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VIA ELECTRONIC MAIL

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David Stawick
Secretary of the Commission
Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, NW
Washington, DC 20581
secretary@cftc.gov

Re: Advanced Notice of Proposed Rulemaking on Disruptive Trading Practices – RIN #:
3038-AD26

Dear Mr. Stawick:

CME Group Inc. ("CME Group"), on behalf of its four designated contract markets ("Exchanges"), appreciates the opportunity to comment on the Commodity Futures Trading Commission's (the "CFTC" or "Commission") Advance Notice of Proposed Rulemaking ("ANPR") with respect to Section 747 of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank") – titled Antidisruptive Practices Authority.

CME Group is the world's largest and most diverse derivatives marketplace. CME Group includes four separate Exchanges, including Chicago Mercantile Exchange Inc. ("CME"), the Board of Trade of the City of Chicago, Inc. ("CBOT"), the New York Mercantile Exchange, Inc. ("NYMEX") and the Commodity Exchange, Inc. ("COMEX"). The CME Group Exchanges offer the widest range of benchmark products available across all major asset classes, including futures and options based on interest rates, equity indexes, foreign exchange, energy, metals, agricultural commodities, and alternative investment products.

CME includes CME Clearing, one of the largest central counterparty clearing services in the world, which provides clearing and settlement services for exchange-traded contracts, as well as for over-the-counter derivatives transactions through CME ClearPort®.

The CME Group Exchanges serve the hedging, risk management and trading needs of our global customer base by facilitating transactions through the CME Globex® electronic trading platform, our open outcry trading facilities in New York and Chicago, as well as through privately negotiated transactions.

Introduction

Section 747 amended Section 4c(a)(5) of the Commodity Exchange Act ("CEA") to make it unlawful for any person to engage in any trading, practice or conduct on or subject to the rules of a registered entity that:

- (A) violates bids or offers;
- (B) demonstrates intentional or reckless disregard for the orderly execution of transactions during the closing period; or
- (C) is, is of the character of, or is commonly known to the trade as, "spoofing" (bidding or offering with the intent to cancel the bid or offer before execution).

Amended Section 4c(a)(6) also affords the Commission the authority to promulgate additional rules and regulations if, in the judgment of the Commission, such rules are reasonably necessary to prohibit the enumerated trading practices and any other trading practice that is "disruptive of fair and equitable trading."

CME Group shares Congress' and the Commission's objective of promoting transparency and integrity in financial markets, and doing so in a manner that preserves the vibrancy and competitiveness of U.S. markets in the global economy. Market integrity is one of the cornerstones of CME Group's business model, and the company employs substantial human resources and technological capabilities to protect and continually enhance the integrity of its markets and to mitigate the potential for market disruptions. We recognize that our customers' confidence in that commitment is essential to our ability to draw participants and liquidity to our markets and allows us to effectively serve the risk management and price discovery needs of users around the globe.

Clearly, there is a shared interest among market participants, exchanges, and regulators in having market and regulatory infrastructures that promote fair, transparent and efficient markets and that mitigate exposure to risks that threaten the integrity and stability of markets. In that context, however, market participants also desire clarity with respect to the rules and fairness and consistency in regard to their enforcement.

In order to effectively implement Section 747, the Commission must first promulgate rules that give market participants appropriate notice of the specific trading practices which run afoul of Section 747. As written, Section 747 is vague and susceptible to constitutional challenge because due process precludes the government from penalizing a private party for violating a rule without first providing adequate notice that his contemplated conduct is forbidden by the rule.¹ Moreover, failure to provide clarity with respect to these rules will have a chilling effect on market participation because of exposure to uncertain regulatory risks and the possibility that legitimate trading practices will be arbitrarily construed, post-hoc, to be unlawful. Indeed, as the Commission is aware from the roundtable it held to discuss issues related to disruptive practices, market participants already have expressed concerns of unpredictable and

¹ See *U.S. v. Radley*, 659 F.Supp.2d 803, (S.D. TX. 2009) (finding that the CEA's prohibition of price manipulation was unconstitutionally vague as applied to defendants); see also *Satellite Broad. Co. v. FCC*, 824 F.2d 1, 3 (D.C. Cir. 1987) ("Traditional concepts of due process incorporated into administrative law preclude an agency from penalizing a private party for violating a rule without first providing adequate notice of the substance of the rule.").

fundamentally unfair enforcement actions if the Commission does not promulgate rules to clarify the conduct that is prohibited by Section 747.

We believe that the questions posed in the ANPR demonstrate the Commission's understanding that it must provide additional clarity with respect to Section 747 of Dodd-Frank. CME Group offers these detailed comments to the Commission as it embarks on this important rulemaking.

1. Should the Commission provide additional guidance as to the nature of the conduct that is prohibited by the specifically enumerated practices in paragraphs (A-C)?

As noted above, the Dodd-Frank amendments to Section 4c lack sufficient clarity to enable market participants to understand what conduct is prohibited by the statute. It is imperative that the Commission provide additional clarity regarding what conduct is proscribed by paragraphs 5(A-C) in Section 747, and in so doing, the Commission must take care not to impair legitimate market behavior. As a starting point, CME Group believes that the Commission should clarify that violation of each of the new provisions of Section 4c requires a showing of scienter – that is, that the person acted knowingly, intentionally or with extreme recklessness to commit the prohibited conduct. Extreme recklessness is a high evidentiary burden that requires proof that the alleged offender knows, or should know, that its conduct constitutes wrongdoing. In *In re Silicon Graphics Inc.*, the Ninth Circuit observed that the words “known” and “must have been aware” suggest that extreme recklessness involves consciousness or deliberateness and therefore is a degree of intentional misconduct. 183 F.3d 970, 977 (9th Cir. 1999). Extreme recklessness is not satisfied where an alleged offender commits “fraud by hind-sight.”² This threshold standard will give market participants confidence that only conduct engaged in with conscious intent to disrupt or manipulate the market, or acting with extreme recklessness with respect to the prohibited conduct, will be construed to be unlawful. A lesser standard will elevate regulatory uncertainty to a level that will erode participants’ willingness to participate in the central market, particularly in more thinly traded or volatile markets where liquidity is most needed. The objectives of Congress and the Commission would be undermined if rules intended to promote fair and efficient markets in fact reduced market liquidity or impaired the legitimate price discovery and risk management functions these markets serve.

Terms such as “orderly execution”, “violates bids and offers” and “spoofing” in Sections 4c(a)(5)(A), (B) and (C), respectively, also require definition and clarification by the Commission, which we discuss below in response to the Commission’s specific questions on these topics.

² See *Stevelman v. Alias Research Inc.*, 174 F.3d 79, 85 (plaintiff’s complaint did not sufficiently allege that defendant-corporation acted recklessly by issuing press releases representing positive growth prospects where a subsequent accounting policy change retroactively reduced its revenues); *Denny v. Barber*, 576 F.2d 465, 470 (2d Cir. 1978) (plaintiff’s complaint did not sufficiently allege that defendant-corporation acted recklessly where complaint asserted that corporation should have disclosed certain facts that were not known or obvious to defendants at the time reports regarding future operational prospects were issued); see also *Acito v. IMCERA Group, Inc.*, 47 F.3d 47, 53 (3d Cir. 1995) (plaintiff’s complaint did not sufficiently allege that defendants acted recklessly where complaint asserted that defendants should have anticipated future events and made certain disclosures earlier than they actually did).

- 2. With respect to the practice enumerated in paragraph (A) - violating bids and offers - how should the provision be applied in the context of electronic trading platforms with pre-determined order-matching algorithms that preclude a trader from executing an order against a quote other than the best one available? In particular, should the provision apply to "buying the board" in an illiquid market?**

Order matching algorithms on electronic platforms preclude bids and offers from being violated, and this provision should therefore have no application in that context. The assurance that the best bids and offers will always be honored in order of their priority pursuant to transparent matching algorithms is one of the advantages of electronic markets that support the efficiency, transparency and integrity of executions.

In open outcry trading environments, exchange rules require members to honor the best available bids and offers in the open outcry market at the time of the trade (see CME Group exchanges' Rules 514, 521, 522 and 528), subject to exceptions in certain markets that permit orders above a certain quantity threshold to be executed on an All-or-None basis at a single price that may be through the best bid/offer in the regular market. Open outcry markets have proved to operate efficiently for well over a century, but it is also well understood that in such markets it cannot be absolutely assured, as in electronic markets, that all bids and offers will be honored according to their priority, particularly in volatile or exceptionally active market conditions. However, the statute effectively imposes a strict liability standard that makes it unlawful, irrespective of any element of intent, to violate any bid or offer. This is too broad a construction, and the Commission should therefore clarify that only intentional or extremely reckless action to violate transparent bids or offers contravenes this prohibition.

Additionally, given that identical or economically equivalent contracts may trade in more than one competitive venue (e.g. open outcry and electronic), on non-competitive venues (e.g. block trade or other private bi-lateral facilities) or on multiple exchanges, the Commission should make clear that the prohibition on violating bids or offers is not intended to create a best execution standard across venues as any such standard would be operationally and practically untenable.

The prohibition in paragraph 5(A) should not apply to "buying the board" – simultaneously or nearly simultaneously buying (or selling) multiple levels in the liquidity ladder. The characteristics of a particular instrument and the market conditions prevailing at any particular moment in time obviously shape liquidity, and the liquidity profile for a particular instrument is dynamic and changes in sub-second increments in today's electronic markets. Order imbalances routinely occur in markets for legitimate reasons – that is the nature of markets and how prices are discovered.

The Commission must recognize that market participants may well have bona fide reasons for executing at multiple price levels to achieve prompt and certain execution for a desired quantity, and this is particularly true when there is less depth and liquidity in a market, as the risk exposures for market participants are greatest under such circumstances. If parties are inhibited from trading with displayed liquidity because of regulatory uncertainty, it will only serve to drive more trading away from the centralized market, for example, to block facilities or other less transparent venues, ultimately compromising liquidity in the central market. It is additionally important to note that displayed liquidity is only one measure, and not a precise measure, of liquidity. Resting orders, especially large resting orders, are often entered as "iceberg" orders or held at the participant's front-end and entered algorithmically in smaller increments. Similarly, implied markets dynamically provide additional liquidity that may not be displayed away from the

top of the order book. Consequently, market participants are unlikely to know with certainty the available liquidity based solely on the displayed liquidity.

Market participants should not be subject to enforcement actions for legitimately trading at multiple price levels in the liquidity ladder – and they need to have confidence that this is so. In the event that a market participant employs with the requisite scienter “buying the board” as part of a market manipulative scheme, the Commission has ample new authority under Section 6(c)(1) and proposed Rule 180.1 to prosecute such conduct in that context. But “buying the board” is not, and should not be, an illegal practice absent specific manipulative intent or extreme recklessness, and a Commission rule prohibiting the practice would do considerable harm to the market.

3. How should the Commission distinguish between orderly and disorderly trading during the closing period as articulated in paragraph (B)? What factors should a fact finder consider in this inquiry?

The Commission must be clear not to conflate volatility with disorderly or disruptive trading, as market volatility is usually consistent with markets performing their price discovery function and only rarely attributable to nefarious conduct. Any market participant who has the ability to trade size relative to market liquidity at a particular moment in time has the ability to influence price - during the closing period or during any other period - and orders entered in good faith for legitimate purposes during the closing period, or at any other time, cannot be construed, post-hoc, to have been disruptive simply because the execution of such orders affected the market price. Liquidity is obviously the best prevention against disorderly markets as deeper liquidity makes it more difficult and/or costly for a participant to intentionally or unintentionally disrupt the market. Consequently, the Commission must ensure that its rules, guidance and enforcement approach do not discourage participation during the closing period and impair the liquidity that helps to promote orderly markets and settlement prices that accurately reflect a contract's fair value.

“Orderly execution” is clearly a subjective term, and given the infinite variability in liquidity across instruments, in market information and conditions at any given time, and in participant circumstances, the use of such vague language challenges participants’ ability to comply with the rule and creates untenable uncertainty as to what constitutes prohibited conduct. Presumably, Congress’ and the Commission’s primary interest with respect to paragraph 5(B) is to protect the integrity of the settlement price determination; however, the statute’s language instead focuses on intentional or reckless disregard for orderly execution during the “closing period” without reference to the settlement price. The Commission should clarify that, in the absence of demonstrated intent to manipulate the settlement price to gain some benefit or extreme recklessness that distorts the integrity of the settlement price, deference will be given to the legitimate forces of price discovery.

- 4. How should “orderly execution” be defined? How should the closing period be defined? Should the definition of closing period include:**
- a. Daily settlement periods?**
 - b. Some period prior to contract expiration?**
 - c. Trading periods used to establish indices or pricing references?**

The statute does not define “orderly execution” and, as noted above, “orderly execution” can be evaluated only in the context of the specific instrument, market conditions and participant circumstances at the time in question; therefore, the term cannot be reliably defined in a manner

broadly applicable to the wide variety of circumstances that might exist at the time a particular order is initiated and cannot simply be a test of whether a particular execution caused prices to move rapidly. In fact, execution urgency tends to be greater just before the market closes as the time window in which to fulfill a hedging need or flatten a position is constrained, and participants may legitimately trade more aggressively to ensure their order is filled and their risk is mitigated. Therefore, whether certain executions during the closing period are "orderly" must necessarily be inferred from the totality of the facts and circumstances, and absent a showing that the participant intended to manipulate the settlement price or engaged in extremely reckless conduct that distorts the integrity of the settlement price, the participant should not be subject to enforcement action under the CEA.

Additionally, the "closing period" may or may not be equivalent to the "settlement period," and as reflected by the Commission's question, the pertinent objective appears to be to prohibit intentional conduct designed to manipulate settlement prices or extremely reckless conduct that distorts the integrity of settlement prices – whether the daily settlement, the settlement at expiration or a relevant index or other pricing reference. CME Group concurs that such conduct should be prohibited provided the scienter requirement is met. A lesser standard will chill participation during periods in which active participation fosters additional liquidity, reduces the potential for disruption and informs a more reliable settlement calculus.

5. Should the Commission recognize that a trading practice or conduct outside of the closing period is actionable so long as it "demonstrates intentional or reckless disregard for the orderly execution of transactions during the closing period?"

It is unclear how trading practices or conduct outside of the "closing period" would demonstrate intentional or reckless disregard for the orderly execution of transactions during the closing period, and unless such practices or conduct were clearly articulated, with an appropriate opportunity for public comment, such a statement would only serve to create additional ambiguity with respect to this provision.

CME Group believes that market participants should never intentionally disrupt the market, during the closing period or at any other time, although as noted above, disruptive activity during the closing period may impact settlement prices and therefore take on added significance. Where activity can be shown to have been undertaken for the purpose of upsetting the equilibrium of the market or for the purpose of creating a condition in which prices do not reflect fair market values, such activity undermines market integrity and should be actionable. We emphasize again that establishing this scienter requirement is necessary to differentiate activity that is purposefully intended to manipulate or disrupt the market from bona fide activity that may unintentionally have had an unforeseen disruptive market impact.

It is relevant to note as well that Rule 588 of each of the CME Group exchanges authorizes the Globex Control Center to adjust trade prices or cancel trades pursuant to explicit standards when such action is necessary to mitigate market disrupting events caused by the improper or erroneous use of the electronic trading system, or otherwise has a material adverse affect on the integrity of the market. In such cases, this rule provides that the party responsible for the error is financially responsible for the realized losses incurred by parties whose trades were price adjusted or canceled. In the context of open outcry trading, other exchange rules similarly provide exchange officials with the authority to disallow transactions that are executed at prices through the best bid or offer in the pit (see CME Group exchanges' Rule 522 and Appendix 5.B.).

6. Should (B) extend to order activity as well as consummated transactions?

To the extent that unfilled bids and offers entered during the closing period are intentionally or extremely recklessly entered for the purpose of manipulating or distorting the settlement price, paragraph 5(B) should extend to such activity. Paragraph 5(B) should not be extended to any cover orders during the closing period that result in consummated transactions.

7. Should executing brokers have an obligation to ensure that customer trades are not disruptive trade practices? If so, in what circumstances? What pre-trade risk checks should executing brokers have in place to ensure customers using their automated trading systems, execution systems or access to their trading platforms do not engage in disruptive trade practices?

Where the customer, rather than the executing broker, is responsible for the entry and execution of orders, the executing broker should not have an obligation to ensure that customer trades are not disruptive trade practices as defined in paragraphs (A-C); that responsibility appropriately resides with the customer. In such cases, executing brokers simply provide the infrastructure for the customer to enter orders and cannot know the customer's intent or execution objective or evaluate the market conditions at the time of order entry. If the executing broker, rather than the customer, is responsible for the execution of the order, then the executing broker may be culpable for disruptive activity, but only to the extent the broker knowingly or recklessly executes the order in a manner that violates appropriately clarified disruptive practices or the broker knew or should have known that the order was entered by the customer with the intent to disrupt the market.

As discussed further below, executing brokers should adopt and apply appropriate pre-trade risk controls and procedures to mitigate the possibility of disruptive trades. However, while pre-trade risk checks can mitigate the potential for a customer to engage in disruptive trading, such controls cannot "ensure" that a customer does not engage in activity that has a disruptive impact on the market. Clearing firms have strong incentives to manage their clients' risk exposure and have numerous automated pre-trade and post-trade risk controls built into the proprietary or vendor-provided order entry systems they offer their clients; similarly, firms require those clients to whom the firm grants direct access to deploy such risk controls. These controls commonly include credit, position and loss limits, order size restrictions, price sanity checks and automated execution throttles, all of which serve to mitigate the potential for disruptive activity.

CME Group requires all clearing members to have written risk management policies and procedures in place (see CME Group exchanges' Rule 982) that are commensurate with the firm's size, clientele and product mix, and the Clearing House Risk Management Group conducts regular risk reviews of clearing members. Given the breadth of risk profiles across the spectrum of clients, it would be inappropriate for exchanges or the government to mandate specific risk management parameters when the firm is much better positioned, given its relationship to the client, to determine the specific parameters of appropriate pre-trade risk management. Consistent with the statute, we believe that the Commission should take a principles-based rather than a prescriptive approach to supervisory obligations that include the establishment of documented internal control procedures and implementation of risk management controls that are appropriate to the entity's business and reasonably designed to protect against disruptive trading activity that threatens the integrity of the market.

Like clearing firms, exchanges also have strong incentives to protect the integrity of their markets. Beyond the granular pre-trade and post-trade risk controls firms employ at the

account/trader level to reduce the likelihood of disruptive trading, CME Group also employs a variety of risk management and volatility mitigation functionality on its Globex platform that applies to all orders entered into its electronic markets. For example, price banding, maximum order quantities, market and stop order protection points, stop logic functionality, firm-level credit controls, messaging controls and market maker sweep protections all serve to substantially reduce the likelihood and/or impact of disruptive trading. The specific parameters of each of these risk management tools are carefully considered and are routinely evaluated by exchange staff who have the expertise necessary to establish parameters that effectively protect market integrity without inappropriately interfering in the efficient and reliable functioning of the market. Appendix A attached hereto summarizes the risk management assets CME Group employs to protect against disruptive trading activity. While an exchange implements such functionality in the context of protecting broader market vulnerabilities to disruptive trading, this functionality cannot replace the more granular risk management controls that firms should have in place and execute at the client level.

8. How should the Commission distinguish "spoofing," as articulated in paragraph (C), from legitimate trading activity where an individual enters an order larger than necessary with the intention to cancel part of the order to ensure that his or her order is filled?

The statute's definition of "spoofing" as "bidding or offering with the intent to cancel the bid or offer before execution," is too broad and does not differentiate legitimate market conduct from manipulative conduct that should be prohibited. The distinguishing characteristic between "spoofing" that should be covered by paragraph (C) and the legitimate cancellation of other unfilled or partially filled orders is that "spoofing" involves the intent to enter non bona fide orders for the purpose of misleading market participants and exploiting that deception for the spoofing entity's benefit. The Commission should clarify that it is only this latter conduct that is unlawful under this provision.

For example, assume that a market is 6 bid for 100 contracts, with 100 contracts offered at 7. A party enters four 250-contract offers at 7 solely for the purpose of creating the appearance of substantial selling interest, indicating that the market is likely to trade lower, and incenting other market participants to join the offer. The inside market depth changes to 100 x 1,250 as a result of other participants responding to the new market condition reflected by the party's deeper non bona fide offers. The party subsequently cancels his 1,000-lot offer and simultaneously enters an order to buy 300 contracts at 7, thereby causing the market to move from 6 bid to 7 bid. Parties who initiated positions at a price of 7 are now short at the bid price and pay the offer price of 8 to unwind what now appears to be an unfavorable position in light of the changed market condition. The party who purchased the contracts at 7 sells at a price of 8 to those parties exiting their positions.

In the foregoing example, the participant entered orders that he did not intend to execute for the purpose of misleading other market participants and exploiting that deception by simultaneously withdrawing his own offer and entering a buy order to take advantage of participants who were misled by his non bona fide offers. Such activity does not contribute to a fair or well-functioning market and should be prohibited.

In situations in which elements of a market's microstructure (e.g. a pro rata matching algorithm) incentivize the entry of orders for greater quantity than is actually desired for the purpose of enhancing one's opportunity to receive an allocation from an incoming aggressive order, the intention of such orders is not to mislead or deceive, but rather to compete for an execution.

Such activity is clearly distinguishable from "spoofing." In such circumstances, firms, of course, should employ appropriate pre-trade risk controls to ensure that a client's working order quantity is consistent with the client's financial capacity to responsibly support and manage the position if the entire order quantity is executed.

Further, the statute's generic description of spoofing, "bidding or offering with the intent to cancel the bid or offer before execution," if taken literally, would cover many other legitimate trading practices as well. For example, entering a limit order in a particular instrument with the intent to cancel the order based on certain price changes in that or a related instrument, a change in the bid/offer ratio, or any of many other relevant factors cannot be construed as "spoofing." Consequently, this is an area where the CFTC must take significant care to specify in its regulations and interpretations that these and other legitimate trading practices are not misidentified as "spoofing."

9. Should the Commission separately specify and prohibit the following practices as distinct from "spoofing" as articulated in paragraph (C)? Or should these practices be considered a form of "spoofing" that is prohibited by paragraph (C)?

a. submitting or cancelling bids or offers to overload the quotation system of a registered entity, or delay another person's execution of trades;

The intentional entry of an excessive number of order messages for the purpose of effecting quote processing inefficiencies of a registered entity or other market participants is a disruptive practice distinct from the type of "spoofing" described above. The purpose of such tactics is to impede or deny service to other participants and potentially has broader market ramifications. Therefore, to the extent that the Commission elects to codify such practices, either independently or as a form of "spoofing," it must provide the necessary clarity to market participants that high volume messaging is not a per se violation and that, absent the requisite scienter, is not violative of this provision.

CME Group employs a Market Performance Protection Policy that recognizes that customers can be negatively impacted when market access is affected by latencies caused by customers sending messages at sustained high levels. In order to protect market participants from the negative effects of extraordinary and excessive messaging we have implemented functionality that rejects new messages if a particular connection exceeds a threshold number of orders or modifications per second over a rolling three second period until the message per second rate falls below the established threshold.

CME Group also employs a broader messaging policy intended to deter irresponsible messaging by imposing a surcharge on clearing firms if the number of messages submitted by the clearing firm relative to its executed volume exceeds ratios established on a per-product, per-session level.

b. submitting or cancelling multiple bids or offers to cause a material price movement;

There is nothing in this proposed language that is necessarily of the character of "spoofing," as the submission of legitimate bids and offers may cause "material" price movements, however "material" is defined. The Commission should not equate activity that results in price movement with disruptive practices. To the extent that non bona fide

orders are entered with the intent to mislead or deceive other participants and that deception is exploited for the spoofing entity's benefit, the activity should be adequately covered by regulations implementing paragraph 5(C).

c. submitting or cancelling multiple bids or offers to create an appearance of market depth that is false.

Bids and offers on the electronic platform do not create a "false" appearance of market depth as all bids and offers represent true and actionable market depth until such time that they are withdrawn. As noted above, "spoofing" should be clearly defined to cover non bona fide orders that are entered with the intent to mislead other participants and where that deception is exploited for the spoofing entity's benefit.

10. Does partial fill of an order or series of orders necessarily exempt that activity from being defined as 'spoofing'?

A partial fill should not absolutely exempt activity from being defined as "spoofing," but introduces a factual element that may appropriately make it more difficult to prove that the order was a non bona fide order intended to mislead or deceive other market participants. As a practical matter, conduct that violates the prohibition on "spoofing" is likely to be informed by market context, a pattern of activity, and the inferences drawn from the characteristics of that pattern of activity, including the fill characteristics and other statistical analyses.

11. Are there ways to more clearly distinguish the practice of spoofing from the submission, modification and cancelation of orders that may occur in the normal course of business?

As explained above, spoofing involves a scheme in which the activity is intended to mislead or deceive other participants and to exploit that deception for personal benefit. Distinguishing such conduct from bona fide order activity that occurs in the normal course of business necessarily involves a factually intensive analysis of the activity in the context of the market.

For example, market makers providing liquidity on both sides of a market frequently employ "wash blocking" functionality that serves the legitimate purpose of avoiding violation of the prohibition on wash sales. A market maker may be making a two-sided market of 6 bid at 7, and subsequently determine to buy 7s for legitimate purposes. Upon entry of the order to purchase 7s, the wash blocker functionality will first cancel the 7 offer in order to ensure that the market maker does not lift his own offer and potentially run afoul of regulations prohibiting wash sales. The impact on the order book and the market may appear similar to the "spoofing" example described in question 8, but the original offer was bona fide and there was no *intent* to mislead market participants.

CME Group's Market Regulation Department maintains an exceptionally detailed electronic audit trail that records and allows immediate, as well as historical, access to every order, modification and cancellation, and every market data message and book state change, including all time stamps at the millisecond level. The audit trail also includes, among other data elements, the order instructions, account number, a unique identifier of the user who entered the order and whether the order was entered by a user employing an automated trading system. CME Group's regulatory systems capture and database 4-5 billion messages a month, and sophisticated data analysis tools allow regulatory staff to examine the data and reconstruct

trading and order book activity to conduct the factually intensive analysis necessary to assess the propriety of the activity in its markets.

12. Should the Commission specify an additional disruptive trading practice concerning the disorderly execution of particularly large orders during periods other than the closing period? If so, at what size should this provision become effective and how should the Commission distinguish between orderly and disorderly trading?

The Commission should not promulgate an additional disruptive practice concerning the "disorderly execution of particularly large orders." As indicated in response to question 2, there is infinite variability in market conditions, and "large" is a relative term in the context of a particular instrument, the contract month, strike or strategy, and the liquidity prevailing at any particular moment in time. An order of a particular quantity in a particular instrument may have entirely different impacts depending on the market's liquidity profile at the time the order is entered, and the party entering the order cannot necessarily accurately anticipate the impact of a large order given that markets are dynamic and not all liquidity is displayed liquidity.

Further, price discovery is one of the core functions of futures markets; large orders obviously represent demand and that demand appropriately informs the price discovery process. Creating regulatory uncertainty regarding the ability to efficiently execute large orders in the central market will simply drive trading to less transparent venues, undermining transparency and competition and diminishing the efficacy of the central market's price discovery process.

Additionally, market conditions and participant circumstances are also infinitely variable and will dictate a participant's degree of execution urgency. Participants have an incentive to optimize the quality of their executions and in doing so have to balance their need for prompt and certain execution with their desire to reduce the market impact (price slippage) associated with their order. In fact, participants executing large orders in electronic markets today typically rely on algorithms to execute such orders because sophisticated algorithms can employ intelligent real-time analytics that allow traders to significantly reduce the market impact of their orders and thereby enhance the quality of their execution.

As noted above, CME Group functionality on its Globex platform also helps to mitigate the potential disruptive impact of large orders. For example, maximum order size restrictions are automatically enforced at the trading engine, all market and stop orders have automatic protection points, price banding rejects limit orders when the limit price deviates beyond a specified threshold from the market's reference price, and stop logic functionality pauses the market for a certain number of seconds in specified circumstances that evidence a transitory liquidity gap.

Rather than seeking to define and criminalize the "disorderly execution of large orders," which is a nebulous and subjective construct, the Commission should use its enforcement authority under Section 6(c)(1) to address situations in which a party intentionally or extremely recklessly enters orders for the purpose of manipulating the market.

13. Should the Commission specify and prohibit other additional practices as disruptive of fair and equitable trading?

The Commission should not specify additional practices as disruptive of fair and equitable trading at this time, other than to consider clarifying that the intentional entry of an excessive

number of order messages for the purpose of effecting quote processing inefficiencies of a registered entity or other participants is a disruptive practice. The Commission's authority under 6(c)(1) and proposed Rules 180.1 and 180.2, as well as its existing rules regarding trading practices, provide more than adequate authority to address intentional or extremely reckless conduct that is manipulative. Additionally, self-regulatory organizations ("SROs") already have rules that prohibit conduct inconsistent with just and equitable principles of trade, as well as numerous other rules that address disruptive market conduct, and as required pursuant to Core Principles are well equipped to surveil for and take enforcement action against parties who violate these rules.

In this regard, SROs and the Commission historically have served distinct but largely complementary roles - roles which recognize that the goals of the CEA are best served if the SROs' resources and expertise are relied upon, subject to proactive Commission oversight, for conducting frontline trade practice and market surveillance and for enforcing market conduct rules, while reserving the Commission's enforcement resources and expertise for prosecuting particularly egregious offenses and matters beyond the SROs' jurisdiction. Although Section 747 arguably expands the scope of the Commission's enforcement authority under the CEA, nothing in that section, or any other provision of Dodd-Frank, evidences Congressional intent to disrupt these distinct and complementary roles. In fact, the CEA, as amended by Dodd-Frank, maintains a principles-based regulatory regime that, among other things, obligates exchanges to establish and enforce rules to protect their markets from manipulation, price distortions, abusive practices and any other activities contrary to fair and equitable trading.³

Consequently, there is no clear basis or compelling need for the Commission to specify and prohibit additional practices as disruptive of fair and equitable trading.

14. Should the Commission articulate specific duties of supervision relating to the prohibited trading practices articulated in paragraphs (A-C) (as well as any other trading practice that the Commission determines to be disruptive of fair and equitable trading) to supplement the general duty to supervise contained in Commission Regulation 166.3? To which entities should these duties of supervision apply?

Under current Commission Regulation 166.3, each registrant is required to diligently supervise the activities of its partners, officers, employees and agents, and this includes the responsibility to supervise those parties' compliance with relevant trading practices rules. Exchanges and the National Futures Association impose similar requirements on parties subject to their respective jurisdictions (see Rules 432.W., 433 and 982 of CME Group exchanges and NFA Rule 2-9). Irrespective of the regulator, the assessment of compliance with the due diligence standard of supervision tends to be highly fact specific.

Although there is no need for the Commission to amend Regulation 166.3 to articulate specific duties of supervision with respect to the specifically identified prohibited trading practices, the Commission should consider establishing principles of an effective supervisory regime that

³ Dodd-Frank § 735(b). Specifically, exchanges are required to "have the *capacity and responsibility*" to prevent manipulation, price distortion and disruptions through market surveillance, compliance and enforcement practices and procedures. Additionally, exchanges must "establish and enforce rules...to promote fair and equitable trading on the contract market."

require registrants to establish and effectively implement pre- and post-trade risk management and supervisory procedures that are appropriate to the nature of their business and are reasonably designed to control access, effectively monitor trading and to prevent errors and other inappropriate activity that poses a material risk of causing a significant market disruption. Any such principles must provide appropriate flexibility given the substantial variability in firms' businesses and the continuous evolution of technology. Registrants might also be reasonably required as part of an appropriate supervisory regime to ensure that its employees, agents and customers have been informed of prohibited disruptive trading practices.

15. Should the Commission consider promulgating rules to regulate the use of algorithmic or automated trading systems to prevent disruptive trading practices? If so, what kinds of rules should the Commission consider?

Prescriptive and inflexible "one-size fits all" regulation tends to be inappropriately targeted and have unintended adverse consequences given the variability of participant and market circumstances; often becomes quickly outdated in areas where markets and technology are rapidly evolving; and generally functions to inhibit innovation. Given the exceptional breadth of automated trading systems and strategies and the dynamic evolution of markets and technology, any effort by the Commission to promulgate prescriptive rules in this regard is likely, for the aforementioned reasons, to be counterproductive. As noted above, the Commission should consider establishing principles of an effective supervisory regime that require registrants to establish and effectively implement pre- and post-trade risk management and supervisory procedures that are appropriate to the nature of their business and are reasonably designed to control access, effectively monitor trading and prevent errors as well as other inappropriate activity that poses a material risk of causing a significant market disruption. The industry has committed significant effort over the past several years to examine and articulate best practices in this regard which should inform the Commission's considerations in this area. It is important, as well, to recognize that such principles are equally as important in the context of manually entered orders in an electronic environment as they are in the context of orders entered via automated trading systems because the method of order entry does not impact the effect of a particular order on the market.

16. Should the Commission consider promulgating rules to regulate the design of algorithmic or automated trading systems to prevent disruptive trading practices? If so, what kinds of rules should the Commission consider?

The Commission should not promulgate rules to regulate the design of algorithmic or automated trading systems. The Commission is neither equipped to regulate the design of highly sophisticated and constantly evolving automated trading systems, nor would it be an efficient or effective use of regulatory resources to attempt to do so. The Commission should instead focus on regulating conduct that is shown to be harmful to the market and, as discussed above, consider promulgation of principles-based supervisory and internal control standards that include appropriate testing before automated systems are deployed in the production environment. As noted earlier, clearing firms and market participants themselves have very strong pecuniary incentives to avoid unintentionally disrupting the market, and the regulatory exposure under the Commission's and exchanges' rules are strong disincentives to engage in knowingly manipulative or disruptive practices.

17. Should the Commission consider promulgating rules to regulate the supervision and monitoring of algorithmic or automated trading systems to prevent disruptive trading practices? If so, what kinds of rules should the Commission consider?

The Commission should consider establishing clear principles for an effective supervisory regime that require registrants to establish and effectively implement internal controls and oversight appropriate to the nature of their electronic trading business, whether such activity is automated or manual. As electronic trading continues to evolve, the sophistication of participants' risk monitoring capabilities will continue to improve as evidenced by the substantial improvement in capabilities over the past five years. For example, firms have and are continuing to develop more sophisticated risk controls and algorithms designed to monitor their trading algorithms so that traders can be alerted or trading can be halted when an algorithm's performance deviates from expectations or market quality or data confidence parameters deviate from defined boundary conditions.

18. Should the Commission promulgate additional rules specifically applicable to the use of algorithmic trading methodologies and programs that are reasonably necessary to prevent algorithmic trading systems from disrupting fair and equitable markets? If so, what kinds of rules should the Commission consider?

Other than the rules and guidance discussed in the context of this response, including those related to manipulation, disruptive practices and supervision, additional rules applicable to the use of algorithmic trading methodologies and programs are not necessary at this time.

19. Should algorithmic traders be held accountable if they disrupt fair and equitable trading? If so, how?

To the extent that an algorithmic trader or any other trader violates appropriately constructed Commission regulations governing disruptive practices, manipulation or supervision, the responsible parties should be accountable and sanctioned appropriate to the egregiousness of the offense – either by the exchange on which the conduct occurred or by the Commission. There is, however, no justification for establishing a unique standard in this regard for automated traders as manipulative or disruptive practices damage market integrity irrespective of the means of order entry. As noted at the outset, it is paramount that there is clarity with respect to the rules in order that participants can avoid conduct that is unlawful, as well as consistency and proportionality with respect to the enforcement of the rules. It should also be recognized that, notwithstanding strong risk management and internal controls, some errors will inevitably occur, and the objective should not be to criminalize errors made in good faith, but to minimize their occurrence, mitigate their impact, and ensure that appropriate corrective actions are taken.

Under CME Group exchange rules (see CME Group exchanges' Rule 588), parties who initiate trades that result in price adjustments or trade cancellations are responsible for the realized losses of parties whose trades were canceled or price adjusted. This is true irrespective of whether the order was entered via automated or manual means and irrespective of whether the conduct was separately found to have violated exchange rules.

* * * *

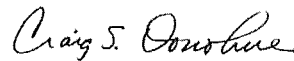
We appreciate the opportunity to provide comments to the Commission on its rulemaking efforts under Section 747 of Dodd-Frank. We have answered each of the Commission's questions because of the serious implications proposals in this area would have on legitimate market behavior that contributes to liquidity and price discovery. We strongly urge the Commission to

David Stawick
January 3, 2011

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take into account the comments contained in this letter and those provided by other market participants when formulating proposed rules for public comment. We are happy to discuss any questions the Commission might have with respect to the comments contained in this letter and we are otherwise available to further assist the Commission in connection with its efforts on this rulemaking. Please feel free to contact me at (312) 930-8275 or via email at **Craig.Donohue@cmegroup.com**, Christal Lint, Director, Associate General Counsel, at (312) 930-4527 or **Christal.Lint@cmegroup.com**, or Dean Payton, Managing Director, Deputy Chief Regulatory Officer, at (312) 435-3658 or **Dean.Payton@cmegroup.com**.

Sincerely,



Craig S. Donohue

cc: Chairman Gary Gensler
Commissioner Michael Dunn
Commissioner Bart Chilton
Commissioner Jill Sommers
Commissioner Scott O'Malia

APPENDIX A

CME Group employs significant human and technological resources and capabilities throughout the company to identify and mitigate the risk of market disruptions and also provides an array of tools designed to assist customers in effectively managing and mitigating these risks. CME Group's commitment to protecting the integrity of its markets is reflected in the continuous evolution of its risk management capabilities and services and its success in identifying innovative solutions to the risk management challenges arising from the dynamic changes in our industry. The following is a high level description of many of the risk management assets CME Group employs to protect against market disruptions.

CME Globex Risk and Volatility Mitigation Tools

The CME Globex electronic trading platform incorporates numerous automated risk management and volatility mitigation mechanisms to protect market integrity and market participants.

Price Banding

- To help ensure fair and orderly markets, CME Globex subjects all orders to price verification upon entry using a process called price banding. Price banding is designed to prevent the entry of orders at clearly erroneous prices, such as a bid at a limit price substantially above the market, thereby mitigating the potential for a market disruption.
- Futures Price Banding: For each product, CME Group establishes a Price Band Variation parameter which is a static value that is symmetrically applied to the upside for bids and the downside for offers relative to a reference price. The reference price, referred to as the Banding Start Price, is a dynamically calculated value based on market information such as last trade price, best bid and offer price or the indicative opening price. Orders entered at prices beyond the Price Band Variation parameter relative to the reference price are rejected by the Globex engine.
- Options Price Banding: Options price banding functionality is similar to futures price banding except that the Banding Start Price, may reference theoretical option prices based on established option pricing models in addition to last trade price. Additionally the width of the price bands may be either a static value for a particular option series or a dynamic value that adjusts based on the option's delta or a delta-adjusted percentage of the option's theoretical price.

Protection Points for Market & Stop Orders

- CME Group employs proprietary functionality that applies a limit price (protection point) to each market order entered on the CME Globex platform and to each stop order entered without a limit price. This functionality prevents orders from being filled at significantly aberrant price levels because of the absence of sufficient liquidity to satisfy the order at the time the market order is entered or the stop order is triggered.
- The protection points for each product are generally defined as one half of the product's "Non-Reviewable Range," a value that is established in connection with the exchanges'

Trade Cancellations and Price Adjustments rules. The protection point is measured from the best bid price for sell market orders, the best offer price for buy market orders, and the stop trigger price for stop orders. Any quantity on the order that is unfilled at the protection point level becomes a resting limit order at that price.

Maximum Order Size Protection

- Maximum order size protection is embedded Globex functionality that precludes the entry of an order into the trading engine if the order's quantity exceeds a pre-defined maximum quantity. Orders entered for a quantity greater than the prescribed maximum quantity are rejected by the Globex engine. This functionality helps to avoid market disruptions by preventing the entry of erroneous orders for quantities above the designated threshold.

Stop Logic Functionality

- Stop Logic functionality is CME Group proprietary functionality that serves to mitigate artificial and disruptive market spikes which can occur because of the continuous triggering, election and trading of stop orders in an illiquid market condition. On CME Globex, if elected stop orders would result in execution prices that exceed pre-defined thresholds, the market automatically enters a reserve period for a prescribed number of seconds; the length of the pause ranges from 5 to 20 seconds and varies based on the characteristics of the product and time of day at which the stop logic event is triggered. During the reserve period, new orders are accepted and an indicative price is published, but trades do not occur until the reserve period expires, thereby providing an opportunity for participants to respond to the demand for liquidity.

Globex Credit Controls

- CME Group requires clearing firms to employ CME Globex Credit Control functionality which provides automated pre-trade risk controls at the trading firm level without introducing additional order processing latency. The specific credit limits for each trading firm are established by the Clearing Firm Risk Administrator.
- Clearing Firm Risk Administrators are able to select automated real-time actions if the established risk limits are hit, including e-mail notification, blocking of non risk-reducing orders and the cancellation of working orders; the Administrator can also set levels at which early warning notifications will be automatically generated.
- CME Globex Credit Controls provide protection against high level risks arising from adverse execution activity and are intended to complement rather than replace the risk management tools used by clearing firms to manage risk at the more granular trader and account level.

Market Performance Protection

- Sustained excessive messaging to the trading engine can cause disruptive latencies that impair market efficiency and negatively impact the market access of other participants; such messaging may also be indicative of a potentially malfunctioning automated order entry system. To mitigate these risks and protect the market and market participants, CME Group employs automated controls at the session (connection) level to monitor for excessive messaging.
- Messaging Volume Controls: If a connection exceeds the CME Group established message per second threshold over a rolling three-second window, then subsequent messaging, other than order cancellations, will be rejected by the trading engine until the average message per second rate falls below the threshold.
- Mass Quote Governor: Mass quoting functionality, used exclusively by CME Group approved market makers, allows bids and offers on a large number of options to be entered simultaneously in a single order message, thereby increasing quoting efficiency. The Mass Quote Governor functionality measures the number of quotes per second for each session and will reject new mass quote messages and cancel resting quotes if the number of messages exceeds the allotted quote per second limit over a defined number of seconds. This functionality prevents excessive mass quote messaging that could otherwise result in disruptive quote processing inefficiencies for customers.

Market Maker Protections

- Market Maker Protection functionality provides market makers using Mass Quote functionality the ability to set various parameters which help to mitigate their quote execution exposure. These protections include limits on the number of quotes executed in their entirety, the number of separate executions, the number of unique instruments traded and the net quantity of instruments traded. When the market maker's defined protection values are met or exceeded within a 15 second interval, the protections are triggered and outstanding quotes are automatically cancelled. Additionally, market makers can set delta protection values to limit exposure. These protections help to reduce the potential for disruptive trades by facilitating greater liquidity and mitigating the possibility of a party taking on excessive exposure.

Cancel on Disconnect Protection

- Cancel on Disconnect functionality is an opt-in service that allows for the automatic cancellation of resting day orders when a user's connection to Globex involuntarily drops.

Additional Risk Management Services

Drop Copy Risk Management Service

- CME Group's Drop Copy service allows customers to receive, via a FIX messaging interface, real-time copies of Globex execution reports, acknowledgement and reject messages. This enables firms to feed the data to their internal risk systems, allowing

firms to monitor risk on a real time basis. The Drop Copy service also allows for monitoring of aggregate activity guaranteed by one or more clearing firms upon approval of the clearing firms.

FirmSoft Order Management Tool

- FirmSoft is a browser-based order management tool which provides real-time access to information on working and filled Globex orders, as well as order modification history. Access to FirmSoft can be granted based on one or more Trader IDs, sessions and/or account numbers.
- FirmSoft also allows users to cancel an individual order, a group of orders or all working orders and mass quotes. The "Cancel All" or "Kill Button" functionality provides important risk mitigation functionality at all times including during system failures.

Risk Protection Policies and Rules

Access and Controls

- All direct connections to CME Globex require the execution of a Customer Connection Agreement that includes, among other provisions, a requirement that the connection be guaranteed by a clearing member firm which agrees to be financially responsible for all orders sent to the Globex platform through the connection.
- Any clearing member firm providing CME Globex access to its customers must comply with all Credit Control requirements set forth in the Customer Connection Agreement which include requirements that there be separation between trading and credit control functions; that the clearing firm be able to set, monitor and adjust credit control parameters such as quantity, position and exposure limits; that the clearing firm be able to set pre-execution controls through automated means or by requiring an employee to take action to accept orders; and that the clearing firm be able to revoke a trader's access to the market.
- The Customer Connection Agreement requires the entity obtaining the connection to agree to comply with and be subject to the rules of the CME Group exchanges. Additionally, clearing members guaranteeing a connection to Globex are responsible for ensuring that the order routing/front-end audit trail for all electronic orders is maintained for a minimum of five years.

Certification and Testing

- All entities connecting directly to CME Globex must perform application testing and be certified by CME Group with respect to a broad scope of interface and functionality requirements before accessing the production environment. CME Group provides customers with dedicated testing and certification environments which, in combination with the certification requirements, mitigate the risk of customer systems adversely affecting CME Group markets or the customer's own business.

- The CME Globex Certification environment mirrors production functionality and is used by customers to perform certification testing for core Globex functionality, maintenance testing and development testing for new customer system features or functionality.
- The CME Globex New Release environment is used by customers to perform development and certification testing with respect to new Globex functionality as well as to test new products prior to their production launch.

Risk Management

- All CME Group exchanges have a Risk Management rule (Rule 982) which requires clearing members to have written risk management policies and procedures in place to ensure they are able to perform basic risk and operational functions at all times including: monitoring credit risks of customers and proprietary trading activity; limiting the impact of significant market moves through the use of tools such as stress testing or position limits; maintaining the ability to monitor account activity on an intraday basis; and ensuring that order entry systems include the ability to set automated credit controls or position limits or otherwise require a firm employee to enter orders. The CME Clearing Risk Management Department periodically conducts reviews of clearing firm risk management policies, procedures and capabilities and how well those risk management programs correspond to the firm's lines of business.

Trade Cancellation and Price Adjustment Rules

- All CME Group exchanges have a Trade Cancellation and Price Adjustment rule (Rule 588) that is designed to balance market participants' legitimate expectations of trade certainty with the adverse effects on market integrity of executing trades and publishing trade information that is inconsistent with prevailing market conditions. This rule authorizes the Globex Control Center ("GCC") to adjust trade prices or cancel trades when such action is necessary to mitigate market disrupting events caused by the improper or erroneous use of the electronic trading system or by system defects. In order to enhance trade certainty and mitigate the creation of additional exposures, erroneous trades are price-adjusted rather than cancelled whenever possible.
- Rule 588 codifies an explicit non-reviewable price range for each futures product and an explicit methodology for determining the non-reviewable price range for each options product. The non-reviewable range is applied above and below the fair-value price determined by the GCC based on relevant market information. Transactions that occur outside of the non-reviewable range may be price-adjusted by GCC pursuant to a transparent methodology for establishing the adjusted price or cancelled by the GCC. Notwithstanding any other provisions of the rule, the GCC has the authority to adjust trade prices or cancel any trade if the GCC determines that allowing the trade to stand as executed would have a material, adverse effect on the integrity of the market.
- Rule 588 also provides that a party entering an order that results in a price adjustment or trade cancellation is responsible for demonstrated claims of realized losses incurred by persons whose trade prices were adjusted or cancelled, provided that the harmed party took reasonable actions to mitigate any losses.

Price Limits and Circuit Breakers

- Numerous CME Group products have rules that establish daily price limits and/or circuit breakers in order to promote market confidence and mitigate risks to the market infrastructure by allowing market participants time to assimilate information and mobilize liquidity during periods of sharp and potentially destabilizing price swings. Circuit breakers are calibrated at defined levels and completely halt trading for a defined period of time or for the balance of the day's trading session. Price limits allow trading to continue, but only within the defined limits.

CME Globex Messaging Policy

- The CME Globex Messaging Policy is designed to encourage responsible messaging practices and discourage excessive messaging that does not contribute to market quality. Under the policy, CME Group establishes messaging benchmarks based on a per-product Volume Ratio, which is defined as the ratio of the number of messages submitted to the volume executed in a given product. Clearing members who exceed these thresholds pay a surcharge. This policy benefits all market participants by discouraging excessive messaging, which in turn helps to ensure that the trading system maintains the responsiveness and reliability that supports efficient trading.

User Identification and Automated Trading System Identification

- All orders must be submitted to CME Globex with a user identification tag (Tag 50 ID) that represents the party who input the order into the Globex system. The tag must be unique at the clearing firm level. In the case of an automated trading system (ATS), the Tag 50 identifies the person or team of persons who operate, administer and/or monitor the ATS. If the ATS operator is responsible for multiple algorithms which operate in the same product, then each specific algorithm must be assigned a unique Tag 50 ID. Additionally, if the client receives preferential exchange fees, the name and other identifying information of the operator(s) must be registered with the exchange; in the case of an ATS operator this registration includes an ATS attribute that is attached to orders entered by that operator in the exchange's audit trail systems. Additionally, the Globex Control Center and Market Regulation Department have the authority to require that a customer with significant messaging register with the exchange, irrespective of whether the customer receives preferential fees.
- CME Group has also announced a requirement, to become effective in June 2011, that all users populate new tags associated with each order. The new tags will identify whether the particular order originates from an automated trading system or is manually entered, the geographic origin from which the order was submitted to the trading system, and the identification of the front-end system and version/release of the software used to enter the order.
- The user identification rules substantially aid the prompt evaluation and investigation of potentially problematic activity.

Functional Area Risk Mitigation Assets

Globex Control Center (GCC)

- The GCC provides 24-hour electronic market operations and customer service support for all trading on CME Globex. In addition to its responsibilities for the administration of the markets, the GCC handles all inquiries and requests for assistance, provides order status information to registered contacts, administers the Trade Cancellation and Price Adjustment policy, oversees price banding and maximum order quantity parameters, and cancels working orders at the customer's direction in the event the customer is unable to do so. The GCC is also responsible for trading halt management in emergencies and the execution of circuit breaker and price limit procedures.
- Dedicated GCC staff are also assigned to proactively monitor the markets on a real time basis, examining the origin and/or market impact of various anomalies such as volume or price spikes, stop logic events, unusual messaging, technical issues, and orders that are rejected by the engine for exceeding price banding or maximum order size parameters. The objective of this monitoring is to mitigate risks to the proper functioning of the market. The GCC refers potential regulatory issues to the Market Regulation Department for investigation of potential rule violations.

Globex Support Administration (GSA)

- The GSA provides 24-hour technical support for Globex and seeks to ensure optimal system performance by proactively measuring client messaging activity and its impact on components of the electronic trading infrastructure. GSA staff investigate and address alerts related to excessive transactions per second, anomalous latencies at the engine level, excessive logon attempts, malformed FIX messages, cancel on disconnect events and excessive rejected orders.
- The GSA team also leads comprehensive performance testing of changes introduced to the Globex system infrastructure to ensure the reliability of the CME Globex platform.

CME Clearing Risk Management

- CME Clearing administers an extensive financial safeguards system designed to protect clearing members and their customers against the consequences of a default by another market participant and the potentially disruptive impact of unsound financial practices on the part of any clearing member.
- CME Clearing monitors clearing member firms for the adequacy of their credit monitoring and risk management of their customers, and conducts periodic risk reviews of clearing members' risk management policies, procedures and capabilities.
- CME Clearing provides 24-hour monitoring of intraday price movements and trading activity to assess the impact on clearing member financial exposures, conducts stress testing of clearing member position portfolios and the position portfolios of large customers, and utilizes tools that provide alerts on anomalous volume or positions at the trading account level.

Market Regulation

- CME Group's Market Regulation Department proactively conducts market surveillance and trade practice surveillance to identify and, where possible, preemptively remediate situations that have the potential to undermine market integrity. Market Regulation staff also conducts investigations of potential rule violations and prosecutes violations before the exchanges' Business Conduct Committees to deter market misconduct. Violations of the rules may result in sanctions that include fines, market access denials and other penalties.
- Market Regulation maintains an exceptionally detailed electronic audit trail that records and allows immediate, as well as historical, access to every order, modification and cancellation, and every market data message and book state change, including all time stamps at the millisecond level. The audit trail also includes among other data elements, the order instructions, account number, a unique identifier of the user who entered the order and whether the order was entered by a user employing an automated trading system. In addition to the Globex audit trail, Market Regulation maintains a database of all cleared data for all trading venues, as well as a variety of other information resources to support its analysis of trading activity.
- Market Regulation also maintains a database that includes all reportable positions that are required to be submitted on a daily basis, including the identities of the owners and controllers of each account as well as other information regarding the nature of the account.
- CME Group's regulatory technology includes sophisticated data analysis tools which allow the regulatory staff to analyze the extensive data it collects, efficiently reconstruct trading and order book activity and to identify transaction or position patterns or anomalies that may be indicative of disruptive, manipulative or abusive practices.