with $810 trillion of the world's economy in our hands when we are dealing with derivatives and our swaps and using this as very much needed balancing act for risk management within a world that is full of surprise elements every day, every moment. Who would have thought that Putin and Russia would invade Ukraine? And who would have thought—and we are so grateful that Ukraine has had the willingness and determination to stand and fight back. But it has caused tremendous risk and tremendous challenges for our agriculture industry and the important role that derivatives and swaps played in it.

So I want to thank you. And please know that, as we move forward with this farm bill, there may be some things that you can help us with. We want to receive that help because you all have a wealth of experience. And this is a very technical area. It is not one that is often plainly seen, so we need experts like you. I have worked with several of you for 20 years, the CFTC Chairman and others and ICE. And we also have Mr. Michael Gelchie, Group Chief Executive Officer of the Louis Dreyfus Company.

Mr. Derek Sammann, Senior Manager, Director, Global Head of Commodities, Options, and International Markets, the CME Group. And make sure you tell your chief executive, Mr. Duffy, I said hello. He is the good man, Terrence Duffy, longtime friend.

Ms. Alicia Crighton, let me join with the others. And it is very important that all of our women Members pointed out this historic moment. But let me also bring that congratulations to you from deep in my heart because for you to be the first woman on this burgeoning committee is very, very important.

Mr. Christopher Edmonds, Chief Development Officer of ICE, another good partner. We have been together for over 21 years working with different things.

And to you, Mr. Dan Berkovitz, former Commissioner, Commodity Futures Trading Commission, you heard this Committee

say, and the Chairman, we are going to finally reauthorize the CFTC. And both sides of the aisle here are committed to getting that done, and we are going to do it. Thank you for your participation. God bless each and every one of you. And again, as I said, we have an open heart, an open mind, and open arms to receive your help with these challenges and the technical scientific progress we are dealing with in agriculture.

Thank you.

The CHAIRMAN. Well, I thank the Ranking Member and his partnership.

I am now pleased to recognize the gentleman from Indiana, Mr. Baird, for 5 minutes.

Mr. BAIRD. Thank you, Mr. Chairman. And, I really appreciate you and the Ranking Member putting together this Committee and this hearing. And I also appreciate, I am always impressed with the knowledge and the expertise that you as witnesses bring to this Committee and how important that is, and so I just want to say thank you for that.

And then I only have—since I am getting toward the end of the questioning period, I only a couple of questions that may be a little different, so I will try to be brief because I am sure you are getting tired of answering questions.

So my first one goes to Mr. Gelchie, and it deals with in a little different area. You mentioned the limited availability of U.S. dollar currency exchanges. Can you expand on that point just a little and tell us——

Mr. GELCHIE. Sure, Congressman, thank you. But, referring to the continued rate increase in the United States, we have continued to see currency fluctuations globally. Many of our customers in countries overseas have had difficulties opening up letters of credit recently. And as a result of having lack of access to dollars as a function of their own currencies, devaluing against the U.S. dollar, and that has created a bit of a concern relative to our ability to supply our customers but also for their ability to buy the grains that ultimately they need to feed their people.

Mr. BAIRD. Thank you. Mr. Sammann, you mentioned a number of tools that are used by the exchange to maintain orderly markets, which I think is very important, including margin add-ons, price limits, circuit breakers, and Velocity Logic. Would you care to elaborate on that? Because they are relatively new terms to me.

Mr. SAMMANN. Yes, I will just touch on a couple of those. Position limits we talked about a little bit earlier, really important that we talk about the need to make sure that if you are an underlying hedger and you have a core exposure to an asset, whether it is a treasury bond or a kilo gold bar or a bushel of corn, end-users and those folks have larger position limits when they can prove that they have offsetting physical exposures. We have smaller position limits for speculators for the obvious reasons that we don't want them to have the outsized proportion. So that is an important kind of mechanism we use to make sure concentration risk on our margin is appropriate.

Daily price limits in enumerated commodities, and those are primarily the ag products here, they have hard position limits. So as you know, wheat, corn, and beans can only move so much until

they freeze on a day. They can go limit up multiple days, and we have mechanisms in place when they reopen. They reopen safely and everyone knows deterministically how they will reopen. That is important you have heard again and again here.

We have mechanisms in markets that don't have hard position limits. We utilize a mechanism called Velocity Logic, which, as I said earlier, inhibits markets from moving too far, too fast. For every market, there is a specific amount that a market can move in a specified time period. And if it exceeds that, our markets freeze for a specified time period. If it happens again, it freezes again for, again, a predetermined specified time period so people know how to expect markets react if they start to run as it were.

The other things we talked about, the twice daily variation margin runs circuit breakers are really a version of Velocity Logic. And you have heard a lot of talk around margin levels and proactively managing those as more instability comes into the market. You would expect clearinghouses and in some cases, to the point that was made earlier, top-ups by the clearing firms themselves on top of exchange minimums. It is just the way that the market is able to try to anticipate the volatility and making sure there is enough collateral in the system to do exactly what mutualized risk does, and that is ensure that nobody loses money in a mutualized risk model. So hopefully, that gives you some flavor for what I talked about.

Mr. BAIRD. Very good. And thank you. And I have about 35 seconds left. So, Ms. Crighton, I know we have talked a lot about margins and the fluctuation in margins and so on, so could you share your concern about how these large and fluctuating margin calls may be driving some commodity firms away from doing hedging, which is important to ranchers and farmers?

Ms. CRIGHTON. Yes, we think these large fluctuations can create a destabilizing effect. When these large swings in margin happen, as Mr. Sammann mentioned, we would expect that margin rates rise when volatility increases. But we think the starting-off point for margin levels tends to be too low, particularly in times of low volatility. So the natural course, we expect margin levels to rise and increase. The problem is when we see such pronounced swings, we think that is destabilizing. It drives a number of members and a number of end-users and clients to have to seek short-term, highly liquid assets to be able to post to their clearing members, for them to post onwards to the clearinghouse. We think the cost of doing that can rise significantly, particularly in times of high stress, which is when we least want to see those types of stresses add to the burdens of risk management.

Mr. BAIRD. Thank you. And I am out of time, except that I would like to say that, Mr. Edmonds and Mr. Berkovitz, I am sorry I didn't have a chance to ask you questions. So thank you. I yield back, Mr. Chairman.

The CHAIRMAN. I appreciate the gentlemen. And gentleman yields back now.

I am now pleased to recognize the gentleman from New York, Mr. Molinaro, for 5 minutes.

Mr. MOLINARO. Thank you, Mr. Chairman. Mr. Edmonds and Mr. Berkovitz, I don't have questions for you either, so I feel badly, but

I also feel a little bit out of sorts going after the Ranking Member's closing comments.

Ms. Crighton, could you just explain a little bit more, maybe go a little bit further down—you speak about increasing the margin floors to ease some of those volatilities. Can you just explain that, let's say, to the average American, as to how that will help reduce risk?

Ms. CRIGHTON. Sure. So I guess we think about it in a couple of different ways, and I guess one of the examples that I will use is when we think about the size of initial margin and drawing the distinction that Mr. Sammann drew earlier of initial margin and variation margin. When we think about the size of initial margin, what we are really trying to do is ensure that it is adequate to cover the risks in the market. In futures markets in the U.S., that means that it sides to a one-day—it is intended to cover a one-day price move, right? When we see that we have large P&L swings, large mark-to-market, that typically is then followed by a large increase in initial margin. So what we are trying to say is, rather than allowing margin levels to go so low, that when shocks do happen, they have to increase so much to substantially cover for that risk, which creates stress on clients and end-users and, in certain parts, clearing members as well, that we want to kind of increase that floor so margin levels can't go as low as we have seen them go in times of low volatility.

We think it actually artificially masks costs to clients and end-users. They think they can fund here, but where they actually need to be funding is for the eventuality of needing to post margin at these levels. And that difference can create a lot of stress.

So we are not saying that we want to—sorry to add one more point.

Mr. MOLINARO. No, go ahead.

Ms. CRIGHTON. We don't want to just unilaterally increase margin. We are not trying to cover all risk. But we think there is a better balance than what we have been seeing, and that stability and predictability is better for all end-users and clients here.

Mr. MOLINARO. That was something even I can understand, so I appreciate that very much.

Mr. Chairman, I wanted to return to my colleague, Mr. Nunn's question. You spoke a little bit about the need for greater education access. Could you point to some of the more effective tools at—listen, I am very appreciative of being at the county or state fair and handing out ribbons, but why don't you speak to some of the more effective education tools and how we might embed that in the farm bill?

Mr. SAMMANN. Sure. Great question. So, as I mentioned before, we work with a lot of land-grant universities. We work with various schools that actually have agricultural departments. We run a global trading challenge for universities, not just in the U.S. but globally, where we actually create a trading challenge and allow customers and students that are trying to understand these markets and how they operate to compete to sort of a fictitious set of market circumstances. They can interact with these markets and understand the power, the tools, the capabilities of what derivatives markets make available to them. So we would love to partner

with someone on the farm bill to extend our reach out into via co-ops and introducing brokers in these rural communities are so important. There is just not enough of them. So those are folks that are connecting the individual farms to co-ops and co-ops to wholesale markets to at least get access to the price so they know what their crop is worth, and at best be able to have access, via those intermediaries into some sort of hedging tool of some sort. So I would love to be a part of that discussion. If that is part of the farm bill, I think that would go a long way to addressing a lot of the questions we heard about today that single farms or small farms are getting crowded out of that space.

I do want to come back just a moment on the margin piece. And I think as we talked about elevating margins, we should be clear, our contracts right now have a four margin level. We could debate whether that is too high or too low, but just to be clear, there is a floor under which margins don't drop. And I think the other piece is there is certainly a danger—and I think Ms. Crighton has pointed out—danger being margins too low. I think there is absolutely a danger in the worst-case scenario margins being too high. And I spoke at a BIS symposium on Tuesday morning with global central banks on this very topic, where there were three of the world's largest energy producers represented. And they said margins went so high and margin top-ups by clearing firms were multiples of the current exchange minimums that it forced them into the OTC market. That is the other ditch you want to avoid.

So I just want to make sure that we are talking about a balanced view here that no one would disagree that too low margins is not good, but there is a real danger that the worst-case scenario is the margins that are too high end up pushing people into unregulated bilateral markets. Now, you have opacity in the market that was once transparent. So I just want to be clear that there is a risk at both ends of that.

Mr. MOLINARO. I appreciate that. And I would say, from the education perspective, even reaching to K–12, Future Farmers, really investing early on to create that understanding as certainly smaller farms, family farms transition.

Mr. Chairman, I very much wanted to ask Mr. Gelchie a question, but I have run out of time, and so I will just save it for another——

The CHAIRMAN. Well, the gentleman is yielded some more time. Go ahead.

Mr. MOLINARO. Thank you, Mr. Chairman. The last hearing you did take a whole minute away from us, so I appreciate that, Mr. Chairman.

Mr. Gelchie, I just wanted to give you an opportunity really to speak more broadly and briefly to what you foresee from your perspective the biggest risks and opportunities for American agriculture in the immediacy. As we develop this farm bill, what would you point to is the thing we need to pay attention to, to sustain American agriculture?

Mr. GELCHIE. Sure, no, thank you. I think as we had mentioned earlier, consistency, clarity in terms of what support prices might look like for the farmer? That is extremely important. We talked about the inputs and the rising costs for fertilizer, land, and so

these are criteria that I would pay particular attention to in relation to the upcoming farm bill.

Mr. MOLINARO. Thank you. And thanks for the courtesy, Mr. Chairman. I yield back.

The CHAIRMAN. Well, I thank the gentleman for reminding me I cut his time last time. And now great job, well done.

I want to thank all our witnesses, as we close here, just to say thank you for bringing your expertise to the table. We have five talented individuals who have tremendous experience and insight, and we benefited from that today.

I want to thank our Members, all of our Members for the participation and, quite frankly, the insightful questions that were generated. And I would be remiss if I didn't say a great big thank you to all of our—if I didn't recognize Mr. Duarte for—well, let me do my last thank you and then I will come back and finish my closing when we actually close, and that is to the staff, the staff, all of our staff that work so hard, the staff and the personnel officers, certainly the staff on our committees that staff us. We absolutely could not do our jobs without them.

And so I am pleased to recognize the gentleman from California, Mr. Duarte, for 5 minutes.

Mr. DUARTE. You are a tolerant and thoughtful leader, G.T. Thank you. Thank you to the chair. Sorry, lunch awaits you.

I am from California. I am from a farming district in California that goes from Modesto down to Fresno. And there is a large—not a large one, but there is a budding movement in California to consolidate water rights down to the delta. And then there are some who think that monetizing and securitizing water rights and putting them on perhaps one of the boards of trade that you govern or participate in would be a good idea. I don't think it is a good idea. I think that commodities are commodities. They move around the globe and they fill voids and shortages through a free market system that you folks help facilitate. But water is not a commodity. Water is local. Water is constrained within its basins, and it does not have global movement, and we cannot always make more of it when the market demands that we might want to.

Could you please, any of you, comment on how you see the limitations of water trading or how you see the opportunities of water trading and what we should be concerned about or open to in terms of opportunities when it comes to such?

Mr. SAMMANN. So I will comment because we list the contract—it is not ours, but we list a contract that is a NASDAQ contract that is a cash-settled water index. I think it is basically the Veles index, as I recall, that listed probably 2+ years ago. It is an index cash-settled for—the idea that NASDAQ believed—and we are just a listing agent for them so it can trade on our exchange. And I believe their thought was that there would be an interest for folks looking to get some sort of economic exposure. You are absolutely right. Water is not a physical product. It is uneconomical to transport the way you can crude oil or natural gas or corn or gold for that matter. So it has had a high degree of intellectual interest. It is had very little traction economically in terms of very little pickup on that, and I think there is a broadening discussion around how that should be treated.

Mr. DUARTE. Good.

Mr. SAMMANN. So I would probably point you to reach out to NASDAQ on that contract since we are just the listing agent. But I just want to make sure that the Committee knew that there was a product, so I would point you to NASDAQ to have a further conversation on that product.

Mr. DUARTE. Thank you. Any other comments? Please, Mr. Berkovitz.

Mr. BERKOVITZ. I would just comment that from the perspective of the CFTC—I am not speaking for the CFTC in this capacity, but from the derivatives markets in terms of a derivatives contract, should anybody want to list them? Until about the year 2000, the Commodity Futures Modernization Act, the CFTC would look at what is the hedging utility, what is the utility of these contracts, but since 2000, the change in the law, the CFTC just looks at the integrity of the contract and doesn't pass upon the value, so to speak, of the economic use. It is basically up to the market to decide. So the CFTC, were they asked to approve a contract, would pass upon certainly the integrity of the contract, is it susceptible to manipulation, but would not look at is this a good thing or a bad thing?

Mr. DUARTE. Thank you. That is one of my concerns is the manipulation. Somebody from far away outside our base and outside our community, outside our state, outside our country could play the water market through political or environmental manipulations, create scarcity, and increase the value of their securitized water interests, and that, I feel, is a huge vulnerability this would bring to my district and to many, many urban and rural water users.

Mr. BERKOVITZ. And if an exchange were to list one of those contracts, that by law the contract would be required to be not susceptible to manipulation. The exchange would have to have mechanisms in place, and the CFTC would review those before the contract could be approved.

Mr. SAMMANN. Just so you know, you may not be aware or may be aware, in Australia, there is a water contract, and I believe it is physical. I think that is probably set up within 5 or 8 years ago, and there have been some challenges with that. So there is a case study as somebody trying to do it as a deliverable contract, and it got into the questions that you would wonder where is their financial interest? Where is the end-user consumer interest? And are those in balance with one another? So not passing judgment good or bad, but it is a case study, and I think if you wanted to talk to your constituents about that, that is probably a good place to start.

Mr. DUARTE. Thank you. I have 53 seconds left. Any of you wise folks have any more wisdom for me?

Thank you very much. Thank you, Mr. Chairman. I will get out of the way of lunch.

The CHAIRMAN. I thank the gentleman. Lunch is over, though? We are well beyond that.

Just, once again, all the thanks that I have offered already. It really is helpful to understand how market participants, intermediaries, and regulators work together to ensure the markets op-

erate efficiently and effectively. Sustaining deep and vibrant derivatives markets often requires compromises between the views of different actors. I appreciate having heard more about those points of view today. This hearing provided insight on how the industry works to reconcile the different points of views that you all have, what processes, formal or informal, are in place to help industry participants, and regulators alike work through those ideas. What we heard today, I believe, will better prepare us to perform our oversight duties for the derivatives market.

And so, with that, under the Rules of the Committee, the record of today's hearing will remain open for 10 calendar days to receive additional materials and supplementary written responses from witnesses to any questions posed by a Member.

This hearing of the Committee on Agriculture is adjourned.

[Whereupon, at 1:40 p.m., the Committee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUBMITTED LETTER BY HON. MIKE BOST, A REPRESENTATIVE IN CONGRESS FROM ILLINOIS

March 1, 2023

Hon. KATHERINE TAI,
Ambassador,
United States Trade Representative,
Washington, D.C.;

Hon. DOUG MCKALIP,
Chief Agricultural Negotiator,
United States Trade Representative,
Washington, D.C.

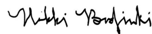
Dear Ambassador Tai and Chief Negotiator McKalip:

We write today to thank you for your continued work in holding Mexico accountable regarding their pending ban on imports of genetically modified (GM) corn from the United States. While substantial progress has been made, we remain concerned that Mexico's unscientific approach to GM corn would severely impact our local farmers and set a harmful precedent. Mexico's failure to live up to its transnational commitments would negatively impact the Illinois Corn industry and we urge you to take every step necessary to resolve this situation amicably. We request a full update on the ongoing negotiations with Mexico on this subject, and given this decision is clearly inconsistent with the United States-Mexico-Canada Agreement (USMCA), we ask all enforcement mechanisms remain on the table.

As you know, Illinois farmers are the second-largest producer of corn in the United States, with a large majority of such corn grown with GM seeds. These scientific enhancements have helped our farmers grow more with less, reduce their impact on the environment, and conserve the use of water and pesticides, contributing to food security at home and across the globe. According to the United States Department of Agriculture, between 2020 and 2021, Mexico remained the number one ranked importer of U.S. Corn. Mexico's plan to impose an import ban can have long-term detrimental effects to local economies, family farmers and the corn industry here in Illinois. Furthermore, the choice to ban uses of GM corn but not other uses of biotechnology underscores the lack of scientific basis for the action. On the heels of the public health emergency and a war across the globe that has contributed to higher energy costs as well as disrupted supply chains, our farmers cannot afford additional challenges.

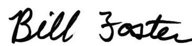
We've heard from family farmers across our districts and we want to ensure that they will be protected and maintain certainty over the future. We are grateful for your strong and swift response to Mexico's unsubstantiated actions, and we urge you to use your full authority and USMCA's enforcement mechanisms to come to an agreement as soon as possible. Inability to do so will cause grave concern among our constituents. We thank you for your attention to this matter and we look forward to partnering with you to support Illinoisan and American farmers to ensure their continued export of important commodities.

Sincerely,



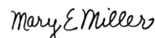
Hon. NIKKI BUDZINSKI,
Member of Congress

Hon. MIKE BOST,
Member of Congress



Hon. BILL FOSTER,
Member of Congress

Hon. DARIN LAHOOD,
Member of Congress



Hon. MARY E. MILLER,
Member of Congress

SUPPLEMENTARY MATERIAL SUBMITTED BY MICHAEL "MIKE" GELCHIE, GROUP CHIEF EXECUTIVE OFFICER, LOUIS DREYFUS COMPANY

Insert

Mr. ROSE. . . . One of the major themes of this hearing are the risks of black swan events to the global derivatives markets. I would like to ask each of you, are there any unlikely but plausible black swan events that could pose a systemic risk to the global financial system that any of you are worried about but that have not yet been raised in this hearing today? And again, we will start on the left, and you can go across with the limited time we have.

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Mr. ROSE. I have other questions, but in view of the time remaining, I might just end by saying I know by definition I am asking you to think about the *unknown* unknowns, but I would just ask you all to go back and contemplate that and share with us anything that we might be missing that comes to mind.

These global tensions are not new but seem to be as relevant as ever in terms of market impact, with a tendency at times to overwhelm market fundamentals. Markets are sensitive and there is plenty of global unrest, so these risks are real.

Rapid technology advancements over the past decade have created efficiencies in the markets, but also challenges in protection against bad actors and market disruption. Cybersecurity is something all responsible corporate organizations are allocating capital to guard—against attack and to minimize vulnerabilities. We recently witnessed a cyber-attack on a service provider in the futures markets, which created challenges in market function for days.

Derivatives clearinghouses are critical to the functioning of our commodity markets, and in our opinion, have operated successfully through stressful events over many years. Should a key clearinghouse be unable to function, the derivatives markets would be completely frozen, and cash markets would see immediate and tangible ripple effects. We believe the probability of such an event is low given the positive track record of clearinghouse operations and the significant regulatory focus on these functions.

SUPPLEMENTARY MATERIAL SUBMITTED BY DEREK SAMMANN, SENIOR MANAGING DIRECTOR, GLOBAL HEAD OF COMMODITIES, OPTIONS & INTERNATIONAL MARKETS, CME GROUP INC.

Insert 1

Mr. CRAWFORD. What would you estimate the percentage of participants in the market today are *bona fide* hedgers?

Mr. SAMMANN. So I would probably say—it is going to vary by product—probably 20+ percent of end-users. And you can see some of that from the CFTC's Commitment of Traders Report. It will vary by product. It will be higher in commodities markets. It will be lower in financial markets, between 20 and 40 percent, but I would rather come back to you with a more specific answer. But if I were to spitball, that is where I would put it.

The best source of public information about the types of participants in each market is the CFTC's Commitment of Traders Report.[1] * As you may know, this report is published weekly and is based on futures and options position information provided to the CFTC and exchanges by firms that exceed reportable position levels. The report does not capture precisely the reason for each firm's position. It will not, for example, depict whether a position of a producer or [processor] was a hedge or speculative position. Nevertheless, it is an informative report for purposes of understanding the types of participants holding positions in each market. The data contained in the report demonstrates how the market composition can change over time and varies among different agricultural products.

For instance, the April 11, 2023 Commitment of Traders Report provides the following data on the Chicago Board of Trade's Wheat—SRW futures and options contracts:

- *Producer/Merchant/Processor/User—67,505 (long) and 63,537 (short);*
- *Swap Dealers—68,634 (long), 5,001 (short), and 17,084 (spreading);*
- *Managed Money—56,306 (long), 160,553 (short), 72,858 (spreading);*

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[1] *cftc.gov/dea/options/ag_lof.htm*.

* **Editor's note:** the report referenced is retained in Committee file.

- *Other Reportables 39,232 (long), 8,197 (short), and 101,738 (spreading).*

Naturally, as depicted in the Commitment of Traders reports, markets are comprised of both natural hedgers (commercials/producers/processors and swap dealers) and natural speculators. Both are essential to an efficient market that enables the transfer of risk between participants. Efficient markets depend on active participation of both hedgers and speculators.

Insert 2

> Mr. ROSE. . . . One of the major themes of this hearing are the risks of black swan events to the global derivatives markets. I would like to ask each of you, are there any unlikely but plausible black swan events that could pose a systemic risk to the global financial system that any of you are worried about but that have not yet been raised in this hearing today? And again, we will start on the left, and you can go across with the limited time we have.
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CME Group is in the business of risk management. Consequently, we spend significant time and resources attempting to foresee and plan for any plausible black swan events, even those that are very remote. We have a risk management team, dedicated to monitoring CME's risks and evaluating the likelihood of their occurrence. In addition, all of our business lines are responsible for updating our risk profile, notifying the risk team if risk increases, and refining our response plans.

One clear category of risk that went unmentioned in the hearing but bears strong consideration is future pandemics. The COVID–19 pandemic heightened volatility, put markets under stress, and increased the need for risk management. While the pandemic's market turmoil was significant, CME's risk management model was able to compensate for the disruption. Trading and clearing functioned as intended and without interruption. Future pandemics, however, may place supply chains, spot commodity markets, and producers under even greater stress. Although CME is confident that it has planned for and can address even extreme market conditions, a hypothetical near-total shutdown of commodity markets would have much further-reaching ramifications. It is CME's hope that global policy makers will work with all market participants, with a special focus at the producer and supply chain level to ensure that the global marketplace is adaptable and equipped for dealing with future, and possibly even more significant, pandemics.

SUPPLEMENTARY MATERIAL SUBMITTED BY ALICIA CRIGHTON, CHAIR, BOARD OF DIRECTORS, FUTURES INDUSTRY ASSOCIATION

Insert 1

> Ms. CROCKETT. Thank you. But I do have some concerns. As I was reviewing the USDA report from October of 2020, it states that less than three percent of farmers are using these options. Does that sound about right to you?
>
> Ms. CRIGHTON. I don't actually have that information, but we would be happy to look into it and follow up with you.

FIA has reviewed the 2020 USDA *report* [1] * titled 'Farm Use of Futures, Options, and Marketing Contracts,' which used data from the 2016 Agricultural Resource Management Survey to describe the use of futures, options, and marketing contracts by producers, with a primary focus on corn and soybeans. FIA agrees that farm producers must contend with forces beyond their control and that risk management tools and strategies, including the use of derivatives to hedge and protect against price risk, are critical for end-users. While FIA cannot verify the underlying data referenced in the report, we support efforts to expand educational resources about the opportunities and risks of risk management tools like derivatives to small- and mid-size farmers, producers and end-users. Below are some examples of FIA's commitment to education.

FIA would also welcome the opportunity to partner with the House Committee on Agriculture to consider whether there are opportunities—perhaps through the farm bill, CFTC reauthorization, or another vehicle—to expand educational resources to

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[1] *https://www.ers.usda.gov/webdocs/publications/99518/eib-219.pdf?v=1241.2*.

* **Editor's note:** the report referenced is retained in Committee file.

farmers, the CFTC, or other entities, about risk management tools like futures and derivatives.

Additionally, the CFTC Agricultural Advisory Committee (AAC), which was created in 1985 to advise the Commission on issues involving the trading of agricultural commodity futures and options and facilitate communications between the CFTC, the agricultural community, and agriculture-related organizations, could be a great vehicle for a discussion about engagement with small- and mid-size farms. FIA would be happy to flag this as a suggested discussion topic for a future meeting.

FIA's Commitment to Education

Futures Fundamentals

Futures Fundamentals is a collective, industry-wide effort to develop and promote free education about derivatives markets and risk management tools. Futures Fundamentals is made possible by a number of contributing organizations across the futures industry, including FIA. Through this partnership, the industry's leading tools, knowledge, and resources have been made available to the public in order to further educational empowerment across the globe. For more information, visit here: *https://www.futuresfundamentals.org/*.

The Institute for Financial Markets

Established in 1989, the Institute for Financial Markets (IFM) is a nonpartisan, nonprofit educational foundation and independent affiliate of FIA. The IFM seeks to increase public awareness and understanding of the importance of derivatives markets and the financial service industry to the global economy and to improve the technical competence of those in the industry who deal with the public. In advancement of such purpose, the IFM engages in activities such as research, publications dissemination, e-learning, courses and conferences. For more information, visit here: *https://www.theifm.org/*.

Insert 2

> Mr. ROSE. . . . One of the major themes of this hearing are the risks of black swan events to the global derivatives markets. I would like to ask each of you, are there any unlikely but plausible black swan events that could pose a systemic risk to the global financial system that any of you are worried about but that have not yet been raised in this hearing today? And again, we will start on the left, and you can go across with the limited time we have.
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> Mr. ROSE. I have other questions, but in view of the time remaining, I might just end by saying I know by definition I am asking you to think about the *unknown* unknowns, but I would just ask you all to go back and contemplate that and share with us anything that we might be missing that comes to mind.

In my capacity as Chair of the FIA Board, I don't have anything further to add to my comments in the hearing.

SUPPLEMENTARY MATERIAL SUBMITTED BY CHRISTOPHER S. EDMONDS, CHIEF DEVELOPMENT OFFICER, INTERCONTINENTAL EXCHANGE, INC.

Insert

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For the past few years, derivatives clearing has been chiefly handled by a small number of clearing members at CCPs globally. Consolidation within the clearing industry has also left derivatives contracts concentrated among a smaller subset of clearing members and could be a potential source of systemic risk. To that end, the concentration of bank-affiliated clearing members has become a barrier to access for smaller, directional clients. With a limited and shrinking number of global non-bank

affiliated clearing members, some market participants may find themselves without access to clearing services and the ability to hedge their risks. The lack of access to the derivatives markets could increase volatility, increase consumer prices and impact the stability of financial and commodity markets. Due to restrictive prudential capital requirements, only bank-affiliated clearing members can provide more comprehensive services. In the case of non-bank affiliated clearing members, there are limited and punitive paths available for additional capitalization. This creates a divergent framework for clearing member requirements and disincentivizes non-bank affiliated clearing members from offering expanded services. If one of the non-bank affiliated clearing firms fail, there are very limited options remaining for their clients. Many clients will be unable to procure additional clearing services. It is extremely difficult to determine such an impact on the macro economy other than an extremely negative outcome.

SUPPLEMENTARY MATERIAL SUBMITTED BY HON. DAN M. BERKOVITZ, FORMER COMMISSIONER, COMMODITY FUTURES TRADING COMMISSION

Insert 1

> Mr. BOST. I appreciate that. Thank you. I also have heard from my constituents obviously with serious concerns about the recent action taken by Mexico in banning GMO corn. This is serious concern of mine, and I have joined with several of my colleagues in writing a letter to the Administration calling for action from the USMCA.[1] What effects has the CME seen on the global—I am not sure what my tongue is doing—derivative markets so far based on Mexico's action, and if no substantive effects have occurred, can the CFTC help absorb any changes in the market?
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> Mr. SAMMANN. Great question. I think relative to how we answered the question earlier on tariffs and kind of market disruptions, we see disruptions to free trade flow and price setting as problematic for all users and that just increases instability. It increases the eventual price that gets—cost passed on to the end consumer is not good for anybody. We have not seen a direct impact on our corn market, which is we run the largest corn market in the world. We haven't seen that yet. That said, we are in constant conversation with both the farmers, producers, end-users, folks like Louis Dreyfus and how that impacts them, and the agency. And I would probably defer to Mr. Berkovitz for his thoughts on how to answer a CFTC perspective on that.

The CFTC's market surveillance program monitors global political and economic trends and developments that may affect the physical and financial commodity derivative markets to ensure those markets continue to operate in a fair and orderly manner, perform their price discovery and risk management functions, and do not present systemic risks. The CFTC staff is in regular contact with market participants, exchanges, and other Federal agencies regarding events and actions that may affect these markets. Although I do not have any specific information regarding the CFTC's consideration of how Mexico's banning GMO corn may have affected the U.S. derivative markets, the CFTC's market surveillance program typically monitors its markets for market-related issues that may arise from these types of developments.

Insert 2

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As a regulator, and now as a former regulator, I have been very concerned about black swan events. By their nature, black swan events are neither foreseeable nor predictable. The history of financial markets demonstrates the fallacy of the belief

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[1] **Editor's note:** the letter referred to is located on p. 81.

that we can foresee or anticipate all the types of events that may cause systemic risks. We must protect against both foreseeable and unforeseeable events. Since the passage of the Dodd-Frank Act we have made significant progress in building protections into the financial system to mitigate systemic risks that may arise from both foreseeable and unforeseeable events. We must remain vigilant, however, as the nature and origin of these types of events is continually changing. In addition to the risks mentioned during the hearing, another specific emerging risk that I believe deserves heightened attention and potential action stems from the recent advances in artificial intelligence technology. This new technology may present novel risks regarding fraud, manipulation, market integrity, and as a result novel systemic risks.

SUBMITTED QUESTION

Question Submitted by Hon. Jahana Hayes, a Representative in Congress from Connecticut

Response from Hon. Dan M. Berkovitz, former Commissioner, Commodity Futures Trading Commission

Question. In your view, does the CFTC have the proper authority to respond to present-day market conditions? How could a long-term reauthorization improve the CFTC's ability to lead on these issues?

Answer. Typically, during the legislative reauthorization process the CFTC submits to Congress proposals for amendments to the Commodity Exchange Act to clarify or supplement this existing authority. Members of Congress also may identify beneficial amendments during the reauthorization process. The authorization process can therefore lead to improvements to the CFTC's authority and ability to regulate these markets.

Generally speaking, the CFTC has sufficient authority to respond to present-day conditions in the derivative markets it regulates. As described above, the reauthorization process could be used to fine-tune this authority. Currently, however, the CFTC does not have regulatory authority over spot commodity markets. The CFTC can bring actions for fraud or manipulation that has occurred in the spot commodity markets, but it does not have authority to regulate the trading of spot commodities (unless such trading is on a leveraged or margin basis) to help prevent such fraud or manipulation prior to its occurrence. At present there is a significant amount of fraud and manipulation in the spot market for cryptocurrencies or digital assets. It would improve the CFTC's ability to protect the public from fraud and manipulation in these markets—and the integrity of these markets—if the CFTC also had regulatory authority over the trading in the spot market of cryptocurrencies or digital assets commodities that are not securities. Expanding the CFTC's jurisdiction to include regulatory authority over the trading of non-security spot cryptocurrencies or digital assets would significantly increase the CFTC's workload. To ensure that this additional responsibility would not detract from the CFTC's mission with respect to the derivatives markets, any such expansion of CFTC's jurisdiction should be accompanied by a dedicated funding source to cover the costs of regulation and oversight of these spot markets.

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