

**WRITTEN TESTIMONY
OF
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BEFORE THE
House Agriculture Committee
“Rising Risks: Managing Volatility in Global Commodity Derivatives Markets”
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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 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 three 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.

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 reviews¹ 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 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.

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>

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.