



August 21, 2020

**VIA ONLINE SUBMISSION**

Mr. Christopher Kirkpatrick  
Secretary of the Commission  
Commodity Futures Trading Commission  
Three Lafayette Centre  
1155 21st Street, N.W.  
Washington, D.C. 20581

**Re: Notice of Proposed Rulemaking on Electronic Trading Risk Principles (RIN 3038-AF04)**

Dear Mr. Kirkpatrick:

CME Group Inc. ("CME Group") appreciates this opportunity to provide comments on the Commodity Futures Trading Commission's ("CFTC" or "Commission") notice of proposed rulemaking regarding Electronic Trading Risk Principles.<sup>1</sup>

CME Group is the parent of four U.S.-based designated contract markets ("DCMs"): Chicago Mercantile Exchange Inc. ("CME"), Board of Trade of the City of Chicago, Inc. ("CBOT"), New York Mercantile Exchange, Inc. ("NYMEX"), and the Commodity Exchange, Inc. ("COMEX") (collectively, the "CME Group Exchanges" or "Exchanges"). These Exchanges offer a wide range of products available across all major asset classes, including: futures and options based on interest rates, equity indexes, foreign exchange, energy, metals, and agricultural commodities. The CME Group Exchanges serve the hedging, risk management, and trading needs of our global customer base by facilitating transactions through our open outcry trading facility in Chicago, privately negotiated transactions, and importantly for purpose of our comments, the CME Globex® electronic trading platform ("Globex").

Since the beginning of electronic trading on the CME Group Exchanges, we have devoted significant resources, both human and technological, to the development of market integrity controls, risk tools, and other rules and policies designed to minimize market disruptions and system anomalies. We have done so because the integrity and reliability of our markets are cornerstones of our business model – market participants choose to manage their risk on the CME Group Exchanges because we offer fair, efficient, transparent, liquid, and dynamic markets that are conducted and operated in accordance with the highest standards.

CME Group's interests are accordingly aligned with the Commission's interest in the effective prevention, detection, and mitigation of market disruptions and system anomalies associated with electronic trading activities. As captured in this letter, CME Group is supportive of the Commission's efforts with respect to this rulemaking. We believe the Commission's principles-based approach in this rulemaking is preferable to prior proposals, which were far more prescriptive. This principles-based approach is more adaptable to the continuing evolution of electronic markets, and it affords the DCMs discretion to adopt and implement tools, controls, and rulesets that work best with each unique market.

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<sup>1</sup> See Electronic Trading Risk Principles, 85 Fed. Reg. 42761 (July 15, 2020).

Overarching observations and comments are provided below, followed by specific comments to each of the proposed principles and insights in response to specific questions from the rulemaking.

## I. Executive Summary

As electronic markets have evolved, the CME Group Exchanges have been at the forefront of developing innovative tools, controls, and rulesets to detect, prevent and mitigate market disruptions and system anomalies. Market integrity controls, such as dynamic circuit breakers, velocity logic controls, and messaging throttles have proven successful at protecting the electronic markets from aberrant activity. Messaging policies and trade practice rules addressing highly technical and potentially disruptive order messaging practices are the subject of strong and vigorous enforcement programs. Because of these efforts, electronic markets are safer and more reliable than ever. We also appreciate that the electronic markets will continue to evolve; thus, we share the Commission's interest in ensuring tools, risk controls, and rulesets also continue to evolve.

Beyond being aligned with Commission's interest in ensuring risk controls evolve, we are similarly aligned with the Commission's interest in having principles-based rules and risk controls that are reasonably designed to prevent, detect, and mitigate market disruptions and system anomalies originating from participants. In the last decade, Globex has received and processed more than **one and a half trillion order messages** and matched more than **seventy billion** futures and options on futures contracts. Our market integrity controls, such as velocity logic, circuit breakers, and automated port closures, combined with risk controls, such as Globex Credit Controls, and strong enforcement of trade practice rules have rendered Globex one of the most reliable trading platforms in the world. As electronic markets evolve, we will continue to develop and deploy risk controls and rulesets to protect the markets from disruptions and system anomalies.

Our comments below provide insights from our development of the risk controls and rulesets identified in the rulemaking. First and foremost, we appreciate that the Commission recognized these important developments, especially in noting that the Commission believes the DCMs are addressing most, if not all, of the electronic trading risk currently presented to their trading platforms. We also appreciate how the Commission recognized that the DCMs have actively policed electronic trading activities that may have been considered detrimental to the marketplace. We similarly appreciate that the Commission drafted these principles recognizing that the DCMs should have discretion to precisely identify the type of disruptive activity or system anomalies that relate to the DCMs' markets and trading activity. This last point is critical as it empowers the DCMs and other participants to continue developing cutting edge technologies and risk systems suited to each market.

Finally, while we are supportive of the Commission's proposed rulemaking, we must emphasize the disparity in treatment between certain electronic trading platforms. The Commission stated that the proposed Electronic Trading Risk Principles would apply only to DCMs and that it will "continue to monitor" whether these principles may be appropriate for other markets, such as swap execution facilities ("SEFs") and foreign boards of trade ("FBOTs").<sup>2</sup> We are keenly aware that participants engaged in electronic trading on a DCM may also be engaged in electronic trading on a SEF or FBOT. Either electronic trading involves risks requiring further CFTC regulation, or it does not. If it does, the Commission should propose regulations that treat all electronic trading platforms comparably, whether the trading takes place on a registered DCM, SEF, or FBOT.

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<sup>2</sup> 85 Fed. Reg. at 42763, n. 6.

Our comments below provide insight and feedback for each of the Electronic Trading Risk Principles, beginning first with remarks related to the definitions in the proposed rulemaking.

## **II. Definitions in the proposed rulemaking could benefit from additional clarity.**

Our interest in addressing the definitions at the outset is to help lay a better foundation from which the principles should be based.

The first set of definitions in the rulemaking define the terms “market disruption” and “system anomalies,” both of which are critical in interpreting Principles I, II, and III. A “market disruption” is defined as an event originating from a participant that causes a “significant disruption” to the 1) operation of the DCM; or 2) the ability of other market participants to trade on the DCM. The rulemaking then provides that “system anomalies” are unexpected conditions that occur in a participant’s functional system “which cause *a similar disruption* to the operation of the DCM or the ability of market participants to trade on the DCM.” (emphasis added) In isolation, one could read the sentence containing the definition of “system anomalies” and believe that the disruptions to the DCM must be similar to the disruptions to the originating participant. We suspect that the phrase “which cause a similar disruption” is actually referring to the prior definition of “market disruption” – that the system anomaly must cause a disruption similar to a market disruption, in that the system anomaly significantly disrupts the operation of the DCM or significantly disrupts the ability of other participants to trade. If our interpretation is correct, this should be clarified in the final rulemaking.

In addition, the definitions of “market disruption” and “system anomalies” both have an element related to the “ability of other market participants *to trade*” on the DCM. (emphasis added) First, several sections of the rulemaking reference participants’ inability to trade, engage in price discovery, or manage risk.<sup>3</sup> Engaging in price discovery or managing risk are not included in the aforementioned definitions. If the definitions of “market disruption” and “system anomalies” are intended to capture scenarios where a participant’s ability to trade *or* engage in price discovery *or* manage risk are significantly impacted, then each of these terms should be included in the definitions.

The second observation of these definitions relates to the use of the word “ability” – “the *ability* of market participants to trade on the DCM.” The plain language interpretation of this element conflicts with examples provided in the rulemaking. Consider, for example, the citation in the rulemaking to a 2011 disciplinary action against a firm that experienced a “computer malfunction, including one that prompted selling e-mini Nasdaq 100 Index futures on CME, and another that caused a sudden price increase in oil prices on NYMEX.”<sup>4</sup> The disciplinary postings from this matter do not identify any disruption to the operation of the DCM. Moreover, there is no indication that any participant was unable (lacking the power or freedom) to trade, engage in price discovery or manage risk during these events.

Contrast this with another example from the rulemaking where “a firm sent more than 27,000 messages in two seconds, resulting in the exchange initiating a port closure and a failure of a Globex gateway.”<sup>5</sup> The

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<sup>3</sup> See 85 Fed. Reg. at 42765 (“A market disruption may include a situation where the ability of other market participants to engage in price discovery or risk management on a DCM is significantly impacted by a malfunction of a DCM participant’s trading system.”); and 85 Fed. Reg. at 42769 (“A significant disruption is a situation where the ability of other market participants to execute trades, engage in price discovery, or manage their risks is materially impacted by a malfunction of a market participant’s trading system.”)

<sup>4</sup> See 85 Fed. Reg. at 42763.

<sup>5</sup> See 85 Fed. Reg. at 42763.

disciplinary action in this matter specifically notes that the firm's excessive messaging affected "up to 437 separate customer sessions, causing the cancellation of approximately two thousand orders, and resulted in the loss of customer priority." This example much more clearly identifies an event that significantly disrupted other participants' "ability" to trade on the DCM.

This distinction is important for two main reasons. First, if the Commission intends for the Electronic Trading Risk Principles to apply to both of these examples, it should reconsider the use of the word "ability" to avoid a scenario where a DCM may adopt rules based on the plain language of the rulemaking but Commission staff may have a different interpretation. Second, the rulemaking rightly notes that a DCM should have discretion to precisely identify market disruptions and system anomalies as they relate to its markets and that a DCM may have different understandings of, or parameters for, disruptive behavior in its markets.<sup>6</sup> It is conceivable that one DCM may choose to utilize the plain language definition for rule adoption and enforcement, while another DCM may choose to adopt and enforce rules that abide by what appears to be the spirit of the Electronic Trading Risk Principles.

This potential for disparity could be avoided with clearer language in the rulemaking. For instance, a clearer and more objective standard would be that the event must significantly disrupt other participants' access to the DCM. This standard necessarily would capture what is identified in the rulemaking (i.e. the inability to trade or manage risk), and it is something the DCMs can typically identify on their own.

**III. Principle I – DCMs have a strong history of adopting and implementing rules reasonably designed to prevent, detect, and mitigate market disruptions. Rules, however, should not be confused with controls.**

The first principle would require the DCMs to adopt and implement rules governing market participants that are reasonably designed to prevent, detect, and mitigate market disruptions or system anomalies. We appreciate that the proposed rulemaking recognizes that existing DCM practices and rules are consistent with the draft acceptable practices. As noted previously, the CME Group Exchanges have a vested interest in preserving the integrity of our markets. We have done so, in part, through a set of robust market integrity controls, such as order messaging throttles, price limits, automated port closures, kill switches, velocity logic controls, and dynamic circuit breakers. We have also done so through comprehensive trade practice, disciplinary, and administrative rules that impose obligations and duties on participants that are above and beyond what is currently required by regulations. These components will be addressed in turn below, after first addressing a concern related to the construction of Principle I.

As currently drafted, Principle I or draft regulation 38.251(e) would provide that a designated contract market must "adopt and implement rules governing market participants subject to its jurisdiction to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading." The proposed rulemaking makes clear that the standard imposed upon the DCMs is that the rules must be "reasonably designed" to prevent, detect, and mitigate market disruptions and system anomalies. This important aspect – rules being "reasonably designed" – is currently relegated to the Acceptable Practices section in Appendix B to Part 38 and does not appear in the text of the principle. If the standard is that the rules should be "reasonably designed," this language should appear directly in the text of Principle I

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<sup>6</sup> See 85 Fed. Reg. at 42765.

and draft regulation 38.251(e) just as it is in at least forty other current CFTC regulations.<sup>7,8</sup>

With respect to the types of rules the Commission envisions being adopted and implemented pursuant to Principle I, the proposed rulemaking provides as examples existing DCM controls primarily geared to address operational, financial or market risk that also prevent or mitigate market disruptions or system anomalies. Examples provided in the rulemaking are controls such as the Globex Credit Control System and “Cancel on Disconnect” kill switch functionality. These types of controls are addressed in our comments to Principle II where they seem better aligned with that principle.<sup>9</sup>

We believe operational and risk controls should be the focus of Principle II, and the focus of Principle I should be on rules focused on participants and their conduct that are enforced through either administrative or disciplinary processes. One example identified in the rulemaking is CME Group’s Messaging Efficiency Policy, which is designed to support efficient market operations and foster high quality, liquid markets by encouraging responsible and reasonable messaging practices by participants. The administration of this policy enables the Exchanges to finely tailor order messaging thresholds and administratively assess financial surcharges to participants that violate the policy. This has proven an effective tool for maintaining the quality of markets and potentially mitigating disruptive levels of order messaging.

Not identified in the rulemaking but critical in preventing, detecting, and mitigating market disruptions and system anomalies are the Exchange trade practice and disciplinary rules. These rules were the foundation for the enforcement actions referenced in the rulemaking. Through each investigation and enforcement action, the Exchanges were able to provide the marketplace guidance on the type of activity (or inactivity) that was considered disruptive or violative of their rules. These types of violations were historically brought under general offenses rules.<sup>10</sup>

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<sup>7</sup> E.g. 17 C.F.R. § 38.607 (“A designated contract market that permits direct electronic access by customers (i.e., allowing customers of futures commission merchants to enter orders directly into a designated contract market’s trade matching system for execution) must have in place effective systems and controls reasonably designed to facilitate the FCM’s management of financial risk, such as automated pre-trade controls that enable member futures commission merchants to implement appropriate financial risk limits.”); 17 C.F.R. § 39.13(f) (“Limitation of exposure to potential losses from defaults. A derivatives clearing organization shall limit its exposure to potential losses from defaults by its clearing members through margin requirements and other risk control mechanisms reasonably designed to ensure that: (1) The operations of the derivatives clearing organization would not be disrupted; and (2) Non-defaulting clearing members would not be exposed to losses that non-defaulting clearing members cannot anticipate or control.”); 17 C.F.R. § 23.609(a)(2)(ii) (“For transactions subject to non-automated execution, the clearing member shall establish and maintain systems of risk controls reasonably designed to ensure compliance with the limits.”); 17 C.F.R. § 1.73(a)(2)(iii) (“When a clearing futures commission merchant accepts transactions that were executed bilaterally and then submitted for clearing, it shall establish and maintain systems of risk management controls reasonably designed to ensure compliance with the limits.”).

<sup>8</sup> While we believe the regulation itself should state that the DCM’s rules should be “reasonably designed to prevent, detect, and mitigate” market disruptions or system anomalies, we support this being addressed in the Acceptable Practices as an alternative.

<sup>9</sup> A further observation, perhaps more important for purposes of Principle I, is that certain of the controls discussed in the proposal, like Cancel on Disconnect, are operational risk or market integrity controls designed to safeguard the DCM or act as countermeasures for potentially anomalous activity. They are not what we would consider a bylaw, rule, regulation, resolution, interpretation, stated policy, advisory, term and condition, trading protocol, agreement or instrument, as “rule” is defined by regulation 40.1. We would advise against converting every operational control that may serve to prevent or mitigate market disruptions or system anomalies into a rule that must be filed with the Commission. Doing so would be extremely burdensome and could stymie the development and deployment of additional or enhanced operational controls.

<sup>10</sup> See e.g. [NYMEX-18-0989-BC](#), cited in the proposed rulemaking at 85 Fed. Reg. at 42763, finding that a participant violated Rule 432.Q. – to commit an act which is detrimental to the interest or welfare of the Exchange.

To provide the marketplace more direct guidance on conduct the Exchanges believe to be disruptive, either to the market or to systems, we recently amended Exchange Rule 575 (“Disruptive Trading Practices”) and its associated Market Regulation Advisory Notice.<sup>11</sup> The rule amendment provides that it is a violation of Rule 575 for a participant to intentionally or recklessly engage in activity that has the *potential* to disrupt the systems of the Exchange. The Market Regulation Advisory Notice’s first amendment reflects that one of the factors the CME Group Market Regulation Department may take into consideration in assessing a violation of Rule 575 is industry best practices regarding the design, testing, implementation, operation, change management, monitoring, and documentation of automated trading systems. Its second amendment provides specific examples of conduct that has the potential to disrupt the systems of the Exchange.

A market integrity control, such as a messaging throttle, may be able to mitigate the effect of a participant’s system anomaly, but it will not prevent that anomaly from happening. Trade practice rules have a much greater probability of achieving this by providing participants guidance which, if not followed, may result in significant sanctions or other penalties. Success of this is proven by the infrequency of these types of actions, especially when considered in light of the vast amounts of order messaging activity and trade matching that occurs on Globex. In our opinion, these are the types of rules that should be the focus of Principle I.

**IV. Principle II – DCMs have innovated, developed, and deployed robust exchange-based pre-trade risk controls designed to prevent, detect, and mitigate market disruptions or system anomalies out of self-interests in preserving the integrity of the markets and to comply with existing regulatory requirements. It is unclear how draft Principle II changes this.**

The second principle would require DCMs to subject electronic orders to pre-trade risk controls reasonably designed to prevent, detect, and mitigate market disruptions or system anomalies. This happens today. Since the beginning of electronic trading on the CME Group Exchanges, we have devoted significant resources to the innovation, development, and deployment of highly sophisticated risk controls. Moreover, as markets have evolved, so too have our risk controls. As commented previously, we have done this out of self-interest – the integrity and reliability of our markets are cornerstones of our business model – and because existing CFTC regulations require the DCMs to have controls and procedures to minimize market disruptions, system anomalies, and sources of operational risk.<sup>12</sup> While we believe there is overlap between existing regulations and this proposal, we also believe the Commission’s principles-based approach to pre-trade risk controls affords the DCMs discretion to adopt and implement tools, controls, and rulesets that work best with each unique market.

As a threshold matter, we must reiterate our initial comment and request with respect to Principle I as it applies to Principle II as well. If adopted, the final text of Principle II and regulation 38.251(f) should provide that the DCM pre-trade risk controls must be “*reasonably designed* to prevent, detect, and mitigate market disruptions and system anomalies.” This is critically important when considering the portion of the principle that would require the pre-trade risk controls to *prevent* system anomalies.

Borrowing from the definition of “control” in the System Safeguard regulations (38.1051), controls are safeguards or countermeasures. When deployed by a DCM, safeguards and countermeasures (i.e. controls) can be designed to prevent an event from occurring on the DCM or mitigate the effect of an event on the DCM. DCM pre-trade risk controls cannot, however, *prevent* (keep from happening) a

<sup>11</sup> Available at [https://www.cmegroup.com/content/dam/cmegroup/market-regulation/rule-filings/2020/7/20-305\\_1.pdf](https://www.cmegroup.com/content/dam/cmegroup/market-regulation/rule-filings/2020/7/20-305_1.pdf).

<sup>12</sup> See CFTC regulations 38.157, 38.251, 38.255, and 38.1050.



system anomaly from occurring within the systems of a participant, and they cannot *prevent* some other participant from losing its ability to trade or manage risk. This is an impossible standard to achieve without a condition in the principle explicitly stating that the controls be “reasonably designed.”

With respect to the substance of Principle II, the proposed rulemaking notes that the purpose of Principle II is to require DCMs to “consider market participants’ trading activities when designing and implementing risk controls.”<sup>13</sup> The rulemaking also reflects that the Commission believes that Principle II will help ensure that DCMs continue to monitor evolving risks and make reasonable changes to address this evolution. The rulemaking seeks to distinguish this from existing obligations that provide that controls “must be adapted to the unique characteristics of the markets to which they apply.”<sup>14</sup> The CME Group Exchanges’ risk controls have not been designed or implemented with this limitation.

While certain of the CME Group Exchange pre-trade risk controls are designed and adapted to the unique characteristics of the market (e.g. price banding) and others are designed and adapted based on the capacity of the trading network (e.g. Globex Messaging Controls), nearly all, to at least some extent, require the DCMs to consider market participants’ activity in the design and implementation of the controls. Consider the example of Globex Messaging Controls. As provided in our March 16, 2016, comment to the CFTC’s Notice of Proposed Rulemaking on Regulation Automated Trading, the Globex Messaging Controls are designed to reject messages from a participant that exceed a pre-established message-per-second threshold. We noted that the controls and thresholds are based primarily on the capacity of the trading network and not the capabilities or business practices of any one market participant. At the same time, one of the purposes of Globex Messaging Controls is to prevent malfunctioning trading systems from impacting the markets.<sup>15</sup> As a result, we must necessarily consider participants’ trading activities in determining the message-per-second threshold so as to not unduly prevent legitimate, non-disruptive messaging activity.

Given the objective and scope of Globex Messaging Controls, it is one that could arguably be subject to review under regulations 38.157 (Real-Time Market Monitoring), 38.251 (General Requirements – Core Principle 4), 38.255 (Risk Controls for Trading), and 38.1050 (System Safeguards). But it would now also seemingly be subject to review under Principle II.

As the previous paragraph alludes, existing regulations require the DCMs to have controls, procedures, and processes that are effective at detecting market or system anomalies (regulation 38.157), detecting and preventing price distortions and market disruptions (regulation 38.251), preventing and reducing the risk of price distortions and market disruptions (regulation 38.255), and minimizing sources of operational risk (regulation 38.1050). One could posit that if these controls, procedures, and processes are effective, then events originating from participants that either significantly disrupt the operations of the DCM or significantly disrupt the ability of others to trade should occur infrequently. As reflected in our response to Principle III below, this appears to be the case.

While the line seems blurred between existing regulatory requirements and proposed Principle II, we acknowledge that this regulation could enable the Commission staff to better evaluate risk controls across DCMs, especially for controls that may not clearly fit within one of the existing CFTC regulations. As a result, we generally support the principles-based approach of draft regulation 38.251(f).

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<sup>13</sup> 85 Fed. Reg. at 42768.

<sup>14</sup> *Id.*

<sup>15</sup> See <https://www.cmegroup.com/confluence/display/EPICSANDBOX/Messaging+Controls> (last visited August 6, 2020).

**V. Principle III – The requirement for DCMs to promptly notify Commission staff of significant disruptions to their trading platforms could benefit from additional clarity regarding what is considered “significant.”**

The third principle would require the DCMs to promptly notify the Commission of a significant disruption to its electronic trading platform and provide timely information on the causes and remediation. The rulemaking highlights the “significant” threshold within this proposed regulation. The expectations of a DCM are unclear given the explanation of this principle in the proposed rulemaking coupled with the estimates of the number of Principle III notifications that are expected to occur on an annual basis.

As noted, the rulemaking calls out that Principle III includes a “significant” threshold. In a meeting of the CFTC’s Technology Advisory Committee on July 16, 2020, Chairman Tarbert stated that the proposed principles make a distinction between “market disruptions” and “significant market disruptions” as it relates to reporting. He emphasized that the requirements would be that DCMs have systems designed to reasonably prevent market disruptions and system anomalies, but Principle III deals with “significant disruptions” and what is required to be reported. This distinction is not clear in the rulemaking. As expressed in Section I. of this comment, the definition of a “market disruption,” which presumably governs Principles I and II, includes a “significant” threshold – an event that “significantly disrupts” the operation of the DCM or “significantly disrupts” the ability of other participants to trade.

We observe two material distinctions between Principles I/II and Principle III. The first is that Principle III appears to require an impact to both the operation of the DCM and other market participants, whereas Principles I and II require an impact to either the operation of the DCM or other market participants. This is based on the statement in the rulemaking for Principle III that “[a]n internal disruption in a market participant’s own trading system should not be considered significant unless it causes a market disruption materially affecting the DCM’s trading platform **and** other market participants.”<sup>16</sup> (emphasis added) The rulemaking goes further on this point and provides that “[a] significant disruption [for purposes of Principle III] is a situation where the ability of other market participants to execute trades, engage in price discovery, or manage their risks is materially impacted by a malfunction of a market participant’s trading system.”<sup>17</sup> The final rulemaking should make this distinction clear.

The second distinction is that while Principles I, II, and III refer to “significant” disruptions, Principle III further provides that the significant disruption must “materially affect[]” the DCM’s trading platform and “materially impact[]” other participants’ ability to trade. Given that “significant” and “material” can be synonyms,<sup>18</sup> the Commission should seek to clarify if there is a difference between the standards of Principles I, II, and III.

The final source of ambiguity for Principle III is found in the Office of Budget and Management section of the proposed rulemaking. There, the Commission estimates that each DCM will provide the CFTC approximately fifty notifications per year under draft Principle III.<sup>19</sup> While we appreciate this is an estimate, it is so far from what we would have anticipated being required under this proposal that it merits discussion.

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<sup>16</sup> 85 Fed. Reg. at 42769.

<sup>17</sup> *Id.*

<sup>18</sup> See Black’s Law Dictionary (11th ed. 2019), defining “material” as “[o]f such a nature that knowledge of the item would affect a person’s decision-making; *significant*; essential.” (emphasis added)

<sup>19</sup> 85 Fed. Reg. at 42770.



As highlighted in the proposal and mentioned previously in this comment, the CME Group Exchanges have actively policed electronic trading activities and brought disciplinary actions for conduct that may have been detrimental to the DCM. The first cited disciplinary action in the proposal dates to 2011. Since that action was taken nearly a decade ago, the CME Group DCMs have brought approximately fifty-nine disciplinary actions for electronic trading activity that may have disrupted markets or other participants. Our review of those actions identifies only **three** that could be considered to have caused a significant disruption to the operations of the DCM.<sup>20</sup> Three actions across four DCMs over the course of a decade during which Globex processed over one and a half trillion order messages and matched over seventy billion futures and options contracts demonstrates the reliability and soundness of existing tools, controls, and rulesets. Also, because our count is so significantly different than the estimates provided in the rulemaking, we question whether the Commission has an interpretation of “significant disruption” that is not reflected in its proposal. Our recommendation is that the Commission re-evaluate the estimate in this section of the rulemaking by considering specific, concrete examples from disciplinary actions.

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We appreciate the opportunity to submit these comments in response to the proposed rulemaking. We believe the Commission’s principles-based approach in this rulemaking is preferable to prior proposals, which were far more prescriptive. This approach is more adaptable to the continuing evolution of electronic markets, and it affords the DCMs discretion to adopt and implement tools, controls, and rulesets that work best with each unique market. We are also providing for your consideration answers to certain of the questions presented. As always, we are happy to discuss our observations and comments with the Commission in connection with its efforts on this rulemaking. Please feel free to contact me at 312-930-3208 or via email at Julie.Holzrichter@cmegroup.com.

Sincerely,

A handwritten signature in dark ink, reading "Julie Holzrichter", is written over a horizontal line. Below the signature, the word "Signature" is printed in a small, italicized font.

Julie Holzrichter  
Chief Operating Officer

cc: Chairman Heath Tarbert  
Commissioner Brian Quintenz  
Commissioner Rostin Behnam  
Commissioner Dawn Stump  
Commissioner Dan Berkovitz  
Dorothy Dewitt, Director, Division of Market Oversight

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<sup>20</sup> [CME-13-9440-BC](#), cited in the proposed rulemaking; [CME-15-0307-BC](#); and [NYMEX-18-0989-BC](#), also cited in the proposed rulemaking.

**APPENDIX**  
**CME GROUP RESPONSES TO ELECTRONIC TRADING RISK PRINCIPLES QUESTIONS**

**ELECTRONIC TRADING, ELECTRONIC ORDERS, MARKET DISRUPTION, and SYSTEM ANOMALIES**

- 1. Is the Commission’s description of “electronic trading” sufficiently clear? If not, please explain.**

Yes, the description of “electronic trading” is sufficiently clear.

- 2. This rulemaking uses the term “market disruption” to describe the disruptive effects to be prevented, detected, and mitigated through these Risk Principles. Is it preferable to use the term “trading disruption,” “trading operations disruption,” or another alternative term instead? If so, which term should be used and why?**

The term “market disruption” is sufficiently clear. A “market” is often defined as an open place where buyers and sellers convene for the purchase and sale of goods. A disruption to the place itself or a disruption to the buyers and sellers convened in the place could reasonably be considered a “market disruption.” This is exactly how the term is used in the rulemaking – a significant disruption to the operation of the designated contract market (“DCM”), or a significant disruption in the ability of others to trade on the DCM.

- 3. What type of unscheduled halts in trading would constitute “market disruptions” that impact the ability of other market participants to trade or manage their risk?**

The Commission should avoid characterizing any specific type of market halt as a per se “market disruption.” Some types of unscheduled halts, like velocity logic or circuit breaker events, serve to prevent and mitigate market disruptions. They permit market participants to more fully absorb market dynamics at the time, thus allowing the markets to better reflect forces of supply and demand upon reopening. Other types of halts, such as technical pauses which may be triggered when operational systems failover to backup systems, similarly prevent and mitigate market disruptions by allowing all participants time to absorb market or operational dynamics at the time. If the Commission is still inclined to characterize a particular type of halt as a “market disruption,” CME Group recommends limiting this to instances where there are complete and prolonged market closures.

- 4. What amount of latency to other market participants (measured in milliseconds) should be considered a market disruption? How can DCMs evaluate changes over time in the amount of latency that should be considered a market disruption?**

Similar to our response to Question 3, CME Group believes the Commission should avoid characterizing any specific period of latency as per se disruptive. First and foremost, latency occurs for a number of reasons -- it could be based on bona fide market activity, or it could be based on a participant's own system.<sup>21</sup> Moreover, each participant has different levels of sensitivity to latency. Some participants have trading strategies or risk management systems that are latency sensitive; others may not. From our experience, a DCM cannot determine whether there has been a market disruption based purely on a measure of latency; a case-by-case, fact-specific inquiry must be conducted to determine whether the

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<sup>21</sup> For additional insights on sources of latency, see CME Group’s December 11, 2013, response to Question 5 from the Concept Release on Risk Controls and System Safeguards for Automated Trading Environments (RIN# 3038-AD52).

experienced latency constitutes a market disruption.

**5. Are there other types of risk that may lead to market disruptions that the Commission should address or be aware of?**

The two types of electronic trading risk identified in the proposed rulemaking are 1) an unspecified event originating from a participant; or 2) a system anomaly originating from a participant's system. There are many sources and types of electronic trading risk not directly addressed in this rulemaking. Risks are presented at practically every level within the lifecycle of an electronic order, from the trader to the execution firm to the broker to the clearing firm. Beyond the risks that are uniquely presented at each of these levels, there are third-party risks.

While these sources of risk would not clearly fit into the types of risk identified in the rulemaking, CME Group is not advocating that they should be. Clearing firms, which must financially guarantee the trading activity of their clients, have strong incentives to manage their clients' risk exposures, including third-party risks. Part of managing that risk includes the clearing firms' use of risk controls, which is mandated by Commission regulation 1.73. Moreover, the U.S. futures industry has invested, and continues to invest, considerable time in developing best practices with respect to electronic trading.<sup>22</sup> If anything, the rulemaking should encourage the industry to continue this effort in publishing best practices guidelines, which have benefitted the entire marketplace for years.

**6. Is there guidance that the Commission can give DCMs for how best to monitor for emerging risks that are not mitigated or contemplated by existing risk controls or procedures?**

The CME Group Exchanges are always open to receiving guidance on how to best monitor for emerging or growing trends and attendant risks. Since the beginning of electronic trading on Globex, we have leveraged strong relationships with the marketplace to glean such insight. Our sales, client relationship, operations, technology, strategy, and regulatory teams have relationships with market participants, trading firms, brokers, clearing firms, and vendors. We similarly have relationships with industry groups, such as the Futures Industry Association, other DCMs through the Joint Compliance Committee, other global exchanges through the Intermarket Surveillance Group, academic institutions, federal regulatory and banking authorities, foreign regulatory authorities, etc. Nevertheless, if there is a source for guidance we have not considered, we have always been and will continue to be interested to learn about it.

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<sup>22</sup> See [FIA Best Practices for Exchange Risk Controls Presentation at the CFTC Technology Advisory Committee Meeting \(October 2019\)](#); [FIA Guide to the Development and Operation of Automated Trading Systems \(March 2019\)](#); [FIA Order Handling Risk Management Recommendations for Executing Brokers \(March 2012\)](#); [FIA Software Development and Change Management Recommendations \(March 2012\)](#); [FIA Recommendations for Risk Controls at Trading Firms \(November 2010\)](#); and [FIA Market Access Risk Management Recommendations \(April 2010\)](#).

7. **The Commission recognizes that there are alternative approaches to the proposed Risk Principles to address the risk of market disruption resulting from electronic trading on DCMs by market participants. The Commission requests comment on whether an alternative to what is proposed would result in a more effective approach (meaning, alternative to these Risk Principles as well as the withdrawn Regulation AT), and whether such alternative offers a superior cost-benefit profile. Please provide support for any alternative approach.**

As expressed in our comment letter, we believe the principles-based approach in this rulemaking is preferable to prior proposals, which were far more prescriptive. As noted throughout the rulemaking, the DCMs are already likely satisfying many of the requirements of the proposed regulations. Moreover, the proposed risk principles appear to overlap with existing regulations that require the DCMs to have controls, tools, and rulesets to prevent and mitigate market and system disruptions. Given this, an alternative to the Electronic Trading Risk Principles is to simply rely on existing regulations. This has the best cost-benefit profile.

8. **Given that the Risk Principles overlap to some extent with Commission regulation 38.255, which specifically addresses risk controls for trading, would it be preferable to codify the three Risk Principles within existing regulation 38.255 rather than within regulation 38.251, which covers general requirements relating to the prevention of market disruption?**

As noted in our comment letter, there is overlap between the draft Electronic Trading Risk Principles and other existing CFTC regulations beyond regulations 38.255 and 38.251. Regulation 38.157, for instance, covers the DCM's obligation to conduct real-time market monitoring to identify disorderly trading and any market or system anomalies. The second electronic trading risk principle mimics this, requiring a DCM to subject electronic orders to risk controls reasonably designed to prevent, detect, and mitigate market disruptions and system anomalies.

Moreover, regulation 38.157 is implemented under Core Principle 2, which provides that each DCM must establish, monitor, and enforce compliance with the rules of the contract market, and that each DCM must have the capacity to detect, investigate and apply sanctions to any person that violates any rule. Draft regulation 38.251(e) (Electronic Trading Risk Principle I) falls plainly within Core Principle 2 – the DCM must “adopt and implement rules.” Its place within Core Principle 2 is further solidified by the references in the rulemaking to the DCM disciplinary actions or sanctions for electronic trading activities, which again could fall under Core Principle 2.

It is finally worth noting that regulations 38.255 and 38.251 are implemented under Core Principle 4, which provides that each DCM must have the capacity and responsibility to prevent manipulation, price distortion, and disruptions of the delivery or cash-settlement process. A “market disruption,” at least as it is currently defined in the proposed rulemaking, does not necessarily fit within any of these elements – a market disruption is not manipulation, it does not necessarily cause a price distortion, and it does not necessarily disrupt the delivery or cash-settlement process. “System anomalies” similarly do not necessarily fit within any of these Core Principle 4 elements.

Given this, it would seem more logical to codify the new principles under Core Principle 2 rather than Core Principle 4, although we acknowledge there is likely little, if any, practical

difference between codifying the principles under either core principle.

#### **RISK PRINCIPLE 1**

**9. The Commission recognizes that DCMs may differ in what rules they establish to prevent, detect, and mitigate market disruption and system anomalies. Would such disparity have a harmful effect on market liquidity or integrity?**

We commend the Commission for recognizing that each DCM may have different rules and risk controls to address potentially disruptive activity unique to their markets. This is present today, and we have not observed a harmful effect on market liquidity or integrity. From our perspective, the greatest risk for regulatory arbitrage, however, is not necessarily between DCMs. Rather it is between DCMs and other venues that will not be subject to Electronic Trading Risk Principles, namely foreign boards of trade ("FBOTs") and swap execution facilities ("SEFs").

As discussed in our comment letter, the Commission stated that the proposed Risk Principles would apply only to DCMs and that it will "continue to monitor" whether these principles may be appropriate for other markets, such as SEFs and FBOTs.<sup>23</sup> The Commission's rules and the CEA, however, contemplate that SEFs and FBOTs will deploy electronic trading systems. CFTC regulation 37.3(a)(2) requires SEFs to offer order book functionality, which the Commission defines to include operating an electronic trading facility as defined in section 1a(16) of the CEA. Congress has required FBOTs that provide market participants located in the United States with direct access to their electronic trading and order matching system to register with the Commission. Thus, the CFTC and Congress understand that SEFs and FBOTs may use electronic trading platforms. Yet the proposal treats these electronic trading platforms differently.

The Commission should face this disparity in treatment. Either electronic platforms involve risks requiring further CFTC regulation, or they do not. If they do, the Commission should consider how that risk is best addressed, consistent with the Electronic Trading Risk Principles.

**10. Is the proposed Acceptable Practice for regulation 38.251(e) appropriate?**

As expressed in our comment letter, CME Group advocates that the "reasonably designed" phrase from the Acceptable Practices be incorporated directly into regulation 38.251(e). Doing so would render 38.251(e) consistent with many other CFTC regulations that also contain the phrase "reasonably designed" in the body of the regulation.

**11. What rules have DCMs found to be effective in preventing, detecting, or mitigating the types of market disruptions and system anomalies associated with electronic trading? Should the Commission include any particular types of rules as Acceptable Practices for compliance with proposed regulation 38.251(e)?**

As provided in our comment letter, CME Group believes Principle I should focus on administrative, trade practice, and disciplinary rules that can be imposed on participants. This approach allows the DCM to provide the marketplace greater guidance on acceptable practices as well as guidance on conduct that could violate an exchange rule.

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<sup>23</sup> 85 Fed. Reg. at 42763, n. 6.

## **RISK PRINCIPLE 2**

- 12. The Acceptable Practices for Core Principle 2 [sic] include pre-trade limits on order size, price collars or bands around the current price, message throttles, and daily price limits. Do DCMs consider these controls to be effective in preventing market disruptions in today's markets?**

It is first worth noting that the acceptable practices noted in the question are the acceptable practices for Core Principle 4, not Core Principle 2. With respect to the question itself, each of the controls have proven highly effective at preventing or mitigating market disruptions. These risk controls have evolved over time as the markets and technology have evolved. Over that time, new controls have also been implemented, such as Cancel on Disconnect kill switch functionality and automated port closures. As noted in our comment letter, the DCMs have a vested interest in developing and deploying these types of controls to preserve the integrity of their markets.

- 13. In addition to the risk controls listed in the Acceptable Practices for Core Principle 2 [sic], what risk controls do DCMs consider to be most effective in preventing market disruptions and addressing risk as described in this proposal?**

From our perspective, no single control is necessarily more effective than another. Since there are different types of electronic trading risk (e.g. fat-finger order sizes, pricing anomalies, message frequency aberrations, etc.), there need to be different types of risk controls. The best solution is to have a myriad of risk controls so that different types of risk can be prevented, detected, and mitigated.

- 14. Are the proposed risk controls set forth in the Acceptable Practices for proposed regulation 38.251(f) appropriate?**

The Acceptable Practices for regulation 38.251(f) provide that all electronic orders must be subject to exchange-based pre-trade risk controls that are reasonably designed to prevent, detect, and mitigate market disruptions or system anomalies. The Acceptable Practices section does not set forth specific risk controls to be implemented. This approach is favored given the continued evolution of electronic trading and the potential that specifically identified controls could become dated and less relevant or effective.

- 15. Should the Commission include any particular types of risk controls as Acceptable Practices for compliance with proposed regulation 38.251(f)?**

Please see response to Question 14.

## **RISK PRINCIPLE 3**

- 16. As noted above, proposed regulation 38.251(g) requires a DCM to notify Commission staff of a significant disruption to its electronic trading platform(s), while Commission regulation 38.1051(e) requires DCMs to notify the Commission in the event of significant systems malfunctions. Is the distinction between these two notification requirements sufficiently clear? If not, please explain.**

The distinction seems clear. It is conceivable there could be an incident that disrupts the trading platform of a DCM without there having been a system malfunction on the trading platform. For example, consider an incident originating from a participant that causes a trading platform match engine to failover to a backup. The trading platform could have operated exactly as it was



designed by failing-over. While this may have been considered a market disruption causing a notification under draft Principle III, it may not have been a significant system malfunction that would warrant notification under regulation 38.1051(e).

- 17. Please describe any disruptive events that would potentially fall within the notification requirements of both proposed regulation 38.251(g) and Commission regulation 38.1051(e).**

Continuing with the example noted in response to Question 16, it is conceivable that an incident originating from a participant could cause both a market disruption and a system malfunction on the trading platform. That could potentially fall within the notification requirements of both draft Principle III and regulation 38.1051(e).

- 18. Is the Commission's description of whether a given disruption to a DCM's electronic trading platform(s) is "significant" for purposes of proposed regulation 38.251(g) sufficiently clear? If not, please explain.**

Please see remarks in our comment letter.

- 19. Please describe circumstances in which it would be appropriate for a DCM to notify other DCMs about a significant market disruption on its trading platform(s). Should proposed regulation 38.251(g) include such a requirement?**

We do not believe regulation 38.251(g) should require a DCM to notify another DCM about a significant market disruption on its trading platform. Today, if a DCM wants to know if another DCM is experiencing a significant market disruption, there are real-time data feeds and other public sources that provide this type of information.

CME Group's market data channels, for instance, inform recipients of the trading status of markets (e.g. opened; closed; pre-open session; trading halt; etc.) and the reason for trading halts (e.g. a market event). An entity can also subscribe to receive email alerts from the CME Group Global Command Center for urgent Globex notices. The CME Global Command Center similarly maintains a targeted messaging system that communicates via email with specific market users regarding events that impact the user depending on the type of incident (e.g. an event affecting the Exchange's front-end trading application, CME Direct, would be communicated to CME Direct users). For significant system disruptions (e.g. events that require an emergency market halt), CME Group notifies subscribed customers via email, posts messages and updates on CMEGroup.com, and typically also posts messages and updates on social media platforms, such as Twitter.

It is finally worth noting that if regulation 38.251(g) is adopted, all DCMs will have the same level of diligence in policing their own markets and providing notice to the Commission, thus negating any need for such a notice as between or among DCMs.

#### **REGULATORY FLEXIBILITY ACT**

- 20. The Commission invites the public and other federal agencies to comment on the above determination.**

CME Group defers to potentially impacted entities on this question.

## **PAPERWORK REDUCTION ACT**

- 21. Evaluate whether the proposed collections of information are necessary for the proper performance of the functions of the Commission, including whether the information will have practical utility;**

We are unsure of the practical utility to the Commission of receiving notifications from a DCM pursuant to draft Principle III. From a market oversight perspective, the Commission already (at least with the CME Group DCMs) collects information on these types of events through regular engagement and review of a DCM's compliance with core principles.

- 22. Evaluate the accuracy of the estimated burden of the proposed information collection requirements, including the degree to which the methodology and the assumptions that the Commission employed were valid;**

Please see our comment letter for Principle III where we question the accuracy of the number of annual notifications that would be required for each DCM per year. CME Group believes the estimate of fifty annual notifications per year is multiples greater than expected.

- 23. Are there ways to enhance the quality, utility, or clarity of the information proposed to be collected; and**

- 24. Are there ways to minimize the burden of the proposed collections of information on DCMs, including through the use of appropriate automated, electronic, mechanical, or other technological information collection techniques.**

As the Commission is aware, CME Group currently provides CFTC staff near real-time notifications of velocity logic events. We separately provide the CFTC a daily file containing information related to events that occur on the match engine (e.g. velocity logic events, circuit breakers, etc.). These types of automated reports or notifications are highly efficient and effective means to provide CFTC staff pertinent information.

## **COST BENEFIT CONSIDERATIONS**

- 25. Do commenters believe that the Commission is correct in its determination that a prescriptive approach to proposed rules on risk controls and rules designed to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading would be too costly and burdensome?**

Yes. The most basic problem with prescriptive regulations is that they do not afford the DCMs, which have more hands-on expertise, sufficient flexibility in developing and implementing tools, controls, and rulesets that are right for their markets. A prescriptive approach hampers innovation and results in regulations that lose relevance over time (e.g. the regulatory value of the Customer Type Indicator code has diminished over time, yet it is still a required component of electronic audit trail).

- 26. Are there other alternative approaches with lower costs that the Commission should have considered? If so, please explain.**

As noted throughout the proposed rulemaking, the Commission believes DCMs may already be

complying with many of the requirements of the new principles. This is in part due to the inherent self-interest of DCMs in preserving the integrity of their markets, and in part due to existing regulations that require DCMs to have robust risk controls and procedures in place to prevent, detect, and mitigate market disruptions and system anomalies.

#### **COSTS**

**27. Are the costs the Commission considers in the cost-benefit considerations section reasonable? If not, please explain.**

**28. Do DCMs currently collect most of the information required from market participants in order to comply with rule 38.251(e)? If not, what are the associated expected costs?**

As expressed in our comment letter, the DCMs have vested interests in preserving the integrity of their markets. This includes preventing, detecting, and mitigating market disruptions and system anomalies. To the extent a particular data element or piece of information would help the DCM accomplish this, it is (and has been) in the DCM's interest to collect that data, irrespective of whether a regulation requires it. From this perspective, we believe the CME Group DCMs currently collect the requisite amount of data in order to prevent, detect, and mitigate market disruptions, whether those originate from a market participant's system or from some other source.

**29. Are there other costs the Commission should have included in the cost-benefit considerations section? If so, please explain.**

**30. Are the software update estimates the Commission considers reasonable? If not, please explain.**

The proposed rulemaking notes throughout that existing DCM practices likely comply with what is being proposed. The rulemaking then notes that each DCM may be required to make 2,520 hours of software updates so that the DCM can capture additional information or data necessary to comply with Principle I. However, the rulemaking does not provide a single example of a type of software update or additional data field that may be required. We appreciate that the rulemaking acknowledges the costs would be incrementally lower to DCMs that currently or partially capture information that may be necessary to comply with Principle I. Nevertheless, it would be helpful to identify the specific type of software enhancements or data field that were the basis for this estimate.

**31. Should the Commission make use of other sources for enumerating costs associated with the proposed rule? If so, please explain.**

CME Group defers to others on this question.

**32. Are the benefits the Commission considers in the cost-benefit considerations section reasonable? If not, please explain.**

CME Group defers to others on this question.

- 33. Are there other benefits the Commission should have included in the cost-benefit considerations section? If so, please explain.**

CME Group defers to others on this question.

- 34. Does this proposal implicate any other specific public interest to be protected by the antitrust laws?**

CME Group defers to others on this question.